

### IR-4 Project Management Committee Fall Meeting

October 26-28, 2022 Agenda and Handouts

### Handouts

#### This handout packet includes the following items:

- <u>Agenda</u>
- Joint Meeting Update
- Plans for National Education Conference
  - Proposed Changes in Awards
- IR-4 Communications Update
- Plans for the IR-4 Project: 60 Years
- Draft Minutes for Approval (from Summer PMC Meeting)
- Specialty Crop Farm Bill Alliance Proposal
- Northeast Region Report
- Southern Region Report
- Food Program Update- Residue Research: Field and Lab
- Food Program Update Quality Assurance
- Food Program Update- Product Performance
- Food Program Update- Integrated Solutions
- Environmental Horticulture Program Update
- Biopesticide Regulatory Support Program Update
- Analytical Laboratory Analyses & Reporting Backlog
  - IR-4 Laboratory Guidance Document
  - IR-4 Laboratory Backlog Response Policy
- Environmental Horticulture Review
- Path Forward 2.0
  - o Implementation Plan
  - Implementation Tracking
- IR-4 Performance Expectations Appraisal Template: Regional Directors and HQ Management
- <u>Electronic Field Data Notebook eStudy Update</u>





#### AGENDA Fall 2022 PMC Meeting (Hybrid)

#### Zoom Link:

https://ncsu.zoom.us/j/92322956200?pwd=RFBxaWRR K0pRRVFEUmQwaXVkS1ppZz09 Meeting ID: 923 2295 6200 Passcode: 123

#### Wednesday, October 26, 3:00 pm to 4:30 pm - CIPM Conference Room in Venture IV

- 1) Joint meeting of PMC, Regional Field Coordinators, Laboratory Coordinators, QA Unit, and HQ staff
  - a) Welcome (Wise)
  - b) Update (Baron)
  - c) Milestones: Retirements and New Hires
  - d) Issues with Data Entry-Corrective Actions and Path Forward (Baron)
  - e) Path Forward 2.0 Implementation overview (Baron and Chojnacki)
  - f) Plans for National Educational Conference
    - i) Program overview (Marconi)
    - ii) Proposed change in awards (Spies)
  - g) IR-4 Communications Update (Ross and Chojnacki)
  - h) Plans for The IR-4 Project: 60 Years (Chojnacki, Ross and Baron)

#### <u>Thursday, October 27, 8:00 am to 5:00 pm – Markle Conference Room in Venture IV</u> (Please note there will be a 45-minute break at 12:00 noon for lunch

- 2) Approval of minutes, new agenda items (Wise)
- 3) Funding update
  - a) Delays in distribution of 2022 funds; lessons learned (Baron and Chojnacki)
  - b) Status/expectations with 2023 Appropriations
  - c) CLC plans for FY 2024 (Scholz)
  - d) Specialty Crop Farm Bill Alliance proposal (Scholz and Baron)
- 4) Unit update
  - a) USDA
    - i) NIFA (Samuel-Foo)
    - ii) ARS (Munyaneza and Simmons)
  - b) CLC (Scholz)
  - c) North Central Region (Buhler and Wise)
  - d) Northeast Region (Kairo and Zebelo)
  - e) Southern Region (Davis and Gu)
  - f) Western Region (Holyoak and Hengel)
  - g) Headquarters (Lommel and Baron)
- 5) NRSP-4 Mid-term review (Buhler)
- 6) Program update/discussions
  - a) Food Program
    - i) Residue research
      - (1) Field (Carpenter)
      - (2) Analytical Laboratories (Carpenter)
      - (3) Quality Assurance (Mazlo)
    - ii) Product Performance (Pedibhotla)
    - iii) Integrated Solutions (Pedibhotla)

- b) Environmental Horticulture Program (Palmer)
- c) Biopesticides Regulatory Support (Braverman)
- d) International (MUF Drost/Gore)
- 7) Analytical Laboratory Analysis and Reporting Backlog (Carpenter & Hengel)
- 8) Future workload in the residue research (Baron & Carpenter)
- 9) Environmental Horticulture Review (Baron)
- 10)Executive Session I

#### Friday October 28, 8:00 am - 12:00 noon– Markle Conference Room in Venture IV Please note there will be a 15 minute break mid-morning

- 11) Workshop Debrief/Preliminary discussions on 2023 meeting (Pedibhotla and Baron)
- 12) Standardized SOPs for Field Sites (Carpenter)
- 13) Detailed discussion of Path Forward 2.0 Implementation (Baron)
  - a) Update of Performance Expectations
    - i) Regional Directors
    - ii) HQ Management
    - iii) Regional Field Coordinators
  - b) Communications
  - c) Training
  - d) Technology
    - i) Electronic Field Data notebook (Moore and Byrtus)
    - ii) Other technology
  - e) Analytical Laboratory Backlog
    - i) National Laboratory Director
- 14)Proposal to engage a larger research/extension community (Baron)
- 15)Executive Session II
- 16)Election of PMC Chair

### Fall 2022 Joint Meeting Update

#### Presenters: Dr. Jerry Baron





# **IR-4 Project**

# **Update** Fall 2022 Joint Meeting



# You have heard it before.....

- IR-4 Project Headquarters relocation is complete
- NC Region Laboratory has been closed
- Quality Assurance Unit has been reorganized
- We got a raise
- IR-4 continues to be productive
- It is not getting any easier
- We can always do better





## We got a raise

- After 12 years IR-4 funding was increased by Congress!
  - Up \$2.6 million to \$14.5 million
  - Single grant to NC State
  - USDA "rules" now allows indirect costs (10%).
     \$1.45 million of new funds are allocated to indirect costs
  - 2023 CLC/Friends of IR-4 are proposing \$25 million House-\$15 Million

Senate-\$14.5 Million



### **2022 Activities & Accomplishments**

Item	
Food Approvals (Tolerances/Supported Uses)	559/618*
New Food Reside Projects (Studies/Trials)	83/549
Food Product Performance (Projects/Trials)	46/98
Integrated Solutions (Projects/Field Trials)	27/60
Food Submissions to EPA (Chemistries/PRs)	7/37

\*Does not include Crop Group Approvals for Legume Vegetable and Cereal Grain Groups



# It is not getting any easier

**Regulatory Challenges** 

- Tolerance Revocations-OPs
- Pollinator Protection safeguards
- "European Style" Hazard Assessment
- ENDANGERED SPECIES!
- Safety testing of whole pesticide formulations



# Value of IR-4

- IR-4 contributes \$8.7 Billion to annual US Gross Domestic Product
- IR-4 supports >123,000 jobs
- Return on Investment over \$500 to \$1



# Path Forward 2.0 Recommendations

- 1. Performance expectations
- 2. Field trial reimbursement
- 3. Communications
- 4. Training
- 5. Technology
- 6. Laboratory backlog



# **Thank You!**





### Plans for National Education Conference

#### Presenter: Cristina Marconi





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#### IR-4 Education and Training Committee (E&TC) Report for PMC

Cristina M Marconi October 18, 2022

**Purpose of the IR-4 Education and Training Committee:** Coordinate information exchange, develop materials to aid in training necessary for the generation of data to support the registration of pest management technologies, and organize the National Education Conference (NEC) every three years.

**Responsibilities:** Provide general curriculum guidelines for training, assist in the development of educational materials and serve as spokespersons for their respective components, which includes organizing and developing the educational material for the National Education Conference (NEC) every 3 years and regional training sessions; evaluate, develop and distribute Advisories if resolution of a question/issue raised by anyone in the IR-4 could be valuable for many within the organization.

#### **GLP Trainings in 2022:**

> 2/24/22: IR-4 Western Region Webinar - Preparing for the 2022 Season.

<u>Topics discussed</u>: Nozzle selection, surfactants, equipment and GLP compliance, soil type documentation, 2022 notebook & protocol changes, test substance storage and safety when working alone

- 3/1/22: IR-4 North Central Region coordinated in-person FRD orientation training for new FRDs.
- 3/8-9/22: IR-4 Southern Region in-person Training Workshop at UFL, Gainesville, FL.

<u>Topics discussed</u>: New FRDs and IR-4 Southern Region personnel received training on IR-4 methods and procedures, GLP, proper documentation and SOPs, and in-field demonstration at the IR-4 Research Station in Citra, FL.

> 4/5/22: IR-4 Western Region Webinar Spring 2022 - Field & Lab Updates.

<u>Topics discussed</u>: Calculating application tank mixes, cleaning application equipment, archiving raw data, trial acceptance letters, terminated trials, staying cool in the field, lab guidance document, and water quality issues in the lab

#### 05/2022: IR-4 Western Region held a field demonstration day for our California Department of Food and Ag sponsors

<u>Topics discussed</u>: Show the California Department of Food and Ag sponsors the IR-4 process from selecting projects, growing the crop, making the applications, harvesting, shipping samples, sample receipt at the lab, processing, residue analysis, analytical summary report and finally the final report to EPA.

#### > 7/6/22: IR-4 Western Region Webinar Summer 2022

<u>Topics discussed</u>: Trial tracking and notebook routing for Canadian trials, what QA looks for when conducting field inspections, advisory on application types, recommendations from QC to improve notebooks, and dirty samples sent to labs.

#### Upcoming Trainings:

• IR-4 Western Region Webinar Fall 2022: topics to be determined

#### • 2023 National Education Conference

<u>Topics</u>: A national training event held every three years for the benefit of everyone participating in IR-4 Good Laboratory Practice research across the country. This event brings together field, laboratory, quality assurance, regional and headquarters team members to engage in educational sessions.

GLP training opportunities can be found in the IR-4 website under the Workshop & Events page.

#### 2023 National Education Conference (NEC): updates since last meeting

- Location: San Juan, Puerto Rico.
- Venue: Embassy Suites San Juan Hotel & Casino in San Juan, PR
- **Date:** February 7-9, 2023

#### > Agenda

The agenda was based on the results obtained from the survey sent out earlier this year. The 2023 NEC will include three main sessions (general, field and lab session) plus a optional Agricultural tour of the Corozal Research Facility. The general session will be at the beginning and at the end of the conference, the topics in this session is intended for all participants. Following the initial general session, we will have the breakout sessions, where the field and lab related participants will have their own sessions to discuss topics applied to their fields in more depth.

The E&TC has been working diligently since March with monthly meetings to prepare informative, practical and applicable content for the different topics being addressed during the conference. The committee tried as much as possible to link the topics being presented to the Path Forward 2.0 Task Force recommendations. The latest draft of the

agenda can be found at the end of this report. You will notice that there is no time allocated for self-introductions, this will be replaced by a bingo card idea, where the conference participants will have to interact with others to complete their card and participate of a drawing at the end of the event, please see draft of the bingo card at the end of this report. Here are a few important topics that will be discussed at the 2023 NEC:

- <u>IR-4's role in the specialty crop market</u>: The Maartex Farm agronomist will give a quick presentation on the importance of MRL's (maximum residue level) studies for the export market. Understanding how different phases of a study (protocol development, field trials and analyses) come together for a registration.
- <u>Electronic Field Data Book (eFDB)</u>: Overview and in depth training on the IR-4 eFDB.
- <u>Importance of GLP</u>: Introduction to why GLP was implemented. The importance of Quality Assurance (QA) in the work IR-4 performs and of working together to present quality data to EPA.
- <u>SOP optimization</u>: Exploring the advantages of harmonizing SOPs that are applicable to all areas of the IR-4 (field and lab). Discuss and optimize SOP on EPA inspections. Pending PMC approval, have roundtable discussions to compare and draft optimized versions of different SOPs.
- <u>IR-4 Resources</u>: Navigating the IR-4 website, identifying resources available for our researchers. Discuss the development of an intranet or app for the IR-4 researchers to use, and gather input on what should be included. Update on communication improvements throughout the IR-4 and requests for suggestions.
- <u>Awards</u>: During the closing session of the 2023 NEC, the E&TC is proposing to give awards to deserving IR-4 personnel and cooperators. The proposed awards are the Technical Service Awards, the Meritorious Service Awards and the National Award of Excellence. Please see proposal at the end of this report.
- <u>Agricultural Tour</u>: Opportunity to visit the Corozal UPR Research Station where a variety of tropical crops are grown like coffee, carambola, passionfruit, breadfruit, dragon fruit, cacao, sweet potato, cassava, tanier, taro, plantain, papaya, pineapple and banana. A few on-going IR-4 field trials will be showcased. There is a possibility for field application demonstrations or overview of application equipment used for IR-4 trials at the station and demonstration of sample collection on different tropical crops.

#### List of Current Members:

- Mika Tolson (RFC assistant/WSR)
- David Ennes (FRD/WSR)
- ➢ William Meeks (FRD/WSR)
- Megan James (RFC assistant/NER)
- Jennifer Fisher (FRD/NER)
- Janine Spies (RFC/SOR)
- Wilfredo Robles (FRD/SOR)
- Daniel Heider (FRD/NCR)
- Leona Horst (FRD/USDA-ARS)
- Alex McFall (RLC/WSR)
- ➢ Liwei Gu (RFD/PMC)
- Philip Moore (SD)
- Scott Muir (QA)
- Cristina Marconi (Chair)



#### SCHEDULE

#### Embassy Suites San Juan Hotel and Casino - San Juan, Puerto Rico

#### Agenda Key

	Genera	al Session	
Time Block for session	Field Session	Lab Session	
	$\Box$	$\bigcup$	

#### Tuesday, February 07, 2023

8:00 am - 9:00 am	Registration Open & Breakfast		
9:00 am - 9:05 am		Opening and Welcome	
9:05 am - 9:20 am	IR-4: Why We Do What We Do		
	Host(s):	Wilfredo Robles, Jaime Oyola (Maartex Farm agronomist)	
	Description:	The importance of MRL's studies for the export market: Perspectives from the grower. (Maartex Farm is the most important mango export grower to Europe and the U.S.)	
	Location:	Room A	
9:20 am - 10:00 am		"The State of IR-4"	
	Host(s):	Jerry Baron, PMC member (TDB)	
	Description:	Overview of the IR-4; organizational chart; challenges and opportunities for the IR-4 in the near future; the new "structure" of IR-4 and potential changes in the future; budget/funding.	
	Location:	Room A	
10:00 am - 10:15 am		Break	
10:15 am - 11:15 am	Unde	erstanding Residue Studies from Application to Analysis	

	Host(s):	Alex McFall,	William Mee	ks, Cristina Marconi
	Description:	Challenges faced in the different phases of a residue study, from protocol development and requirements through setting up a successful field season and the analyses of the samples. How all of these interactions influence the product registration.		
	Location: Room A			
11:15 am - 12:00 pm		Elect	ronic Field [	Data Book Overview
	Host(s):	iAdvantage R pilot project	epresentativ	e, Jimmy Byrtus, Philip Moore, FRDs in the
	Description:	Overview of the	ne IR-4 electi	ronic FDB
	Location:	Room A		
12:00 pm - 1:00 pm			Lu	unch
1:00 pm - 2:00 pm	Application 1	Types		Advances in Cleanup/Separation
2:00 pm - 3:00 pm	Speakers: Me Wilfredo Roble Description: and why? Noz application typ Location: Ro QA Audit of F to QA Finding Speakers: So Martin Beran	egan James, L es, Robert We What equipme zzle selections be advisory. om B <b>FDBs and Res</b> gs	eona Horst, lker ent to use and sponding an James,	Speakers: Agilent Speaker (pending), Alex McFallDescription: Updates on new technologies and the state of LC, SPE, and instrumentation options/applications.Location:Room C0-day Storage StabilitySpeakers:Debbie Carpenter, Christina Dineen
	Description: QA's process and procedures; for auditing FDBs and top 10 FDB findings. FRD's view when responding to QA findings.		<ul> <li>Description: Purpose and benefit of 0- day, why it was implemented in IR-4.</li> <li>Considerations given by SD on whether any SS is required.</li> <li>Location: Room C</li> </ul>	
3:00 pm - 3:15 pm	Break			
3:15 pm - 4:00 pm	Trials Saved Speakers: Le Wilfredo Roble Description: encountered of overlooked an	and Lessons ona Horst, Jar es, Thomas Pi Examples of th or details that v od how it was s	Learned hine Spies, ke ne issues vere solved. How	<ul> <li>SOP Improvement and Process Unification Across Labs</li> <li>Speakers: Alex McFall, Johanna Mazlo, Matt Hengel</li> <li>Description: Presentation on different aspects of the SOPs. Breakout groups on</li> </ul>

SD can help when a trial is in trouble. Location: Room B	spotting SOP issues, potential templates, focus on SOPs as living documents that need to be updated regularly. Present the updates made to the Lab Guidance	
Virtual Facility Tour Speakers: Daniel Heider - NCR, David Ennes - WSR, Marylee Ross - NER, Leona Horst - USDA-ARS	Location: Room C	
<b>Description:</b> Curious to know how things are done in other regions? <b>Location:</b> Room B		
Rec Description: Networking and interaction	eption on opportunity	
	SD can help when a trial is in trouble. Location: Room B Virtual Facility Tour Speakers: Daniel Heider - NCR, David Ennes - WSR, Marylee Ross - NER, Leona Horst - USDA-ARS Description: Curious to know how things are done in other regions? Location: Room B Rec Description: Networking and interaction Location: (TBD)	

#### Wednesday, February 08, 2023

Breakfast			
Electronic Field Data Book - Background, Training, Q&A	Benchmark Training and Method Development		
Speakers: iAdvantage Rep, Jimmy Byrtus, Philip Moore, FRDs in the pilot project Description: Background into the eFDB, in depth training, and a Q&A session to help mitigate any fears. We will have available real world testers, Elicit feedback (both positive and negative), practical ways of working, and ideas that could make your life easier as a Field Research Director and/or a Regional Field Coordinator. iAdvantage rep, Philip Moore and Jimmy Byrtus will be available for questions during and after the training session. Location: Room B	<ul> <li>Speakers: Alex McFall</li> <li>Description: Mix of presentations and back-and-forth discussions regarding <ol> <li>Efficient planning of R&amp;D analyses.</li> <li>When and how to use matrixmatched standards. Benefits and detriments to use.</li> <li>Overview of difficult matrices</li> <li>Training/refresher course on common chemistries/functional groups encountered in agrochemistry today. Context on how these groups of chemistries can be most easily quantified.</li> </ol> </li> <li>Location: Room C</li> </ul>		
Вг	reak		
Electronic Field Data Book - Background, Training, Q&A Speakers: iAdvantage Rep, Jimmy	Latest Analytical Technology: Speakers: Dr. Liwei Gu		
	Electronic Field Data Book - Background, Training, Q&A Speakers: iAdvantage Rep, Jimmy Byrtus, Philip Moore, FRDs in the pilot project Description: Background into the eFDB, in depth training, and a Q&A session to help mitigate any fears. We will have available real world testers, Elicit feedback (both positive and negative), practical ways of working, and ideas that could make your life easier as a Field Research Director and/or a Regional Field Coordinator. iAdvantage rep, Philip Moore and Jimmy Byrtus will be available for questions during and after the training session. Location: Room B Electronic Field Data Book - Background, Training, Q&A Speakers: iAdvantage Rep, Jimmy		

	Byrtus, Philip Moore, FRD in the project Description: eFDB training and continues.		<b>Description:</b> HPLC-MS/MS, latest application of 2D chromatography and high resolution Mass Spectrometry	
			Location: Room C	
10:45 am - 12:00 pm	Location: Room B		Roundtable Chemist Discussion – (extra topic)	
			Speakers: Alex McFall, Christina Dineen	
			<b>Description:</b> Discussion prompts can be handout (approximately 3-4 topics) each can have a list of questions to help generate discussion.	
			Location: Room C	
12:00 pm - 1:00 pm		Lu	inch	
1:00 pm - 2:00 pm		Why is GLI	P Important?	
	Host(s):	Host(s): Debbie Carpenter, Jerry Baron, Johanna Mazlo		
	Description:	Introduction to why GLP w Quality Assurance (QA) in work together with QA to p	as implemented. The importance of the work IR-4 performs. Why we should present quality data to EPA.	
	Location:	Room A		
2:00 pm - 3:15		SOP Op	timization	
	Host(s):	Johanna Mazlo, Debbie C	arpenter, QA	
	Description:	Different perspectives of S Advantage of unifying som discussions to compare an table).	OPs - FRDs, RFCs and QA/HQ. ne of the administrative SOPs. Roundtable nd optimize different SOPs (one SOP per	
	Location:	Room A		
3:15 pm - 3:30 pm		Br	reak	
3:30 pm - 4:15 pm	Exploring the New Website's Resources			
	Host(s): Jennifer Fisher, Krystal Chojnacki, Hannah Ross			
	Description:	Resources available in our development of an intrane involved with IR-4. Gather be included in the intranet researchers or that is miss communication improveme on improving the onboardi	r website for researchers. The t/app intended as tool for the researchers suggestions on the resources that should based on resources used by the sing from our website. Update on ents throughout the IR-4 and suggestions ng of new researchers.	

	Location:	Room A
4:15 pm - 5:00 pm		NEC 2023 - Closing Remarks and Awards
	Host(s):	Cristina Marconi, Jerry Baron and RFCs
	Description:	Bingo card drawing (, recognition of the award winners and closing remarks
	Location:	Room A

#### Thursday, February 09, 2023

7:00 am - 4:00 pm	Southern Region Research Station Tour			
	Host (s):	Wilfredo Robles and others		
	Description:	This is where the journey to specialty crop chemical registrations start. Learn about Puerto Rico's contributions to the specialty crop stakeholders. Opportunity to visit the Corozal UPR Research Station where a variety of tropical crops are grown like coffee, carambola, passionfruit, breadfruit, dragon fruit, cacao, sweet potato, cassava, tanier, taro, plantain, papaya, pineapple and banana. You will also see a few on-going IR-4 field trials and possibly field application demonstrations or overview of application equipment.		
	Location:	University of Puerto Rico Mayaguez, Agricultural Experiment Station Corozal, HC-5 Box 10322, Corozal, PR 00783		



Find an IR-4 person who matches each of the description and have that individual sign/initial the box. An individual can only sign one square on the BINGO card below to be eligible for the drawing. **Once all the squares have been completed**, please place it in the drawing box.

Your Name: \_\_\_\_\_

Recently changed position within IR-4	Grows tomatoes at home	Is from a state that borders an ocean	Reviews field data books	Plays in a band or sings in a choir
Has a dog or cat	Grows tropical fruit	Audits Analytical Summary Reports	Has an exotic (unusual) pet	Born in another country
Graduated from a land grant institution	Visited more than 50% of the states in U.S.	The R.4	Lived overseas (not including country of origin)	Was in a sports team in college
Likes to ride bikes	Used a Mass Spec	Lives in a state that borders Canada	Does NOT like sports	Likes chocolate ice cream
Lives below the Mason Dixon Line	Is a "chef" on the weekends	Is left handed	Was in the military	Has done processing trial

### **Proposed Changes in Awards**

#### Presenter: Dr. Janine Spies





Program Management Committee:

The Education and Training Committee has developed a proposal for providing awards for deserving IR-4 personnel and cooperators at the 2023 National Education Conference. Please review the proposal for nominating and selecting recipients to receive the award. We seek your approval to move forward with the proposal.

Regional awards will be given to recipients in each of the four regions and USDA-ARS researchers. One to two technical service awards will be given to an IR-4 employee by each of the IR-4 regions and ARS for their outstanding technical service to the program over several years. One to two meritorious service awards will be given to an internal employee by each of the IR-4 regions and ARS based on the following criteria: length of service to IR-4, special service to IR-4, innovation in program development and implementation, and scientific merit encompassing IR-4 contributions. Recipients of these awards will be identified by regional management including the Regional Director, Laboratory Regional Director, Regional Quality Assurance Coordinator and Regional Field Coordinator. A maximum of 4 recipients per region + ARS, or 20 recipients total, could be recognized through regional awards at the 2023 NEC.

The National Award of Excellence will be given to a field researcher, lab researcher, or quality assurance professional who goes above and beyond to keep operations moving. The award is given only during the National Education Conference which occurs every three years. Nominees must demonstrate outstanding achievements well beyond normal job performance, resulting in a significant positive impact on the IR-4 Project. Once a person has received this award, they cannot be nominated again. Nominations will come from the four regions, ARS and IR-4 Headquarters, and only one nomination will be submitted per region/ARS. Nominees can be anyone associated with IR-4 except active members of the PMC. A maximum of three nominees will be selected to receive the award. Two letters of recommendation will need to be provided in the nomination application. A template for nomination will be made available. The PMC will establish an ad hoc award committee to review nominations for the award.

There will not be a monetary supplement included with the award.

The deadline for the National Award of Excellence nomination applications to be given to the PMC ad hoc committee is Friday December 2nd. Deadlines for recipient names and award description to be inscribed on plaques is Friday January 6th 2023 to Krystal Chojnacki. Thank you for your consideration of the proposal to present awards at the upcoming National Education Conference.

Sincerely,

The Award Subcommittee

#### Awards to be Presented at the 2023 National Education Conference

Participants: Krystal Chojnacki, Megan James, Mika Pringle Tolson, Alex McFall, Martin Beran, Johanna Mazlo, Janine Spies, Hannah Ross

Objective:

- Discuss type of awards:
  - Regional Technical AND Meritorious, 1 per award per region + ARS
  - National Award of Excellence:
    - how many? 1, possibly more than 1 (no more than 3). One nomination per region? Other nominations outside of the regions? Letters (2) of Recc needed.
- how many will be awarded, 11
- Template for Nominations Award of Excellence Krystal and Hannah
- how will recipients be selected:
  - people nominated from region for regional awards, handled by regional office: RD + RFC
     + LRD coordinate effort;
  - for national awards regions submit nominations + letters of rec, also nominations+letters or rec received from others outside of region
  - Ad hoc committee established by PMC will review nomination packets
- Recognition: associated \$\$? can be difficult to stipulate in the budget for the cash award, gift card? swag? plaque only seems to be supported
- timing of award ceremony closing ceremony?
- Deadlines:
  - Proposal for nominations to PMC Thursday October 27th
  - Deadline for nominations to PMC ad hoc committee: First week of December
  - Deadline for names and wording (approx. dozen words) for plaques to Krystal: First week of January
    - Previous list of recipients shared as well

#### Info Needed from Regions for regional Plaque:

- The type of award they will get (Technical/Meritorious service)
- Name
- Sentence on why they are receiving it
- Date

#### Types of Awards:

- Regional
  - Technical Service Award

Guidelines: The Technical Service Award is an internal award given to an employee by each of the IR-4 regions or HQ for their outstanding technical service to the program over several years. In order to be eligible, nominees should have proven a sustained level of contribution to IR-4 that is clearly above what is considered normal and expected

in the nominee's position. Any type of technical contribution may be the basis of eligibility for the award.

• Meritorious Service Award

Guidelines: The Meritorious Service Award is an internal award given by each of the IR-4 regions and HQ. Each unit selects their own nominees for this award based on the following criteria:

- 1. Length of Service to IR-4
- 2. Special service to IR-4
- 3. Innovation in program development and implementation
- 4. Scientific merit encompassing IR-4 contributions
- More?
- National Recognition of Excellence

Guidelines: The National Recognition of Excellence Award is given once every three years in conjunction with the national education conference. This award is given to a field or lab researcher who goes above and beyond to keep operations moving. The PMC establishes an ad hoc award committee to solicit nominations for the award. Nominees can be anyone associated with IR-4 except active members of the PMC. A maximum of three nominees will be selected to receive the award. Nominees must demonstrate outstanding achievements well beyond normal job performance, resulting in a significant positive impact on the IR-4 Project. Once a person has received this award, they cannot be nominated again.

• Hall of Fame Award

Guidelines: The Hall of Fame Award is the highest recognition given by the IR-4 Project. It is awarded to anyone from any aspect of the program (internal or partner) who has made a significant contribution to the development and success of the IR-4 Project over time that have resulted in one or more of the following:

- Increased program effectiveness
- Better management
- Increased productivity
- Establishment of liaisons or partnerships with cooperators that enhanced the program
- Enhanced levels of recognition of IR-4 by stakeholders and/or the public

Nominees are made and approved by the IR-4 Project Management Committee (PMC). Recipients must no longer be actively involved with the IR-4 Project.

#### Examples:





### **IR-4 Communications Update**

#### Presenter: Dr. Krystal Chojnacki and Hannah Ross







#### **Communications + Events Report**

Fall PMC Meeting: October 26-28, 2022

Prepared by: Krystal Chojnacki + Hannah Ross 10.17.2022

#### Communications

#### Hiring

- On September 6, 2022 Hannah Ross joined our team as our IR-4 Project National Information and Communications Officer.
  - Initial meetings have been held with RFCs, Path Forward Committee Chair (Dan Rossi), Van Starner, biopesticides team, QA team, Jerry Baron, HQ staff members, USDA-ARS communications staff, and more.
- A new Student Communications Assistant position for ~10 hours a week has been posted and we are actively recruiting.

#### Stories

- Released July 12, 2022: <u>"Ginseng and Lowbush Blueberry Growers Have New</u> <u>Tool in Fight Against Fungal Disease"</u>
- Released July 27, 2022: <u>"The IR-4 Project Continues to Have a Significant Impact</u> on Nation's Economy"
- Released August 25, 2022: <u>"Executive Director's Message"</u>
- Released September 29, 2022: <u>"From Chickpeas to Quinoa: EPA Expands Legume</u> and Cereal Grain Crop Groups"
- Coming soon: Sulfur Dioxide on Blueberry; recent news about hemp



Ginseng and Lowbush Blueberry Growers Have New Tool in Fight Against Fungal Disease

Ginseng and lowbush blueberries are vastly different crops, but growers have one common foe that can end their growing season: fungal disease. Now, thanks to international partnerships and research conducted by the IR-4 Project, ginseng and lowbush blueberry growers have a new tool to keep their crop yields healthy and strong.



The IR-4 Project Continues to Have a Significant Impact on Nation's Economy

The IR-4 Project is known within the specialty crop agriculture community to be a highly productive government funded research project that has delivered many registrations of necessary crop protection products to growers.



From Chickpeas to Quinoa: EPA Expands Legume and Cereal Grain Crop Groups

EPA has released the sixth Final Rule in a series of updates to pesticide crop groups. This update includes new commodities and additional subgroups in Legumes and Cereal Grains.

#### Web Updates

- Crop Group Table page revised according to recently published Final Rule
- Path Forward Report + Implementation Plan added to Outreach page
- Researcher Resources page has been re-organized and updated with GLP links requested by QA.
- Update on biopesticides page is in progress
- Event webpages for the 2022 Industry Technology and Food Use Workshop closed out with final materials

#### 60 Years

- Communications Strategy written; content creation and planning underway
  - Goal to help close gaps in understanding identified by the Path Forward
  - 60 Years logo to be incorporated early January into all channels & brand assets (website, slide decks, letterhead, email signatures, etc)
  - Will encourage cohesive brand identity across HQ and regions through updated outreach materials featuring 60 Years logo
  - PMC members and IR-4 community are needed to help to promote and implement our Strategy.
  - Video footage collected at Food Use Workshop; engaged CALS Communications / DELTA for assistance designing info video for homepage, and a few short videos for social media.
  - Looking to hire graphic designer to ensure highest quality materials + new national one-pager highlighting the impacts of IR-4 over 60 years

#### Social Media and Newsletter

- Email newsletter (primary source of information for audience)
  - 1,874 subscribers
  - 30% open rate (goal to improve by 5% over the next year with more active language)
- Followers (as of October 13, 2022)
  - LinkedIn: 610 | +244 since last PMC meeting
  - Twitter: 366 | +42 since last PMC meeting
  - Facebook: 284 | +18 since last PMC meeting
- Average Post Impressions / Engagement (as of June 21, 2022 | the number of views our posts receive on average)
  - LinkedIn: 5,655 (some posts exceeding 15,000)
  - Twitter: 6,500
  - Facebook: 286
- Best performing posts tend to have these characteristics:

- Engage with our teammates and organizational partners (or sponsors) who have larger / more active followings
- Strong visual component (photo, video, graphic, emoji)
  - photo + text graphics likely to be shared or retweeted
- Following these analytics helps to shape strategy moving forward



#### Internal Communications

- Repurposed TV monitor with welcome + informational slide deck
- Meeting with RFCs to review outreach materials, listen to needs, and work collaboratively towards a communications strategy that engages regions' voices more meaningfully, works towards brand continuity, and strengthens the team.
- Developing a Communications Committee as called for in the Path Forward 2.0 report; members to be selected by December 1.

#### Events (as of October 13, 2022)

#### **EVENTS HELD:**

Industry Technology Session | July 21, 2022 | 1:00 pm -4:00 pm

- Held virtually via zoom and featured 20 speakers
  - Technical Lead: Venkat Pedibhotla
- Number of people registered: 261
- Event website with final presentations

#### Food Use Workshop |September 13-15, 2022 | Bloomington, Minnesota

- Held in person with a virtual option
  - Technical Lead: Venkat Pedibhotla

- Number of people registered: 110 in-person and 64 virtual
- <u>Event website</u> with zoom recordings, final lists, and presentations

#### **UPCOMING EVENTS:**

NRPM and Winter PMC Meeting |October 24-28, 2022 | Raleigh, NC

- Hybrid meeting held in Raleigh, NC at IR-4 Project Headquarters
  - Technical Lead(s): Venkat Pedibhotla, Debbie Carpenter, and Jerry Baron
- NRPM meeting will be held in the CIPM conference room and the PMC Meeting in the Markle conference room
  - Meeting Agenda <u>HERE</u>
- Watch your email for additional information and reach out to Allison Ballantyne with questions

#### National Education Conference |February 7-9, 2022 | San Juan, Puerto Rico

- This is an in-person meeting for IR-4 Project team members and identified stakeholders
  - Technical Lead: Cristina Marconi and Education and Training Committee
- Registration opened October 4, 2022 and closed December 1, 2022
   Number of people registered to date: 20
- Annotated Agenda (linked HERE) and attached
- Awards (both national and regional) to be presented at NEC; online nomination form and award plaque templates have been created to help streamline award process & appearance across the organization

#### Joint CLC/PMC Meeting |March 6-9, 2022 | Washington, DC

- This is an in-person with a hybrid option, joint meeting of the CLC and PMC in Washington, D.C.
  - Technical Lead: Todd Scholz and Jerry Baron
- Event will be held at the Hyatt Place Washington, DC (where it is typically held)
# Plans for the IR-4 Project 60 Years

## Presenters: Dr. Jerry Baron, Dr. Krystal Chojnacki and Hannah Ross







## The IR-4 Project: 60 Years Communications Strategy

## GOALS

### Why acknowledge IR-4's 60 years?

- Path Forward highlighted gaps in external understanding of IR-4
- Opportunity to close gap in understanding regarding *what* IR-4 does & *why* the work matters
- Acknowledging milestones positively impacts team culture, emphasizes the *why* behind our work
- Highlighting longevity underscores credibility— a helpful talking point as we strive for increased funding
- Nurture key partner relationships, celebrate joint successes, work together to reach broader audiences
- Reach new researchers (a key, underserved audience) by having partners + socially active researchers share our 60 year content
- Emphasize diversity, equity and inclusion in the researchers and partners we engage
  - 1890 land grant universities
  - Illuminate a clear pathway for involvement in IR-4 research priority setting & community involvement

### What might IR-4 accomplish through this campaign?

- Heightened external awareness of IR-4's work
- Greater internal cohesion around brand the brand (both in terms of mission, and in terms of visual identity)

## Who are IR-4's audiences for this campaign?

- Internal team
- External organizational partners
- Researchers, cooperative extension, university partners
  - Key audience currently under engaged
  - Especially 1890 land grant universities
- Growers, commodity groups, industry stakeholders
- Lawmakers and their staff
- General / NCSU community

### How will we reach these audiences? Content ideas:

- Talks at the NEC and FUW to bookend the campaign
- Cohesive use of official 60 Years logo
- New outreach materials
- Content to share with social networks via social media "kits"
- Press release (working with ARS)
- Announcements via host university newsletters
- Special success stories highlighting key achievements
- Content strategy for email, social media, and website that highlights *Impacts of IR-4, People of IR-4, and History (or, Future) of IR-4*
- Foster 1890 land grant university relationships to engage new researchers, share tools and resources for getting involved
- Cooperative extension field days + events an opportunity for growers and extension agent outreach
- More welcoming and clear website homepage language about the mission and impacts of IR-4 + possible incorporation of a video
- More story-driven social media content featuring people, places that make up IR-4's work (images, graphics, story blurbs, video)
- Need PMC's help to identify key contacts who can help share content and improve outreach (especially to new researchers, commodity groups, etc)

## ROADMAP

### Planning: September - December

### **Asset Development:**

- Ongoing, with outreach materials and first 2 months of social and website content to be created by **February 1** 
  - Hope to engage video producer and graphic designer
- Outreach to certain partners & internal team members to gather photos, videos, stories, reflections (October-January)
- Social Media + Print Assets
  - Create digital content inspired by the impacts, people, history, future of IR-4 (photos, graphics, a few short videos)
  - Create print + digital outreach materials featuring 60 Years logo (one pagers, postcards, letterhead, slide deck)
  - Social media "kits" to share with certain researchers / partners who have larger followings than we have / can reach audiences we are not effectively reaching
    - Regions help identify specific researchers / commodity group partners / growers who are active on social media

## Soft Launch

- 1. Internal email announcement: mid January
  - a. Map out goals
  - b. Share logo and revised materials containing new logo
  - c. New e-signature setup
  - d. How to be involved in campaign (sharing stories, impacts)
- 2. Partner email announcement / personal outreach

- a. **Partners to include**: ARS, NIFA, EPA, Minor Use Foundation, NCSU CALS, active commodity groups, etc (who else?)
- b. What to send them:
  - i. Quick blurb about the milestone & our strategy
  - ii. Overview of our reach & which channels we are active on
  - iii. Ask what they'd like us to share about their organization as we celebrate our partnership (a new program or initiative, a milestone of theirs, a stat they're proud of, a way we've succeeded together)
  - iv. Social media kit
    - 1. A few graphics / images to share with caption templates
    - 2. Partner specific? IE, each graphic includes both IR-4 and partner logo but they all have the same look
    - 3. Engage their communications staff to ensure these materials are in the right hands to be shared

## Hard Launch (Feb 7-14)

- 1. Announcement at NEC Feb 7-9
- 2. Homepage news update
- 3. Constant contact announcement to subscribers
- 4. NCSU CALS newsletter announcement
- 5. Press release work with ARS
- 6. Seek recommended media contacts for press release
- 7. Social media announcement to follow newsletter

## Campaign Schedule (Feb - Sept 2023)

- 1. Starts with NEC announcement, runs through FUW in September featuring special speakers
- 2. Monthly from February September:
  - a. Share story from field/lab/QA/HQ highlighting People of IR-4

- b. Share an infographic / video clip / other asset highlighting
   Impacts of IR-4
  - i. Economic
  - ii. Farmer livelihood / crop viability
  - iii. Food system diversity of food crops coming to market
  - iv. Environmental
  - v. Streamlined regulatory process
  - vi. Public wellbeing
- c. Share a post highlighting **History of IR-4** (shift towards more future focused than historical over course of campaign)

Have Jan-Feb content ready to go by end of December, can fill in with remaining content in early 2023, staying at least a month ahead. Look into hootsuite / other post schedulers.

## **ASSETS TO CREATE / UPDATE**

- Logo 🔽
- Email Signature 🔽
- Letterhead
- 60 Years national program one pager (ready by NEC)
- Regional one pagers (ready later)
- Social media graphics, photos, stories (4 per month)
  - Engage regions and partners for field, lab, QA, HQ stories (show the full picture of IR-4's complex, grounded + meaningful work)
- Video Clips (3-4) CALS Communications / DELTA / Creative Services
  - For homepage
  - For social media
- Stories from the field/lab/etc (one per month)
  - Longer format for news posts and newsletter
- Updated Slide Deck (for staff use)
- Updated "About IR-4" Slide deck
- Zoom backgrounds with 60 Years logo
- YouTube channel add any video content
- 60 Years web page to be created highlighting stories, press releases
- Existing History page should be updated with a document that brings our story from 50 years to 60 years (and point to 60 Years page)

# Draft Summer PMC Meeting Minutes for Approval

## Presenter: Dr. John Wise







### MINUTES Project Management Committee Summer 2022 Meeting July 12-14, 2022 *Virtual Meeting*

#### MOTIONS AND ACTION ITEMS

#### Motions/Consent Items:

- 1. Motion by Alvin Simons to approve the Spring 2022 and May 5<sup>th</sup> Special Meeting Minutes; Seconded by Todd Scholz. **Unanimously approved.**
- 2. Motion by Todd Scholz to approve membership of Michelle Grainger of the North Carolina SweetPotato Commission onto the Commodity Liaison Committee; seconded by Matt Hengel. **Unanimously approved.**
- 3. Motion for approval of the 2023 project budget (as revised): Assuming funding of \$14.5 million and 10% indirect, provide Core \$8,387,756; Core Supplement \$600,000; Residue Field Trials \$2,500,000; Performance \$700,000; IS \$650,000; EHC \$650,000; TOTAL \$13,487,756, was made by Todd Scholz; seconded by Liwei Gu. **Unanimously approved.**
- 4. Motion that IR-4 Headquarters will maintain project-wide awareness and oversight of all GLP residue projects, while they are in the analytical phase. This includes the authority to make decisions regarding lab assignments/reassignments, prioritization of studies, establishing and adhering to timeframes for successful completion of studies, and determining a path forward for studies where difficulties are encountered. The lab directors will maintain oversight of the day-to-day operations in each lab. Because the ARS labs fall under a different authority structure and have funding independent of the IR-4 NIFA grant, IR-4 will work with the ARS Minor Use Pesticide Coordinator concerning the ARS labs, was made by John Wise; seconded by Liwei Gu. **Unanimously approved.**
- 5. A motion was made to adjourn the meeting at 3:13 pm by Matt Hengel; seconded by Liwei Gu. **Unanimously approved.**

#### Action Items:

- Action Item: (Debbie Carpenter) Engage with the training committee to organize a session at the 2023 NEC to focus on harmonizing SOPs for universal GLP procedures.
- Action item: (Jerry Baron) IR-4 HQ will draft a process to provide input to regional directors on the performance of regional staff who directly interface with HQ leadership. Also for regional leadership and FRDs provide input on the performance of HQ study directors and program leads.
- Action Item: (Matt Hengel) Establish an adhoc committee to review the IR-4 lab guidance document, to enhance operationalization of a 3 month "panic button" for problematic studies and options for solving the problem.

#### Members

Jerry Baron; IR-4 Executive Director Doug Buhler; Administrative Advisor-NC Liwei Gu; Regional Director-SOR Matt Hengel; Regional Director-WR Moses Kairo; Administrative Adviser – NER Michelle Samuel-Foo; USDA-NIFA Todd Scholz; CLC Chair Alvin Simmons; USDA-ARS John Wise; Regional Director-NCR/Chair PMC Simon Zebelo; Regional Director – NER

#### **Presenters**

Michael Braverman; IR-4 HQ Debbie Carpenter; IR-4 HQ Krystal Chojnacki, IR-4 HQ Cristina Marchesan Marconi; IR-4 HQ Johanna Mazlo; IR-4 HQ Cristi Palmer; IR-4 HQ Venkat Pedibhotla; IR-4 HQ Dan Rossi; IR-4 HQ

#### Tuesday Jul. 12th 10:30 am to 4:30 pm

-- John Wise called the meeting to order at 10:30 am-

- 1) Welcome/Introductions
  - Dr. Wise welcomed everyone to the meeting, discussed ground rules, and made introductions via zoom.
  - Dr. Baron noted that the meeting is open until executive session and that written reports were submitted by program leads so the in-session time will be used for questions and answers.
- 2) Approval of minutes, new agenda items
  - Motion by Alvin Simons to approve the Spring 2022 and May 5<sup>th</sup> Special Meeting Minutes, seconded by Todd Scholz; unanimously approved.
  - No new agenda items offered.

#### 3) Unit updates

- ARS (Alvin Simmons)
  - Reported on behalf of Joe Munyaneza that: support remains for IR-4 programmatic efforts, and that on June 13, 2022 new undersecretary for research education and economics Dr. Chavonda Jacobs-Young, was sworn and the event was live on zoom; and that domestic travel has opened but international travel is still restricted for the moment.
  - Reported that an offer is currently being made on a science technician position; in the process of amending the cooperative agreement with NC State to cover the Quality Assurance (QA) and Environmental Horticulture (EHC) for ARS; ARS continues to operate under current funding levels; the closeout with Rutgers and ARS is nearly complete; there is now a permanent research leader in Charleston; and updated on field and lab research activities at Tifton.
  - Addressed questions from the PMC on funding.
- CLC (Todd Scholz | PowerPoint)
  - Todd noted that the CLC voted to recommend the approval of Melissa Grainger as a members of the CLC.
  - Motion by Todd Scholz to approve membership of Michelle Grainger of the North Carolina SweetPotato Commission onto the Commodity Liaison Committee; seconded by Matt Hengel; unanimously approved.
  - Reviewed a PowerPoint Presentation of updates including: potential additional CLC committee members and replacements of outgoing committee members; reported on the activities of the Friends of IR-4 and DCLRS and actions to expand membership to registrants and work on the farm bill appropriation increase; reported that efforts on and Tactical Sciences are moving forward and IR-4/CLC members are at the table.

- Specialty Crop Farm Bill Alliance are working on their farm bill goals and they have put an increase to IR-4 funding at the top of their priority list.
- NIFA (Michelle Samuel-Foo)
  - Reported on the continuing application for the 2022 NIFA grant: that the initial internal reviews are almost complete and the approvals are underway; the timeframe to have the 2022 funds available is the end of August or Early September.
  - Reported that in November 2021 the IR-4 Program grant was approved to move from a competitive to a non-competitive grant program which would eliminate the duplicate reviews of IR-4 by NRSP and NIFA. Reported that they are in the information gathering stage to decide if aligning the NIFA with the NRSP review process will be the most advantageous pathway.
  - A discussion was held on when this would be enacted (through end of grant cycle and when new grant is submitted in 2025 it will be non-competitive); what is the ratio for the NIFA holdback (~7%); staffing for NIFA plant protection is fully completed and NIFA is at 90% staffing; and that some of the agency's workforce is working remotely.
- AAs
  - Doug Buhler (NCR): Reported on a conversation with NIFA regarding the non-competitive grant and how it might align with the NRSP process.
    - A discussion was held if there should be any concern about being in a non-competitive program, the need for frequent education for the NRSP membership about the IR-4 Project, and how to best ensure the continuity of the program.
  - Moses Kairo (NER): Reported that things are moving along positively from their regional and institutional level and expressed appreciation in working through indirect cost issues.
- Break at 11:44 am and reconvened at 12:01 pm -
  - Northeast Region (Simon Zebelo | Handout)
    - Reported that the 2022 trials have been running smooth so far, but some researchers have requested early funding/pre-award funds; a no-cost extension has been approved by NC State and they are working to extend that to their subaward institutions; most FDBs from 2021 trials have been completed; and they are looking into paying for State Liaison Representative (SLR) travel.
    - A discussion was held regarding how the regions handle SLR travel.
  - North Central Region (John Wise)
    - Reported that the field programs have been progressing; researchers are requesting adjustments to trial funding rates with new indirect costs (IDC) now being applied; and that Nicole Soldan was named as the interim Regional Field Coordinator (RFC) and she is doing a great job.
    - Reported on the closeout of the analytical laboratory; commended the staff for their professionalism during the difficult transition; closeout activities are on-track; and thanked everyone who supported the process.
    - A discussion was held regarding the field budget levels and IDC.
  - Southern Region (Liwei Gu | Handout)
    - Reported that the move of the field research from Weslaco to Uvalde is underway and progressing; the field program is progressing as planned; an in-person priority session is scheduled in Atlanta in August; the lab is working to tackle some difficult method development; QA activities are on track; and the University of Florida has installed a new back-up generator for their operations.

- Western Region (Matt Hengel)
  - Reported that the field program is on track; there is a new Field Research Director (FRD) in New Mexico; updated on the search for a new RFC to replace Michael Horak; QA is progress as expected; the lab has completed most of 2021 work and validated a fair number of 2022 projects; they've successfully generated CBD extract and will be conducting their first processing trials; and their current facilities are scheduled for upgrades.
- HQ (Jerry Baron | Slide)
  - Reported on staffing levels, open positions, staff role changes, and staff awards; updated on the conference room (Markle Conference Room) project; opportunities for space expansion; reviewed new funding opportunities; and reported that the IR-4 Project Borlaug grant is planned for May 2023.
- 4) Program updates Q&A
  - a) Food Program
    - Residue Studies/submissions (Debbie Carpenter | Handout)
    - Quality Assurance Unit (Johanna Mazlo | Handout)
    - Product Performance (Venkat Pedibhotla | Handout)
    - Integrated Solutions (Venkat Pedibhotla | Handout)
    - International/Minor Use Foundation (Michael Braverman | Handout)
      - A discussion was held regarding increased number of trials switching regions/protocols/funding and the challenges associated; Interim RFC Nicole Soldan was commended for her great efforts and for stepping in seamlessly; and the QA unit was commended for their coverage of gaps.
  - b) Environmental Horticulture (Cristi Palmer | Handout)
    - A discussion was held regarding overcoming supply chain challenges with getting plant material.
  - c) Biopesticides Regulatory Support (Michael Braverman | Handout)
    - A discussion was held regarding biopesticide and integrated solutions funding opportunities; new peptides in the pipeline and the increased use of CRISPR technology; and new proposed legislation on biostimulants.
  - d) Communications Update (Krystal Chojnacki | Handout)
    - Provided an update on: 60th year logo, economic impact report and infographic, and the NRPM/PMC meeting proposed schedule.
    - A discussion was held regarding 60<sup>th</sup> year logo and economic impact report.
  - e) Training Committee (Cristina Marconi | Handout)
    - A discussion was held regarding whether we would have full participation by field and lab personnel and attendance was encouraged; and modifications to the agenda to focus time on the electronic field data notebook.
- Break at 1:25 pm and reconvened at 1:45 pm -
  - A brief discussion was held regarding the format of program reports, and moving to a hybrid format with annotated discussion.
- 7) Detailed laboratory discussions (Carpenter & Hengel | Excel)

- Debbie Carpenter introduced the item and noted that quality has been a concern in the labs; suggested moving toward shared/consistent SOPs in the lab; and Dr. Gu's suggestion to have grad students work on new method development.
- Matt Hengel reviewed the backlog report and status of projects in each of the labs.
- A discussion was held regarding the Florida lab and issues with difficult method development, software issues with new instrumentation, new hires, and enhancing the GLP training for new hires. Further discussion was held regarding the importance of meeting deadlines, and working to standardize lab SOPs to ensure consistent quality, and balancing workload.
- Liwei Gu suggested having a grad student spend the time developing a method as their thesis assignment (will be published) and the chemist will verify the method using IR-4 criteria; this would be a time savings for the chemist. An in-depth discussion was held regarding whether or not registrant chemists could assist with method development; the use of grad students; setting parameters for balancing working on methods and working projects; working within the parameters of the EPA; asking for insights from retired chemists or from the EPA; and the use of contract labs. This will be discussed further in Executive Session.
- 8) Proposed parameters of 2023 field research program (Pedibhotla | Slides)
  - Venkat Pedibhotla reported on two scenarios for funding: 1) at our current funding level, and 2) in the event of funding increase; the number of trials budgeted and the cost per trial; regional updates and red A trials.
  - An in-depth discussion was held regarding how the program allocation increases were determined – specifically Environmental Horticulture; that stakeholders are requesting the performance data first before moving to residue projects; and that there should be equitable distribution of funding across programs. A suggestion was made to increase EHC by \$50k and reducing IS (by \$50k). This will be discussed further in Executive Session.
- 9) Standardization of SOPs at field sites
  - Debbie Carpenter reported that each field site has separate/unstandardized SOPs and that this causes additional time delays in writing and reviewing SOPs for both field scientists and QA personnel; there is pushback that people prefer using their own SOPs; suggested starting with easy items like an EPA audit; and implementing consistent SOPs with new FRDs over time and also with the eField Data Notebook.
  - Johanna Mazlo reported that all SOPs have to be tracked at HQ for QA purposes; and suggested starting standardization with management SOPs that should be the same across all sites anyway (such as with EPA inspections, archiving, calibrations).
  - A discussion was held regarding the varying climate limitations (tropical environments versus temperate) or equipment limitations; if EPA has requested standardization across regions; if this topic can be tackled by FRDs at the NEC; the Canadian program has standard SOPs on every instrument and eQA could be used as a repository for the SOPs; and balancing identifying common SOPs to standardize and site specific SOPs that do not need standardization.

The meeting recessed for the evening at 4:16 pm.

#### Wednesday Jul. 13th: 10:30 am to 4:00 pm

-- John Wise called the meeting to order at 10:31 am --

10) Concerns and regulatory challenges - impacts for future (Debbie Carpenter | Slides)

Reported on regulatory challenges including: difficulties of filling residue studies slate; internal
performance issues from backlogs and delayed field data notebooks (FDB) that delay
submissions; how the Endangered Species Act (ESA) will impact how IR-4 can make

submissions to EPA; and that IR-4 may want to consider how we need to adjust to address these challenges.

- A discussion was held regarding required data to get an "A" priority; circumstances for why
  residue studies were not able to be completed; listening sessions on the ESA are underway
  and there groups opposed to pesticides and mitigation tools are being developed that we
  should keep apprised of; how IR-4 has adjusted or progressed to-date toward addressing
  challenges (backlog, FDBs, etc); and how Regional Directors can assist with ensuring
  deadlines are met.
- 11) Path Forward Implementation plans (Jerry Baron | Document)
  - Jerry Baron thanked the Task Force members for their time and work; reviewed the implementation plan for each recommendations:
    - Performance Expectations: retain consultant to draft expectations; annually review.
    - Field Funding Reimbursement: increase field, performance and EHC standard funding rates in 2023.
    - Communications: regional meetings, holding an "All Hands Meeting" after each PMC meeting, Executive Director will visit each region once a year and conduct a listening session, establishing an internal intranet site/app, have the National Information and Communications Officer to attend regional meetings, and establish relationships with commodity communications outlets.
    - Training: leadership development, and sabbaticals.
    - Technology: electronic Field Data Notebook, and taskforce.
    - Backlog: laboratory coordinator.
  - Philip Moore provided a report of the status iAdvantage electronic Field Data Notebook.
    - A discussion was held regarding: if this system may be able to integrate into eQA or other electronic systems; estimates of the final cost for a national program; how to ensure there is a back-up of the data; and if there are failsafe's for calculations and data input/protocol compliance.

-- Break at 12:17 pm and reconvened at 1:02 pm--

#### 12) Executive Session

The members of the Project Management Committee moved to the Executive Session at 1:00 pm.

The meeting recessed for the evening at 4:19pm.

#### Thursday Jul. 14th: 10:30 am to 4:00 pm

-- John Wise called the meeting to order at 10:31 am --

#### 13) Executive Session

The members of the Project Management Committee continued Executive Session at 10:31 am.

-- Break at 12:42 pm and reconvened at 1:02 pm—

The members reconvened from Executive Session at 3:12 pm with the following reportable motions and action items out of Executive Session:

 A motion for approval of the 2023 project budget (as revised): Core \$8,387,756; Core Supplement \$600,000; Residue Field Trials \$2,500,000; Performance \$700,000; IS \$650,000; EHC \$650,000; TOTAL \$13,487,756; was made by Todd Scholz, seconded by Liwei Gu; Unanimously approved.

- Action Item: (Debbie Carpenter) Engage with the training committee to organize a session at the 2023 NEC to focus on harmonizing SOPs for universal GLP procedures.
- Action item: (Jerry Baron) IR-4 HQ will draft a process to provide input to regional directors on the performance of regional staff who directly interface with HQ leadership. Also for regional leadership and FRDs provide input on the performance of HQ study directors and program leads.
- Action Item: (Matt Hengel) Establish an adhoc committee to review the IR-4 lab guidance document, to enhance operationalization of a 3 month "panic button" for problematic studies and options for solving the problem.
- A motion that IR-4 Headquarters will maintain project-wide awareness and oversight of all GLP residue projects, while they are in the analytical phase. This includes the authority to make decisions regarding lab assignments/reassignments, prioritization of studies, establishing and adhering to timeframes for successful completion of studies, and determining a path forward for studies where difficulties are encountered. The lab directors will maintain oversight of the day to day operations in each lab. Because the ARS labs fall under a different authority structure and have funding independent of the IR-4 NIFA grant, IR-4 will work with the ARS Minor Use Pesticide Coordinator concerning the ARS labs; was made by John Wise; seconded by Liwei Gu; unanimously approved.

A motion was made to adjourn the meeting at 3:13 pm by Matt Hengel seconded by Liwei Gu; unanimously approved

## Specialty Crop Farm Bill Alliance Policy Proposal

## Presenters: Dr. Jerry Baron and Todd Scholz





## Policy Recommendation – Congress should allocate \$50 million in annual mandatory spending for the IR-4 Project.

The IR-4 Project is vital and relevant because the private crop protection industry still focuses its product development efforts and resources on large acreage, major row crops where potential sales are significant. As a result, specialty crops are often left with few tools for effectively managing pests and the tools that are made available to specialty crops often lag as to the latest advances in crop protection. The IR-4 project aims to combat this market inefficiency by helping to advance crop protection products for the specialty crop sector. Without the IR-4 Project, we can anticipate that destruction from pests would result in significant crop losses, increasing the cost and decreasing the availability of fruits, vegetables, nuts, herbs, and other specialty crops for consumers. Funding for IR-4 from government and non-government sources has remained relatively flat over the past 10 years, while research expenses and employee compensation continues to increase. Therefore, an increase in funding is appropriate.

To address the current and future availability of specialty crops, it is recommended that federal funding for the IR-4 Project increase to \$50 million for the following reasons:

- Specialty crop growers need new, safe, innovative pest management solutions to fight the increasing number of invasive insects, diseases, weeds, nematodes, and other pests that attack crops. These same growers also need alternatives to replace products that are losing registrations or are no longer effective against endemic and reoccurring pests, and/or have lost uses because of mitigations from EPA pesticide registration review and the Endangered Species Act.
- Specialty crop growers want to be able to continue to provide sustainable supplies of food. Products labelled for use through IR-4 include
  - •Pesticides with safer chemistries.
  - •Pesticides with novel modes of action to better manage the evolution of pesticide resistance in target pests.
  - •Products focused on new or emerging pests.
  - Products for organic production.
- Under a newly implemented program, IR-4 must now pay a full 10 percent of the cost of research to compensate for indirect costs incurred by the host institutions. This 10 percent figure comes right out of IR-4's overall research funding budget.

The IR-4 Project is critical to our nation's food security and helps the specialty crop agriculture sector meet the demands for high-quality food now and into the future. It remains a sound public investment that produces significant, tangible results and is worthy of this increased investment in funding.

## **Northeast Region Report**

## Presenters: Dr. Simon Zebelo and Dr. Moses Kairo





## Northeast Region PMC Report

July 1 – September 30, 2022

M. Ross, M. James, S. Zebelo and J. Forder

#### Program Summary

#### **Trials At-A-Glance**

Food Use MOR Trials - Summary	2020	2021	2022
Trials Placed	34	26	29
Canceled Trials	6	5	
Completed Trials	28	25	22
FDB's Received at RFC Office	28	25	4
Completed QC Reviews	28	23	0

Food Use Performance Trials - Summary	2020	2021	2022
# of Trials	12	20	10
Completed Trials	10	20	7
Reports Submitted	10	18	1

Env. Hort Efficacy - Summary	2020	2021	2022
# of Protocols	5	4	6
Projects Placed	6	4	6
Canceled Projects	1	0	0
Reports Submitted	4	4	2

Env. Hort Crop Safety - Summary	2020	2021	2022
# of Protocols	5	4	1
Trials Placed	37	47	21
Canceled Trials	3	0	0
Reports Submitted	34	47	8

Integrated Solutions- Summary	2020	2021	2022
# of Trials	8	9	10
Completed Trials	8	8	10
Reports Submitted	8	8	1

NORTHEAST REGION REPORT – JULY 2022

## Update from the Director's Office

The NER 2021-2022 budget was dispersed to all sub-subawardees, and all the invoices and checks have been cleared. UMES received the 2022-2023 IR-4 NER budget in September 2022. Sixteen of the twenty-one sub-subawardee contracts have been signed, and we are preparing the purchase requisitions to request invoices from each sub-sub awardee.

We had a series of meetings to discuss how to pay or reimburse SLR's travel expenses. The Northeast Region SLRs are expected to represent their state stakeholder's pest management needs. This is encouraged by offering their travel support to attend the Northeast Region Annual Meeting, IR-4 Workshops, and commodity meetings. We agree to process the SLRs support as sub-awards and add the 10% IDC.

Marylee and Megan are preparing the statement of work for the SLRs, and we are preparing the sub-award documents. Soon, we will send the SLR-subaward forms to their respective research offices. The IR-4 NER team had several regular meetings virtual and in-person meetings. Thanks to the hard-working colleagues Marylee, Megan, Jane, John, Josh (UMES research office), and the researchers, things are progressing smoothly in the NER.

Regards, Simon

## Update from the Regional Coordinator's Office

Hello from the Northeast,

The growing season is winding down. Such a bittersweet time of year. Almost all trials placed in the Northeast have been completed and residue samples shipped.

For the first time in a few years, we were able to get back out into the field and visit some of our researchers. In July, Megan and I visited our newest Field Research Director (FRD) Wesley Bouchelle at the Marucci Center in Chatsworth, NJ. We met Wesley at the Snyder farm in Pittstown, NJ to introduce him to our stellar FRD, Jennifer Fisher. She led us on a comprehensive tour of her facility. She has a top-notch GLP operation. The next day we visited the Marucci Center, provided an overview of what the facility will need in order to become GLP compliant, and offered some GLP training. It will be easy to bring Wesley's facility into compliance. We will provide further training over the fall and winter months. We hope to place a trial with him in 2023.

During the last week of July, we held our virtual regional priority setting meetings in preparation for the Food Use Workshop.

In August, Megan and I spent some time with several researchers on Long Island, NY and at the Cranberry station in MA. While in MA, we visited a few cranberry farms and met the growers.

It was great to attend the Food Use Workshop in person this year. It has been too long since we were able to visit, chat, and work together in the way we did. I look forward to getting back out there and attending more meetings to enhance our productivity in the mission of serving our growers.

Happy autumn,

marylee

## Program Report

#### Food Use Program

#### Magnitude of Residue

In 2022, twenty-nine magnitude of residue (MOR) trials are being conducted in the Northeast Region. MOR field trials were conducted in four locations, including:

- ACDS Research, Inc., North Rose, NY (Contract Research Facility)
- Lower Eastern Shore Research and Education Center, Salisbury, MD (University of MD)
- -Rutgers Snyder Research and Extension Farm, Pittstown, NJ (Rutgers University)
- -University of Massachusetts Cranberry Experiment Station, East Wareham, MA, (University of Massachusetts)

Twenty-two sample sets have been shipped and four Field Data Books (FDBs) have been received at the RFC office. Twenty-three Quality Control (QC) reviews have been completed and the FDBs sent to Quality Assurance (QA) for 2021.

#### Performance

In 2022, ten performance trials are being conducted in the Northeast Region. The Efficacy and Crop Safety trials are being conducted at five locations.

Efficacy and Crop Safety trials are being conducted at:

- Rutgers Center for Blueberry and Cranberry Research and Extension, Chatsworth, NJ (Rutgers University)
- Agricultural Experiment Station, Geneva, NY (Cornell University)
- ACDS Research, Inc., North Rose, NY (Contract Research Facility)
- Long Island Horticultural Research Lab, Riverhead, NY (Cornell University)
- Pennsylvania State University Horticulture Research Farm, State College, PA (Pennsylvania State University)

Seven trials have been completed and one report has been submitted.

#### **Environmental Horticulture Program**

In 2022, there are six efficacy protocols and one crop safety protocol. Under these protocols, we placed six efficacy projects and twenty-one crop safety trials. This work is being done by four different researchers at two locations.

The six efficacy projects are being conducted at:

-Long Island Horticultural Research Lab, Riverhead, NY (Cornell University) -University of Delaware, Newark, DE (University of Delaware)

The forty-seven crop safety trials are being conducted at:

-Long Island Horticultural Research Lab, Riverhead, NY (Cornell University)

NORTHEAST REGION REPORT – JULY 2022

-University of Connecticut Agriculture Research Experiment Station, Windsor, CT (University of Connecticut)
-University of Maryland College Park, College Park, MD (University of Maryland)

To date, two efficacy reports and eight crop safety reports have been submitted.

#### **Integrated Solutions**

In 2022, ten Integrated Solutions trials are being conducted.

The trials are being conducted at:

-Agricultural Experiment Station, Geneva, NY (Cornell University)

-Long Island Horticultural Research Lab, Riverhead, NY (Cornell University)

-University of Delaware Carvel Research & Education Center, Georgetown, DE (University of Delaware)

-Penn State Fruit Research and Extension Center, Biglerville, PA (Pennsylvania State University)

-UMass Agricultural Experiment Station, Amherst, MA (University of Massachusetts)

-Rutgers Agricultural Research and Extension Center, Bridgeton, NJ (Rutgers University)

-Rutgers Marucci Blueberry and Cranberry Experiment Station, Chatsworth, NJ (Rutgers University)

To date, all trials have been completed and one report has been submitted.

#### **Quality Assurance**

During the period of this report, I [Jane Forder] conducted 15 field in-life inspections (6 for NER and 9 for NCR). I performed a field in-life inspection on 1 Minor Use Foundation study, a second review on 7 final reports. I conducted 5 closing report checks and typed up 6 QA Statements.

## **Southern Region Report**

## Presenters: Dr. Liwei Gu and Dr. John Mark Davis







**Institute of Food and Agricultural Sciences** Food Science and Human Nutrition Department Food and Environmental Toxicology Lab IR-4 Southern Region



1642 SW 23rd Drive PO Box 110270 Gainesville, FL 32611-0270 352-294-3983 352-392-9467 Fax

#### **Southern Region Report to PMC**

Liwei Gu, Janine Spies, Gail Mahnken, and Kathleen Knight October 18, 2022

#### 1. Field programs and QC

#### **GLP Centers:**

University of Florida at Citra, FL – This site was assigned 26 GLP trials in 2022, including one trial for the Minor Use Foundation. Four assigned ethaboxam citrus trials will be conducted in 2023. All assigned strawberry trials are currently being planted/initiated and will continue into early 2023. One fluazaindolizine radish trial was terminated due to the concentration of the test substance and phytotoxicity issues, and a new trial was assigned. Two fiber/seed hemp trials were terminated due to insufficient samples. One trial (sulfur dioxide/sweet potato) that was assigned in 2021 has yet to be conducted and is delayed until the protocol is finalized. Eight 2022 FDBs have been received at the regional office.

University of Florida at Homestead, FL – The site was 16 assigned GLP trials in 2022, including one trial for the Minor Use Foundation. Two assigned miracle fruit trials will be conducted in 2023. Two mefenoxam passionfruit trials assigned in 2021 were delayed and are currently being conducted. One quizalofop hemp trial that was conducted in 2021 has been terminated due to insufficient samples. Next year (2023) will be the last year the current FRD, Rebecca Tannenbaum, to conduct IR-4 trials. The process of replacing the FRD at TREC is underway.

University of Puerto Rico - The total number of GLP trials assigned in 2022 was seventeen, including five Minor Use Foundation trials. Several trials assigned in 2022 will be conducted in 2023, including one lychee trial, one glufosinate/dragon fruit trial, two pineapple trials, and MUF banana trials due to the availability of sites and long growth periods of the crop (i.e., pineapple). In September 2022, Puerto Rico was affected by Hurricane Fiona, but miraculously there was a minimal impact on ongoing trials. Notably, the sites selected for the banana trials were impacted and new sites will need to be identified.

North Carolina State University – This site was assigned 15 GLP trials in 2022. One trial was terminated (mefenoxam/lettuce) due to a misapplication error. Two sulfur dioxide/sweet potato trials are pending until a use pattern and protocol is finalized. All strawberry trials assigned are currently being planted/initiated and will be conducted into early 2023. It is important to note the

NC site has successfully completed all 4 assigned hemp (CBD) trials. Eight 2022 FDBs have been received at the regional office. Cole Smith has been doing a fantastic job in his role as FRD.

*Texas A&M at Uvalde, Texas* – The site was assigned 3 GLP trials in 2022, including two sesame processing trials. GLP training has been ongoing through 2022 with FRD Kimberly Cochran *via* virtual training sessions, in-person site visits, and field training with a Contract Researcher in the region. We will continue to work with Kim to provide extensive training, maintain limited capacity for trials in the meantime and work to appoint a research technician to assist the FRD in the field.

#### **Contracted trials**

Fourteen GLP trials were assigned to CROs in 2022. Eleven trials were assigned to CROs in Region 6, including seven vegetable trials with Trevor Jones at AgGro Innovations, Inc., two sesame trials with Brandon Ripple at Ripple Ag., and two trials with Raquel Splichal at Ag Master Research. Three citrus trials were contracted to Dudley Sutherland at Glades Crop Care in Region 3, including one processing that will be conducted in early 2023. The sugarcane trials assigned in 2021 will continue into 2022 and are on target to be completed by the end of the year. Five ethaboxam/citrus trials (2 in region 6 and 3 in region 3) were assigned in 2022 but have not been placed yet.

#### QC of FDBs:

2020 trials – All FDBs have been received. Three FDBs from the previous FRD at Texas A&M Welsaco are still under QC review with a contract reviewer (flutolanil/beet, flutolanil/carrot, flonicamid/onion). The FRD is cooperating with us to complete review of the raw data.

2021 trials – As of mid-October, 63 of 93 FDBs have been received at the regional office. Seventeen of the outstanding FDBs were assigned to the previous FRD in Weslaco; all trials assigned have been replaced with different FRDs or terminated. Three of the FDBs received are from terminated trials. Forty-eight of the 2021 FDBs received in the SOR office have been reviewed and sent to QA. Nine FDBs are still outstanding:

- Homestead, FL has 4 outstanding FDBs including Quizalofop/Hemp, Mefenoxam/Passionfruit and Acetamiprid/Dragon fruit.
- Cheneyville, Louisiana has one Broflanilide/Sugarcane FDB outstanding. Samples for this project have shipped and FDB will be submitted to the SOR office shortly.
- Oviedo, FL has 3 outstanding FDBs regarding Broflanilide/Sugarcane & Flupyradifurone/Sugarcane.
- Cypress, TX has one outstanding FDB for Flumioxazin+Pyroxasulfone/Pepper.
   2022 trials As of mid-October, FDBs for seventeen of the ninety-two trials have been received, one was for a terminated radish trial.

**SOP review:** All SOPs have been reviewed and are up to date for all five Southern Region IR-4 Field Centers.

**Food Crop Product Performance Trials**: Thirteen of thirty Food Crop Performance trials assigned in the Southern Region in 2021 have been received. Several trials are ongoing and will be completed

by the end of 2022. Two trials could not be conducted due to inadequate insect/disease pressure (acetamiprid/dragon fruit and XDE-659/radish). One trial (linuron/carinata) is currently being repeated. Thirty-five Food Crop Performance trials were assigned to SOR researchers in 2022 and research is ongoing. Two reports have been received.

**Environmental Horticulture Trials**: All but five reports for 2021 EHC trials have been received. One trial (European pepper moth efficacy) was reassigned to a researcher at NC State University and will be conducted this year. Sixteen projects were assigned across the region for 2022, including six weed science, four plant pathology, and six entomology projects. As of mid-October, one report has been received.

**Biopesticide/Integrated Solutions trials**: Reports have been received from eleven of the fourteen Biopesticide and Integrated Solutions trials assigned in 2021. Carryover projects wireworms/sweet potatoes, lepidoptera/hemp, varroa mites/honeybees, and Pepino Mosaic Virus/GH Tomato have been completed and reports received. Two trials were terminated for bitter rot/apple due to a late freeze and one trial was restarted and completed in 2022. Sixteen Integrated Solutions projects were assigned in 2022. Five reports have been received and research is ongoing for the remaining trials.

**SOR site visits:** The RFC (Dr. Janine Spies) visited the IR-4 facilities at the University of Puerto Rico, University of Florida Citra, and Texas A&M Uvalde to see ongoing residue and performance research, site inspections, and provide training in 2022. The RFC also facilitated in-field training for new FRD at Uvalde with a contract researcher in Texas. A site visit with the FRD at NC State University will be conducted in October.

**2022 SOR Priority Setting:** The priority meeting for SOR Food Use Program was conducted in person on August 9<sup>th</sup>-10<sup>th</sup> 2022 in Atlanta GA to identify the region's priority needs for 2023. Thirty were in attendance including State Liaison Representatives, Land Grant University Researchers, Commodity Group Representatives, and IR-4 Personnel.

**Training:** The Regional Field Coordinator is providing ongoing training to new personnel at the Texas A&M Uvalde site. The Southern Region RFC and Program Director are also part of the Education & Training Committee and are active in planning for the upcoming National Education Conference in February 2023.

**Extension:** The Regional Field Coordinator attended the Southeast Vegetable Extension Workshop in Asheville, NC July 12-13<sup>th</sup> 2022 to discuss available and needed pest management solutions for southeast specialty crops. The RFC has also been invited to give a presentation on IR-4 support of hemp pest products at the annual Entomological Society of America Meeting in November 2022.

**Grants:** The IR-4 Southern Region currently has three grants supported by the Florida Department of Agriculture and Consumer Services awarded in the amount of approximately \$400,000.

#### 2. Analytical Lab

An Agilent HPLC/MS/MS was purchased and installed in February. A new chemist, Yang Song, started in September 2022. She has B.S. and M.S. degrees in chemistry and experience in HPLC/MS/MS. A new senior chemist will start in mid-November. She has a doctoral degree in environment and chemistry and has over 10 years of experience in pesticide analysis using HPLC-MS. Another chemist position will be advertised and filled by the end of 2022 to complete the team. These new hires make up for the two chemists who left this year. A Thermo Scientific HPLC/MS/MS was transferred to the lab from the Michigan lab, and it should be installed by the end of November. A Thermo Scientific Orbitrap MS has been ordered and should be received in January 2023.

# Submission PR No. F		Do	Pesticide Com		Commodity		Trial			
Date		FRINO	re	sticide		com	iniouity	Year		Number
01/31/22	2	<mark>11752</mark>	Boscalid + Pyraclostrobin			Strav	Strawberry (GH)		9	<mark>4</mark>
04/07/22	2	<mark>11920</mark>	Flu	uazinam		<b>Strav</b>	vberry	<mark>201</mark> 9	9	8
05/09/22	2	<mark>11527</mark>	Bif	f <mark>enthrin</mark>		Coffe	e	<mark>201</mark> 8	8	<mark>9</mark>
06/24/22	2	13075	Pe	nthiopyrad		Avoc	ado	<mark>202</mark> :	1	5
07/26/22	2	12668	Ac	etamiprid		Sunf	lower	2019	9	8
08/23/22	2	10557	Su	lfentrazone		Broc	coli	2018	8	8
09/15/22	2	10556	Su	lfentrazone		Cabb	oage	201	8	8
oing Proje	<i>cts:</i> Th	e followin	g pi	rojects are cur	rently in	progr	ess in the laborat	ory.		
Project Number	Chemi	ical		Сгор	Last Sam Receipt D	ple Status		Anticipated ASR to HQ		icipated Date R to HQ
13103	Spinos	sad		Реа	02/22/22		ASR in preparation		12/2022	
11460	Sulfox	aflor		Mango	01/13/22		ASR in preparation		12/2022	
12815	Linuro	n		Green Onion	10/26/20	)	ASR – final corrections		11/2022	
12720	Clopyr	ralid		Hazelnut	11/13/20		ASR – final corrections		11/	2022
12514	Chlora	ntraniliprole	j	Lettuce	03/22/22		ASR in preparation		11/2022	
13132	Spinet	oram		Sesame	pending		Field Trial Analysis		03/2023	
12752	Fluaza	indolizine		Mint	pending		Field Trial Analysis		08/2023	
13350	Inpyrf	luxam		Cantaloupe	pending		Field Trial Analysis		02/2023	
13351	Inpyrf	Inpyrfluxam		Cucumber	09/08/22	2	Field Trial Analysis	02/2023		2023
13352	Inpyrf	Inpyrfluxam		Squash	pending		Field Trial Analysis		02/2023	
13081	Dimet	henamid-P		Pomegranate	12/14/21		Field Trial Analysis		12/2022	
13242	Ameto Dimet	octradin + homorph		Basil	pending		Method developme	ent	05/2023	
13083	Spido	kamat		Cucumber	3/22/22		Method development		03/2023	
	Submiss           Date           01/31/2:           04/07/2:           05/09/2:           06/24/2:           07/26/2:           09/15/2:           09/15/2:           09/15/2:           13103           12815           12720           12514           13132           12752           13350           13351           13081           13081	Submission Date           Date           01/31/22           04/07/22           05/09/22           05/09/22           06/24/22           07/26/22           08/23/22           09/15/22           09/15/22           09/15/22           109/15/22           09/15/22           13103           Spinos           11460           12815           12720           12714           Chorra           13132           Spinos           12752           Fluaza           13132           Spinos           13350           Inpyrf           13351           Inpyrf           13081           J3083	Submission DatePR 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**Projects and reports finished:** To date for the year 2022, 7 analytical summary reports (ASR) were submitted with two of the projects listed as backlogged.

**Projects with late ASR or backlogged**: The ASR is late for project 1 in the following table due to delayed receipt of certificates of analysis for diuron standards. Projects 2 - 5 are backlogged. Projects 4 and 5 will be transferred to a CRO.

#	Project Numbe r	Chemical	Сгор	Last Sample Receipt Date	Status	Anticipated Date ASR to HQ
1	11396	Linuron + Diuron	Sesame		Linuron complete. Diuron storage stability due on 07/2020. Delayed receipt of diuron certificates of analysis has delayed SS extraction.	Linuron is done. Diuron has storage issue
2	12815	Linuron	Green Onion	10/26/20	ASR – final corrections	11/2022
3	12720	Clopyralid	Hazelnut	11/13/20	ASR – final corrections	11/2022
4	12605	2,4-D	Ginseng	03/26/21	Pending transfer to CRO	
5	09498	2,4-D	Coffee	08/31/21	Pending transfer to CRO	

*Projects with Contract Research Organizations/Transferred to Registrant*: Projects 1 through 5 were placed with Contract Research Organizations. Projects 6 and 7 will be placed with a Contract Research Organization. Projects 1 through 7 were backlogged projects. Project 8 has been transferred to the registrant.

#	Project Number	Chemical	Сгор	Date Shipped to CRO
1	11195	Flutolanil	Pepper (bell)	04/25/22
2	10558	Glufosinate	Sweet Potato	05/24/22
3	11772	Linuron	Bean (succulent)	05/24/22
4	12811	Linuron	Stevia	05/24/22
5	13178	Glufosinate	Sunflower	07/12/22
6	12605	2,4-D	Ginseng	Pending
7	09498	2,4-D	Coffee	Pending
8	13167	Broflanilide	Sugar Cane	09/08/22

#### 3. Quality Assurance Unit

The yearly goals and assigned tasks for 2022 are 84% completed. The average dwell time for Field Data Book audits is 18 days. The dwell time for Analytical Summary Report audits and Final Report audits was 20 days and 10 days, respectively. The QAU audited 53 additional Field Data Books in cooperation with other regional QA staff.

QA items	Assigned	Completed	Completion %
	Or planned		
Final Petition Audits	13	4	31%
Field Data Book Audits	109	117	107%
Field Critical Point Audits	32	32	100%
Lab Critical Point Audits	16	12	75%
Field Facility Inspections	6	7	117%
EPA Audits	0	0	%
Analytical Summary Report Audits	16	10	63%
Contributing Scientist's Report Audits	0	0	%

#### Southern region organizational chart



# Food Program Update: Residue Research - Field and Lab

## Presenter: Dr. Debbie Carpenter







# Food Program October, 2022

Debbie Carpenter

Pest Management Solutions for Specialty Crops and Specialty Uses

## Outline

- New Tolerances 2022
- Submissions 2022
- Crop Group update
- 2022 Residue Research Program (12 year history)
- Outstanding Field Notebooks
- Analytical Lab Summary
- Timeline Update



# 2022 New Uses

# 10 Actions (new uses)

- Buprofezin (43)
- Cyprodinil (68)
- Ethaboxam (25)Fludioxonil (56)
- Glufosinate (144)
- · Isofetamid (71)
- Mandestrobin (2)

- Novaluron (81)
- Pyriofenone (0)
- Tribenuron-methyl (128)

Total = 618 new uses, 546 tolerances



# 2022 Submissions -7

Acifluorfen Bifenazate Cyprodinil Flonicamid Fludioxonil Spinetoram Spinosad

(In addition the following were provided to the registrant for submission)
Boscalid
Fenpyroximate
Pyraclostrobin



# Crop Group Update

- <u>Crop Grouping Initiative</u>
- Final Rule Published Sept 21, 2022
  - Phase VI: CG 15-22, Cereal Grains; CG 16-22, Forage, Hay, Stover and Straw of Cereal Grains; CG 6-22, Legume Vegetables and CG 7-22, Foliage of Legume Vegetables
- Remains to be published (IR-4 work is completed)
  - Phase VII: CG 17, Grass Forage, Fodder, and Hay Group; CG18, Nongrass Animal Feeds; CG1, Root and Tuber Vegetables; CG2, Leaves of Root and Tuber Vegetables and CG9, Cucurbit Vegetables



# **Field Research**

## 2022 Residue Program

- 48 New Studies
- 366 Residue Field trials

2023 Residue Program

- 50 New Studies
- Residue Field trials yet to be assigned.



# **Field Research Program**

Region	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
NER	53	48	46	49	39	27/11*	34	39	36	33	26	23
NCR	65	55	85	68	59	67/4	66	61	39	50	51	51
SOR	74	93	88	76	92	78/19	85	78	90	100	95	82
WSR	181	189	156	171	185	162/16	167	149	164	140	151	129
ARS	80	67	75	54	62	52/15	67	55	49	62	49	42
Canada	59	70	48	41	36	32/3	31	19	29	31	10	6
TOTAL	515	522	498	451	472	418	450	401	407	416	382	333

\*indicates 2016 dropped trials, mostly due to study changes. Other dropped trials not included in numbers reported


# Field Data Notebooks, 10/22

Year	Total	FRD	RFC	QA	HQ			
2020	410	6	8	4	392			
2021	314	22	20	32	240			
2020 trials – many started in 2021 2020, 2021 FDB- should be at HQ								



# Outstanding FDB, 10/22

 Many studies with 2020 trial numbers were not started until 2021. Will have an impact in numbers moving forward.

#### **Notebooks still with FRD**

Year	ARS	WSR	NER	SOR	NCR	CAN	
2020	1	3	0	0	2	0	
2021	1	10	0	9	2	0	
Notebook	s with RF	С					
Year	ARS	WSR	NER	SOR	NCR	CAN	
2020	0	0	1	7	0	0	
2021	0	3	3	10	4	0	



# **Analytical Labs Summary**

- <u>National Lab Director</u>
- Michigan lab is closed. Remaining analytical summary reports and contributing scientist reports to be completed in the next 6 months. Samples from studies which were not completed were shipped to contract labs or other IR-4 labs for analyses.
- Visited Gainesville, FL and Tifton, GA labs.
- Meeting regularly with lab directors frequency varies depending on need.
- Analytical Backlog still exists but has dropped. Unfortunately, there are no quick fixes. (More details another agenda item)
- Discussion at Analytical Chemists Advisory Committee (ACAC) on backlog policy moving forward.
- We must be successful in order to meet timelines, and make submissions in more limited windows. Identification of barriers and solutions will be an ongoing process.



# **Timeline Summary**

- Field databooks from 2020 and 2021 are not all at HQ. 2022 books should be coming in
- Analytical Backlog still exists but has dropped. Many studies contracted
   out
- About forty studies in final report processing (Writing/QA etc)
- More than 150 reports that are TBD for submission. Most are signed and ready to submit.
- Many cannot be submitted as a safety finding cannot be made



# Thank You!



### Food Program Update: Quality Assurance

#### Presenter: Dr. Johanna Mazlo







# Quality Assurance Report IR-4 PMC Meeting Oct 2022

Pest Management Solutions for Specialty Crops and Specialty Uses

# **Overview**

- QA Update
- 2022 Audit/Inspection Update
- eQA/eDocs Update



# Compliance

- New NM FRD
  - WR QA providing training to new NM FRD
- New Uvalde, TX site and FRD
  - SOR QA providing training
- New Field CROs
  - HQ assisting SOR and NCR Regions



# QA Update

### <u>General</u>

- Consolidate SOP Databases
- Revised the GLP Booklet
- Assisting with presentations at NEC
- Conducted GLP training for 5 people

### Minor Food Use Foundation

- Assisting with protocol audits
- Performing field in-life inspections



# **QA Update**

### Inspections/Audits

- S. Muir is assisting Michigan Lab with analytical raw data and analytical summary report audits
- J. Forder is assisting with the NCR field in-life inspections
- HQ is assisting SOR with audits/inspections when needed
- WR and SOR assisting HQ with report and notebook audits



# 2022 Audit/Inspection Update

Number of Audits Completed by QA Jan 1 - Oct 10, 2022





# eQA/eDOCS Update

- Conducted training for 3 users in 2022
- 334 analytical methods in eDOCS
- 122 certificate of analysis in eDOCS
- Managed approximately 496 new audit packets in the first half of 2022



### Food Program Update: Product Performance

#### Presenter: Dr. Venkat Pedibhotla







### **2023 Field Program Update: Product Performance**

IR-4 Project Mgmt. Committee Meeting Oct 27, 2022 Venkat Pedibhotla

Pest Management Solutions for Specialty Crops and Specialty Uses

### 2023 Food Use Field Trial Budget: Residue Program

	\$14.5 M	
	(2022)- <u>July</u>	
Funding Source	Trial Numbers	
NIFA (state)	321	
ARS	70	
Canada	12	
CDFA	28	
Cost per trial	\$7,777 🔦	Includes indirect costs (\$7000 + IDC)
Total	431 🔦	Includes "A "Priorities (336), Upgrades (60),
Budget (NIFA)	\$2,500,000	



### 2023 Residue Program: "Red A" Trials and Upgrade Studies

- Trials already paid for in 2022 that are assigned for 2023 Field Season: 29
- Trials that need an FRD and will be paid from 2023 budget: 12
- Received 10 PUP and Reg Upgrade requests
  - Upgrade projects selected: 8 (only 4 have a residue component; 30 trials)
  - Joint projects with Canada (upto): 6



### 2023 Performance Research Program

- The Food Use Performance Program has been allocated \$700,000 in 2023, which will be used for:
  - to complete performance data needs for "committed" projects in progress (to add new uses to labels supported by prior year IR-4 residue studies/established EPA tolerances): 36
  - to fund new "H+" priority projects: 17
  - to initiate performance research needed to support new residue studies in the 2023 research plan: **35**
- Of the 8 upgrade proposals, 7 projects had an E/CS component
- Some MFGs (e.g.: BASF and Corteva) have committed to providing financial support



### Food Program Update: Integrated Solutions

#### Presenter: Dr. Venkat Pedibhotla







### **2023 Program: Integrated Solutions**

### IR-4 Project Mgmt. Committee Meeting Oct 27, 2022 Venkat Pedibhotla

Pest Management Solutions for Specialty Crops and Specialty Uses

### **2023 Integrated Solutions Program**

	2021 Program	2022 Program	2023 Program
Total Budget	\$452,000 <b>*</b>	\$418,500 <sup>*&amp;</sup>	\$650,000
Budget for new projects	\$283,500 <b>*</b>	\$225,500 <mark>*</mark>	\$480,000 (estimate)
Budget for carryover projects	\$168,500 <b>*</b>	\$193,000 <mark>*</mark>	\$170,000 (estimate)
New projects funded	10	12	18
Carryover projects	7	10	10
Total trials conducted*/ (CDFA funded)	41 (3)	61 (6)	TBD

\* Does not include IDC& does not include \$59K from MFG



### Environmental Horticulture Program Update

#### Presenter: Dr. Cristi Palmer





#### **IR-4 Environmental Horticulture Update**

During 2022, the Environmental Horticulture Program compiled and posted 13 summary reports to date based on the high priority projects conducted through 2021 (Figure 1): The summary reports include: Beetle, Borer, Weevil & White Grub Efficacy Summary - 2022, Bentazon Crop Safety - 2022, Clopyralid Crop Safety - 2022, Dimethenamid-p Crop Safety - 2022, Dithiopyr Crop Safety -2022, F6123 Crop Safety Summary - 2022, Indaziflam Crop Safety - 2022, Mefentrifluconazole Crop Safety Summary - 2022, Oxadiazon Crop Safety - 2022, Pythium Efficacy - 2022, S-Metolachlor Crop Safety - 2022, SP2700 Crop Safety - 2022, and Thrips Efficacy Summary - 2022.

No new registrations have been received to date during 2022 for products supported by IR-4 data. However, data contributed to the release and launch of Postiva, and several uses of V-10433 have been discontinued for further development based on IR-4 efficacy results.

#### Figure 1. EHC Program Data Summaries – 2022 Interim







#### **Outstanding Data**

For 2021, we have received 65% of the planned research with 27% outstanding. For 2020, we have received 77% of the planned research with 7% outstanding and 3% delayed. For 2019, we have received 89% of the planned research with 6.5% outstanding or delayed (Table 1).

#### Figure 3. EnvironHort Program - Crop Impact - 2022 Interim



			NCR					NER				SOR WSR					USDA ARS								
Year	# Trials Planned	Complete	Ongoing	Delayed	Cancelled	# Trials Planned	Complete	Ongoing	Delayed	Cancelled	# Trials Planned	Complete	Ongoing	Delayed	Cancelled	# Trials Planned	Complete	Ongoing	Delayed	Cancelled	# Trials Planned	Complete	Ongoing	Delayed	Cancelled
2022	65	25%	75%	0%	0%	73	27%	60%	0%	12%	96	9%	66%	0%	25%	136	0%	97%	0%	3%	105	17%	60%	0%	23%
2021	79	75%	22%	0%	4%	86	78%	20%	0%	2%	181	67%	20%	0%	13%	159	43%	53%	0%	4%	186	68%	20%	0%	12%
2020	82	88%	0%	2%	10%	101	79%	14%	0%	7%	194	76%	1%	0%	23%	185	68%	17%	0%	15%	165	72%	1%	0%	27%
2019	79	86%	0%	0%	14%	113	99%	0%	0%	1%	235	93%	1%	0%	6%	185	72%	16%	5%	6%	153	90%	2%	0%	8%
2018	111	72%	1%	0%	27%	136	90%	5%	0%	4%	207	82%	1%	0%	17%	156	74%	4%	0%	21%	132	71%	2%	0%	27%
2017	107	86%	1%	0%	13%	110	98%	0%	0%	2%	232	86%	0%	0%	14%	200	87%	1%	0%	13%	148	78%	0%	0%	22%
2016	107	96%	0%	0%	4%	134	88%	0%	0%	12%	181	75%	0%	0%	25%	177	84%	1%	0%	15%	219	79%	0%	0%	21%

#### Table 1. Number of Planned Trials and Percent Completed by Region, October 13, 2022

#### 2023 Research Program

For 2023, the EHC program will have a research funding target of \$650,000. Initial discussions with the RFCs indicated a potential base increase of approximately 10% would cover the increasing research costs. With 11.11% for IDC, the calculated proposed amounts are \$1,222 per crop safety trial and \$1,556 per efficacy treatment. Note: this is just for planning purposes and we may elect to round up or down.

With these rates and a budget of \$650,000, there is a little under \$58K to broaden the research program. Once the researchers select their interests for 2023 and we develop a plan the overall distribution among disciplines and regions may shift.

Research Category	2022 Reimbursement Rate	Proposed 2023 Base Reimbursement Rate	Proposed 2023 Reimbursement Amount (Base + IDC)
Crop Safety Trial	\$1,000	\$1,100	\$1,222
Efficacy Treatment	\$1,250	\$1,400	\$1,556

#### Table 2. Proposed Research Reimbursement Rates

Research Area	NCR	NER	SOR	WSR	Total
Entomology	\$46,680	\$17,116	\$31,120	\$42,520	\$137,436
Pathology	\$4,888	\$31,120	\$63,796	\$59,226	\$159,030
Weed Science	\$20,774	\$38,110	\$78,892	\$46,664	\$184,440
Regional	\$31,120	\$24,896	\$31,120	\$24,114	\$111,250
Additional Funds	\$11,538	\$8,758	\$10,072	\$27,476	\$57,844
Proposed Targets	\$115,000	\$120,000	\$215,000	\$200,000	\$650,000

#### Table 3. General Concept of 2023 Research Plan Based on 2022 Research Distribution

#### **Invasive Species**

*Box Tree Moth.* Data have been developed demonstrating efficacy for six active ingredients amended to rearing media.

#### Flat-headed Borers (TSU Lead Institution)

Awaiting data receipt to incorporate findings into our public database repository.

### Program Update: Biopesticide Regulatory Support

#### Presenter: Dr. Michael Braverman







# The IR-4 Biopesticide and Organic Support Program Update. PMC Meeting October 2022 Michael Braverman Bill Barney Philip Moore

Pest Management Solutions for Specialty Crops and Specialty Uses

In review.....

Lepidext/ InsterusHz Pupae and InsterusHz Moths

- Helicoverpa zea nudivirus-2 strain 901R71

MOA virus induces sterility

Provided EPA with responses to questions concerning registration in conjunction with University of Kentucky



• Chestnut Blight resistant American chestnut.

Darling 54 Chestnut is transgenic – Chestnut blight is caused by oxalic acid which damages tree tissue. Expression of Oxalate Oxidase gene from wheat results in enzymatic degradation of oxalic acid and tree damage is averted.

Working with State University of NY-Syracuse



FourSure- Mixture of 4 isolates of atoxigenic Aspergillus flavus.

Arizona Cotton Research and Protection Council- Manufacturer.

Texas Corn Producers Board- Registrant.

Answered questions by EPA concerning the manufacturing process.



AF36 Prime- Organic formulation of AF36 to reduce aflatoxin producing Aspergillus flavus.

Proposed changes to existing tolerance exemptions has been submitted.

Arizona Cotton Research and Protection Council.



Submitted Ready to Use homeowner formulation

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# **EPA Registration Packages Under Development**

Noni - extract of fruit and leaves for disease management. Sugested label revisions and data volumes have been prepared and are very close to submission.

Karanja/Pongamia oil- Nut extract for insect control



# EPA Registration Packages Under Development

Label revision suggestions provided for potassium salts of fatty acids as a mushroom farm disinfectant. EPA determined that active ingredient falls under the

Antimicrobials Division.

Documents are being prepared for the pre-submission meeting.





# **EPA Registration- Other**

IR-4 advised researcher from Brigham Young University on data to substantiate that their varroa mite- phage product should fall within EPA regulatory jurisdiction. Successfully met requirements to have registration fall under EPA purview.





# **EPA Registration- Other**

Vitoxumen –product for leaf spots and powdery mildew. Request has been made to EPA determine active versus inactive ingredient classifications.




# **EPA Registration - Other**

IR-4 is working with the New Mexico Consortium on development of peptides and transgenic citrus for management of citrus greening, funded by NIFA. Provided an update on all greening related projects at the California Research Citrus Research Board Antimicrobial Summit.





# **New Regulatory Project**

Alum- Management of Fire blight on pome fruit.

Request- Tianna DuPont- WSU

Working with registrant on Biochemical Classification documents





# **Active Ingredient Transfer**

Oxalic acid for varroa mite management. Based off registration transfer from USDA to industry.







In cooperation with USDA, Biopesticide Regulatory training was provided to Borlaug Scholars.





## Thank You

# Michael Braverman Bill Barney Philip Moore

BIOCHEMICALS

MICROBIALS

BIOTECHNOLOGY



## Analytical Laboratory Analyses & Reporting Backlog

### Presenters: Dr. Debbie Carpenter & Dr. Matt Hengel







# Analytical Analyses and Reporting Backlog October, 2022

Matt Hengel and Debbie Carpenter

Pest Management Solutions for Specialty Crops and Specialty Uses

### Outline

- Background
- Addressing Challenges
- Updated Backlog Policy
- Current Backlog
- Moving Forward



# **Backlog Background**

- Matt presented a summary at the 2021 PMC meeting
  - Had been making progress 14 projects backlogged in Sept 2019
     (using previous definition of backlog)
  - Covid-19 closed or delayed some labs
  - July 2021, PMC asked the lab coordinators to revisit the 2018 efficiency study and provide a plan to eliminate the backlog by July 2022. Final report submitted in Sept, 2021
  - Decision to shut-down the Michigan lab made in October, 2021
  - Backlog reports not provided during March, 2022 and July 2022, as many studies moving internally or to contract labs



### **Backlog Background**

### **Challenges Causing Increased Backlog**

- Changes in lab personnel
- R&D/Method validation issues
- Lingering inefficiencies
  - Small analytical sets
  - Reliance on time-consuming procedures
  - ASR preparation
- Complexity of projects
  - Difficult analytes
  - Multiple active ingredients
- Instrumental limitations
- Effects from COVID



# **Addressing Challenges**

- Path Forward Team
- Met with the lab directors and identified concerns
- No procedure to reevaluate work assignments. The lab is expected to solve the issue. Recommendation to develop a process to reallocate work.
- National Lab Director appointed shortly after July, 2022 PMC meeting to maintain oversight of analytical work, and provide a path for review and reassignment.
- <u>PMC</u>
- Updated backlog policy.



# **Addressing Challenges**

- <u>National Lab Director</u>
- Meeting with each lab on a regular basis
  - Challenges are different at each lab
  - There is not one overall solution
  - Some analyses such astriazole analyses, may be better handled by an experienced contract lab.
  - Need to addresss compounds that no contract lab will take, such as additional propiconazole studies (common moiety method).
  - Must be flexible and able to address opportunities there may be limited windows for submission
- <u>Contracting Studies</u>
- Thirty-four studies currently being analyzed at contract labs



# **Current Backlog**

- Using new definition
- If the signed Analytical Summary Report (ASR) is not received at HQ one year after the last sample arrives at the lab, the study is backlogged.
- Addresses the situation where the analyses are completed, but the ASRs are extremely delayed.
- Total number of studies backlogged 12
  - Eight of the 12 analyses are done and ASRs are being written/audited
- Prior to Covid
  - <u>10/19 14 backlogged studies</u>
  - <u>10/21 38 backlogged studies</u>



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				ASR Due		Initial EPA	Revised EPA			
PR	Chemical	Matrix	Trials	Date	ASR Est.	Target Sub.	Target Sub.	Note	Late ASRs	Backlogged
11963	Propiconazole	Pea (Dry)		5 10/18		10/19	2/23	Starting on meta. Covid Delay		1

Although not yet backlogged, LRD has concerns about additional propiconazole studies (PR12554, 12556, 12560) becoming backlogged due to time needed for completion. 5

Total trials backlogged

YAR

				ASR Due		Initial EPA	Revised EPA			
PR	Chemical	Matrix	Trials	Date	ASR Est.	Target Sub.	Target Sub.	Note	Late ASRs	Backlogged
11690	Dimethomorph + Ametoctradin	Pepper (Bell & Non-Bell, GH)		4 12/20		4/21	10/21	Analysis complete, working on ASRs		5
11691	Dimethomorph + Ametoctradin	Tomato (GH)		5 1/21		4/21	10/21	Analysis complete, working on ASRs		
12570	Quinclorac	Apple		12 1/21		10/21		Analysis complete, working on ASR		
12571	Quinclorac	Pear		7 10/20		10/21		Analysis complete, working on ASR		
10697	Uniconazole	Cucurbit veg		11/21		10/22	11/22	Submitted to QA on 10/11. QA estim	ates 3-4 week	s to complete
		Total trials backlogged		28						

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CAN			ASR Due		Initial EPA	Revised EPA			
PR	Chemical	Matrix	Date	ASR Est.	Target Sub.	Target Sub.	Note	Late ASRs	Backlogged
08552	Flonicamid	Cantaloupe	12/20		10/21	02/23	Trans. From MIR, ASR in QA		4
08553	Flonicamid	Summer Squash	11/20		10/21	02/23	Trans. From MIR, ASR in QA		
09907	Flonicamid	Sugar Beet	4/22		10/21	02/23	Trans. From MIR, In Progress		
12293	Flonicamid	GH Basil	1/21		10/21	02/23	Trans. From MIR, ASR Prep.		

0

Total trials backlogged

FLR										
				ASR Due		Initial EPA	Revised EPA			
PR	Chemical	Matrix	Trials	Date	ASR Est.	Target Sub.	Target Sub.	Note	Late ASRs	Backlogged
12720	Clopyralid	Hazelnut		4 11/21		10/22	12/22	In QA		2
11396	Linuron+Diuron	Sesame (Seed)		10/17		10/16	TBD	Awaiting SS, Waiting on CoA and c	lecision on wheth	her this can be submitted.
12815	linuron	green onion		4 11/21		10/22	4/23	In QA		
		Total trials backlogged		8						

12

								Total Trials Backlogged	Total Late ASRs	Total Backlogged
									41	12
CRO										
				ASR Due		Initial EPA	Revised EPA			
PR	Chemical	Matrix	Original Lab	Date	ASR Est.	Target Sub.	Target Sub.	Note		
0408		Coffice		0/22		10/22	4/22	haina tuanafa wad		
9498 12005	2,4-D	conee	FLR(Adpen)	8/22 4/22		10/22	4/23	being transferred		
12605	2,4-D	ginseng	FLR(Adpen)	4/22		10/22	4/23	being transferred		

12564	abamectin	Miracle Fruit	MIR(GPR)	9/22	10/22	2/23
12757	abamectin	sugar beet	MIR(GPR)	6/22	10/22	2/23
11824	Asulam	Clover	Symbiotic (G	6/21	10/21	12/22
10827	azosystrobin	pomegranate	MIR(GPR)	12/21	4/22	12/22
12538	benzovindiflupyr and difenoconazole	stevia	MIR(Adpen)	06/21	10/21	12/22
13411	cycloate	garden beet	GPR		04/24	04/24
13409	cycloate	spinach	GPR		04/24	04/24
12994	Cyproconazole	Orange	Adpen		10/22	05/23
12995	Cyproconazole	Grapefruit	Adpen		10/22	5/23
13094	difenoconazole and azoxstrobin	spinach	TIR (Adpen)	3/23	10/23	10/23
12220	diquat	grape	MIR(GPR)	10/20	10/21	10/23
12675	emamectin	Lima Bean	MIR(GPR)	11/21	10/22	10/22
12903	Flutolanil	Radish	YAR(GPR)	02/22	10/22	4/23
12904	Flutolanil	Tomato	YAR(GPR)	10/21	10/22	4/23
11195	Flutolanil	Pepper, Bell and Nonbell	FLR(GPR)	12/21	10/22	4/23
9520	Flutolanil	Garden Beet	MIR(GPR)	5/22	10/22	4/23
12902	Flutolanil	Carrot	MIR(GPR)	6/22	10/22	4/23
12933	Glufosinate	Kiwifruit	CAR(Adpen)		10/23	4/23
9493	Glufosinate	Coffee	MIR(Adpen)	10/22	10/21	4/23
10558	Glufosinate	Sweet Potato	FLR(Adpen)	12/21	10/22	4/23
11148	Glufosinate	Sesame	Adpen		10/24	10/24
13178	Glufosinate	Sunflower	FLR(Adpen)	02/23	10/23	4/23
13330	Glufosinate	Dragon Fruit	Adpen		10/24	10/24
13408	halosulfuron	stevia	Adpen		10/24	10/24
11772	Linuron	Bean (Edible podded and succule	e FLR(GPR)	9/22	10/22	4/23
12811	Linuron	Stevia	FLR(GPR)		10/22	4/23
12816	Linuron	Dry bulb	GPR		10/25	10/25
12810	Paraquat	Stevia	MIR(GPR)	6/22	10/23	10/23
12554	Propconazole and Fludioxonil	Avocado	TIR (Adpen)	06/21	10/21	2/23
12556	Propiconazole	Dragon Fruit	TIR (Adpen)	11/21	10/22	2/23
12560	Propiconazole	Passion Fruit	TIR (Adpen)	12/21	10/21	2/23
12544	Ziram	Olive	Symbiotic (G	i 02/21	10/21	TBD

**Backlogged Projects** 

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# **Moving Forward**

- Addressing Backlog
- Will continue to address challenges
- LRDs have estimated the number of studies they can accept and not increase the backlog.
- Proposal for one more year of contract lab work
- Managing lab capacity
- There is a backlog now, but it is being addressed.
- Ramp up personnel in CA and FL labs but do so with an eye to the future, and potential for decreasing residue studies (next agenda item)
- Also, consider resources to send some difficult studies to contract labs, moving forward.



# Thank You!



## IR-4 Laboratory Guidance Document





### **IR-4** Laboratory Guidance Document



Dr. John Wise Chair, Project Management Committee (Date) Dr. Douglas Buhler Chair, Administrative Advisors (Date)

Dr. Jerry Baron Executive Director, IR-4 (Date)

Version 1.2 10/2022

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#### **IR-4** Laboratory Guidance Document

#### Introduction

This Guidance Document is designed to provide consistency and to facilitate communication between the IR-4 Laboratory Research Directors (LRDs), Regional Directors (RDs, management), Quality Assurance Units (QA), and the IR-4 Study Directors (SDs). This document will serve as a resource for all facets of IR-4, through designating responsibilities and providing guidelines for implementation of procedures, to ensure that all studies conducted by IR-4 meet EPA Good Laboratory Practice (GLP) regulations. Once this document is approved by the IR-4 Project Management Committee, it becomes an official policy document for the conduct of studies across all IR-4 laboratories.

The main areas of attention in this document include personnel responsibilities in relation to IR-4 residue work; definitions and a significant section regarding lab operations with emphasis on sample handling and storage; sample processing; analytical method validation; sample analysis and extract storage; storage stability studies; communication with the study director; and the Analytical Summary Report. This document will also provide guidance for contract labs and will be used as a training tool with regard to IR-4 analytical work.

Please Note: Paragraphs formatted with *italics* are taken directly from the "Operational Handbook of IR-4" Version 8.0

Original Committee members:

Daniel Kunkel, IR-4 Headquarters, Associate Director (Chair) Debbie Carpenter, IR-4 Headquarters Matt Hengel, Western Regional Laboratory Coordinator, University of California, Davis Wayne Jiang, North Central Regional Laboratory Coordinator, Michigan State University Christopher Lam, North Eastern Regional Laboratory Coordinator, Cornell Jim McFarland, Western Region QA Coordinator, University of California Davis Marion Miller, Western Region Director, University of California, Davis Jau Yoh, Southern Regional Laboratory Coordinator, University of Florida

Review Conducted by Analytical Chemists Advisory Committee (AC-AC):

Debbie Carpenter, IR-4 Headquarters Tamara Snipes, USDA-ARS, Tifton, GA Matt Hengel, Western Regional Laboratory Coordinator, University of California, Davis Alex McFall, Western Regional Laboratory Analyst, University of California, Davis Sherita Normington, Western Region Assistant QA Coordinator Officer, University of California, Davis Todd Wixson, USDA-ARS, Yakima, WA Sue Erhardt, North Central Regional Laboratory Coordinator, Michigan State University Yavuz Yagiz, Southern Regional Assistant QA Coordinator Officer, University of Florida Gail Mahnken, Southern Regional Laboratory Coordinator, University of Florida

#### Responsibilities

**IR-4 Headquarters (HQ):** Staff coordinate the program among the regions and USDA-ARS, and provide functions including:

- 1) *GLP oversight including Study Director and Quality Assurance.*
- 2) Prepare research protocols.
- *3) Review, analyze, and archive raw data.*
- 4) Prepare, review, and submit petitions to establish and maintain tolerances.
- 5) Interact with EPA and cooperating registrants.
- 6) Maintain a database to track projects.
- 7) Oversee Manufacturer and Contract Laboratories

The HQ office is administered by an Executive Director (Management Representative).

**Regional Research Programs:** Each Regional Program is administered by a Regional Director who has overall responsibility for GLP compliance at the regional level. The Regional Director has Regional Laboratory, Field and QA Coordinators who work with state scientists within their region and provide them with research support.

- 1) Regional Laboratory Coordinator (RLC): Oversees and coordinates regional and some contract laboratories, conduct analyses to determine test substance residues on crop samples.
- 2) Regional QA Coordinator: Monitors the field and laboratory operations in each region to assure that they are meeting GLP requirements.

**ARS Programs Research Personnel:** The ARS Program is administered by an ARS National IR-4 Director who has overall responsibility for GLP compliance at the ARS Facilities. The ARS National IR-4 Director supports USDA-ARS residue laboratories and scientists (Laboratory Research Directors) that conduct analyses and determine test substance residues on crop samples. QA for these facilities is provided by other IR-4 QA and contract QA.

#### Definitions

#### GLP Definitions

*Archives*: All raw data developed by the IR-4 program will be archived as required under 40 CFR 160.190. Archivists will be designated by the Executive Director for IR-4 HQ and an index of archived laboratory data from the RLCs will be sent periodically to the HQ Archivist.

**Protocol**: The regulations require an approved written protocol for each study. The SD is responsible for the development of the protocol, which is prepared in accordance with the information as outlined under 40 CFR 160.120. Protocols will contain both the field and laboratory phases of each study and detail the proposed sites for the research. The regulations require that the protocol be approved by the SD and sponsor by signing and dating. The Project Management Committee (PMC, sponsor) delegates approval of the protocols to the Executive Director or his/her designee.

**Quality Assurance Unit**: The QA unit will conduct facility inspections at all IR-4 test locations and conduct critical phase inspections of each study at intervals adequate to ensure study integrity. All QA audits from facility and critical phase inspections will be provided to the appropriate SD and Management (IR-4 Executive Director or designee) for review, appropriate response and corrective action, and signature. Those reports that require action may be forwarded to the Regional Directors as necessary. The HQ QA Manager will maintain a copy of the Master Schedule for all IR-4 studies.

**Sponsor**: The sponsor is the person who initiates and provides financial or other support for a study. The IR-4 Project Management Committee acts as sponsor for IR-4 studies and has designated the Executive Director as sponsor for the purposes of GLP. The Executive Director may delegate individuals to act as Sponsor Representative to sign the protocol, etc.

**Study**: An experiment conducted at the IR-4 Research Facilities (or contract facilities) to determine the magnitude of the residue (test substance) in or on a given commodity to provide the sponsor with residue chemistry data to support a pesticide tolerance.

**Study Director**: The SD represents the single point of study control, and is responsible for the overall conduct of the study. The accountability provided by a single SD (who plans, oversees, and controls the interpretation, analysis, documentation, and reporting of the results) is one of the most important aspects of the GLP standards. For IR-4 studies, the SD oversees the research of FRDs and LRDs who are responsible for carrying out the field and analytical duties. The RLCs, RFCs, and ARS National IR-4 Director assist the SDs in meeting their responsibilities.

**Testing Facility**: IR-4 HQ serves as the testing facility for the purposes of GLP. The Executive Director will represent testing facility management, and the SDs and QAU will report to the Executive Director.

#### IR-4 Definitions

**Laboratory Research Director (LRD)**: A person with sufficient training and experience to be able to conduct the laboratory analysis and appoint adequate personnel to assure this function will be carried out for all studies. The LRD will report all deviations from the protocol or the SOPs to the SD.

**Quality Assurance Coordinator (QAC) and Officers (QAO)**: These persons, designated by the Regional Director or Executive Director, report the findings of their audits to the SD, to the Executive Director (Testing Facility Management) and to other research associated personnel. The QAC/QAO will monitor studies, including facilities, equipment, personnel, methods, practices, records and controls, for compliance with GLP. The QAU reviews the final report to assure that it accurately reflects the raw data of the study and prepares and signs a Quality Assurance Statement noting dates the inspections and findings were reported to the SD and SD Management.

*Regional Laboratory Coordinator (RLC)*: This person assigns laboratory-testing sites within his/her region for residue analyses conducted by the regional laboratory and private contract laboratories.

#### References

Good science is critical to successfully completing the analytical portion of any study. However, it is just as important for SDs and LRDs to be aware of the impact of the following references.

These references provide a framework for all IR-4 study related work:

Operational Handbook of IR-4 (current version).

Good Laboratory Practice Standards, 40 CRF Part 160, August 17, 1989.
Food and Feed Crops of the United States, Markle et al. 1998.
OPPTS 860 Residue Chemistry Test Guidelines including:
OPPTS 860.1000, Background
OPPTS 860.1340, Residue Analytical Method
OPPTS 860.1380, Storage Stability Data
OPPTS 860.1500, Crop Field Trials
OPPTS 860.1520, Processed Food/Feed

#### Laboratory Operations

#### Standard Operating Procedures

The development of a comprehensive set of SOPs that address the development, monitoring, and reporting of data from specific study phases conducted at the research test site is the responsibility of each LRD at that site.

RLCs and the ARS National IR-4 Director and/or ARS Facility Research Leader (or designee) provide guidance for and approval of SOPs. This guidance document will take precedence over SOPs and they may therefore require modification after this document is put in place or updated.

#### Standards and Solutions

**Obtaining Standards**: Current IR-4 policy requires that all reference standards are characterized under GLP before the completion of the study (signed by the study director), but preferably before the start of analysis. Due in part to the large number of registrants IR-4 works with, obtaining GLP standards can be difficult. It is therefore recommended that the LRD initiate discussions with the cooperating registrant as soon as possible after initiation of the study. If standards cannot be acquired in a sufficient time frame, then the LRD is directed to contact the SD or Registrations Manager at IR-4 HQ to seek assistance in obtaining standards. The purity value stated on the Certificate of Analysis should be used for all calculations of the standard concentration. In cases where a non-GLP standard is required to complete the analytical phase of the project, IR-4 management, in concert with the SD, will be contacted for approval.

**Characterization of Substances**: Analytical Reference Standards: Documentation of the characterization of the standards used in the analytical trial should be obtained by the Laboratory Research Director and a copy sent to the SD along with the Analytical Summary Report of the trial.

**Reagents and Solutions:** The GLP standards require all reagents and solutions in the laboratory area to be labeled to indicate identity, titer or concentration, storage requirements, and expiration date. This requirement can be difficult to accomplish when there is a mix of IR-4 and non-IR-4 personnel utilizing the laboratory and sharing the chemicals or when the chemical is stable and has a long shelf life. The following is to be used as a guide for meeting the labeling requirement:

- 1) Identity can be the common name(s), CAS number or chemical name of the reagent or reagents in solution or mixture.
- 2) If the labeling of the original container provides the identity, concentration, storage requirements (if any) and expiration date or shelf life, no additional information is needed. If the labeling does not contain this information, than a supplemental label containing the missing information should be permanently attached to the container where it does not obscure other critical information.
- *3)* All mixtures of chemicals prepared by laboratory personnel for use in IR-4 trials should have labels with the information as shown in 2 above.
- *4) Expiration dates for stable chemicals should be determined by the Laboratory Research Director following methods outlined in their SOPs.*
- 5) Adequate precautions should be taken to avoid contamination of reagents and solutions so that purity of their content is preserved.

**Standard Solution Stability:** If no stability information is available from the registrant or within the reference method, in-house stability data must be generated. The data generated must be valid for the solvent composition and storage conditions used, and analysis must be repeated if those conditions change. IR-4 will define a solution as stable for the interval measured if there is  $\leq 10\%$  difference between a minimum of five replicate injections each of fresh and aged solutions. Labs are encouraged to reach out to other regions to see if they have any valid stability data to share.

#### Sample Receipt, Processing and Storage

Maintaining a representative sample and maintaining sample integrity are the important considerations to keep in mind during sample receipt storage, processing, and extraction/analysis (see Attachment 1).

**Sample Receipt**: Samples are generally received from a carrier such as ACDS or Fed Ex. For receipt of samples from an overnight air express carrier such as FedEx, it is critical that the lab know a shipment is in transit. If the shipment is not received as expected, laboratory personnel will follow-up to track the shipment.

When samples are received, laboratory personnel must check the condition of the samples to ensure they were kept frozen as well as verify receipt of the correct samples by checking sample identification and matrices against the shipping papers. Unique laboratory numbers are assigned and recorded with cross reference to field sample IDs. Shipping forms (Part 8B) received with the samples may be used to record the cross reference or custom forms may be used. At a minimum, custom forms must contain the same information required on the Field Data Book (FDB) forms, and must show that protocol conditions have been met (for example, acknowledging that forms 8B and 8C were shipped with the samples). The SD, RFC, and FRD are notified when samples are received, and any problems with the shipment are to be brought to their attention.

**Sample Processing:** For information regarding sample preparation, size, and homogeneity (for details, see Attachment 1). Great care is taken in the field to collect samples from all areas of the plot, so that the sample is representative of the whole field. When processing the samples, the entire sample must be processed and thoroughly mixed. If this is not possible, guidance from the Study Director and/or Registration Manager must be sought. Sample integrity is generally maintained by processing samples with dry ice. The study analytical data must document how representative samples were prepared.

**Storage:** Storage of samples is in accordance with the protocol requirements and SOP's. To prepare for the loss of power or a freezer failure, consideration should be given to the availability of backup freezers and dry ice, generators (power backup) and spare parts. Temperature monitors, alarms, and established lines of notification are methods for providing the LRD with information on the temperature of the storage areas. For a longer-term power outage, samples may need to be transported to another location to maintain sample integrity. These samples represent a significant investment and their integrity should be safeguarded accordingly.

#### Working Method, Validation and Modifications

IR-4 methods are provided initially by the cooperating registrant (reference method). Given the number of commodities IR-4 works with, it is likely that each method will require some modification to work effectively. It should be noted that once these methods are modified for other commodities, these methods become the enforcement method for EPA. Significant changes to the initial working method may trigger an independent laboratory validation (ILV, OPPTS 860.1340), and thus are not encouraged unless needed to develop an adequate method for the specific matrix. The LRD should discuss "significant changes" with the SD and/or National Laboratory Director (NLD)<sup>1</sup> prior to making the change. During the course of method development, LRDs must be mindful of time and resources spent on a particular project. As part of the Backlog Response Policy (Attachment 2), a series of checkpoints have been developed to help keep projects on track and to identify potential solutions on difficult projects before falling into a backlogged status. The checkpoints are designed to keep all relevant groups (AC-AC, NLD and SD) informed of the method development progress such that ideas and experiences from the greater IR-4 community can be leveraged.

**Other considerations**: Approval for significant changes to the reference method must be requested from the SD, NLD and registrant. Depending on the number of proposed changes and familiarity with the method, the laboratory should keep in mind that such changes will need to be dealt with well in advance of analysis, so that when the samples are received analysis may proceed without delay.

**Extraction**: In most cases the extraction solvent and procedures must remain the same as the reference method. Sample weights and extraction volumes must stay proportional to the original method. However, in some cases, the ratio of extraction solvent to sample weight can be increased to improve extraction efficiency (e.g., extracting high  $K_{ow}$  pesticides from high fat/oil content crops). Exchange of equipment can be made only when the equipment is carrying out the same basic function as noted in the method (for example tissuemizer and polytron). Other substitutions (from tissuemizer to shaker tray) should be discussed with the registrant providing the reference method and in consultation with the SD and the NLD at HQ.

<sup>1</sup> The role of the NLD is to provide greater consistency from IR-4 HQ by utilizing personnel with greater chemistry experience.

**Clean-up steps**: EPA has noted that as long as the extraction procedures are the same, clean-up steps maybe added or removed. It should also be noted that removing an excessive number of steps may result in excessive wear and tear on the column and instrument. The impacts of removing clean-up steps from the method, such as matrix enhancement effects, must be evaluated as chromatography must be clean and sharp. Modifications should be discussed with the SD, NLD as well as the registrant so they can share their experiences. Chemists should also consider cost and time relating to removal of cited clean-up steps.

**Detector**: Using LC-MS/MS has generally become the norm and essentially all of the IR-4 laboratories have at least one instrument. It is likely that any new equipment purchases will be directed toward using this technology. Therefore, replacing the detectors noted in the reference method with LC-MS/MS should have minimal effect on the method while providing better quantitation and confirmation.

**Working method approval and validation data**: Current minimum protocol requirements indicate that the LRD will send the SD the working method and recovery data from the method validation. If the recovery data are within 70 to 120% (reported as nearest whole number) then weathered sample analysis may proceed. However, it is expected that the SD take an active role in this process and acknowledge that the method and data are acceptable. If recoveries are outside of the protocol range but consistent (standard deviation  $\leq 10\%$ ), the Study Director may choose to accept the validation data. However, a protocol amendment should be issued to change the acceptance criteria.

#### Sample Analysis and Extracts

**Sample Analysis**: As noted in the protocol, each analytical set will have at least one concurrent recovery sample. Typically, the fortification levels will reflect the expected residues in the treated samples. In cases where no residues are expected, fortifications should be at the lowest level of method validation (LLMV).

IR-4 laboratories agree that duplicate injections for each weathered sample should be used. If there is a study with a large number of samples, the LRD may consider doing single injections; however, it should be noted that duplicate injections provide a number of benefits such as enhanced instrument stability and better detection of "bad injections" in real time, allowing the chemist to respond to situations more quickly and efficiently. LRDs will have the appropriate SOPs in place to define pass or fail criteria for poorly reproducing injections.

Laboratory personnel should be mindful when unusual results are obtained and notify the SD immediately. (Lab personnel may want to re-extract and re-analyze samples to confirm prior to notification of SD). Examples of unusual situations include samples that have no residues compared to other weathered (field) samples from treated plots, decline samples where no residues are detected, samples from untreated control plots with residues, and if residues from samples taken from the same treated plot have measurable residues and the values for each sample vary by a factor of 5X or more.

**Extracts**: "Registrants are advised to routinely include the storage of extracts, unless their standard laboratory practice is to analyze extracts on the same day as they are obtained" (860.1380). Stability of the extracts must be proven via reanalysis after a given storage interval and comparison to the initial sample response. Always run samples with concurrent recoveries to demonstrate extract

stability.

#### Storage Stability

IR-4 carries out modified guideline storage stability studies as outlined in 860.1380. Our purpose is to show the samples are stable under the storage conditions used. Shortly after method validation, sufficient replicate samples covering all potential time points are fortified (at a level specified in the protocol) and three of those samples are analyzed alongside three concurrent fortifications to serve as a "Day 0" stability time point. At least 3 additional samples will be prepared and held for potential long-term analysis. Time points covering at least 90% of the storage time (from sampling date to extraction date) are typically sufficient per the protocol, though this must be confirmed with the SD prior to analysis. In some cases, the SD may be able to waive the storage stability analysis. Documentation of the waiver by the SD is required. The fortification standard solution used for stability sample preparation must be the same solution used for method validation. Currently, storage stability with analysis of one additional time point is carried out for most studies. When conducting storage stability analysis, a minimum of two concurrent fortifications will be analyzed, along with the untreated control used for storage stability fortifications. For many compounds, the registrant may have adequate storage stability data available. IR-4 will continue to work with EPA and the manufacturers to determine if a stability study is necessary. Ultimately, IR-4 will strive to conduct fewer storage stability studies where possible.

#### Communication of Results with SD:

Project Initiation and Response Needed to Proceed: Labs should contact the SD when R&D is starting on a given project, as well as when method validation will be conducted. The SD should use this notification as an opportunity to contact the registrant and check for any method revisions or other pertinent updates. Important modifications to the working method and levels of fortification should be made clear at this point. Upon successful method validation, and prior to treated sample analysis, the signed working method and validation data must be sent to the SD. If concurrent fortification recoveries are not within the approved protocol range (70-120%), the SD must acknowledge that he/she is aware the data are out of range, accepts the recoveries, and that the analysis may proceed. If SD approval is needed or requested, the SD should make every effort to respond within 2 working days. Recognizing that study directors have other responsibilities including traveling, the lab will need to provide time for the study director to respond in these situations. For urgent needs, or situations where the SD is not able to respond within 2 working days, approval to proceed with analysis may be sought from the NLD. However, the SD must also provide approval when he/she becomes available. LRDs and analysts should be ready to discuss possible causes for problems observed as well as proposed solutions. Practical options presented to the SD will often lead to a clearer, more efficient path forward.

**Routine Results:** The LRD (or designate) will provide routine updates to the SD (e.g. residue analysis spreadsheet, residue result summaries) on a regular basis, along with background information and assessment of the data. The lab will decide the frequency of updates, based on their own operations. At a minimum, it is expected that the residue results will be shared with the SD as soon as possible, once all samples for the study have been analyzed. Acknowledgment of their receipt from the study director is expected.

#### Data Quality

**The Mantle of Responsibility:** IR-4 must continually strive for the highest levels of data quality and integrity, and all members of the program are responsible for the success of this mission. Chemists must ensure that the entirety of their work is reproducible and defensible in the face of an EPA audit. All data generated must therefore meet protocol, GLP, SOP, and the requirements of this document. LRDs are responsible for the careful review and approval of all project data, as well as the proper initial training of lab personnel. SDs must ensure that protocols are clear in their requirements and must remain updated on the status of all ongoing projects. All parties involved must maintain clear, honest, and open communication throughout the process. In addition, all parties must continue to educate themselves on new processes, developments, and applicable regulations.

**Research and Development:** Over the course of method development and refinement, care should be taken to document the different analytical approaches used, their results, and proposed next steps. Maintaining a clear record of the research process is beneficial for future projects involving similar commodities/chemistries, and such a record may be vital in the defense of method design/generated data during EPA's data review. All generated R&D data sets should be retained in at minimum a digital format, though some data sets (e.g., inhouse standard stability data checks) may also be retained in a dated and initialed paper form for future use and potential archiving. This data may also need to be included in the ASR as justification of a change in acceptance criteria for recoveries.

 $\mathbf{R}^2$  values and Reproducibility: To maintain a level of consistency across all IR-4 regions, minimum data quality metrics have been set for  $\mathbf{R}^2$  values and injection reproducibility. Analytical sets that fail to meet these thresholds must be rerun. These are:

- 1. All generated calibration data subjected to linear regression must yield an  $R^2$  value  $\geq 0.985$ .
- 2. Reproducibility between replicate injections of the same sample must be less than 20%.

**Matrix-Matched (MM) Standards:** Difficult matrices may impose significant enhancement or suppression effects on analytes of interest. These problems are typically solved with a more thorough sample cleanup prior to analysis. However, in cases where matrix effects cannot be overcome, or when the effects vary substantially from field to field, the use of MM standards may be beneficial. Seek LRD and SD approval prior to use of MM standards, and provide sufficient justification for their use (e.g., direct comparison of results using clean vs. MM standards). In general, a difference in concurrent recovery samples of more than  $\pm$  20% between clean and MM standards can be used as an adequate justification for use. Verify that the control samples used for MM standard preparation are relatively clean prior to analysis. If significant (>20%) differences in matrix effects are observed between fields, separate MM standards must be prepared for each field analyzed in order to account for field variability. Ensure that each MM standard is properly numbered and recorded according to GLP and SOP requirements.

**Internal Standards:** Internal standards should be used only if specifically required by the reference method or registrant. The SD should be contacted prior to any decision regarding use or disuse of internal standards.

**Manual Integration:** The use of manual integration is discouraged due to the subjective nature of individually drawn baselines. If analyte peaks are not being accurately integrated, analysts should first make every attempt to adjust the software integration parameters to fully capture peaks in a consistent manner. However, when no set of integration parameters will fully and accurately quantitate the analyte peak (e.g., missing fronts and tails, dropped baselines, inclusion of coeluting peaks or baseline noise), manual integration becomes necessary for

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proper data analysis. Whenever manual integration is used, that data <u>must</u> be differentiated from computergenerated integrations. In software suites like Agilent MassHunter, the color of the peak changes, and an asterisk is added. Other options include handwritten notes, initialed and dated, on the manually integrated peaks, or computer-generated codes denoting manual integration. The LRD is responsible for proper manual integration training of laboratory personnel and must review all data packets to ensure that baselines (both computer-generated and manual) are properly applied.

**Calculation of Parent Equivalents:** Protocols may require residues to be reported in parent-equivalents. If asked to convert all residues to parent-equivalents, use the molecular weights provided by the Certificate of Analysis (CoA) or registrant to ensure accuracy. Any inconsistencies or other questions should be discussed with the SD.

#### Analytical Summary Report

A sample ASR is provided in Attachment 3.

#### Training

This document will be used as a training tool for new Laboratory Coordinators, IR-4 chemists, QA officers and Study Directors. Contract and company laboratories may also use this document as a tool to provide guidance for residue analysis. Additional online and in-person training on GLP regulations, advancements in laboratory technologies/techniques, and proper laboratory safety should be conducted when possible and made a priority for continuing education of staff across all labs.

**Guideline Document review:** Target review is for every three years. Please note that significant material has been taken from the "Operational Handbook of IR-4" and updates to that document will affect this document as well.

#### **Explanation of Attachments:**

#### **Attachment 1: Sample Processing Document**

This instructional guideline has been prepared to aid in ensuring uniformity and consistency among IR-4 analytical facilities when preparing raw agricultural commodities (RAC) for *Magnitude of the Residue* determinations. The attachment provides information regarding sample preparation, size and providing homogeneous representative samples. Great care is taken in the field to collect samples from all areas of the plot, so that the sample is representative of the whole field and this guideline will help ensure that samples remain representative when processed in the IR-4 laboratories.

#### **Attachment 2: Backlog Response Policy**

This policy defines when a project is considered backlogged and provides guidance on preventing future backlogs. This policy also caps method development to 3 months.

#### Attachment 3: Sample Analytical Summary Report.

This example report is provided to illustrate a typical IR-4 Analytical Summary Report and the critical elements that must be included. The tables have been updated to help aid final report preparation. Recently, EPA has begun to request that metabolite residues be expressed as parent equivalents, please refer to the protocol for specific reporting requirements. Please note that residues from weathered samples are to be reported using a minimum of 2 significant figures. Also, it is imperative that all of the pages of the ASR be readable. For electronic copies of this example please visit <u>https://www.ir4project.org</u>

#### Attachment 4: Checklist for Review of Analytical Summary Reports

This checklist (version 1.1, 2/5/2013) is being provided as reference information to assist in the internal quality evaluation of analytical data. The checklist can be used to identify and insure that appropriate information is included in the final reports submitted to EPA. The checklist identifies items which must be brought to the study director's attention in order for the study director to carry out his/her responsibilities under GLP.

### Attachment 1

### Sample Processing Document

#### LABORATORY SAMPLE PROCESSING GUIDANCE DOCUMENT (v.4, 12/01/08)

### GUIDELINES FOR THE PREPARATION OF RAW AGRICULTURAL COMMODITY SAMPLES FOR RESIDUE ANALYSIS

#### PURPOSE:

This instructional guideline has been prepared to aid in ensuring uniformity and consistency among IR-4 analytical facilities when preparing raw agricultural commodities (RAC) for *Magnitude of the Residue* determinations.

This guideline contains general directions for:

- obtaining homogeneous RAC sub-samples in a safe manner with minimum risk of residue cross-contamination ("General Procedures" section A)
- processing guidelines for specific crop groupings with specific instructions on inspecting and what portion of the RAC is to be prepared for residue determination ("Guidelines for Determining Portion of RAC to be Analyzed" section B)
- uniform sample preparation and comminuting procedures (i.e., pulverizing/ reduce to powder) for whole and sub-sampled RACs ("Guidelines for Sample Preparation" section C)

Definitions of Terms Used in this Guideline:

#### **Raw Agricultural Commodity**

Fresh fruits, whether or not they have been washed and colored or otherwise treated in their unpeeled natural form; vegetables in their raw or natural state, whether or not they have been stripped of their outer leaves, waxed, prepared into fresh green salads, etc.; grains, nuts, eggs, raw milk, meats, and similar agricultural produce. Does not include foods that have been processed, fabricated, or manufactured by cooking, freezing, dehydrating, or milling (40 CFR 180)

#### Sample

The amount of individual agricultural commodity units (e.g. specific number of fruits or tubers, a set weight of grain, etc.) randomly selected from a plot which may be composited for pesticide analysis (OPPTS 860.1500)

PROCEDURE:

#### A. General Guidelines

Persons given responsibility for processing agricultural crops (Processor) will be fully trained in properly processing agricultural commodities and also in the safe use of processing equipment and cryogenic materials. Proper ventilation is mandatory when working with cryogenic materials such as liquid nitrogen and carbon dioxide. It is the responsibility of the Processor to immediately notify her/his immediate supervisor and/or the Laboratory Research Director if unsafe working conditions exist.

#### LABORATORY SAMPLE PROCESSING GUIDANCE DOCUMENT (v.4, 12/01/08)

Processing equipment often operates at high speeds to pulverize/powder the RAC. This equipment can be hazardous and should be routinely checked for proper operation before processing agricultural commodities.

The sample should not be brushed, stripped, trimmed, or washed except to the extent that these are commercial practices before shipment or to the extent allowable (see 40 CFR

180 or the Pesticide Assessment Manual (PAM)). Details for cleaning or trimming specific crop types are outlined under "Guidelines for Determining Portion of RAC to be Analyzed" section B and Appendix 1. In each case, the protocol and Study Director will be consulted to clarify any potential problems prior to sample processing.

The total sample should be processed whenever feasible. If the sample size is too large to process, a representative sub-sample of each component part should be taken (e.g., 1/4 of each cantaloupe from the original residue sample bag for maceration). Sub-sampling of the component parts will be done in a manner to represent the residue distribution to be found on all surfaces of the whole vegetative part. Details for specific crop types are outlined under "Guidelines for Sample Preparation" section C. If sub-sampling must occur, due to large sample size or unit size, the Study Director will be consulted prior to sample processing.

The order in which samples are processed should be chosen to minimize the potential for residue cross-contamination. For each trial location, untreated samples should always be processed first. Treated samples with the lowest application rate and the longest pre- harvest interval (PHI) should follow. Samples with the highest application rate and the shortest PHI should be processed last. In addition, crop fractions should also be considered (e.g. nut meat fractions should be processed before hull fractions).

If cryogenic materials are required, the pulverized sample can quickly liquefy and separate at room temperature soon after processing. All attempts should be made to immediately transfer the sample to a properly labeled sampling bag and place in frozen storage.

Processing equipment should be thoroughly washed and rinsed with distilled water and acetone or methanol before attempting to process the next sample. Cleaning should be performed even if the next sample is a replicate from the same treatment location or a replicated control sample.

#### **B.** Guidelines for Determining Portion of RAC to be Analyzed

40 CFR 180 specifies that the sample taken should be of the whole raw agricultural commodity (RAC) as it moves through interstate commerce. In certain cases, the portion to be analyzed for a residue tolerance may not represent the whole RAC. Instructions on what portion of the RAC should be analyzed are provided for nine individual food commodities (*e.g.*, bananas) and crop group commodities (*e.g.*, root vegetables) in this regulatory guideline. To fill this void, the FDA has provided additional guidance for RACs that fall under a more complete crop groupings list (see 40 CFR 180.34 (f)). The portion of the sample to be analyzed as described under PAM Volume 1 takes into account practical considerations of

#### LABORATORY SAMPLE PROCESSING GUIDANCE DOCUMENT (v.4, 12/01/08)

sample preparation. Appendix 1 on page 4 (Table 102-a: *Portion of Raw Agricultural Commodity to be Analyzed for Pesticide Residues*) provides a compilation of EPA regulations and FDA directions to be followed for RAC preparation. If sample processing procedures for a particular RAC are not specified under the above crop grouping guidelines, or in the protocol, additional guidance from the Laboratory Research Director and IR-4 Study Director approval will be sought before preparing samples for residue determination.

#### C. Guidelines for Sample Preparation

The relatively small 2.5 to 100-gram laboratory sample taken from the whole RAC must represent the entire treated or control sample. Often these samples are *bulky* or can be comprised of *a few large units or many smaller items*. Whenever feasible, the total RAC sample should be pulverized and a homogeneous 2.5 to 100-gram sample taken to assure uniformity. Processing the entire sample may not always be feasible. Guidelines are provided below to aid in preparing representative residue determination samples from bulky, large unit and many small item RAC samples. In addition to the guidelines below, **Table 1** offers examples of current processing practices of several commodities by IR- 4/ARS facilities.

<u>Bulky Samples</u>: For more bulky samples [i.e., Alfalfa (green and dry), Barley, Field Corn (silage, stover), Sweet Corn (forage, husks), Clover Grass, Mint (hay), Oats (forage, fodder, or straw), Rice (plants), Rye, Sorghum (plants), Soybean (plants), Sugar Cane (green and/or dry) Tobacco (green, cured), and Wheat (forage, fodder, or straw)], acquiring the relatively small laboratory sample usually consists of two steps. First, the crop is chopped into smaller size fractions using either a chopping knife or scissors or through use of a large capacity chopper/mixer/grinder such as a spinning bowl or vertical chopper (ie: Hobart HCM-450, 84142, 84145, 84146, VCM-25, or equivalent). The chopped sample is then frozen to a brittle consistency using either liquid nitrogen ( $LN_2$ ) or dry ice. This frozen material is then processed to a fine consistency using a sample grinder (ie: Hobart 4822 or equivalent). Alternatively, the samples may be first broken or chopped or into smaller size fractions as described above and then thoroughly processed with a cryogen ( $LN_2$  or dry ice) in a spinning bowl chopper/mixer, spinning blade food processor (ie: Robot-Coupe. RSI-6V or 10B) or other food grinder/chopper

<u>Sub-sampling</u>: Typically, sub-sampling of bulky or heavy units is performed in the field as directed by the Protocol. However, when there are physical limitations for the laboratory processing of the whole sample due to mass or sample size, sub-sampling of the component parts must be done in a manner that assures the residue distribution is representative of the whole vegetative part. Laboratory sub-sampling should only be performed by GLP trained staff **and in consultation with the Study Director and or Registration Manager.** If absolutely necessary, this practice must be limited to special circumstances and be conducted by properly trained staff that understands the importance of maintaining a fully representative sub-sample and the risks of possible residue/cross contamination and/or deterioration of the crop matrix. Some examples of representative sub-sampling in the laboratory include:
- Taking a well-mixed portion of a large sample of very small items (berries, nuts, grain, and immature vegetables). This may be necessary due to sample capacity of processing/milling/grinding equipment (i.e., small Hobart/Robot-Coupe choppers, Tekmar Analytical Mills and other similar chopping/grinding devices). For example, a well-mixed 1 kg sub-sample from the 5 kg composited RAC sample bag of coffee beans can be pulverized by the Tekmar Analytical Mill to produce a representative sample.
- For larger items when ca.12 units may comprise the entire composited RAC (melons, pineapples, squash, see CODEX, reference 3 and PAM section 120c), <sup>1</sup>/<sub>4</sub> of each unit can be separated and composited to produce a representative sample for processing.
- In preparing a homogeneous tree fruit sample, where 6 fruits from each of 4 trees is recommended (CODEX, reference 3), ½ of each unit can be separated and composited to produce a representative sample for processing.
- When the processing or chopping of samples results in rapid degradation or loss of residues during storage, a representative sub-sample shall be processed just prior to analysis. The crop unit number, crop unit size, and the number of analyses will determine the amount of sample to process with dry ice for each analysis.

If there is too much sample bulk to add the entire sample all at once and sub-sampling is not an option, process a portion of the sample, add add'l. sample and cryogen (if using), process and repeat until the chopper is full. Bulk bag and repeat processing until the entire sample is chopped. Combine all chopped matrix in the bulk bag, mix well and remove sample for analysis/storage.

Table 1.

Crop Group (Subgroup) Number and Name	Representative Commodities	Pre-Processing Preparation <sup>1</sup>	Processing <sup>2</sup>	Commodities
1. ROOT AND TUBER VEGETABLES	Carrot, potato, radish, and sugar beet.	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine. If greater than 10 pounds cut each unit in half, returning opposite half to sample bag. Continue until all can fit in chopper. If tops are included, cut with an electric knife. A heavy knife and hammer are useful if sample is too hard.	Robot Coupe, Grinder or Hobart with cryogen	Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; beet, garden; beet, sugar; burdock, edible; canna, edible; carrot; cassava, bitter and sweet; celeriac; chayote (root); chervil, turnip-rooted; chicory; chufa; dasheen (taro); ginger; ginseng; horseradish; leren; parsley, turnip-rooted; parsnip; potato; radish; radish, oriental; rutabaga; salsify; salsify, black; salsify, Spanish; skirret; sweet potato; tanier; turmeric; turnip; yam bean; yam, true.
1A. Root vegetables subgroup	Carrot, radish, and sugar beet	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine. If tops are included, cut with an electric knife. A heavy knife and hammer are useful if sample is too hard.	Robot Coupe, Grinder or Hobart with cryogen	Beet, garden; beet, sugar, burdock, edible; carrot; celeriac; chervil, turnip-rooted; chicory; ginseng; horseradish; parsley, turnip-rooted; parsnip; radish; radish, oriental; rutabaga; salsify; salsify, black; salsify, Spanish; skirret; turnip
1B. Root vegetables (except sugar beet) subgroup	Carrot and radish	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine. If tops are included, cut with an electric knife. A heavy knife and hammer are useful if sample is too hard.	Robot Coupe, Grinder or Hobart with cryogen	Beet, garden; burdock, edible; carrot; celeriac; chervil, turnip-rooted; chicory; ginseng; horseradish; parsley, turnip-rooted; parsnip; radish; radish, oriental; rutabaga; salsify; salsify, black; salsify, Spanish; skirret; turnip.
1C. Tuberous and corm vegetables subgroup	Potato	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine	Robot Coupe, Grinder or Hobart with cryogen	Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna, edible; cassava, bitter and sweet; chayote (root); chufa; dasheen (taro); ginger; leren; potato; sweet potato; tanier; turmeric; yam bean; yam, true
1D. Tuberous and corm vegetables (except potato) subgroup	Sweet potato	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine	Robot Coupe, Grinder or Hobart with cryogen	Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna, edible; cassava, bitter and sweet; chayote (root); chufa; dasheen (taro); ginger; leren; sweet potato; tanier; turmeric; yam bean; yam, true
2. LEAVES OF ROOT AND TUBER VEGETABLES (HUMAN FOOD OR ANIMAL FEED)	Turnip and garden beet or sugar beet	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch or smaller pieces or cut with electric knife and then thoroughly mix to combine.	Robot Coupe, Grinder or Hobart with cryogen. If too much sample bulk to add all at once, process in batches until chopper is full as described in footnote 2	Beet, garden; beet, sugar; burdock, edible; carrot; cassava, bitter and sweet; celeriac; chervil, turnip- rooted; chicory; dasheen (taro); parsnip; radish; radish, oriental (daikon); rutabaga; salsify, black; sweet potato; tanier; turnip; yam, true
3. BULB VEGETABLES	Onion, green; and onion, dry bulb	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine or cut in ~ 1in pieces	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice)	Garlic; garlic, great-headed; leek; onion, dry bulb and green; onion, Welsh; shallot

<sup>1</sup> and <sup>2</sup> – see footnotes at bottom of final table

Crop Group (Subgroup) Number and Name	Representative Commodities	Pre-Processing Preparation <sup>1</sup>	Processing <sup>2</sup>	Commodities
4. LEAFY VEGETABLES (EXCEPT <u>BRASSICA</u> VEGETABLES)	Celery, head lettuce, leaf lettuce, and spinach	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch or smaller pieces or cut with electric knife and then thoroughly mix to combine.	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice). If too much sample bulk to add all at once, process in batches until chopper is full as described in footnote 2.	Amaranth (Chinese spinach); arugula (roquette); cardoon; celery; celery, Chinese; celtuce; chervil; chrysanthemum, edible-leaved; chrysanthemum, garland; corn salad; cress, garden; cress, upland; dandelion; dock (sorrel); endive (escarole); fennel, Florence; lettuce, head and leaf; orach; parsley; purslane, garden; purslane, winter; radicchio (red chicory); rhubarb; spinach; spinach, New Zealand; spinach, vine; Swiss chard
4A. Leafy greens subgroup	Head lettuce and leaf lettuce, and spinach	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch or smaller pieces or cut with electric knife and then thoroughly mix to combine.	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice).	Amaranth; arugula; chervil; chrysanthemum, edible- leaved; chrysanthemum, garland; corn salad; cress, garden; cress, upland; dandelion; dock; endive; lettuce; orach; parsley; purslane, garden; purslane, winter; radicchio; spinach; spinach, New Zealand; spinach, vine
4B. Leaf petioles subgroup	Celery	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice).	Cardoon; celery; celery, Chinese; celtuce; fennel, Florence; rhubarb; Swiss chard
5. <u>BRASSICA</u> (COLE) LEAFY VEGETABLES	Broccoli or cauliflower; cabbage; and mustard greens.	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch or smaller pieces or cut with electric knife and then thoroughly mix to combine. May need to quarter lengthwise, using opposite pieces prior to mixing to reduce bulk.	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice). If too much sample bulk to add all at once, process in batches until chopper is full as described in footnote 2.	Broccoli; broccoli, Chinese (gai lon); broccoli raab (rapini); Brussels sprouts; cabbage; cabbage, Chinese (bok choy); cabbage, Chinese (napa); cabbage, Chinese mustard(gai choy); cauliflower; cavalo broccolo; collards; kale; kohlrabi; mizuna; mustard greens; mustard spinach; rape greens
5A.Head & Stem Brassica subgroup	Broccoli or cauliflower and cabbage	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine. May need to quarter lengthwise, using opposite pieces prior to mixing to reduce bulk.	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice).	Broccoli; broccoli, Chinese; brussels sprouts; cabbage; cabbage, Chinese (napa); cabbage, Chinese mustard; cauliflower; cavalo broccolo; kohlrabi
5B.Leafy Brassica greens subgroup	Mustard greens	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine or cut with an electric knife.	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice).	Broccoli raab; cabbage, Chinese (bok choy); collards; kale; mizuna; mustard greens; mustard spinach; rape greens

Crop Group (Subgroup) Number and Name	Representative Commodities	Pre-Processing Preparation <sup>1</sup>	Processing <sup>2</sup>	Commodities
6. LEGUME VEGETABLES (SUCCULENT OR DRIED)	Bean ( <u>Phaseolus</u> ),(succulent & dried),pea ( <u>Pisum</u> ) (succulent & dried) and soybean	Pre-processing not required.	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice) For dried peas/beans - grinder type processor, coffee grinder or Robot Coupe	Bean ( <u>Lupinus</u> ) (includes grain lupin, sweet lupin, white lupin, and white sweet lupin); bean ( <u>Phaseolus</u> ) (includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean); bean ( <u>Vigna</u> ) (includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean); broad bean (fava); chickpea (garbanzo); guar; jackbean; lablab bean; lentil; pea ( <u>Pisum</u> ) (includes dwarf pea, edible-podded pea, English pea, field pea, garden pea, green pea, snowpea, sugar snap pea); pigeon pea; soybean; soybean (immature seed); sword bean
6A.Edible-podded legume vegetables subgroup	Any one succulent cultivar of edible-podded bean ( <u>Phaseolus</u> ) and any one succulent cultivar of edible- podded pea ( <u>Pisum</u> )	Pre-processing not required	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice). For dried peas/beans - grinder type processor, coffee grinder or Robot Coupe	Bean ( <u>Phaseolus</u> ) (includes runner bean, snap bean, wax bean); bean ( <u>Vigna</u> ) (includes asparagus bean, Chinese longbean, moth bean, yardlong bean); jackbean; pea ( <u>Pisum</u> ) (includes dwarf pea, edible- podded pea, snow pea, sugar snap pea); pigeon pea; soybean (immature seed); sword bean
6B.Succulent shelled pea and bean subgroup	Any succulent shelled cultivar of bean ( <u>Phaseolus</u> ) and garden pea ( <u>Pisum</u> )	Pre-processing not required	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice)	Bean ( <u>Phaseolus</u> ) (includes lima bean, green; broad bean, succulent); bean ( <u>Vigna</u> ) (includes blackeyed pea, cowpea, southern pea); pea ( <u>Pisum</u> ) (includes English pea, garden pea, green pea); pigeon pea
6C.Dried shelled pea and bean (except soybean) subgroup	Any one dried cultivar of bean ( <u>Phaseolus</u> ) and any one dried cultivar of pea ( <u>Pisum</u> )	Pre-processing not required	Grinder type processor, coffee grinder or Robot Coupe with cryogen (LN2 or dry ice)	Dried cultivars of bean ( <u>Lupinus</u> ); bean ( <u>Phaseolus</u> ) (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean ( <u>Vigna</u> ) (includes adzuki bean, blackeyed pea, catjang, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea; guar; lablab bean; lentil; pea ( <u>Pisum</u> ) (includes field pea); pigeon pea
7. FOLIAGE OF LEGUME VEGETABLES	Any cultivar of bean ( <u>Phaseolus</u> ), field pea ( <u>Pisum)</u> and soybean	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch or smaller pieces or cut with electric knife and then thoroughly mix to combine.	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice)	Plant parts of any legume vegetable included in the legume vegetables that will be used as animal feed.
7A.Foliage of legume vegetables (except soybeans) subgroup	Any cultivar of bean ( <u>Phaseolus</u> ) and field pea ( <u>Pisum</u> )	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch or smaller pieces or cut with electric knife and then thoroughly mix to combine.	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice)	Plant parts of any legume vegetable (except soybeans) included in the legume vegetables group that will be used as animal feed.

Crop Group (Subgroup) Number and Name	Representative Commodities	Pre-Processing Preparation <sup>1</sup>	Processing <sup>2</sup>	Commodities
8. FRUITING VEGETABLES (EXCEPT CUCURBITS)	Tomato, bell pepper, and one cultivar of non-bell pepper	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine or chop with a knife.	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice).	Eggplant; groundcherry ( <u>Physalis</u> spp); pepino; pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper); tomatillo; tomato
9. CUCURBIT VEGETABLES	Cucumber, muskmelon, and summer squash	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine. May need to quarter lengthwise, using opposite pieces prior to mixing to reduce bulk. Chop entire fruit including seeds and rind.	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice).	Chayote (fruit); Chinese waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); <u>Momordica</u> spp (includes balsam apple, balsam pear, bittermelon, Chinese cucumber); muskmelon (includes cantaloupe); pumpkin; squash, summer; squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon
9A.Melon subgroup	Cantaloupe	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine. May need to quarter lengthwise, using opposite pieces prior to mixing to reduce bulk. Chop entire fruit including seeds and rind.	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice).	Citron melon; muskmelon; watermelon
9B. Squash/Cucumber subgroup	One cultivar of summer squash and cucumber	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine. May need to quarter lengthwise, using opposite pieces prior to mixing to reduce bulk. Chop entire fruit including seeds and rind.	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice).	Chayote (fruit); Chinese waxgourd; cucumber; gherkin; gourd, edible; <u>Momordica</u> spp; pumpkin; squash, summer;squash, winter
10. CITRUS FRUITS	Sweet orange, lemon and grapefruit	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice).	Calamondin; citrus citron; citrus hybrids (includes chironja, tangelo, tangor); grapefruit; kumquat; lemon; lime; mandarin (tangerine); orange, sour; orange, sweet; pummelo; Satsuma mandarin
11. POME FRUITS	Apple and pear	While inside IR4 bag and frozen break up with a mallet into approx. 1 to 2 inch pieces and mix to combine. May need to quarter lengthwise, using opposite pieces prior to mixing to reduce bulk. Chop entire fruit including seeds and neel	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice).	Apple; crabapple; loquat; mayhaw; pear; pear, oriental; quince

Crop Group (Subgroup) Number and Name	Representative Commodities	Pre-Processing Preparation <sup>1</sup>	Processing <sup>2</sup>	Commodities
12. STONE FRUITS	Sweet or tart cherry, peach, and plum or fresh prune	Pre-processing not required. May need to be pitted or cut into smaller pieces.	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice)	Apricot; cherry, sweet; cherry, tart; nectarine; peach; plum; plum, Chickasaw; plum, Damson; plum, Japanese; plumcot; prune (fresh)
13. BERRIES	Any one blackberry or any one raspberry; and blueberry	Pre-processing typically not required. If larger than 1 to 2 in cut into smaller pieces.	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice). A coffee grinder can be used for small sample sizes.	Blackberry (including bingleberry, boysenberry; dewberry; lowberry, marionberry, olallieberry, youngberry); blueberry; currant; elderberry; gooseberry; huckleberry; loganberry; raspberry, black and red
13A.Caneberry (blackberry and raspberry) subgroup	Any one blackberry or any one raspberry	Pre-processing not required	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice).	Blackberry; loganberry; red and black raspberry; cultivars and/or hybrids of these
13B. Bushberry subgroup	Blueberry, highbush	Pre-processing not required	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice).	Blueberry, highbush and lowbush; currant; elderberry; gooseberry; huckleberry
14.TREE NUTS	Almond and pecan	Pre-processing typically not required. Nut meat may need to be separated.	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice). A coffee grinder can be used for small sample sizes.	Almond; beech nut; Brazil nut; butternut; cashew; chestnut; chinquapin; filbert (hazelnut); hickory nut; macadamia nut; pecan; walnut, black and English
15. CEREAL GRAINS	Corn (sweet and field), rice, sorghum, and wheat	Pre-processing not required	Wiley mill, coffee grinder or Robot Coupe or with cryogen (LN2 or dry ice).	Barley; buckwheat; corn; millet, pearl; millet, proso; oats; popcorn; rice; rye; sorghum (milo); teosinte; triticale; wheat; wild rice
16.FORAGE, FODDER AND STRAW OF CEREAL GRAINS	Corn, wheat, and any other cereal grain crop	Pre-processing typically not required. Use an electric knife if needed.	Robot Coupe, Grinder or smaller Hobart with cryogen (LN2 or dry ice)	Forage, fodder, and straw of all commodities included in the cereal grains group
17.GRASS FORAGE, FODDER, AND HAY GROUP	Bermuda grass; bluegrass; and bromegrass or fescue	Pre-processing typically not required. Use an electric knife if needed.	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice). If too much sample bulk to add all at once, process in batches until chopper is full as described in footnote 2.	Any grass, Gramineae family (either green or cured) except sugarcane and those included in the cereal grains group, that will be fed to or grazed by livestock, all pasture and range grasses and grasses grown for hay or silage

Crop Group (Subgroup) Number and Name	Representative Commodities	Pre-Processing Preparation <sup>1</sup>	Processing <sup>2</sup>	Commodities
18.NONGRASS ANIMAL FEEDS (FORAGE, FODDER, STRAW AND HAY)	Alfalfa and clover ( <u>Trifolium</u> )	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice).	Alfalfa; bean, velvet; clover ( <u>Trifolium</u> , <u>Melilotus</u> ); kudzu; lespedeza; lupin; sainfoin; trefoil; vetch; vetch, crown; vetch, milk
19.HERBS AND SPICES	Basil (fresh & dried); black pepper; chive; hop cones; and celery seed or dill seed	Pre-processing typically not required. Use an electric knife if needed.	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice). For hops keep dry ice to a minimum and do not leave hops in chopper too long.	Allspice; angelica; anise; anise, star; annatto (seed); balm; basil; borage; burnet; camomile; caper buds; caraway; caraway, black; cardamom; cassia bark; cassia buds; catnip; celery seed; chervil (dried); chive; chive, Chinese; cinnamon; clary; clove buds; corainder leaf (cilantro or Chinese parsley); coriander seed (cilantro); costmary; culantro (leaf); culantro (seed); cumin; curry (leaf); dill (dillweed); dill (seed); fennel (common); fennel, Florence (seed); fenugreek; grains of paradise, hop cones; horehound; hyssop; juniper berry; lavender; lemongrass; lovage (leaf); lovage (seed); mace; marigold, marjoram; mustard (seed); nasturtium; nutmeg; parsley (dried); pennyroyal; pepper, black; pepper, white; poppy (seed); rosemary; rue; saffron; sage; savory, summer and winter; sweet bay; tansy; tarragon; thyme; vanilla; wintergreen; woodruff; wormwood
19A.Herb subgroup	Basil (fresh & dried) and chive	Pre-processing typically not required. Use an electric knife if needed.	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice). A coffee grinder can be used for small sample sizes.	Angelica; balm; basil; borage; burnet; camomile; catnip; chervil (dried); chive; chive, Chinese; clary; coriander (leaf); costmary; culantro (leaf); curry (leaf); dillweed; horehound; hyssop; lavender; lemongrass; lovage (leaf); marigold; marjoram; nasturtium; parsley (dried); pennyroyal; rosemary; rue; sage; savory, summer and winter; sweet bay; tansy; tarragon; thyme; wintergreen; woodruff; and wormwood
19B.Spice subgroup	Black pepper; and celery seed or dill seed	Pre-processing not required	Wiley mill, coffee grinder or Robot Coupe or with cryogen (LN2 or dry ice).	Allspice; anise (seed); anise, star; annatto (seed); caper (buds); caraway; caraway, black; cardamom; cassia (bark); cassia (buds);celery (seed); cinnamon; clove (buds); coriander (seed); culantro (seed); cumin; dill (seed); fennel, common; fennel, Florence (seed); fenugreek; grains of paradise; juniper (berry); lovage (seed); mace; mustard (seed); nutmeg; pepper, black; pepper, white; poppy (seed); saffron; and vanilla
TROPICAL FRUIT CROPS Grapefruit	grapefruit, punimelo, and their citrus hybrids (including Uniq(Ugli) fruit)	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice).	Corresponds to Codex Citrus Fruits Definitions

Table 1, cont.

Crop Group (Subgroup) Number and Name	Representative Commodities	Pre-Processing Preparation <sup>1</sup>	Processing <sup>2</sup>	Commodities
Sugar Apple	sugar apple, cherimoya, atemoya, custard apple ilama, soursop, biriba	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice).	All crops in the Annonaceae; similar gross morphology; inedible peel
Lychee	lychee, longan, Spanish lime, rambutan, pulasan	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice).	All crops in the Sapindaceae; inedible peel
Рарауа	papaya, star apple, black sapote, mango, sapodilla, canistel, mamey sapote	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice). Make sure seeds are chopped.	All crops have inedible peel; corresponds to Codex classification
Avocado	avocado, papaya, star apple, black sapote, mango, sapodilla, canistel, mamey sapote	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice).	All crops have inedible peel; corresponds to Codex classification
Guava	guava, feijoa, jaboticaba, wax jambu, starfruit, passionfruit, acerola	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice).	Primarily edible peel; note/peel rarely contaminates <i>Passiflora spp.</i> during juicing
Citrus Fruits	add White sapote (Casimiroa), and other cultivars and/or hybrids of these	While inside IR4 bag and frozen break up with a mallet into approx. 2 inch pieces and mix to combine	Robot Coupe, Grinder or Hobart with cryogen (LN2 or dry ice).	White sapote is in the Rutaceae (citrus)

<sup>1.</sup> Typical pre-processing tools include, but are not limited to: mallet, hammer, hatchet, cleaver, heavy knife, ginzu type knife, scissors, electric knife, and paper cutter. Caution must be taken when attempting to break samples with mallets while in the IR-4 bags. The sample bag may break. A secondary bag may be used to contain the pieces. Be aware that there may be a possibility of sample contamination with slivers of the bag/plastic lining. Alternatively, break-up of difficult frozen items using a heavy bladed knife, cleaver or heavy hammer/ mallets (2.5- 4lb) may be done on a chopping board lined with butcher paper with the edges folded up to contain sample pieces. Care must be exercised when using metal knives, choppers or hammers that pieces do not cause personal injury in the event of breakage.

<sup>2</sup> Use of serrated S-blades will improve chopping efficiency of Robot Coupe Systems when processing fibrous and hard sample matrices including green coffee bean, roasted coffee beans, and lychee whole fruit (with seed). Use of the Pulse or High speed (~3600 rpm) option for variable speed models is recommended for these difficult frozen matrices. A coffee grinder is useful for dry seeded samples. If there is too much sample bulk to add the entire sample all at once and sub-sampling is not an option, process a portion of the sample, add add'l. sample and cryogen (if using), process and repeat until chopper is full. Bulk bag and repeat processing until entire sample is chopped. Combine all chopped matrix in bulk bag, mix well and remove sample for analysis/storage.

### Appendix 1: From Pesticide Assessment Manual (PAM) Volume 1, 3<sup>rd</sup> Edition

SECTION 102	2	Pesticide Analytical Manual Vol. (				
Table 102-a:	Portion of Raw Agricultural Analyzed for Pesticide Resid	Portion of Raw Agricultural Commodity to be Analyzed for Pesticide Residues				
	Root and tuber vegetables group <sup>1</sup>	Where separate tolerances are established for root or tuber, analyze whole commodity after removing adhering soil by lightly rinsing in running water.				
		Where a tolerance is established on a root veg- etable including tops and/or with tops, and tops and roots are marketed together, analyze tops and roots separately. Neither the pesticide residue on the roots nor the pesticide residue on the tops shall exceed the tolerance level. For carrots, parsnips, and rutabagas, remove and discard tops.				
	Bulb vegetables (green or dry) group	Whole commodity after removing and discarding roots. Remove adhering soil by lightly rinsing in running water. In the case of dry bulb onions and garlic, remove and discard stems and outer sheaths (husk or parchment skin) that are easily removed.				
	Leafy vegetables (except Brassica vegetables) group	Whole commodity after removing and discarding obviously decomposed or withered leaves. In the case of rhubarb, analyze only the stem without leaves. Remove adhering soil from celery by lightly rinsing in running water.				
	Brassica (cole) leafy vegetables group	Whole commodity after removing and discarding obviously decomposed or withered leaves, except remove and discard all leaves from cauliflower and headed broccoli and use sprouts only from brussels sprouts.				
	Legume vegetables (succulent or dried) group	Whole commodity, including pods for succulent and without pods for dry.				
	Fruiting vegetables (except cucurbits) group	Whole commodity after removing and discarding stems and husks.				
	Cucurbit vegetables group	Whole commodity after removing and discarding stems.				
	Citrus fruits group	Whole commodity.				
	Pome fruits group	Whole commodity after removing and discarding stems.				
	Stone fruits group	Whole commodity after removing and discarding stems and stones.				
	Small fruits and berries group	Whole commodity after removing and discarding caps and stems, except for currants, where the stems are to be included.				

<sup>1</sup> Members of food groups are listed in 40 CFR 180.34 (f) (9).

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Transmittal No. 94-1 (1/94) Form FDA 2905a (6/92)

#### Appendix 1 (con't)

Pesticide Analytical Manual Vol. I		SECTION	102
Peanuts	Whole peanut meat (kernel) after removing hulls.		
Peanut hulls	Whole commodity after removing peanut meat.		
Dates and olives	Whole commodity after removing and discarding stems and stones or pits.		
Pineapples	Whole commodity after removing and discarding crowns (leaves at top of fruit).		
Avocados and mangoes	Whole commodity after removing and discarding stones.		
Bananas	Whole commodity including peel after removing and discarding crown tissue and stalk.		
Miscellaneous raw fruits and vegetables not previously included	Whole commodity after removing and discarding obviously decomposed or withered leaves, stems, stones or pits, shells or husks; if commodity has adhering amounts of soil, remove by lightly rinsing in running water.		
Almond hulls	Whole commodity after removing shell and nutmeat.		
Cereal grains group	Whole commodity (grain) except for fresh corn (including sweet corn). Include kernels plus cob after removing and discarding husk.		
Eggs	Whole commodity after removing and discarding shells.		
Fish	Edible portion of the commodity after removing and discarding heads, tails, scales, fins, viscera, bones (if inedible), and skin (if inedible).		
Crab (hard shell)	Edible portion of commodity after removing and discarding shells, gills, and viscera.		
Crab (soft shell)	Edible portion of commodity after removing and discarding gills.		
Shrimp and crayfish	Edible portion of commodity after removing and discarding heads, shells, and inedible tails of shrimp.		
Lobster	Edible portion of commodity including tomalley (liver) after removing and discarding shells and stomachs (hard sac near head).		
Oyster, clam, and other shellfish	Edible portion of commodity including the liquor, after removing and discarding shells.		
Rabbits and other game	Edible portion of commodity after removing and discarding bones.		

Transmittal No. 96-1 (9/96) Form FDA 2905a (6/92)

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#### References Cited:

- *1.* 40 CFR 180.1 Tolerances And Exemptions From Tolerances For Pesticide Chemicals In Food. Subpart A(j) Definitions and Interpretative Regulations
- 2. Codex "Guidelines on Minimum Sample Sizes for Agricultural Commodities from Supervised Field Trials for Residue Analysis", ALINORM 87/24A (1987)
- 3. Codex Alimentarius Volume 2 Pesticides Residues In Food Section 2 Codex Classification Of Foods And Animal Feedstuffs. FAO, Rome 1993
- 4. Pesticide Assessment Manual (PAM) Volume 1, 3<sup>rd</sup> Edition, Section 102 and Section 203.
- 5. Residue Chemistry Test Guidelines OPPTS 860.1500 Crop Field Trials

# Attachment 2 Backlog Response Policy

#### 1. Definition of a backlog

Analytical work should be done within 12 months after the last batch of field samples are received by a lab. A "backlog" exists when the sample analysis and ASR are not completed within 12 months. Projects will not be considered backlogged if the following situations have occurred:

- HQ management reprioritization of study timeline
- Unable to receive standards from registrant
- Government or University shutdown impacting IR-4 and/or ARS operations

#### 2. Strategy for preventing future backlogs

- Better planning
  - As much as possible, assign projects based on previous experience and expertise, recognizing that workloads need to be balanced and new actives will be analyzed.
  - Each lab should plan for the anticipated projects in advance, for example, to do method development before samples from last trials arrive.
  - Management will assure that personnel, resources, facilities, equipment...are available as scheduled.
  - Management to evaluate status of labs during Spring PMC meeting to determine if all labs have sufficient resources such that IR-4 laboratories may accept outside contract work.
- Better communication and transparency
  - Management to foster a culture where timelines are met, and issues are raised and addressed to prevent backlogs.
  - Cap the time for method development to <u>3 months</u>
    - i. Suggested Method Development Timeline
      - After 1<sup>st</sup> month: LRD contacts AC-AC to engage other chemists for ideas. Concurrently, LRD reaches out to registrant (chemist and IR-4 representative) for assistance. The Study Director (SD) and National Laboratory Director (NLD) are kept in the loop either as part of AC-AC discussions or direct communications.
      - 2. After 2<sup>nd</sup> month: LRD re-engages with AC-AC to report back results for various attempts and discusses possible next steps. LRD shares efforts with IR-4 and regional management (Regional Director (RD), NLD and SD).
      - 3. After 3<sup>rd</sup> month: LRD meets with RD, NLD and SD to discuss options to facilitate the timely completion of the project.
        - a. Transfer project to different IR-4 lab
        - b. Transfer project to contract lab
      - 4. For the purposes of reporting, color levels will be used.
        - a. After 1<sup>st</sup> month: Yellow
        - b. After 2<sup>nd</sup> month: Orange
        - c. After 3<sup>rd</sup> month: Red

#### 3. Consequences for backlog

Version 1.2 10/2022 Once a project or projects become backlogged per the definition above, an email note will be sent by the National Lab Director to the IR-4 Executive Director, the Lab Director and the Regional Director. This note will provide notification that there is a backlog and request a formal response containing an explanation of the current status, and a proposal for corrective actions to meet the analytical timeline(s). The email response will be generated by the Lab director, approved by the Regional Director, and should be sent to the IR-4 Executive Director and National Lab Director within two weeks. HQ will decide if a meeting between the Lab Director, Regional Director, IR-4 Executive Director (and others as requested) is needed to approve the proposal or to discuss alternatives to make corrections to meet study timelines. If a meeting is not deemed necessary, approval for the plan will be provided via email. Once the backlog situation has been successfully addressed, a follow-up email will be sent from the National Lab Director to the Lab Director, with copies to the Regional Director and the IR-4 Executive Director. Backlog Response Policy (v. 1.0, 10/28/2022)

## Attachment 3

### Sample Analytical Summary Report

#### PR# 08550

#### <u>Author(s)</u> Alexander McFall

#### Laboratory Research Director Matt Hengel

#### **Testing Laboratory**

IR-4 Western Region Laboratory Department of Environmental Toxicology University of California, Davis 4218 Meyer Hall Davis, CA 95616

#### Laboratory ID# 08550.20-CAR10

<u>Study Director</u> Cristina Marchesan Marconi

**Sponsor** 

Interregional Research Project #4 (IR-4) IR-4 Project Headquarters 1730 Varsity Drive, Venture IV, Suite 110 Raleigh, NC 27606

#### Field ID Numbers

08550.20-CA*19	08550.20-CA*20
08550.20-WA*403	08550.20-TX380
08550.20-CA16	08550.20-CA17
08550.20-CA18	08550.20-ID181
08550.20-WA404	08550.20-OR405
08550.20-CO461	

#### **Study Timetable**

Study Initiation Date: 02/20/20 Experimental Termination Date: 07/20/21

#### **Report Date**

#### **GLP STANDARDS COMPLIANCE STATEMENT**

PR#: 08550

Lab ID#: 08550.20-CAR10

The study reported herein for residues of flonicamid and its metabolites on onion was conducted and reported in compliance with GLP Title 40 CFR, part 160 of the <u>Code of Federal Regulations</u> of the United States of America.

11/23/2021

alus Mall 11/23/2021

Signature/Date Matt Hengel Laboratory Research Director IR-4 Western Region Laboratory Department of Environmental Toxicology University of California, Davis 4218 Meyer Hall Davis, CA 95616 Tel. No.: (530) 752-2402

Signature/Date Alexander McFall Analyst IR-4 Western Region Laboratory Department of Environmental Toxicology University of California, Davis 4218 Meyer Hall Davis, CA 95616 Tel. No.: (530) 752-2402

#### **IR-4 NATIONAL PESTICIDE CLEARANCE RESEARCH PROGRAM** RESIDUE DATA REPORTING FORM (Part 2) **RESIDUE STUDY QUALITY ASSURANCE REPORT SHEET**

INSTRUCTION: For the residue study captioned below, the Quality Assurance Unit (QAU) must enter the type of inspections or audits performed, the date each was done, and the date the findings were reported to Management and the Study Director. The completed form becomes part of the study record. QAU records are to be maintained and indexed as per 40 CFR Part 160.

PR#: 08550 Lab ID #: 08550.20-CAR10 Commodity: <u>Onion</u> Analysis for residues of: <u>Flonicamid</u> Laboratory Research Director: <u>Matt Hengel</u>

#### **INSPECTION/AUDIT\*\***

TYPE	DATE	BY	DATE REPORTED*
1. <u>CPI-L</u>	<u>5/19/21</u>	M. Beran	5/20/21
2. <u>RDA -ASR</u>	11/3-5, 8-9/21	M. Beran	11/10/21

\*Date findings reported to management and study director

\*\*CPI= Critical Phase Inspection; RDA= Raw Data Audit; ASR= Analytical Summary Report.

Date: 11/23/21 Signature: Name: (Print): Martin Beran

Name: (Print): Martin Beran Quality Assurance Coordinator Phone: (530) 754-8525

Address: Dept of Environmental Toxicology, University of California. Davis, CA 95616-8588

### LABORATORY PERSONNEL

Designation

Matt Hengel Laboratory Research Director Bronson Hung Analyst, Sample Control Officer Paul Kuzmicky Analyst Alexander McFall Analyst Tey Montalvo Analyst Riza Punongbayan Analyst, Report Preparation Salvador Chava Torres Asst. Sample Control Officer Fabiola G. Zuno Analyst

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#### Attachments

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#### LOCATION OF RAW DATA

Original raw data, a certified copy of the signed protocol, amendments, correspondence logs and all relevant information for the study titled: "Flonicamid: Magnitude of the Residue on Onion, PR# 08550" along with a certified copy of the signed analytical summary report will be maintained in the archives of the testing laboratory. The original copy of the analytical summary report will be forwarded to the sponsor.

Portions of the field samples will be retained at the testing laboratory in a freezer generally  $-20^{\circ}$ C for at least 12 months after submission of the laboratory report. The long term storage stability samples will be stored for at least 5 years at generally  $-20^{\circ}$ C. The study director will be consulted before the field samples or the storage stability samples are discarded.

Laboratory Research Director:	Matt Hengel
Festing Laboratory:	IR-4 Western Region Laboratory Department of Environmental Toxicology University of California, Davis 4218 Meyer Hall Davis, CA 95616
	101. NO (330) 732-2402

#### IR-4 NATIONAL PESTICIDE CLEARANCE RESEARCH PROGRAM ANALYTICAL SUMMARY REPORT PR#08550: FLONICAMID/ONION

#### I. Objective/Introduction

At the request of IR-4 Headquarters, the Western Region Laboratory at the University of California, Davis (UCD) has assayed onion for residues of Flonicamid (CAS# 158062-67-0) and its metabolites to provide data to support the establishment of a pesticide tolerance The method used in this study was derived from "Analytical Methodology for IKI-220 (F1785) and its Major Metabolites in/on Peach, Potato Tuber, and Wheat Straw", Audrey W. Chen, Ph.D., Report Number P-3561M, FMC Corporation Agricultural Products Group, Princeton, NJ. August 28, 2002.Steps where the UCD working method significantly diverges from the method referenced in the protocol are noted in Section V. Modifications. The study followed IR-4 National Pesticide Clearance Laboratory Phase Protocol PR# 08550 as amended. The validated method sensitivity is 0.01 ppm flonicamid and its metabolites TFNG-AM, TFNA, TFNG.

#### II. Sample Inventory/History

Upon arrival at the laboratory, samples were opened, inspected, and checked against the enclosed shipping form. Unique laboratory sample ID numbers were assigned as listed in Table II.1. Samples were stored frozen. Samples from field trial CA\*20 were received with untrimmed roots. At the request of the Study Director, the roots were removed while frozen with a clean knife before processing.

Raw Agricultural Commodity (RAC) samples were processed with dry ice in either a floor model Hobart food chopper or a Robot Coupe food chopper. After the entire sample was chopped, a portion was placed in labeled glass pint jars and surplus was put back into the sample bag. Samples chopped with the Hobart food chopper were sifted through a #6 wire mesh screen into glass pint jars and surplus was put back into the sample bag. Glass jars and sample bags were returned to the freezer and stored frozen (generally -20°C).

Table 11.1: Sample Inventory						
Field Trial	Crop	Field Sample	eld Sample Lab Sampling		Lab Receipt	Processing
	Fraction	ID	Sample		Date	Date
			ID			
		DBA	28989	12/03/20	12/08/20	01/04/21
CA *10	D-11-1	DBB	28990	12/03/20	12/08/20	01/04/21
CA*19	Bulbs	DBC	28991	12/03/20	12/08/20	01/04/21
		DBD	28992	12/03/20	12/08/20	01/04/21
		GA	28849	08/31/20	11/10/20	12/21/20
<b>G</b> 1 1 <b>6</b> 0		GB	28850	08/31/20	11/10/20	12/21/20
CA*20	Plants	GC	28851	08/31/20	11/10/20	12/21/20
		GD	28852	08/31/20	11/10/20	12/21/20
		DBA	28861	10/02/20	11/10/20	01/04/21
		DBR	28862	10/02/20	11/10/20	01/04/21
WA*403	Bulbs	DBC	28863	10/02/20	11/10/20	01/05/21
		DBD	28864	10/02/20	11/10/20	01/05/21
		DBA	20004	06/07/21	07/14/21	07/19/21
		DBR	29140	06/07/21	07/14/21	07/19/21
TX380	Bulbs	DBD	29149	06/07/21	07/14/21	07/19/21
			29130	06/07/21	07/14/21	07/19/21
			29131	06/07/21	07/07/20	07/19/21
			28241	06/30/20	07/07/20	07/16/20
CA16	Bulbs	DBB	28242	06/30/20	07/07/20	07/16/20
		DBC	28243	06/30/20	07/07/20	07/16/20
		DBD	28244	06/30/20	0//0//20	0//16/20
		DBA	28304	08/07/20	08/12/20	01/04/21
CA17	Bulbs	DBB	28305	08/07/20	08/12/20	01/04/21
		DBC	28306	08/07/20	08/12/20	01/05/21
		DBD	28307	08/07/20	08/12/20	01/05/21
		GA	28225	05/11/20	06/04/20	07/27/20
CA18	Plants	GB	28226	05/11/20	06/04/20	07/27/20
CITIO		GC	28227	05/11/20	06/04/20	07/27/20
		GD	28228	05/11/20	06/04/20	07/27/20
		DBA	28857	09/14/20	11/10/20	01/05/21
ID181	Dulla	DBB	28858	09/14/20	11/10/20	01/05/21
ID101	Duitos	DBC	28859	09/14/20	11/10/20	01/05/21
		DBD	28860	09/14/20	11/10/20	01/05/21
		DBA	28654	09/08/20	09/24/20	01/05/21
WA 404	Dulha	DBB	28655	09/08/20	09/24/20	01/05/21
WA404	Buibs	DBC	28656	09/08/20	09/24/20	01/06/21
		DBD	28657	09/08/20	09/24/20	01/06/21
		GA	28265	06/11/20	07/13/20	08/03/20
00.405	DI /	GB	28266	06/11/20	07/13/20	08/03/20
OK405	Plants	GC	28267	06/11/20	07/13/20	08/03/20
		GD	28268	06/11/20	07/13/20	08/03/20
		DBA	28853	08/23/20	11/10/20	12/08/20
		DBB	28854	08/23/20	11/10/20	12/08/20
CO461	Bulbs	DBC	28855	08/23/20	11/10/20	12/08/20
		DBD	28856	08/23/20	11/10/20	12/08/20

#### S lo T ht. тт 4

#### III. Preparation of Storage Stability Samples

Storage stability samples were prepared by the laboratory. The analysis of these samples was not required because the samples were stored for less than the 23 month period covered by existing storage stability data.

10	Table 111.1. Treparation of Storage Stability Samples									
Field Trial	Field Sample ID	Crop Fraction	No. Prepared	Sample Size (g)	Std #	Conc. µg/mL	µL Added	µg Added	Fort. Level ppm	Date Fortified
CA16	DBA	Bulbs	3	2.50	687-1M3	1.0	250	0.25	0.1	07/17/20
CA16	DBB	Bulbs	3	2.50	687-1M3	1.0	250	0.25	0.1	07/17/20

#### Table III.1: Preparation of Storage Stability Samples

Note: All samples were weighed into 50 mL polypropylene tubes and stored in the dark at generally -20° C.

#### IV. Standard Preparation

Stock Solutions:

Prepare a primary stock solution for each compound: flonicamid, TFNA-AM, TFNA, and TFNG. For all compounds, 25 mg (corrected for purity) of analytical standard is accurately weighed and transferred to a 25 mL volumetric flask. The standards are brought to volume with acetonitrile. The resulting solution concentrations are 1.0 mg/mL. These solutions are stored in amber glass bottles in the freezer (ca. -20°C) when not in use. When stored in the freezer in amber bottles, these stock solutions are stable for 1 year, per the reference method.

Fortification Standards:

Typically, the following analyte concentrations are prepared. All solutions are stored in amber bottles in the freezer when not in use and are stable for 6 months, per the reference method.

<u> $100 \mu g/mL Mix$ </u>: Transfer 2.50 mL of each 1.0 mg/mL standard into a 25 mL volumetric flask. Bring to volume with acetonitrile. Mix well.

<u>10  $\mu$ g/mL Mix</u>: Transfer 2.50 mL of the 100  $\mu$ g/mL mixed standard solution into a 25 mL volumetric flask. Bring to volume with acetonitrile. Mix well.

<u> $1.0 \ \mu g/mL Mix$ </u>: Transfer 2.50 mL of the 10  $\mu g/mL$  mixed standard solution into a 25 mL volumetric flask. Bring to volume with acetonitrile. Mix well.

<u> $0.10 \ \mu g/mL Mix</u>$ : Transfer 2.50 mL of the 1.0  $\mu g/mL$  mixed standard solution into a 25 mL volumetric flask. Bring to volume with acetonitrile. Mix well.</u>

<u>0.010  $\mu$ g/mL Mix</u>: Transfer 2.50 mL of the 0.10  $\mu$ g/mL mixed standard solution into a 25 mL volumetric flask. Bring to volume with acetonitrile. Mix well.

LC-MS/MS (Calibration) Standard Solutions:

All calibration standard solutions are stored in amber bottles in the freezer when not in use. Solutions are prepared in 5:95 acetonitrile:water, and are considered stable in the freezer for 14 days. Typically, the following concentrations of calibration solutions are prepared:

<u>1.0 pg/ $\mu$ L</u>: Transfer 2.50 mL of 0.010  $\mu$ g/mL mixed standard solution into a 25 mL volumetric flask. Bring to volume with 5:95 acetonitrile:water. Mix well.

<u>0.50 pg/ $\mu$ L</u>: Transfer 1.25 mL of 0.010  $\mu$ g/mL mixed standard solution into a 25 mL volumetric flask. Bring to volume with 5:95 acetonitrile:water. Mix well.

<u>0.25 pg/ $\mu$ L</u>: Transfer 625  $\mu$ L of 0.010  $\mu$ g/mL mixed standard solution into a 25 mL volumetric flask. Bring to volume with 5:95 acetonitrile:water. Mix well.

<u>0.10 pg/ $\mu$ L</u>: Transfer 250  $\mu$ L of 0.010  $\mu$ g/mL mixed standard solution into a 25 mL volumetric flask. Bring to volume with 5:95 acetonitrile:water. Mix well.

<u>0.050 pg/ $\mu$ L</u>: Transfer 125  $\mu$ L of 0.010  $\mu$ g/mL mixed standard solution into a 25 mL volumetric flask. Bring to volume with 5:95 acetonitrile:water. Mix well.

#### V. Analytical Procedure

#### **Principle of Method**

Residues of flonicamid (aka IKI-220), 4-trifluoromethylnicotinamide (TFNA-AM), 4trifluoromethylnicotinic acid (TFNA), and *N*-(4-trifluoromethylnicotinoyl) glycine (TFNG) are extracted from samples via sequential shake extractions with a 50/50 water/acetonitrile mixture. The acetonitrile is removed via evaporation, the extract is acidified, the volume is adjusted, and then the samples are cleaned up using C-18 solid phase extraction (SPE). The extracts are then evaporated once more to remove ACN, diluted as necessary, and then analyzed using liquid chromatography coupled with positive-ion electrospray mass spectrometry (LC-MS/MS). The lowest level of method validation (LLMV) is 0.01 ppm and the limit of detection is ten percent below the lowest calibration standard.

#### **Materials and Reagents**

Acetonitrile, Optima LC-MS grade, Fisher Methanol, Optima LC-MS grade, Fisher Water, Type I (18.2 MΩcm, Milli-Q) Formic acid LC-MS grade, Thermo Scientific Hydrochloric acid, GR ACS grade, EMD Mega Bond Elut C18 SPE Cartridges, 1g/6mL, Agilent 50 mL polypropylene tubes, Corning Flint glass test tubes, 16 x 100 mm, Fisher 50 mL graduated cylinders, Corning LC column: InfinityLab Poroshell 120 EC-18, 2.1 x 100 mm, 2.7 µm, Agilent Guard column: Poroshell 120 EC-C18, 2.1 x 5 mm, 2.7 µm, Agilent

#### **Method Procedure**

#### 1. Extraction

- 1.1. Weigh out 2.5 g of sample into a 50 mL polypropylene tube, fortify at this point for concurrent recovery samples (fortified as a mixture).
- 1.2. Add 40 mL of 50:50 ACN:Water (v:v).
- 1.3. Using a platform shaker, shake the samples for 30 minutes at 200 RPM.
- 1.4. Centrifuge the samples for 5 mins at 4000 RPM, and then decant the extract through a funnel containing Whatman #1 filter paper into a clean TurboVap tube (Note 1).
- 1.5. Add 40 mL of 50:50 ACN:Water to the original sample pellet, and shake using a platform shaker for 30 minutes at 200 RPM.
- 1.6. Centrifuge the samples for 5 mins at 4000 RPM, and pass through the same filter to combine with the step 1.4 extract. Rinse the filter paper with 5 mL of 50:50 ACN:Water.

#### 2. Evaporation

- 2.1. Evaporate the samples using a TurboVap (50°C, 24 PSI) until ~ 30 mL remain (to ensure no ACN is present, approximately 60 minutes, Note 2).
- 2.2. Add 0.50 mL of concentrated HCl to each sample and transfer to a 50 mL graduated cylinder.
- 2.3. Rinse the TurboVap tube twice with 5 mL of Milli-Q water and add to the graduated cylinder. Adjust the volume to 50 mL with additional Milli-Q water and transfer to a 50-mL polypropylene centrifuge tube for storage.

#### 3. C-18 SPE Cleanup

- 3.1. Condition each C-18 cartridge (1g/6mL) with 1 CV of methanol followed by 1 CV of 0.25N HCl in water.
- 3.2. Aliquot 2 mL of sample extract onto the cartridge and load (1-2 drops/sec), discarding the eluate. Briefly use full vacuum to pull all possible solution through the packing.
- 3.3. Elute the analytes (1-2 drops/sec) with 6 mL of 20:80 ACN:Water (v:v) into a glass test tube.
- 3.4. Using a TurboVap LV (45°C, ~12 PSI), evaporate the samples until 4-5 mL remain (approximately 10 minutes, Note 2).
- 3.5. Transfer to a graduated centrifuge tube and bring up to 10 mL with 0.25N HCl in water (Note 3). Submit to LC-MS/MS for analysis.

#### Modifications

- 1. Filtered samples prior to TurboVap, not after. Onion samples often have loose bits of skin/crop material that float to the surface and should be removed once extraction is completed.
- 2. Reduced sample aliquot size used in SPE from 10 mL to 2 mL. Greater instrument sensitivity allows for less sample extract to be used.
- 3. Removed liquid-liquid partition step after SPE cleanup. Testing showed extract was sufficiently clean after C18 cleanup.

#### Notes

- 1. Some onion crops possess very fine particle sizes that are more prone to clogging filter paper. To assist in filtration, a Buchner funnel with moderate vacuum may be substituted for gravity filtration.
- 2. May adjust evaporation times to ensure samples are evaporated to the proper remaining volume.
- 3. Typically, fortification samples at LLMV (0.01 ppm) and unknowns will be brought up to a 10 mL final volume using 0.25N HCl in water to approximate a final composition of 5:95 ACN:Water. Further dilution will use 5:95 ACN:Water to maintain approximate composition. Unknown and concurrent fortification sample volumes and dilutions may be adjusted as necessary.

#### VI. Quantitation:

#### **Calculations:**

Prepare a five-point standard curve by injecting constant volumes of standard solutions. Use constant volume injections for sample extracts as well. Sample responses not within 10% of the standard curve require volume adjustment and re-injection. Samples will not be adjusted below the equivalent volume of the LLMV. Inject a calibration standard after every four sample injections. Calculations for instrumental analysis are conducted by Agilent "MassHunter" software to create a standard curve based on linear regression. The regression functions are used to calculate a best fit line (from a set of standard concentrations in  $pg/\mu L$  versus peak response) and to determine sample analyte concentrations.

The equation used for the least squares fit is: y = mx + b, where y = peak response,  $x = pg/\mu L$  found for peak of interest, m = slope and b = y-intercept. Concurrent recovery samples are control samples fortified with known amounts of analyte prior to extraction.

Percent recovery (if calculated by measuring the peak area) is calculated as shown below:

 $pg/\mu L$  determined x  $\mu L$  injected = actual ppm analyte mg crop injected x 1000 conv. factor

<u>actual ppm analyte</u> x 100 = % Recovery expected ppm analyte

Example Calculation:

Sample: 28857V0.01R9	(Flonicar	nid, 05042021a023.d)
$\frac{0.0909 \text{ pg/}\mu\text{L x 10 injec}}{0.100 \text{ mg x 1000 conv. factor}}$	<u>eted</u> =	0.00909 ppm Flonicamid

<u>0.00909 actual ppm flonicamid</u> x 100 = 91% Recovery 0.0100 expected ppm flonicamid

#### For expressing in equivalents;

Metabolite residues are expressed as parent equivalents and are calculated by using the formula:

Average ppm \* (conversion factor) = ppm found

The conversion factor was calculated using the formula:

Flonicamid MW ÷ metabolite MW = conversion factor

Compound	Molecular Weight (MW)	<b>Conversion Factor</b>
Flonicamid	229.17	
TFNA-AM	190.12	1.205
TFNA	191.11	1.199
TFNG	248.16	0.9235

#### **Instrument Parameters:**

Instrumentation:	"Speeder" Agilent 6460 LC-MS/MS
Autosampler:	Agilent 1200 Series
Pumps:	Agilent 1200 Series
Data System:	Agilent MassHunter software (b.06 running on Windows
	7). Data exported to Microsoft Excel.
Mobile Phase:	A = 0.1% formic acid in water
	B = 0.1% formic acid in methanol
Column temperature:	40 °C
Injection size:	10 μL

Gradient Program:

Total Time	Flow Rate	Solvent A (%)	Solvent B (%)
(min)	(mL/min)		
0.00	0.400	98.0	2.0
0.50	0.400	98.0	2.0
2.50	0.400	90.0	10.0
3.50	0.400	90.0	10.0
5.50	0.400	70.0	30.0
6.50	0.400	70.0	30.0
8.50	0.400	2.0	98.0
10.50	0.400	2.0	98.0
10.60	0.400	98.0	2.0
18.00	0.400	98.0	2.0

LC-MS/MS Interface:	ESI + Agilent Jet Stream
Ionization Mode:	Positive
Gas Temperature:	300 °C
Gas Flow:	10 L/min (N <sub>2</sub> )
Nebulizer:	45 psi (N <sub>2</sub> )
Capillary:	3000 V (+)
Sheath Gas Temperature:	300 °C
Sheath Gas Flow:	12 (L/min)
Nozzle Voltage:	500 V

#### Analyte Parameters:

Compound	Transition	MS1 (m/z)	MS2 (m/z)	Dwell	Frag (V)	CE (V)	~ Rt (min)
TFNA	Quantifier	192.1	148.0	200	45	20	6.0
TFNA	Qualifier	192.1	98.1	200	45	32	6.0
TFNA-AM	Quantifier	191.1	148.0	200	45	20	5.3
TFNA-AM	Qualifier	191.1	98.1	200	45	32	5.3
TFNG	Quantifier	249.2	203.0	200	45	16	7.2
TFNG	Qualifier	249.2	148.0	200	45	28	7.2
Flonicamid	Quantifier	230.2	98.1	200	45	44	7.7
Flonicamid	Qualifier	230.2	148.0	200	45	28	7.7

#### Diverter Valve Program:

Total Time	Valve Position	Analyte(s)
0.0	Waste	N/A
4.0	MS	TFNA, TFNA-AM
6.6	MS	TFNG, Flonicamid
9.0	Waste	N/A

#### Needle Wash Program (flushing solution: 0.1% formic acid in 45:45:10 MeOH:ACN:Water):

Step	Action
Wash	Wash needle in flushport for 10s
Draw	Draw default volume from sample with default speed using default offset
Wash	Wash needle in flushport for 10s
Inject	Inject

#### VII. Results and Discussion:

The fortified sample results are reported below as ppm flonicamid, TFNA-AM, TFNA, TFNG and total flonicamid. For field samples, flonicamid residues are reported as such and metabolite residues are reported as parent equivalents. Summary of results are listed below:

Crop	Spike	Lab Sample ID	Type of	Flonicamid	Average	Recoveries	Average	
Fraction	Level		<b>Recovery</b> <sup>1</sup>	Found	ppm	(%)	Recovery	
	ppm	2005710 0107		<b>ppm</b>		0.5	(%)2	
		2885/V0.01R/	MV	0.00948		95		
		28857V0.01R8	MV	0.00864	4	86	94±6	
	0.01	28857V0.01R9	MV	0.00958	0.00020	96		
	0.01	28853C0.01R1	CR	0.00917	0.00939	92		
		28241C0.01R2	CR	0.00907		91		
		28861C0.01R3	CR	0.00937		94		
		29148C0.01R4	CR	0.0104		104		
		28857V0.1R4	MV	0.0945	-	94		
Bulbs	0.1	28857V0.1R5	MV	0.0936	0.0943	94	94±1	
		28857V0.1R6	MV	0.0948		95		
		28857V1.0R4	MV	0.965		97		
		28857V1.0R5	MV	0.961		96	96±6	
		28857V1.0R6	MV	0.969	_	97		
	1.0	28853C1.0R1	CR	0.987	0.962	99		
		28241C1.0R2	CR	0.851		85		
		28861C1.0R3	CR	1.05		105		
		29148C1.0R4	CR	0.951		95		
		28849V0.01R1	MV	0.00960		96	91±6	
		28849V0.01R2	MV	0.00924		92		
	0.01	28849V0.01R3	MV	0.00909	0.00008	91		
	0.01	28265C0.01R1	CR	0.00913	0.00908	91		
		28265C0.01R2	CR	0.00797		80		
		28225C0.01R3	CR	0.00945		94		
		28849V0.1R1	MV	0.0890		89		
Dissets	0.1	28849V0.1R2	MV	0.0894	0.0007	89	01:0	
Plants	0.1	28849V0.1R3	MV	0.0925	0.0907	93	91±2	
		28225C0.10R1	CR	0.0920		92	1	
		28849V1.0R1	MV	0.990		99		
	1.0	28849V1.0R2	MV	0.981	0.987	98	99±1	
		28849V1.0R3	MV	0.989	1	99		
		28849V2.0R1	MVE	2.32		116		
	2.0	28849V2.0R2	MVE	2.23	2.20	111	110±7	
		28849V2.0R3	MVE	2.05	1	103	1	

Table VII.1.1	: Summarv	of Recoveries.	Flonicamid
	• Summary		1 Iomcumu

Crop	Spike	Lab Sample ID	Type of	TFNA-AM	Average	Recoveries	Average	
Fraction	Level		<b>Recovery</b> <sup>1</sup>	Found	ppm	(%)	Recovery	
	ppm	2005710 0107		<b>ppm</b>		104	(%)2	
		2885/V0.01R/	MV	0.0104	4	104	96±7	
		28857V0.01R8	MV	0.00948	-	95		
	0.04	28857V0.01R9	MV	0.00940		94		
	0.01	28853C0.01R1	CR	0.00937	0.00958	94		
		28241C0.01R2	CR	0.00865		86		
		28861C0.01R3	CR	0.00916		92		
		29148C0.01R4	CR	0.0106		106		
		28857V0.1R4	MV	0.0901		90		
Bulbs	0.1	28857V0.1R5	MV	0.0906	0.0904	91	90±1	
		28857V0.1R6	MV	0.0904		90		
		28857V1.0R4	MV	0.935		94	95±7	
	1.0	28857V1.0R5	MV	0.944		94		
		28857V1.0R6	MV	0.931		93		
		28853C1.0R1	CR	0.934	0.952	93		
		28241C1.0R2	CR	0.829		83		
		28861C1.0R3	CR	1.05		105		
		29148C1.0R4	CR	1.04		104		
		28849V0.01R1	MV	0.0106		106	95±6	
		28849V0.01R2	MV	0.00965		96		
	0.01	28849V0.01R3	MV	0.00905	0.00050	90		
	0.01	28265C0.01R1	CR	0.00919	0.00950	92		
		28265C0.01R2	CR	0.00881		88		
		28225C0.01R3	CR	0.00969		97		
		28849V0.1R1	MV	0.0838		84		
Dissets	0.1	28849V0.1R2	MV	0.0870	0.0002	87	00 1 4	
Plants	0.1	28849V0.1R3	MV	0.0892	0.0883	89	88±4	
		28225C0.10R1	CR	0.0931		93		
		28849V1.0R1	MV	0.934		93		
	1.0	28849V1.0R2	MV	0.958	0.948	96	95±2	
		28849V1.0R3	MV	0.953	1	95		
		28849V2.0R1	MVE	2.17		108		
	2.0	28849V2.0R2	MVE	1.98	2.10	99	105±5	
		28849V2.0R3	MVE	2.16	1	108	100-0	

Table VII.1.2: Summary of Recoveries, TFNA-AM

Crop	Spike	Lab Sample ID	Type of	TFNA	Average	Recoveries	Average
Fraction	Level	-	<b>Recovery</b> <sup>1</sup>	Found	ppm	(%)	Recovery
	ррт			ppm			(%) <sup>2</sup>
		28857V0.01R7	MV	0.00969		97	95±6
		28857V0.01R8	MV	0.00906		91	
		28857V0.01R9	MV	0.00918		92	
	0.01	28853C0.01R1	CR	0.00966	0.00949	97	
		28241C0.01R2	CR	0.00985		98	
		28861C0.01R3	CR	0.00860		86	
		29148C0.01R4	CR	0.01040		104	
		28857V0.1R4	MV	0.0906		91	
Bulbs	0.1	28857V0.1R5	MV	0.0943	0.0924	94	92±2
		28857V0.1R6	MV	0.0924		92	
		28857V1.0R4	MV	0.929		93	
		28857V1.0R5	MV	0.922		92	98±8
	1.0	28857V1.0R6	MV	0.949		95	
		28853C1.0R1	CR	0.985	0.978	99	
		28241C1.0R2	CR	0.908		91	
		28861C1.0R3	CR	1.03		103	
		29148C1.0R4	CR	1.12		112	
		28849V0.01R1	MV	0.0104		104	
		28849V0.01R2	MV	0.00891		89	04+6
	0.01	28849V0.01R3	MV	0.00971	0.00040	97	
		28265C0.01R1	CR	0.00874	0.00940	87	94±0
		28265C0.01R2	CR	0.00915		91	
		28225C0.01R3	CR	0.00949		95	
		28849V0.1R1	MV	0.0900		90	
Dianta	0.1	28849V0.1R2	MV	0.0861	0.0804	86	<u>80</u> ⊥2
Flains	0.1	28849V0.1R3	MV	0.0913	0.0694	91	89±2
		28225C0.10R1	CR	0.0902		90	
		28849V1.0R1	MV	0.948		95	
	1.0	28849V1.0R2	MV	0.971	0.959	97	96±1
		28849V1.0R3	MV	0.959		96	
		28849V2.0R1	MVE	2.13		107	
	2.0	28849V2.0R2	MVE	2.05	2 10	103	105±2
		28849V2.0R3	MVE	2.13	2.10	106	

Table VII.1.3: Summary of Recoveries, TFNA

Crop	Spike	Lab Sample ID	Type of	TFNG	Average	Recoveries	Average	
Fraction	Level	-	<b>Recovery</b> <sup>1</sup>	Found	ppm	(%)	Recovery	
	ppm			ppm			(%) <sup>2</sup>	
		28857V0.01R7	MV	0.0103		103		
		28857V0.01R8	MV	0.0100		100		
		28857V0.01R9	MV	0.00956		96		
	0.01	28853C0.01R1	CR	0.00951	0.00995	95	100±3	
		28241C0.01R2	CR	0.0101		101		
		28861C0.01R3	CR	0.00991		99		
		29148C0.01R4	CR	0.0103		103		
		28857V0.1R4	MV	0.102		102		
Bulbs	0.1	28857V0.1R5	MV	0.0984	0.0997	98	100±2	
		28857V0.1R6	MV	0.0986		99		
		28857V1.0R4	MV	1.06		106		
		28857V1.0R5	MV	1.10		110	109±6	
	1.0	28857V1.0R6	MV	1.09		109		
		28853C1.0R1	CR	1.05	1.09	105		
		28241C1.0R2	CR	0.995		100		
		28861C1.0R3	CR	1.18		118		
		29148C1.0R4	CR	1.13		113		
		28849V0.01R1	MV	0.00922		92	-	
		28849V0.01R2	MV	0.00917		92		
	0.01	28849V0.01R3	MV	0.00851	0.00020	85	93±5	
		28265C0.01R1	CR	0.0100	0.00929	100		
		28265C0.01R2	CR	0.00904		90		
		28225C0.01R3	CR	0.00982		98		
		28849V0.1R1	MV	0.0982		98		
Plants	0.1	28849V0.1R2	MV	0.0983	0.100	98	100+2	
1 Idints	0.1	28849V0.1R3	MV	0.102	0.100	102	100±3	
		28225C0.10R1	CR	0.103		103		
		28849V1.0R1	MV	1.04		104		
	1.0	28849V1.0R2	MV	1.05	1.05	105	$105\pm2$	
		28849V1.0R3	MV	1.07		107		
		28849V2.0R1	MVE	2.35		117		
	2.0	28849V2.0R2	MVE	2.27	2.33	114	116±2	
		28849V2.0R3	MVE	2.37		118		

Table VII.1.4: Summary of Recoveries, TFNG

 Table VII.2: Residue Data Results

Trial ID	Crop	Field	Lab	Sampling	Extraction	Analysis	Storage		Re	sidue Results (pr	om)	
	Fraction	Sample ID	Sample ID	Date	Date	Date	Interval <sup>1</sup> (Days)	Flonicamid	TFNA-AM ppmfound/ parent equivalent <sup>2</sup>	TFNA ppm found/ parent equivalent <sup>2</sup>	TFNG ppmfound/ parent equivalent <sup>2</sup>	Total Flonicamid <sup>3</sup>
		DBA	28989	12/03/20	05/06/21	05/06/21		< 0.01	< 0.01	< 0.01	< 0.01	
CA*19 E	D.,11. a	DBB	28990	12/03/20	N/A	NA						
	Buids	DBC	28991	12/03/20	05/06/21	05/06/21	154	0.011	< 0.01	0.013/0.016	0.01/0.0092	0.046
		DBD	28992	12/03/20	05/06/21	05/06/21	154	0.012	< 0.01	0.015/0.018	0.01/0.0092	0.050
		C A	20040	08/21/20	05/14/21	05/14/21		< 0.01	< 0.01	< 0.01	< 0.01	
		UA	20049	08/31/20	05/26/21	05/26/21		< 0.01	< 0.01	< 0.01	< 0.01	
CA*20 P	Plants	GB	28850	08/31/20	N/A	NA						
		GC	28851	08/31/20	05/24/21	05/24/21	266	0.86	0.015/0.018	< 0.01	0.013/0.012	0.90
		GD	28852	08/31/20	05/24/21	05/24/21	266	1.1	0.022/0.027	< 0.01	0.020/0.018	1.2
		DBA	28861	10/02/20	05/25/21	05/25/21		< 0.01	< 0.01	< 0.01	< 0.01	
WA*403	Bulbe	DBB	28862	10/02/20	N/A	NA						
WA 403	Duios	DBC	28863	10/02/20	05/25/21	05/25/21	235	< 0.01	< 0.01	< 0.01	< 0.01	0.040
		DBD	28864	10/02/20	05/25/21	05/25/21	235	< 0.01	< 0.01	< 0.01	< 0.01	0.040
		DBA	29148	06/07/21	07/20/21	07/2021		< 0.01	< 0.01	< 0.01	< 0.01	
TX380	Bulbs	DBB	29149	06/07/21	N/A	NA						
17300	Duios	DBC	29150	06/07/21	07/20/21	07/2021	43	0.012	< 0.01	< 0.01	< 0.01	0.042
		DBD	29151	06/07/21	07/20/21	07/2021	43	0.019	< 0.01	< 0.01	< 0.01	0.049
		DBA	28241	06/30/20	05/10/21	05/10/21		< 0.01	< 0.01	< 0.01	< 0.01	
CA16	Bulbe	DBB	28242	06/30/20	N/A	NA						
CAIO	Duios	DBC	28243	06/30/20	05/10/21	05/10/21	314	0.029	< 0.01	< 0.01	0.011/0.010	0.059
		DBD	28244	06/30/20	05/10/21	05/10/21	314	0.021	< 0.01	< 0.01	0.010/0.0092	0.050
		DBA	28304	08/07/20	05/10/21	05/10/21		< 0.01	< 0.01	< 0.01	< 0.01	
CA17	Bulbs	DBB	28305	08/07/20	N/A	NA						
CAI/	Duios	DBC	28306	08/07/20	05/10/21	05/10/21	276	0.026	< 0.01	< 0.01	< 0.01	0.056
		DBD	28307	08/07/20	05/10/21	05/10/21	276	0.031	< 0.01	< 0.01	< 0.01	0.061
		GA	28225	05/11/20	05/24/21	05/24/21		< 0.01	< 0.01	< 0.01	< 0.01	
CA18	Plants	GB	28226	05/11/20	N/A	NA						
CAIO	1 101113	GC	28227	05/11/20	05/24/21	05/24/21	378	1.3	0.043/0.052	0.030/0.036	0.046/0.042	1.4
		GD	28228	05/11/20	05/24/21	05/24/21	378	1.4	0.050/0.060	0.038/0.046	0.054/0.050	1.6
		DBA	28857	09/14/20	05/04/21	05/04/21		< 0.01	< 0.01	< 0.01	< 0.01	
ID181	Bulbs	DBB	28858	09/14/20	N/A	NA						
10101	Duios	DBC	28859	09/14/20	05/10/21	05/10/21	238	< 0.01	< 0.01	< 0.01	< 0.01	0.040
		DBD	28860	09/14/20	05/10/21	05/10/21	238	0.010	< 0.01	< 0.01	< 0.01	0.040
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Trial ID	Crop	Field	Lab	Sampling	Extraction	Analysis	Storage		Re	sidue Results (pp	m)	
	Fraction	Sample	Sample	Date	Date	Date	Interval <sup>1</sup>	Flonicamid	TFNA-AM	TFNA	TFNG	Total
		ID	ID				(Days)		ppmfound/	ppm found/	ppmfound/	Flonicamid <sup>3</sup>
							-		parent	parent	parent	
									equivalent <sup>2</sup>	equivalent <sup>2</sup>	equivalent <sup>2</sup>	
		DBA	28654	09/08/20	05/25/21	05/25/21		< 0.01	< 0.01	< 0.01	< 0.01	
WA 404	Dulha	DBB	28655	09/08/20	N/A	NA						
WA404	Duios	DBC	28656	09/08/20	05/25/21	05/25/21	259	0.011	< 0.01	< 0.01	< 0.01	0.041
		DBD	28657	09/08/20	05/25/21	05/25/21	259	< 0.01	< 0.01	< 0.01	< 0.01	0.040
		GA	28265	06/11/20	05/19/21	05/19/21		< 0.01	< 0.01	< 0.01	< 0.01	
OD 405	Dlanta	GB	28266	06/11/20	N/A	NA						
08405	Plants	GC	28267	06/11/20	05/19/21	05/19/21	342	0.68	0.015/0.018	0.013/0.016	< 0.01	0.72
		GD	28268	06/11/20	05/19/21	05/19/21	342	0.71	0.012/0.014	0.014/0.017	< 0.01	0.75
		DBA	28853	08/23/20	05/06/21	05/06/21		< 0.01	< 0.01	< 0.01	< 0.01	
CO461	Dulba	DBB	28854	08/23/20	N/A	NA						
00401	Dulos	DBC	28855	08/23/20	05/06/21	05/06/21	256	0.13	< 0.01	<0.01	< 0.01	0.16
		DBD	28856	08/23/20	05/06/21	05/06/21	256	0.11	< 0.01	< 0.01	< 0.01	0.14

Table VII 2. Residue Data Results (cont.)

N/A=Not Analyzed <sup>1</sup>Storage Interval calculated from sampling to extraction of treated samples <sup>2</sup>Parent equivalent shown for treated samples with residues ≥LLMV.

<sup>3</sup>Total=flonicamid + TFNA-AM + TFNA + TFNG (metabolites in parent equivalents); for residues <LLMV a value of 0.01 is used to calculate the total

## ATTACHMENT A: INDEX TO REPRESENTATIVE CHROMATOGRAMS

Fle	onicamid	Page
A.	Standards	
B.	Miscellaneous Controls	
	Bulbs	
	Plants	
C.	Fortified Recoveries	
	Bulbs	
	Plants	
D.	Treated Samples	
	- Bulbs	
	Plants	

Each chromatogram represents a 10.0 µL injection.

An asterisk (\*) next to the retention time on a chromatogram indicates that the peak was manually integrated.

e 657-2713_008.d e 687-27110.0.05 pg/µL b Calibration		Ê				e (uir		
Data File Sample Nam Sample Type 5042021a_008	24 min. 14-AM	5.4 5.6 isition Time (m	5042021a_000 57 min. 564 3.64	s 6.2 6.4 lisition Time (m	5042021a_uuv 25 min	FNG 3.87 7.2 7.4 7 1.2 7.4 7 1.1 Time (n	6042021a_008	35 min. licamid 9.73
	849V	du 2	6.05 335 350	Acqu	- (0.	Acquire 4	30 (1.	Flon 33
9/1/12:03 08550_ESI_POS.m /ial 5 s 1 -> 148.0) 01	۴Ť	2- Υc	.1 -> 148.0	6.5.8	- 203	- 8.0	2 ~ 98	

a_009	5.6 me (min) a_009	6.	Ia_009	4 7.6 ime (min) a_009.d	







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6 (min)	013	6.4 e (min)	013	7.6 e (min)	013.d
Time	021a_	5.2 5.1	)21a_	7.4 Tim	21a_(
5.4	142	sition	1420	2 sitior	1420
5.2 5.4 Acquisition	48.0) 05142	Acquisition	203.0) 051420	7 7.2 Acquisitior	98.1) 051420
	e (min)	e (min) D13	e (min) 013	013	e (min) 013 013

-









Data File Data File Dista File   Sample Name 2889000101   5142021a_018   5142021a_018			
	118.4		





























Data File     05352021a_059.4       Sample Vype     Sample Sample Sample Vype       55021a_029     5.4       5.4     5.6       10.0     Time (min)								
	Data File 05253021a_029.d Sample Name 28656 Sample Type Sample	52021a_029	5.4 5.6 tion Time (min)	52021a_029	ain. 6.2 6.4 itton Time (min)	252021a_029	7.4 7.6 ition Time (min)	







051220221a_021.d	Data File Data File Stanple Upe Sample Upe   051920211_0211 051920211_021   1 051920211_021   1 1   1 051920211_021   1 051920211_021   1 051920211_021   1 051920211_021   1 051920211_021			
	m Bata File Sample Type Sample	21a_021.d		

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## ATTACHMENT B: DATA SUMMARIES AND STANDARD CURVES

550 - Flonicamid/Onion - F	<b>1ethod Validation</b>	1 - Dry Bulb - Extracted 5/4/202	21 by ASM													
				Sample	H	nj Vol				1	Conc				Ave %	1
Data File	RT	SampleName	Sample Info	Type /	fial Pos	(11)	5	nL Vol	ini gm	Resp	(Jul/6d)	bpm	Ave ppm	% Kec	Kec	201
05042021a_001.d	7.830	Condition		Sample	P1-A3	10.0										
05042021a_002.d	7.721	Condition		Sample	P1-A3	10.0										
05042021a_003.d	7.721	Condition		Sample	P1-A3	10.0										
05042021a_004.d	7.721	Condition		Sample	P1-A3	10.0										
05042021a_005.d	7.721	Condition		Sample	P1-A3	10.0										
05042021a_006.d	7.721	Condition		Sample	P1-A3	10.0										
05042021a_007.d	7.735	Condition		Sample	P1-A3	10.0										
05042021a_008.d	7.735	687-2M10 0.05 pg/µL		Calibration	Vial 5	10.0				39.73						
05042021a_009.d	7.721	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				73.08						
05042021a_010.d	7.735	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				176.93						
05042021a_011.d	7.721	687-2M7 0.50 pg/µL		Calibration	Vial 2	10.0				369.70						
05042021a_012.d	7.721	687-2M6 1.0 pg/µL		Calibration	Vial 1	10.0				718.72						
05042021a 013.d	1	28857	DBA-ID181	Sample	P1-A1	10.0	0.100	10.0	0.1000		<0.10	<0.01				
05042021a 014.d		28857	DBA-ID181	Sample	P1-A1	10.0	0.100	10.0	0.1000	-	<0.10	<0.01	<0.01			
05042021a_015.d		Reagent	Blank	Sample	P1-A2	10.0	0.100	10.0	0.1000	ļ	<0.10	<0.01				
05042021a_016.d	-	Reagent	Blank	Sample	P1-A2	10.0	0.100	10.0	0.1000	I	<0.10	<0.01	<0.01			
05042021a_017.d	7.721	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				72.91						
05042021a_018.d	7.735	28857V0.01R7	DBA-ID181	Sample	P1-A3	10.0	0.100	10.0	0.1000	68.09	0.0994	0.0099				
05042021a_019.d	7.735	28857V0.01R7	DBA-ID181	Sample	P1-A3	10.0	0.100	10.0	0.1000	61.45	2060.0	0600.0	0.00948	92%		
05042021a_020.d	7.735	28857V0.01R8	DBA-ID181	Sample	P1-A4	10.0	0.100	10.0	0.1000	57.64	0.0849	0.0085				
05042021a_021.d	7.721	28857V0.01R8	DBA-ID181	Sample	P1-A4	10.0	0.100	10.0	0.1000	59.81	0.0880	0.0088	0.00864	86%		
05042021a_022.d	7.735	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				169.93						
05042021a_023.d	7.735	28857V0.01R9	DBA-ID181	Sample	P1-A5	10.0	0.100	10.0	0.1000	61.97	6060.0	1600.0				
05042021a_024.d	7.735	28857V0.01R9	DBA-ID181	Sample	P1-A5	10.0	0.100	10.0	0.1000	69.03	0.1007	0.0101	0.00958	96%	92%	
05042021a_025.d	7.721	28857V0.1R4	DBA-ID181	Sample	P1-A6	10.0	0.100	40.0	0.0250	161.09	0.2282	0.0913				
05042021a_026.d	7.721	28857V0.1R4	DBA-ID181	Sample	P1-A6	10.0	0.100	40.0	0.0250	172.63	0.2442	120.0	0.0945	94%		
05042021a_027.d	7.735	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				67.88						
05042021a_028.d	7.735	28857V0.1R5	DBA-ID181	Sample	P1-A7	10.0	0.100	40.0	0.0250	161.83	0.2293	0.0917		1997		
05042021a_029.d	7.721	28857V0.1R5	DBA-ID181	Sample	P1-A7	10.0	0.100	40.0	0.0250	168.72	0.2388	0.0955	0.0936	94%		
05042021a_030.d	7.735	28857V0.1R6	DBA-ID181	Sample	P1-A8	10.0	0.100	40.0	0.0250	168.27	0.2382	0.0953				
05042021a_031.d	7.735	28857V0.1R6	DBA-ID181	Sample	P1-A8	10.0	0.100	40.0	0.0250	166.70	0.2360	0.0944	0.0948	92%	94%	
05042021a_032.d	7.735	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				163.41						
05042021a_033.d	7.735	28857V1.0R4	DBA-ID181	Sample	P1-A9	10.0	0.100	400.0	0.0025	158.34	0.2244	0.8976				
05042021a_034.d	7.735	28857V1.0R4	DBA-ID181	Sample	P1-A9	10.0	0.100	400.0	0.0025	182.75	0.2582	1.0329	0.965	6/6/6		
05042021a_035.d	7.735	28857V1.0R5	DBA-ID181	Sample	P1-B1	10.0	0.100	400.0	0.0025	165.00	0.2336	0.9346				
05042021a_036.d	7.735	28857V1.0R5	DBA-ID181	Sample	P1-B1	10.0	0.100	400.0	0.0025	174.69	0.2471	0.9883	0.961	%96		
05042021a_037,d	7.735	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				73.12						
05042021a_038.d	7.735	28857V1.0R6	DBA-ID181	Sample	P1-B2	10.0	0.100	400.0	0.0025	163.35	0.2314	0.9254		1		
05042021a_039.d	7.735	28857V1.0R6	DBA-ID181	Sample	P1-B2	10.0	0.100	400.0	0.0025	179.23	0.2534	1.0134	0.969	9/0/6	%16	
05042021a_040.d	7.735	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				163.89						
Colored I OD at 0.04																
Calculated LUD at V.V.	= Trl/bd c	- 67														

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0.0500

0.1000 0.1000

67.88 73.12 39.73

 $\square$   $\square$   $\square$ 

Calibration

Calibration

Calibration Calibration

> D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05042021\05042021a\_027.d D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05042021\05042021a\_037.d D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05042021\05042021a\_008.d

Data File	RT	SampleName	Sample Info	Sample Type	Vial Pos	Inj Vol (uL)		mL Vol	ini Ini	Resp	Conc (pq/uL)	mqq	Ave ppm	% Rec	Ave % Rec	Std Dev
05042021a 001.d	5.406	Condition		Sample	P1-A3	10.0	1									
05042021a_002.d	5.311	Condition		Sample	P1-A3	10.0										
05042021a_003.d	5.324	Condition		Sample	P1-A3	10.0										
05042021a_004.d	5.324	Condition		Sample	P1-A3	10.0										
05042021a_005.d	5.324	Condition		Sample	P1-A3	10.0										
05042021a_006.d	5.324	Condition		Sample	P1-A3	10.0										
05042021a_007.d	5.324	Condition		Sample	P1-A3	10.0										
05042021a_008.d	5.324	687-2M10 0.05 pg/µL		Calibration	Vial 5	10.0				102.78						
05042021a_009.d	5.324	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				193.12						
05042021a_010.d	5.324	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				493.80						
05042021a_011.d	5.311	687-2M7 0.50 pg/µL		Calibration	Vial 2	10.0				1002.01						
05042021a_012.d	5.297	687-2M6 1.0 pg/µL		Calibration	Vial 1	10.0				1996.77						
05042021a_013.d	+	28857	DBA-ID181	Sample	P1-A1	10.0	0.100	10.0	0.1000	-	<0.10	<0.01				
05042021a_014.d	ļ	28857	DBA-ID181	Sample	P1-A1	10.0	0.100	10.0	0,1000	-	<0.10	<0.01	<0.01			
05042021a_015.d	1	Reagent	Blank	Sample	P1-A2	10.0	0.100	10.0	0.1000	L	<0.10	<0.01				
05042021a_016.d	ł	Reagent	Blank	Sample	P1-A2	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.01			
05042021a_017.d	5.324	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				191.24						
05042021a_018.d	5.324	28857V0.01R7	DBA-ID181	Sample	P1-A3	10.0	0.100	10.0	0.1000	176.92	0.1055	0.0106				
05042021a_019.d	5.324	28857V0.01R7	DBA-ID181	Sample	P1-A3	10.0	0.100	10.0	0.1000	171.34	0.1028	0.0103	0.01041	104%		
05042021a_020.d	5.324	28857V0.01R8	DBA-ID181	Sample	P1-A4	10.0	0.100	10.0	0.1000	161.74	0860.0	0.0098				
05042021a_021.d	5.324	28857V0.01R8	DBA-ID181	Sample	P1-A4	10.0	0.100	10.0	0.1000	148.76	0.0916	0.0092	0.00948	95%		
05042021a_022.d	5.324	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				403.15						
05042021a 023.d	5.324	28857V0.01R9	DBA-ID181	Sample	P1-A5	10.0	0.100	10.0	0.1000	148.70	0.0916	0.0092				
05042021a_024.d	5.324	28857V0.01R9	DBA-ID181	Sample	P1-A5	10.0	0.100	10.0	0.1000	158.50	0.0964	0.0096	0.00940	94%	%86	6%9
05042021a_025.d	5.324	28857V0.1R4	DBA-ID181	Sample	P1-A6	10.0	0.100	40.0	0.0250	423.98	0.2278	0.0911				
05042021a_026.d	5.324	28857V0.1R4	DBA-ID181	Sample	P1-A6	10.0	0.100	40.0	0.0250	413.55	0.2226	0.0890	1060.0	%06		
05042021a_027.d	5.324	687-2M9 0.10 pg/pl		Calibration	Vial 4	10.0				157.93						
05042021a_028.d	5.324	28857V0.1R5	DBA-ID181	Sample	P1-A7	10.0	0.100	40.0	0.0250	414.24	0.2230	0.0892				
05042021a_029.d	5.324	28857V0.1R5	DBA-ID181	Sample	P1-A7	10.0	0.100	40.0	0.0250	428.59	0.2301	0.0920	0.0906	91%		
05042021a_030.d	5.324	28857V0.1R6	DBA-ID181	Sample	P1-A8	10.0	0.100	40.0	0.0250	418.60	0.2251	0060.0				
05042021a_031.d	5.324	28857V0.1R6	DBA-ID181	Sample	P1-A8	10.0	0.100	40.0	0.0250	422.43	0.2270	8060.0	0.0904	%06	%06	%0
05042021a_032.d	5.324	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				421.09						
05042021a_033.d	5.324	28857V1.0R4	DBA-ID181	Sample	P1-A9	10.0	0.100	400.0	0.0025	437.06	0.2342	0.9370				
05042021a_034.d	5.324	28857V1.0R4	DBA-ID181	Sample	P1-A9	10.0	0.100	400.0	0.0025	435.25	0.2334	0.9334	0.935	94%		
05042021a_035.d	5.324	28857V1.0R5	DBA-ID181	Sample	P1-B1	10.0	0.100	400.0	0.0025	431.43	0.2315	0.9259				
05042021a_036.d	5.324	28857V1.0R5	DBA-ID181	Sample	P1-B1	10.0	0.100	400.0	0.0025	449.39	0.2403	0.9614	0.944	94%		
05042021a_037.d	5.324	587-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				177.42						
05042021a_038.d	5.324	28857V1.0R6	DBA-ID181	Sample	P1-B2	10.0	0.100	400.0	0.0025	428.56	0.2300	0.9202				
05042021a_039.d	5.324	28857V1.0R6	DBA-ID181	Sample	P1-B2	10.0	0.100	400.0	0.0025	439.86	0.2356	0.9425	0.931	93%	94%	1%
05042021a_040.d	5.324	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				422.69						
Calculated LOD at 0.045	= Trl/bd	55														
Calculated LOQ at 0.10	= \r/bc	166														
"" denotes response	below area thresh	plot														

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5/5/21 april

Injection Date Compound TFNA-AM 08550 - Flonicamit

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	Method Validation	1 - Dry Bulo - Exuacted 2/4/20.	MICH AD 17													
				Sample		Inj Vol					Conc			10, 1000	Ave %	00 040
Data File	RT	SampleName	Sample Info	Iype	Vial Pos	(hr)	D	ML VOI	fur 6m	Kesp	(hd/hr)	mdd	ave ppm	70 Ker	Yer	
05042021a_001.d	6.119	Condition		Sample	P1-A3	10.0										
05042021a_002.d	6.037	Condition		Sample	P1-A3	10.0										
05042021a_003.d	6.037	Condition		Sample	P1-A3	10.0										
05042021a_004.d	6.037	Condition		Sample	P1-A3	10.0										
05042021a_005.d	6.037	Condition		Sample	P1-A3	10.0										
05042021a_006.d	6.051	Condition		Sample	P1-A3	10.0										
05042021a_007.d	6.051	Condition		Sample	P1-A3	10.0										
05042021a_008.d	6.037	687-2M10 0.05 pg/µL		Calibration	Vial 5	10.0				33.64						
05042021a_009.d	6.024	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				60.43						
05042021a_010.d	6.024	687-2M8 0.25 pg/pL		Calibration	Vial 3	10.0				157.78						
05042021a_011.d	6.010	687-2M7 0.50 pg/µL		Calibration	Vial 2	10.0				315.14						
05042021a_012.d	5.997	687-2M6 1.0 pg/µL		Calibration	Vial 1	10.0				647.32						
05042021a 013.d	-	28857	DBA-ID181	Sample	P1-A1	10.0	0.100	10.0	0.1000		<0.10	<0.01				
05042021a_014.d		28857	DBA-ID181	Sample	P1-A1	10.0	0.100	10.0	0.1000	l	<0.10	<0.01	<0.01			
05042021a_015.d	-	Reagent	Blank	Sample	P1-A2	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		1.1		
05042021a_016.d	I	Reagent	Blank	Sample	P1-A2	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01			
05042021a 017.d	6.024	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				67.13						
05042021a_018.d	6.051	28857V0.01R7	DBA-ID181	Sample	P1-A3	10.0	0.100	10.0	0.1000	57.43	0.0972	1600.0				
05042021a_019.d	6.051	28857V0.01R7	DBA-ID181	Sample	P1-A3	10.0	0.100	10.0	0.1000	57.02	0.0965	0.0097	0.00969	%26		
05042021a_020.d	6.051	28857V0.01R8	DBA-ID181	Sample	P1-A4	10.0	0.100	10.0	0.1000	58.69	1660.0	0.0099				
05042021a_021.d	6.037	28857V0.01R8	DBA-ID181	Sample	P1-A4	10.0	0.100	10.0	0.1000	47.60	0.0820	0.0082	90600.0	91%		
05042021a_022.d	6.024	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				144.49						
05042021a_023.d	6.051	28857V0.01R9	DBA-ID181	Sample	P1-A5	10.0	0.100	10.0	0.1000	53.98	0.0919	0.0092				
05042021a_024.d	6.051	28857V0.01R9	DBA-ID181	Sample	P1-A5	10.0	0.100	10.0	0.1000	53.89	0.0917	0.0092	0.00918	92%	93%	
05042021a_025.d	6.037	28857V0.1R4	DBA-ID181	Sample	P1-A6	10.0	0.100	40.0	0.0250	146.29	0.2344	0.0938				
05042021a_026.d	6.037	28857V0.1R4	DBA-ID181	Sample	P1-A6	10.0	0.100	40.0	0.0250	135.94	0.2184	0.0874	9060.0	91%		
05042021a_027.d	6.024	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				59.56						
05042021a_028.d	6.037	28857V0.1R5	DBA-ID181	Sample	P1-A7	10.0	0.100	40.0	0.0250	146.07	0.2341	0.0936				
05042021a_029.d	6.037	28857V0.1R5	DBA-ID181	Sample	P1-A7	10.0	0.100	40.0	0.0250	148.37	0.2376	0.0951	0.0943	94%		
05042021a_030.d	6.037	28857V0.1R6	DBA-ID181	Sample	P1-A8	10.0	0.100	40.0	0.0250	146.86	0.2353	0.0941				
05042021a_031.d	6.037	28857V0.1R6	DBA-ID181	Sample	P1-A8	10.0	0.100	40.0	0.0250	141.37	0.2268	2060.0	0.0924	92%	92%	
05042021a_032.d	6.024	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				151.58						
05042021a_033.d	6.037	28857V1,0R4	DBA-ID181	Sample	P1-A9	10.0	0.100	400.0	0.0025	140.39	0.2253	0.9012				
05042021a_034.d	6.037	28857V1.0R4	DBA-ID181	Sample	P1-A9	10.0	0.100	400.0	0.0025	149.30	0.2391	0.9563	0.929	93%		
05042021a_035.d	6.037	28857V1.0R5	DBA-ID181	Sample	P1-B1	10.0	0.100	400.0	0.0025	152.62	0.2442	0.9768				
05042021a_036.d	6.037	28857V1.0R5	DBA-ID181	Sample	P1-B1	10.0	0.100	400.0	0.0025	135.01	0.2170	0.8680	0.922	92%		
05042021a_037.d	6.024	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				62.55						
05042021a_038.d	6.037	28857V1.0R6	DBA-ID181	Sample	P1-B2	10.0	0.100	400.0	0.0025	147.36	0.2361	0.9443				
O5042021a_039.d	6.037	28857V1.0R6	DBA-ID181	Sample	P1-B2	10.0	0.100	400.0	0.0025	148.72	0.2382	0.9527	0.949	92%	93%	
05042021a_040.d	6.024	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				149.97						
Calculated LOD at 0.04	5 no/ul =	24														
	- 164															

IR-4 Western Region Laboratory, University of California, Davis

5/5/21 asm

Farget Compound	CurveFit fitLinear	Weighting weightEqual	Integrator Agile	Smoothing Gaussian	Smooth	ingFunctio	nWidth	SmoothingGaus	sianWidth 5
TFNA - 5 Levels, 5       extraction       extrent       extractin       <	Levels Used 7.450333 * x 0.99884135 inear, Origin:	l, 11 Points, 11 - 5.488503 Ignore, Weight:	Points Used, None	0 QCs					
Res				5/5/21 am					
2.5 − 2.5 −									
1.5 - 0.5									
0	0.05 0.1 0.	.15 0.2 0.25	0.3 0.35 0.	4 0.45 0.5 0.	55 0.6	0.65 0.7	0.75 0.8	0.85 0.9 0.95 Concent	1 1.05 tration (ng/ml)
Calibration STD				ð	al Type	Level	Enabled	Response	Exp Conc
D:\MassHunter\Flonicamit	J\08550_Onion\Da	ata\Results\0504202	1\05042021a_012.	d Q	alibration	1	D	647.32	1.0000
D:\MassHunter\Flonicami	1\08550_Onion\Da	ata\Results\0504202.	1\05042021a_011.	d C	alibration	2		315.14	0.5000
D:\MassHunter\Flonicami	J\08550_Onion\Da	ata\Results\0504202.	1\05042021a_010.	d C	alibration	S		157.78	0.2500
D:\MassHunter\Flonicami	J\08550_Onion\Da	ata/Results/0504202.	1\05042021a_022.	d C	alibration	ñ		144.49	0.2500
D:\MassHunter\Flonicami	J\08550_Onion\De	ata/Results/0504202.	1\05042021a_032.	d C	alibration	'n		151.58	0.2500
D:\MassHunter\Flonicami	J\08550_Onion\Da	ata/Results/0504202.	1\05042021a_040.	d C	alibration	e		149.97	0.2500
D:\MassHunter\Flonicami	J\08550_Onion\Da	ata\Results\0504202.	1\05042021a_009.	d C	alibration	4	D	60.43	0.1000
D:\MassHunter\Flonicami	J\08550_Onion\Da	ata\Results\0504202	1\05042021a_017.	d C	alibration	4		67.13	0.1000
D:\MassHunter\Flonicami	J\08550_Onion\Da	ata\Results\0504202.	1\05042021a_027.	d C	alibration	4	Þ	59.56	0.1000
D:\MassHunter\Flonicami	d\08550_Onion\Da	ata\Results\0504202	1\05042021a_037.	q Ç	alibration	4	D	62.55	0.1000
D:\MassHunter\Flonicamit	1\08550 Onion\Da	ata\Results\0504202	1\05042021a 008.	d D	alibration	5		33.64	0.0500

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Hunter/Flonicamid/08550_Onion/Data/Results/05042021/05042021a_012.d
nter/Flonicamid\08550_Onion\Data\Results\05042021\05042021a_011.d
nter/Flonicamid\08550_Onion\Data\Results\05042021\05042021a_010.d
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nter\Flonicamid\08550_Onion\Data\Results\05042021\05042021a_032.d
nter/Flonicamid/08550_Onion/Data/Results/05042021/05042021a_040.d
nter/Flonicamid/08550_Onion/Data/Results/05042021/05042021a_009.d
nter/Flonicamid/08550_Onion/Data/Results/05042021/05042021a_017.d
nter/Flonicamid/08550_Onion\Data\Results\05042021\05042021a_027.d
nter/Flonicamid/08550_Onion/Data/Results/05042021/05042021a_037.d
nter/Flonicamid/08550_Onion/Data/Results/05042021/05042021a_008.d

Calibration Calibration

O         D	202/4/0																
Dariely (0000013,0014)         Tay (0000013,0014)         Tay	3550 - Flonicamid/Onion -	Method Validatio	n - Dry Bulb - Extracted 5/4/20:	21 DY ASM													
Duritie         Name         Sample into         Type Variation         Optimization         Sample into					Sample		Inj Vol					Conc				Ave %	
Concent. J 21         Condine same P.43         100           Concent. J 21         Condine same P.44         100           Concent. J 21         Condine same P.44         100           Concent. J 21         Condine same P.44         100           Concent. J 21         Concent. J 21         Condine same P.44         100           Concent. J 21         Concent. J 21         Concent. J 21         Concent. J 21           Concent. J 21         Concent. J 21         Concent. J 21         Concent. J 21           Concent. J 21         Concent. J 21         Concent. J 21         Concent. J 21           Concent. J 21         Concent. J 21         Concent. J 21         Concent. J 21           Concent. J 21         Concent. J 21         Concent. J 21         Concent. J 21           Conce	Data File	RT	SampleName	Sample Info	Type	Vial Pos	(11)	6	IL Vol	ini gm	Resp	(bg/µL)	mdd	Ave ppm	% Rec	Rec	Std Dev
0000001/001         212         Condin         SNM         F/A         100           0000023/0014         223         Condin         SNM         F/A         100           0000023/0014         723         Condin         SNM         F/A         100           0000023/0014         723         Grantin         SNM         F/A         100           0000023/014         721         Grantin         SNM         F/A         100         F/A           0000023/014         721         Grantin         SNM         F/A         100         F/A         100           0000023/014         721         Grantin         SNM         F/A         100         F/A         100         F/A           0000023/014         721         Grantin         SNM         F/A         100         F/A         100         100         100         100         100         100         100         100         <	05042021a_001.d	7.321	Condition		Sample	P1-A3	10.0										
0900001.0014         7.22         Condine         Sample         P1-43         100           0900002.0014         7.23         Sec7-990 L0 F0/101         P1-43         100           0900002.0014         7.23         Sec7-990 L0 F0/101         P1-43         100           0900002.0114         7.23         Sec7-990 L0 F0/101         P1-43         100           0900002.0114         7.23         Sec7-990 L0 F0/101         P1-41         100         100         100         100           0900002.0114         7.23         Sec7-990 L0 F0/101         P2-41         100         1	05042021a_002.d	7.212	Condition		Sample	P1-A3	10.0										
0502013.0014         7235         000000         Sample         P-A3         000           050203.0014         7235         657-900         05900         74.00         70.00           050203.0014         7235         657-900         05900         74.00         70.00           050203.0014         7235         657-900         05900         74.00         74.00         74.00           050203.0114         713         657-900         05000         74.00         74.00         74.00         74.00           050203.0114         713         657-900         05000         74.00         74.00         74.00         74.00         74.00           050203.0124         71.00         657-900         05000         74.00         74.00         74.00         74.00         74.00           050203.0124         72.22         657-900         05000         74.00         74.00         74.00         74.00         74.00         74.00           050203.0124         72.22         657-900         10.00         72.00         74.00         74.00         74.00         74.00         74.00           050203.0124         72.22         657-90         10.00         10.00         10.00         10.00	05042021a_003.d	7.212	Condition		Sample	P1-A3	10.0										
C C C C C C C C C C C C C C C C C C C	05042021a_004.d	7.225	Condition		Sample	P1-A3	10.0										
Operation         Same         P-V3         DD           Operating DMA         7.33         Condition         89:3         DD           Operating DMA         7.33         Geneting DMA         7.34         Geneting DMA           Operating DMA         7.33         Geneting DMA         7.34         Geneting DMA           Operating DMA         7.33         Geneting DMA         7.34         Geneting DMA           Operating DMA         7.34         Geneting DMA         7.34         Geneting DMA           Operating DMA         7.34         Geneting DMA         7.34         Geneting DMA           Operating DMA         667-764         7.34         7.34         4.01         4.01           Operating DMA         7.34         7.34         7.34         4.01         4.01         4.01           Operating DMA         7.34         7.34         7.34         7.34         4.01         7.01	05042021a_005.d	7.212	Condition		Sample	P1-A3	10.0										
Operate and constrained         State         Prival         Dial         Constrained         Prival	05042021a_006.d	7.212	Condition		Sample	P1-A3	10.0										
OSCODIA (0.04         7.25         697-96 (1) ported (1)         Colmano (1)         Vol         100         130         130         130           0500701, 0.01         7.13         697-96 (1) ported (1)         Colmano (1)         Vol         100 <t< td=""><td>05042021a_007.d</td><td>7.225</td><td>Condition</td><td></td><td>Sample</td><td>P1-A3</td><td>10.0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	05042021a_007.d	7.225	Condition		Sample	P1-A3	10.0										
OSCOLLAGION         121         SPAROLLORIA         Colmenon         W13         100         11000         11000	05042021a_008.d	7.225	687-2M10 0.05 pg/pL		Calibration	Vial 5	10.0				43.87						
Operation         1213         667-396 0.5 m/d mode         100<	05042021a_009.d	7.212	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				81.09						
09000010         111         667-941 050/1         111         990001         9110 <td>05042021a_010.d</td> <td>7.212</td> <td>687-2M8 0.25 pg/µL</td> <td></td> <td>Calibration</td> <td>Vial 3</td> <td>10.0</td> <td></td> <td></td> <td></td> <td>196.76</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	05042021a_010.d	7.212	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				196.76						
Obsertial         118         Genome         041         100 </td <td>05042021a_011.d</td> <td>7.212</td> <td>687-2M7 0.50 pg/pL</td> <td></td> <td>Calibration</td> <td>Vial 2</td> <td>10.0</td> <td></td> <td></td> <td></td> <td>393,18</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	05042021a_011.d	7.212	687-2M7 0.50 pg/pL		Calibration	Vial 2	10.0				393,18						
G9602010	05042021a_012.d	7.198	687-2M6 1.0 pg/µL		Calibration	Vial 1	10.0				803.06						
Biological Dial	05042021a 013.d	1	28857	DBA-ID181	Sample	P1-A1	10.0	0.100	10.0	0.1000	1	<0.10	<0.01				
OSACRIA_OIS	05042021a 014.d	ļ	28857	DBA-ID181	Sample	P1-A1	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.01			
Gordnia_0164          Regent         Bind         Symple         1         Conditia_010          C	05042021a_015.d	1	Reagent	Blank	Sample	P1-A2	10.0	0.100	10.0	0.1000		<0.10	<0.01				
0594201a 013         725         687-980 0.0 mg/kl         Net         789         Net           0594201a 014         721         3857/00187         084-1081         5897/00187         084-1081         5897         0109         01097         01097         01097         01097         01097         01097         01095         01095         01095         01095         01095         01095         01095         01095         01095         01096	05042021a 016.d	1	Reagent	Blank	Sample	P1-A2	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01			
0547021a         012         2857V00187         084-10181         Same         P1-43         010         0100         71.60         00075         00103	05042021a_017.d	7.225	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				78.98						
0597021a         012         285770018         084/1018         5mmle         1+,4         100         100         71,6         00375         00075         00103         10135         00335         00135         00135         <	05042021a_018.d	7.212	28857V0.01R7	DBA-ID181	Sample	P1-A3	10.0	0.100	10.0	0.1000	79.87	0.1078	0.0108				
G697031a         0212         28857V0.018         DeA-1018         sample         P1-44         10.0         0.100         7.74         0.1014         0.1014         0.1016         10.74         0.0100         10.005           0592032a         023-01         7.22         28857V0.0189         DeA-10181         sample         P1-44         10.0         0.100         7.70         0.0991         0.0005         0.0105         0.0055         96%         99%         4%           0592032a         023-4         7.22         28857V0.0189         DeA-10181         Sample         P1-45         10.0         0.100         0.100         0.1005         0.0055         96%         99%         4%           0592032a         7235         28857V0.168         DeA-10181         Sample         P1-46         10.0         0.100         0.1005         0.0105 </td <td>05042021a_019.d</td> <td>7.225</td> <td>28857V0.01R7</td> <td>DBA-ID181</td> <td>Sample</td> <td>P1-A3</td> <td>10.0</td> <td>0.100</td> <td>10.0</td> <td>0.1000</td> <td>71.60</td> <td>0.0975</td> <td>0.0097</td> <td>0.0103</td> <td>103%</td> <td></td> <td></td>	05042021a_019.d	7.225	28857V0.01R7	DBA-ID181	Sample	P1-A3	10.0	0.100	10.0	0.1000	71.60	0.0975	0.0097	0.0103	103%		
0594201a         7.12         28857V0.018         D84-1D181         Sample         F1-4         10.0         10.0         10.00         7.258         0.0099         0.0010         10.0%         10.0%           0594201a         7.225         687-2980.0.559         7.225         6887-700.189         D84-1D181         Sample         F1-45         10.0         10.00         7.009         0.0099         0.0009         0.0005         9%         4%           05942021a         7.225         28857V0.0189         D84-1D181         Sample         F1-45         10.0         0.100         67.00         0.099         0.0005         9%         4%           05942021a         7.225         28857V0.0189         D84-1D181         Sample         F1-46         10.0         0.100         7.24         0.099         0.0005         9%         9%         4%           05942021a         7.225         28857V0.185         D84-1D181         Sample         F1-47         10.0         0.100         7.24         0.023         0.102         9.000         10.023         0.102         10.02         10.02         9%         4%         4%           05942012a         7255         28857V0.185         D84-1D181         Sample <t< td=""><td>05042021a_020.d</td><td>7.212</td><td>28857V0.01R8</td><td>DBA-ID181</td><td>Sample</td><td>P1-A4</td><td>10.0</td><td>0.100</td><td>10.0</td><td>0.1000</td><td>74.74</td><td>0.1014</td><td>0.0101</td><td></td><td></td><td></td><td></td></t<>	05042021a_020.d	7.212	28857V0.01R8	DBA-ID181	Sample	P1-A4	10.0	0.100	10.0	0.1000	74.74	0.1014	0.0101				
Gorandia (02.14)         (2.12)         667-206         (3.13)	05042021a_021.d	7.212	28857V0.01R8	DBA-ID181	Sample	P1-A4	10.0	0.100	10.0	0.1000	72.86	0660.0	0.0099	0.0100	100%		
069/2031_024d         7.25         28857/00189         D6A-10181         Sample         P1-45         10.0         0.100         7.10         0.0091         0.0002         0.969         96%         99%         4%           069/2031_2_024d         7.22         28857/0.1181         Sample         P1-46         10.0         0.100         7.14         0.0091         0.0005         96%         99%         4%           069/2031_2_026d         7.22         28857/0.1181         Sample         P1-46         10.0         0.100         7.14         0.0091         0.000         50.00         0.102         102%         0.102%         103%         101%	05042021a_022.d	7.212	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				181.79						
059A3D3a_023.d         7.225         28857V0.0189         D8A-1D181         Sample         P1-45         10.0         0.000         0.714         0.0094         0.0095         6.56%         99%         47%           059A3D73a_025.d         7.222         28857V0.1184         D8A-1D181         Sample         P1-46         10.0         0.100         0.0105         0.403         0.0035         0.403         0.	05042021a_023.d	7.225	28857V0.01R9	DBA-ID181	Sample	P1-A5	10.0	0.100	10.0	0.1000	67.00	0.0918	0.0092				
05042021a         7.212         28857V0.1K4         DBA-ID181         Sample         P1-46         10.0         0.100         0.00250         19-435         0.2501         0.1000           05042021a_027.4         7.225         587-Y0.1K4         DBA-ID181         Sample         P1-46         10.0         0.100         0.00250         19-435         0.1024         0.1025         0.1024	05042021a_024.d	7.225	28857V0.01R9	DBA-ID181	Sample	P1-A5	10.0	0.100	10.0	0.1000	73.14	0.0994	6600.0	0.00956	%96	%66	4%
05042021a         7.225         28857/0.1184         DBA-ID181         Sample         P1-46         10.0         0.010         0.0136         0.1236         0.1035         0.1035         0.1035         0.1025         10.02         10.02         0.0035         0.0135         0.0136         0.	05042021a_025.d	7.212	28857V0.1R4	DBA-ID181	Sample	P1-A6	10.0	0.100	40.0	0.0250	194.35	0.2501	0.1000				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05042021a_026.d	7.225	28857V0.1R4	DBA-ID181	Sample	P1-A6	10.0	0.100	40.0	0.0250	201.38	0.2588	0.1035	0.102	102%		
05942021a_028.d         7.22         28857V0.1R5         DBA-ID181         Sample         P1-A7         10.0         0.00250         155.65         0.1012           05942021a_023.d         7.225         28857V0.1R5         DBA-ID181         Sample         P1-A7         10.0         0.100         0.00250         155.65         0.2371         0.0948         98%           05942021a_033.d         7.225         28857V0.1R6         DBA-ID181         Sample         P1-A8         10.0         0.100         0.1025         155.68         0.2371         0.0948         98%         98%           05942021a_033.d         7.212         28857V0.1R6         DBA-ID181         Sample         P1-A8         10.0         0.100         0.1025         0.2371         0.0948         0.0966         99%         100%         29           05942021a_033.d         7.212         28857V1.0R4         DBA-ID181         Sample         P1-A9         10.0         0.100         0.0025         18.245         0.731         1.096         99%         100%         59           05942021a_035.d         7.212         28857V1.0R4         DBA-ID181         Sample         P1-A9         10.0         0.100         0.0025         10.031         1.06         1.06	05042021a_027.d	7.225	587-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				68.14						
05042021a_029.d         7.225         28857V0.1R5         DBA-ID181         Sample         P1-A7         10.0         0.100         40.0         0.0250         185.68         0.2333         0.0957         0.0984         98%           05042021a_030.d         7.225         28857V0.1R6         DBA-ID181         Sample         P1-A8         10.0         0.100         40.0         0.0250         199.05         0.0947         0.0984         98%           05042021a_033.d         7.212         687-2M0.164         DBA-ID181         Sample         P1-A8         10.0         40.0         0.0255         0.1264         0.0964         0.096         99%         100%         29           05042021a_033.d         7.212         687-2M0.186         DBA-ID181         Sample         P1-A9         10.0         0.100         40.0         0.0255         0.1263         10.96         99%         100%         29           05042021a_035.d         7.212         28857V1.0R5         DBA-ID181         Sample         P1-B1         10.0         40.0         0.0025         210.45         1.06         106%         99%         100%         10.0         10.00         10.00         1.000         1.06         1.001         1.010         1.016	05042021a_028.d	7.225	28857V0.1R5	DBA-ID181	Sample	P1-A7	10.0	0.100	40.0	0.0250	196.69	0.2530	0.1012				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05042021a_029.d	7.225	28857V0.1R5	DBA-ID181	Sample	P1-A7	10.0	0.100	40.0	0.0250	185.68	0.2393	0.0957	0.0984	%86		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05042021a_030.d	7.225	28857V0.1R6	DBA-ID181	Sample	P1-A8	10.0	0.100	40.0	0.0250	199.05	0.2559	0.1024				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05042021a_031.d	7.225	28857V0.1R6	DBA-ID181	Sample	P1-A8	10.0	0.100	40.0	0.0250	183.92	0.2371	0.0948	0.0986	%66	100%	2%
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05042021a_032.d	7.212	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				182.45						
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05042021a_033.d	7.212	28857V1.0R4	DBA-ID181	Sample	P1-A9	10.0	0.100	400.0	0.0025	201.45	0.2589	1.0355				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05042021a_034.d	7.225	28857V1.0R4	DBA-ID181	Sample	P1-A9	10.0	0.100	400.0	0.0025	210.21	0.2698	1.0791	1.06	106%		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05042021a_035.d	7.212	28857V1.0R5	DBA-ID181	Sample	P1-B1	10.0	0.100	400.0	0.0025	218.04	0.2795	1.1180				
05042021a_037.d       7.212       687-2M9 0.10 pg/µL       Calibration       Vial 4       10.0       75.62         05042021a_038.d       7.212       28857V1.0R6       DBA-ID181       Sample       P1-B2       10.0       0.100       400.0       0.0255       205.87       0.2644       1.0575         05042021a_039.d       7.225       28857V1.0R6       DBA-ID181       Sample       P1-B2       10.0       0.100       400.0       0.0255       205.87       0.2644       1.091       109%       108%       29         05042021a_040.d       7.225       28857V1.0R6       DBA-ID181       Sample       P1-B2       10.0       0.100       400.0       0.0025       217.83       0.2792       1.1170       1.09       109%       108%       29         05042021a_040.d       7.225       6877-2M8 0.25 pg/µL       Calibration       Vial 3       10.0       0.100       400.0       0.0025       217.83       0.2792       1.1170       1.09       109%       108%       29         Calculated LOD at 0.045 pg/µL =       29       29       1.0.0       1.0.0       1.0.0       10.0       1.0.0       10.0       20.00       20.0025       217.83       0.2792       1.0.9       109%       108% <t< td=""><td>05042021a_036.d</td><td>7.225</td><td>28857V1.0R5</td><td>DBA-ID181</td><td>Sample</td><td>P1-B1</td><td>10.0</td><td>0.100</td><td>400.0</td><td>0.0025</td><td>209.30</td><td>0.2686</td><td>1.0745</td><td>1.10</td><td>110%</td><td></td><td></td></t<>	05042021a_036.d	7.225	28857V1.0R5	DBA-ID181	Sample	P1-B1	10.0	0.100	400.0	0.0025	209.30	0.2686	1.0745	1.10	110%		
05042021a_038.d 7.212 28857V1.0R6 DBA-ID181 Sample P1-B2 10.0 0.100 400.0 0.0025 205.87 0.2644 1.0575 05042021a_039.d 7.225 28857V1.0R6 DBA-ID181 Sample P1-B2 10.0 0.100 400.0 0.0025 217.83 0.2792 1.1170 1.09 109% 108% 29 05042021a_040.d 7.225 687-2M8 0.25 pg/µL Calibration Vial 3 10.0 Calculated LOD at 0.045 pg/µL = 29 Calculated LOD at 0.045 pg/µL = 29	05042021a_037.d	7.212	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				75.62						
05042021a_039.d 7.225 28857V1.0R6 DBA-ID181 Sample P1-B2 10.0 0.100 400.0 0.0025 217.83 0.2792 1.1170 1.09 109% 108% 29 05042021a_040.d 7.225 687-2M8 0.25 pg/µL Calibration Vial 3 10.0 Calculated LOD at 0.045 pg/µL 29 Calculated LOD at 0.045 pg/µL 29 Calculated LOO at 0.10 pg/µL 74	05042021a_038.d	7.212	28857V1.0R6	DBA-ID181	Sample	P1-B2	10.0	0.100	400.0	0.0025	205.87	0.2644	1.0575				
05042021a_040.d 7.225 687-2M8 0.25 pg/µL Calibration Vial 3 10.0 Calculated LOD at 0.045 pg/µL = 29 Calculated LOD at 0.045 pg/µL = 74	05042021a_039.d	7.225	28857V1.0R6	DBA-ID181	Sample	P1-B2	10.0	0.100	400.0	0.0025	217.83	0.2792	1.1170	1.09	109%	108%	2%
Calculated LOD at 0.045 pg/µL = 29 Calculated LOD at 0.10 pg/µL = 74	05042021a_040.d	7.225	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				193.30						
Calculated LOO at 0.10 $pq/uL = 74$	Calculated LOD at 0.0	45 pg/µL =	29														
	Calculated LOO at 0.1	0 nn/11 =	AT .														

5/5/21 april

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0.1000 0.1000 0.0500

68.14 75.62 43.87

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D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05042021\05042021a\_027.d D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05042021\05042021a\_037.d

Calibration Calibration

Calibration



S50 - Floricamid/Onion - Method Validation (Green Onion) - Extracted $5/14/21$ by ASM         Sample info         Sample info         Sample Val value         In           Data File         RT         Sample Value         Sample Value         In         In           Data File         RT         Sample P1-A3           05142021a_002.d         7.735         Condition         Sample P1-A3           05142021a_003.d         7.735         Condition         Sample P1-A3           05142021a_001.d         7.721         Condition         Sample P1-A3           05142021a_001.d         7.721         G87-2M10 0.05 gg/LL         Condition         Val 4           05142021a_01.d         7.721         G87-2M10 0.05 gg/LL         Condition         Val 4           05142021a_01.d         7.721         G887-2M10 0.05 gg/LL         Colspan="2">TA3           05142021a_01.d         7.721         G887-2M10 0.05 gg/LL         Colspan="2">Colspan="2">TA3 <th><b>μη) νοι</b> 10.0</th> <th>E 0 001.0 001.0 001.0</th> <th>L Vol 10.0 10.0 10.0 10.0</th> <th>ing Ing 0.1000 0.1000 0.1000 0.1000 0.1000</th> <th>Resp ( 57.95 57.95 57.95 584.34 584.34 584.34 59.27 59.27</th> <th>Conc P9/µL) &lt;0.10 &lt;0.10 &lt;0.10</th> <th>mqq 10.05 10.05 10.05</th> <th>Ave 9 &lt;0.01</th> <th>% Rec 1</th> <th>ee% Str</th>	<b>μη) νοι</b> 10.0	E 0 001.0 001.0 001.0	L Vol 10.0 10.0 10.0 10.0	ing Ing 0.1000 0.1000 0.1000 0.1000 0.1000	Resp ( 57.95 57.95 57.95 584.34 584.34 584.34 59.27 59.27	Conc P9/µL) <0.10 <0.10 <0.10	mqq 10.05 10.05 10.05	Ave 9 <0.01	% Rec 1	ee% Str
Data File         RT         Sample Mane         Sample Info         Type         Val $05142021a_001.d$ Condition         Sample Info         Type         Val $05142021a_002.d$ 7.721         Condition         Sample P1-A3         Sample P1-A3 $05142021a_003.d$ 7.723         Condition         Sample P1-A3         Sample P1-A3 $05142021a_003.d$ 7.721         Condition         Sample P1-A3         Sample P1-A3 $05142021a_003.d$ 7.721         Condition         Sample P1-A3         Sample P1-A3 $05142021a_003.d$ 7.721 $687-2M10.00.5 pg/hL$ Calibration         Val $05142021a_010.d$	(J.1) (J.1) 0.01 0.00	E 6 00110	L vol 10.0 10.0 10.0 10.0	ini em 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000	Resp ( 29.83 57.95 57.95 584.34 584.34 584.34 584.34 59.27	ру/µL) ру/µL) <0.10 <0.10 <0.10	mqq 10.05 10.05 10.05 10.05	Ave 9	% Rec I	se e star
Data File         RT         Sample Name         Sample Info         Type         Val Pos $05142021a_001.d$ Condition         Sample $1-A3$ $05142021a_002.d$ 7.721         Condition         Sample $1-A3$ $05142021a_003.d$ 7.723         Condition         Sample $1-A3$ $05142021a_003.d$ 7.721         Condition         Sample $1-A3$ $05142021a_003.d$ 7.721         Condition         Sample $1-A3$ $05142021a_003.d$ 7.721         Condition         Sample $1-A3$ $05142021a_003.d$ 7.721 $687-2M10.0.05 pg/ul         Sample         1-A3 05142021a_010.d         7.721         687-2M10.0.05 pg/ul         Sample         1-A3 05142021a_010.d         7.721         687-2M10.0.05 gg/ul         Sample         1-A3 05142021a_010.d         7.721         687-2M10.0.50 gg/ul         Sample         1-A3 05142021a_010.d         7.721         687-2M10.0.50 gg/ul         Sample         1-A3 05142021a_01.d         7.721         687-2M10.0.50 gg/ul         Sample         1-A3$	(HJ) 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.0	E 0 001.0 001.0 001.0	L Vol 10.0 10.0 10.0 10.0	<b>ing In</b> 0.1000 0.1000 0.1000 0.1000 0.1000	Resp ( 29.83 57.95 57.95 584.34 584.34 584.34 589.27 59.27	(11/1/20 01.0> 01.0> 01.0>	mqq 10.05 10.05 10.05	₽ mqq 10.0> 10.0>	/e Rec	çe Xe
05142021a_001.d          Condition         Sample         P1-A3           05142021a_003.d         7.721         Condition         Sample         P1-A3           05142021a_003.d         7.723         Condition         Sample         P1-A3           05142021a_005.d         7.721         Condition         Sample         P1-A3           05142021a_005.d         7.721         Condition         Sample         P1-A3           05142021a_005.d         7.721         Condition         Sample         P1-A3           05142021a_003.d         7.721         Condition         Sample         P1-A3           05142021a_003.d         7.721         687-2M10_0.05 pg/µl         Calibration         Vial 5           05142021a_010.d         7.721         687-2M6_1.0 pg/µl         Calibration         Vial 5           05142021a_01.d         7.721         687-2M6_1.0 pg/µl         Calibration         Vial 5           05142021a_013.d         7.721         687-2M6_1.0 pg/µl         Calibration         Vial 5           05142021a_013.d         7.721         687-2M6_1.0 pg/µl         Calibration         Vial 5           05142021a_013.d         7.721         687-2M6_1.0 pg/µl         Calibration         Vial 5           05	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	001.00 001.00 001.00 001.00 001.00	0.01 0.01 0.01 0.01 0.01	0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000	29,83 57,95 57,95 57,95 584.34 584.34 584.34 59.27 59.27	01.0> 01.0> 01.0>	10,0> 10,0> 10,0>	<0.01		
05142021a_002.d         7.221         Condition         Sample         P1-A3           05142021a_003.d         7.735         Condition         Sample         P1-A3           05142021a_005.d         7.735         Condition         Sample         P1-A3           05142021a_006.d         7.721         Condition         Sample         P1-A3           05142021a_006.d         7.721         Condition         Sample         P1-A3           05142021a_007.d         7.721         Condition         Sample         P1-A3           05142021a_010.d         7.721         687-2M10.0.05 pg/µl         Calibration         Vial 5           05142021a_010.d         7.721         687-2M10.0.05 pg/µl         Calibration         Vial 5           05142021a_01.d         7.721         687-2M10.0.01 pg/µl         Calibration         Vial 5           05142021a_01.d         7.721         687-2M10.0.01 pg/µl         Calibration         Vial 5	0.01 10.0 10.0 10.0 10.0 10.0 10.0 10.0	0.100 0.100 0.100 0.100 0.100	0.01 0.01 0.01 0.01 0.01 0.01	0.1000 0.000 0.1000 0.1000 0.1000 0.1000 0.1000	29.83 57.95 57.95 57.95 584.34 584.34 584.34 59.27 59.27	01.0> 01.0> 01.0>	10.05 10.05 10.05	<0.01		
05142021a_003.d         7.735         Condition         Sample         P1-A3           05142021a_005.d         7.735         Condition         Sample         P1-A3           05142021a_005.d         7.721         Condition         Sample         P1-A3           05142021a_006.d         7.721         Condition         Sample         P1-A3           05142021a_008.d         7.721         Condition         Sample         P1-A3           05142021a_008.d         7.721         687-2M10.0.05 pg/µL         Calibration         Vial 5           05142021a_01.d         7.721         687-2M6 1.0 pg/µL         Calibration         Vial 5           05142021a_01.d         7.721         687-2M6 1.0 pg/µL         Calibration         Vial 2           05142021a_01.d         7.721         687-2M6 0.010 pg/µL         Calibration         Vial 2           05142021a_01.d         7.721         687-2M6 0.010 pg/µL         Calibration         Vial 2 </td <td>0.01 10.00000000</td> <td>01.0 01.0 01.0 0.100 0.100</td> <td>0.01 0.01 0.01 0.01 0.01 0.01</td> <td>001.0 0001.0 0001.0 001.0 001.0</td> <td>29.83 57.95 1144.28 287.04 584.34 584.34</td> <td>01.0&gt; 01.0&gt; 01.0&gt; 01.0&gt;</td> <td>&lt;0.01 &lt;0.01 &lt;0.01</td> <td>&lt;0.01</td> <td></td> <td></td>	0.01 10.00000000	01.0 01.0 01.0 0.100 0.100	0.01 0.01 0.01 0.01 0.01 0.01	001.0 0001.0 0001.0 001.0 001.0	29.83 57.95 1144.28 287.04 584.34 584.34	01.0> 01.0> 01.0> 01.0>	<0.01 <0.01 <0.01	<0.01		
05142021a_004.d         7.735         Condition         Sample         P1-A3           05142021a_005.d         7.721         Condition         Sample         P1-A3           05142021a_007.d         7.721         Condition         Sample         P1-A3           05142021a_008.d         7.721         Condition         Sample         P1-A3           05142021a_009.d         7.721         687-2M10.0.05 pg/µL         Calibration         Vial 5           05142021a_010.d         7.721         687-2M6 1.0 pg/µL         Calibration         Vial 3           05142021a_01.d         7.721         687-2M9 0.10 pg/µL         Calibration         Vial 3           05142021a_01.d         7.721         687-2M9 0.10 pg/µL         Calibration         Vial 3           05142021a_01.d         7.723         584940.01R1         Galibration         Vial 4           05142021a_01.d         7.735         584940.01R1         Galibration         Vial 4 </td <td>10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0</td> <td>01.00 01.00 01.00 0.100 0.100</td> <td>0.01 10.0 10.0 10.0 10.0</td> <td>0001.0 0001.0 0001.0 0001.0</td> <td>29.83 57.95 57.95 287.04 584.34 584.34 584.34 59.27</td> <td>01.0&gt; 01.0&gt; 01.0&gt; 01.0&gt;</td> <td>&lt;0.01 &lt;0.01 &lt;0.01</td> <td>&lt;0.01</td> <td></td> <td></td>	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	01.00 01.00 01.00 0.100 0.100	0.01 10.0 10.0 10.0 10.0	0001.0 0001.0 0001.0 0001.0	29.83 57.95 57.95 287.04 584.34 584.34 584.34 59.27	01.0> 01.0> 01.0> 01.0>	<0.01 <0.01 <0.01	<0.01		
05142021a_005.d         7.721         Condition         Sample         P1-A3           05142021a_006.d         7.721         Condition         Sample         P1-A3           05142021a_009.d         7.721         Condition         Sample         P1-A3           05142021a_009.d         7.721         687-2M10.0.05 pg/µL         Calibration         Vial 5           05142021a_010.d         7.721         687-2M10.0.05 pg/µL         Calibration         Vial 3           05142021a_010.d         7.721         687-2M6 1.0 pg/µL         Calibration         Vial 3           05142021a_011.d         7.721         687-2M6 1.0 pg/µL         Calibration         Vial 3           05142021a_013.d         7.721         687-2M6 1.0 pg/µL         Calibration         Vial 3           05142021a_013.d         7.721         687-2M9 0.10 pg/µL         Calibration         Vial 3           05142021a_013.d         7.721         687-2M9 0.10 pg/µL         Calibration         Vial 3           05142021a_013.d         687-2M9 0.10 pg/µL         Calibration         Vial 3           05142021a_013.d         687-2M9 0.10 pg/µL         Calibration         Vial 4           05142021a_013.d         687-2M9 0.10 pg/µL         Calibration         Vial 4           051420	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	001.0 001.0 001.0 001.0	10.0 10.0 10.0 10.0 10.0	001.0 0001.0 0001.0 0001.0 0001.0	29.83 57.95 1144.28 287.04 584.34   59.27 59.27	01.0> 01.0> 01.0> 01.0>	<0.01 <0.01 <0.01	<0.01 <0.01		
05142021a_006d         7.721         Condition         Sample         P1-A3           05142021a_007d         7.721         Condition         Sample         P1-A3           05142021a_009d         7.721         687-2M10 0.05 pg/µL         Sample         P1-A3           05142021a_010d         7.721         687-2M10 0.05 pg/µL         Calibration         Vial 5           05142021a_010d         7.721         687-2M10 0.05 pg/µL         Calibration         Vial 3           05142021a_011d         7.721         687-2M10 0.05 pg/µL         Calibration         Vial 3           05142021a_011d         7.721         687-2M10 0.05 pg/µL         Calibration         Vial 3           05142021a_011d         7.721         687-2M9 0.10 pg/µL         Calibration         Vial 3           05142021a_015d          28849         GA-CA*20         Sample         P1-A1           05142021a_015d          288490         GA-CA*20         Sample         P1-A3           05142021a_015d          288490         GA-CA*20         Sample         P1-A3           05142021a_015d          288490         GA-CA*20         Sample         P1-A3           05142021a_0116d         7.735         288490	0.01 10.0 10.0 10.0 10.0 10.0 10.0 10.0	001.0 001.0 001.0 001.0	10.0 10.0 10.0 10.0 10.0	00110 00100 00100 00100 00100	29.83 57.95 144.28 287.04 584.34 584.34 581.34 59.27	01.0> 01.0> 01.0> 01.0>	<0.01 <0.01 <0.01	<0.01 <0.05		
05142021a_007.d         7.721         Condition         Sample         P1-A3           05142021a_008.d         7.721         687-2M10 0.05 pg/µL         Calibration         Vial 5           05142021a_008.d         7.721         687-2M9 0.10 pg/µL         Calibration         Vial 4           05142021a_010.d         7.721         687-2M6 1.0 pg/µL         Calibration         Vial 3           05142021a_011.d         7.721         687-2M6 1.0 pg/µL         Calibration         Vial 3           05142021a_011.d         7.721         687-2M6 1.0 pg/µL         Calibration         Vial 3           05142021a_014.d         7.721         687-2M9 0.10 pg/µL         Calibration         Vial 3           05142021a_014.d          28849         GA-CA*20         Sample         P1-A1           05142021a_015.d          288490.01081         GA-CA*20         Sample         P1-A1           05142021a_015.d          Reagent         Blank         Sample         P1-A2           05142021a_015.d          Reagent         Blank         Sample         P1-A2           05142021a_015.d         7.735         2884900.0181         GA-CA*20         Sample         P1-A2           05142021a_015.d	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	001.0 001.0 001.0 001.0 001.0	10.0 10.0 10.0 10.0	0.1000 0.1000 0.1000 0.1000 0.1000 0.1000	29.83 57.95 144.28 287.04 584.34 59.27	<pre>&lt; 0.10 &lt; 0.10 &lt; 0.10 &lt; 0.10 &lt; 0.10 &lt; 0.10</pre>	<0.01 <0.01 <0.01	<0.01 <0.01		
05142021a_008d         7.721         687-2M10 0.05 pg/ul         Calibration         Vial 5           05142021a_009d         7.721         687-2M9 0.10 pg/ul         Calibration         Vial 4           05142021a_010d         7.725         687-2M9 0.10 pg/ul         Calibration         Vial 3           05142021a_011d         7.721         687-2M6 1.0 pg/ul         Calibration         Vial 3           05142021a_011d         7.721         687-2M6 1.0 pg/ul         Calibration         Vial 3           05142021a_013d         7.721         687-2M9 0.50 pg/ul         Calibration         Vial 3           05142021a_013d         7.721         687-2M9 0.50 pg/ul         Calibration         Vial 3           05142021a_013d         7.721         687-2M9 0.10 pg/ul         Calibration         Vial 4           05142021a_015d          288490.0181         GA-CA*20         Sample         P1-A2           05142021a_015d          Reagent         Blank         Sample         P1-A2           05142021a_015d          Reagent         Blank         Sample         P1-A2           05142021a_015d         7.735         288490.0181         GA-CA*20         Sample         P1-A2           05142021a_017d         7.73	0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01	0.100 0.100 0.100 0.100 0.100	10.0 10.0 10.0 10.0	0.1000 0.1000 0.1000 0.1000 0.1000 0.1000	29.83 57.95 144.28 287.04 584.34 584.34  59.27	<pre>&lt;0.10 &lt;0.10 &lt;0.10 &lt;0.10 &lt;0.10 &lt;0.10 &lt;0.10</pre>	<0.01 <0.01 <0.01	<0.01 <0.01		
05142021a_009d         7.721         687-2M9 0.10 pg/ul         Calibration         Vial 4           05142021a_010d         7.735         687-2M8 0.25 pg/ul         Calibration         Vial 3           05142021a_011d         7.721         687-2M8 0.25 pg/ul         Calibration         Vial 3           05142021a_011d         7.721         687-2M6 10 pg/ul         Calibration         Vial 2           05142021a_013d         7.721         687-2M6 10 pg/ul         Calibration         Vial 2           05142021a_013d          28849         GA-CA*20         Sample         P1-A1           05142021a_015d          28849         GA-CA*20         Sample         P1-A2           05142021a_015d          Reagent         Blank         Sample         P1-A2           05142021a_015d          Reagent         Blank         Sample         P1-A2           05142021a_015d         7.735         28849V0.01R1         GA-CA*20         Sample         P1-A2           05142021a_013d         7.735         28849V0.01R1         GA-CA*20         Sample         P1-A2           05142021a_013d         7.735         28849V0.01R1         GA-CA*20         Sample         P1-A3           05142021a_	0.01 0.01 0.02 0.01 0.01 0.01 0.01 0.01	0.100 0.100 0.100 0.100 0.100	10.0 10.0 10.0 10.0	0.1000 0.1000 0.1000 0.1000 0.1000	57.95 144.28 287.04 584.34  59.27 59.27	<pre>01.0&gt; 01.0&gt; 01.0&gt; 01.0&gt; 01.0&gt; 01.0&gt;</pre>	<0.01 <0.01 <0.01	<0.01 <0.01		
05142021a_010d         7.735         687-2M8 0.25 pg/ul         Calibration         Vial 3           05142021a_011d         7.721         687-2M6 1.0 pg/ul         Calibration         Vial 2           05142021a_013d         7.721         687-2M7 0.50 pg/ul         Calibration         Vial 2           05142021a_013d         7.721         687-2M7 0.50 pg/ul         Calibration         Vial 2           05142021a_013d          28849         GA-CA*20         Sample         P1-A1           05142021a_016d          28849         GA-CA*20         Sample         P1-A2           05142021a_016d          Reagent         Blank         Sample         P1-A2           05142021a_0116d         7.735         588490.01181         GA-CA*20         Sample         P1-A2           05142021a_013d         7.735         288490.0181         GA-CA*20         Sample         P1-A2           05142021a_013d         7.735         288490.0181         GA-CA*20         Sample         P1-A2           05142021a_013d         7.735         288490.0181         GA-CA*20         Sample         P1-A3           05142021a_013d         7.735         288490.0181         GA-CA*20         Sample         P1-A3	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	0.100 0.100 0.100 0.100 0.100	10.0 10.0 10.0 10.0	0.1000 0.1000 0.1000 0.1000 0.1000	144.28 287.04 584.34 584.34  59.27 59.27	<0.10 <0.10 <0.10 <0.10	<0.01 <0.01 <0.01	<0.01 <0.01		
05142021a_011.d         7.721         687-2M7 0.50 pg/ul         Calibration         Vial 2           05142021a_012.d         7.721         687-2M6 1.0 pg/ul         Calibration         Vial 1           05142021a_013.d          28849         GA-CA*20         Sample         P1-A1           05142021a_013.d          28849         GA-CA*20         Sample         P1-A1           05142021a_016.d          28849         GA-CA*20         Sample         P1-A1           05142021a_016.d          288499         GA-CA*20         Sample         P1-A2           05142021a_017.d         7.735         587-2M9 0.10 pg/ul         Sample         P1-A2           05142021a_019.d         7.735         28849V0.01R1         GA-CA*20         Sample         P1-A2           05142021a_019.d         7.735         28849V0.01R1         GA-CA*20         Sample         P1-A3           05142021a_02.d         7.735         28849V0.01R1         GA-CA*20         Sample         P1-A3           05142021a_02.d         7.735         28849V0.01R2         GA-CA*20         Sample         P1-A3           05142021a_02.d         7.735         28849V0.01R2         GA-CA*20         Sample         P1-A3	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	0.100 0.100 0.100 0.100 0.100	10.0 10.0 10.0 10.0	0.1000 0.1000 0.1000 0.1000 0.1000	287.04 584.34   59.27	<0.10 <0.10 <0.10 <0.10	<0.01 <0.01 <0.01	<0.01 <0.01 <0.01 <0.01		
05142021a_012.d         7.721         687-2M6 1.0 pg/ul         Calibration         Vial 1           05142021a_013.d          28849         GA-CA*20         Sample         P1-A1           05142021a_013.d          28849         GA-CA*20         Sample         P1-A1           05142021a_015.d          28849         GA-CA*20         Sample         P1-A1           05142021a_015.d          28849         GA-CA*20         Sample         P1-A2           05142021a_015.d          Reagent         Blank         Sample         P1-A2           05142021a_015.d          Reagent         Blank         Sample         P1-A2           05142021a_019.d         7.735         28849V0.01R1         GA-CA*20         Sample         P1-A3           05142021a_020.d         7.735         28849V0.01R1         GA-CA*20         Sample         P1-A3           05142021a_021.d         7.735         28849V0.01R2         GA-CA*20         Sample         P1-A3           05142021a_021.d         7.735         28849V0.01R2         GA-CA*20         Sample         P1-A3           05142021a_021.d         7.735         28849V0.01R2         GA-CA*20         Sample	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	0.100 0.100 0.100 0.100 0.100	10.0 10.0 10.0 10.0	0.1000 0.1000 0.1000 0.1000 0.1000	584.34   59.27 51.04	<0.10 <0.10 <0.10 <0.10	<0.01 <0.01 <0.01	<0.01		
05142021a_013.d          28849         GA-CA*20         Sample         P1-A1           05142021a_014.d          28849         GA-CA*20         Sample         P1-A1           05142021a_015.d          28849         GA-CA*20         Sample         P1-A1           05142021a_015.d          28849         GA-CA*20         Sample         P1-A2           05142021a_015.d          Reagent         Blank         Sample         P1-A2           05142021a_015.d         7.735         587-2M9 0.10 pJ/H         Calibration         Vial 4           05142021a_019.d         7.735         28849V0.01R1         GA-CA*20         Sample         P1-A3           05142021a_02.d         7.735         28849V0.01R1         GA-CA*20         Sample         P1-A3           05142021a_02.d         7.735         28849V0.01R2         GA-CA*20         Sample	10.0 10.0 10.0 10.0 10.0 10.0 10.0	0.100 0.100 0.100 0.100 0.100	10.0 10.0 10.0 10.0	0.1000 0.1000 0.1000 0.1000 0.1000	59.27 59.27	<0.10 <0.10 <0.10 <0.10	<0.01 <0.01 <0.01	<0.01 <0.01		
05142021a_014.d          28849         GA-CA*20         Sample         P1-A1           05142021a_015.d          28849         GA-CA*20         Sample         P1-A2           05142021a_015.d          Reagent         Blank         Sample         P1-A2           05142021a_015.d          Reagent         Blank         Sample         P1-A2           05142021a_018.d         7.735         687-3M9 0.10 pg/µL         GA-CA*20         Sample         P1-A3           05142021a_019.d         7.735         28849V0.01R1         GA-CA*20         Sample         P1-A3           05142021a_019.d         7.735         28849V0.01R1         GA-CA*20         Sample         P1-A3           05142021a_02.d         7.735         28849V0.01R1         GA-CA*20         Sample         P1-A3           05142021a_02.d         7.735         28849V0.01R2         GA-CA*20         Sample         P1-A3           05142021a_02.d         7.735         28849V0.01R2         GA-CA*20         Sample         P1-A3           05142021a_02.d         7.735         28849V0.01R2         GA-CA*20         Sample         P1-A3           05142021a_02.d         7.735         28849V0.01R3         GA-CA*20 <td>10.0 10.0 10.0 10.0 10.0 10.0 10.0</td> <td>0.100 0.100 0.100 0.100</td> <td>10.0 10.0 10.0 10.0</td> <td>0.1000 0.1000 0.1000 0.1000</td> <td>  59.27</td> <td>&lt;0.10 &lt;0.10 &lt;0.10</td> <td>&lt;0.01</td> <0.01	10.0 10.0 10.0 10.0 10.0 10.0 10.0	0.100 0.100 0.100 0.100	10.0 10.0 10.0 10.0	0.1000 0.1000 0.1000 0.1000	  59.27	<0.10 <0.10 <0.10	<0.01	<0.01 <0.01		
05142021a_015.d          Reagent         Blank         Sample         P1-A2           05142021a_016.d          Reagent         Blank         Sample         P1-A2           05142021a_017.d         7.735         687-2M9 0.10 pg/µL         Calibration         Vial 4           05142021a_018.d         7.735         5884990.01R1         GA-CA*20         Sample         P1-A2           05142021a_019.d         7.735         2884990.01R1         GA-CA*20         Sample         P1-A3           05142021a_019.d         7.735         2884990.01R2         GA-CA*20         Sample         P1-A3           05142021a_021.d         7.735         2884990.01R2         GA-CA*20         Sample         P1-A4           05142021a_021.d         7.735         288490.01R2         GA-CA*20         Sample         P1-A4           05142021a_021.d         7.735         288490.01R2         GA-CA*20         Sample         P1-A4           05142021a_022.d         7.735         288490.01R2         GA-CA*20         Sample         P1-A4           05142021a_022.d         7.735         288490.01R3         GA-CA*20         Sample         P1-A4           05142021a_023.d         7.7735         288490.01R3         GA-CA*20	10.0 10.0 10.0 10.0 10.0 10.0	0.100 0.100 0.100	10.0 10.0 10.0	0.1000 0.1000 0.1000	 59.27	<0.10<<0.10	<0.01	<0.01		
05142021a_016.d          Reagent         Blank         Sample         P1-A2           05142021a_017.d         7.735         687-2M9 0.10 pg/µL         Calibration         Vial 4           05142021a_018.d         7.735         687-2M9 0.10 pg/µL         Calibration         Vial 4           05142021a_019.d         7.735         288499/0.01R1         GA-CA*20         Sample         P1-A3           05142021a_019.d         7.735         288499/0.01R2         GA-CA*20         Sample         P1-A3           05142021a_020.d         7.735         288499/0.01R2         GA-CA*20         Sample         P1-A4           05142021a_021.d         7.735         288499/0.01R2         GA-CA*20         Sample         P1-A4           05142021a_021.d         7.735         28849/0.01R2         GA-CA*20         Sample         P1-A4           05142021a_022.d         7.771         687-2M8 0.25 pg/µL         Calibration         Vial 3           05142021a_023.d         7.773         288499/0.01R3         GA-CA*20         Sample         P1-A4           05142021a_023.d         7.773         288499/0.01R3         GA-CA*20         Sample         P1-A4           05142021a_023.d         7.773         288499/0.01R3         GA-CA*20	10.0 10.0 10.0 10.0 10.0	0.100	10.0	0.1000	59.27	<0.10		<0.01		
05142021a_017.d         7.735         687-2M9 0.10 pg/µL         Calibration         Vial 4           05142021a_018.d         7.735         288499/0.01R1         GA-CA*20         Sample         P1-A3           05142021a_019.d         7.735         288499/0.01R1         GA-CA*20         Sample         P1-A3           05142021a_019.d         7.735         288499/0.01R2         GA-CA*20         Sample         P1-A3           05142021a_020.d         7.735         288499/0.01R2         GA-CA*20         Sample         P1-A4           05142021a_021.d         7.735         288499/0.01R2         GA-CA*20         Sample         P1-A4           05142021a_021.d         7.735         288499/0.01R2         GA-CA*20         Sample         P1-A4           05142021a_022.d         7.771         687-2M8 0.25 pg/µL         Calibration         Vial 3           05142021a_023.d         7.773         288499/0.01R3         GA-CA*20         Sample         P1-A4           05142021a_023.d         7.775         288499/0.01R3         GA-CA*20         Sample         P1-A4           05142021a_023.d         7.775         288499/0.01R3         GA-CA*20         Sample         P1-A4           05142021a_023.d         7.775         288499/0.01R3         <	10.0 10.0 10.0 10.0	0.100	10.0	0.1000	59.27		<0.01			
05142021a_018.d         7.735         28849V0.01R1         GA-CA*20         Sample         P1-A3           05142021a_019.d         7.735         28849V0.01R1         GA-CA*20         Sample         P1-A3           05142021a_019.d         7.735         28849V0.01R2         GA-CA*20         Sample         P1-A3           05142021a_020.d         7.735         28849V0.01R2         GA-CA*20         Sample         P1-A4           05142021a_021.d         7.735         28849V0.01R2         GA-CA*20         Sample         P1-A4           05142021a_021.d         7.735         28849V0.01R2         GA-CA*20         Sample         P1-A4           05142021a_022.d         7.771         687-2M8         0.28849V0.01R3         GA-CA*20         Sample         P1-A4           05142021a_023.d         7.773         28849V0.01R3         GA-CA*20         Sample         P1-A4           05142021a_023.d         7.735         28849V0.01R3         GA-CA*20         Sample         P1-A5           05142021a_024.d         7.735         28849V0.01R3         GA-CA*20         Sample         P1-A5	10.0 10.0 10.0 10.0	0.100	10.0	0.1000	54 04				and a	
05142021a_019.d         7.735         288499/0.01R1         GA-CA*20         Sample         P1-A3           05142021a_020.d         7.735         288499/0.01R2         GA-CA*20         Sample         P1-A4           05142021a_021.d         7.735         288499/0.01R2         GA-CA*20         Sample         P1-A4           05142021a_021.d         7.735         288499/0.01R2         GA-CA*20         Sample         P1-A4           05142021a_022.d         7.721         687-2M8         0.28449/0.01R3         GA-CA*20         Sample         P1-A4           05142021a_022.d         7.773         288499/0.01R3         GA-CA*20         Sample         P1-A4           05142021a_023.d         7.735         288499/0.01R3         GA-CA*20         Sample         P1-A5           05142021a_023.d         7.735         288499/0.01R3         GA-CA*20         Sample         P1-A5           05142021a_024.d         7.735         288499/0.01R3         GA-CA*20         Sample         P1-A5	10.0 10.0 10.0				LD'TC	0.0936	0.0094		Contraction of the local sector of the local s	
05142021a_020.d         7.735         288499/0.01R2         GA-CA*20         Sample         P1-A4           05142021a_021.d         7.735         288499/0.01R2         GA-CA*20         Sample         P1-A4           05142021a_021.d         7.735         288499/0.01R2         GA-CA*20         Sample         P1-A4           05142021a_022.d         7.721         687-2M8 0.25 pg/µL         Calibration         Vial 3           05142021a_023.d         7.735         288499/0.01R3         GA-CA*20         Sample         P1-A6           05142021a_023.d         7.735         288499/0.01R3         GA-CA*20         Sample         P1-A5           05142021a_024.d         7.735         288499/0.01R3         GA-CA*20         Sample         P1-A5	10.0	0.100	10.0	0.1000	53.86	0.0984	0.0098 0	09600.0	96%	
05142021a_021.d         7.735         288499/0.01R2         GA-CA*20         Sample         P1-A4           05142021a_022.d         7.721         687-2M8 0.25 pg/µL         Calibration         Vial 3           05142021a_023.d         7.735         288499/0.01R3         GA-CA*20         Sample         P1-A4           05142021a_023.d         7.735         288499/0.01R3         GA-CA*20         Sample         P1-A5           05142021a_023.d         7.735         288499/0.01R3         GA-CA*20         Sample         P1-A5           05142021a_024.d         7.735         288499/0.01R3         GA-CA*20         Sample         P1-A5	10.0	0.100	10.0	0.1000	50.05	0.0919	0.0092			
05142021a_022.d         7.721         687-2M8 0.25 pg/µL         Calibration         Vial 3           05142021a_023.d         7.735         288499/0.01R3         GA-CA*20         Sample         P1-A5           05142021a_024.d         7.735         288499/0.01R3         GA-CA*20         Sample         P1-A5		0.100	10.0	0.1000	50.56	0.0928	0.0093 0	0.00924	92%	
05142021a_023.d 7.735 288499/0.01R3 GA-CA*20 Sample P1-A5 05142021a_024.d 7.735 288499/0.01R3 GA-CA*20 Sample P1-A5	10.0				127.88					
05142021a_024.d 7.735 28849V0.01R3 GA-CA*20 Sample P1-A5	10.0	0.100	10.0	0.1000	53.57	0.0979	0.0098			
	10.0	0.100	10.0	0.1000	45.38	0.0839	0.0084 0	60600.0	91%	93%
05142021a_025.d 7.735 28849V0.1R1 GA-CA*20 Sample P1-A6	10.0	0.100	40.0	0.0250	130.61	0.2299	0.0919			
05142021a_026.d 7.748 28849V0.1R1 GA-CA*20 Sample P1-A6	10.0	0.100	40.0	0.0250	122.12	0.2153	0.0861	0.0890	%68	
05142021a_027.d 7.735 687-2M9 0.10 pg/µL Calibration Vial 4	10.0				57.98					
05142021a_028.d 7.735 28849V0.1R2 GA-CA*20 Sample P1-A7	10.0	0.100	40.0	0.0250	127.57	0.2247	0.0899			
05142021a_029.d 7.735 28849V0.1R2 GA-CA*20 Sample P1-A7	10.0	0.100	40.0	0.0250	126.32	0.2225	0.0890	0.0894	%68	
05142021a_030.d 7.735 28849V0.1R3 GA-CA*20 Sample P1-A8	10.0	0.100	40.0	0.0250	130.96	0.2305	0.0922			
05142021a_031.d 7.735 28849V0.1R3 GA-CA*20 Sample P1-A8	10.0	0.100	40.0	0.0250	131.94	0.2322	0.0929	0.0925	93%	%06
05142021a_032.d 7.721 687-2M8 0.25 pg/pL Calibration Vial 3	10.0				134.77					
05142021a_033.d 7.735 28849V1.0R1 GA-CA*20 Sample P1-A9	10.0	0.100	400.0	0.0025	139.61	0.2453	0.9812			
05142021a_034.d 7.735 28849V1.0R1 GA-CA*20 Sample P1-A9	10.0	0.100	400.0	0.0025	142.23	0.2498	1666.0	066.0	%66	
05142021a_035.d 7.735 28849V1.0R2 GA-CA*20 Sample P1-B1	10.0	0.100	400.0	0.0025	145.06	0.2546	1.0185			
05142021a_036.d 7.748 28849V1.0R2 GA-CA*20 Sample P1-B1	10.0	0.100	400.0	0.0025	134.03	0.2357	0.9429	0.981	98%	
05142021a_037.d 7.735 687-2M9 0.10 pg/µL Calibration Vial 4	10.0				56.39					
05142021a_038.d 7.735 28849V1.0R3 GA-CA*20 Sample P1-B2	10.0	0.100	400.0	0.0025	142.57	0.2504	1.0014			
05142021a_039.d 7.735 28849V1.0R3 GA-CA*20 Sample P1-B2	10.0	0.100	400.0	0.0025	138.84	0.2440	0.9759	0.989	%66	%66
05142021a_040.d 7.735 687-2M8 0.25 pg/µL Calibration Vial 3	10.0				143.01					
Calculated LOD at 0.045 po/ul = 23										

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Target Compound Flonicamid	CurveFit fitLinear	Weighting weightEqual	Integrator Agile	Smoothing Gaussian	Smoot	ningFunctic 10	nWidth		SmoothingGauss	anWidth
Flonicamid - 5 Lev ses x10 2 Y = 58% 5.55 Type:L 7.59 Type:L 3.55 Type:L 3.51 Type:L 1.5 0.5	els, 5 Levels 3 894096 * x 0.99863229 inear, Origin:	- 3.614619 - 3.614619 :Ignore, Weight!	vone st	ed, 0 QCs						
-0	0.05 0.1 0.	.15 0.2 0.25	0.3 0.35 0.4	0.45 0.5	0.55 0.6	0.65 0.7	0.75	0.8 0	.85 0.9 0.95 Concentra	1 1.05 tion (ng/ml)
Calibration STD					Cal Type	Level	Enabled		Response	Exp Conc
D:\MassHunter\Flonicamic	1\08550_Onion\Da	ata\Results\05142021	05142021a_012.d		Calibration	٦	D		584.34	1.0000
D:\MassHunter\Flonicamic	I\08550_Onion\Da	ata\Results\05142021	05142021a_011.d		Calibration	2	D		287.04	0.5000
D:\MassHunter\Flonicamic	1\08550_Onion\De	ata\Results\05142021	05142021a_010.d		Calibration	Э	Σ		144.28	0.2500
D:\MassHunter\Flonicamic	I\08550_Onion\Da	ata\Results\05142021	05142021a_022.d		Calibration	З			127.88	0.2500
D:\MassHunter\Flonicamic	1\08550_Onion\De	ata\Results\05142021	05142021a_032.d		Calibration	З	D		134.77	0.2500
D:\MassHunter\Flonicamic	1\08550 Onion\De	ata\Results\05142021	05142021a 040.d		Calibration	m			143.01	0.2500

D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05142021\05142021a\_027.d D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05142021\05142021a\_037.d D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05142021\05142021a\_009.d D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05142021\05142021a\_017.d D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05142021\05142021a\_008.d Calib D:\M D:\M D:\M D:\M D:\M

0.1000 0.1000 0.1000 0.1000

59.27 57.98 56.39

Calibration Calibration

Calibration

57.95

0.0500

29.83

ŝ 4

Calibration Calibration

Optimization         Image         Seruption         Image         Ima         Image         Image	- Flonicamia/Union -	Method Validation	(Green Onion) - Extracted 5/14	4/21 DY ASM													
Matrix         Matrix         Sample Matrix					Sample		Inj Vol					Conc		Ave	4	ve %	
Octobe         Tube         Condition         Samelie         F-3.4         100           OF CORD-JOUL         51.3         Condition         Samelie         F-3.4         100           OF CORD-JOUL         51.3         Condition         Samelie         F-3.4         100           OF CORD-JOUL         51.3         Condition         Samelie         F-3.4         100           OF CORD-JOUL         51.31         Condition         Samelie         F-3.4         100           OF CORD-JOUL         51.31         GOVAL-JOUL         51.4         100         100           OF CORD-JOUL         51.4         20.4         100         100         100         100           OF CORD-JOUL         51.4         20.4         100         100         100         100         100         100         100         100         100         100         100         100         100         100	Data File	RT	SampleName	Sample Info	Type	Vial Pos	(11)	5	mL Vol	ini gm	Resp	()hl/bd)	bpm	mdd	% Rec	Rec	Std De
0:00000         5.31         0:00000         Sample         7.3         100           0:00000         5.32         0:00000         Sample         7.3         100           0:00000         5.31         0:00000         Sample         7.3         2.0           0:00000         5.31         0:00000         Sample         7.4         2.0           0:00000         5.31         0:00000         Sample         7.4         2.0           0:00000         5.31         0:000000         Sample         7.4         2.0           0:00000         5.31         0:000000         Sample         7.4         2.0         2.0           0:00000         5.31         0:0000000         Sample         7.4         2.0         2.0           0:00000         5.31         0:0000000         Sample         7.4         2.0         2.0           0:000000         5.31         0:00000000	05142021a_001.d	]	Condition		Sample	P1-A3	10.0										
0:00000         0.23         0 onder         Sample         0.13         0.00           0:00000.001         3.14         0 onder         Sample         1.43         1.00           0:00000.001         3.13         0 onder         Sample         1.43         1.00           0:00000.001         3.11         0 onder         Sample         1.43         1.00           0:00000         3.11         0 onder         Sample         1.43         1.00           0:00000         3.11         0 onder         Sample         1.43         0.00           0:00000         3.11         0 onder         Sample         1.44         0.00           0:00000         3.11         0 onder         1.00         0.00         0.00         0.00           0:00000         3.11         0 onder         1.00         0.00         0.00         0.00         0.00         0.00           0:00000         3.11         0 onder         0 onder         0 onder         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00	05142021a_002.d	5.311	Condition		Sample	P1-A3	10.0										
Circlection         333         Condition         Sample         1+3         100           Circlection         311         Generation         143         100         100           Circlection         311         Generation         143         100         100         100         100           Circlection         311         Generation         143         100	05142021a_003.d	5.324	Condition		Sample	P1-A3	10.0										
CNC0021001         510         CONDINC         CONDINC         CONDINC         CONDINC	05142021a_004.d	5.324	Condition		Sample	P1-A3	10.0										
Static         Condition         Same         P1-4         Condition         Condition </td <td>05142021a_005.d</td> <td>5.324</td> <td>Condition</td> <td></td> <td>Sample</td> <td>P1-A3</td> <td>10.0</td> <td></td>	05142021a_005.d	5.324	Condition		Sample	P1-A3	10.0										
Groutine Condition         Same intervention         Same intervention         State         Distribution         State         Condition         State         Condition         State	05142021a_006.d	5.311	Condition		Sample	P1-A3	10.0										
Cristand Cristan	05142021a_007.d	5.311	Condition		Sample	P1-A3	10.0										
Clination         S11         Genome         Value	05142021a_008.d	5.311	687-2M10 0.05 pg/pt		Calibration	Vial 5	10.0				101.78						
Gistolia D11         533         667-960.25 pilli 677-800.25 pilli 667-960.25 pilli 667-960.15 pilli         Collection (a)         (a)         (a) <td>05142021a_009.d</td> <td>5.311</td> <td>687-2M9 0.10 pg/pL</td> <td></td> <td>Calibration</td> <td>Vial 4</td> <td>10.0</td> <td></td> <td></td> <td></td> <td>204.79</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	05142021a_009.d	5.311	687-2M9 0.10 pg/pL		Calibration	Vial 4	10.0				204.79						
Gistorial 101         5.31         687/96 (3) (3)         67/96 (3) (3)         67/96 (3) (3)         67/96 (3) (3)         67/96 (3) (3)         67/96 (3) (3)         67/96 (3) (3)         67/96 (3) (3)         67/96 (3) (3)         67/96 (3) (3)         67/96 (3) (3)         67/96 (3) (3)         67/96 (3) (3)         67/96 (3) (3)         67/96 (3) (3)         67/96 (3)	05142021a_010.d	5.324	687-2M8 0.25 pg/pt		Calibration	Vial 3	10.0				482.92						
Circle (C)	05142021a_011.d	5.311	687-2M7 0.50 pg/pt		Calibration	Vial 2	10.0				959.18						
Cistable (1)	05142021a_012.d	5.297	687-2M6 1.0 pg/µL		Calibration	Vial 1	10.0				1984.74						
Obstratize 0144          2899         Obstratize 014          -0.10<	05142021a_013.d	1	28849	GA-CA*20	Sample	P1-A1	10.0	0.100	10.0	0.1000	1	<0.10	<0.01				
05170213         01         010	05142021a_014.d	i	28849	GA-CA*20	Sample	P1-A1	10.0	0.100	10.0	0.1000	I	<0.10	<0.01	<0.01			
OFFADDIA (1)          Rager(1)         Bank         Sample (1)         1,10         0,100          0,10         0,010	05142021a_015.d	l	Reagent	Blank	Sample	P1-A2	10.0	0.100	10.0	0.1000	I	<0.10	<0.01				
	05142021a_016.d	1	Reagent	Blank	Sample	P1-A2	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.01			
05142021a 0184         5.334         28894000181         G-ACV20         Sample         F1-A1         0.0         0.00         10.00         10.06         0.0107         0.00         0.000 </td <td>05142021a_017.d</td> <td>5.324</td> <td>687-2M9 0.10 pg/µL</td> <td></td> <td>Calibration</td> <td>Vial 4</td> <td>10.0</td> <td></td> <td></td> <td></td> <td>198.56</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	05142021a_017.d	5.324	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				198.56						
05142021a         5.311         288990.01R         64.C4*20         Sample         1-4.4         100         0.100         157.81         0.0105         0.01	05142021a_018.d	5.324	28849V0.01R1	GA-CA*20	Sample	P1-A3	10.0	0.100	10.0	0.1000	183.84	0.1066	0.0107				
05142031a         5.334         2889Y0.0102         GACW20         Sample         F1-A4         100         100         17.181         0.1005         0.001         0.0024         0.0005         0.001         0.0024         0.0005         0.001         0.0024         0.0024         0.0005         0.001         0.0024         0.0024         0.0005         0.0046         0.001         0.0010	05142021a_019.d	5.311	28849V0.01R1	GA-CA*20	Sample	P1-A3	10.0	0.100	10.0	0.1000	180.06	0.1047	0.0105	0.0106	106%		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05142021a_020.d	5.324	28849V0.01R2	GA-CA*20	Sample	P1-A4	10.0	0.100	10.0	0.1000	171.81	0.1005	0.0101				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05142021a_021.d	5.324	28849V0.01R2	GA-CA*20	Sample	P1-A4	10.0	0.100	10.0	0.1000	155.72	0.0924	0.0092	0.00965	%96		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05142021a_022.d	5.311	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				409.59						
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05142021a_023.d	5.324	28849V0.01R3	GA-CA*20	Sample	P1-A5	10.0	0.100	10.0	0.1000	149.21	0.0892	0.0089				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05142021a_024.d	5.324	28849V0.01R3	GA-CA*20	Sample	P1-A5	10.0	0.100	10.0	0.1000	154.41	0.0918	0.0092	0.00905	%06	98%	8%
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05142021a_025.d	5.324	28849V0.1R1	GA-CA*20	Sample	P1-A6	10.0	0.100	40.0	0.0250	389.92	0.2101	0.0840				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05142021a_026.d	5.338	28849V0.1R1	GA-CA*20	Sample	P1-A6	10.0	0.100	40.0	0.0250	387.79	0.2090	0.0836	0.0838	84%		
05142021a_028.d         5.324         28849V0.1R2         GA-CA*20         Sample         P1-A7         10.0         0.100         40.0         0.0250         406.87         0.2186         0.0875           05142021a_029.d         5.324         28849V0.1R2         GA-CA*20         Sample         P1-A7         10.0         0.100         40.0         0.0250         405.63         0.2165         0.0865         0.0875         87%           05142021a_031.d         5.324         28849V0.1R3         GA-CA*20         Sample         P1-A8         10.0         0.100         40.0         0.0250         407.17         0.0866         0.0870         87%           05142021a_033.d         5.324         28849V1.0R1         GA-CA*20         Sample         P1-A8         10.0         0.100         40.0         0.0250         437.17         0.0865         0.0870         87%           05142021a_033.d         5.324         28849V1.0R1         GA-CA*20         Sample         P1-A9         10.0         0.100         40.00         0.0253         434.80         0.3371         0.337         0.934         93%           05142021a_035.d         5.324         28849V1.0R1         GA-CA*20         Sample         P1-B1         10.0         0.100	05142021a_027.d	5.324	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				169.09						
05142021a_029.d         5.324         28849V0.1R2         GA-CA*20         Sample         P1-A         10.0         0.100         40.0         0.0250         402.63         0.2165         0.0866         0.0870         87%           05142021a_030.d         5.324         28849V0.1R3         GA-CA*20         Sample         P1-A8         10.0         0.100         40.0         0.0250         403.71         0.0916         0.0892         89%           05142021a_033.d         5.324         28849V1.0R1         GA-CA*20         Sample         P1-A8         10.0         0.100         40.0         0.0250         437.10         0.0916         0.0892         89%           05142021a_033.d         5.324         28849V1.0R1         GA-CA*20         Sample         P1-A8         10.0         0.100         40.0         0.0254         437.60         0.0347         0.314         0.314           05142021a_033.d         5.324         28849V1.0R1         GA-CA*20         Sample         P1-B1         10.0         0.100         40.00         0.0254         457.30         0.314         0.314         0.314         0.314         0.314         0.314         0.314         0.314         0.314         0.314         0.314         0.314         0.314	05142021a_028.d	5.324	28849V0.1R2	GA-CA*20	Sample	P1-A7	10.0	0.100	40.0	0.0250	406.87	0.2186	0.0875				
05142021a         030.4         5.324         288490.1R3         GA-CA*20         Sample         P1-A8         10.0         0.0100         40.0         0.0250         437.71         0.2171         0.0668           05142021a         5314         5324         28849V0.1R3         GA-CA*20         Sample         P1-A8         10.0         0.100         40.0         0.0250         437.45         0.0916         0.0891         89%         87%           05142021a         0314         5324         28849V1.0R1         GA-CA*20         Sample         P1-A9         10.0         0.100         40.0         0.0250         437.60         0.3347         0.3347         9393         93%           05142021a_033.d         5.324         28849V1.0R1         GA-CA*20         Sample         P1-B1         10.0         0.100         40.00         0.0025         437.60         0.3347         0.334         93%           05142021a_035.d         5.324         28849V1.0R1         GA-CA*20         Sample         P1-B1         10.0         0.100         40.00         0.0025         457.60         0.2341         0.334         93%           05142021a_035.d         5.338         28849V1.0R2         GA-CA*20         Sample         P1-B1	05142021a_029.d	5.324	28849V0.1R2	GA-CA*20	Sample	P1-A7	10.0	0.100	40.0	0.0250	402.63	0.2165	0.0866	0.0870	87%		
05!42021a_031.4         5:324         288490.1R3         GA-CA*20         Sample         P1-A8         10.0         0.0100         40.0         0.0250         47.48         0.2290         0.0916         0.0895         87%           05!42021a_032.d         5.311         687-248 0.25 pg/ul         Calibration         Val 3         10.0         40.0         0.0025         437.60         0.2341         0.9363         87%         87%           05!42021a_033.d         5.324         28849V1.0R1         GA-CA*20         Sample         P1-49         10.0         0.100         40.00         0.0025         437.60         0.2341         0.3937         0.393         93%           05!42021a_035.d         5.324         28849V1.0R1         GA-CA*20         Sample         P1-41         10.0         0.100         49.00         0.0025         435.60         0.3347         0.334         93%           05!42021a_035.d         5.324         28849V1.0R2         GA-CA*20         Sample         P1-41         10.0         0.100         49.00         0.0025         455.33         0.2430         0.934         93%           05!42021a_035.d         5.338         28849V1.0R2         GA-CA*20         Sample         P1-41         10.0         0.100 </td <td>05142021a_030.d</td> <td>5.324</td> <td>28849V0.1R3</td> <td>GA-CA*20</td> <td>Sample</td> <td>P1-A8</td> <td>10.0</td> <td>0.100</td> <td>40.0</td> <td>0.0250</td> <td>403.71</td> <td>0.2171</td> <td>0.0868</td> <td></td> <td></td> <td></td> <td></td>	05142021a_030.d	5.324	28849V0.1R3	GA-CA*20	Sample	P1-A8	10.0	0.100	40.0	0.0250	403.71	0.2171	0.0868				
05142021a_032.d         5.311         687-2M8 0.25 pg/ul         Calibration         Vial 3         10.0         427.17         427.17           05142021a_033.d         5.324         28849V1.0R1         GA-CA*20         Sample         P1-A0         10.0         400.0         0.0025         437.60         0.2341         0.9363           05142021a_033.d         5.324         28849V1.0R1         GA-CA*20         Sample         P1-A0         10.0         400.0         0.0025         437.60         0.3307         0.9347         93%           05142021a_035.d         5.324         28849V1.0R2         GA-CA*20         Sample         P1-B1         10.0         0.100         400.0         0.0025         415.80         0.2371         0.9371         93%           05142021a_035.d         5.338         28849V1.0R2         GA-CA*20         Sample         P1-B1         10.0         0.100         415.60         0.2361         0.9455         95%           05142021a_037.d         5.338         28849V1.0R2         GA-CA*20         Sample         P1-B1         10.0         0.100         0.0002         455.17         0.9345         0.958         96%           05142021a_037.d         5.338         28849V1.0R3         GA-CA*20         Sample	05142021a_031.d	5.324	28849V0.1R3	GA-CA*20	Sample	P1-A8	10.0	0.100	40.0	0.0250	427.48	0.2290	0.0916	0.0892	89%	87%	39
05142021a_033.d         5.324         28849V1.0R1         GA-CA*20         Sample         P1-A9         10.0         400.0         0.0025         437.60         0.2341         0.9363           05142021a_034.d         5.324         28849V1.0R1         GA-CA*20         Sample         P1-A9         10.0         0.100         400.0         0.0225         437.60         0.2327         0.9307         0.934         93%           05142021a_035.d         5.324         28849V1.0R2         GA-CA*20         Sample         P1-B1         10.0         0.100         400.0         0.0255         455.33         0.2377         0.9307         0.934         93%           05142021a_035.d         5.338         28849V1.0R2         GA-CA*20         Sample         P1-B1         10.0         0.100         400.0         0.0025         455.33         0.2430         0.9719           05142021a_037.d         5.324         687-2M9 0.10 pg/µl         Calibration         Val         10.0         400.0         0.0025         455.33         0.2430         0.9719           05142021a_037.d         5.324         687-2M9 0.10 pg/µl         Calibration         Val         10.0         0.100         400.0         0.0025         455.17         0.2342         0.9534 <td>05142021a_032.d</td> <td>5.311</td> <td>687-2M8 0.25 pg/µL</td> <td></td> <td>Calibration</td> <td>Vial 3</td> <td>10.0</td> <td></td> <td></td> <td></td> <td>427.17</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	05142021a_032.d	5.311	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				427.17						
05142021a_034.d         5.324         28849V1.0R1         GA-CA*20         Sample         P1-A9         10.0         0.100         400.0         0.0025         434.80         0.2327         0.9307         0.934         93%           05142021a_035.d         5.324         28849V1.0R2         GA-CA*20         Sample         P1-B1         10.0         0.100         400.0         0.0025         455.33         0.2430         0.9719           05142021a_035.d         5.338         28849V1.0R2         GA-CA*20         Sample         P1-B1         10.0         0.100         400.0         0.0025         415.8         0.29719         958         96%           05142021a_037.d         5.338         28849V1.0R2         GA-CA*20         Sample         P1-B1         10.0         0.100         400.0         0.0025         415.8         0.29719         0.9745         95%           05142021a_031.d         5.324         687-2M9 0.10 P0/JL         Calibration         Val 4         10.0         0.100         400.0         0.0025         45.17         0.2435         0.9716           05142021a_031.d         5.324         687-2M9 0.10 P0/JL         Calibration         Val 4         10.0         0.100         460.0         0.0025         45.17	05142021a_033.d	5.324	28849V1.0R1	GA-CA*20	Sample	P1-A9	10.0	0.100	400.0	0.0025	437.60	0.2341	0.9363				
05142021a_035.d         5.324         28849V1.0R2         GA-CA*20         Sample         P1-B1         10.0         0.100         400.0         0.0025         455.33         0.2430         0.9719           05142021a_036.d         5.338         28849V1.0R2         GA-CA*20         Sample         P1-B1         10.0         0.100         400.0         0.0025         415.68         0.9445         0.958         96%           05142021a_037.d         5.338         28849V1.0R2         GA-CA*20         Sample         P1-B1         10.0         400.0         0.0025         415.68         0.9445         0.958         96%           05142021a_037.d         5.324         687-2M9 0.10 pg/µL         Calibration         Vial         10.0         400.0         0.0025         455.17         0.2435         0.9716           05142021a_030.d         5.324         28849V1.0R3         GA-CA*20         Sample         P1-P2         10.0         0.100         400.0         0.0025         455.17         0.2429         0.95345         0.95%           05142021a_030.d         5.324         58849V1.0R3         GA-CA*20         Sample         P1-P2         10.0         0.100         405.0         0.0716         0.95345         0.95345         0.95345	05142021a_034.d	5.324	28849V1.0R1	GA-CA*20	Sample	P1-A9	10.0	0.100	400.0	0.0025	434.80	0.2327	0.9307	0.934	93%		
D5142021a_036.d         5.338         28849V1.0R2         GA-CA*2D         Sample         P1-B1         10.0         0.100         40.0.0         0.0025         41.68         0.2361         0.9445         0.958         96%           05142021a_037.d         5.324         687-2M9 0.10 pg/µL         Calibration         Vial 4         10.0         10.0         172.14         0.2425         0.9445         0.958         96%           05142021a_037.d         5.324         687-2M9 0.10 pg/µL         Calibration         Vial 4         10.0         10.0         172.14         0.2429         0.9716           05142021a_039.d         5.338         28849V1.0R3         GA-CA*20         Sample         P1-B2         10.0         400.0         0.0025         45.17         0.2429         0.9716           05142021a_030.d         5.324         58849V1.0R3         GA-CA*20         Sample         P1-B2         10.0         400.0         0.0025         45.717         0.2429         0.9534         95%         95%           05142021a_030.d         5.324         687-2M8 0.25 gg/µL         Calibration         Vial 3         10.0         400.0         0.0025         45.717         0.2345         0.9533         95%         95%           55142021a_	05142021a_035.d	5.324	28849V1.0R2	GA-CA*20	Sample	P1-B1	10.0	0.100	400.0	0.0025	455.33	0.2430	0.9719				
05142021a_037.d 5.324 687-2M9 0.10 pg/µL Calibration Vial 4 10.0 172.14 05142021a_038.d 5.338 28849V1.0R3 GA-CA*20 Sample P1-B2 10.0 0.100 400.0 0.0025 455.17 0.2429 0.9716 05142021a_039.d 5.324 28849V1.0R3 GA-CA*20 Sample P1-B2 10.0 0.100 400.0 0.0025 436.71 0.2336 0.9345 0.953 95% 95% 05142021a_040.d 5.324 687-2M8 0.25 pg/µL Calibration Vial 3 10.0 400.0 0.0025 436.71 0.2336 0.9345 0.953 95% 95%	05142021a_036.d	5.338	28849V1.0R2	GA-CA*20	Sample	P1-B1	10.0	0.100	400.0	0.0025	441.68	0.2361	0.9445	0.958	%96		
05142021a_038.d 5.338 28849V1.0R3 GA-CA*20 Sample P1-B2 10.0 0.100 400.0 0.0025 455.17 0.2429 0.9716 05142021a_039.d 5.324 28849V1.0R3 GA-CA*20 Sample P1-B2 10.0 0.100 400.0 0.0025 436.71 0.2336 0.9345 0.953 95% 95% 05142021a_040.d 5.324 687-2M8 0.25 pg/ut Calibration Vial 3 10.0	05142021a_037.d	5.324	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				172.14						
05142021a_039.d 5.324 28849V1.0R3 GA-CA*20 Sample P1-B2 10.0 0.100 400.0 0.0025 436.71 0.2336 0.9345 0.953 95% 95% 05142021a_040.d 5.324 687-2M8 0.25 pg/µL Calibration Vial 3 10.0 400.0 400.0 450.15 450.15 6.1345 0.953 95% 95% 74fnilated1(f) at 0.445 m/ml = 61	05142021a_038.d	5.338	28849V1.0R3	GA-CA*20	Sample	P1-B2	10.0	0.100	400.0	0.0025	455.17	0.2429	0.9716				
05142021a_040.d 5.324 687-2M8 0.25 pg/µL Calibration Vial 3 10.0 450.15 Calculated 100 at 0.045 mor/ul = 61	05142021a_039.d	5.324	28849V1.0R3	GA-CA*20	Sample	P1-B2	10.0	0.100	400.0	0.0025	436.71	0.2336	0.9345	0.953	92%	95%	1%
Calculated LOD at 0.045 no/ut = 61	05142021a_040.d	5.324	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				450.15						
	Calculated LOD at 0.04.	- nated -															

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Data File	RT	SampleName	Sample Info	Sample	fial Pos	(uL)	0	IL Vol	ini pm	Resp	Conc (pg/µL)	mqq	Ave	% Rec	Ave % Rec	Std De
05142021a_001.d		Condition		Sample	P1-A3	10.0	1									
05142021a_002.d	6.010	Condition		Sample	P1-A3	10.0										
05142021a_003.d	6.010	Condition		Sample	P1-A3	10.0										
05142021a_004.d	6.024	Condition		Sample	P1-A3	10.0										
05142021a_005.d	6.010	Condition		Sample	P1-A3	10.0										
05142021a_006.d	5.997	Condition		Sample	P1-A3	10.0										
05142021a_007.d	6.010	Condition		Sample	P1-A3	10.0										
05142021a_008.d	5.983	687-2M10 0.05 pg/µL		Calibration	Vial 5	10.0				33.20						
05142021a_009.d	5.983	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				61.67						
05142021a_010.d	5.997	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				166.08						
05142021a_011.d	5.983	687-2M7 0.50 pg/µL		Calibration	Vial 2	10.0				319.08						
05142021a_012.d	5.969	687-2M6 1.0 pg/µL		Calibration	Vial 1	10.0				637.36						
05142021a_013.d	1	28849	GA-CA*20	Sample	P1-A1	10.0	0.100	10.0	0.1000	-	<0.10	<0.01				
05142021a_014.d		28849	GA-CA*20	Sample	PI-A1	10.0	0.100	10.0	0.1000	L	<0.10	<0.01	<0.01			
05142021a_015.d		Reagent	Blank	Sample	P1-A2	10.0	0.100	10.0	0.1000	I	<0.10	<0.01				
05142021a_016.d		Reagent	Blank	Sample	P1-A2	10.0	0.100	10.0	0.1000	+	<0.10	<0.01	<0.01			
05142021a_017.d	5.997	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				64.06						
05142021a_018.d	6.024	28849V0.01R1	GA-CA*20	Sample	P1-A3	10.0	0.100	10.0	0.1000	66.87	0.1095	0.0110				
05142021a_019.d	6.010	28849V0.01R1	GA-CA*20	Sample	P1-A3	10.0	0.100	10.0	0.1000	59.48	0.0980	8600.0	0.0104	104%		
05142021a_020.d	6.010	28849V0.01R2	GA-CA*20	Sample	P1-A4	10.0	0.100	10.0	0.1000	53.66	0.0889	0.0089				
05142021a_021.d	6.024	28849V0.01R2	GA-CA*20	Sample	P1-A4	10.0	0.100	10.0	0.1000	53.99	0.0894	0.0089	0.00891	89%		
05142021a_022.d	5.983	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				147.46						
05142021a_023.d	6.024	28849V0.01R3	GA-CA*20	Sample	P1-A5	10,0	0.100	10.0	0.1000	59.19	0.0975	8600.0				
05142021a_024.d	6.010	28849V0.01R3	GA-CA*20	Sample	P1-A5	10.0	0.100	10.0	0.1000	58.69	0.0967	7600.0	0.00971	%16	97%	
05142021a_025.d	6.010	28849V0.1R1	GA-CA*20	Sample	P1-A6	10.0	0.100	40.0	0.0250	136.17	0.2177	0.0871				
05142021a_026.d	6.024	28849V0.1R1	GA-CA*20	Sample	P1-A6	10.0	0.100	40.0	0.0250	145.42	0.2322	0.0929	0060.0	%06		
05142021a_027.d	5.997	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				54.48						
05142021a_028.d	6.010	28849V0.1R2	GA-CA*20	Sample	P1-A7	10.0	0.100	40.0	0.0250	135.57	0.2168	0.0867				
05142021a_029.d	6.010	28849V0.1R2	GA-CA*20	Sample	P1-A7	10.0	0.100	40.0	0.0250	133.61	0.2137	0.0855	0.0861	86%		
05142021a_030.d	6.010	28849V0.1R3	GA-CA*20	Sample	P1-A8	10.0	0.100	40.0	0.0250	137.95	0.2205	0.0882				
05142021a_031.d	6.024	28849V0.1R3	GA-CA*20	Sample	P1-A8	10.0	0.100	40.0	0.0250	147.76	0.2359	0.0943	0.0913	91%	%68	
05142021a_032.d	5.983	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				158.79						
05142021a_033.d	6.010	28849V1.0R1	GA-CA*20	Sample	P1-A9	10.0	0.100	400.0	0.0025	148.01	0.2362	0.9450				
05142021a_034.d	5.997	28849V1.0R1	GA-CA*20	Sample	P1-A9	10.0	0.100	400.0	0.0025	149.00	0.2378	0.9512	0.948	92%		
05142021a_035.d	6.010	28849V1.0R2	GA-CA*20	Sample	P1-B1	10.0	0.100	400.0	0.0025	157.93	0.2517	1.0070				
05142021a_036.d	6.010	28849V1.0R2	GA-CA*20	Sample	P1-B1	10.0	0.100	400.0	0.0025	146.28	0.2335	0.9341	1/6.0	9//6		
05142021a_037.d	5.997	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				62.24						
05142021a_038.d	6.010	28849V1.0R3	GA-CA*20	Sample	P1-B2	10.0	0.100	400.0	0.0025	150.39	0.2400	0.9598				
05142021a_039.d	6.010	28849V1.0R3	GA-CA*20	Sample	P1-B2	10.0	0.100	400.0	0.0025	150.04	0.2394	0.9576	0.959	%96	6%	5
05142021a_040.d	5.997	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				148.66						
Calculated LOD at 0.04	= jului =	26														
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Analytical Summary Report, PR# 08550

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Data File         RT           05142021a_001.d            05142021a_003.d         7.212           05142021a_003.d         7.212           05142021a_003.d         7.212           05142021a_006.d         7.212           05142021a_006.d         7.212           05142021a_006.d         7.212           05142021a_007.d         7.212           05142021a_006.d         7.198           05142021a_008.d         7.313           05142021a_008.d         7.313															
Data File         KI           05142021a_001.d            05142021a_002.d         7.212           05142021a_004.d         7.212           05142021a_004.d         7.212           05142021a_004.d         7.212           05142021a_006.d         7.212           05142021a_006.d         7.212           05142021a_006.d         7.213           05142021a_007.d         7.213           05142021a_008.d         7.3198		County Tube	Sample	L Dec les	Inj Vol		I Wol	inl nu	Decn	Conc (not/ut)	muu	Ave	% Rec	Ave %	std Dev
05142021a_000.d 05142021a_002.d 05142021a_002.d 05142021a_004.d 7.212 05142021a_005.d 05142021a_005.d 7.198 05142021a_007.d 7.212 05142021a_008.d 7.198	SampleName	ouur aidmes	Cample	CV IU	100	= 71				Ind IEd	l				
05142021a_002.d 7.212 05142021a_003.d 7.212 05142021a_004.d 7.222 05142021a_006.d 7.198 05142021a_006.d 7.198 05142021a_007.d 7.212 05142021a_008.d 7.198	Condition		aldilloc		0.01										
05142021a_003.d 7.212 05142021a_004.d 7.225 05142021a_005.d 7.198 05142021a_006.d 7.198 05142021a_007.d 7.212 05142021a_008.d 7.198	Condition		Sample	CH-IN	0.01										
05142021a_004.d 7.225 05142021a_005.d 7.128 05142021a_006.d 7.198 05142021a_007.d 7.212 05142021a_008.d 7.198	Condition		Sample	P1-A3	10.0										
05142021a_005.d 7.212 05142021a_006.d 7.198 05142021a_007.d 7.212 05142021a_008.d 7.198	Condition		Sample	P1-A3	10.0										
05142021a_006.d 7.198 05142021a_007.d 7.212 05142021a_008.d 7.198	Condition		Sample	P1-A3	10.0										
05142021a_007.d 7.212 05142021a_008.d 7.198	Condition		Sample	P1-A3	10.0										
05142021a_008.d 7.198	Condition		Sample	P1-A3	10.0										
	687-2M10 0.05 pg/µL		Calibration	Vial 5	10.0				25.24						
05142021a_009.d 7.212	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				52.01						
05142021a 010.d 7.212	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				124.67						
05142021a 011.d 7.198	687-2M7 0.50 pg/µL		Calibration	Vial 2	10.0				277.14						
05142021a_012.d 7.198	687-2M6 1.0 pg/µL		Calibration	Vial 1	10.0				537.20						
05142021a_013.d	28849	GA-CA*20	Sample	P1-A1	10.0	0.100	10.0	0.1000	-	<0.10	<0.01				
05142021a 014.d	28849	GA-CA*20	Sample	IA-19	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01			
05142021a 015.d	Reagent	Blank	Sample	P1-A2	10.0	0.100	10.0	0.1000		<0.10	<0.01				
05142021a 016.d	Reagent	Blank	Sample	P1-A2	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.01			
05142021a 017.d 7.212	687-2M9 0.10 pg/nL		Calibration	Vial 4	10.0				53.00						
05142021a 018.d 7.225	28849V0.01R1	GA-CA*20	Sample	P1-A3	10.0	0.100	10.0	0.1000	43.89	0.0907	0.0091				
05142021a 019.d 7.212	28849V0.01R1	GA-CA*20	Sample	P1-A3	10.0	0.100	10.0	0.1000	45.47	0.0936	0.0094	0.00922	92%		
05142021a 020.d 7.225	28849V0.01R2	GA-CA*20	Sample	P1-A4	10.0	0.100	10.0	0.1000	43.64	0.0902	0600.0				
05142021a_021.d 7.225	28849V0.01R2	GA-CA*20	Sample	P1-A4	10.0	0.100	10.0	0.1000	45.19	0.0931	0.0093	0.00917	92%		
05142021a_022.d 7.212	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				122.76						
05142021a_023.d 7.239	28849V0.01R3	GA-CA*20	Sample	P1-A5	10.0	0.100	10.0	0.1000	39.48	0.0826	0.0083				
05142021a_024.d 7.212	28849V0.01R3	GA-CA*20	Sample	P1-A5	10.0	0.100	10.0	0.1000	42.25	0.0877	0.0088	0.00851	85%	%06	40
05142021a_025.d 7.225	28849V0.1R1	GA-CA*20	Sample	P1-A6	10.0	0.100	40.0	0.0250	126.20	0.2420	0.0968				
05142021a 026.d 7.239	28849V0.1R1	GA-CA*20	Sample	P1-A6	10.0	0.100	40.0	0.0250	129.99	0.2489	9660'0	0.0982	%86		
05142021a_027.d 7.212	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				52.60						
05142021a_028.d 7.225	5 28849V0.1R2	GA-CA*20	Sample	P1-A7	10.0	0.100	40.0	0.0250	125.91	0.2414	0.0966				
05142021a_029.d 7.212	2 28849V0.1R2	GA-CA*20	Sample	P1-A7	10.0	0.100	40.0	0.0250	130.60	0.2501	0.1000	0.0983	0%86		
05142021a_030.d 7.225	5 28849V0.1R3	GA-CA*20	Sample	P1-A8	10.0	0.100	40.0	0.0250	136.77	0.2614	0.1046				
05142021a_031.d 7.225	28849V0.1R3	GA-CA*20	Sample	P1-A8	10.0	0.100	40.0	0.0250	130.64	0.2501	0.1001	0.102	102%	100%	5
05142021a_032.d 7.212	2 687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				127.87						
05142021a_033.d 7.225	28849V1.0R1	GA-CA*20	Sample	P1-A9	10.0	0.100	400.0	0.0025	141.07	0.2693	1.0771				
05142021a 034.d 7.212	2 28849V1.0R1	GA-CA*20	Sample	P1-A9	10.0	0.100	400.0	0.0025	132.10	0.2528	1.0112	1.04	104%		
05142021a_035.d 7.225	28849V1.0R2	GA-CA*20	Sample	P1-B1	10.0	0.100	400.0	0.0025	140.56	0.2684	1.0734				
05142021a_036.d 7.225	28849V1.0R2	GA-CA*20	Sample	P1-B1	10.0	0.100	400.0	0.0025	135.44	0.2589	1.0358	1.05	105%		
05142021a_037.d 7.212	2 687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				43.77						
05142021a_038.d 7.225	5 28849V1.0R3	GA-CA*20	Sample	P1-B2	10.0	0.100	400.0	0.0025	138.65	0.2649	1.0594				
05142021a_039.d 7.212	2 28849V1.0R3	GA-CA*20	Sample	P1-B2	10.0	0.100	400.0	0.0025	141.30	0.2697	1.0789	1.07	107%	106%	1.
05142021a_040.d 7.212	2 687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				128.84						
Calculated LOD at 0.045 pg/ul_ =	19														
- hillor Ot O to Ot Date have	40														

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Compound Injection Date Flonicamid 5/6/2021 08550 - Flonicamid/Onion - Sample Analy

CMR0011.0014          Condin         Sample         P-A3         100           CMR0011.0014         773         Goodin         Sample         P-A3         100           CMR0011.0014         773         Goodin         Sample         P-A3         100           CMR0011.0014         7721         G67-M01 055 m/L         Condin         Sample         P-A4         100           CMR0011.0114         7721         667-M01 055 m/L         Condin         M-A1         100	Data File	RT	SampleName	Sample Info	Sample Type	Vial Pos	Inj Vol (µL)	6	mL Vol	ini em	Resp	Conc (pg/µL)	/ wdd	Ive ppm
0660011,0014         7731         000000         7331         000000         7331         000000           06600013,0014         7732         000000         7333         000000         7333         000000           06600013,0004         7733         000000         7333         000000         7334         944           06600013,0004         7733         6673001         5334         944         100           06600013,0014         7731         6673061         9143         100         7533           06600013,0114         7721         6673061         9141         100         100         100         100           06600013,0114         7721         6673061         9141         100         100         100         100         100           06900013,013         7721         6673061         9141         100         1010 <td< td=""><td>05062021a_001.d</td><td>1</td><td>Condition</td><td></td><td>Sample</td><td>P1-A3</td><td>10.0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	05062021a_001.d	1	Condition		Sample	P1-A3	10.0							
Concortion         Sample         F1-A3         100           Concortion         722         Conclion         573         Conclion         573         Conclion         574         100           Concortion         7735         Conclion         573         Conclion         573         Conclion         720           Concortion         7735         Conclion         7735         Conclion         721         720           Concortion         7735         Conclion         721         Gonzal         720         720           Concortion         7735         Gonzal         720         720         720         720           Concortion         7335         Gonzal         720         Concortion         730         720	05062021a_002.d	7.721	Condition		Sample	P1-A3	10.0							
Condition         Sample         P1-A3         100           Condition         773         Condition         Sample         P1-A3         100           Condition         773         Condition         Sample         P1-A3         100           Condition         773         E67-396         Condition         Sample         P1-A3         100           Condition         773         E67-396         Condition         Sample         P1-A3         100           Condition         775-33         E67-396         Condition         Value         100	05062021a_003.d	7.735	Condition		Sample	P1-A3	10.0							
Sample         P-1-3         100           00500011         7731         Condition         Sample         Pi-1-3         100           00500011         7731         697-340 (10 pp)(1         Condition         Sample         Pi-1-3         100           00500011         7731         697-340 (10 pp)(1         Condition         Sample         Pi-1-3         100           05000011         7731         697-340 (10 pp)(1         Condition         Na1         100         17300           05000011         7731         697-340 (10 pp)(1         Condition         Na1         100         17300         17300           05000011         697-340 (10 pp)(1         Condition         Na1         100	05062021a_004.d	7.721	Condition		Sample	P1-A3	10.0							
Constant, a (math condition)         Samelle         F1-A3         100           Condition         7735         667-3401.055 g/JM         7330         957-467         937-46           Condition         7721         667-3401.055 g/JM         Calibration         944         100           Condition         7721         667-3401.055 g/JM         Calibration         943         100           Condition         7721         667-3401.055 g/JM         Calibration         943         100           Condition         7721         667-3401.055 g/JM         Calibration         943         100           Condition         7721         687-3401.057 g/JM         Calibration         941         100         1010 </td <td>05062021a_005.d</td> <td>7.721</td> <td>Condition</td> <td></td> <td>Sample</td> <td>P1-A3</td> <td>10.0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	05062021a_005.d	7.721	Condition		Sample	P1-A3	10.0							
Generation         7.73         Generation         Yal         100           Generation         X13         Generation         X13         Generation         X13         X12           Generation         X131         Generation         X131         Generation         X131         X12	05062021a_006.d	7.735	Condition		Sample	P1-A3	10.0							
Constant         Dist	05062021a_007.d	7.735	Condition		Sample	P1-A3	10.0							
Constanta (0.04         7.73         687-396 (0.07)         Calination         Val         1.00         7.200         7.200           Constanta (0.12         7.721         687-396 (0.25)         Calination         Val         1.00         387.39           Constanta (0.12         7.721         687-396 (0.25)         Calination         Val         1.00         1.00         1.00         388.33           Constanta (0.14          2.883         DBA-CONEI         Sample         P1-41         1.00         1.000         0.10         -0.01	05062021a_008.d	7.721	687-2M10 0.05 pg/µL		Calibration	Vial 5	10.0				39.46			
	05062021a_009.d	7.735	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				73.00			
Obsection 11.1         77.1         667-246 (10 pg)(1         Calibration         100         776-3         383-3           0566021a, 013.4         77.1         667-346 (10 pg)(1         2883         DBA-CO461         Sample         F1-41         100         0.100          -0.11         -0.01            0566021a, 013.4          2883         DBA-CO461         Sample         F1-41         100         0.100          -0.11         -0.01	05062021a_010.d	7.721	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				187.94			
	05062021a_011.d	7.721	687-2M7 0.50 pg/µL		Calibration	Vial 2	10.0				388.39			
	05062021a_012.d	7.721	687-2M6 1.0 pg/µL		Calibration	Vial 1	10.0				776.78			
056:071.a         0110         0.100	05062021a_013.d	I	28853	DBA-C0461	Sample	P1-A1	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	
0563021a          2399         DB4.CA*15         Sample         F1-A2         100         1000          4-10         4-01	05062021a_014.d		28853	DBA-CO461	Sample	P1-A1	10.0	0.100	10.0	0.1000	Į	<0.10	<0.01	<0.01
	05062021a_015.d	-	28989	DBA-CA*19	Sample	P1-A2	10.0	0.100	10.0	0.1000		<0.10	<0.01	
	05062021a_016.d	-	28989	DBA-CA*19	Sample	P1-A2	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01
0562021a         0121         288570.011         DBA-CO6i         Sample         P1-A3         10.0         01.00         66.33         0.0951         0.0053         0.0033	05062021a_017.d	7.735	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				64.29			
0562021a         7.721         288350.01X1         DBA-CO461         Sample         P1-A1         10.0         0.100         6.63         0.0025         0.0055         0.0001         0.0	05062021a_018.d	7.721	28853C0.01R1	DBA-CO461	Sample	P1-A3	10.0	0.100	10.0	0.1000	61.28	0.0883	0.0088	
	05062021a_019.d	7.721	28853C0.01R1	DBA-CO461	Sample	P1-A3	10.0	0.100	10.0	0.1000	66.63	0.0951	0.0095	1600.0
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05062021a_020.d	7.721	28853C1.0R1	DBA-CO461	Sample	P1-A4	10.0	0.100	400.0	0.0025	180.66	0.2405	0.9620	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05062021a_021.d	7.735	28853C1.0R1	DBA-CO461	Sample	P1-A4	10.0	0.100	400.0	0.0025	190.53	0.2531	1.0123	0.98
6666021a_023.4         7.735         28855         DBC CO461         Sample         P1-45         10.0         0.1000         872-42         1.1223         0.1123         0.1133	05062021a_022.d	7.721	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				176.02			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05062021a_023.d	7.735	28855	<b>DBC-CO161</b>	Sample	P1 A5	<del>10.0</del>	0.100	10.0	0.1000	872.42	1.1223	0.1122	
69662021a_025d         7.735         28856         DBB-CO461         5ample         P1-46         10.0         0.1000         71.68         0.9557         0.0953         0.1095         0.1095         0.1095         0.1095         0.1095         0.1095         0.1095         0.1095         0.1095         0.1095         0.1092         0.0103         0	05062021a_024.d	7.724	28855	<b>BBC-C0461</b>	Sample	P1 A5	10.0	0.100	<del>10.0</del>	0.1000	880.47	1.1326	0.1133	0.1
66662021a_025.d         7.33         288.6         BBD CO461         Sample         P1.46         10.0         6.100         747.23         09623         09633         01063         747.23         09623         09633         01063         01092         0.1092         0.1093         0.1093         0.1093         0.1093         0.1093         0.1093         0.1093         0.1093         0.1093         0.1093         0.1093         0.1093         0.1093         0.1093         0.1093         0.1093         0.1093         0.1093         0.1013         0.0013	05062021a_025.d	7.735	28856	DBD-C0461	Sample	P1 A6	<del>10.0</del>	0.100	<del>10.0</del>	0.1000	741.68	0.9557	0:0956	
	05062021a_026.d	351.7	28856	DBD-C0461	Sample	P1 A6	<del>10.0</del>	0.100	<del>10.0</del>	0.1000	747.23	0.9628	0.0963	0.1(
05062021a_028.d         7.735         28991         DBC-CA*19         Sample $P1-A7$ 10.0         0.1000         77.69         0.1092         0.0109         0.0107         0.0109         0.0107         0.0109         0.0107         0.017         0.0117         0.0117         0.0117         0.0125         0.0126         0.0125         0.0125	05062021a_027.d	7.721	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				71.64			
05062021a_023.d         7.735         28991         DBC-CA*19         Sample         P1-A7         10.0         0.1000         7.5.81         0.1068         0.0107         0.0117         0.0117         0.0117         0.0117         0.0117         0.0117         0.0117         0.0125         0.0134	05062021a_028.d	7.735	28991	DBC-CA*19	Sample	P1-A7	10.0	0.100	10.0	0.1000	77.69	0.1092	0.0109	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05062021a_029.d	7.735	28991	DBC-CA*19	Sample	P1-A7	10.0	0.100	10.0	0.1000	75.81	0.1068	0.0107	0.01
05062021a_031.d       7.735       28992       DBD-CA*19       Sample       P1-48       10.0       0.100       81.27       0.1138       0.0114       0.010         05062021a_032.d       7.735       687-2M8 0.25 pg/µL       Calibration       Vial 3       10.0       192.66       192.66         05062021a_033.d       7.735       28855 (Flonicamid)       DBC-C0461       Sample       P1-49       10.0       0.100       40.0       0.0250       237.54       0.3130       0.1252         05062021a_035.d       7.735       28855 (Flonicamid)       DBC-C0461       Sample       P1-49       10.0       0.100       40.0       0.0250       237.54       0.3130       0.1252       0.1249       0.1         05062021a_035.d       7.735       28856 (Flonicamid)       DBC-C0461       Sample       P1-H1       10.0       0.100       40.0       0.0250       237.54       0.3120       0.1249       0.1         05062021a_035.d       7.748       28856 (Flonicamid)       DBD-C0461       Sample       P1-H1       10.0       0.100       40.0       0.0250       227.41       0.1299       0.1209         05062021a_037.d       7.735       687-2M8 0.25 pg/µL       Zalibration       Vial 3       10.0       0.100<	05062021a_030.d	7.735	28992	DBD-CA*19	Sample	P1-A8	10.0	0.100	10.0	0.1000	83.80	0.1170	0.0117	
05062021a_032.d         7.735         687-2M8 0.25 gg/uL         Calibration         Vial 3         10.0         192.66           05062021a_033.d         7.735         28855 (Flonicamid)         DBC-CO461         Sample         P1-A9         10.0         0.100         40.0         0.0250         237.54         0.3130         0.1252           05062021a_033.d         7.735         28855 (Flonicamid)         DBC-CO461         Sample         P1-A9         10.0         0.100         40.0         0.0250         237.54         0.3130         0.1252           05062021a_035.d         7.735         28855 (Flonicamid)         DBC-CO461         Sample         P1-B1         10.0         0.100         40.0         0.0250         237.54         0.3122         0.1252           05062021a_035.d         7.735         28856 (Flonicamid)         DBD-CO461         Sample         P1-B1         10.0         0.100         40.0         0.0250         22741         0.1096           05062021a_037.d         7.735         68772M8 0.25 pg/µL         Calibration         Vial 3         10.0         0.100         40.0         0.0250         227.03         0.120         0.106           05062021a_037.d         7.735         68772M8 0.25 pg/µL         Calibration <td< td=""><td>05062021a_031.d</td><td>7.735</td><td>28992</td><td>DBD-CA*19</td><td>Sample</td><td>P1-A8</td><td>10.0</td><td>0.100</td><td>10.0</td><td>0.1000</td><td>81.27</td><td>0.1138</td><td>0.0114</td><td>0.01</td></td<>	05062021a_031.d	7.735	28992	DBD-CA*19	Sample	P1-A8	10.0	0.100	10.0	0.1000	81.27	0.1138	0.0114	0.01
05062021a_033.d         7.735         28855 (Flonicamid)         DBC-CO461         Sample         P1-A9         10.0         0.100         40.0         0.0250         237.54         0.3130         0.1252           05062021a_034.d         7.748         28855 (Flonicamid)         DBC-CO461         Sample         P1-A9         10.0         0.100         40.0         0.0250         237.54         0.3130         0.1252           05062021a_035.d         7.735         28856 (Flonicamid)         DBC-CO461         Sample         P1-B1         10.0         0.100         40.0         0.0250         237.63         0.3122         0.1299         0.1120           05062021a_035.d         7.748         28856 (Flonicamid)         DBD-CO461         Sample         P1-B1         10.0         0.100         40.0         0.0250         227.03         0.2741         0.1096           05062021a_037.d         7.735         687-2M8 0.25 pg/µL         Calibration         Vial 3         10.0         40.0         0.0250         211.59         0.1209         0.1120           05062021a_037.d         7.735         687-2M8 0.25 pg/µL         Calibration         Vial 3         10.0         0.100         40.0         0.0250         211.59         0.1200         0.1120 <td>05062021a_032.d</td> <td>7.735</td> <td>687-2M8 0.25 pg/µL</td> <td></td> <td>Calibration</td> <td>Vial 3</td> <td>10.0</td> <td></td> <td></td> <td></td> <td>192.66</td> <td></td> <td></td> <td></td>	05062021a_032.d	7.735	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				192.66			
05062021a_034.d       7.748       28855 (Flonicamid)       DBC-CO461       Sample       P1-A9       10.0       0.100       40.0       0.0250       236.87       0.3122       0.1249       0.1         05062021a_035.d       7.735       28856 (Flonicamid)       DBD-CO461       Sample       P1-B1       10.0       0.100       40.0       0.0250       236.87       0.3122       0.1249       0.1         05062021a_035.d       7.735       28856 (Flonicamid)       DBD-CO461       Sample       P1-B1       10.0       0.100       40.0       0.0250       207.03       0.2741       0.1096         05062021a_037.d       7.735       687-2M8 0.25 pg/µL       Calibration       Vial 3       10.0       40.0       0.0250       211.59       0.1209       0.1120       0.1         05062021a_037.d       7.735       687-2M8 0.25 pg/µL       Calibration       Vial 3       10.0       40.0       0.00550       211.59       0.12799       0.1120       0.1         05062021a_037.d       7.735       687-2M8 0.25 pg/µL       Calibration       Vial 3       10.0       40.0       0.00550       211.59       0.12709       0.1120         Calculated LOQ at 0.10 pg/µL =       70       70       10.0       40.0       0	05062021a_033.d	7.735	28855 (Flonicamid)	DBC-C0461	Sample	P1-A9	10.0	0.100	40.0	0.0250	237.54	0.3130	0.1252	
05062021a_035.d 7.735 28856 (Flonicamid) DBD-CO461 Sample P1-B1 10.0 0.100 40.0 0.0250 207.03 0.2741 0.1096 0.05662021a_036.d 7.748 28856 (Flonicamid) DBD-CO461 Sample P1-B1 10.0 0.100 40.0 0.0250 211.59 0.2799 0.1120 0.1 05065021a_037.d 7.735 687-2M8 0.25 pg/µL Calibration Vial 3 10.0 1.00 40.0 1.00 40.0 0.02550 211.59 0.2799 0.1120 0.1 05065021a_037.d 7.735 687-2M8 0.25 pg/µL 2 27 Calibration Vial 3 10.0 1.00 40.0 1.00 40.0 1.00550 211.59 0.2799 0.1120 0.1 05065021a_037.d 7.735 687-2M8 0.25 pg/µL 2 27 1.0 0.100 40.0 1.00 40.0 1.00 40.0 1.00 40.0 0.02550 211.59 0.2799 0.1120 0.1 05065021a_037.d 7.735 687-2M8 0.25 pg/µL 2 27 Calibration Vial 3 10.0 1.00 40.0 1.00 40.0 1.05550 211.59 0.2799 0.1120 0.1 0.1 05065021a_037.d 7.735 687-2M8 0.25 pg/µL 2 27 1.0 0.100 40.0 1.00 40.0 1	05062021a_034.d	7.748	28855 (Flonicamid)	DBC-C0461	Sample	P1-A9	10.0	0.100	40.0	0.0250	236.87	0.3122	0.1249	0.1
05062021a_036.d 7,748 28856 (Flonicamid) DBD-CO461 Sample P1-B1 10.0 0.100 40.0 0.0250 211.59 0.2799 0.1120 0.1 05062021a_037.d 7.735 687-2M8 0.25 pg/µL Calibration Vial 3 10.0 10.0 2.00 185.50 Calculated LOD at 0.045 pg/µL = 27 Calculated LOQ at 0.10 pg/µL = 70 "" denotes response below area threshold	05062021a_035.d	7.735	28856 (Flonicamid)	DBD-C0461	Sample	P1-B1	10.0	0.100	40.0	0.0250	207.03	0.2741	0.1096	
05062021a_037.d 7.735 687-2M8 0.25 pg/μL Calibration Vial 3 10.0 185.50 Calculated LOD at 0.045 pg/μL = 27 Calculated LOQ at 0.10 pg/μL = 70 "" denotes response below area threshold	05062021a_036.d	7.748	28856 (Flonicamid)	DBD-C0461	Sample	P1-B1	10.0	0.100	40.0	0.0250	211.59	0.2799	0.1120	0.1
Calculated LOD at 0.045 pg/µL = 27 Calculated LOQ at 0.10 pg/µL = 70 "" denotes response below area threshold	05062021a_037.d	7.735	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				185.50			
Calculated LOQ at 0.10 pg/µL = 70 "" denotes response below area threshold	Calculated LOD at 0.045	= hd/ht	27											
"" denotes response below area threshold	Calculated LOQ at 0.10 p	g/µL =	70											
	"" denotes response t	below area thre	schold											
	and the second s													

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IR-4 Western Region Laboratory, University of California, Davis



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Compound Injection Date TFNA-AM 5/6/2021 08550 - Flonicamid/Onion - Common

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Data File	RT	SampleName	Sample Info	Type /	<b>Vial Pos</b>	(hr)	D	mL Vol	ing Inj	Resp	(Jµ/)	/ mqq	Ave ppm	% Rec
05062021a_001.d	1	Condition		Sample	P1-A3	10.0								
05062021a_002.d	5.311	Condition		Sample	P1-A3	10.0								
05062021a_003.d	5.311	Condition		Sample	P1-A3	10.0								
05062021a_004.d	5.324	Condition		Sample	P1-A3	10.0								
05062021a_005.d	5.311	Condition		Sample	P1-A3	10.0								
05062021a_006.d	5.311	Condition		Sample	P1-A3	10.0								
05062021a_007.d	5.324	Condition		Sample	P1-A3	10.0								
05062021a_008.d	5.324	687-2M10 0.05 pg/µL		Calibration	Vial 5	10.0				103.75				
05062021a_009.d	5.324	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				217.34				
05062021a_010.d	5.311	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				527.23				
05062021a_011.d	5.311	687-2M7 0.50 pg/µL		Calibration	Vial 2	10.0				1071.15				
05062021a_012.d	5.297	687-2M6 1.0 pg/µL		Calibration	Vial 1	10.0				2150.88				
05062021a_013.d	-	28853	DBA-CO461	Sample	P1-A1	10.0	0.100	10.0	0.1000	I	<0.10	<0.01		
05062021a_014.d		28853	DBA-CO461	Sample	P1-A1	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.01	
05062021a_015.d		28989	DBA-CA*19	Sample	P1-A2	10.0	0.100	10.0	0.1000		<0.10	<0.01		
05062021a_016.d		28989	DBA-CA*19	Sample	P1-A2	10.0	0.100	10.0	0.1000	I	<0.10	<0.01	<0.01	
05062021a_017.d	5.324	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				172.29				
05062021a_018.d	5.311	28853C0.01R1	DBA-CO461	Sample	P1-A3	10.0	0.100	10.0	0.1000	165.24	0.0922	0.0092		
05062021a_019.d	5.324	28853C0.01R1	DBA-CO461	Sample	P1-A3	10.0	0.100	10.0	0.1000	171.74	0.0952	0.0095	0.00937	94%
05062021a_020.d	5.324	28853C1.0R1	DBA-CO461	Sample	P1-A4	10.0	0.100	400.0	0.0025	474.88	0.2345	0.9378		
05062021a_021.d	5.324	28853C1.0R1	DBA-CO461	Sample	P1-A4	10.0	0.100	400.0	0.0025	470.94	0.2326	0.9306	0.934	93%
05062021a_022.d	5.311	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				461.18				
05062021a_023.d	1	28855	DBC-CO461	Sample	P1-A5	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		
05062021a_024.d		28855	DBC-CO461	Sample	P1-A5	10.0	0.100	10.0	0.1000	-	<0.10	<0.01	<0.01	
05062021a_025.d	ŀ	28856	DBD-CO461	Sample	P1-A6	10.0	0.100	10.0	0.1000		<0.10	<0.01		
05062021a_026.d	-	28856	DBD-CO461	Sample	P1-A6	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.01	
05062021a_027.d	5.324	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				197.86				
05062021a_028.d	1	28991	DBC-CA*19	Sample	P1-A7	10.0	0.100	10.0	0.1000	-	<0.10	<0.01		
05062021a_029.d	ļ	28991	DBC-CA*19	Sample	P1-A7	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01	
05062021a_030.d	-	28992	DBD-CA*19	Sample	P1-A8	10.0	0.100	10.0	0.1000		<0.10	<0.01		
05062021a_031.d	]	28992	DBD-CA*19	Sample	P1-A8	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.01	
05062021a_032.d	5.311	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				470.09				
05062021a_033.d	ľ	28855 (Flonicamid)	DBC-C0461	Sample	P1-A9	10.0	0.100	40.0	0:0250	1	€0:10	€0:01		
05062021a_034.d	1	28855 (Flonicamid)	DBC-C0461	Sample	P1-A9	10.0	0.100	40.0	0.0250	l	<del>&lt;0.10</del>	<del>&lt;0.01</del>	+0:0+	
05062021a_035.d	1	28856 (Flonicamid)	DBD-CO461	Sample	P1-B1	<del>10.0</del>	0.100	40.0	0.0250	l	€0:10	+0.0+		
05062021a_036.d	l	28856 (Flonicamid)	DBD-CO461	Sample	P1 B1	<del>10.0</del>	0.100	40.0	0.0250	1	<del>&lt;0.10</del>	€0:01	+0.0+	
05062021a_037.d	5.311	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				476.88				
Calculated LOD at 0.045	= hg/pd	63												
Calculated LOQ at 0.10 p	= Jrl/bc	182												
"" denotes response	below area thre	shold												
Strikethrough denotes d	ata not used, di	ilutions used for CO461 flonic	amid samples only											

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Calibration

D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05062021\05062021a\_008.d

Printed at: 9:21 AM on: 5/7/2021



Printed at: 9:21 AM on: 5/7/2021

WAD IZ/Z/S

Compound Injection Date TFNA 5/6/2021 08550 - Flonicamid/Onion - Sample Analysis - Field Trials CO461, CA\*19 - Extracted 5/6/2021 by ASM

Montant         m         montant         m         montant         m	Biological Joint         Touline         Sample         Fi-1         Contine         Sample         Fi-3         DDD           0560233_J0143         6.07         Contine         Sample         Fi-3         DD           0560233_J0143         6.07         Contine         Sample         Fi-3         DD           0560233_J013_J0143         6.07         Contine         Sample         Fi-3         DD           0560233_J013_J0143         6.07         Contine         Sample         Fi-3         DD           0560233_J013_J014         6.07         Contine         Sample         Fi-3         DD           0560233_J013_J014         6.07         Contine         Sample         Fi-3         DD           0560233_J013_J014         6.010         6737         Contine         Sample         Fi-4         DD		ł	SamuleName	Samle Info	Sample Type /	fial Pos	Inj Vol (uL)		mL Vol	ini m	Resp	(pg/hr)	mdd	Ave ppm	% Rec
Control         Control         Same         P-13         DDD           Control         Control         Same         P-13         DDD         P-13           Control         Control         Val         DDD	Condential, Job 24         6.07         Condential         Sample         Fi-M3         100           Condential, Job 24         6.037         Condential         Sample         Fi-M3         100           Condential, Job 24         6.010         6.017         Condential         Sample         Fi-M3         100           Condential, Job 24         6.010         6.017         Condential         Viel 1         100         100         100           Condential, Job 24         6.010         6/07         6/07         Viel 1         100 <td< td=""><td>ALL TIC TIC</td><td>2</td><td>Condition</td><td></td><td>Samole</td><td>P1-A3</td><td>10.0</td><td>•</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	ALL TIC TIC	2	Condition		Samole	P1-A3	10.0	•							
Control         Same         F-7.3         L00           0600031_J0014         6.07         Control         Same         F-3.4         L00           0600031_J0014         6.07         60000         V01         L00         F-3.4         L00           0600031_J0124         5.09         607-90         Control         V14         L00         L00         P-3.4         L00           0600031_J0124         5.09         607-90         Control         V14         L00         L00         P-3.4         L00           0600031_J0124         5.09         607-90         V14         L00         L00         P-3.4         L00	Obsection         Sample         F1-N3         Loc         Condition         Sample         F1-N3         Loc           05600313, 00.44         6.037         Condition         Sample         F1-N3         100           05600313, 00.44         6.037         Condition         Sample         F1-N3         100           05600313, 00.44         6.037         Condition         Sample         F1-N3         100           05600313, 00.44         6.010         6673 Me 0.15 ppl.         Condition         Sample         F1-N3         100           05600313, 01.41         6.010         6673 Me 0.15 ppl.         Condition         Na1         100         2100         101         210         201	D'TOO PTZOZOOCO	1	Condition		alduna	CV-10	10.01								
000000000000000000000000000000000000	OBSORDIAL D014         G017         Condition         Sample         F1-A3         100           OBSORDIAL D014         G037         Condition         Sample         F1-A3         100           OBSORDIAL D014         G037         Condition         Sample         F1-A3         100           OBSORDIAL D014         G019         G637         Condition         Sample         F1-A3         100           OBSORDIAL D014         G010         6677         G0010501         G617         G010         G77-A0         G164           OBSORDIAL D014         G010         6677-A0         G87-A0         G100         G101         G10	05062021a_002.d	6.037	Condition		sample	CH-14	10.01								
0600011, 014         6.07         Condico         Same         P.1.3         100           0600011, 016         6.01         677.96         Condico         9.1.3         100           0600011, 016         6.01         677.96         Condico         9.1.3         100         1	Condition         Sample         P1-A3         100           Condition         Condition         Sample         P1-A3         100           Constrata_L06.4         6.07         Condition         Sample         P1-A3         100           Constrata_L06.4         6.07         Condition         Sample         P1-A3         100           Constrata_L06.4         6.07         Condition         Sample         P1-A3         100           Constrata_L06.4         6.00         657-30(1-0)         000         97-44         100           Constrata_L06.4         6.00         657-30(1-0)         97-44         100         100         74-44           Constrata_L01.4         6.00         677-30(1-0)         57-30(1-0)         100	05062021a_003.d	6.037	Condition		Sample	FA-14	10.0								
Condition         Sample         F1-3         100           Condition         6.037         Condition         Sample         F1-3         100           Condition         6.037         Condition         Sample         F1-3         100           Condition         6.030         677-900 (15 g/s)(1         Condition         Sample         F1-3         100           Condition         6.030         677-900 (15 g/s)(1         Condition         Val         100         100         Val         100           Condition         6.010         677-900 (15 g/s)(1         Condition         Val         100 <td>Condition         Sample         P1-A3         100           Condition         Condition         Sample         P1-A3         100           Condition         6.07         Condition         Sample         P1-A3         100           Condition         6.07         Condition         Sample         P1-A3         100           Condition         6.07         Condition         Sample         P1-A3         100           Condition         6.00         67.249         Long         Sample         P1-A3         100           Condition         67.01         67.01         67.01         67.01         67.01         60.01         67.01         60.01         67.01         60.01         67.01         60.01         67.01         60.01</td> <td>05062021a_004.d</td> <td>6.037</td> <td>Condition</td> <td></td> <td>Sample</td> <td>P1-A3</td> <td>10.0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Condition         Sample         P1-A3         100           Condition         Condition         Sample         P1-A3         100           Condition         6.07         Condition         Sample         P1-A3         100           Condition         6.07         Condition         Sample         P1-A3         100           Condition         6.07         Condition         Sample         P1-A3         100           Condition         6.00         67.249         Long         Sample         P1-A3         100           Condition         67.01         67.01         67.01         67.01         67.01         60.01         67.01         60.01         67.01         60.01         67.01         60.01         67.01         60.01	05062021a_004.d	6.037	Condition		Sample	P1-A3	10.0								
Concorta, Doto         GD         Condio         Sample         P1-3         100           Concorta, Dota         GD         Condion         Sample         P1-3         100           Concorta, Dota         GD         SCORD, DOTA         GD         SCORD, DOTA         Sample         P1-3         100           Concorta, Dota         GD         SCORD, DOTA         GD         SCORD, DOTA         P1-3         100           Concorta, DOLA         GD         SCORD, DOTA         GD         SCORD, DOTA         P1-3         100           Concorta, DOLA         GD         SCORD, DOLA         P1-4         100         100         P1-4         P1-4 <td>Constant, 00.64         6.07         Condition         Sample         P1-A3         10.0           66960713, 00.64         6.03         667-749 (0.16)         73         75         75           66960713, 00.64         6.010         677-740 (0.16)         71         100         71           65060713, 01.04         6.010         677-740 (0.16)         Colification         Val         100         71           65060713, 01.04         6.010         677-740 (0.16)         Colification         Val         100         71         100           65060713, 01.04         6.010         677-740 (0.16)         Colification         Val         100         100         100         100         100         100         100         100         100         101</td> <td>05062021a_005.d</td> <td>6.037</td> <td>Condition</td> <td></td> <td>Sample</td> <td>P1-A3</td> <td>10.0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Constant, 00.64         6.07         Condition         Sample         P1-A3         10.0           66960713, 00.64         6.03         667-749 (0.16)         73         75         75           66960713, 00.64         6.010         677-740 (0.16)         71         100         71           65060713, 01.04         6.010         677-740 (0.16)         Colification         Val         100         71           65060713, 01.04         6.010         677-740 (0.16)         Colification         Val         100         71         100           65060713, 01.04         6.010         677-740 (0.16)         Colification         Val         100         100         100         100         100         100         100         100         100         101	05062021a_005.d	6.037	Condition		Sample	P1-A3	10.0								
Condition 0.01         Condition 0.01         Condition 0.01         Condition 0.01         Sample 0.13         1.00           Condition 0.01         6.01         67.246         2.44         2.01         5.54           Condition 0.01         67.246         2.44         2.01         5.54         5.54           Condition 0.010         67.246         2.010         67.246         2.010         6.011	Generation         Gamma         First         10.0         5.64         6.7-46         5.64           Generation         6.03         667-340         6.03         667-340         5.03         567-346         5.04           Generation         6.01         667-340         6.00         667-340         5.00         567-346         5.00         567-346         5.00         567-346         5.00         567-346         5.00         567-346         5.00         567-346         5.00         567-346         5.00         567-346         5.00         567-346         5.00         57-346         5.00         567-346         5.00         57-346         5.00         57-346         5.00         57-346         5.00         57-346         5.00         57-346         5.00         57-346         5.00         57-346         5.00         57-346         5.00         567-347         5.00         5.00         57-346         5.00         5.0	05062021a_006.d	6.037	Condition		Sample	P1-A3	10.0								
Constrata         Constrata <t< td=""><td>Offsonting and constant and constant constant constant and constant and constant constant and const</td><td>05062021a_007.d</td><td>6.037</td><td>Condition</td><td></td><td>Sample</td><td>P1-A3</td><td>10.0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Offsonting and constant and constant constant constant and constant and constant constant and const	05062021a_007.d	6.037	Condition		Sample	P1-A3	10.0								
Constrata 0014         Collection         Vial 3         100         77.44           CONSTRALL 0114         C010         667.2490.01 Pojlit         Collection         Vial 3         100         34155           CONSTRALL 0114         C010         667.2490.01 Pojlit         Collection         Vial 3         100         34155           CONSTRALL 0114         C010         667.2490.01 Pojlit         Collection         Vial 3         100         2100         2010         2011<	Constant         Collection         Vol         Total         Total <thtotal< th="">         Total         Total</thtotal<>	05062021a_008.d	6.024	687-2M10 0.05 pg/µL		Calibration	Vial 5	10.0				36.96				
Concrita_0104         6010         687-348         Concreta         100         1105 </td <td>Generation         6.010         687-2490         C.S. (600         687-2490         Collection         Val         100         315.6           05060231a_012.d         6.010         687-2490         Sey7         987-240         200         912.6         912.6           05060231a_012.d         6.010         687-340         Sey7         987-346         10.00</td> <td>05062021a 009.d</td> <td>6.010</td> <td>687-2M9 0.10 pg/µL</td> <td></td> <td>Calibration</td> <td>Vial 4</td> <td>10.0</td> <td></td> <td></td> <td></td> <td>67.44</td> <td></td> <td></td> <td></td> <td></td>	Generation         6.010         687-2490         C.S. (600         687-2490         Collection         Val         100         315.6           05060231a_012.d         6.010         687-2490         Sey7         987-240         200         912.6         912.6           05060231a_012.d         6.010         687-340         Sey7         987-346         10.00	05062021a 009.d	6.010	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				67.44				
Constration         6100         673-397         667-361         3013         3113         3113           Constration 13         5.997         667-347         Colmente         Val         100         201	Gib (500011a, 011.d)         G(0)         G(72/14) (15 proj)t         Calibration         Via 1         D00         D100         D101         D101 <thd101< th="">         D101         D101<!--</td--><td>05062021a 010.d</td><td>6.010</td><td>687-2M8 0.25 pg/µL</td><td></td><td>Calibration</td><td>Vial 3</td><td>10.0</td><td></td><td></td><td></td><td>160.66</td><td></td><td></td><td></td><td></td></thd101<>	05062021a 010.d	6.010	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				160.66				
Constration         5.997         G67/206.11         Collection         Val         100         Collection         <	05062011_0124         5.97         667-206 L0 pql4         Collection         Val.1         100	05062021a 011.d	6.010	687-2M7 0.50 pg/µL		Calibration	Vial 2	10.0				341.56				
05060011         01         010         010         010         0100         0100         0100         010         0100         010 <th< td=""><td>05062013_011d        </td><td>05062021a 012.d</td><td>5.997</td><td>687-2M6 1.0 pg/pL</td><td></td><td>Calibration</td><td>Vial 1</td><td>10.0</td><td></td><td></td><td></td><td>682.21</td><td></td><td></td><td></td><td></td></th<>	05062013_011d	05062021a 012.d	5.997	687-2M6 1.0 pg/pL		Calibration	Vial 1	10.0				682.21				
05962011_014	05662013_014          2883         DBACO461         Sample         P1A1         10.0         0.100         0.100          6.01<	05062021a 013.d	-	28853	DBA-CO461	Sample	P1-A1	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		
05062021a_0154	0566201a_015d          2899         DBA-CN*19         Sample         P1-A2         10.0         0.100          <-0.10	05062021a 014.d	1	28853	DBA-CO461	Sample	P1-A1	10.0	0.100	10.0	0.1000	l	<0.10	<0.01	<0.01	
OSG2021a_015d	05662013_016d          2396         D84-CM*19         Sample         P1-A2         100         0.100         0.100         0.100         6.01         6.	05062021a 015.d	1	28989	DBA-CA*19	Sample	P1-A2	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		
GS062013_011/d         6.024         6877-396 0.10 pyll         Calibration         Vol         100         55.04         57.378	Gib Signal (3)         G (3) <thg (3)<="" th="">         G (3)         <thg (3)<="" th="">         G (3)</thg></thg>	05062021a 016.d	l	28989	DBA-CA*19	Sample	P1-A2	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01	
05062071a         0184         6.037         28835C0.0181         DBA-CO461         Sample         F1-A3         10.0         0.100         6.047         0.0973         0.0013         0.0013         0.0013         0.0013         0.00133         0.00133         0.00133         0.00133         0.00133         0.00133         0.00133         0.00133         0.00133         0.00133         0.00133         0.00133         0.00133         0.00133         0.00133         0.00133         0.00133 </td <td>050620114_018.d         6.037         28853C0.01K1         DBA-CO+61         Sample         P1-A3         10.0         0.100         0.000         0.0973         0.00170         0.0100         0.01013         0.01013         0.01013         0.01013         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110</td> <td>05062021a 017.d</td> <td>6.024</td> <td>687-2M9 0.10 pg/pL</td> <td></td> <td>Calibration</td> <td>Vial 4</td> <td>10.0</td> <td></td> <td></td> <td></td> <td>55.04</td> <td></td> <td></td> <td></td> <td></td>	050620114_018.d         6.037         28853C0.01K1         DBA-CO+61         Sample         P1-A3         10.0         0.100         0.000         0.0973         0.00170         0.0100         0.01013         0.01013         0.01013         0.01013         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110         0.0110	05062021a 017.d	6.024	687-2M9 0.10 pg/pL		Calibration	Vial 4	10.0				55.04				
050620114         010         6.03         28853C.01R         Dek-CO+61         Sample         P1-A3         10.0         0.100         0.000         0.100         0.000         0.100         0.000         0.100         0.000         0.100         0.000         0.100         0.000         0.100         0.000         0.100         0.000         0.100         0.000         0.100         0.000		05062021a 018.d	6.037	28853C0.01R1	DBA-CO461	Sample	P1-A3	10.0	0.100	10.0	0.1000	60.45	0.0973	0.0097		
GioGamma (2014)         SBRSTLINE1         DBA-COH61         Sample         P1-M1         100         0.100         40.00         0.0025         164.06         0.2478         0.9913         9996         9996         9996         0.9996 <th0.9996< th="">         0.9996         0.99</th0.9996<>		05062021a 019.d	6.037	28853C0.01R1	DBA-CO461	Sample	P1-A3	10.0	0.100	10.0	0.1000	59.49	0.0959	9600.0	0.00966	9/6/6
6562071a_021d         6.024         28853C10/1         DBA-CO461         Sample         P1-A4         100         0.100         0.0025         12.05         0.2449         0.3796         0.955         99%6           05620713_022d         6.010         687-2M8 0.5 gp/dt         Calibration         val3         100         100         0.0025         15.216         0.2449         0.3796         0.955         0.956           05620713_023d          28855         DBC-CO461         Sample         P1-A5         100         0.100         0.100          -0.10         <0.01	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05062021a 020.d	6.024	28853C1.0R1	DBA-CO461	Sample	P1-A4	10.0	0.100	400.0	0.0025	164.06	0.2478	0.9913		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		05062021a 021.d	6.024	28853C1.0R1	DBA-CO461	Sample	P1-A4	10.0	0.100	400.0	0.0025	162.06	0.2449	0.9796	0.985	%66
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		05062021a 022.d	6.010	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				162.73				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05062021a 023.d		28855	DBC-CO461	Sample	P1-A5	10.0	0.100	10.0	0.1000	l	<0.10	<0.01		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05062021a 024.d	ł	28855	DBC-CO461	Sample	P1-A5	10.0	0.100	10.0	0.1000	t	<0.10	<0.01	<0.01	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05062021a_025.d		28856	DBD-CO461	Sample	P1-A6	10.0	0.100	10.0	0.1000		<0.10	<0.01		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05062021a 026.d	1	28856	DBD-CO461	Sample	P1-A6	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01	
05062021a_028d         6.051         28991         DBC-CA*19         Sample         P1-A7         10.0         0.100         0.0 <th< td=""><td><math display="block"> \begin{array}{cccccccccccccccccccccccccccccccccccc</math></td><td>05062021a 027.d</td><td>6.010</td><td>687-2M9 0.10 pg/µL</td><td></td><td>Calibration</td><td>Vial 4</td><td>10.0</td><td></td><td></td><td></td><td>61.58</td><td></td><td></td><td></td><td></td></th<>	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05062021a 027.d	6.010	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				61.58				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05062021a_029.d         6.051         28991         DBC-CA*19         Sample         P1-A7         10.0         0.100         0.0         86.82         0.1356         0.01356         0           05062021a_030.d         6.051         28992         DBD-CA*19         Sample         P1-A8         10.0         0.100         10.0         0.100         93.31         0.1450         0.0145           05062021a_031.d         6.051         28992         DBD-CA*19         Sample         P1-A8         10.0         0.100         97.61         0.1450         0.0145           05062021a_032.d         6.010         687-2M8 0.25 pg/ul         28992         DBD-CA*19         Sample         P1-A8         10.0         0.100         97.61         0.1450         0.0145           05062021a_032.d         6.010         687-2M8 0.25 pg/ul         28855 (Florieamid)         DBC-CO461         Sample         P1 A9         9.00         4.0.0         9.0.00         97.61         0.1513         0.0151         (           05062021a_037.d         6.010         687-2M8 0.25 pg/ul         28855 (Florieamid)         DBC-CO461         Sample         P1 A9         40.0         40.0         40.01         40.01         40.01         40.01         40.01         40.01 <td>05062021a 028.d</td> <td>6.051</td> <td>28991</td> <td>DBC-CA*19</td> <td>Sample</td> <td>P1-A7</td> <td>10.0</td> <td>0.100</td> <td>10.0</td> <td>0.1000</td> <td>83.79</td> <td>0.1312</td> <td>0.0131</td> <td></td> <td></td>	05062021a 028.d	6.051	28991	DBC-CA*19	Sample	P1-A7	10.0	0.100	10.0	0.1000	83.79	0.1312	0.0131		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	05062021a         0301         6.051         28992         DBD-CA*19         Sample         P1-A8         10.0         0.100         93.31         0.1450         0.0145           05062021a         0311         6.051         28992         DBD-CA*19         Sample         P1-A8         10.0         0.100         97.61         0.1451         0.0145           05062021a         0312         6.010         687-2M8         0.25 pg/ul         Calibration         Vial         10.0         0.100         97.61         0.1513         0.0151         0           05062021a         0324         -         28855 (Florinemid)         DBC-CA461         Sample         P1-A8         10.0         0.100         10.0         9.106         97.61         0.1513         0.0151         0           05062021a         0354         -         28855 (Florinemid)         DBC-CO461         Sample         P1 A9         9.00         9.00         9.01         9.	05062021a_029.d	6.051	28991	DBC-CA*19	Sample	P1-A7	10.0	0.100	10.0	0.1000	86.82	0.1356	0.0136	0.013	
05062021a_031.d       6.051       28992       DBD-CA*19       Sample       P1-A8       10.0       0.100       97.61       0.1513       0.0151       0.0151         05062021a_032.d       6.010       687-2M8       0.25 pg/uL       Calibration       Vial 3       10.0       97.61       0.1513       0.0151       0.0151       0.0151         05062021a_032.d       6.010       687-2M8       0.25 pg/uL       Calibration       Vial 3       10.0       97.61       0.1513       0.0151       0.0151       0.0151         95662021a_033.d        28855 (Flonicamid)       DBC-CO461       Sample       P1 + A9       10.0       0.100       49.0       0.0250        <0.01	05062021a_031.d       6.051       28992       DBD-CA*19       Sample       P1-A8       10.0       0.100       97.61       0.1513       0.0151       C         05062021a_032.d       6.010       687-2M8 0.25 pg/ul       Calibration       Vial 3       10.0       0.100       97.61       0.1513       0.0151       C         05062021a_032.d       6.010       687-2M8 0.25 pg/ul       Calibration       Vial 3       10.0       0.100       97.61       0.1513       0.0151       C         05062021a_032.d        28855 (Floricamid)       DBC-CO461       Sample       P1 A0       0.006       40.0       0.0206        -60.10       -60.01       40.01       40.01       40.01       40.01       -       40.01       -       40.01	05062021a_030.d	6.051	28992	DBD-CA*19	Sample	P1-A8	10.0	0.100	10.0	0.1000	93.31	0.1450	0.0145		
05062021a_032.d       6.010       687-2M8 0.25 pg/ul       Calibration       Val 3       10.0       162.63         05062021a_032.d        28855 (Floricemid)       DBC-CO461       Sample       P1.49       10.0       61.90       60.91       60.91         05062021a_032.d        28855 (Floricemid)       DBC-CO461       Sample       P1.49       10.0       61.90       60.91       60.91         05062021a_035.d        28855 (Floricemid)       DBC-CO461       Sample       P1.49       10.0       61.90       40.90       60.929        60.10       60.91         05062021a_035.d        28856 (Floricemid)       DBD-CO461       Sample       P1.81       10.0       61.90       40.90       60.929        60.10       60.91         05062021a_037.d       6.010       687-2M8 0.25 pg/uL       Calibration       Val 3       10.0       41.90       40.9       60.92.90        60.10       60.91         05062021a_037.d       6.010       687-2M8 0.25 pg/uL       Calibration       Val 3       10.0       41.90       40.90       60.91       60.91         05062021a_037/d       6.010       687-2M8 0.25 pg/uL       Calibration       Val 3	05062021a       032.04 $6.010$ $687-2M8$ $0.25$ $162.63$ 162.63         05062021a       033.4 $ 28855$ (Floricamid)       DBC-CO461       Sample $P1.A0$ $10.0$ $162.63$ $-0.10$ $6.01$	05062021a_031.d	6.051	28992	DBD-CA*19	Sample	P1-A8	10.0	0.100	10.0	0.1000	97.61	0.1513	0.0151	0.015	
95662021a_033.d       —       28855 (Floricamid)       DBC-CO461       Sample       PL 40       40.0       0.400       40.01       60.01       60.01         95662021a_033.d       —       28855 (Floricamid)       DBC-CO461       Sample       PL 40       40.0       0.400       40.01       60.01       <	05062021a         033.4         —         28855 (Floricamid)         DBC-CO461         Sample         PL A0         10.0         40.0         60.02         60.01         40.0         60.01         60.01         40.01         60.01         40.01         40.01         60.01         40.01 </td <td>05062021a_032.d</td> <td>6.010</td> <td>687-2M8 0.25 pg/µL</td> <td></td> <td>Calibration</td> <td>Vial 3</td> <td>10.0</td> <td></td> <td></td> <td></td> <td>162.63</td> <td></td> <td></td> <td></td> <td></td>	05062021a_032.d	6.010	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				162.63				
05062021a_0234       —       28855 (Floricamid)       DBC-CO461       Sample       P1-M       40.0       40.0       6.0.25       —       -60.10       -60.01	05062021a         0314         —         28855 (Florieamid)         DBC-CO461         Sample         PL 40         40-10         40-30         6-0.26         —         <60-11         <60-11         <         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11         <60-11 <td>05062021a_033.d</td> <td>1</td> <td>28855 (Flonicamid)</td> <td>DBC-CO461</td> <td>Sample</td> <td>PI-M9</td> <td><del>10.0</del></td> <td>0.100</td> <td>40.0</td> <td>0.0250</td> <td>1</td> <td>€0.10</td> <td>€0:0<del>1</del></td> <td></td> <td></td>	05062021a_033.d	1	28855 (Flonicamid)	DBC-CO461	Sample	PI-M9	<del>10.0</del>	0.100	40.0	0.0250	1	€0.10	€0:0 <del>1</del>		
05062021a_035.d         —         28856 (Floricamid)         DBD-CO461         Sample         P1-B1         40.0         0.100         40.0         0.0250         —         <0.10         40.01           05062021a_037.d         6.010         687-2M8 0.25 pg/µL         DBD-CO461         Sample         P1-B1         40.0         0.100         0.0250         —         <0.01	05062021a         035.6	05062021a 034.d	1	28855 (Flonicamid)	DBC-CO461	Sample	P1-49	<del>10.0</del>	0.100	40.0	0.0250	I	+0:10	€0:01	€0:01	
05062021a_036.d	05062021a_036.d          28856 (Florieamid)         DBD-CC0461         Sample         P1 BI         10.0         0.00         0.0259          <0.10         <0.10         <0.10         0.010         <0.10         <0.10         <0.10         <0.10         <0.10         <0.10         <0.011         is 0.01         is 0.01         is 0.02         0.011 at 0.045 pg/µL         <0.010         is 0.01         is	05062021a 035.d	Ì	28856 (Flonicamid)	DBD-CO461	Sample	P1 B1	<del>10.0</del>	0.100	40.0	0:0250	I	<del>01.0</del>	<del>&lt;0.01</del>		
05062021a_037.d 6.010 687-2M8 0.25 pg/µL Calibration Vial 3 10.0 165.67 Calculated LOD at 0.045 pg/µL = 24 Calculated LOQ at 0.10 pg/µL = 62 " " "	05062021a_037.d 6.010 687-2M8 0.25 pg/JL Calibration Vial 3 10.0 165.67 Calculated LOD at 0.045 pg/JL = 24 Calculated LOQ at 0.10 pg/JL = 62 "" denotes response below area threshold	05062021a 036.d	Ĵ	28856 (Flonicamid)	DBD-CO461	Sample	P1-B1	<del>10.0</del>	0.100	40.0	0:0250	I.	<del>€0.10</del>	+0:0+	€0:01	
Calculated LOD at 0.045 pg/µL = 24 Calculated LOQ at 0.10 pg/µL = 62	Calculated LOD at 0.045 pg/µL = $24$ Calculated LOQ at 0.10 pg/µL = $62$ "" denotes response below area threshold	05062021a 037.d	6.010	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				165.67				
Calculated LOQ at 0.10 $pg/pt = 62$	Calculated LOQ at 0.10 pg/µL = 62 "" denotes response below area threshold	Calculated LOD at 0.045	= hg/hr =	24												
II I diamana manana katana k	"" denotes response below area threshold	Calculated LOO at 0.10	pd/hr =	62												
		" " donotoc vornonco	the are moled	achold												

Target Compound <b>TFNA</b>	CurveFit fitLinear	Weighting weightEqual	Integrator Agile	Smoothing Gaussian	Smooth	ningFunction 10	Width	Smoo	othingGaussi	anWidth
TFNA - 5 Levels, 5 ee x10 2 y = 688 6.5 Type:L	Levels Used 3.188430 * x 0.99936164 inear, Origin:	l, 10 Points, 10 - 6.485647 Ignore, Weight:	Points Used, ( None	0 QCs						
کو ت کر م			4D	mao 12/2/3						
4.5- 4.5-										
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-0	0.05 0.1 0.	.15 0.2 0.25	0.3 0.35 0.	4 0.45 0.5 0	.55 0.6	0.65 0.7	0.75 0	8 0.85	0.9 0.95 Concentra	1 1.05 ation (na/ml)
Calibration STD				J	Cal Type	Level	Enabled	R	esponse	Exp Conc
D-\MassHunter\Flonicami	d\08550 Onion\D	ata\Results\0506202	1\05062021a 012.	p p	Calibration	1	D		682.21	1.0000
D-\MassHunter\Flonicami	d\08550 Onion\D	ata\Results\0506202	1\05062021a 011.	p	Calibration	2	D		341.56	0.5000
D-\MassHunter\Flonicami	d\08550 Onion\Da	ata\Results\0506202	1\05062021a 010.	P P	Calibration	m			160.66	0.2500
D-\MassHunter\Flonicami	d\08550 Onion\Di	ata\Results\0506202	1\05062021a 022.	p p	Calibration	e			162.73	0.2500
D:\MassHunter\Flonicami	d\08550 Onion\Di	ata\Results\0506202	1\05062021a_032.	о 0	Calibration	e			162.63	0.2500
D:\MassHunter\Flonicami	d\08550 Onion\D	ata\Results\0506202	1\05062021a 037.	p p	Calibration	З			165.67	0.2500
D:\MassHunter\Flonicami	d\08550 Onion\D	ata\Results\0506202	21\05062021a_009.	р.	Calibration	4			67.44	0.1000
D:\MassHunter\Flonicami	d/08550 Onion/D	ata\Results\0506202	21\05062021a_017	p.	Calibration	4			55.04	0.1000
D:\MassHunter\Flonicami	d\08550_Onion\D	ata\Results\0506202	21\05062021a_027	p.	Calibration	4	Þ		61.58	0.1000
imening (notoring	AVAREED Onion/D	CU20201140/050620	008 008 008	Ч Ч	Calibration	2	D		36.96	0.0500

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Calibration

Printed at: 9:21 AM on: 5/7/2021

5/7/21 adm

Compound Injection Date TFNG 5/6/2021 08550 - Fionicamid/Onion - Sample Analysis - Field Trials CO461, CA\*19 - Extracted 5/6/2021 by ASM

Openation         Description         Description <thdescription< th=""> <thdescription< th="">         &lt;</thdescription<></thdescription<>	Data File	RT	SampleName	Sample Info	Sample Type	Vial Pos	Inj Vol (µL)	D	mL Vol	ini em	Resp	Conc (pg/µL)	/ udd	Ave ppm	% Rec
Sector, 00.1         71.1         Content         Same         P1.43         DDD           Sector, 10.1         71.21         Content         5.00         1.01         1.01           Sector, 10.01         71.21         Content         5.00         1.01         1.01           Sector, 10.01         71.21         Content         5.00         1.01         1.01           Sector, 10.01         71.21         Content         5.00         1.01         1.01         1.01           Sector, 10.01         71.21         Content         5.00         1.01         1.01         1.01         1.01           Sector, 10.01         71.21         Sector, 10.01         1.01	05062021a 001 d		Condition		Sample	P1-A3	10.0								
696001.0014         212         Condin         Sample         F.M.3         100           696001.1010         7.213         Condin         Sample         F.M.3         100           60601.1010         7.213         Condin         Sample         F.M.3         100           60601.1010         7.213         Condin         Sample         F.M.3         100           60601.1010         7.213         607.701.0100         7.213         607.701.0100         7.213         607.701.0100         7.213           60601.10101         7.213         607.701.01001         7.213         607.701.0100         7.213         607.701         7.213           60601.10101         7.213         607.701.01001         7.213         607.701         7.213         7.214         7.214           606001.10101         7.213         607.701         7.201         7.	05062021a 002.d	7.212	Condition		Sample	P1-A3	10.0								
Generation Mode         Z121         Condine         Same         Fi-A3         Dial           Generation Mode         7212         Condine         Fi-A3         Dial           Generation Mode         7213         Generation Mode         Fi-A3         Dial         Dial           Generation Mode         7213         Generation Mode         Fi-A3         Dial         Dial </td <td>05062021a 003.d</td> <td>7.212</td> <td>Condition</td> <td></td> <td>Sample</td> <td>P1-A3</td> <td>10.0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	05062021a 003.d	7.212	Condition		Sample	P1-A3	10.0								
690001.0016         7.212         Conditio         Simple         Fi-JA         DIO           690001.12         7.213         667-706         7.213         667-706         7.213         677-70         7.213           690001.12         7.213         667-706         7.213         667-706         7.213         7.213         7.214         7.213         7.214	05062021a 004.d	7.212	Condition		Sample	P1-A3	10.0								
060000113         0113         Condition         Sample         F1-A3         100           060000113         7.212         667-360         0.313         0.03           060000113         7.213         667-360         0.313         0.03           060000124         7.213         667-360         0.313         0.03           060000124         7.213         667-360         0.313         0.03           060000124         0.01         0.01         0.01         0.01         0.01         0.01           060000124         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01           060000124         0.01         <	05062021a_005.d	7.212	Condition		Sample	P1-A3	10.0								
Generation 0.1         7.13         Condim         P.N3         100           Generation 0.1         7.13         667-70         67-70         90.3           Generation 0.1         7.13         667-70         67-70         90.3         90.3           Generation 0.1         7.13         667-70         90.3         90.0         90.3         90.3           Generation 0.1         7.13         667-70         90.3         90.0         90.0         90.3         90.3           Generation 0.1         7.13         667-70         90.0	05062021a_006.d	7.212	Condition		Sample	P1-A3	10.0								
Constrata         Collection         Vel         DD         Operation         Collection         Vel         DD         Collection         Collection         Vel         DD         Collection         Collection         Vel         DD         Collection         Collection </td <td>05062021a_007.d</td> <td>7.212</td> <td>Condition</td> <td></td> <td>Sample</td> <td>P1-A3</td> <td>10.0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	05062021a_007.d	7.212	Condition		Sample	P1-A3	10.0								
Operation (a) (b) (b) (b) (b) (b) (b) (b) (b) (b) (b	05062021a_008.d	7.198	687-2M10 0.05 pg/µL		Calibration	Vial 5	10.0				40.97				
06607011         7.121         667-796         0.23         2.113         677-796         2.113           06607014         7.122         667-796         587-796         2.010         1.01         1.417           06607014         7.129         667-796         587-796         2.010         0.010         1.417         2.010         0.01           06607014         0.11         0.110         0.010         0.010         0.010         1.010         1.010         0.01           06607014         0.11         0.100         0.100         0.100         0.100         0.010         0.01	05062021a_009.d	7.212	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				90.87				
OSCORDIA D124         7.212         687-2470 0.5 gppl         Vial         Vial <t< td=""><td>05062021a_010.d</td><td>7.212</td><td>687-2M8 0.25 pg/µL</td><td></td><td>Calibration</td><td>Vial 3</td><td>10.0</td><td></td><td></td><td></td><td>221.95</td><td></td><td></td><td></td><td></td></t<>	05062021a_010.d	7.212	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				221.95				
0560211a         7.18         667246 L0 gal3         Calibration         Val         100         77.97         Calibration         77.97         Calibration         77.97         Calibration         Calibration <thcalibratin< th="">         Calibratin         <thcalibrati< td=""><td>05062021a_011.d</td><td>7.212</td><td>687-2M7 0.50 pg/µL</td><td></td><td>Calibration</td><td>Vial 2</td><td>10.0</td><td></td><td></td><td></td><td>414.77</td><td></td><td></td><td></td><td></td></thcalibrati<></thcalibratin<>	05062021a_011.d	7.212	687-2M7 0.50 pg/µL		Calibration	Vial 2	10.0				414.77				
0600011.013d          2883         DBA-CO461         Sample         F1-A1         100         0.100          0.100          0.101         0.100          0.101         0.101         0.101         0.101         0.101         0.101         0.011         0.011         0.011         0.011         0.011         0.010          0.011         0.011         0.010          0.011         0.011         0.010          0.011         0.011         0.010         0.010         0.011         0.011         0.011         0.010         0.010         0.0110         0.011         0.011 <th< td=""><td>05062021a_012.d</td><td>7.198</td><td>687-2M6 1.0 pg/µL</td><td></td><td>Calibration</td><td>Vial 1</td><td>10.0</td><td></td><td></td><td></td><td>871.97</td><td></td><td></td><td></td><td></td></th<>	05062021a_012.d	7.198	687-2M6 1.0 pg/µL		Calibration	Vial 1	10.0				871.97				
Signed bill         Discretional         Same         F1-A1         100         0.100          0.100          0.100          0.100          0.100          0.100          0.100         0.100          0.100         0.100          0.100         0.100          0.100         0.100          0.100         0.100         0.100          0.100         0.100         0.000	05062021a_013.d	+	28853	DBA-CO461	Sample	P1-A1	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		
Sincerata 015d	05062021a 014.d	]	28853	DBA-CO461	Sample	P1-A1	10.0	0.100	10.0	0.1000	l	<0.10	<0.01	<0.01	
General J 16.4          2399         DeA-CV+19         Sample         P1-A         100         0.100         0100         -0.10         -0.10         -0.01	05062021a 015.d	ļ	28989	DBA-CA*19	Sample	P1-A2	10.0	0.100	10.0	0.1000		<0.10	<0.01		
OSCODIJA         7.12         687-299 0.10 pg/l         Oscol         7.59         Secon         7.59           OSCODIJA         7.12         288550.01K1         DeA-CoH         Sample         P1-A3         0.0         0.100         7.75         0.0903         0.0903         0.9003           OSCODIJA_OLI         7.212         288550.01K1         DeA-CoH         Sample         P1-A4         100         0.100         7.75         0.0903         0.093 <td>05062021a 016.d</td> <td></td> <td>28989</td> <td>DBA-CA*19</td> <td>Sample</td> <td>P1-A2</td> <td>10.0</td> <td>0.100</td> <td>10.0</td> <td>0.1000</td> <td> </td> <td>&lt;0.10</td> <td>&lt;0.01</td> <td>&lt;0.01</td> <td></td>	05062021a 016.d		28989	DBA-CA*19	Sample	P1-A2	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.01	
09662013_018d         7.11         28853C0.011         DBA-CoH61         Sample         P1-A3         100         0.100         7.75         0.0090         0.0091         0.0051         0.0093         0.0033 <th0.0133< th=""> <th0.0133< th=""> <th0.01< td=""><td>05062021a 017.d</td><td>7.212</td><td>687-2M9 0.10 pg/µL</td><td></td><td>Calibration</td><td>Vial 4</td><td>10.0</td><td></td><td></td><td></td><td>75.98</td><td></td><td></td><td></td><td></td></th0.01<></th0.0133<></th0.0133<>	05062021a 017.d	7.212	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				75.98				
0662071a_013d         7.212         28855C.0101         DBA-C0461         Sample         P1-A4         100         0.100         0.100         0.100         0.00051         0.0010         0.0010         0.0010         0.0010         0.0010         0.0010         0.0010         0.0010         0.0010         0.0010         0.0010         0.0010         0.0010         0.0010         0.0010         0.0010         0.0010 <th< td=""><td>05062021a 018.d</td><td>7.212</td><td>28853C0.01R1</td><td>DBA-CO461</td><td>Sample</td><td>P1-A3</td><td>10.0</td><td>0.100</td><td>10.0</td><td>0.1000</td><td>67.45</td><td>0.0903</td><td>0600.0</td><td></td><td></td></th<>	05062021a 018.d	7.212	28853C0.01R1	DBA-CO461	Sample	P1-A3	10.0	0.100	10.0	0.1000	67.45	0.0903	0600.0		
0660213_021d         7.21         28855(1.0R1         DB4-C0461         Sample         P1-44         100         0.000         0.003         0.0364         0.0375         0.0344         10.76         0.036           0660203.a_021d         7.212         28855(1.0R1         DB4-C0461         Sample         P1-44         10.0         0.000         0.003         20.66         0.010         0.003         20.66         0.010         0.010         0.003         20.66         0.010         0.010         0.003         20.66         0.010	05062021a 019.d	7.212	28853C0.01R1	DBA-CO461	Sample	P1-A3	10.0	0.100	10.0	0.1000	75.72	8660.0	0.0100	0.00951	92%
05662013_021d         7.12         288551.001         DBA-CO461         Sample         P1-44         10.0         0.100         2005.1         0.2225         1.088         1.05	05062021a 020.d	7.212	28853C1.0R1	DBA-C0461	Sample	P1-A4	10.0	0.100	400.0	0.0025	210.84	0.2544	1.0176		
	05062021a_021.d	7.212	28853C1.0R1	DBA-CO461	Sample	P1-A4	10.0	0.100	400.0	0.0025	226.61	0.2725	1.0898	1.05	105%
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05062021a 022.d	7.212	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				192.76				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05062021a 023.d	7.225	28855	DBC-CO461	Sample	P1-A5	10.0	0.100	10.0	0.1000	49.46	<0.10	<0.01		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05062021a 024.d	7.212	28855	DBC-C0461	Sample	P1-A5	10.0	0.100	10.0	0.1000	50.68	<0.10	<0.01	<0.01	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05062021a 025.d	7.239	28856	DBD-C0461	Sample	P1-A6	10.0	0.100	10.0	0.1000	34.19	<0.10	<0.01		
	05062021a 026.d	7.225	28856	DBD-C0461	Sample	P1-A6	10.0	0.100	10.0	0.1000	38.00	<0.10	<0.01	<0.01	
	05062021a 027.d	7.212	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				79.35				
	05062021a 028.d	7.225	28991	DBC-CA*19	Sample	P1-A7	10.0	0.100	10.0	0.1000	77.82	0.1022	0.0102		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05062021a 029.d	7.225	28991	DBC-CA*19	Sample	P1-A7	10.0	0.100	10.0	0.1000	75.26	0.0993	6600.0	0.010	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05062021a 030.d	7.225	28992	DBD-CA*19	Sample	P1-A8	10.0	0.100	10.0	0.1000	77.19	0.1015	0.0101		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05062021a 031.d	7.239	28992	DBD-CA*19	Sample	P1-A8	10.0	0.100	10.0	0.1000	80.14	0.1048	0.0105	0.010	
05062021a_037.d       —       28855 (Flonicamid)       DBC CO461       Sample       PL 40       0.002-0       -	05062021a 032.d	7.212	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				192.95				
05062021a_037.d       —       28855 (Flonicamid)       DBC CO461       Sample       F1 40       0.00       40.0       6.003       6.014       6.004 <t< td=""><td>05062021a 033.d</td><td>l</td><td>28855 (Flonicamid)</td><td>DBC C0161</td><td>Sample</td><td>P1-A9</td><td>0.01</td><td>0.100</td><td>40.0</td><td>0.0250</td><td>1</td><td>+0.10</td><td>€0:0<del>1</del></td><td></td><td></td></t<>	05062021a 033.d	l	28855 (Flonicamid)	DBC C0161	Sample	P1-A9	0.01	0.100	40.0	0.0250	1	+0.10	€0:0 <del>1</del>		
$\begin{array}{llllllllllllllllllllllllllllllllllll$	05062021a 034.d	ĺ	28855 (Flonicamid)	DBC C0161	Sample	P1-49	<del>10.0</del>	0.100	40.0	0.0250	Ţ	+0.10	€0.01	10:0>	
05662021a_035.d         —         28856 (Fionicamid)         DBD CO461         Sample         P1 B1         10.0         0.109         0.029         —         <0.10         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.	05062021a 035.d	Ì	28856 (Flonicamid)	<b>DBD-CO161</b>	Sample	P1-B1	<del>10.0</del>	0.100	40.0	0:0250	l	<del>€0:10</del>	+0.01		
05062021a_037.d 7.212 687-2M8 0.25 pg/µL Calibration Vial 3 10.0 194.15 Calculated LOD at 0.045 pg/µL = 28 Calculated LOQ at 0.10 pg/µL = 76 "" denotes response below area threshold	05062021a 036.d	ĺ	28856 (Flonicamid)	<b>DBD-CO161</b>	Sample	P1-B1	<del>10.0</del>	0.100	40.0	0.0250		<del>&lt;0.10</del>	<del>&lt;0.01</del>	€0:01	
Calculated LOD at 0.045 pg/µL = 28 Calculated LOQ at 0.10 pg/µL = 76 "" denotes response below area threshold	05062021a_037.d	7.212	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				194.15				
Calculated LOQ at 0.10 pg/µL = 76 "" denotes response below area threshold	Calculated LOD at 0.045	pg/µL =	28												
"" denotes response below area threshold	Calculated LOO at 0.10 I	= n/n	76												
	" donoton correction	holow and the	schold												
	ביוהלכבו כבוחובה	חבוסאא מובמ הזויא		and the second se											





0.1000 0.1000 0.1000 0.0500

194.15 90.87 75.98 79.35 40.97

Printed at: 9:54 AM on: 5/11/2021

5/11/21 am

Compound Injection Date Compound S/10/2021 Flonicamid 5/10/2021 08550 - Flonicamid/Onion - Sample Analysis - Field Trials CA16, CA17, ID181 - Extracted 5/10/2021 by ASM

Mutuality         matrix         matr	4-4	ł	SamleName	Samula Info	Sample Tyne V	Vial Pos	Inj Vol (uL)		nL Vol	ini pm	Resp	(pg/hr)	mqq	Ave ppm	% Rec
Distribution         773         Control         Same         773         Control         Same         773         Control         Same         773         Control         773         Control         773         Control         773         Control         Same         773         Control         773         Control         Same         773         Same         Same         773         Same		2	Condition		Samula	P1-A3	10.0	ï		1					
Biologname         Same         F1-33         Conton         Same         F1-34         Conton           50000000,0064         7.35         Conton         Same         F1-34         100           50000000,0064         7.35         Conton         Same         F1-34         100           50000000,0064         7.35         Conton         Same         F1-34         100           5000000,0064         7.35         Gonton         Same         F1-34         100           5000000,0064         7.35         Gonton         Same         F1-34         100           5000000,004         7.35         Gonton         Same         F1-34         100           500000,004         7.35         Gonton         Same         F1-34         100         100           50000,001,004         7.35         Gonton         Val         200         100         100         100         100           50000,001,004         7.35         Gonton         Val         200         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100	D.100_B120201C0				addine a		0.01								
Biologial         Combin         Same         F1-3         100           61000130043         733         673-96.01.00         733         673-96.01.00         110         600           61000130043         733         673-96.01.00         733         673-96.01.00         733         914         600           6100013014         733         673-96.01.00         734         600         700         914	05102021a_002.d	7.735	Condition		sample	PI-A3	10.0								
Storona         T/33         Combin         Same         P>43         100           S100021, 064         7.35         Combin         Same         P>43         00           S100021, 064         7.35         Combin         Same         P>43         00           S100021, 064         7.35         Granus         Same         P>43         00           S100021, 064         7.35         Granus         Same         P>43         00           S100021, 014         7.35         Granus         Same         P>43         00           S100021, 014         7.35         Granus         Same         P>44         100         100           S100021, 014         7.35         Granus         Same         P>44         100	05102021a_003.d	7.735	Condition		Sample	P1-A3	10.0								
Scintial 0.05         7.33         Condion         Same         F1-A3         100           SGI0031J, 0.06         7.33         Condion         Same         F1-A3         100           SGI0031J, 0.06         7.33         Condion         Same         F1-A3         100           SGI0031J, 0.06         7.33         G87-3M0 LG Sp(1)         Condion         Same         F1-A3         100           SGI0031J, 0.06         7.33         687-3M0 LG Sp(1)         Condion         Val         100         Name           SGI0031J, 0.01         7.33         687-3M0 LG Sp(1)         Condion         Val         100         Name           SGI0031J, 0.01         7.33         687-3M0 LG Sp(1)         Condion         Val         100         Name           SGI0031J, 0.01         7.33         687-3M0 LG Sp(1)         Same         F1-A1         100         100         Name         P1-A1         100         100         Name         P1-A1         100         100         Name         P1-A1         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100	05102021a_004.d	7.735	Condition		Sample	P1-A3	10.0								
Site         Pi-3         Dio           Site         7.33         Condion         Sample         Pi-3         Dio           Site         7.33         667-300.10         7.35         667-300.10         Pi-3         Dio           Site         Site         7.33         667-300.10         7.33         667-300.10         Pi-3         Dio           Site         Site         Site         Site         Dio         Dio         Pi-3         Dio         Pi-3         Dio         Di	05102021a_005.d	7.735	Condition		Sample	P1-A3	10.0								
Site         Pi-33         Bio         Fi-36         Fi	05102021a_006.d	7.735	Condition		Sample	P1-A3	10.0								
65:00013, 0064         7.35         67:3-96:010 gp/l         61:3-96         43:6	05102021a_007.d	7.721	Condition		Sample	P1-A3	10.0								
C5100713_004         778         697246 0.10 g/l         C100main         Val         100         94.06           C5100713_014         773         697249 0.10 g/l         391.81         391.81           C5100713_0144         773         697249 0.10 g/l         200.0         91.06         91.01         91.06           C5100713_0144          28341         D64Act6         Same         P1.41         100         0.100          40.10         -0.01           C5100713_0144          28341         D64Act6         Same         P1.42         100         0.100          40.10         -0.01 <td>05102021a 008.d</td> <td>7.735</td> <td>687-2M10 0.05 pg/µL</td> <td></td> <td>Calibration</td> <td>Vial 5</td> <td>10.0</td> <td></td> <td></td> <td></td> <td>43.66</td> <td></td> <td></td> <td></td> <td></td>	05102021a 008.d	7.735	687-2M10 0.05 pg/µL		Calibration	Vial 5	10.0				43.66				
GG10021.1         7.73         667-3470.55 gg/L         Calibration         Val         100         318.3         313.3           G510021.3         7.73         667-3470.55 gg/L         Calibration         Val         100         313.8         313.8           G510021.3         7.73         667-3470.55 gg/L         Dex-OL6         Sample         P1-A1         100         0.1000          -0.10         -0.01           G510021.3         0.57         67-3470.59 gg/L         Dex-OL6         Sample         P1-A1         100         0.1000          -0.10         -0.01         -0.01           G510021.3         0.51          232.44         Dex-OL1         Sample         P1-A1         100         0.1000          -0.10         -0.01         -0	05102021a 009.d	7.748	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				84.06				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05102021a 010.d	7.735	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				188.36				
Giodolla 0124         7.35         667-206 L Jog(1         Calibration         7.31         7.33         7.34	05102021a 011.d	7.721	687-2M7 0.50 pg/µL		Calibration	Vial 2	10.0				391.81				
G500011	05102021a 012.d	7.735	687-2M6 1.0 pg/µL		Calibration	Vial 1	10.0				783.83				
Gioodila_014d	05102021a 013.d	-	28241	DBA-CA16	Sample	P1-A1	10.0	0.100	10.0	0.1000	-	<0.10	<0.01		
0510021a_015d	05102021a 014.d		28241	DBA-CA16	Sample	P1-A1	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.01	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05102021a 015.d		28304	DBA-CA17	Sample	P1-A2	10.0	0.100	10.0	0.1000	-	<0.10	<0.01		
05102011a_017.d         7.35         687-2M10 0.05 gylt.         Calibration         Val         2.3.64         Constrained by the constrained by	05102021a 016.d	J	28304	DBA-CA17	Sample	P1-A2	10.0	0.100	10.0	0.1000	-	<0.10	<0.01	<0.01	
05102011a_0184         7.48         28241001R2         DBA-CM6         Sample         F1-A3         100         0.100         654.73         0.0877         0.0897         0.0973         0.0933         0.0933         0.0933         0.0353         0.0353         0.0373         0.0353         0	05102021a 017.d	7.735	687-2M10 0.05 pg/µL		Calibration	Vial 5	10.0				32.69				
05102013_0101         7748         28241C0.0182         DeM-CM5         Sample         F1-A4         100         0.100         61.00         61.00         0.0007         91.86           05102013_02014         7.748         28241C0.0182         DeM-CM5         Sample         F1-A4         100         0.0005         157.23         0.2059         0.887         0.887           05102013_02014         7.735         687-249<0.10 g/L1	05102021a 018.d	7.748	28241C0.01R2	DBA-CA16	Sample	P1-A3	10.0	0.100	10.0	0.1000	69.04	0.0937	0.0094		
05102021a_020.d         7.748         28241C.10R2         DBA-CMI6         Sample         F1-74         100         0.000         517.23         0.2.059         0.8731         8739         0.8231         0.867         0.8331         8739         0.867         8739         0.8311         8739         0.8311         8739         0.8311         8739         0.8311         8739         0.8311         8739         0.8311         8739         0.8311         8739         0.8311         8739         0.8311	05102021a 019.d	7.748	28241C0.01R2	DBA-CA16	Sample	P1-A3	10.0	0.100	10.0	0.1000	64.37	0.0877	0.0088	0.00907	91%
0510001a         0213         22341C10R2         DB4-CM16         Sample         P1-A4         10.0         0.100         10.0025         168.0         0.2197         0.8781         0.851         85%           05100201a_023d         7.735         687-2M9 0.10 pp/ut         Calibradion         Mal 4         10.0         7.70         0.2197         0.2894         0.0851         0.857           05100201a_023d         7.735         687-2M9 0.10 pp/ut         Calibradion         Mal 4         10.0         0.100         10.00         10.00         0.2193         0.2894         0.851           05100201a_023d         7.735         887-2M8 0.15 pp/ut         Sample         P1-A5         10.0         0.100         10.00         10.00         10.00         10.00         10.01	05102021a 020.d	7.748	28241C1.0R2	DBA-CA16	Sample	P1-A4	10.0	0.100	400.0	0.0025	157.23	0.2059	0.8236		
	05102021a 021.d	7.735	28241C1.0R2	DBA-CA16	Sample	P1-A4	10.0	0.100	400.0	0.0025	168.09	0.2197	0.8789	0.851	85%
0510201a         07.48         28.243         DBC-CM16         Sample         P1-A5         10.0         0.1000         22.284         0.2894         0.0289         0.0295           05102021a         07.34         7.748         28.244         DBC-CM16         Sample         P1-A5         10.0         0.1000         15.1.33         0.2875         0.0285         0.0285           05102021a         025.6         7.735         28.244         DBC-CM16         Sample         P1-A6         10.0         0.1000         15.1.33         0.2875         0.0285         0.0285           05102021a         025.6         7.735         5870-7         0.3366         DBC-CM15         Sample         P1-A6         10.0         0.1000         15.1.6         0.2066         0.0265           05102021a         02314         7.748         28336         DBC-CM17         Sample         P1-A7         10.0         0.1000         15.4.6         0.0265         0.0275         0.0215           05102021a         7.748         28337         DBC-CM17         Sample         P1-A7         10.0         0.100         0.1000         10.010         0.0100         0.0105         0.0214         0.0214         0.0216         0.0101         0.0100 </td <td>05102021a 022.d</td> <td>7.735</td> <td>687-2M9 0.10 pg/µL</td> <td></td> <td>Calibration</td> <td>Vial 4</td> <td>10.0</td> <td></td> <td></td> <td></td> <td>72.70</td> <td></td> <td></td> <td></td> <td></td>	05102021a 022.d	7.735	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				72.70				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05102021a 023.d	7.748	28243	DBC-CA16	Sample	P1-A5	10.0	0.100	10.0	0.1000	222.84	0.2894	0.0289		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05102021a 024.d	7.748	28243	DBC-CA16	Sample	P1-A5	10.0	0.100	10.0	0.1000	221.33	0.2875	0.0288	0.029	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05102021a 025.d	7.735	28244	DBD-CA16	Sample	P1-A6	10.0	0.100	10.0	0.1000	156.16	0.2046	0.0205		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05102021a 026.d	7.735	28244	DBD-CA16	Sample	P1-A6	10.0	0.100	10.0	0.1000	157.91	0.2068	0.0207	0.021	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05102021a 027.d	7.735	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				173.69				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05102021a 028.d	7.748	28306	DBC-CA17	Sample	P1-A7	10.0	0.100	10.0	0.1000	197.42	0.2571	0.0257		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05102021a 029.d	7.748	28306	DBC-CA17	Sample	P1-A7	10.0	0.100	10.0	0.1000	209.72	0.2727	0.0273	0.026	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05102021a_030.d	7.748	28307	DBD-CA17	Sample	P1-A8	10.0	0.100	10.0	0.1000	246.48	0.3195	0.0320		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05102021a_031.d	7.735	28307	DBD-CA17	Sample	P1-A8	10.0	0.100	10.0	0.1000	239.30	0.3104	0.0310	0.031	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05102021a_032.d	7.735	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				75.32				
05102021a_034.d 7.748 28859 DBC-ID181 Sample P1-A9 10.0 0.100 10.0 0.1000 56.70 <0.10 <0.01 <0.01 0.01 0.01 0.010 05.70 <0.01 <0.01 <0.01 0.010 05102021a_035.d 7.735 28860 DBD-ID181 Sample P1-B1 10.0 0.100 10.0 0.1000 70.98 0.0961 0.0096 05102021a_037.d 7.748 687-2M8 0.25 <i>pg</i> /µL Sample P1-B1 10.0 0.100 10.0 0.1000 78.66 0.1059 0.0106 0.010 05102021a_037.d 7.748 587-2M8 0.25 <i>pg</i> /µL Calculated LOD at 0.045 <i>pg</i> /µL = 31 2.000 <i>v</i> /al 3 10.0 10.0 0.100 10.0 0.1000 78.66 0.1059 0.0106 0.010 05102010 05102021a_037.d 7.748 587-2M8 0.25 <i>pg</i> /µL Calculated LOD at 0.045 <i>pg</i> /µL = 31 2.000 <i>v</i> /al 3 10.0 10.0 0.1000 10.0 0.1000 78.66 0.0106 0.010 0510 05102010 <i>v</i> /al 3 10.0 0.100 <i>v</i> /al 3 10.0 10.0 0.1000 <i>v</i> /al 3 10.0 0.0006 0.0106 0.010 0510 0.0106 0.010 0510000 <i>v</i> /al 3 10.0 0.1000 <i></i>	05102021a 033.d	7.735	28859	DBC-ID181	Sample	P1-A9	10.0	0.100	10.0	0.1000	58.34	<0.10	<0.01		
05102021a_035.d 7.735 28860 DBD-ID181 Sample P1-B1 10.0 0.100 10.0 0.1000 70.98 0.0961 0.0096 05102021a_036.d 7.735 28860 DBD-ID181 Sample P1-B1 10.0 0.100 10.0 0.1000 78.66 0.1059 0.0106 0.010 05102021a_037.d 7.748 687-2M8 0.25 pg/µL Calibration Vial 3 10.0 10.0 0.1000 19.0 190.44 Calculated LOD at 0.045 pg/µL = 31 Calculated LOD at 0.045 pg/µL = 74	05102021a 034.d	7.748	28859	DBC-ID181	Sample	P1-A9	10.0	0.100	10.0	0.1000	56.70	<0.10	<0.01	<0.01	
05102021a_036.d 7.735 28860 DBD-ID181 Sample P1-B1 10.0 0.100 10.0 0.10078.66 0.1059 0.0106 0.010 05102021a_037.d 7.748 687-2M8 0.25 pg/µL Calibration Vial 3 10.0 10.0 190.44 Calculated LOD at 0.045 pg/µL = 31 Calculated LOQ at 0.10 pg/µL = 74	05102021a 035.d	7.735	28860	DBD-ID181	Sample	P1-B1	10.0	0.100	10.0	0.1000	70.98	0.0961	0.0096		
05102021a_037.d 7.748 687-2M8 0.25 pg/µL Calibration Vial 3 10.0 190.44 Calculated LOD at 0.045 pg/µL = 31 Calculated LOQ at 0.10 pg/µL = 74	05102021a 036.d	7.735	28860	DBD-ID181	Sample	P1-B1	10.0	0.100	10.0	0.1000	78.66	0.1059	0.0106	0.010	
Calculated LOD at 0.045 pg/µL = 31 Calculated LOQ at 0.10 pg/µL = 74	05102021a_037.d	7.748	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				190.44				
Calculated LOQ at 0.10 pg/uL = 74	Calculated LOD at 0.04.	-2 pg/hr =	31												
	Calculated LOO at 0.10	n pa/ul =	74												
		tale more than the	hinda												

Target Compound Flonicamid	CurveFit fitLinear	Weighting weightEqual	Integrator Agile	Smoothing Gaussian	Smooth	ingFunctio 10	nWidth	SmoothingGa	uussianWidth 5	
Flonicamid - 5 Levi	els, 5 Levels I	Used, 10 Points	s, 10 Points U	sed, 0 QCs						_
sponses $x_{10}^2$ $y_{-10}^2$ $R^2 = ($ Type:L	0.99883930 0.99883930 inear, Origin:I	Ignore, Weight:	None							
ы С Ч										
			5/11/2	1 com						
5 -										-
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	0.10	15 0 0 0 0 55	03 035 0	4 0 45 0 5 0	0.55 0.6	0.65 0.7	0.75 0.8	0.85 0.9 0.	95 1 1.05	- 1
þ		07-0 7-0 CI.						Conc	entration (ng/ml)	
					Cal Tune	lavel	Fnahled	Response	Exp Conc	
Calibration SLU	COlocia Onical	0001001111000	10 5100013011	τ	Calibration	-	Þ	783.83	1.0000	
D. (Masshunter (Flonicani	d/08550_Onion/De	ata/Results/0510202	1\05102021a_011		Calibration	2	۵	391.81	0.5000	
D-\MassHunter\Flonicami	d/noino_occoord	ata/Results/0510202	1\05102021a_010	q	Calibration	e	D	188.36	0.2500	
D-\Masshunter\Flonicami	d/08550 Onion/Da	ata\Results\0510202	1\05102021a 027	p	Calibration	e	D	173.69	0.2500	
D-\MassHunter\Flonicami	d\08550 Onion\Da	ata\Results\0510202	1\05102021a 037	p	Calibration	e		190.44	0.2500	
D:\MassHunter\Flonicami	d\08550 Onion\Da	ata\Results\0510202	1\05102021a 009	p	Calibration	4	Þ	84.06	0.1000	
D:\MassHunter\Flonicami	d\08550 Onion\Da	ata\Results\0510202	1\05102021a_022	q	Calibration	4		72.70	0.1000	
D:\MassHunter\Flonicami	d\08550 Onion\Da	ata\Results\0510202	1\05102021a_032	p.	Calibration	4		75.32	0.1000	
D:\MassHunter\Flonicami	d\08550_Onion\Da	ata\Results\0510202	1\05102021a_008	p.	Calibration	5		43.66	0.0500	
D:/MassHunter/Flonicami	AVARSSO Onion/Da	ata/Results/0510202	1\05102021a 017	p.	Calibration	5		32.69	0.0500	

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Printed at: 9:54 AM on: 5/11/2021

5/11/21 abm

Compound Injection Date TFNA-AM 5/10/2021 08550 - Flonicamid/Onion - Samula And

		-
	10/2021 by ASM	Comple
	1 - Extracted 5/	
	CA17, ID18	
	Frials CA16,	
1	lysis - Field	
1 + 01 = 0	Sample Ana	
	- noinO/bim	
	50 - Flonica	

<b>Data File</b> 05102021a_001.d 05102021a_002.d 05102021a_003.d	RT	SampleName	Sample Info	Tvpe	Vial Pos		5	INT NO	fur fu	deav	(P91 PC)		indd saw	
05102021a_001.d 05102021a_002.d 05102021a_003.d														
05102021a_002.d 05102021a_003.d	1	Condition		Sample	P1-A3	10.0								
05102021a_003.d	5,324	Condition		Sample	P1-A3	10.0								
T TOO TOODTO	5.324	Condition		Sample	P1-A3	10.0								
051020213_004.0	5.324	Condition		Sample	P1-A3	10.0								
05102021a_005.d	5.338	Condition		Sample	P1-A3	10.0								
05102021a_006.d	5.324	Condition		Sample	P1-A3	10.0								
05102021a 007.d	5.324	Condition		Sample	P1-A3	10.0								
05102021a 008.d	5.338	687-2M10 0.05 pg/µL		Calibration	Vial 5	10.0				112.56				
05102021a 009.d	5.338	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				211.10				
05102021a 010.d	5.338	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				495.13				
05102021a 011.d	5.311	687-2M7 0.50 pg/µL		Calibration	Vial 2	10.0				1092.59				
05102021a 012.d	5.297	687-2M6 1.0 pg/µL		Calibration	Vial 1	10.0				2151.22				
05102021a 013.d		28241	DBA-CA16	Sample	P1-A1	10.0	0.100	10.0	0.1000		<0.10	<0.01		
05102021a 014.d	I	28241	DBA-CA16	Sample	P1-A1	10.0	0.100	10.0	0.1000	ľ	<0.10	<0.01	<0.01	
05102021a 015.d		28304	DBA-CA17	Sample	P1-A2	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		
05102071a 016.d		28304	DBA-CA17	Sample	P1-A2	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01	
05102021a 017.d	5.338	687-2M10 0.05 pg/µL		Calibration	Vial 5	10.0				97.26				
05102021a 018.d	5.338	28241C0.01R2	DBA-CA16	Sample	P1-A3	10.0	0.100	10.0	0.1000	153.58	0.0844	0.0084	1. 1. UAD	
05102021a 019.d	5.338	28241C0.01R2	DBA-CA16	Sample	P1-A3	10.0	0.100	10.0	0.1000	162.53	0.0885	0.0089	0.00865	86%
05102021a 020.d	5.338	28241C1.0R2	DBA-CA16	Sample	P1-A4	10.0	0.100	400.0	0.0025	415.51	0.2051	0.8203		
05102021a 021.d	5.324	28241C1.0R2	DBA-CA16	Sample	P1-A4	10.0	0.100	400.0	0.0025	425.04	0.2095	0.8379	0.829	83%
05102021a 022.d	5.324	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				186.79				
05102021a 023.d	-	28243	DBC-CA16	Sample	P1-A5	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		
05102021a 024.d		28243	DBC-CA16	Sample	P1-A5	10.0	0.100	10.0	0.1000	ſ	<0.10	<0.01	<0.01	
05102021a 025.d	ļ	28244	DBD-CA16	Sample	P1-A6	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		
05102021a 026.d		28244	DBD-CA16	Sample	P1-A6	10.0	0.100	10.0	0.1000	-	<0.10	<0.01	<0.01	
05102021a 027.d	5.324	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				437.90				
05102021a 028.d		28306	DBC-CA17	Sample	P1-A7	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		
05102021a 029.d		28306	DBC-CA17	Sample	P1-A7	10.0	0.100	10.0	0.1000	ľ	<0.10	<0.01	<0.01	
05102021a 030.d	1	28307	DBD-CA17	Sample	P1-A8	10.0	0.100	10.0	0.1000	ł	<0.10	<0.01		
05102021a 031.d		28307	DBD-CA17	Sample	P1-A8	10.0	0.100	10.0	0.1000	-	<0.10	<0.01	<0.01	
05102021a 032.d	5.324	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				208.67				
05102021a 033.d		28859	DBC-ID181	Sample	P1-A9	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		
05102021a 034.d	1	28859	DBC-ID181	Sample	P1-A9	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.01	
05102021a 035.d		28860	DBD-ID181	Sample	P1-B1	10.0	0.100	10.0	0.1000		<0.10	<0.01		
05102021a 036.d		28860	DBD-ID181	Sample	P1-B1	10.0	0.100	10.0	0.1000	-	<0.10	<0.01	<0.01	
05102021a_037.d	5.324	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				462.50				
Calculated LOD at 0.045	= ht/pd	68												
Calculated LOO at 0.10 c	= In/oc	187												
	adt core melet	achold .												

Printed at: 9:54 AM on: 5/11/2021



<0.01

153.74

0.1000

10.0

Sample Sample

Calibration

687-2M8 0.25 pg/µL

6.024

Calculated LOD at 0.045 pg/µL = Calculated LOQ at 0.10 pg/µL =

61 21

"----" denotes response below area threshold

Sample

DBC-ID181 DBD-ID181 DBD-ID181

DBC-ID181

687-2M9 0.10 pg/µL

6.024

Calibration Sample

<0.01

<0.01 <0.01

<0.10 <0.10

<0.10 <0.10

-

10.0

10.0 10.01 10.0

65.31

<0.01

<0.10

<0.01

<0.01 <0.01 <0.01 <0.01 <0.01

151.84

-

0.1000 0.1000 0.1000 0.1000 0.1000 0.1000

10.0

10.0

10.0

10.0 10.01 10.01 10.0 10.01

Sample

28307 28307 28859 28859 28860 28860

Sample Sample

DBC-CA17

28306 28306

687-2M8 0.25 pg/µL

6.010

05102021a\_027.d 05102021a\_028.d 05102021a\_030.d

1 1 1

> 05102021a\_029.d 05102021a\_031.d 05102021a\_032.d 05102021a\_033.d 05102021a\_034.d 05102021a\_035.d 05102021a\_036.d 05102021a\_037.d

10.0

10.0

10.0 10.0 Printed at: 9:54 AM on: 5/11/2021

5/11/21 OBM

08550 - Flonicamid/Onion - Sample Analysis - Field Trials CA16, CA17, ID181 - Extracted 5/10/2021 by ASM 5/10/2021 TFNA

Injection Date

Compound

% Rec												
Ave ppm												
mqq												
Conc (pg/µL)												
Resp								34.87	72.96	172.88	338.61	730.20
ini em												
g mL Vol												
(µL)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
al Pos	P1-A3	Vial 5	Vial 4	Vial 3	Vial 2	Vial 1						
Sample Type V	Sample	Calibration	Calibration	Calibration	Calibration	Calibration						
Sample Info												
SampleName	Condition	687-2M10 0.05 pg/µL	687-2M9 0.10 pg/µL	687-2M8 0.25 pg/µL	687-2M7 0.50 pg/µL	687-2M6 1.0 pg/µL						
RT	1	6.037	6.037	6.037	6.037	6.037	6.037	6.024	6.024	6.024	6.010	5.997
Data File	05102021a_001.d	05102021a_002.d	05102021a 003.d	05102021a_004.d	05102021a 005.d	05102021a_006.d	05102021a_007.d	05102021a 008.d	05102021a 009.d	05102021a 010.d	05102021a 011.d	05102021a 012.d

05102021a_019.d	05102021a_020.d	05102021a_021.d	05102021a_022.d	05102021a_023.d
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90

91% %86

0.908

0.9309

0.2211 0.2327 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10

0.0025 0.0025 0.1000 0.1000 0.1000 0.1000

> 0.100 0.100 0.100 0.100 0.100 0.100 0.100 0.100 0.100 0.100 0.100 0.100

10.0 10.0

Calibration

10.0 10.0 10.0 10.0

DBD-CA16

28243 28244

28243 28244

-

05102021a\_024.d 05102021a\_026.d

05102021a\_025.d

28241C1.0R2

6.024

6.037 6.024

6.051

687-2M9 0.10 pg/µL

0.1000 0.1000

> 0.100 0.100

Sample Sample Sample Sample Sample Sample Sample Calibration Sample

Sample

**DBA-CA16** DBA-CA16 DBA-CA16 DBA-CA16 DBC-CA16 DBC-CA16 DBD-CA16 DBC-CA17 DBD-CA17 DBD-CA17

28241C0.01R2 28241C0.01R2 28241C1.0R2

687-2M10 0.05 pg/µL

6.024 6.051

10.0 10.0 400.0 400.0 10.0 10.01 10.0 10.0

Vial 5 P1-A3 P1-A3 P1-A4 P1-A4 Vial 4 P1-A5 P1-A5 P1-A6 P1-A6 Vial 3 P1-A7 P1-A7 P1-A8 P1-A8 Vial 4 P1-A9 P1-A9 P1-B1 Vial 3

Calibration

P1-A2

<0.01 <0.01

<0.01 <0.01

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<0.01 <0.01 <0.01

0.00985

0.0101 0.8845

<0.01

<0.01

<0.10 <0.10

<0.01 <0.01 <0.01 0.0096

<0.10

<0.01

<0.10 0.0959 0.1011

0.1000

0.1000 0.1000

10.0 10.01 10.0

10.0 10.0 10.0 10.01 10.0

Sample Sample Sample

DBA-CA16

DBA-CA16 DBA-CA17 **DBA-CA17** 

28241 28304 28304

05102021a\_012.d 05102021a\_013.d 05102021a\_014.d 05102021a\_015.d 05102021a\_016.d 05102021a\_017.d

28241

0.1000

10.0

0.100 0.100 0.100 0.100 0.100

10.0

P1-A1 P1-A1 P1-A2

Sample

27.26 57.93 61.75 149.34 157.80 65.86



D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05102021\05102021a\_009.d D:\/MassHunter/Flonicamid\08550\_Onion\Data\Results\05102021\05102021a\_022.d D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05102021\05102021a\_032.d D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05102021\05102021a\_008.d D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05102021\05102021a\_017.d

91

0.1000 0.1000 0.0500 0.0500

65.86

65.31 34.87 27.26

5

Calibration

Calibration

Calibration

Calibration

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Injection Date 5/10/2021

Compound Injection Date 5/10/2021 TFNG 5/10/2021 08550 - Fionicamid/Onion - Sample Analysis - Field Trials CA16, CA17, ID181 - Extracted 5/10/2021 by ASM

	Y	Samplename	Sample Info	Type	VIAI POS	(hr)	6	mL Vol	ini em	Resp	(JµL)	mqq	Ave ppm	% Rec
05102021a_001.d		Condition		Sample	P1-A3	10.0								
05102021a_002.d	7.225	Condition		Sample	P1-A3	10.0								
05102021a_003.d	7.225	Condition		Sample	P1-A3	10.0								
05102021a_004.d	7.239	Condition		Sample	P1-A3	10.0								
05102021a_005.d	7.225	Condition		Sample	P1-A3	10.0								
05102021a_006.d	7.225	Condition		Sample	P1-A3	10.0								
05102021a_007.d	7.212	Condition		Sample	P1-A3	10.0								
05102021a_008.d	7.225	687-2M10 0.05 pg/µL		Calibration	Vial 5	10.0				39.74				
05102021a_009.d	7.239	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				81.28				
05102021a_010.d	7.225	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				203.42				
05102021a_011.d	7.212	687-2M7 0.50 pg/µL		Calibration	Vial 2	10.0				430.67				
05102021a_012.d	7.212	687-2M6 1.0 pg/µL		Calibration	Vial 1	10.0				884,48				
05102021a_013.d	1	28241	DBA-CA16	Sample	P1-A1	10.0	0.100	10.0	0.1000	-	<0.10	<0.01		
05102021a_014.d	-	28241	DBA-CA16	Sample	P1-A1	10.0	0.100	10.0	0.1000	-	<0.10	<0.01	<0.01	
05102021a_015.d	-	28304	DBA-CA17	Sample	P1-A2	10.0	0.100	10.0	0.1000	-	<0.10	<0.01		
05102021a_016.d	-	28304	DBA-CA17	Sample	P1-A2	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.01	
05102021a_017.d	7.225	687-2M10 0.05 pg/µL		Calibration	Vial 5	10.0				32.99				
05102021a_018.d	7.239	28241C0.01R2	DBA-CA16	Sample	P1-A3	10.0	0.100	10.0	0.1000	70.41	0660'0	6600.0		
05102021a 019.d	7.225	28241C0.01R2	DBA-CA16	Sample	P1-A3	10.0	0.100	10.0	0.1000	74.55	0.1036	0.0104	0.0101	101
05102021a 020.d	7.239	28241C1.0R2	DBA-CA16	Sample	P1-A4	10.0	0.100	400.0	0.0025	198.03	0.2419	0.9677		
05102021a_021.d	7.212	28241C1.0R2	DBA-CA16	Sample	P1-A4	10.0	0.100	400.0	0.0025	210.31	0.2557	1.0228	0.995	100
05102021a_022.d	7.225	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				76.45				
05102021a_023.d	7.239	28243	DBC-CA16	Sample	P1-A5	10.0	0.100	10.0	0.1000	84.47	0.1147	0.0115		
05102021a_024.d	7.239	28243	DBC-CA16	Sample	P1-A5	10.0	0.100	10.0	0.1000	76.55	0.1058	0.0106	0.011	
05102021a_025.d	7.239	28244	DBD-CA16	Sample	P1-A6	10.0	0.100	10.0	0.1000	73.60	0.1025	0.0103		
05102021a_026.d	7.225	28244	DBD-CA16	Sample	P1-A6	10.0	0.100	10.0	0.1000	76.94	0.1063	0.0106	0.010	
05102021a_027.d	7.225	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				171.28				
05102021a_028.d	1	28306	DBC-CA17	Sample	P1-A7	10.0	0.100	10.0	0.1000	-	<0.10	<0.01		
05102021a 029.d		28306	DBC-CA17	Sample	P1-A7	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.01	
05102021a_030.d		28307	DBD-CA17	Sample	P1-A8	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		
05102021a_031.d	1	28307	DBD-CA17	Sample	P1-A8	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.01	
05102021a_032.d	7.225	687-2M9 0.10 pg/µL		Calibration	Vial 4	10.0				83.30				
05102021a_033.d	l	28859	DBC-ID181	Sample	P1-A9	10.0	0.100	10.0	0.1000		<0.10	<0.01		
05102021a_034.d		28859	DBC-ID181	Sample	P1-A9	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01	
05102021a_035.d		28860	DBD-ID181	Sample	P1-B1	10.0	0.100	10.0	0.1000		<0.10	<0.01		
05102021a_036.d	-	28860	DBD-ID181	Sample	P1-B1	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01	
05102021a_037.d	7.225	687-2M8 0.25 pg/µL		Calibration	Vial 3	10.0				182.63				
Calculated LOD at 0.0	45 pg/µL =	22												




93

D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05102021\05102021a\_022.d D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05102021\05102021a\_032.d D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05102021\05102021a\_008.d D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05102021\05102021a\_017.d

0.1000 0.1000

81.28 76.45 83.30 39.74 32.99

Calibration Calibration Calibration Calibration

0.1000 0.0500 0.0500

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Calibration

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Injection Date 5/19/2021 Compound Flonicamid 08550 - Flori

50 - Flonicamid/Onion - OR4	15 Field Sample	ss - Extracted 3/19/2021 by As											in the second	
				Sample	-	Inj Vol		I Wel	int thi	Dacn	Conc Conc	maa	Ave	% Rec
Data File	RT	SampleName	Sample Info	Type	Vial Pos	(hr)	5		fur fu	deav			1	
05192021a 001.d	7.735	Condition		Sample	P1-A3	10.0								
05192021a 002.d	7.721	Condition		Sample	P1-A3	10.0								
05192021a 003.d	7.735	Condition		Sample	P1-A3	10.0								
05192021a 004.d	7.735	Condition		Sample	P1-A3	10.0								
05192021a 005.d	7.735	Condition		Sample	P1-A3	10.0								
05192021a 006.d	7.735	Condition		Sample	P1-A3	10.0								
05192021a 007.d	7.735	Condition		Sample	P1-A3	10.0								
05192021a 008.d	7.735	687-2M16 0.05 pg/µL		Calibration	Vial 5	10.0				21.83				
05192021a 009.d	7.735	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				33.82				
05192021a 010.d	7.735	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				94.30				
05192021a 011.d	7.735	687-2M13 0.50 pg/µL		Calibration	Vial 2	10.0				185.81				
05192021a 012.d	7.735	687-2M12 1.0 pg/µL		Calibration	Vial 1	10.0				371.86				
05192021a 013.d		28265	GA-OR405	Sample	P1-A1	10.0	0.100	10.0	0.1000	-	<0.10	<0.01		
051920713 014.d	1	28265	GA-OR405	Sample	P1-A1	10.0	0.100	10.0	0.1000	-	<0.10	<0.01	<0.01	
	7775	2826500.0181	GA OR405	Sample	P1-A2	40.0	0.100	<del>10.0</del>	0.1000	01.15	0.0743	0.0074		
**0510_012020120	352.2	28265C0.01R1	6A OR405	Sample	P1-A2	<del>10.0</del>	0.100	<del>10.0</del>	0.1000	21.62	0.0579	0.0058		
051000112 017 d	7 735	687-2M15 0.10 pa/uL		Calibration	Vial 4	10.0				42.64				
P. 110 BI20261C0	102.2	28265C0.01R2	GA-CA*20	Sample	P1-A3	10.0	0.100	10.0	0.1000	28.00	0.0751	0.0075		
P 010 51000130	7 735	28265C0.01R2	GA-CA*20	Sample	P1-A3	10.0	0.100	10.0	0.1000	31.36	0.0842	0.0084	0.00797	80%
	7 725	29080	6C 0R405	Sample	P1-A4	0.01	0.100	<del>10.0</del>	0.1000	2448.08	6865.9	0.6599		
P-020 PIZ02CTC0	TCL L	L'YC&C	GC OR 405	Sample	P1 A4	<del>10.0</del>	0.100	10.0	0.1000	2458.33	6.6266	0.6627		
0.120_012020120	7 735	687-7M14 0 75 nn/11		Calibration	Vial 3	10.0				89.65				
D.220_6120261CU	SEL E	28568	GD OR405	Sample	PI-A5	<del>10.0</del>	0.100	<del>10.0</del>	0.1000	2440.35	6.5781	0.6578		
p.CZ0_BIZ0ZCICO	735	28268	GD-0R405	Sample	PI 45	<del>10.0</del>	0.100	10.0	0.1000	2438.41	6:2729	0.6573		
051020150 075 d	7 748	28267 (Flonicamid)	GC-OR405	Sample	P1-A6	10.0	0.100	400.0	0.0025	63.11	0.1698	0.6792		
05192021a_025.d	7.735	28267 (Flonicamid)	GC-OR405	Sample	: P1-A6	10.0	0.100	400.0	0.0025	63.41	0.1706	0.6823	0.68	
05192021a 027.d	7.735	687-2M15 0.10 pg/µL		Calibration	i Vial 4	10.0				35.20				
05192021a 028.d	7.735	28268 (Flonicamid)	GD-OR405	Sample	TA-19	10.0	0.100	400.0	0.0025	60.32	0.1623	0.6491		
05192021a 029.d	7.735	28268 (Flonicamid)	GD-0R405	Sample	7A-19	10.0	0.100	400.0	0.0025	71.98	0.1937	0.7748	0.71	
05192021a 030.d	7.735	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				90.55				
Calculated LOD at 0.0	)45 pg/µL =	17												
Calculated LOO at 0.	10 pa/nf =	37												

80%

Strikethrough denotes data not used, dilutions used for flonicamid quantitation only \*\* Denotes data not used, does not meet reproducibility between injections threshold (20%), will reinject "----" denotes response below area threshold

Target Compound Flonicamid	CurveFit fitLinear	Weighting weightEqual	Integrator Agile	Smoothing Gaussian	Smoot	ningFunctio	nWidth	Smoo	otningcaussi	anwidun 5
Flonicamid - 5 Le $\begin{array}{c} \text{Flonicamid} - 5 \text{ Le} \\ \text{e} \times 10^{2} & \text{y} = 3 \\ \text{R}^{2} 2 & \text{H} \\ \text{R}^{2} 2 & \text{H} \\ \text{R}^{2} 2 & \text{H} \end{array}$	vels, 5 Levels I 70.960689 * x = 0.99925876 :Linear, Origin:1	Used, 9 Points, + 0.128888 Ignore, Weight:	9 Points Used None	l, 0 QCs						
с В			5/20	/21 CON						
2.5 -										
2 -				•						
1.5-										
÷F		•								
0.5 -										
0						D SE D	0 75 0	8 0 85	0.9 0.95	1 1.05
0	0.05 0.1 0.	62.0 2.0 61.	0.3 0.33 0.4	+ 0.43 0.3	0.0				Concentr	ation (ng/ml)
								è		EverConc
Calibration STD					Cal Type	Level	Enabled			
D:\MassHunter\Flonica	mid\08550_Onion\Da	ata\Results\0519202	1\05192021a_012.		Calibration		2 5		185.81	0.5000
D:\MassHunter\Flonica	mid\08550_Onion\Da	ata/Results/0519202	1\05192021a_011.		Calibration	v 6	5		94.30	0.2500
D:/MassHunter/Flonica		iata/Results/0519202	1\05192021a_022		Calibration	ŝ			89.65	0.2500
D:/Masshunter/Flonica	mid/08550_Onion/Da	ata\Results\0519202	1\05192021a 030.		Calibration	e			90.55	0.2500
D. (Masshunter V Tomca	Mid/08550 Onion/Dim	ata\Results\0519202	1\05192021a 009.	q	Calibration	4			33.82	0.1000
D-\Macchunter\Flonica	mid/08550 Onion/Da	ata\Results\0519202	1\05192021a 017.	P	Calibration	4			42.64	0.1000
D.\MassHunter\Flonica	mid/08550 Onion/De	ata\Results\0519202	1\05192021a_027.	p	Calibration	4			35.20	0.1000
D:\MassHunter\Flonica	mid\08550_Onion\D	ata\Results\0519202	1\05192021a_008.	p	Calibration	S	Þ		21.83	0.0500



Printed at: 9:24 AM on: 5/20/2021

**SmoothingGaussianWidth** 

SmoothingFunctionWidth

Gaussian Smoothing

weightEqual Weighting

adm
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Injection Date 5/19/2021 Compound TFNA-AM 08550 - Flonicami

MSA WH ICOCI

Date His         Rt         Sample Vince         Vince Val Pose         (u)         9         nu bit         per					Samula		Ini Vol					Conc		Ave	
Groups         5.38         Condition         Sample         P1-33         100           Grisson2.a         5.31         Condition         Sample         P1-33         100           Grisson2.a         5.324         Groupidu         Sample         P1-33         100           Grisson2.a         667-3016         5.324         667-30110         Sample         P1-33         100           Grisson2.a         667-3016         5.334         667-30110         Sample         P1-43         100         <	Data File	RT	SampleName	Sample Info	Type	Vial Pos	(11)	5	nL Vol	ini em	Resp (	(Jul/6d)	mqq	udd	% Rec
Gispanta Jota         S311         Condion         Sample         P1-33         L00           Gispanta Jota         S234         Condion         Sample         P1-33         L00           Gispanta Jota         S234         Condion         Sample         P1-33         L00           Gispanta Jota         S234         Condion         Sample         P1-34         L00           Gispanta Jota         S234         Condion         Sample         P1-34         L00           Gispanta Jota         S234         Gordion         Sample         P1-34         L00           Gispanta Jota         S311         Gir>Valua Jong         Sample         P1-44         L00         J4-12           Gispanta Jota         S311         Gir>Valua Jong         Sample         P1-44         L00         J4-12           Gispanta Jota         S234         Gir>Valua Jong         Valua Jong         J4-12         L00         J4-12           Gispanta Jota         S234         Gir>Valua Jong         Valua Jong         J4-12         L00	05192021a 001.d	5.338	Condition		Sample	P1-A3	10.0								
Gispanta (01.4)         52.4         Condition         Sample         P1-33         100           Gispanta (00.4)         5.23         687-2016         Condition         Sample         P1-33         100           Gispanta (00.4)         5.311         687-2014         Condition         Sample         P1-41         100         P1-41	05192021a 002.d	5.311	Condition		Sample	P1-A3	10.0								
Gisspitza         Onder         Sande         P1-43         100           Gisspitza         Giszbarza         <	05192021a 003.d	5.324	Condition		Sample	P1-A3	10.0								
Gispanza Josid         S234         Condition         Sample         F1-33         100           Gispanza Josid         S.334         Condition         Sample         F1-33         100           Gispanza Josid         S.334         Gordition         Sample         F1-33         100           Gispanza Josid         S.334         Gis7-NIIS Gispanza         Condition         Sample         F1-33         100           Gispanza Josid         S.311         Gis7-NIIS Gispanza         Condition         Nail         100           Gispanza Josid         S.311         Gis7-NIIS Gispanza         Condition         Nail         100           Gispanza Josid         S.311         Gis7-NIIS Gispanza         Condition         Nail         100           Gispanza Josid         S.311         Gis7-NII Gispanza         Condition         Nail         100           Gispanza Josid         S.334         Subsaccular         Gispanza         Dispanza         1100         1100         1100           Gispanza Josid         Gispanza         Dispandi         F1-42         Dio	05192021a 004.d	5.324	Condition		Sample	P1-A3	10.0								
Gissozia_066         5:34         Condition         Sample         P1-3         100         73.12           Gissozia_0064         5:34         667-2015 0.05 gill         534         000         73.12         53.12           Gissozia_0064         5:34         667-2015 0.05 gill         Calibration         val         100         73.43           Gissozia_0014         5:311         667-2015 0.05 gill         Calibration         val         100         73.43           Gissozia_0114         5:311         667-2012 0.05 gill         Calibration         val         100         274.30           Gissozia_0134          2385         Galibration         val         100         274.30           Gissozia_0134          2385         Galibration         val         100         274.30           Gissozia_0134          2385         Godong         241.1         100         210.0         211.0         201.0           Gissozia_0134          2385         Godong         241.1         100         211.0         201.0         211.0         211.0         211.0         211.0         211.0         211.0         211.0         211.0         211.0         211.0         211.	05192021a 005.d	5.324	Condition		Sample	P1-A3	10.0								
Gissolal         Goodin         Sample         P1-3         100         7312           Sigsolal         5.234         687-2015 0.05 gglu         7312         73430           Sigsolal         5.234         687-2015 0.05 gglu         7312         73430           Sigsolal         5.234         687-2015 0.05 gglu         73120         73120           Sigsolal         5.234         687-2015 0.05 glu         73120         73120           Sigsolal         5.234         687-2015 0.01 glu         7414 0.05 glu         7410         7010           Sigsolal         5.234         687-2015 0.01 glu         7414 0.02 glu         7410         7010         7010         7010         7010         7010         7010         7010         7010         7010         7010         7010         7011         7010         7010         7010         7010         7	05192021a 006.d	5.324	Condition		Sample	P1-A3	10.0								
Gispanza_008d         5.234         687-2MI6 0.05 gold         Calibration         Val 3         100         17.31           6139203.a         5.331         687-3MI6 0.15 gold         5334         687-3MI6 0.15 gold         74.20           6139203.a         5.311         687-3MI6 0.15 gold         Calibration         Val 2         100         74.20           6139203.a         0.016         5.311         687-3MI3 0.5 gold         Calibration         Val 2         100         234.90           6139203.a         0.016         5.31         687-3MI3 0.5 gold         Calibration         Val 2         100         234.90           6139203.a         0.016         5.324         687-3MI2 0.5 gold         Calibration         Val 2         100         0.1000         0.1000         234.20           6193021.a         0.134         5.324         283560.01011         GA-08405         Sample         P1-A1         100         0.1000         135.61         0.013         2000         205.61           6593021.a         5.324         283560.01012         GA-08405         Sample         P1-A1         100         0.100         100         0.000         205.61         205.61           6593021.a         5.324         283560.01012	05192021a_007.d	5.324	Condition		Sample	P1-A3	10.0								
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05192021a_008.d	5.324	687-2M16 0.05 pg/µL		Calibration	Vial 5	10.0				71.6/				
65192021a         637-2M14 0.25 pg/lt         Calibration         Val 2         100         741.20         741.20           65192021a         5.311         687-2M14 0.25         67.3012.0 g/lt         741.20         741.20         741.20           65192021a_012.d         5.311         687-2M13 0.5 g/gt         Calibration         Val 2         100         741.20         741.20           65192021a_013.d          28265         GA/04805         Sample         P1-A1         100         0.1000         110         0.010         2003         0.0031         2014           65192021a_013.d         5.324         282650.01R1         GA/04805         Sample         P1-A1         100         0.100         121.99         0.013         0.01         201	05192021a 009.d	5.324	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				154.58				
65/92021a 011d         5.311         667-2M13 0.50 p/lu         Calibration         Val 1         100         190.13         190.13         6.010          6.011 <th6.011< th=""> <th6< td=""><td>05192021a 010.d</td><td>5.311</td><td>687-2M14 0.25 pg/µL</td><td></td><td>Calibration</td><td>Vial 3</td><td>10.0</td><td></td><td></td><td></td><td>3/4.90</td><td></td><td></td><td></td><td></td></th6<></th6.011<>	05192021a 010.d	5.311	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				3/4.90				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05192021a 011.d	5.311	687-2M13 0.50 pg/µL		Calibration	Vial 2	10.0				741.20				
51392011a	05192021a 012.d	5.297	687-2M12 1.0 pg/µL		Calibration	Vial 1	10.0				1490.51	100	10.00		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05192021a 013.d		28265	GA-OR405	Sample	P1-A1	10.0	0.100	10.0	0.1000	l	<0.10	<0.01		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05102015 014 d	1	28265	GA-OR405	Sample	P1-A1	10.0	0.100	10.0	0.1000	l	<0.10	<0.01	<0.01	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0110_012026100	5 374	28265C0.01R1	GA-OR405	Sample	P1-A2	10.0	0.100	10.0	0.1000	121.99	0.0883	0.0088		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0.010 BI2026100	5 374	28265C0.01R1	GA-OR405	Sample	P1-A2	10.0	0.100	10.0	0.1000	132.67	0.0955	0.0095	0.00919	92%
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	P 210 -1000130	5 374	687-2M15 0 10 po/ul		Calibration	Vial 4	10.0				135.97				
Displace	P 810 CICUCULAU	5 374	28265C0.01R2	GA-CA*20	Sample	P1-A3	10.0	0.100	10.0	0.1000	125.63	0.0908	0.0091		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	010_012020120	ACE 3	28265C0 0182	GA-CA*20	Sample	P1-A3	10.0	0.100	10.0	0.1000	117.71	0.0855	0.0085	0.00881	88%
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	n'610 PT70761C0	17C 1	19080	GC-0R405	Samole	P1-A4	10.0	0.100	10.0	0.1000	204.85	0.1438	0.0144		
	05192021a_020.d	5.324	10707	GC-OR405	Sample	P1-A4	10.0	0.100	10.0	0.1000	209.86	0.1471	0.0147	0.015	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05192021a_021.d	115.6	10202		Collibration	C Irein	10.01				333.04				
05192021a_023.d       5.324       28268       00-00405       5 ample       71.45       10.0       0.100       15.26       0.1160       0.016       0.016       0.012         05192021a_023.d       5.324       53268       GD-07405       5 ample       P1.45       10.0       0.100       15.26       0.1160       0.016	05192021a_022.d	5.324	687-2M14 0.25 pg/µL	CD OD40E	Calibiduoli	C IDIA	0.01	0 100	10.0	0.1000	165.63	0.1175	0.0118		
05192021a_023.4       5.324       28267 (floriezmid)       6C-004405       5ample       P1-45       10.0       0.100       0.001       0.001	05192021a_023.d	5.324	28268	CUTAD-UD	aldilloc		0.01	00100	10.0	0 1000	163.26	0.1160	0.0116	0.012	
05192021a_025.4       —       28267 (Floricamid)       GC 0R405       5 sample       P1.46       10.0       0.100       0.0025       —       0.010       40.01         05192021a_025.4       —       28267 (Floricamid)       GC 0R405       5 sample       P1.46       10.0       0.100       0.0025       —       0.010       40.01         05192021a_027.d       5.338       687-2M15 0.10 pg/µL       Calibration       Vial 4       10.0       146.45       —       0.010       40.01       40.01       40.01       40.01         05192021a_020.4       5.338       687-2M14 0.25 pg/µL       GB-0R405       Sample       P1.47       10.0       0.100       40.025       —       40.10       40.01         05192021a_030.d       5.324       687-2M14 0.25 pg/µL       GB-0R405       Sample       P1.47       10.0       0.100       400.0       40.025       —       40.10       40.01         05192021a_030.d       5.324       687-2M14 0.25 pg/µL       Calibration       Vial 3       10.0       310.0       339.31       339.31         Calculated LOD at 0.00 fg/µL =       13       10.0       0.100       0.0025       —       40.10       40.01         Calculated LOD at 0.00 fg/µL =       57	05192021a_024.d	5.324	28268	GU-UK4U3	sample	CH-LT	0'0T	001.0	0.01	10000		010	20.01		
05192021a_025.d      28267 (Floricamid)       GCGR405       Sample       P1.46       10.0       0.1002.0	05192021a_025.d	1	28267 (Flonicamid)	GC-0R405	Sample	P1-A6	<del>10.0</del>	0.100	9.001	C700-0		010	10.02		
05192021a_027.d       5.338       687-2M15 0.10 pg/µL       Calibration       Vial 4       10.0       140.45       400.49       400.45       400.49       40.01 </td <td>05192021a 026.d</td> <td>1</td> <td>28267 (Flonicamid)</td> <td>GC OR405</td> <td>Sample</td> <td>P1-46</td> <td>10.0</td> <td>0.100</td> <td>400.0</td> <td>\$700.0</td> <td></td> <td></td> <td>10.07</td> <td></td> <td></td>	05192021a 026.d	1	28267 (Flonicamid)	GC OR405	Sample	P1-46	10.0	0.100	400.0	\$700.0			10.07		
051920218_028.d      28268 (Floricamid)       GD-0R405       Sample       P1.47       10.0       0.1002      40.01       40.01       40.02      40.01       40.01	05192021a 027.d	5.338	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				146.45				
051920218-0294       28268 (Floriesmid)       GD-OR405       Sample       P1-A7       10-0       0-100       0-0025       -0-10       <0-10         051920218_030.d       5.324       687-2M14 0.25 pg/µL       Calibration       Vial 3       10.0       339.31       <0.01	05102021a-028.d	1	28268 (Flonicamid)	GD-0R405	Sample	PI A7	<del>10.0</del>	0.100	400.0	0.0025	l	€0: <del>10</del>	10:0		
05192021a_030.d 5.324 687-2M14 0.25 pg/µL Calibration Vial 3 10.0 339.31 Calculated LOD at 0.045 pg/µL = 57 Calculated LOQ at 0.10 pg/µL = 139 " _ docovers below area threshold	05102021a 029.d	1	28268 (Flonicamid)	GD-0R405	Sample	P1-A7	10.0	0.100	400.0	0.0025	l	<del>&lt;0.10</del>	10:07		
Calculated LOD at 0.045 pg/µL = 57 Calculated LOQ at 0.10 pg/µL = 139 	05192021a 030.d	5.324	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				339.31				
Calculated LOQ at 0.10 pg/µL = 139	Calculated LOD at 0.1	045 pg/µL =	57												
"" doondes helow area threshold	Calculated LOQ at 0.	10 pg/µL =	139												
	" donotes resource	tee helow area	threshold												

IR-4 Western Region Laboratory, University of California, Davis

Strikethrough denotes data not used, dilutions used for flonicamid quantitation only

0.0500

79.12

 $\mathbf{\Sigma}$ 

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Calibration

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Injection Date 5/19/2021 Compound TFNA 1 08550 - Floni

- OR405 Field Samples - Extracted 5/19/2021 bv ASM

Otacing is class         Sample tion contain         Type tion contain					Samula		Thi Vol					Conc		Ave	
Gissona 0.01         Codion         Sampe         7.43         100           Gissona 0.014         6.00         Codion         Sampe         7-43         100           Gissona 0.014         6.00         Codion         Sampe         7-43         100           Gissona 0.010         Codion         Sampe         7-43         100           Gissona 0.010         Codion         Sampe         7-43         100           Gissona 0.010         Gissona 0.010         Sampe         7-43         100           Gissona 0.010         Sampe         7-43         100         7-41           Gissona 0.010         Sampe         7-43         100         7-41           Gissona 0.010         Sampe         7-41         100         7-41           Gissona 0.010         Sampe         7-41         100         17/5           Gissona 0.014         Codion         Sampe         7-41         17/5           Gissona 0.014         Gissona 0.010         Sampe         7-41         17/5           Gissona 0.014         Gissona 0.010         Sampe         7-41         17/5         17/5           Gissona 0.014         Gissona 0.010         Sampe         7-41         0.000	Data File	RT	SampleName	Sample Info	Type	Vial Pos	(hr)	5	IL Vol	ini gm	Resp (	(JµL)	mqq	mqq	% Rec
S153021.00.01         G010         Contion         Sample         F1-31         100           S153021.00.01         6.00         Contion         Sample         F1-31         100           S133021.00.01         6.00         Contion         Sample         F1-31         100           S133021.00.01         5.00         Contion         Sample         F1-31         100           S133021.00.01         5.00         Contion         Sample         F1-31         100           S133021.00.01         5.93         667-7415.010         Contion         Sample         F1-31         100           S133021.00.01         5.83         667-7411.55/0.11         Contion         Sample         F1-41         100         117.11           S133021.01.01         5.83         677-7411.55/0.11         Contion         Val         100         117.11           S139021.01.01         5.83         677-7411.55/0.11         Contion         Val         100         117.11           S139021.01.01         5.83         677-741.55/0.11         Contion         Val         100         117.11           S139021.01.01         5.83         677-741.55/0.11         Contion         Val         100         117.11         117.11	05192021a 001.d	6.024	Condition		Sample	P1-A3	10.0								
5392013_0014         603         Contino         Sample         F1-33         100           51920213_0024         600         Contino         Sample         F1-33         100           51920213_0024         600         Contino         Sample         F1-33         100           51920213_0024         600         Contino         Sample         F1-33         100           51920213_0024         5993         687-2015 L0 pd/L         Contino         Sample         F1-33         100           51920213_0024         5993         687-2015 L0 pd/L         Contino         Sample         F1-41         100         2111           51920213_0124         583         687-2015 L0 pd/L         Contino         Sample         F1-41         100         2100         2111           51920213_0124         583         687-2011 L0 pd/L         Contention         Val <tt>2100         2100         2100         2101         2111           51920213_0124         583         687-2011 L0 pd/L         Contention         Val<tt>2100         2100         2101         2101         2101           51920213_0124         583         687-2011 L0 pd/L         Contention         Val<tt>2100         2100         2101         2101         &lt;</tt></tt></tt>	05192021a 002.d	6.010	Condition		Sample	P1-A3	10.0								
553213.004         6.00         Condition         Sample         P1-33         100           51920213.0054         6.00         Condition         Sample         P1-33         100           51920213.0054         6.00         Condition         Sample         P1-33         100           51920213.0054         6.00         Condition         Sample         P1-34         100           51920213.0054         5.97         687-2015.010         Sample         P1-34         100           51920213.0054         5.93         687-2015.010         Sample         P1-34         100           51920213.0014         5.83         687-2015.010         Calimation         Val         100         27.11           51920213.0114         5.83         687-2015.010         Calimation         Val         100         10.00         17.13           51920213.0114         5.83         687-2015.010         Calimation         Val         100         10.00         17.13           51920213.0114         5.83         667-00405         Sample         P1-41         100         10.00         10.00         10.01           51920213.0114         5.83         667-0117         667-01         20.00         10.00         10	05192021a 003.d	6.024	Condition		Sample	P1-A3	10.0								
6592013         0.00         Condition         Sample         P1-33         100           65920213_0064         6.00         Condition         Sample         P1-33         100           65920213_0014         6.00         Condition         Sample         P1-33         100           65920213_0014         5.89         667-2M16.05 gold         Calibration         Val 3         100           65920213_0014         5.89         667-2M16.05 gold         Calibration         Val 3         100           65920213_0014         5.89         667-2M16.05 gold         Calibration         Val 3         100         17754           65920213_0114         5.89         667-2M13.05 gold         Calibration         Val 3         100         1100         17754           65920213_0114         5.89         667-2M13.05 gold         Calibration         Val 3         100         100         1100         1100         11754           65920213_0124	05192021a 004.d	6.010	Condition		Sample	P1-A3	10.0								
553202.1.00cd         6010         Condition         Sample         F1-33         100         34.11           553202.1.00cd         5970         687-2415 0.05 gyd,         2018 molion         71.3         100         34.11           553202.1.00cd         5970         687-2415 0.05 gyd,         2018 molion         74.3         100         33.5.73           553202.1.00cd         5973         687-2411 0.05 gyd,         2018 molion         74.3         100         177.34           593202.1.001d         5883         687-2411 0.51 gyd,         Calibration         74.3         100         177.34           513202.1.011d         5883         687-2411 0.51 gyd,         Calibration         74.3         100         177.34           513202.1.011d         5883         687-2411 0.51 gyd,         Calibration         74.1         100         177.34           513202.1.012d         5883         687-2411 0.51 gyd,         Calibration         74.1         100         110.0         1000         100         1001         1001         1001         1001         1001         1001         1001         177.34         1001         177.34         1001         1001         1001         1001         1001         1001         1001         1001	05192021a 005.d	6.010	Condition		Sample	P1-A3	10.0								
S152021a_0074         6.010         Condition         Sample S122021a_0084         5.97         667-2416-0.05 pq/L         S111         311           S132021a_0084         5.997         667-2416-0.00 pq/L         Condition         Val 3         100         311         311           S132021a_0104         5.983         667-2415-0.0 pq/L         Calibration         Val 3         100         3175         3175           S132021a_0114         5.983         667-2411-0 pq/L         Calibration         Val 1         100         1173         3175           S132021a_0114         5.983         667-7411-0 pq/L         Calibration         Val 1         100         1100         1100         100         401 <td>05192021a 006.d</td> <td>6.010</td> <td>Condition</td> <td></td> <td>Sample</td> <td>P1-A3</td> <td>10.0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	05192021a 006.d	6.010	Condition		Sample	P1-A3	10.0								
S1932021a_008d         S97         687-2016 0.05 pg/L         Calibration         Val         100         7.11           S1932021a_003d         5.997         687-2014 0.05 pg/L         Calibration         Val         100         7.11           S1932021a_011d         5.893         687-2014 0.25 pg/L         Calibration         Val         100         177.54         177.54           S1932021a_011d         5.833         687-2011 0.00 fg/L         Calibration         Val         100         177.54         177.54           S1932021a_011d         5.933         687-2012 0.01 gg/L         Calibration         Val         100         0.100         177.54         0.01         0.01           S1932021a_011d         5.933         687-2011 0.001L         Calibration         Val         100         0.100         177.54         0.001         0.01	05192021a 007.d	6.010	Condition		Sample	P1-A3	10.0								
5192013_004         5.97         687-2M15.010 69/L         Calibration         Val 3         10.0         177.54         177.54           65130213_0114         5.883         687-2M12.10.96/L         Calibration         Val 3         10.0         335.75           65130213_0124         5.983         687-2M12.10.96/L         Calibration         Val 1         10.0         65.56         -0.10         -0.00         -0.00         -0.00         -0.01         -0.	05192021a 008.d	266.5	687-2M16 0.05 pg/µL		Calibration	Vial 5	10.0				34.11				
051920214_0104         5.983         667-2M14.0.25 pg/lt         Calibration         Val         10.0         177.54           051920214_0114         5.983         667-2M14.0.25 pg/lt         Calibration         Val         10.0         133.23           051920214_0114         5.983         667-2M13.0.5 pg/lt         Calibration         Val         10.0         0.100         665.56         0.01         0.01           05192021a_0144          28355         64-07405         58mple         F1-A1         10.0         0.1000          0.01         0.01           05192021a_0144          28355         64-07405         58mple         F1-A1         10.0         0.1000          -0.10         -0.01         -0.01         0.01           05192021a_0134         6.010         288550.01R1         64-07405         58mple         F1-A1         10.0         0.1000         F1-A         0.01	05192021a 009.d	266.5	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				71.11				
6592021a_011d         5.83         667-2M13.0.50 pc/lt         Callbertion         Val 2         100         335.73           65192021a_012d         5.93         667-2M12.0.50 pc/lt         Callbertion         Val 1         100         0.100         0.10        0.01        0.01        0.01         -0.01	05192021a 010.d	5.983	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				177.54				
65:9271a_012.d         5.983         687-2M12.10 pg/ut         Calibration         Val         100         0.100          c.0.10         c.0.11	05192021a 011.d	5.983	687-2M13 0.50 pg/µL		Calibration	Vial 2	10.0				335.73				
0519271a_013.d	05192021a 012.d	5.983	687-2M12 1.0 pg/µL		Calibration	Vial 1	10.0				665.56				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05192021a 013.d		28265	GA-OR405	Sample	P1-A1	10.0	0.100	10.0	0.1000	l	<0.10	<0.01		
0:0:0:0:0:0:0:0:0:0:0:0:0:0:0:0:0:0:0:	05192021a 014 d		28265	GA-OR405	Sample	P1-A1	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01	
05132021a         010         28255C0.01R1         GA OR405         Sample         P1-A2         10.0         0.100         54.69         0.0847         0.0087         0.0847         0.0087         0.0013         0.01	051920213 015 d	6.024	28265C0.01R1	GA-OR405	Sample	P1-A2	10.0	0.100	10.0	0.1000	58.35	0.0902	0600.0		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05192021a 016.d	6.010	28265C0.01R1	GA-OR405	Sample	P1-A2	10.0	0.100	10.0	0.1000	54.69	0.0847	0.0085	0.00874	87%
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05192021a 017 d	2,997	687-2M15 0.10 pg/uL		Calibration	Vial 4	10.0				59.04				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05192021a 018.d	6.010	28265C0.01R2	GA-CA*20	Sample	P1-A3	10.0	0.100	10.0	0.1000	58.68	0.0907	0.0091		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05192021a 019.d	6.010	28265C0.01R2	GA-CA*20	Sample	P1-A3	10.0	0.100	10.0	0.1000	59.78	0.0923	0.0092	0.00915	91%
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	051020130 020 d	6 010	28267	GC-OR405	Sample	P1-A4	10.0	0.100	10.0	0.1000	82.44	0.1262	0.0126		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	051920212020120 D.170 0212020120	266.5	28267	GC-OR405	Sample	P1-A4	10.0	0.100	10.0	0.1000	90.33	0.1381	0.0138	0.013	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05192021a 022.d	5,983	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				153.58				
05192021a_025.d       6.010       28268       GD-0R405       Sample       P1-45       10.0       0.100       96.58       0.1474       0.0147       0.0147         05192021a_025.d        28267 (Flonicamid)       GC-0R405       Sample       P1-46       10.0       0.1000       96.58       0.1474       0.0147       0.014         05192021a_025.d        28267 (Flonicamid)       GC-0R405       Sample       P1-46       10.0       0.00025        <0.10	05192021a 023.d	6.010	28268	GD-OR405	Sample	P1-A5	10.0	0.100	10.0	0.1000	88.19	0.1349	0.0135		
05192021a_025.d       —       28267 (Flonicamid)       6C 0R405       5smple       P1 46       10.0       0.0025       —       40.40       40.41         05192021a_025.d       —       28267 (Flonicamid)       6C 0R405       5smple       P1 46       10.0       0.0025       —       40.41       40.41         05192021a_027.d       5.997       687-2M15 0.10 pg/µL       Calibration       Vial 4       10.0       0.0025       —       40.40       40.41         05192021a_027.d       5.997       687-2M15 0.10 pg/µL       Calibration       Vial 4       10.0       0.400.0       0.0025       —       40.41         05192021a_022.d       5.997       687-2M14 0.25 pg/µL       Calibration       Vial 3       10.0       0.400.0       0.0025       —       40.41         05192021a_0201a_0204       5.997       687-2M14 0.25 pg/µL       Calibration       Vial 3       10.0       0.400.0       0.0025       —       40.40         05192021a_0204       5.997       687-2M14 0.25 pg/µL       Calibration       Vial 3       10.0       0.400.0       0.0025       —       40.40         05192021a_0204       5.997       687-2M14 0.25 pg/µL       Calibration       Vial 3       10.0       0.400.0       0.0025<	05192021a 024.d	6.010	28268	GD-OR405	Sample	P1-A5	10.0	0.100	10.0	0.1000	96.58	0.1474	0.0147	0.014	
65192021a_025.d       —       28267 (Flonicamid)       6C OR405       53mple       P1 46       10.0       0.400.0       0.6025       —       40.40         05192021a_027.d       5.997       687-2M15 0.10 pg/µL       Calibration       Vial 4       10.0       66.61       66.61         05192021a_022.4       —       28268 (Flonicamid)       6D-OR405       55mple       P1 A7       10.0       6.100       66.61         05192021a_022.4       —       28268 (Flonicamid)       6D-OR405       55mple       P1 A7       10.0       0.100       0.0025       —       40.10       6401         05192021a_0202.4       5.997       587-2M14 0.25 pg/µL       6D-OR405       55mple       P1 A7       10.0       0.100       0.0025       —       40.10       64.01         05192021a_030.d       5.997       587-2M14 0.25 pg/µL       Calibration       Vial 3       10.0       0.100       0.0025       —       40.10       40.01       60.01       64.01         05192021a_030.d       5.997       587-2M14 0.25 pg/µL       Calibration       Vial 3       10.0       10.0       10.00       155.84       60.10       64.01         Calculated LOD at 0.10 pg/µL =       53       28       10.0       0.100	05192021a 025.d	1	28267 (Flonicamid)	6C OR405	Sample	PI-A6	<del>10.0</del>	0.100	400.0	0.0025	ľ	€0: <u>10</u>	<del>€0:01</del>		
05192021a_027.d       5.997       687-2M15 0.10 pg/uL       Calibration       Vial 4       10.0       66.61         05192021a_022.4        28268 (Floricamid)       6D-0R405       55mple       P1 A7       10.0       0.100       0.0025        40.10       40.01         05192021a_022.4        28268 (Floricamid)       6D-0R405       55mple       P1 A7       10.0       0.100       0.0025        40.10       40.01         05192021a_02021a_0202.4        28268 (Floricamid)       GD-0R405       55mple       P1 A7       10.0       0.100       400.0       0.0025        40.10       40.01         05192021a_030.4       5.997       687-2M14 0.25 pg/µL       Calibration       Vial 3       10.0       10.0       155.84       40.10         0clulated LOD at 0.045 pg/µL       28       28       28       28       400.0       155.84       40.10       40.01         0.100 pg/µL       5       28       28       28       28       40.10       10.00       155.84       40.10         0.100 pg/µL       65       -       61.0       10.0       10.0       155.84       40.10       40.01         0.010 pg/µL <t< td=""><td>05192021a 026.d</td><td>1</td><td>28267 (Flonicamid)</td><td>6C-0R405</td><td>Sample</td><td>P1-46</td><td>10.0</td><td>0.100</td><td>400.0</td><td>0:0025</td><td>1</td><td>&lt;0.10</td><td>€0:0<del>1</del></td><td></td><td></td></t<>	05192021a 026.d	1	28267 (Flonicamid)	6C-0R405	Sample	P1-46	10.0	0.100	400.0	0:0025	1	<0.10	€0:0 <del>1</del>		
05192021a_028.d       —       28268 (Floricamid)       GD-0R405       55mple       P1_A7       10.0       0.100       400.0       0.0025       —       40.10       4001         05192021a_029.d       —       28268 (Floricamid)       GD-0R405       55mple       P1_A7       10.0       0.100       0.0025       —       40.10       40.01         05192021a_030.d       5.997       687-2M14       0.25 pg/µL       Calibration       Vial 3       10.0       0.100       0.0025       —       40.01       40.01         05192021a_030.d       5.997       687-2M14       0.25 pg/µL       Calibration       Vial 3       10.0       1.00       155.84       40.10         05192021a_030.d       5.997       687-2M14       0.25 pg/µL       Calibration       Vial 3       10.0       1.00       155.84       40.10         Calculated LOD at 0.10 pg/µL =       28       28       10.00       10.0       1.00       155.84       40.10       40.01         0.10 pg/µL =       65        65        65        40.10       40.00       40.00       40.10       40.10       40.10       40.10       40.10       40.10       40.10       40.10       40.10	05192021a 027.d	5.997	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				66.61				
05192021a_029.d     28268 (Floricamid)     GD-OR405     5ample     P1_A7     10.0     0.100     0.0025      <0.10	05192021a 028.d	ļ	28268 (Flonicamid)	GD-0R405	Sample	P1-A7	<del>10.0</del>	0.100	400.0	0.0025	1	<del>01.0&gt;</del>	€0:0 <del>1</del>		
05192021a_030.d 5.997 687-2M14 0.25 pg/µL Calibration Vial 3 10.0 155.84 Calculated LOD at 0.045 pg/µL = 28 Calculated LOQ at 0.10 pg/µL = 65	05192021a 029.d	l	28268 (Flonicamid)	GD OR 105	Sample	P1-A7	10.0	0.100	400.0	0.0025	1	€0:10	€0:0 <del>1</del>		
Calculated LOD at 0.045 pg/µL = 28 Calculated LOQ at 0.10 pg/µL = 65	05192021a_030.d	5.997	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				155.84				
Calculated LOQ at 0.10 pg/µL = 65	Calculated LOD at 0.1	045 pg/µL =	28												
i i i i i i i i i i i i i i i i i i i	Calculated LOQ at 0.	10 pg/µL =	65												
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Strikethrough denotes data not used, dilutions used for flonicamid quantitation only



0.1000 0.1000 0.0500

59.04 66.61 34.11

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Calibration Calibration Calibration

D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05192021\05192021a\_017.d D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05192021\05192021a\_027.d

D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05192021\05192021a\_008.d

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Compound Injection Date TFNG 5/19/2021 08550 - Flonicamid/Onion - OR401

-NG J/19/20/21 Seed Samples - Extracted 5/19/2021 by ASM

Data File 05192021a_001.d													and and a	
05192021a_001.d	RT	SampleName	Sample Info	Type	Vial Pos	(hr)	6	nt Vol	ini gm	Resp	(Jµ/)	bpm	Indd	% Rec
	7.225	Condition		Sample	P1-A3	10.0								
05192021a 002.d	7.212	Condition		Sample	P1-A3	10.0								
05192021a 003.d	7.225	Condition		Sample	P1-A3	10.0								
05192021a 004.d	7.212	Condition		Sample	P1-A3	10.0								
05192021a_005.d	7.225	Condition		Sample	P1-A3	10.0								
05192021a_006.d	7.212	Condition		Sample	P1-A3	10.0								
05192021a 007.d	7.212	Condition		Sample	P1-A3	10.0								
05192021a 008.d	7.212	687-2M16 0.05 pg/µL		Calibration	Vial 5	10.0				27.76				
05192021a 009.d	7.225	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				48.85				
05192021a 010.d	7.212	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				108.81				
05192021a 011.d	7.212	687-2M13 0.50 pg/µL		Calibration	Vial 2	10.0				235.23				
05192021a 012.d	7.198	687-2M12 1.0 pg/µL		Calibration	Vial 1	10.0				488.50				
05192021a 013.d	I	28265	GA-OR405	Sample	P1-A1	10.0	0.100	10.0	0.1000	l	<0.10	<0.01		
05192021a 014 d		28265	GA-OR405	Sample	P1-A1	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01	
05192021a 015.d	7.225	28265C0.01R1	GA-OR405	Sample	P1-A2	10.0	0.100	10.0	0.1000	44.27	0.0998	0.0100		10.00
05192021a 016.d	7.212	28265C0.01R1	GA-OR405	Sample	P1-A2	10.0	0.100	10.0	0.1000	44.46	0.1002	0.0100	0.0100	100%
05192021a 017.d	7.212	687-2M15 0.10 pg/nL		Calibration	Vial 4	10.0				44.69				
05192021a 018 d	7.212	28265C0.01R2	GA-CA*20	Sample	P1-A3	10.0	0.100	10.0	0.1000	40.43	0.0919	0.0092		
010 CLC0C0120	7 212	28265C0.01R2	GA-CA*20	Sample	P1-A3	10.0	0.100	10.0	0.1000	39.00	0.0890	0.0089	0.00904	%06
		28267	GC-OR405	Sample	P1-A4	10.0	0.100	10.0	0.1000		<0.10	<0.01		
051920218_021 d		28267	GC-OR405	Sample	P1-A4	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01	
	C1C L	687-2M14 0 25 nd/iil		Calibration	Vial 3	10.0				109.34				
0220_02202020100 h 200 c1000000000000000000000000000000000		28268	GD-OR405	Sample	P1-A5	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		
051920215 024.d	I	28268	GD-OR405	Sample	P1-A5	10.0	0.100	10.0	0.1000	ł	<0.10	<0.01	<0.01	
051020215 025 d		28267 (Flonicamid)	6C OR405	Sample	P1-46	<del>10.0</del>	0.100	400.0	0.0025	I	€0:10	€0:01		
0510702150 076 d	1	28267 (Flonicamid)	GC-0R405	Sample	PI-A6	<del>10.0</del>	0.100	400.0	0.0025	l	€0:10	<0.01		
05192021a 027.d	7.225	687-2M15 0.10 pg/uL		Calibration	Vial 4	10.0				51.20				
051020213 028 d	ļ	28268 (Flonicamid)	GD-0R405	Sample	P1-A7	<del>10.0</del>	0.100	400.0	0:0025	1	€0: <u>10</u>	+0:0+		
00100012020100	J	28268 (Flonicamid)	GD-0R405	Sample	P1-A7	<del>10.0</del>	0.100	400.0	0.0025	L	€0:10	<0:01		
05192021a 030.d	7.225	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				113.08				
Calculated LOD at 0.045	= hg/hr =	18												
Calculated LOO at 0.10 p	pd/hr =	44												
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periodeal salona	Delow al ca n	ונפוומו	1.00											

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0.1000 0.1000

44.69 51.20

0.0500

27.76

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Calibration Calibration Calibration

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				Sample		Inj Vol	1	I Mol	ini m	Decn	Conc Conc	maa	Ave ppm	% Rec
Data File	RT	SampleName	Sample Info	Iype	Vial Pos	(hr)	5	IF AOI	fur fill	depu	1-41641			
05202021a 001.d		Condition		Sample	P1-A2	10.0								
05202021a 002.d	7.721	Condition		Sample	P1-A2	10.0								
05202021a 003.d	7.735	Condition		Sample	P1-A2	10.0								
05202021a_004.d	7.735	Condition		Sample	P1-A2	10.0								
05202021a_005.d	7.735	Condition		Sample	P1-A2	10.0								
05202021a 006.d	7.735	Condition		Sample	P1-A2	10.0								
05202021a 007.d	7.735	Condition		Sample	P1-A2	10.0								
05202021a 008.d	7.721	687-2M16 0.05 pg/µL		Calibration	Vial 5	10.0				20.79				
05202021a 009.d	7.735	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				39.47				
05202021a 010.d	7.735	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				93.27				
05202021a_011.d	7.735	687-2M13 0.50 pg/µL		Calibration	Vial 2	10.0				189.99				
05202021a_012 d	7.735	687-2M12 1.0 pg/uL		Calibration	Vial 1	10.0				377.88				
*05202021a_013.d	Ī	28265	GA-OR405	Sample	P1-A1	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		
*05202021a 014 d		28265	GA-OR405	Sample	P1-A1	10.0	0.100	10.0	0.1000	-	<0.10	<0.01	<0.01	
05202021a 015.d	7.735	28265C0.01R1	GA-OR405	Sample	P1-A2	10.0	0.100	10.0	0.1000	32.98	0.0902	0600.0		
05202021a_016.d	7.735	28265C0.01R1	GA-OR405	Sample	P1-A2	10.0	0.100	10.0	0.1000	33.79	0.0923	0.0092	0.00913	91%
05202021a 017.d	7.735	687-2M15 0.10 pd/µL		Calibration	Vial 4	10.0				33.46				
*05202021a 018.d	7.721	28265C0.01R2	GA-CA*20	Sample	P1-A3	10.0	0.100	10.0	0.1000	29.27	0.0804	0.0080		
*05202021a_019.d	7.735	28265C0.01R2	GA-CA*20	Sample	P1-A3	10.0	0.100	10.0	0.1000	34.71	0.0948	0.0095	0.00876	
05202021a_020.d	7.721	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				89.35				

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Injection Date 5/20/2021

91%

Calculated LOD at 0.045 pg/µL = Calculated LOQ at 0.10 pg/µL = "----" denotes response below area threshold \*Data previously reported

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05202021a\_020.d

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Calculated LOQ at 0.10 pg/µL = 30 "----" denotes response below area threshold Strikethrough denotes data not used, dilutions used for fionicamid quantitation only

Flonicamid 5/24/20	o21			SEIC	171 0	~								
08550 - Flonicamid/Onion - CA18 8	& CA*20 Fie	ld Samples - Extracted 5/24/	2021 by ASM											
	1	omeMolane2	Counter Info	Sample	vial Doc	Inj Vol	e	I Vol	ind Ini	Resp	Conc (pa/ul)	maa	Ave	% Rec
0011 a 100 d 100 d	7.450	Condition		Sample	P1-A3	10.0	•	5	•					
05242021a 002.d	7.735	Condition		Sample	P1-A3	10.0								
05242021a 003.d	7.721	Condition		Sample	P1-A3	10.0								
05242021a_004.d	7.721	Condition		Sample	P1-A3	10.0								
05242021a 005.d	7.721	Condition		Sample	P1-A3	10.0								
05242021a_006.d	7.735	Condition		Sample	P1-A3	10.0								
05242021a 007.d	7.735	Condition		Sample	P1-A3	10.0								
05242021a_008.d	7.735	687-2M16 0.05 pg/µL		Calibration	Vial 5	10.0				20.94				
05242021a 009.d	7.735	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				29.50				
05242021a 010.d	7.735	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				84.25				
05242021a 011.d	7.735	687-2M13 0.50 pg/µL		Calibration	Vial 2	10.0				159.89				
05242021a 012.d	7.721	687-2M12 1.0 pg/µL		Calibration	Vial 1	10.0				314.53				
05242021a 013.d	1	28225	GA-CA18	Sample	P1-A1	10.0	0.100	10.0	0.1000	-	<0.10	<0.01		
05242021a 014.d	1	28225	GA-CA18	Sample	P1-A1	10.0	0.100	10.0	0.1000	-	<0.10	<0.01	<0.01	
05242021a_015.d	7.721	28225C0.01R3	GA-CA18	Sample	P1-A2	10.0	0.100	10.0	0.1000	26.81	0.0889	0.0089		
05242021a 016.d	7.721	28225C0.01R3	GA-CA18	Sample	P1-A2	10.0	0.100	10.0	0.1000	30.35	0.1001	0.0100	0.00945	94%
05242021a 017.d	7.735	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				26.46				
05242021a 018.d	7.735	28225C0.10R1	GA-CA18	Sample	P1-A3	10.0	0.100	40.0	0.0250	68.46	0.2206	0.0882		
05242021a 019.d	7.721	28225C0.10R1	GA-CA18	Sample	P1-A3	10.0	0.100	40.0	0.0250	74.43	0.2395	0.0958	0.0920	92%
05242021a 020.d	7.735	<del>58557</del>	6C-CA18	Sample	P1-A4	<del>10.0</del>	0.100	0.0E	0.1000	3609.75	11.4164	1.1416		
02420210-021-d	7.735	<del>58557</del>	6C-CA18	Sample	P1-A4	10.01	0.100	<del>10.0</del>	0.1000	3623.72	11.4605	1.1461		
05242021a 022.d	7.735	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				76.33				
05242021a-023.d	352.7	38238	6D-CA18	Sample	P1-A5	<del>10.0</del>	0.100	<del>10.0</del>	0.1000	3925.79	12.4155	1.2416		
05242021a 024.d	7.724	28228	GD-CA18	Sample	P1-45	<del>10.0</del>	0.100	10.0	0.1000	3947.29	12.4835	1.2483		
05242021a 025.d	3:735	28851	6C-CA*20	Sample	P1-46	<del>10.0</del>	0.100	<del>10.0</del>	0.1000	2328.99	7.3672	0.7367		
05242021a 026.d	3:735	28851	GC CA*20	Sample	P1-46	<del>10.0</del>	0.100	<del>10.0</del>	0.1000	2393.34	1.5707	0.7574		
05242021a_027.d	7.735	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				32.43				
05242021a_028.d	351.7	28852	6D-CA*20	Sample	FA-F4	<del>10.0</del>	0.100	10.0	0.1000	2984.82	9.4407	0.9441		
05242021a-029.d	56171	58852	GD-CA*20	Sample	P1-A7	<del>10.0</del>	0.100	<del>10.0</del>	0.1000	2965.69	9.3802	0.9380		
05242021a_030.d	7.735	28227 (Flonicamid)	GC-CA18	Sample	P1-A8	10.0	0.100	200.0	0.0050	203.41	0.6472	1.2945		
05242021a_031.d	7.735	28227 (Flonicamid)	GC-CA18	Sample	P1-A8	10.0	0.100	200.0	0.0050	214.64	0.6827	1.3655	1.3	
05242021a_032.d	7.735	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				77.04				
05242021a 033.d	7.735	28228 (Flonicamid)	GD-CA18	Sample	P1-A9	10.0	0.100	200.0	0.0050	219.29	0.6974	1.3949		
05242021a 034.d	7.735	28228 (Flonicamid)	GD-CA18	Sample	P1-A9	10.0	0.100	200.0	0.0050	216.28	0.6879	1.3758	1.4	
05242021a 035.d	7.735	28851 (Flonicamid)	GC-CA*20	Sample	P1-B1	10.0	0.100	200.0	0.0050	129.24	0.4127	0.8255		
05242021a 036.d	7.735	28851 (Flonicamid)	GC-CA*20	Sample	P1-B1	10.0	0.100	200.0	0.0050	140.20	0.4474	0.8948	0.86	
05242021a 037.d	7.735	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				27.05				
05242021a 038.d	7.735	28852 (Flonicamid)	GD-CA*20	Sample	P1-B2	10.0	0.100	200.0	0.0050	157.94	0.5035	1.0069		
05242021a_039.d	7.735	28852 (Flonicamid)	GD-CA*20	Sample	P1-B2	10.0	0.100	200.0	0.0050	172.57	0.5497	1.0995	1.1	
05242021a_040.d	7.735	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				70.26				
Calculated LOD at 0.045 pg/	,hr =	13												

SmoothingFunctionWidth

10

Gaussian

S/25/21 COM

Flonicamid - 5 Levels, 5 Levels Used, 11 Points, 11 Points Used, 0 QCs

y = 316.305591 \* x - 1.311691

R^2 = 0.99757619

×10<sup>2</sup>

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weightEqual Weighting

Type:Linear, Origin:Ignore, Weight:None

Smoothing

Integrator Agile

CurveFit fitLinear

Target Compound Flonicamid



0.1000 0.1000

0.1000 0.1000 0.0500

0.2500 0.2500 0.2500 0.2500

0.85 0.9 0.95

0.8

0.75

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0.35 0.4 0.45

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## Printed at: 9:16 AM on: 5/25/2021

5/25/21 OBM

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 TFNA-AM
 5/24/2021

 08550 - Flonicamid/Onion - CA18 & CA\*20 Field Samples - Extracted 5/24/2021 by ASM

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	10	SamulaName	Samula Info	Sample	Vial Pos	Inj Vol (uL)		mL Vol	ini Ini	Resp	(pg/hf)	mdd	ppm °	/o Rec
05242021a 001.d	4.931	Condition		Sample	P1-A3	10.0	Ċ							
05242021a 002.d	5.324	Condition		Sample	P1-A3	10.0								
05242021a_003.d	5.324	Condition		Sample	P1-A3	10.0								
05242021a_004.d	5.324	Condition		Sample	P1-A3	10.0								
05242021a_005.d	5.324	Condition		Sample	P1-A3	10.0								
05242021a_006.d	5.311	Condition		Sample	P1-A3	10.0								
05242021a_007.d	5.324	Condition		Sample	P1-A3	10.0								
05242021a_008.d	5.324	687-2M16 0.05 pg/µL		Calibration	Vial 5	10.0				65.20				
05242021a_009.d	5.324	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				127.50				
05242021a_010.d	5.324	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				306.08				
05242021a_011.d	5.324	687-2M13 0.50 pg/µL		Calibration	Vial 2	10.0				633.60				
05242021a_012.d	5.297	687-2M12 1.0 pg/µL		Calibration	Vial 1	10.0				1270.69				
05242021a 013.d	1	28225	GA-CA18	Sample	P1-A1	10.0	0.100	10.0	0.1000		<0.10	<0.01		
05242021a 014.d	l	28225	GA-CA18	Sample	P1-A1	10.0	0.100	10.0	0.1000	-	<0.10	<0.01	<0.01	
05242021a 015.d	5.324	28225C0.01R3	GA-CA18	Sample	P1-A2	10.0	0.100	10.0	0.1000	115.43	0.0994	6600.0		
05242021a 016.d	5.324	28225C0.01R3	GA-CA18	Sample	P1-A2	10.0	0.100	10.0	0.1000	108.90	0.0943	0.0094	0.00969	9%16
05242021a 017.d	5.324	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				122.26				
05242021a 018.d	5.311	28225C0.10R1	GA-CA18	Sample	P1-A3	10.0	0.100	40.0	0.0250	284.99	0.2323	0.0929		
05242021a 019.d	5.324	28225C0.10R1	GA-CA18	Sample	P1-A3	10.0	0.100	40.0	0.0250	286.38	0.2334	0.0933	0.0931	93%
05242021a 020.d	5.324	28227	GC-CA18	Sample	P1-A4	10.0	0.100	10.0	0.1000	535.38	0.4284	0.0428		
05242021a 021.d	5.311	28227	GC-CA18	Sample	P1-A4	10.0	0.100	10.0	0.1000	547.14	0.4376	0.0438	0.043	
05242021a 022.d	5.311	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				285.40				
05242021a 023.d	5.324	28228	GD-CA18	Sample	P1-A5	10.0	0.100	10.0	0.1000	616.44	0.4919	0.0492		
05242021a_024.d	5.324	28228	GD-CA18	Sample	P1-A5	10.0	0.100	10.0	0.1000	626.20	0.4995	0.0500	0.050	
05242021a_025.d	5.324	28851	GC-CA*20	Sample	P1-A6	10.0	0.100	10.0	0.1000	178.16	0.1486	0.0149		
05242021a_026.d	5.324	28851	GC-CA*20	Sample	P1-A6	10.0	0.100	10.0	0.1000	181.03	0.1508	0.0151	0.015	
05242021a_027.d	5.324	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				116.61				
05242021a_028.d	5.324	28852	GD-CA*20	Sample	P1-A7	10.0	0.100	10.0	0.1000	270.78	0.2211	0.0221		
05242021a 029.d	5.324	28852	GD-CA*20	Sample	P1-A7	10.0	0.100	10.0	0.1000	277.44	0.2264	0.0226	0.022	
05242021a_030.d	1	28227 (Flonicamid)	6C-CA18	Sample	P1-A8	<del>10.0</del>	0.100	200.0	0:0050	l	+0 <del>1</del> .0+	<del>10.01</del>		
05242021a_031.d	1	28227 (Flonicamid)	6C-CA18	Sample	P1-A8	<del>10.0</del>	0.100	200.0	0:0050	1	<del>01.0&gt;</del>	+0.01		
05242021a_032.d	5.324	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				281.94				
05242021a 033.d		28228 (Flonicamid)	GD-CA18	Sample	PI-A9	0.0E	0.100	200.0	0:0050	1	+0.10	€0:01		
05242021a 034.d	1	28228 (Flonicamid)	6D-CA18	Sample	64-14	0.0E	0.100	200.0	0:0050	1	+0.10	+0.01		
05242021a 035.d	1	28851 (Flonicamid)	6C-CA*20	Sample	P1-B1	<del>10.0</del>	0.100	200.0	0:0050		+0.10	€0:01		
05242021a_036.d	ļ	28851 (Flonicamid)	6C CA*20	Sample	P1-81	<del>10.0</del>	0.100	200.0	0:0050	1	+0.10	€0:01		
05242021a_037.d	5.324	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				120.17				
05242021a 038.d	-	28852 (Flonicamid)	6D-CA*20	Sample	P1-82	10.0	0.100	200.0	0:0050	l	€0.10	+0.01		
05242021a_039.d	1	28852 (Flonicamid)	6D-CA*20	Sample	P1-82	<del>10.0</del>	0.100	200.0	0:0050	1	€0:10	+0.01		
05242021a_040.d	5.324	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				309.82				

Calculated LOD at 0.045 pg/µL = 46 Calculated LOQ at 0.10 pg/µL = 116 "---" denotes response below area threshold Strikethrough denotes data not used, dilutions used for flonicamid quantitation only

Printed at: 9:16 AM on: 5/25/2021



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Strikethrough denotes data not used, dilutions used for flonicamid quantitation only

Calculated LOQ at U.JU pg/pt =	n
"" denotes response below area	threshold

50 - Flonicamid/Onion - CA	18 & CA*20 Fi	eld Samples - Extracted 5/24/2	2021 by ASM								Conc		Ave	
Data File	RT	SampleName	Sample Info	Type	Vial Pos	(hr)	5	mL Vol	ini gm	Resp	(hd/pd)	mqq	mdd	% Rec
05242021a 001.d	1	Condition		Sample	P1-A3	10.0								
05242021a_002.d	5.983	Condition		Sample	P1-A3	10.0								
05242021a_003.d	5.983	Condition		Sample	P1-A3	10.0								
05242021a_004.d	5.983	Condition		Sample	P1-A3	10.0								
05242021a_005.d	5.983	Condition		Sample	P1-A3	10.0								
05242021a 006.d	5.983	Condition		Sample	P1-A3	10.0								
05242021a 007.d	5.983	Condition		Sample	P1-A3	10.0								
05242021a 008.d	5.969	687-2M16 0.05 pg/µL		Calibration	Vial 5	10.0				31.15				
05242021a 009.d	5.983	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				61.38				
05242021a_010.d	5.969	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				142.31				
05242021a_011.d	5.969	687-2M13 0.50 pg/µL		Calibration	Vial 2	10.0				276.05				
05242021a 012.d	5.956	687-2M12 1.0 pg/µL		Calibration	Vial 1	10.0				581.81				
05242021a 013.d	]	28225	GA-CA18	Sample	P1-A1	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		
014 d		28225	GA-CA18	Sample	P1-A1	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.01	
05242021a 015 d	2997	28225C0.01R3	GA-CA18	Sample	P1-A2	10.0	0.100	10.0	0.1000	52.56	0.1003	0.0100		
05747071a 016 d	5 997	2822500.0183	GA-CA18	Sample	P1-A2	10.0	0.100	10.0	0.1000	46.36	0.0896	0600'0	0.00949	92%
0.010_012021_200	5 969	687-2M15 0 10 nn/iil		Calibration	Vial 4	10.0				52.86				
P 010 01007170	200.3		GA-CA18	Samula	P1-43	10.01	0 100	40.0	0.0250	123.91	0.2231	0.0892		
D.010_512024200	COC.C	TUDT ODJECOC	GA-CA18	Cample	EV-10	0.01	0 100	40.0	0.0250	126.83	0.2281	0.0912	0.0902	%06
05242021a_019.0	166.5	20222UU1UK1		Sample		0.01	0010	0.01	00010	167 74	0 7985	0 0799		
05242021a_020.d	266.5	78771	0C-CA10	Sample	PI-A4	0.01	001.0	0.01	0001.0	L1.101	CPUC 0	POCO O	020 0	
05242021a_021.d	5.983	28227	GC-CA18	Sample	P1-A4	10.0	0.100	10.0	0.1000	165.23	0.2942	1.0274	000.0	
05242021a_022.d	5.969	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				130.89				
05242021a_023.d	5.997	28228	GD-CA18	Sample	P1-A5	10.0	0.100	10.0	0.1000	209.86	0.3710	0.0371		
05242021a_024.d	5.997	28228	GD-CA18	Sample	P1-A5	10.0	0.100	10.0	0.1000	225.62	0.3981	0.0398	0.038	
05242021a 025.d	1	28851	GC-CA*20	Sample	P1-A6	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		
05242021a 026.d	1	28851	GC-CA*20	Sample	P1-A6	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.01	
05242021a 027.d	5.983	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				53.41				
05242021a 028.d	ł	28852	GD-CA*20	Sample	P1-A7	10.0	0.100	10.0	0.1000	-	<0.10	<0.01		
05242021a 029.d	1	28852	GD-CA*20	Sample	P1-A7	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01	
05242021a 030.d	1	28227 (Flonicamid)	6C-CA18	Sample	P1-A8	<del>10.0</del>	0.100	200.0	0:0050	1	<0.10	+0.01		
05242021a_031.d	1	28227 (Flonicamid)	6C-CA18	Sample	P1-A8	<del>10.0</del>	0.100	200.0	0:0050	t	<del>01.0&gt;</del>	+0.01		
05242021a 032.d	5,969	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				137.37				
05242021a 033.d	Î	28228 (Flonicamid)	GD-CA18	Sample	P1-A9	<del>10.0</del>	0.100	200.0	0:0050	1	+0:10	€0:0 <del>1</del>		
05242021a 034.d	Ì	28228 (Flonicamid)	GD-CA18	Sample	P1-49	<del>10.0</del>	0.100	200.0	0:0050	1	+0.10	+0:07		
05242021a 035.d	1	28851 (Flonicamid)	6C-CA*20	Sample	P1-81	10.0	0.100	200.0	0500.0	1	<del>01.0</del> ≯	<del>&lt;0.01</del>		
05242021a-036.d	I	28851 (Flonicamid)	6C-CA*20	Sample	P1-B1	10.0	0.100	200.0	0:0050	l	<del>&lt;0.10</del>	<del>&lt;0.01</del>		
05242021a 037.d	5.983	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				49.42				
05242021a 038.d	Ĭ	28852 (Flonicamid)	GD-CA*20	Sample	P1-82	<del>10.0</del>	0.100	200.0	0:0050	Į.	<del>&lt;0.10</del>	+0:0+		
05242021a_039.d	1	28852 (Flonicamid)	GD-CA*20	Sample	P1-B2	<del>10.0</del>	0.100	200.0	0:0050	l	<0.10	+0:0+		
05242021a_040.d	5.983	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				134.67				
Calculated LOD at 0.045	= ht/pd	20												
Calculated LOQ at 0.10 p	= Jul /go	52												

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 Compound
 Injection Date

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 5/24/2021

 08550 - Flonicamid/Onion - CA18



Responses

D:\/MassHunter\Flonicamid\08550_Onion\Data\Results\05242021\05242021a_008.d
D:\MassHunter\Flonicamid\08550_Onion\Data\Results\05242021\05242021a_037.d
D:\MassHunter\Flonicamid\08550_Onion\Data\Results\05242021\05242021a_027.d
D:\MassHunter\Flonicamid\08550_Onion\Data\Results\05242021\05242021a_017.d
D:\MassHunter\Flonicamid\08550_Onion\Data\Results\05242021\05242021a_009.d
D:\MassHunter\Flonicamid\08550_Onion\Data\Results\05242021\05242021a_040.d
D:\/MassHunter\Flonicamid\08550_Onion\Data\Results\05242021\05242021a_032.d
D:\/MassHunter\Flonicamid\08550_Onion\Data\Results\05242021\05242021a_022.d
D:\MassHunter\Flonicamid\08550_Onion\Data\Results\05242021\05242021a_010.d
D:\MassHunter\Flonicamid\08550_Onion\Data\Results\05242021\05242021a_011.d
D:\MassHunter\Flonicamid\08550_Onion\Data\Results\05242021\05242021a_012.d

0.1000 0.1000 0.1000 0.1000 0.0500

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Calibration

0.2500

134.67 61.38 52.86 53.41 49.42

Calibration

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Data File	RT	SampleName	Sample Info	Sample	Vial Pos	(hr)	0	mL Vol	ing Inj	Resp	(bg/hr)	mqq	bhu	% Rec
12021a 001.d	6.832	Condition		Sample	P1-A3	10.0								
2021a 002.d	7.212	Condition		Sample	P1-A3	10.0								
2021a_003.d	7.212	Condition		Sample	P1-A3	10.0								
2021a_004.d	7.212	Condition		Sample	P1-A3	10.0								
2021a_005.d	7.212	Condition		Sample	P1-A3	10.0								
2021a 006.d	7.212	Condition		Sample	P1-A3	10.0								
2021a 007.d	7.212	Condition		Sample	P1-A3	10.0								
2021a 008.d	7.212	687-2M16 0.05 pg/µL		Calibration	Vial 5	10.0				26.18				
2021a_009.d	7.212	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				43.50				
2021a_010.d	7.212	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				106.62				
12021a_011.d	7.212	687-2M13 0.50 pg/pt		Calibration	Vial 2	10.0				207.33				
12021a_012.d	7.198	687-2M12 1.0 pg/µL		Calibration	Vial 1	10.0				443.86				
f2021a 013.d	1	28225	GA-CA18	Sample	P1-A1	10.0	0.100	10.0	0.1000	l	<0.10	<0.01		
12021a 014.d	Į	28225	GA-CA18	Sample	P1-A1	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01	
12021a 015.d	7.212	28225C0.01R3	GA-CA18	Sample	P1-A2	10.0	0.100	10.0	0.1000	42.55	0.1067	0.0107		
12021a 016.d	7.212	28225C0.01R3	GA-CA18	Sample	P1-A2	10.0	0.100	10.0	0.1000	35.00	0.0897	0600.0	0.00982	0%86
12021a 017.d	7.212	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				40.25				
f2021a_018.d	7.212	28225C0.10R1	GA-CA18	Sample	P1-A3	10.0	0.100	40.0	0.0250	114.71	0.2700	0.1080		The second se
12021a 019.d	7.212	28225C0.10R1	GA-CA18	Sample	P1-A3	10.0	0.100	40.0	0.0250	102.80	0.2430	0.0972	0.103	103%
12021a_020.d	7.212	28227	GC-CA18	Sample	P1-A4	10.0	0.100	10.0	0.1000	195.00	0.4516	0.0452		
12021a 021.d	7.212	28227	GC-CA18	Sample	P1-A4	10.0	0.100	10.0	0.1000	202.19	0.4678	0.0468	0.046	
12021a 022.d	7.212	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				101.25				
12021a_023.d	7.212	28228	GD-CA18	Sample	P1-A5	10.0	0.100	10.0	0.1000	229.52	0.5296	0.0530		
2021a 024.d	7.212	28228	GD-CA18	Sample	P1-A5	10.0	0.100	10.0	0.1000	241.50	0.5567	0.0557	0.054	
f2021a_025.d	7.212	28851	GC-CA*20	Sample	P1-A6	10.0	0.100	10.0	0,1000	51.93	0.1279	0.0128		
12021a 026.d	7.212	28851	GC-CA*20	Sample	P1-A6	10.0	0.100	10.0	0.1000	51.28	0.1265	0.0126	0.013	
12021a_027.d	7.212	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				40.28				
12021a 028.d	7.212	28852	GD-CA*20	Sample	P1-A7	10.0	0.100	10.0	0.1000	80.91	0.1935	0.0194		
12021a_029.d	7.212	28852	GD-CA*20	Sample	P1-A7	10.0	0.100	10.0	0.1000	87.69	0.2088	0.0209	0.020	
12021a 030.d	1	28227 (Flonicamid)	6C-CA18	Sample	P1-A8	10.0	0.100	200.0	0:0050	T	<del>€0:10</del>	€0:0 <del>1</del>		
12021a_031.d	1	28227 (Flonicamid)	6C-CA18	Sample	P1-A8	10.0	0.100	200.0	0:0050	1	+0.10	+0.01		
42021a_032.d	7.212	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				102.10				
12021a 033.d	I	28228 (Flonicamid)	GD-CA18	Sample	6A-14	10.01	0.100	200.0	0:0050		<del>01.0&gt;</del>	<del>€0:01</del>		
12021a_034.d		28228 (Flonicamid)	GD-CA18	Sample	6V-14	<del>10.0</del>	0.100	200.0	0:0050		+0.10	+0:0+		
12021a_035.d	1	28851 (Flonicamid)	6C-CA*20	Sample	P1-81	10.0	0.100	200.0	0:0050	1	<del>10.10</del>	+0.0+		
42021a 036.d	1	28851 (Flonicamid)	6C-CA*20	Sample	P1-B1	10.01	0.100	200.0	0.0050	1	€0.10	+0:0+		
42021a_037.d	7.212	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				39.38				
42021a_038.d	1	28852 (Flonicamid)	6D-CA*20	Sample	P1-B2	10.0	0.100	200.0	0:0050		<del>&lt;0.10</del>	<del>€0:01</del>		
42021a_039.d	I	28852 (Flonicamid)	6D-CA*20	Sample	P1-B2	10.0	0.100	200.0	0:0050	1	<del>01.0&gt;</del>	+0:0≯		
42021a_040.d	7.225	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				102.44				
lated LOD at 0.045 c	= Th/bc	15												

5/25/21 adm

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CurveFit fitLinear

Target Compound TFNG R^2 = 0.99820523

×10<sup>2</sup>

## Calibration STD

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5/25/2021 by ASM Extra WA404 Compound Injection Date Flonicamid 5/25/2021 08550 - Flonicamid/Onton - Picture

Data File         Rt         Sample F1A3         L00         g muto in the integration         Rt         Sample F1A3         L00         g muto integration         Rt         Sample F1A3         L00         Rt         Rt         Sample F1A3         L00         Rt					Sample		Inj Vol		1001	int Ini	Docn	Conc	a maa	we nom	% Rec
GS250214_0014         7735         Condition         Sample         P1-A3         100           GS250214_0024         7721         Condition         Sample         P1-A3         100           GS250214_0054         7721         Gondition         Sample         P1-A3         100           GS250214_0054         7721         GS7-M15 0.10 pplut         Condition         Sample         P1-A3         100           GS250214_0054         7721         GS7-M15 0.10 pplut         Calibration         Val 4         100         1100         1132.24           GS250214_0114         7721         GS7-M15 0.10 pplut         Calibration         Val 4         100         1100         1132.24           GS250214_0114         7721         GS7-M15 0.10 pplut         Calibration         Val 4         100         1100         1132.24           GS250214_0124         7721         GS65010         GS7-M14 0.25 pplut         GS1M1400	Data File	RT	SampleName	Sample Info	Type	Vial Pos	(hr)	6	INT VOI	fur fiu	deau	1-14/1641			
GistSi2Dia         7721         Condition         Sample         P1-A3         100           GistSi2Dia         7721         Condition         Sample         P1-A3         100           GistSi2Dia         0054         7721         Condition         Sample         P1-A3         100           GistSi2Dia         0054         7721         Condition         Sample         P1-A3         100           GistSi2Dia         0054         7721         Gondition         Sample         P1-A3         100           GistSi2Dia         0054         7721         GistPint Loba         Sample         P1-A3         100           GistSi2Dia         014         7721         GistPint Loba         Sample         P1-A3         100           GistSi2Dia         014         7721         GistPint Loba         Calibration         Val         100         1134           GistSi2Dia         014         7721         GistPint Loba         Sample         P1-A1         100         0100         0100         0100         0100         0100         0100         0100         0100         0100         0100         0100         0100         0100         0100         0100         0100         0100	5252021a 001.d	7.735	Condition		Sample	P1-A3	10.0								
Gissizable Jond         T.ZI         Condition         Sample         P1-A3         100           Gissizable Jond         7.721         Gissizable Jond         7.731         Gissizable Jond         7.731           Gissizable Jond         7.731         Gissizable Michano         Vail A         100         100           Gissizable Jond         7.731         Gissizable Michano         Vail A         100         100           Gissizable Jond         7.771         Gissizable Michano         Vail A         100         100         100           Gissizable Jond         7.771         Gissizable Michano         Vail A         100         100         100         113.24           Gissizable Jond         7.771         Gissizable Michano         Vail A         100         100         100         100         100         100         100         113.24           Gissizable Jond         7.711         Gissizable Michano <td>15252021a 002.d</td> <td>7.721</td> <td>Condition</td> <td></td> <td>Sample</td> <td>P1-A3</td> <td>10.0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	15252021a 002.d	7.721	Condition		Sample	P1-A3	10.0								
G5320214         7.721         Condition         Sample         F1-A3         100           05520214         7.721         Condition         Sample         F1-A3         100           05520214         7.721         Condition         Sample         F1-A3         100           05520214         0.721         Condition         Sample         F1-A3         100           05520214_005d         7.721         667-2415 0.05 gylu         Sample         F1-A3         100           05520214_001d         7.731         667-2415 0.05 gylu         Calibration         Val 3         100           05520214_011d         7.731         667-2415 0.05 gylu         Calibration         Val 3         100         100           055520214_011d         7.731         667-2415 0.05 gylu         Calibration         Val 3         100         100         100           05550214_014d         7.711         687-2415 0.05 gylu         Calibration         Val 3         100         0.100         7.13           05550214_014d         7.721         687-2415 0.10 gylu         Sample         F1-A1         100         0.100         100         100         100         100         100         100         100         100         100	15252021a 003.d	I	Condition		Sample	P1-A3	10.0								
Gissionia 0054         7721         Condition         Sample         F1-A3         100           05520021a_0004         7721         687-2411 0.05 pg(L         Sample         F1-A3         100           05520021a_0004         7721         687-2411 0.05 pg(L         Sample         F1-A3         100           05520021a_0004         7723         687-2411 0.05 pg(L         Calibration         Val 1         100         110           05552021a_0104         7721         687-2411 0.05 pg(L         Calibration         Val 1         100         1100           05552021a_01134         7721         687-2411 0.05 pg(L         Calibration         Val 1         100         100         100           05552021a_0134         7721         687-2411 0.05 pg(L         Calibration         Val 1         100         100         100           0555021a_0134         7721         687-2411 0.05 pg(L         DB4-WA-403         Sample         F1-A1         100         0100         0100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         1000         100         100	15252021a 004.d	7.721	Condition		Sample	P1-A3	10.0								
5532021a_006d         7721         Condition         Sample         P1-A3         100           5532021a_003d         7723         687-2M15 0.05 pglut         Condition         Val3         100           5532021a_003d         7735         687-2M15 0.05 pglut         Calibration         Val3         100           5532021a_013d         7731         687-2M14 0.25 pglut         Calibration         Val3         100           5552021a_013d         7721         687-2M14 0.25 pglut         Calibration         Val3         100         1100           5552021a_013d         7721         687-2M14 0.25 pglut         Calibration         Val3         100         1100         1138.13           5552021a_013d         7721         687-2M15 0.10 pglut         Calibration         Val3         100         1000         1000         1000         1000         1000         1000         1000         1000         1000         1138.13         3025         30265	15252021a 005.d	7.721	Condition		Sample	P1-A3	10.0								
6552021a_007d         7721         Condition         Sample         P1-A3         100         1687           0552021a_003d         7.735         687-2M15 0.005 gp(L         Calibration         Vial 5         100         3313           0552021a_010d         7.735         687-2M15 0.005 gp(L         Calibration         Vial 5         100         3313           0552021a_010d         7.735         687-2M15 0.10 gp(L         Calibration         Vial 7         100         100         100           0552021a_013d         7.721         687-2M12 10 gp(L         Calibration         Vial 7         100         0.100         1010	15252021a 006.d	7.721	Condition		Sample	P1-A3	10.0								
0532021a_008d         7721         667-2M16 0.05 Fg/Lt         Calibration         Vial 5         10.0         11.68           0532021a_001d         7.735         667-2M16 0.05 Fg/Lt         Calibration         Vial 3         10.0         71.34           0532021a_001d         7.731         667-2M13 0.50 Fg/Lt         Calibration         Vial 3         10.0         11.00         11.83           0532021a_013d         7.721         687-2M13 0.50 Fg/Lt         Calibration         Vial 3         10.0         10.0         0.1000         11.83           0532021a_013d         7.721         687-2M13 0.50 Fg/Lt         Calibration         Vial 3         10.0         0.1000         0.1000         11.83           0532021a_013d         7.721         687-2M15 0.10 Fg/Lt         Calibration         Vial 3         10.0         0.1000         0.1000         10.00         0.1000         10.00         0.1000         25.43           0532021a_013d         7.721         58861C0.0183         D64-Wt+03         Sample         F1-A1         10.0         0.1000         0.1000         21.45         20.00         25.45           0532021a_013d         7.721         58861C0.0183         D64-Wt+03         Sample         F1-A1         10.0         0.1000         <	15252021a 007.d	7.721	Condition		Sample	P1-A3	10.0				197				
0532021a_009d         7.735         687-2M15 0.10 pg/lt         Calibration         Val 4         10.0         3.313           05325021a_011d         7.721         687-2M13 0.55 pg/lt         Calibration         Val 3         10.0         10.0         10.0           05325021a_011d         7.721         687-2M13 0.55 pg/lt         Calibration         Val 1         10.0         0.1000         10.0         0.1000         138.14           05325021a_013d          28861         DBA-WA+03         Sample         P1-A1         10.0         0.1000         0.1000          202.65           05352021a_013d          28861         DBA-WA+03         Sample         P1-A2         10.0         0.1000         0.1000          20.66           05352021a_013d          28861         DBA-WA+03         Sample         P1-A2         10.0         0.1000         0.1000         20.00         20.66           05352021a_013d         7.721         8861C00183         DBA-WA+03         Sample         P1-A3         10.0         0.100         0.1000         20.00         20.66           05352021a_013d         7.721         28861C00183         DBA-WA+03         Sample         P1-A3         10.0 <td>)5252021a 008.d</td> <td>7.721</td> <td>687-2M16 0.05 pg/µL</td> <td></td> <td>Calibration</td> <td>Vial 5</td> <td>10.0</td> <td></td> <td></td> <td></td> <td>16.82</td> <td></td> <td></td> <td></td> <td></td>	)5252021a 008.d	7.721	687-2M16 0.05 pg/µL		Calibration	Vial 5	10.0				16.82				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	15252021a 009.d	7.735	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				33.13				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	010.412021a 010.4	7.735	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				71.34				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	75252021a 011.d	7.721	687-2M13 0.50 pg/µL		Calibration	Vial 2	10.0				138.24				
05252021a_013.d          28861         DBA-WA+03         Sample         P1-A1         10.0         0.100         0.100            05252021a_016.d          28861         DBA-WA+03         Sample         P1-A1         10.0         0.100         0.100         0.100            05252021a_016.d          2885         DBA-WA+03         Sample         P1-A2         10.0         0.100         0.100         0.100         0.100         0.100            05252021a_018.d         7.721         28861C0.01R3         DBA-WA+03         Sample         P1-A3         10.0         0.100         0.100         2.000         2.552           05252021a_0214.d         7.721         28861C0.01R3         DBA-WA+03         Sample         P1-A3         10.0         0.100         0.100         2.523           05252021a_022.d         7.721         28861C0.01R3         DBA-WA+03         Sample         P1-A3         10.0         0.100         0.100         2.523           05252021a_022.d         7.721         28861C0.01R3         DBA-WA+03         Sample         P1-A3         10.0         0.100         0.100         2.523           05252021a_022.d         7.721	15252021a 012.d	7.721	687-2M12 1.0 pg/µL		Calibration	Vial 1	10.0				302.63				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	15752021a 013.d	1	28861	DBA-WA*403	Sample	P1-A1	10.0	0.100	10.0	0.1000		<0.10	<0.01	1.1	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	D1212020210		28861	DBA-WA*403	Sample	P1-A1	10.0	0.100	10.0	0.1000	l	<0.10	<0.01	<0.01	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	D.1 10 21000000		28654	DBA-WA404	Sample	P1-A2	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	D.CTU_BIZUZUZU		28654	DBA-WA404	Sample	P1-A2	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.01	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	P 210 -1002000	107 1	687-2M15 0.10 po/ul		Calibration	Vial 4	10.0				28.40				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	P 010 -1002220	101.1	28861CD 0183	DBA-WA*403	Sample	P1-A3	10.0	0.100	10.0	0.1000	27.45	0.0962	0.0096		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	P.010_PIZ02520	12/-1	2886100 0103	DBA-WA*403	Sample	P1-A3	10.0	0.100	10.0	0.1000	25.92	0.0911	0.0091	0.00937	94%
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	n.610_b12026260	17/1	2000100100	DBA-WA*403	Sample	P1-A4	10.0	0.100	400.0	0.0025	78.83	0.2678	1.0712		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	052520213_020.0	17/1		DRA-WA*403	Samue	D1-44	10.0	0.100	400.0	0.0025	76.37	0.2596	1.0384	1.05	105%
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05252021a_021.d	7.735	28861C1.0K3			CITA	0.01				79.98				
05252021a_023.d          28863         DBC-WA*403         Sample         P1-A5         10.0         0.100         0.00         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         27.38           05552021a_025.d         7.721         28864         DBD-WA*403         Sample         P1-A6         10.0         0.100         10.0         0.100         27.98           05552021a_025.d         7.721         28864         DBD-WA*403         Sample         P1-A6         10.0         0.100         10.0         0.1000         25.79           05552021a_028.d         7.735         687-2M15 0.10 pg/µL         28856         DBC-WA404         Sample         P1-A7         10.0         0.100         10.0         0.1000         25.92           05552021a_029.d         7.721         28656         DBC-WA404         Sample         P1-A7         10.0         0.100         10.0         0.1000         21.34           05552021a_03.d         7.721         28657         DBC-WA404         Sample         P1-A7         10.0         0.100         10.0	05252021a_022.d	7.721	687-2M14 0.25 pg/pL		Calibration	CIPIA	0.01	0010	0.01	00010		-n 10	<0.01		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	05252021a_023.d		28863	DBC-WA*403	Sample	CA-IY	0.01	00T-0	0.01	0001.0		~010	10.02	<0.01	
05252021a_025.d         7.721         28864         DBD-Wx*403         Sample         P1-A6         10.0         0.100         10.0         0.100         2.000         2.573           05552021a_026.d         7.721         28864         DBD-Wx*403         Sample         P1-A6         10.0         0.100         10.0         0.100         2.573           05552021a_028.d         7.735         687-2M15 0.10 pg/µL         Calibration         Vial 4         10.0         0.100         10.0         0.1000         25.73           05552021a_029.d         7.735         687-2M15 0.10 pg/µL         Calibration         Vial 4         10.0         0.100         10.0         0.1000         25.73           05552021a_029.d         7.721         28656         DBC-WA404         Sample         P1-A7         10.0         0.100         10.0         0.100         31.13           05552021a_030.d         7.721         28657         DBD-WA404         Sample         P1-A7         10.0         0.100         10.0         0.100         31.19           05552021a_031.d         7.721         28657         DBD-WA404         Sample         P1-A7         10.0         0.100         10.0         0.100         31.10           05255021a_031.d	05252021a_024.d	1	28863	DBC-WA*403	Sample	CA-IN	10.0	001.0	0.01	0001.0	00 22	-0 10	10.07		
05252021a_026.d         7.721         28864         DBD-WA*403         Sample         P1-A6         10.0         0.100         10.0         0.1000         25.92           05252021a_027.d         7.735         687-2M15 0.10 pg/µL         Calibration         Vial 4         10.0         0.100         10.0         0.1000         25.92           05252021a_029.d         7.735         687-2M15 0.10 pg/µL         Calibration         Vial 4         10.0         0.100         10.0         0.1000         31.34           05252021a_029.d         7.721         28656         DBC-WA404         Sample         P1-A7         10.0         0.100         10.0         0.1000         31.49           05252021a_030.d         7.721         28657         DBD-WA404         Sample         P1-A7         10.0         0.100         10.0         0.1000         31.49           05252021a_031.d         7.721         28657         DBD-WA404         Sample         P1-A8         10.0         0.100         10.0         0.1000         31.49           05252021a_031.d         7.735         687-2M14 0.25 pg/µL         Zalibration         Vial 3         10.0         0.100         10.0         0.1000         33.41           05252021a_032.d         7.735 <td>05252021a_025.d</td> <td>7.721</td> <td>28864</td> <td>DBD-WA*403</td> <td>Sample</td> <td>P1-A6</td> <td>10.0</td> <td>0.100</td> <td>10.0</td> <td>0001.0</td> <td>06.12</td> <td>01.01</td> <td>10.01</td> <td>10.01</td> <td></td>	05252021a_025.d	7.721	28864	DBD-WA*403	Sample	P1-A6	10.0	0.100	10.0	0001.0	06.12	01.01	10.01	10.01	
05252021a_027.d         7.735         687-2M15 0.10 pg/µL         Calibration         Vial 4         10.0         25.92           05252021a_028.d         7.735         687-2M15 0.10 pg/µL         Calibration         Vial 4         10.0         0.1000         31.34           05252021a_029.d         7.721         28656         DBC-WA404         Sample         P1-A7         10.0         0.1000         10.0         31.34           05252021a_029.d         7.721         28656         DBC-WA404         Sample         P1-A7         10.0         0.1000         31.49           05252021a_030.d         7.721         28657         DBD-WA404         Sample         P1-A8         10.0         0.1000         10.0         0.1000         23.41           05252021a_031.d          28657         DBD-WA404         Sample         P1-A8         10.0         0.1000         10.0         0.1000         23.41           05252021a_031.d          28657         DBD-WA404         Sample         P1-A8         10.0         0.1000         10.0         0.1000         23.41           05252021a_032.d         7.735         687-2M14 0.25 pg/µL         Calibration         Vial 3         10.0         0.1000         10.00         0	05252021a_026.d	7.721	28864	DBD-WA*403	Sample	P1-A6	10.0	0.100	10.0	0.1000	1/.02	NT'N>	10.02	10.02	
05252021a_028.d         7.735         28656         DBC-WA404         Sample         P1-A7         10.0         0.100         10.0         0.1000         31.34           05252021a_029.d         7.721         28656         DBC-WA404         Sample         P1-A7         10.0         0.100         10.0         0.1000         31.34           05252021a_030.d         7.721         28657         DBD-WA404         Sample         P1-A7         10.0         0.1000         10.0         0.1000         31.19           05252021a_030.d         7.721         28657         DBD-WA404         Sample         P1-A8         10.0         0.1000         10.00         23.41           05255021a_031.d          28657         DBD-WA404         Sample         P1-A8         10.0         0.1000         10.00         0.1000         23.41           05255021a_032.d         7.735         687-2M14 0.25 pg/µL         Zalibration         Vial 3         10.0         0.1000         10.00         0.1000         23.41           05255021a_032.d         7.735         687-2M14 0.25 pg/µL         Calibration         Vial 3         10.0         0.1000         10.00         0.1000         23.42           0525021a_032.d         7.035 gg/µL	05252021a 027.d	7.735	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0			10 10 10 10 10 10 10 10 10 10 10 10 10 1	25.92				
05252021a_029.d     7.721     28656     DBC-WA404     Sample     P1-A7     10.0     0.100     10.0     0.1000     31.19       05252021a_030.d     7.721     28657     DBD-WA404     Sample     P1-A8     10.0     0.100     10.0     0.1000     23.41       05252021a_031.d      28657     DBD-WA404     Sample     P1-A8     10.0     0.100     10.0     0.1000     23.41       05252021a_031.d      28657     DBD-WA404     Sample     P1-A8     10.0     0.100     10.00     0.1000     23.41       05255021a_032.d     7.735     687-2M14 0.25 pg/µL     28657     DBD-WA404     Calibration     Vial 3     10.0     0.100     10.00     69.82       Calculated LOD at 0.095 pg/µL =     12     29     23     24     29     24     24	05252021a 028.d	7.735	28656	DBC-WA404	Sample	P1-A7	10.0	0.100	10.0	0.1000	31.34	0.1092	6010.0		
05252021a         0.100         1.721         28657         DBD-WA404         Sample         P1-A8         10.0         0.100         10.0         0.1000         23.41           05252021a         031.d          28657         DBD-WA404         Sample         P1-A8         10.0         0.100         0.1000         23.41           05252021a         031.d          28657         DBD-WA404         Sample         P1-A8         10.0         0.100         0.1000            05252021a         031.d          28657         DBD-WA404         Sample         P1-A8         10.0         0.1000         0.1000            05252021a         032.d         7.735         687-2M14 0.25 pg/µL         Calibration         Vial 3         10.0         0.100         0.1000         69.82           Calculated LOD at 0.0 pg/µL =         12         29         29         29         29         20         20         20         20         20         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50         50 </td <td>05752021a 029.d</td> <td>7.721</td> <td>28656</td> <td>DBC-WA404</td> <td>Sample</td> <td>P1-A7</td> <td>10.0</td> <td>0.100</td> <td>10.0</td> <td>0.1000</td> <td>31.19</td> <td>0.1087</td> <td>6010'0</td> <td>110.0</td> <td></td>	05752021a 029.d	7.721	28656	DBC-WA404	Sample	P1-A7	10.0	0.100	10.0	0.1000	31.19	0.1087	6010'0	110.0	
05252021a_031.d	05752021a 030 d	1.77.7	28657	DBD-WA404	Sample	P1-A8	10.0	0.100	10.0	0.1000	23.41	<0.10	<0.01	10.00	
002220213_022.d 7.735 687-2M14 0.25 pg/µL Calibration Vial 3 10.0 69.82 calculated LOD at 0.045 pg/µL = 12 calculated LOQ at 0.10 pg/µL = 29	05252021a 031.d		28657	DBD-WA404	Sample	P1-A8	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01	
Calculated LOD at 0.045 pg/µL = 12 Calculated LOD at 0.10 pg/µL = 29	05252021a 032.d	7.735	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				69.82				
Calculated LOQ at 0.10 pg/µL = 29	Calculated LOD at 0.045 p	= Jul/gc	12												
	Calculated LOO at 0.10 pc	a/nr =	29												
the second se		t core mole	hinchald												

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IR-4 Western Region Laboratory, University of California, Davis



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**Target Compound** Flonicamid

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Compound Injection Date TFNA-AM 5/25/2021 08550 - Flonicamid/Onion - Field Samples WA\*403, WA404 - Extracted 5/25/2021 by ASM

Date (if a constrained of a constr			and the local of t		Sample		Inj Vol					Conc		and the second se	
GSZ0213_011         538         Contine         Sample         F1-A3         100           GSZ0213_0044         5.11         Contine         Sample         F1-A3         100           GSZ0213_0044         5.11         Contine         Sample         F1-A3         100           GSZ0213_0045         5.11         Contine         Sample         F1-A3         100           GSZ0213_0046         5.21         Contine         Sample         F1-A3         100           GSZ0213_0046         5.21         Contine         Sample         F1-A3         100           GSZ0213_0046         5.21         Contine         Sample         F1-A3         100           GSZ0213_0145         5.21         Contine         Sample         F1-A3         100           GSZ0213_0145         5.21         GOMUN         Sample         F1-A3         100           GSZ0213_0145         5.21         GOMUN         Sample         F1-A1         100         107.83           GSZ0213_0145         5.21         GOMUN         Sample         F1-A1         100         100         101           GSZ013_0145         5.21         GOMUN         Sample         F1-A1         100         101 <t< th=""><th>Data File</th><th>RT</th><th>SampleName</th><th>Sample Info</th><th>Type \</th><th><b>fial Pos</b></th><th>(hr)</th><th>6</th><th>IL Vol</th><th>ing Inj</th><th>Resp</th><th>(ht/bd)</th><th>bpm A</th><th>uidd an</th><th>NO NOC</th></t<>	Data File	RT	SampleName	Sample Info	Type \	<b>fial Pos</b>	(hr)	6	IL Vol	ing Inj	Resp	(ht/bd)	bpm A	uidd an	NO NOC
GSSRB12,013         511         Contion         Sample         P,143         100           GSSRD12,0054         5311         Contion         Sample         P,143         100           GSSRD12,0054         5311         Contion         Sample         P,143         100           GSSRD12,0064         5311         Contion         Sample         P,143         100           GSSRD12,0064         5311         Gervine         Sample         P,143         100           GSSRD12,0064         5311         Gervine         Sample         P,143         100           GSSRD12,0064         5311         Gervine         Sample         P,143         100         11738           GSSRD12,0104         5311         G87-2M15.50.0pll         Contion         M12         100         100         11138           GSSRD12,0124         5311         G87-2M15.50.0pll         Contion         M12         100         100         100         100         100           GSSRD12,0124         5311         G87-2M16.55.pll         Contion         M12         100         100         111         100         100         100         100         100         100         100         100         100 <td< td=""><td>001.d</td><td>5.352</td><td>Condition</td><td></td><td>Sample</td><td>P1-A3</td><td>10.0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	001.d	5.352	Condition		Sample	P1-A3	10.0								
632302.001         5311         Condin         Sample         P-1A         100           632302.003.006         5314         Condin         Sample         P-1A         100           632302.003.006         5314         Condin         Sample         P-1A         100           632302.003.006         5314         Condin         Sample         P-1A         100           632302.004         5314         Ge7/MIG         Sample         P-1A         100           632302.004         5314         Ge7/MIG         Sample         P-1A         100           632302.0011         5314         Ge7/MIG         Sample         P-1A         100         2555           632302.011         5311         Ge7/MIG         Sample         P-1A         100         100         100         100           632302.01         531         Ge7/MIG         Sample         P-1A         100         <	05252021a 002 d	5.311	Condition		Sample	P1-A3	10.0								
CS22012.006         S11         Condino         Smalle         F1-3         100           CS22012.0064         S31         G87-2M16.05 gpld         F1-3         100           CS22012.0014         S31         G87-2M16.05 gpld         Calmenton         Wall         100           CS22012.0114         S11         G87-2M16.05 gpld         Calmenton         Wall         100         S555           CS22012.0114         S11         G87-2M16.05 gpld         Calmenton         Wall         100         S555           CS22012.0114         S11         G87-7M16.01 gpld         Calmenton         Wall         100         S555           CS22012.0114         S11         G87-7M16.01 gpld         Smalle         F1-41         10.0         D100         D10         <	012020202020000 d	5 311	Condition		Sample	P1-A3	10.0								
CSS20314.0064         S311         Contion         Sample         F1-A3         100           CSS20314.0014         S314         Contion         Sample         F1-A3         100           CSS20314.0014         S314         Contion         Sample         F1-A3         100           CSS20314.0014         S314         GR7-MI16.05 gold.         Calmenton         Val3         100           CSS20314.0014         S311         GR7-MI16.05 gold.         Calmenton         Val3         100           CSS20314.0014         S311         GR7-MI16.05 gold.         Calmenton         Val3         100         2555           CSS20314.0114         S111         GR7-MI16.05 gold.         Calmenton         Val3         100         1010         1010         0011         001	P.000 =12020200	E 211	Condition		Sample	P1-A3	10.0								
Customent         Sample         F1-A3         100         65.13         Current         65.13           C532013_0004         5.33         667-MHG 056 yill         Calibration         Val 3         100         65.13         Condition         55.34         Condition         55.34         Condition         55.31         667-MHG 056 yill         Calibration         Val 3         100         25.55         657-MHG 056 yill         Condition         235.65         660.17         235.65         660.17         235.65         600.17         235.65         600.17         200.12         600.17         200.12	P'LOO PIZOZCZCO	110.0	Condition		Sample	P1-A3	10.0								
CSZ2021a         Old         S334         Genzine         S14         Condition         S13	D.CUU_B12026260	TTC'C	Condition		Sample	P1-A3	10.0								
C0252021a         C001         S311         C002001         C0010         S311         C002001         C0010         S311         C002001         C0010         S311         C002001         C0010         C0010 <thc0010< th=""> <thc00< td=""><td>05252021a_006.d</td><td>5.324</td><td></td><td></td><td>olame</td><td>D1-A2</td><td>10.0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></thc00<></thc0010<>	05252021a_006.d	5.324			olame	D1-A2	10.0								
Constration         637-344         667-7-MIG 505-90/L         Collipation         Val         100         2005         107-36         505-50           05522011a         5311         667-2M14 0.056 90/L         Collibration         Val         100         505-50         667-2M12 0.059 90/L         600.1	05252021a_007.d	5.311	Condition		alunbe	CK-TL	0.01				65.19				
G323071a         G374         G872M15 0.0 pdl         5.34         G872M15 0.0 pdl         311         G00.17         3555           G3220071a         5.311         667-2M13 0.05 pglL         Callbration         Mai         100         3555         600.17         3555           G3252071a         5.311         667-2M13 0.05 pglL         Callbration         Mai         100         2550         600.17         600.17         600.17           G3252071a         5.311         667-2M13 0.05 pglL         2861         D84-WA403         Sample         P1-41         100         0.100         0.100         0.010         600.17           G3252071a         5.311         667-2M13 0.10 pglL         Sample         P1-41         100         0.100         0.100         0.010         0.01         600.17         600.17           G325071a         5.311         567-M14 0.3 Sample         P1-43         100         0.100         0.100         0.010         0.01	05252021a_008.d	5.324	687-2M16 0.05 pg/µL		Calibration	c IBIV	10.01				107 88				
05323021a         010         60.17         60.17           05323021a         5311         687-2M13 10.590µL         5011         60.17         60.17           05323021a         5311         687-2M13 10.500µL         5881         D8A-WA+03         58m1         P1-41         100         1203.58           05323021a         0136         531         687-2M13 10.50µL         D8A-WA+03         58m16         P1-41         100         0.100         0.100         0.010	05252021a_009.d	5.324	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				201 6E				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05252021a 010.d	5.311	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				C0.007				
OSS2001a         5.397         667-2M12.10.pg/L         Collection         Val         1.00         1.00         1.00         1.00         0.00 <th< td=""><td>05252021a 011.d</td><td>5.311</td><td>687-2M13 0.50 pg/µL</td><td></td><td>Calibration</td><td>Vial 2</td><td>10.0</td><td></td><td></td><td></td><td>/T-009</td><td></td><td></td><td></td><td></td></th<>	05252021a 011.d	5.311	687-2M13 0.50 pg/µL		Calibration	Vial 2	10.0				/T-009				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05757011 017 d	797 2	687-2M12 1.0 pg/µL		Calibration	Vial 1	10.0				1203.58				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0.210 ELCOCACAC		28861	DBA-WA*403	Sample	P1-A1	10.0	0.100	10.0	0.1000	l	<0.10	10.0>		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	P FFO = FCOCJCJO		78861	DBA-WA*403	Sample	P1-A1	10.0	0.100	10.0	0.1000	l	<0.10	<0.01	T0.U>	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	n'+10_612026260		1966	DBA-WA404	Sample	P1-A2	10.0	0.100	10.0	0.1000		<0.10	<0.01		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05252021a_015.d	l	F002	DRA-WA404	Sample	P1-A7	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01	
0552001a_017d         5.334         687-3015 0.0091         0444-03         Sample         1-4.3         1.00         0.100         106.47         0.0915         0.0091         9.092         0.00915         9.0091         9.095         9.0951         0.00915         0.0010         0.01	05252021a_016.d	I	+c007		-tit-tit-	V I-IN	10.01				116.19				
65252021a_018.d         5.311         288610.0183         DBA.WA*403         Sample Sample 5.324         F1-A3         10.0         0.100         10.0         0.100         10.0         0.0001         65.74         0.0917         0.0092         0.0917         0.0092         0.0917         0.0091         0.0917         0.0091         0.0917         0.0091         0.0917         0.0091         0.0917         0.0091         0.0917         0.0091         0.0917         0.0091         0.0917         0.0091         0.0917         0.0091         0.0917         0.0091         0.0917         0.0091         0.0917         0.0091         0.0917         0.0091         0.0917         0.0091         0.0917         0.0091         0.0917         0.0091         0.0091         0.0091         0.0091         0.0091         0.0917         0.0091         0.0917         0.0091         0.0091         0.0091         0.0091         0.0091         0.0091         0.0109         0.0091         0.0091         0.0091         0.0091         0.0091         0.0091         0.0091         0.0091         0.0091         0.0091         0.0091         0.0091         0.0091         0.0091         0.0091         0.0091         0.0091         0.0091         0.0091         0.0010         0.0010	05252021a_017.d	5.324	687-2M15 0.10 pg/µL		Calibration	Vidi 4	0.01	001 0	0.01	01001	106.47	0.0915	0.0091		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05252021a 018.d	5.311	28861C0.01R3	DBA-WA*403	Sample	FI-I4	10.0	007.0	10.U	0001.0	AF 201	F100 0	0 000	0 00916	92%
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05757071a 019 d	5.311	28861C0.01R3	DBA-WA*403	Sample	P1-A3	10.0	0.100	10.0	0001.0	1/10/14	ATED'D	20000	0.10000	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		5 374	28861C1.0R3	<b>DBA-WA*403</b>	Sample	P1-A4	10.0	0.100	400.0	0.0025	314.76	0.2639	1.025		.010.
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	P-100 -12002220	VCC 1	2861C1 0R3	DBA-WA*403	Sample	P1-A4	10.0	0.100	400.0	0.0025	309.67	0.2597	1.0387	1.05	0% CDT
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0.120_612026260	120.0			Calibration	Vial 3	10.0				298.80				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05252021a_022.d	5.311	11/6d 67:0 +TWZ-/89	DBC-M/A*403	Camelo	D1-45	10.01	0.100	10.0	0.1000	-	<0.10	<0.01		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05252021a_023.d	-	78863	201 AV 202	Jampa	DI AC	0.01	0 100	10.01	0.1000	-	<0.10	<0.01	<0.01	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05252021a_024.d		28863	DBC-WA 403	alquinc	CATT	0.01	0 100	10.0	0.1000	1	<0.10	<0.01		
05252021a_026.d        28864       DBD-WAT-4U3       Sample       P1-A6       DL0       0.00       112.62         05552021a_027.d       5.324       687-2M15 0.10 pg/uL       Callbration       Vial       10.0       0.100        <0.10	05252021a_025.d		28864	DBU-WA*403	sample	DA-17	0.01	00100	10.01	0 1000		<0.10	<0.01	<0.01	
05252021a_027.d       5.324       687-2M15 0.10 pg/µL       Calibration       Val 4       10.0         05252021a_028.d        28656       DBC-WA404       Sample       P1-A7       10.0       0.1000        <0.01	05252021a_026.d		28864	DBD-WA*403	sample	OF-IN	10.01	not'n	10.01		112 62				
05252021a_028.d        28656       DBC-WA404       Sample       P1-A7       10.0       0.100       0.00        0.01       <0.01	05252021a_027.d	5.324	687-2M15 0.10 pg/µL		Calibration	Vial 4	TUL	1.144		0001 0		~0 1U	<0.01		
05552021a_029.d 28656 DBC-WA404 Sample P1-A7 10.0 0.100 0.100 0.1000 0.10 0.01 05552021a_030.d 28657 DBD-WA404 Sample P1-A8 10.0 0.100 10.0 0.1000 0.10 <0.01 05552021a_031.d 28657 DBD-WA404 Sample P1-A8 10.0 0.100 10.0 0.1000 0.10 <0.01 05552021a_031.d 28557 DBD-WA404 Sample P1-A8 10.0 0.100 10.0 0.1000 0.10 <0.01 05552021a_031.d 28557 DBD-WA404 Sample P1-A8 10.0 0.100 10.0 0.1000 0.10 <0.01 05552021a_031.d 28557 DBD-WA404 Sample P1-A8 10.0 0.100 10.0 0.1000 0.10 <0.01 05552021a_031.d 28557 DBD-WA404 Sample P1-A8 10.0 0.100 10.0 0.1000 0.10 <0.01 05552021a_031.d 28557 DBD-WA404 Sample P1-A8 10.0 0.100 10.0 0.1000 0.10 <0.01 05552021a_031.d 28557 DBD-WA404 Sample P1-A8 10.0 0.100 10.0 0.1000 0.10 <0.01 05552021a_031.d 28557 DBD-WA404 Sample P1-A8 10.0 0.100 10.0 0.1000 0.10 <0.01 05552021a_031.d 28557 DBD-WA404 Sample P1-A8 10.0 0.100 10.0 0.1000 0.10 <0.01 051000 0.10 0.1000 0.10 0.1000 0.10 <0.001 <0.01 01.1000 0.10 0.1000 0.10 <0.01 01.1000 0.10 0.1000 0.10 <0.01 01.1000 0.10 0.1000 0.10 <0.01 01.1000 0.10 0.01 01.1000 0.10 0.0100 0.10 <0.01 01.1000 0.10 0.0100 0.10 <0.01 01.1000 0.10 0.0100 0.10 <0.01 01.1000 0.100 0.01 01.1000 0.100 0.010 <0.0100 0.10 <0.0100 0.010 <0.0100 0.10 01.1000 0.1000 0.0100 0.010 <0.0100 0.1000 0.010 <0.0100 0.010 <0.0100 0.010 <0.0100 0.010 <0.0100 0.010 <0.0100 0.010 <0.0100 0.010 <0.0100 0.010 <0.0100 0.010 <0.0100 0.010 <0.0100 0.010 <0.0100 0.010 <0.0100 0.010 <0.0100 0.010 <0.0100	05252021a 028.d	1	28656	DBC-WA404	Sample	P1-A7	10.0	0.100	10.0	0001 0		0107	10.07	<0.01	
05252021a_030.d 28657 DBD-WA404 Sample P1-A8 10.0 0.100 10.0 0.1000 <0.10 <0.01 05552021a_030.d 28657 DBD-WA404 Sample P1-A8 10.0 0.100 10.0 0.1000 <0.10 <0.01 05552021a_032.d 5.311 687-2M14.0.25 pg/µL Calibration Vial 3 10.0 0.100 10.0 0.1000 <0.10 <0.01 <0.01 Calculated LOD at 0.045 pg/µL = 117 Calculated LOD at 0.10 pg/µL = 117	05752021a 020 d		28656	DBC-WA404	Sample	P1-A7	10.0	0.100	10.0	0.1000		01.02	10.0	-	
05252021a_001.0 0.1000 28657 DBD-WA404 Sample P1-A8 10.0 0.100 10.0 0.1000 <0.10 <0.01 <0.01 0.0555021a_031.d 5.311 687-2M14.0.25 pg/µL Calibration Vial 3 10.0 0.100 10.0 314.58 Calculated LOD at 0.045 pg/µL = 50 Calculated LOD at 0.045 pg/µL = 117 Calculated LOD at 0.045 pg/µL = 117 calculated LOD at 0.045 pg/µL = 117	020 e1002200	]	28657	DBD-WA404	Sample	P1-A8	10.0	0.100	10.0	0.1000		<0.10	10.0>	10.01	
05252021a_032.d 5.311 687-2M14 0.25 pg/µL Calibration Vial 3 10.0 314.58 05252021a_032.d 5.311 687-2M14 0.25 pg/µL = 50 Calculated LOD at 0.045 pg/µL = 117 Calculated LOD at 0.10 pg/µL = 117	P 100 - 1001010		28657	DBD-WA404	Sample	P1-A8	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	IN'N>	
0.2220212_02.42 Calculated LOD at 0.045 pg/µL = 50 Calculated LOD at 0.10 pg/µL = 117 = datated LOD at 0.10 pg/µL = 117	0.150_BI2026260	5 311	687-2M14 0.25 pg/uL		Calibration	Vial 3	10.0				314.58				
Calculated LOD at 0.045 pg/µL = 50 Calculated LOQ at 0.10 pg/µL = 117 " " decenter events on below area threehold	n.200 BT 2020200														
Calculated LOQ at 0.10 pg/µL = 117	Calculated LOD at 0.	045 pg/pL =	nc												
II I decenter connerce heliuw area threshold	Calculated LOQ at 0.	10 pg/µL =	117												
	" " denotes respon	see helow area	a threshold												

Calibration

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Printed at: 9:02 AM on: 5/26/2021



IR-4 Western Region Laboratory, University of California, Davis

les WA\*403, WA404 - Extracted 5/25/2021 by ASM Compound Injection Date TFNA 5/25/2021 08550 - Flonicamid/Onion - Field 5

Data rise         Rt         Sampelane         Sampelane         Fray value         Pray allow         Pray value         Pray allow           55320312.0014         5.00         Contine         Sampelane         Fra3         100           55320312.0014         5.93         Contine         Sampelane         Fra3         100           5520312.0014         5.99         667-3015.015         Sampelane         Fra3         100           5520312.0014         5.99         667-3015.015         Sampelane         Val         100         1100         1135.63           5520312.0114         5.99         667-3017.010         Sampelane         Val         100         1100         1100         1101         1135.63           5520312.0114         5.99         667-3015.01         Sampelane         Val         100         1100         1100         1100         1100         1100         1101         1001         1001 </th <th></th> <th></th> <th></th> <th></th> <th>and man</th> <th></th> <th>In A fut</th> <th></th> <th></th> <th>int fai</th> <th>Docu</th> <th>(Indian)</th> <th>A maa</th> <th>ve pom</th> <th>% Rec</th>					and man		In A fut			int fai	Docu	(Indian)	A maa	ve pom	% Rec
GENERATE OLD         CONDIM         Sample         P1-3         10.0           GENERALIA DISL         58.0         GENTANILO         Sample         P1-3         10.0           GENERALIA         58.0         GENTANILO         Sample         P1-3         10.0         24.8           GENERALIA         Sample         P1-3         10.0         10.0         10.0         10.0           GENERALIA         Wall         10.0         10.0         10.0         10.0         10.0           GENERALIA         Wall         10.0         10.0         10.0         10.0         10.0         10.0         10.0           GENERALIA         Wall         10.0         10.0         10.0         10.0         10.0         10.0         10.0           GENERALIA         Wall         Sample	Data File	RT	SampleName	Sample Info	Type \	/ial Pos	(hr)	5	INT VOI	fur fuu	deav				
SESS013.001         Se0         P1-3         100           SESS013.001         S80         P1-3         100           SESS013.001         S80         P1-3         100           SESS013.001         S80         P1-3         100           SESS013.001         S80         B67-M15 0.0 M1         Sample         P1-3         100           SESS013.001         S80         B67-M15 0.0 M1         Sample         P1-3         100           SESS013.004         S80         B67-M15 0.0 M1         Sample         P1-3         100           SESS013.004         S80         B67-M15 0.0 M1         Sample         P1-3         100           SESS013.004         S80         B67-M15 0.0 M1         Na1         100         100           SESS013.014         S80         B67-M15 0.0 M1         Na1         100         100           SESS013.014         M1         100         N11         100         100         100         100           SESS013.014         M1         N11         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100	C 100 4100572	6.010	Condition		Sample	P1-A3	10.0								
STATIAL JOLD         SSS         Condition         SMM         P1-33         10.0           STATIAL JOLD         S83         Condition         SMM         P1-33         10.0           STATIAL JOLD         S83         Condition         SMM         P1-33         10.0           STATIAL JOLD         S683         Condition         SMM         P1-33         10.0           STATIAL JOLD         S683         Condition         SMM         P1-33         10.0           STATIAL JOLD         S680         687-7415 L05 pplu         Condition         SMM         P1-33         10.0           STATIAL JOLD         S990         687-7415 L05 pplu         Condition         SMM         P1-33         10.0         235.3           STATIAL JOLD         S990         687-7411 L0 S0 pplu         Condition         VAL         24.48           STATIAL JOLD         S990         687-7411 L0 S0 pplu         Condition         VAL         235.3           STATIAL JOLD         S990         687-7411 L0 S0 pplu         Condition         VAL         235.8           STATIAL JOLD         S990         687-7411 L0 S0 pplu         Condition         VAL         24.8           STATIAL JOLD         S990         Condition		5 983	Condition		Sample	P1-A3	10.0								
STATIAL JOUL         Sample         F1-33         100           STATIAL JOUL         593         Condino         Sample         F1-33         100           STATIAL JOUL         593         Condino         Sample         F1-33         100           STATIAL JOUL         593         Gondino         Sample         F1-33         100           STATIAL JOUL         596         G87-7HIG LOF         Sample         F1-34         100           STATIAL JOUL         596         G87-7HIG LOF         Sample         F1-34         100           STATIAL JOUL         596         G87-7HIG LOF         Sample         F1-34         100           STATIAL JOUL         596         G87-7HIG LOF         Value 2         100         24.89           STATIAL JOPGIL         Value 2         Sample         F1-41         100         100         100         100           STATIAL JOPGIL         Sample         F1-41         100         100         100         100         100         100           STATIAL JOPGIL         Sample         F1-41         100         100         100         100         100         100           STATIAL JOPGIL         Sample         F1-41         100	P 200 - FC0222	E 002	Condition		Sample	P1-A3	10.0								
SISTICAL DIAL         State         F1-3         100           SISTICAL DIAL         Sea         Condition         Sample         F1-3         100           SISTICAL DIAL         Sea         Condition         Sample         F1-3         100           SISTICAL DIAL         Sea         Servite         F1-3         100         54.9           SISTICAL DIAL         Sea         Servite         F1-3         100         53.5           SISTICAL DIAL         Sea         Servite         F1-3         100         53.5           SISTICAL DIAL         Sea         Servite         F1-3         100         51.6           SISTICAL DIAL         Sea         Servite         F1-4         100         0.100         21.3           SISTICAL DIAL         Sea         Servite         F1-4         100         0.100         21.3         0.01         0.01           SISTICAL DIAL         Condition         Servite         F1-4         100         0.100         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01         0.01 <t< td=""><td>D.CUU_BI_2026261</td><td>000.0</td><td></td><td></td><td>Samula</td><td>P1-A3</td><td>10.0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	D.CUU_BI_2026261	000.0			Samula	P1-A3	10.0								
SISTICIAL LOGIC         Sample         F-74         Local           SISTICIAL LOGIC         593         Condition         Sample         F-74         100           SISTICIAL LOGIC         593         Condition         Sample         F-74         100           SISTICIAL LOGIC         596         687-2M15 LID Figli         Condition         Sample         F-74         100           SISTICIAL LOGIC         596         687-2M15 LID Figli         Condition         Sample         F-74         100           SISTICIAL LOGIC         596         687-2M15 LID Figli         Condition         Sample         F-74         100         1153           SISTICIAL LOGIC         596         687-2M15 LID Figli         Condition         Sample         F-74         100         <	15252021a_004.d	5.983	CONTINUE		Semale	CV 10	10.01								
SYS2012_006         598         Condino         Sample         7-33         100           SYS2012_007         5.99         687-2416.05 ggld         Condino         581         Condino         583         Condino         583         Condino         583         Condino         583         587-2414.0.5 ggld         586         687-2414.0.5 ggld         Calibration         Val         100         115.55         231.30         533.3         Condino         586.8         Condino         586.8         Calibration         Val         100         243.8         533.3         Colibration         Val         2010         231.30         Colibration         243.8         Colibration         243.8         Colibration         Val         2010         2010         Colibration         231.30         Colibration         231.30         Colibration         Val         2010         Colibration         243.8         Colibration         Val         Colibration         Colib	5252021a_005.d	5.983	Condition		Sample	CH-IT	0.01								
S352011_001         599         677-010         Sample         7-43         100         2489           S352011_001         599         677-7015 0.05 pjul         Calibration         Via 1         100         215.53           S352011_0104         599         677-7015 0.05 pjul         Calibration         Via 1         100         215.53           S352011_0104         599         677-7013 0.05 pjul         Calibration         Via 1         100         215.53           S352011_0104         599         677-7013 0.05 pjul         Calibration         Via 1         100         213.53           S352011_0104         599         677-7013 0.05 pjul         Distribution         Via 1         100         1100         1100         1100         100<	15252021a_006.d	5.983	Condition		Sample	PI-A3	10.01								
5352013.0004         596         67.2M15.0050/L         Calibration         Val         7.00         66.0           5352013.0004         5969         67.2M15.0050/L         Calibration         Val         100         531.00         553.3           5352013.0014         5556         67.2M13.0570/L         Calibration         Val         100         231.30         501.0         5	15252021a 007.d	5.983	Condition		Sample	P1-A3	10.0				00 46				
Sizzolation         Sign         Sizzolation         Valid         100         Form         Form           Sizzolation         Sign         667-2M15.010 pglut         Calibration         Valid         100         251.30         251.30           Sizzolation         Sign         667-2M15.05 pglut         Calibration         Valid         100         251.30         20100         2010         2010         2010         2010         2010         2011	15252021a 008.d	5.969	687-2M16 0.05 pg/µL		Calibration	Vial 5	10.0				40.42				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	15252021a 009.d	5.969	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				40.00				
$5525013_{10}$ 011d $5.96$ $687-2M13.05$ 0plu         Calibration         Val $100$ $51.33$ $55250213_{10}$ 011d $5.92$ $687-2M13.05$ 0plu $58Mp6$ $74.41$ $100$ $51.33$ $61.0$ $60.01$	15252021a 010.d	5.969	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				135.00				
5552011a         012 $2000$ 667-2M1210 pg(L         Calibration         Via1         100 $2000$ $-0.10$ $-0.01$ <	15252021a 011.d	5.956	687-2M13 0.50 pg/µL		Calibration	Vial 2	10.0				05.162				
555201a         013	05252021a 012.d	5.942	687-2M12 1.0 pg/µL		Calibration	Vial 1	10.0				56.826		10.01		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	15252021a 013.d	1	28861	DBA-WA*403	Sample	P1-A1	10.0	0.100	10.0	0.001		01.02	10.07	1004	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	15752021a 014 d		28861	DBA-WA*403	Sample	P1-A1	10.0	0.100	10.0	0.1000		01.0>	10.02	10:04	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	P I TO FILOCICIO		28654	DBA-WA404	Sample	P1-A2	10.0	0.100	10.0	0.1000	-	<0.10	In'n>		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	D.CIU_BI2026260		28654	DBA-WA404	Sample	P1-A2	10.0	0.100	10.0	0.1000		<0.10	<0.01	10.0>	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	D-010_B12026260	E DED	687-7M15 0 10 no/ul		Calibration	Vial 4	10.0				56.66				
0525021a_018d         5.943         Constructions (0.252021a_019,d)         5.943         Constructions (0.252021a_020,d)         Constructions (0.2100,d)         Constructions (0.210,d)         Constructions (0.210,d)         Constructions (0.210,d)         Constructions (0.210,d)         Constructions (0.210,d)         Constructions (0.210,d) <th< td=""><td>05252021a_01/.d</td><td>606.0</td><td></td><td>DRA-WA*403</td><td>Samula</td><td>P1-A3</td><td>10.0</td><td>0.100</td><td>10.0</td><td>0.1000</td><td>44.93</td><td>0.0852</td><td>0.0085</td><td></td><td></td></th<>	05252021a_01/.d	606.0		DRA-WA*403	Samula	P1-A3	10.0	0.100	10.0	0.1000	44.93	0.0852	0.0085		
0525021a_019.d       5.997       28861C00R3       DBA-WA*403       Sample       P1-A4       10.0       0.100       400.0       0.025       134.77       0.2565       10.248       10.3         05252021a_0201d       5.969       58861C1.0R3       DBA-WA*403       Sample       P1-A4       10.0       0.100       400.0       0.0255       133.17       0.2555       1.0248       1.03         05252021a_021d       5.969       687-2M14 0.579yL       DBC-WA*403       Sample       P1-A5       10.0       0.100       0.0100        -0.10       <0.01	05252021a_018.d	5.983	28801CU.UIK3		Cample	D1-43	10.01	0.100	10.0	0.1000	45.74	0.0867	0.0087	0.00860	869
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	052552021a_019.d	2.997	28861CU.UIKS		olamed	D1-A4	10.01	0 100	400.0	0.0025	136.01	0.2586	1.0342		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05252021a_020.d	5.983	28861C1.0K3	COT AW-MOU	aldillac		0.01	0 100	400.0	0.0025	134.77	0.2562	1.0248	1.03	103
O5252021a_022.d         5.969 $687-2M14 0.25 \text{ gylt}{1.25 \text{ gylt}}$ Calibration         Val 3         Lot 0         0.100         0.100          <0.10         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01	05252021a_021.d	5.969	28861C1.0R3	CUP-WA-ABU	Sample	the-IT	0.01	001.0	2.001		133.17				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05252021a_022.d	5.969	687-2M14 0.25 pg/µL		Calibration	C IDIA	0.01	0010	10.01	0 1000		<0.10	<0.01		
05252021a_024.d        2883       DBC-WA*403       Sample       P1-A5       10.0       0.100       0.000        <0.10	05252021a_023.d		28863	DBC-WA 403	Sample	CY-14	0.01	0010	10.0	01001 0	1	<0.10	<0.01	<0.01	
05252021a_025.d        28864       DBD-WA*403       Sample       P1-46       10.0       0.100       10.0       0.100       0.010 <td>05252021a_024.d</td> <td>I</td> <td>28863</td> <td>DBC-WA*403</td> <td>Sample</td> <td>CA-14</td> <td>0.01</td> <td>not o</td> <td>0.01</td> <td>0001.0</td> <td> </td> <td>&lt;0.10</td> <td>&lt;0.01</td> <td></td> <td></td>	05252021a_024.d	I	28863	DBC-WA*403	Sample	CA-14	0.01	not o	0.01	0001.0		<0.10	<0.01		
05252021a_026.d      2864     DBD-WA*403     Sample     P1-A6     10.0     0.0.0     0.0.0     52.30       05252021a_027.d     5.969     687-2M15 0.10 pg/µL     Calibration     Vial 4     10.0     0.0.100     43.01     <0.010	05252021a_025.d	1	28864	DBD-WA*403	Sample	9Y-14	0.01	001.0	0.01	01000		<0.10	<0.01	<0.01	
05252021a_027.d       5.969       687-2M15 0.10 pg/µL       Calibration       Vial 4       10.0         05252021a_028.d       5.997       28656       DBC-WA404       Sample       P1-A7       10.0       0.100       43.01       <0.01	05252021a_026.d		28864	DBD-WA*403	Sample	PI-A6	0.01	DOT D	D'OT	0001-0	57 30				
05252021a_028.d       5.997       28656       DBC-WA404       Sample       P1-A7       10.0       0.100       10.0       0.100       41.05       <0.01	05252021a_027.d	5.969	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0		0.07	0001.0	43.01	<0.10	<0.01		
05252021a_029.d 5.997 28656 DBC-WA404 Sample P1-A7 10.0 0.100 10.0 0.100 41.91 0.010 0.010 0.000 41.91 0.01 0.01 0.01 0.01 0.01 0.01 0.01	05252021a_028.d	5.997	28656	DBC-WA404	Sample	PI-A7	10.0	0.100	0.01	0001-0	10.01	0102	<0.01	<0.01	
05252021a_030.d 5.997 28657 DBD-WA404 Sample P1-A8 10.0 0.100 10.0 0.100 71.07 0.01 <0.01 0.01 05252021a_031.d 5.983 28657 DBD-WA404 Sample P1-A8 10.0 0.100 10.0 0.1000 41.91 <0.10 <0.01 <0.01 <0.01 0.01 05252021a_032.d 5.969 687-2M14 0.25 pg/µL Callbration Vial 3 10.0 0.100 10.0 138.22 Calculated LOD at 0.045 pg/µL 24 24 24 24 24 24 24 24 24 24 24 24 24	05252021a 029.d	5.997	28656	DBC-WA404	Sample	P1-A7	10.0	0.100	0.0I	0001.0	PO IV	01.02	<0.01		
05252021a_031.d 5.983 28657 DBD-WA404 Sample P1-A8 10.0 0.100 10.0 0.1000 41.91 0.00 0.00 0.00 0.000 0.000 0.00 05252021a_032.d 5.969 687-2M14.0.25 pg/µL Calibration Vial 3 10.0 Calculated LOD at 0.45 pg/µL 24 Calculated LOD at 0.045 pg/µL 24	05252021a 030.d	5.997	28657	DBD-WA404	Sample	P1-A8	10.0	0.100	10.0	0001-0	TO TE	0102	10.07	<0.01	
05552021a_032.d 5,969 687-2M14.0.25 pg/µL Calibration Vial 3 10.0 L38.22 Calculated LOD at 0.045 pg/µL = 24	05252021a 031.d	5,983	28657	DBD-WA404	Sample	P1-A8	10.0	0.100	10.0	00010	12.14	01.02	10.04		
Calculated LOD at 0.045 pg/µL = 24	05252021a_032.d	5.969	687-2M14 0.25 pg/ µL		Calibration	Vial 3	10.0				77.001				
	Calculated LOD at 0.0	145 pg/pL =	24												
			2												

Analytical Summary Report, PR# 08550

Printed at: 9:24 AM on: 5/26/2021



LO.

Calibration

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Printed at: 9:02 AM on: 5/26/2021

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oles WA\*403. WA404 - Extracted 5/25/2021 by ASM Compound Injection Date TFNG 5/25/2021 08550 - Flonicamid/Onion - Field S

Durity         It         Durity         Durit         Durit         Durity <th>- FIONICAMIQ/UNION - FIELU</th> <th>AN Saldilloc</th> <th>India another LAUAN ICAL</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>į</th> <th></th> <th></th> <th></th> <th></th> <th></th>	- FIONICAMIQ/UNION - FIELU	AN Saldilloc	India another LAUAN ICAL							į					
Deniet         Rt         Sample from         Sample from         Prior					Sample		Inj Vol	5	I vol	ma Ini	Resp	(pa/nf)	ppm A	ve ppm	% Rec
CSSORIA D014         7135         Condion         Sample         P1-A3         100           CSSORIA D024         7196         Condion         Sample         P1-A3         100           CSSORIA D034         7136         Condion         Sample         P1-A3         100           CSSORIA D036         7121         Condion         Sample         P1-A3         100           CSSORIA D036         7121         Condion         Sample         P1-A3         100           CSSORIA D036         7121         Condion         Sample         P1-A3         100           CSSORIA D036         7138         687-7015 G10 Fp(L         Condion         Sample         P1-A3         100           CSSORIA D036         7138         687-7015 G10 Fp(L         Condion         No         200         No         200           CSSORIA D036         7138         687-7015 G10 Fp(L         Condion         No         200         2010         2010           CSSORIA D136         FM-M040         Sample         P1-A1         100         100         2010         2010         2010           CSSORIA D14         7138         687-7011 G10 Fp(L         Condion         No         100         2010         110	Data File	RT	SampleName	Sample Into	Appe	VIAI POS	(hr)	- 7							
CSS2012.0012         2138         Condition         Samele         P.A.8         100           CSS2012.0012         7213         Condition         Samele         P.A.3         100           CSS2012.0012         7213         667-7MIG LOGIU         Samele         P.A.3         100           CSS2012.01012         7138         667-7MIG LOGIU         Samele         P.A.4         100         2053           CSS2012.01012         7138         667-7MIG LOGIU         VIII         100         2000         VIII         2010           CSS2012.01014         TH         2000         100         100         100         2010         100           CSS2012.01014         TH         2000         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100	05252021a 001.d	7.225	Condition		Sample	P1-A3	10.0								
Gizzonta Jost         718         Continio         sample         P1-A3         100           0522021a Jost         7212         Continio         sample         P1-A3         100           0522021a Jost         7212         Continio         sample         P1-A3         100           0522021a Jost         7213         Continio         sample         P1-A3         100           0522021a Jost         7213         Continio         sample         P1-A3         100           0522021a Jost         7213         667-7415 Lost         Calmeton         Val         100           0522021a Jost         7213         667-7415 Lost         Calmeton         Val         100         35.57           0522021a Jost         719         667-7415 Lost         Calmeton         Val         100         35.57           0522021a Jost         7213         667-7415 Lost         Calmeton         Val         100         100         100           0522021a Jost         7213         667-7415 Lost         7212         2661         600         100         100         100         100         100         100         100         100         100         100         100         100         100         1	05252021a 002.d	7.198	Condition		Sample	P1-A3	10.0								
GSS2031a         Order         Sample         F1-A3         L00           GSS2031a         7.212         Condino         Sample         F1-A3         L00           GSS2031a         0.66         7.212         Condino         Sample         F1-A3         L00           GSS2031a         0.66         7.213         Condino         Sample         F1-A3         L00           GSS2031a         0.66         7.139         687-2415 (0.6 GP)L         Condino         Sample         F1-A1         L00           GSS2031a         0.110         7.139         687-2415 (0.6 Pp)L         Colmetrino         Val         100         Sin Sin           GSS2031a         0.111         7.139         687-7413 (0.5 Pp)L         Colmetrino         Val         100         Sin Sin           GSS2031a         0.111         7.139         687-7413 (0.5 Pp)L         Colmetrino         Val         100         20.75         Sin Sin         Sin Sin         Sin Sin         Sin Sin Sin Sin Sin Sin Sin Sin Sin Sin	05252021a 003.d	7.198	Condition		Sample	P1-A3	10.0								
Sample (552021a, 0054         7.21 (51)         Condition (52)         Sample (57)         FAA3 (51)         100 (52)           0522021a, 0054         7.21 (51)         667-Mit (50)         58-Mit (50)         58-Mit (50)         58-Mit (50)         58-Mit (50)           0522021a, 0054         7.21 (52)         667-Mit (50)         58-Mit (50)         58-	05252021a 004.d	7.212	Condition		Sample	P1-A3	10.0								
Sample         F1-M3         D00           05525021a_0064         7.212         Condien         58.75           05525021a_0014         7.138         667-24110.00plL         Calibration         Val         20.75           05525021a_0014         7.138         667-24110.00plL         Calibration         Val         100           05525021a_0014         7.138         667-24110.00plL         Calibration         Val         100           05525021a_0104         7.138         667-24110.00plL         Calibration         Val         100           05525021a_0104         7.138         667-24110.0pplL         Calibration         Val         100         100         100         100           05525021a_0104         7.138         667-24110.0pplL         Calibration         Val         100         100         100         100           05525012a_0104         7.138         667-24110.0pplL         Sample         F+1.4         100         100         100         100         100           05525012a_0104         7.138         667-24110.0pplL         Sample         F+1.4         100         100         100         100           05525012a_0104         7.128         667-24110.0pplL         Sample         F+1.4 <td>05752021a 005.d</td> <td>7.212</td> <td>Condition</td> <td></td> <td>Sample</td> <td>P1-A3</td> <td>10.0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	05752021a 005.d	7.212	Condition		Sample	P1-A3	10.0								
Sizzozza (0):138         Gyzyny (0):139         Sizzozza (0):138         Gyzyny (0):139         Sizzozza (0):136	05252021a_006 d	7.212	Condition		Sample	P1-A3	10.0								
3753073.4 (06.6         7.1%         667-2M16.005 gpl.         Calibration         Vial         100         30.75         30.75           05253073.4 (06.6         7.19         667-2M16.005 gpl.         7.19         667-2M16.005 gpl.         100           05253073.4 (06.6         7.19         667-2M13.005 gpl.         Calibration         Vial         100         100         100.25           05253073.4 (06.7         7.19         667-2M13.05 gpl.         Calibration         Vial         100         100         0.100         0.01         0.01           05253073.4 (06.7         7.19         667-2M13.05 gpl.         2866         0.010         0.100         0.100         0.010         0.01 </td <td>05752021a 007 d</td> <td>7.212</td> <td>Condition</td> <td></td> <td>Sample</td> <td>P1-A3</td> <td>10.0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	05752021a 007 d	7.212	Condition		Sample	P1-A3	10.0								
OSS2031a         OSS         SS         SS <thss< th="">         SS         SS         &lt;</thss<>	P 000 = 10020200	7 108	687-2M16 0.05 pg/ul		Calibration	Vial 5	10.0				20.75				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0.000_B1202220	7.198	687-2M15 0.10 pg/uL		Calibration	Vial 4	10.0				35.57				
Observation         7.190         677-2011.0 pp/L         Collevation         Val         100.20           053203.1a         7.198         677-2011.0 pp/L         BA-WA*03         Sample         P1-1         100	010 e1002520	7.712	687-2M14 0.25 pd/uL		Calibration	Vial 3	10.0				105.59				
OSS20014_012.4         7.19 (0552014_012.4         667-M1210 pg/L (16)         Calibration (16)         Mol	0.010_B1202020	7 198	687-2M13 0.50 pg/uL		Calibration	Vial 2	10.0				190.28				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0.110_B1202020	7 198	687-2M12 1.0 pg/uL		Calibration	Vial 1	10.0				406.58				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0.770_B1202220		28861	DBA-WA*403	Sample	P1-A1	10.0	0.100	10.0	0.1000		<0.10	<0.01		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	P.010 BI202020		28861	DBA-WA*403	Sample	P1-A1	10.0	0.100	10.0	0.1000	I	<0.10	<0.01	<0.01	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	n.+10_11020200		28654	DBA-WA404	Sample	P1-A2	10.0	0.100	10.0	0.1000	l	<0.10	<0.01		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	D.210_E12022220		28654	DBA-WA404	Sample	P1-A2	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.01	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	n.010_B12026260		2002 3M1E 0 10 20/14		Calibration	Vial 4	10.0				37.74				
05222021a_018d         7.212         26861C001R3         DBA-WA*03         Sample         P1-A4         10.0         0.100         37.72         0.0942         0.0094         0.0091         99%           05252021a_013d         7.212         28861C10R3         DBA-WA*03         Sample         P1-A4         10.0         0.100         40.00         0.7255         1.2362         1.1373         1.18         1.18%           05252021a_023.d         7.212         28861C10R3         DBA-WA*03         Sample         P1-A4         10.0         0.100         0.0055         1.2562         1.18%         1.18%           05252021a_023.d         7.212         687-2M14 0.25 pylul         DBC-WA*03         Sample         P1-A5         10.0         0.100         0.000         1.18%         1.18%           05252021a_023.d         1         22863         DBC-WA*03         Sample         P1-A5         10.0         0.100         0.010         0.101         0.01 </td <td>05252021a_017.0</td> <td>961.1</td> <td></td> <td>DRA-WA*403</td> <td>Sample</td> <td>P1-A3</td> <td>10.0</td> <td>0.100</td> <td>10.0</td> <td>0.1000</td> <td>41.71</td> <td>0.1040</td> <td>0.0104</td> <td></td> <td></td>	05252021a_017.0	961.1		DRA-WA*403	Sample	P1-A3	10.0	0.100	10.0	0.1000	41.71	0.1040	0.0104		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05252021a_018.d	7.212	28861CU.UIK3	COL WWW	alquinc	EV-10	10.0	0 100	10.0	0.1000	37.72	0.0942	0.0094	0.00991	%66
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05252021a_019.d	7.212	28861CU.UIK3	COL AN AUG	Sample		0.01	0 100	400.0	0.0025	123.47	0.3065	1.2262		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05252021a_020.d	7.212	28861C1.0R3	C04-WA-P00	alquibe	HA-IT	0.01	0010	0.004	0 0025	114 50	0.2843	1.1373	1.18	118%
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05252021a_021.d	7.212	28861C1.0R3	DBA-WA*403	sample	44-14	10.U	001.0	0.001		00 64				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05252021a_022.d	7.212	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0			00010	10.00	0107	<0.01		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05252021a_023.d	1	28863	DBC-WA*403	Sample	P1-A5	10.0	0.100	10.0	00010		010	<0.01	<0.01	
05352021a_025.d        28864       DBD-WA*403       Sample       P1-A6       10.0       0.1000        -0.10       -0.10       0.01       0.01        -0.10       -0.01	05252021a_024.d	1	28863	DBC-WA*403	Sample	P1-A5	10.0	0.100	10.01	0001.0		01.04	10.07		
05252021a_026.d        28864       DBD-WA*403       Sample       P1-A6       10.0       0.100       0.0100       0.010	05252021a_025.d	l	28864	DBD-WA*403	Sample	P1-A6	10.0	0.100	10.0	0.1000		01.02	10.02	<0.01	
05252021a_027.d       7.212       687-2M15 0.10 pg/µL       Calibration       Val 4       10.0       -42         05252021a_028.d       7.212       28656       DBC-WA404       Sample       P1-A7       10.0       0.1000       27.86       <0.10	05252021a_026.d		28864	DBD-WA*403	Sample	P1-A6	10.0	0.100	10.01	nnnT'n		01.04			
05252021a_028.d 7.212 28656 DBC-WA404 Sample P1-A7 10.0 0.100 0.1000 27.08 -0.10 0.01 05252021a_029.d 28656 DBC-WA404 Sample P1-A7 10.0 0.100 0.1000	05252021a_027.d	7.212	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				42.34	010	10.01		
05552021a_029.d 28656 DBC-WA404 Sample P1-A7 10.0 0.100 0.1000 <0.10 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01	05252021a 028.d	7.212	28656	DBC-WA404	Sample	P1-A7	10.0	0.100	10.0	0.1000	09.17	01.05	10.02	10.01	
0552021a_000d 28657 DBD-WA404 Sample P1-A8 10.0 0.100 0.1000 <0.10 <0.01 05552021a_031.d 28657 DBD-WA404 Sample P1-A8 10.0 0.100 0.100 0.1000 <0.10 <0.01 <0.01 05552021a_032.d 7.212 687-2M14 0.25 pg/µL Calibration Vial 3 10.0 10.0 0.1000 10.00 0.1000 <0.10 <0.01 <0.01 Calculated LOD at 0.045 pg/µL = 18 Calculated LOQ at 0.045 pg/µL = 40	05252021a 029.d	1	28656	DBC-WA404	Sample	P1-A7	10.0	0.100	10.0	0.1000		01.0>	10.05	10.04	
05522021a_031.d 28657 DBD-WA404 Sample P1-A8 10.0 0.100 10.0 0.100 <0.10 <0.01 <0.01 05522021a_031.d 7.212 687-2M14.0.25 pg/µL Calibration Vial 3 10.0 0.100 10.0 108.67 05.01 <0.01 Calculated LOD at 0.045 pg/µL = 18 Calculated LOQ at 0.10 pg/µL = 40	05252021a 030 d	1	28657	DBD-WA404	Sample	P1-A8	10.0	0.100	10.0	0.1000	1	<01.0>	10.0>		
05552012_032.d 7.212 687-2M14 0.25 pg/µL Calibration Vial 3 10.0 108.67 Calculated LOD at 0.045 pg/µL = 18 Calculated LOQ at 0.10 pg/µL = 40	05252021a 031.d	I	28657	DBD-WA404	Sample	P1-A8	10.0	0.100	10.0	0.1000		<01.0>	10.0>	In'n>	
Calculated LOD at 0.045 pg/µL = 18 Calculated LOQ at 0.10 pg/µL = 40	05252021a 032.d	7.212	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				108.67				
Calculated LOQ at 0.10 $pg/\mu t = 40$	Calculated LOD at 0.	045 pg/µL =	18												
	Calculated LOO at 0.	10 pg/nf =	40												
			thread a												

IR-4 Western Region Laboratory, University of California, Davis



Target Compound TFNG

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0.2500 0.1000 0.1000 0.1000 0.0500

108.67 35.57 37.74 42.32 20.75

Calibration Calibration Calibration Calibration Calibration

Actional Contention         Sample Fixe         Jui Voi         g         mil Voi         g         mil Voi         mil Voi         mol Voi	Pinotin Findin	FCOCI															
Date File         R1         Sample File         Lot Vise         Condition         Sample File         Lot Vise         Condition         Con	0 - Flonicamid/Onion - Meth	vod Validation E	xtension (2.0 ppm) - Green O	nion - Extracted 5/2	6/2021 by ASI	5											
					Sample	I	nj Vol					Conc		Ave		Ave %	
5550213_001d          Condition         Sample         P1-3         100           5550213_003d         7721         Condition         Sample         P1-3         100           5550213_013_d         7735         687-MH 0.5 gpt/L         Condition         Sample         P1-4         100           5550213_011_d         7.72         687-MH 0.5 gpt/L         Calibration         Val         200         203           5550213_011_d         7.72         687-MH 0.5 gpt/L         Calibration         Val         200         201         201         201           5550213_011_d         7.72         687-MH 0.5 gpt/L         Calibration         Val         200         201         201         201         201	Data File	RT	SampleName	Sample Info	Type /	/ial Pos	(hr)	5	nL Vol	ful gm	Resp	(Jul/gd)	mdd	mdd	% Kec	Kec	sta ve
G552021a         OR2         771         Condition         Sample         F1-3         100           0552021a         00.4         771         Condition         Sample         F1-3         100           0552021a         00.4         771         Condition         Sample         F1-3         100           0552021a         00.4         7721         G677-M16.05 pu/lt         Calibration         Val<1	05262021a_001.d		Condition		Sample	P1-A3	10.0										
S55021a         O31         771         Condition         Sample         F1-3         100           S55021a         0054         7721         G672M15.01 pg/H         Calibration         Val<1	05262021a_002.d	7.721	Condition		Sample	P1-A3	10.0										
S55021a_0044         771         Condition         Sample         P1-A3         100           5550021a_0054         7721         G67-MH0 055 pq/H         Calibration         Val 3         100           5550021a_011d         7721         687-MH 055 pg/H         Calibration         Val 3         100           5550021a_011d         7721         687-MH 055 pg/H         Calibration         Val 3         100         731           5550021a_013d         7721         687-MH 055 pg/H         Calibration         Val 3         100         731           5550021a_013d         7721         687-MH 055 pg/H         Calibration         Val 3         100         731           5550021a_013d         7721         687-MH 055 pg/H         Calibration         Val 3         100         731           5550021a_013d         7721         687-MH 055 pg/H         Calibration         Val 3         100         731         2375         23	05262021a_003.d	7.721	Condition		Sample	P1-A3	10.0										
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05262021a_004.d	7.721	Condition		Sample	P1-A3	10.0										
6536013_006d         7721         Condition         Sample         P1-A3         100           6553013_003d         7721         687-M16 0.0040         1552         587-M16 0.0040         1552           6552013_003d         7721         687-M16 0.0740         Calibration         Val3         100         1552           6552013_011d         7721         687-M16 0.05 pg/u         Calibration         Val3         100         2955           6552013_011d         7721         687-M13 0.50 pg/u         Calibration         Val3         100         1447           0552013_011d         7721         687-M14 0.55 pg/u         Calibration         Val3         100         1247           0552013_011d         7721         687-M14 0.55 pg/u         Calibration         Val3         100         1200         2955           0552013_011d         7721         687-M15 0.10 pg/u         Calibration         Val3         100         1200         1200         1201         001           0552013_011d         7735         58849         GA-CA*20         Sample         P1-A1         100         0.100         0.010         1201         001         001         001         0.010         1247         201         2011         2011 </td <td>05262021a_005.d</td> <td>7.721</td> <td>Condition</td> <td></td> <td>Sample</td> <td>P1-A3</td> <td>10.0</td> <td></td>	05262021a_005.d	7.721	Condition		Sample	P1-A3	10.0										
	05262021a_006.d	7.721	Condition		Sample	P1-A3	10.0										
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05262021a_007.d	7.721	Condition		Sample	P1-A3	10.0										
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05262021a 008.d	7.735	687-2M16 0.05 pg/µL		Calibration	Vial 5	10.0				15.52						
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05262021a 009.d	7.721	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				29.95						
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05262021a 010.d	7.735	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				78.19						
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05262021a 011.d	7.721	687-2M13 0.50 pg/µL		Calibration	Vial 2	10.0				144.77						
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05262021a 012.d	7.721	687-2M12 1.0 pg/µL		Calibration	Vial 1	10.0				312.98						
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	05262021a 013.d	1	28849	GA-CA*20	Sample	P1-A1	10.0	0.100	10.0	0.1000	1	<0.10	<0.01				
05262021a_015.d         7.735         28849V2.0R1         GA-CA*20         Sample         P1-A2         10.0         0.000.0         6.949         0.2364         2.3644           05262021a_016.d         7.735         58849V2.0R1         GA-CA*20         Sample         P1-A2         10.0         0.000.0         6.049         0.2364         2.3644           05262021a_017.d         7.735         58849V2.0R1         GA-CA*20         Sample         P1-A2         10.0         0.000.0         6.0717         2.2364         2.332         116%           05262021a_017.d         7.735         58849V2.0R2         GA-CA*20         Sample         P1-A3         10.0         0.100         0.0010         65.74         0.2277         2.2644           05262021a_014.d         7.721         28849V2.0R2         GA-CA*20         Sample         P1-A3         10.0         0.100         0.0010         67.44         0.2277         2.1548           05262021a_020.d         7.721         28849V2.0R3         GA-CA*20         Sample         P1-A4         10.0         0.100         67.44         0.2219         2.23         111%           05262021a_020.d         7.721         28849V2.0R3         GA-CA*20         Sample         P1-A4         10.0	05262021a 014.d		28849	GA-CA*20	Sample	P1-A1	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01			
05262021a_016.d         7.735         28849V2.0R1         GA-Ca*20         Sample         P1-A2         10.0         0.0010         66.74         0.2277         2.2769         2.32         116%           05262021a_017.d         7.735         687-2MI5 0.10 pg/uL         Calibration         Vial 4         10.0         25.83         2.2769         2.32         116%           05262021a_013.d         7.721         28849V2.0R2         Ga-Ca*20         Sample         P1-A3         10.0         10.00.10         6.5.92         0.2155         2.1548           05262021a_019.d         7.721         28849V2.0R2         GA-Ca*20         Sample         P1-A3         10.0         10.00.10         6.7.44         0.2299         2.2991         2.23         111%           05262021a_020.d         7.721         28849V2.0R3         GA-Ca*20         Sample         P1-A4         10.0         0.1001         6.7.44         0.2299         2.23         111%           05262021a_020.d         7.771         28849V2.0R3         GA-Ca*20         Sample         P1-A4         10.0         0.1001         6.7.73         0.1999         1.993         79           05262021a_021.d         7.773         0.1080         0.0010         0.0010         6.0109	05262021a 015.d	7.735	28849V2.0R1	GA-CA*20	Sample	P1-A2	10.0	0.100	1000.0	0.0010	69.49	0.2364	2.3644				
05262021a_017.d       7.735       687-2MI 5 0.10 pg/uL       Calibration       Vial 4       10.0       25.83       25.83         05262021a_018.d       7.721       28849V2.0R2       G4-CA*20       Sample       P1-A3       10.0       10.00.0       0.0010       65.292       0.2155       2.1548         05262021a_019.d       7.721       28849V2.0R2       G4-CA*20       Sample       P1-A3       10.0       0.100       0.0010       67.92       0.2155       2.1548         05262021a_020.d       7.721       28849V2.0R3       G4-CA*20       Sample       P1-A4       10.0       0.100       0.0010       67.44       0.2299       2.291       2.23       111%         05262021a_020.d       7.771       28849V2.0R3       GA-CA*20       Sample       P1-A4       10.0       0.100       0.0010       57.73       0.1989       1.9893       10.9%       10.0%       0.5262021a_0210       0.7119       2.1189       2.05       103%       110%       77         05262021a_021d_021d_071       7.735       687-2M14.0.25       5ample       P1-A4       10.0       0.1000.0       0.0010       57.73       0.1199       2.013%       110%       76         05262021a_021d_071       7.735       687-2M14.0.25	05262021a 016.d	7.735	28849V2.0R1	GA-CA*20	Sample	P1-A2	10.0	0.100	1000.0	0.0010	66.74	0.2277	2.2769	2.32	116%		
05262071a_018.d 7.721 28849V2.0R2 GA-CA*20 Sample P1-A3 10.0 0.100 1000.0 0.0010 65.92 0.2155 2.1548 05262071a_019.d 7.735 28849V2.0R2 GA-CA*20 Sample P1-A3 10.0 0.100 1000.0 0.0010 67.44 0.2299 2.2991 2.23 111% 05262071a_020.d 7.721 28849V2.0R3 GA-CA*20 Sample P1-A4 10.0 0.100 1000.0 0.0010 57.73 0.1389 1.9893 05262071a_021.d 7.721 28849V2.0R3 GA-CA*20 Sample P1-A4 10.0 0.100 1000.0 0.0010 57.73 0.1389 1.9893 05262071a_021.d 7.735 687-2M14.0.25 pg/µL Calibration Vial 3 10.0 1000.0 0.0010 61.79 0.2119 2.1189 2.05 103% 110% 79 Calculated LOD at 0.045 pg/µL 9 Calculated LOD at 0.045 pg/µL 2 Calibration Vial 3 10.0 1000.0 0.0010 61.79 0.2119 2.1189 2.05 110% 79 Calculated LOD at 0.045 pg/µL = 9	05262021a_017.d	7.735	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				25.83						
05262071a_019.d 7.735 28849V2.0R2 GA-CA*20 Sample P1-A3 10.0 0.1000.0 0.0010 67.44 0.2299 2.2991 2.23 111% 05262071a_020.d 7.721 28849V2.0R3 GA-CA*20 Sample P1-A4 10.0 0.100 1000.0 0.0010 57.73 0.1389 1.9893 05262071a_021.d 7.721 28849V2.0R3 GA-CA*20 Sample P1-A4 10.0 0.100 1000.0 0.0010 61.79 0.1189 2.05 103% 110% 79 05262021a_022.d 7.735 687-2M14.0.25 pg/µL Calibration Vial 3 10.0 0.100 1000.0 0.0010 61.79 0.2119 2.1189 2.05 103% 110% 79 Calculated LOD at 0.045 pg/µL 9 2.05 103% 110% 10.0 0.100 1000.0 0.0010 61.79 0.2119 2.1189 2.05 103% 110% 79 Calculated LOD at 0.045 pg/µL 9 2.05 103% 110% 10.0 0.000 0.0010 61.79 0.2119 2.1189 2.05 103% 110% 79 Calculated LOD at 0.045 pg/µL 9 2.05 103% 110% 10.0 0.000 0.0010 61.79 0.2119 2.1189 2.05 103% 110% 79	05262021a_018.d	7.721	28849V2.0R2	GA-CA*20	Sample	P1-A3	10.0	0.100	1000.0	0.0010	62.92	0.2155	2,1548				
05262071a_020.d 7.721 28849V2.0R3 GA-CA*20 Sample P1-A4 10.0 0.100 1000.0 0.0010 57.73 0.1989 1.9893 05262021a_021.d 7.721 28849V2.0R3 GA-CA*20 Sample P1-A4 10.0 0.100 1000.0 0.0010 61.79 0.2119 2.1189 2.05 113% 110% 79 05262021a_022.d 7.735 687-2M14.0.25 pg/µL Calibration Vial 3 10.0 Calculated LOD at 0.045 pg/µL 9 Calculated LOD at 0.00 pg/µL 2 Calculated LOD at 0.00 pg/µL 2 2000 Calcu	05262021a_019.d	7.735	28849V2.0R2	GA-CA*20	Sample	P1-A3	10.0	0.100	1000.0	0.0010	67.44	0.2299	2.2991	2.23	111%		
05262021a_021.d 7.721 28849V2.0R3 GA-CA*20 Sample P1-A4 10.0 0.100 1000.0 0.0010 61.79 0.2119 2.1189 2.05 103% 110% 79 05262021a_022.d 7.735 687-2M14.0.25 pg/µL Calibration Vial 3 10.0 Calculated LOD at 0.045 pg/µL = 9 Calculated LOD at 0.045 pg/µL = 2 Calculated LOO at 0.10 pg/µL = 27	05262021a 020.d	7.721	28849V2.0R3	GA-CA*20	Sample	P1-A4	10.0	0.100	1000.0	0.0010	57.73	0.1989	1.9893			1	i
05262021a_022.d 7.735 687-2M14.0.25 pg/µL Calibration Vial 3 10.0 Cakulated LOD at 0.045 pg/µL = 9 Cakulated LOD at 0.10 pg/µL = 27	05262021a_021.d	7.721	28849V2.0R3	GA-CA*20	Sample	P1-A4	10.0	0.100	1000.0	0.0010	61.79	0.2119	2.1189	2.05	103%	110%	
Calculated LOD at 0.045 pg/µL = 9 Calculated LOO at 0.10 $pg/\mu L = 27$	05262021a_022.d	7.735	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				65.68						
Calculated LOO at 0.10 $pq/\mu L = 27$	Calculated LOD at 0.0	145 pg/µL =	6														
	Calculated LOO at 0.1	= 71/bd 01	27														

5/27/21 abr

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Target Compound Flonicamid	CurveFit	Weighting weightEqual	Integrator Agile	Smoothing Gaussian	Smoot	hingFunctio 10	nWidth	Smooth	ingGaussia 5	inWidth
Flonicamid - 5 Levi 3 K 2 15 Responses ×10 2 Y = 315 R 2 15 1.75 + Type:L 1.75 + 1.5 1.55 + 1.5 1.55 + 1.5 0.75 + 0.75 + 0.25 + 0.25	els, 5 Levels 5506110 * x 0.99718627 inear, Origin:	Used, 7 Points, - 4.638995 Ignore, Weight:	7 Points Used None 5/2	,0 QCs						
-0 -0 0	0.05 0.1 0	.15 0.2 0.25	0.3 0.35 0.4	0.45 0.5	0.55 0.6	0.65 0.7	0.75 0.8	3 0.85 0	.9 0.95 Concentra	1 1.05 tion (ng/ml)
Calibration STD					Cal Type	Level	Enabled	Resp	onse	Exp Conc
D:\MassHunter\Flonicami	1\08550 Onion\D	ata/Results/0526202	1\05262021a 012.d		Calibration	1		e	12.98	1.0000
D:\MassHunter\Flonicami	1\08550 Onion\D	ata\Results\0526202	1\05262021a 011.d		Calibration	2	D	Ĥ	44.77	0.5000
D:\MassHunter\Flonicami	d/08550 Onion/D	ata\Results\0526202	1\05262021a_010.d		Calibration	3			78.19	0.2500
D:\MassHunter\Flonicami	d/08550 Onion/D	ata\Results\0526202	1\05262021a 022.d		Calibration	ñ			65.68	0.2500
D:\MassHunter\Flonicami	d/08550 Onion/D	ata\Results\0526202	1\05262021a_009.d		Calibration	4			29.95	0.1000
D:\MassHunter\Flonicami	d\08550 Onion\D	ata\Results\0526202	1\05262021a_017.c		Calibration	4			25.83	0.1000
D:/MassHunter/Flonicami	AVARESO Onion/D	ata/Results/0526202	1\05262021a 008.c		Calibration	S			15.52	0.0500



D:\/MassHunter/Flonicamid/08550\_Onion/Data/Results/052620211/05262021a\_017.d D:\/MassHunter/Flonicamid\08550\_Onion\Data\Results\05262021a\_010.d D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05262021\05262021a\_022.d D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05262021\05262021a\_009.d D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05262021\05262021a\_008.d D:\MassHunter\ D:\MassHunter\

Calibration Calibration

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## Compound Injection Date TFNA-AM 5/26/2021 08550 - Flonicamid/Onion - Method Validatio

3550 - Flonicamid/Onion - Method Validation Extension (2.0 ppm) - Green Onion - Extracted 5/26/2021 by ASM

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				Sample		Inj Vol					Conc		Ave		Ave %	
Data File	RT	SampleName	Sample Info	Type /	Vial Pos	(11)	0	mL Vol	[n] gm	Resp	(hd/hr)	mdd	mdd	% Rec	Rec	Std Dev
05262021a_001.d	1	Condition		Sample	P1-A3	10.0										
05262021a_002.d	5.311	Condition		Sample	P1-A3	10.0										
05262021a_003.d	5.311	Condition		Sample.	P1-A3	10.0										
05262021a_004.d	5.324	Condition		Sample	P1-A3	10.0										
05262021a_005.d	5.311	Condition		Sample	P1-A3	10.0										
05262021a_006.d	5.311	Condition		Sample	P1-A3	10.0										
05262021a_007.d	5.311	Condition		Sample	P1-A3	10.0										
05262021a_008.d	5.324	687-2M16 0.05 pg/µL		Calibration	Vial 5	10.0				69.28						
05262021a_009.d	5.324	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				126.88						
05262021a_010.d	5.311	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				320.43						
05262021a_011.d	5.311	687-2M13 0.50 pg/µL		Calibration	Vial 2	10.0				663.01						
05262021a_012.d	5.297	687-2M12 1.0 pg/µL		Calibration	Vial 1	10.0				1305.08						
05262021a_013.d		28849	GA-CA*20	Sample	P1-A1	10.0	0.100	10.0	0.1000		<0.10	<0.01				
05262021a_014.d	1	28849	GA-CA*20	Sample	P1-A1	10.0	0.100	10.0	0.1000	l	<0.10	<0.01	<0.01			
05262021a 015.d	5.324	28849V2.0R1	GA-CA*20	Sample	P1-A2	10.0	0.100	1000.0	0.0010	279.07	0.2188	2.1881				
05262021a_016.d	5.324	28849V2.0R1	GA-CA*20	Sample	P1-A2	10.0	0.100	1000.0	0.0010	274.17	0.2151	2.1509	2.17	108%		
05262021a_017.d	5.324	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				128.00						
05262021a_018.d	5.324	28849V2.0R2	GA-CA*20	Sample	P1-A3	10.0	0.100	1000.0	0.0010	246.47	0.1940	1.9399				
05262021a_019.d	5.324	28849V2.0R2	GA-CA*20	Sample	P1-A3	10.0	0.100	1000.0	0.0010	257.00	0.2020	2.0201	1.98	%66		
05262021a_020.d	5.324	28849V2.0R3	GA-CA*20	Sample	P1-A4	10.0	0.100	1000.0	0.0010	276.50	0.2169	2.1686				
05262021a_021.d	5.324	28849V2.0R3	GA-CA*20	Sample	P1-A4	10.0	0.100	1000.0	0.0010	274.93	0.2157	2.1567	2.16	108%	105%	2%
05262021a_022.d	5.311	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				284,16						
Calculated LOD at 0.0	45 pg/µL =	51														
Calculated LOO at 0.1	0 pa/nf =	123														

Laiculated LUQ at 0.10 pg/µL = 1.22 "----" denotes response below area threshold

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				Sample		Inj Vol					Conc		Ave		Ave %	
Data File	RT	SampleName	Sample Info	Type	Vial Pos	(11)	6	mL Vol	[n] gm	Resp	(Jul/20)	mdd	mdd	% Rec	Rec	td Dev
05262021a_001.d	1	Condition		Sample	P1-A3	10.0										
05262021a_002.d	5.969	Condition		Sample	P1-A3	10.0										
05262021a_003.d	5.969	Condition		Sample	P1-A3	10.0										
05262021a_004.d	5.969	Condition		Sample	P1-A3	10.0										
05262021a_005.d	5.969	Condition		Sample	P1-A3	10.0										
05262021a_006.d	5.969	Condition		Sample	P1-A3	10.0										
05262021a_007.d	5.969	Condition		Sample	P1-A3	10.0										
05262021a_008.d	5.969	687-2M16 0.05 pg/µL		Calibration	Vial 5	10.0				31.28						
05262021a_009.d	5,969	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				55.29						
05262021a_010.d	5.969	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				143.56						
05262021a_011.d	5.969	687-2M13 0.50 pg/µL		Calibration	Vial 2	10.0				284.44						
05262021a_012.d	5.956	687-2M12 1.0 pg/µL		Calibration	Vial 1	10.0				574.45						
05262021a_013.d	1	28849	GA-CA*20	Sample	P1-A1	10.0	0.100	10.0	0.1000	1	<0.10	<0.01				
05262021a_014.d	I	28849	GA-CA*20	Sample	P1-A1	10.0	0.100	10.0	0.1000	I	<0.10	<0.01	<0.01			
05262021a_015.d	5.969	28849V2.0R1	GA-CA*20	Sample	P1-A2	10.0	0.100	1000.0	0.0010	125.93	0.2218	2.2183				
05262021a_016.d	5.983	28849V2.0R1	GA-CA*20	Sample	P1-A2	10.0	0.100	1000.0	0.0010	116.20	0.2049	2.0488	2.13	107%		
05262021a_017.d	5.969	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				57.05						
05262021a_018.d	5,983	28849V2.0R2	GA-CA*20	Sample	P1-A3	10.0	0.100	1000.0	0.0010	114.78	0.2024	2.0241				
05262021a_019.d	5.983	28849V2.0R2	GA-CA*20	Sample	P1-A3	10.0	0.100	1000.0	0.0010	117.93	0.2079	2.0791	2.05	103%		
05262021a_020.d	5.969	28849V2.0R3	GA-CA*20	Sample	P1-A4	10.0	0.100	1000.0	0.0010	120.16	0.2118	2.1179				
05262021a_021.d	5.969	28849V2.0R3	GA-CA*20	Sample	P1-A4	10.0	0.100	1000.0	0.0010	121.17	0.2135	2.1353	2.13	106%	105%	2%
05262021a_022.d	5.969	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				135.87						
Calculated LOD at 0.04	15 pg/µL =	24														
Calculated LOQ at 0.10	= hg/pt =	56														
"" denotes response	e below area thr	eshold														

S/27/21 abr

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Printed at: 8:49 AM on: 5/27/2021



0.0500

31.28

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Calibration

D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\05262021\05262021a\_008.d

Printed at: 8:49 AM on: 5/27/2021

				Sample		Inj Vol					Conc		Ave		Ave %	
Data File	RT	SampleName	Sample Info	Type \	/ial Pos	(11)	D	mL Vol	ing Inj	Resp	(Jrd/6d)	mdd	mdd	% Rec	Rec	Std Dev
05262021a_001.d		Condition		Sample	P1-A3	10.0										
05262021a_002.d	7.198	Condition		Sample	P1-A3	10.0										
05262021a_003.d	7.198	Condition		Sample	P1-A3	10.0										
05262021a_004.d	7.212	Condition		Sample	P1-A3	10.0										
05262021a_005.d	7.198	Condition		Sample	P1-A3	10.0										
05262021a_006.d	7.198	Condition		Sample	P1-A3	10.0										
05262021a_007.d	7.198	Condition		Sample	P1-A3	10.0										
05262021a_008.d	7.212	687-2M16 0.05 pg/µL		Calibration	Vial 5	10.0				24.80						
05262021a_009.d	7.212	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				48.00						
05262021a_010.d	7.198	687-2M14 0.25 pg/ µL		Calibration	Vial 3	10.0				106.69						
05262021a_011.d	7.198	687-2M13 0.50 pg/µL		Calibration	Vial 2	10.0				207.99						
05262021a_012.d	7.198	687-2M12 1.0 pg/µL		Calibration	Vial 1	10.0				424.01						
05262021a 013.d	1	28849	GA-CA*20	Sample	P1-A1	10.0	0.100	10.0	0.1000	-	<0.10	<0.01				
05262021a 014.d	1	28849	GA-CA*20	Sample	P1-A1	10.0	0.100	10.0	0.1000	ŀ	<0.10	<0.01	<0.01			
05262021a 015.d	7.212	28849V2.0R1	GA-CA*20	Sample	P1-A2	10.0	0.100	1000.0	0.0010	98.82	0.2357	2.3568				
05262021a_016.d	7.212	28849V2.0R1	GA-CA*20	Sample	P1-A2	10.0	0.100	1000.0	0.0010	97.94	0.2336	2.3361	2.35	117%		
05262021a_017.d	7.212	687-2M15 0.10 pg/µL		Calibration	Vial 4	10.0				36.37						
05262021a 018.d	7.212	28849V2.0R2	GA-CA*20	Sample	P1-A3	10.0	0.100	1000,0	0.0010	95.58	0.2280	2.2802				
05262021a_019.d	7.212	28849V2.0R2	GA-CA*20	Sample	P1-A3	10.0	0.100	1000.0	0.0010	95.04	0.2267	2.2673	2.27	114%		
05262021a_020.d	7.198	28849V2.0R3	GA-CA*20	Sample	P1-A4	10.0	0.100	1000.0	0.0010	97.49	0.2325	2.3254				
05262021a_021.d	7.198	28849V2.0R3	GA-CA*20	Sample	P1-A4	10.0	0.100	1000.0	0.0010	101.12	0.2411	2,4114	2.37	118%	116%	2%
05262021a_022.d	7.198	687-2M14 0.25 pg/µL		Calibration	Vial 3	10.0				97.46						
Calculated LOD at 0.04	12 pg/pL =	18														
Calculated LOQ at 0.1(	= Jul/pd (	41														
"" denotes respons-	e below area th	reshold														

5/27/21 april

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Compound Injection Date TFNG 5/26/2021 08550 - Flonicamid/Onion - Meth

Printed at: 8:49 AM on: 5/27/2021



Printed at: 8:49 AM on: 5/27/2021

Data File         Rt         Sample Info         Type         Li Vol         mg Inj         Resp.           07200213_001.d         7.39         Condition         Sample Fin()         Type         Fi A.3         100         mg Inj         Resp.           07200213_002.d         7.694         Condition         Sample Fin()         Sample Fin()         Sample Fin()         Sample Fin()         mg Inj         Resp.           07200213_005.d         7.694         Condition         Sample Fin()         Sample Fin()         Sample Fin()         Mg Inj         Resp.           07200213_005.d         7.694         Condition         Sample Fin()         Sample Fin()         Sample Fin()         Mg Inj         Resp.           07200213_005.d         7.694         Condition         Sample Fin()         Ma Inj         Inj         Inj         Inj         Inj         Inj         Inj         Inj           07200213_005.d         7.694         Condition         Sample Fin()         Ma Inj	onicamid 7/20/ 3550 - Flonicamid/Onion - Field	2021 Samples TX38	30 - Extracted 7/20/2021 by A	SM											
0720201a         7.287         Condition         Sample         P1-A3         10.0           07202021a         7.694         687-2M10.05 pg/ul         Sample         P1-A3         10.0           07202021a_003.d         7.694         687-2M10.05 pg/ul         Calibration         Vial 3         10.0           07202021a_004.d         7.694         687-2M10.01 pg/ul         Calibration         Vial 3         10.0         11.0           07202021a_014.d         7.694         687-2M10.00 pg/ul         Calibration         Vial 3         10.0         11.0           07202021a_014.d         7.694         687-2M10.00 pg/ul         Calibration         Vial 3         10.0         11.0           07202021a_014.d         7.694 <td< th=""><th>Data File</th><th>RT</th><th>SampleName</th><th>Sample Info</th><th>Sample Tvpe</th><th>/ial Pos</th><th>Inj Vol (uL)</th><th></th><th>mL Vol</th><th>ma Ini</th><th>Resp</th><th>Conc (pg/uL)</th><th>maa</th><th>Ave</th><th>% Re</th></td<>	Data File	RT	SampleName	Sample Info	Sample Tvpe	/ial Pos	Inj Vol (uL)		mL Vol	ma Ini	Resp	Conc (pg/uL)	maa	Ave	% Re
0720213_002.d         7.69         Condition         Sample $P1.A3$ 10.0           07202021a_004.d         7.69         Condition         Sample $P1.A3$ 10.0           07202021a_005.d         7.69         Condition         Sample $P1.A3$ 10.0           07202021a_005.d         7.69         Condition         Sample $P1.A3$ 10.0           07202021a_005.d         7.694         Condition         Sample $P1.A3$ 10.0           07202021a_005.d         7.694         687-2M10.05 g/µl.         Calibration         Val10.0         28.9           07202021a_001.d         7.694         687-2M18.0.5 g/µl.         Calibration         Val21.0         28.9           07202021a_011.d         7.694         687-2M18.0.5 g/µl.         Calibration         Val10.0         0.100         0.100           07202021a_011.d         7.694         687-2M18.0.5 g/µl.         Calibration         Val10.0         28.9         71.40           07202021a_011.d         7.694         687-2M18.0.5 g/µl.         Calibration         Val10.0         0.100         0.100         27.9           07202021a_013.d         7.694         687-2M18.0.5 g/µl.         Calibration	07202021a_001.d	7.287	Condition		Sample	P1-A3	10.0								
07202021a_003d         7.694         Condition         Sample         P1-A3         10.0           07202021a_005d         7.694         687-2M21.0.05 pg/ul         Calibration         Val 5         10.0           07202021a_001d         7.694         687-2M10.0.5 pg/ul         Calibration         Val 3         10.0         15.74           07202021a_011d         7.694         687-2M10.0.50 pg/ul         Calibration         Val 3         10.0         17.40           07202021a_011d         7.694         687-2M10.0.50 pg/ul         Calibration         Val 3         10.0         17.40           07202021a_011d         7.694         687-2M10.0.50 pg/ul         Calibration         Val 3         10.0         17.40           07202021a_011d         7.694         687-2M10.0.10 pg/ul         Calibration         Val 3         10.0         10.0         10.00           07202021a_011d         7.694         587-2M10.0.10 pg/ul         Calib	07202021a_002.d	7.694	Condition		Sample	P1-A3	10.0								
0720201a         0.1         5.694         Condition         Sample         P1-A3         10.0           0720201a         005.d         7.694         Condition         Sample         P1-A3         10.0           07202021a         005.d         7.694         Condition         Sample         P1-A3         10.0           07202021a         005.d         7.694         687-2M10.05 g/ul         Sample         P1-A3         10.0           07202021a_003.d         7.694         687-2M10.0.0 g/ul         Calibration         Val 4         10.0         28.7           07202021a_011.d         7.694         687-2M10.0.5 g/ul         Calibration         Val 1         10.0         21.6           07202021a_011.d         7.694         687-2M10.0.5 g/ul         Calibration         Val 1         10.0         21.6           07202021a_011.d         7.694         687-2M10.0.5 g/ul         Calibration         Val 1         10.0         21.6           07202021a_013.d         7.694         687-2M10.0.5 g/ul         Calibration         Val 1         10.0         21.6           07202021a_013.d         7.694         687-2M10.0.10 g/ul         Calibration         Val 1         10.0         21.6           072020212.013.d <t< td=""><td>07202021a_003.d</td><td>7.694</td><td>Condition</td><td></td><td>Sample</td><td>P1-A3</td><td>10.0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	07202021a_003.d	7.694	Condition		Sample	P1-A3	10.0								
07202021a_005.d         7.694         Condition         Sample         P1-A3         100           07202021a_006.d         7.694         Condition         Sample         P1-A3         100           07202021a_008.d         7.694         G87-2M21 0.05 pg/µL         Sample         P1-A3         100           07202021a_008.d         7.694         687-2M12 0.05 pg/µL         Calibration         Vial 5         100           07202021a_010.d         7.694         687-2M13 0.05 pg/µL         Calibration         Vial 5         100         28.97           07202021a_011.d         7.694         687-2M13 0.05 pg/µL         Calibration         Vial 1         100         28.97           07202021a_012.d         7.694         687-2M11 1.0 pg/µL         Calibration         Vial 1         100         28.97           07202021a_013.d         7.694         687-2M13 0.5 pg/µL         Calibration         Vial 1         100         0.100         0.100         28.97           07202021a_013.d         7.694         687-2M13 0.5 gg/µL         Calibration         Vial 1         100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100	07202021a_004.d	7.694	Condition		Sample	P1-A3	10.0								
07202011_006.d         7.694         Condition         Sample         P1-A3         10.0           072020211_007.d         7.694         687-2M10.05 pg/µL         Sample         P1-A3         10.0           072020211_001.d         7.694         687-2M10.05 pg/µL         Calibration         Vial 5         10.0         28.79           072020211_01.d         7.694         687-2M18.0.50 pg/µL         Calibration         Vial 3         10.0         28.73           072020211_01.d         7.694         687-2M18.0.50 pg/µL         Calibration         Vial 3         10.0         28.73           072020211_01.d         7.694         687-2M18.0.50 pg/µL         Calibration         Vial 1         10.0         0.100         1.14           072020211_01.d         7.694         687-2M18.0.50 pg/µL         Calibration         Vial 1         10.0         0.100         0.100         1.152           072020212_013.d          29148C0.0184         DBA-TX380         Sample         P1-A1         10.0         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100         0.100	07202021a_005.d	7.694	Condition		Sample	P1-A3	10.0								
07202021a_007.d         7.694         Condition         Sample         P1-A3         10.0           07202021a_008.d         7.694         687-2M10.05 pg/µL         Calibration         vial 5         10.0         28.73           07202021a_009.d         7.694         687-2M10.05 pg/µL         Calibration         vial 5         10.0         28.73           07202021a_010.d         7.694         687-2M10.05 pg/µL         Calibration         vial 3         10.0         28.73           07202021a_013.d         7.694         687-2M13.10 pg/µL         Calibration         vial 1         10.0         110.0         117.49           07202021a_013.d         7.694         687-2M17.10 pg/µL         Calibration         vial 1         10.0         0.100         115.24           07202021a_013.d         7.694         687-2M17.10 pg/µL         Calibration         vial 1         10.0         0.100         115.24           07202021a_013.d         7.694         587-2M12.0.10 gg/µL         Calibration         vial 1         10.0         0.100         115.24           07202021a_013.d         7.694         587-2M12.0.10 gg/µL         Calibration         vial 1         10.0         0.100         110.0           07202021a_013.d         7.694         587-2M20.	07202021a_006.d	7.694	Condition		Sample	P1-A3	10.0								
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	07202021a_007.d	7.694	Condition		Sample	P1-A3	10.0								
07202021a_005.d         7.694         687-2M20 0.10 pg/µL         Calibration         Vial 4         10.0         28.79           07202021a_010.d         7.708         687-2M19 0.25 pg/µL         Calibration         Vial 3         10.0         71.40           07202021a_011.d         7.694         687-2M19 0.25 pg/µL         Calibration         Vial 1         10.0         112.284           07202021a_012.d         7.694         687-2M17 1.0 pg/µL         Calibration         Vial 1         10.0         0.100         10.100         115.284           07202021a_013.d          29148C0.0184         DBA-TX380         Sample         P1-A1         10.0         0.100         0.1000            07202021a_015.d         7.694         29148C0.0184         DBA-TX380         Sample         P1-A1         10.0         0.100         0.1000         32.75           07202021a_015.d         7.694         29148C0.0184         DBA-TX380         Sample         P1-A2         10.0         0.100         0.1000         32.75           07202021a_015.d         7.694         29148C0.0184         DBA-TX380         Sample         P1-A2         10.0         0.100         0.100         32.75           07202021a_016.d         7.694 <t< td=""><td>07202021a_008.d</td><td>7.694</td><td>687-2M21 0.05 pg/µL</td><td></td><td>Calibration</td><td>Vial 5</td><td>10.0</td><td></td><td></td><td></td><td>15.77</td><td></td><td></td><td></td><td></td></t<>	07202021a_008.d	7.694	687-2M21 0.05 pg/µL		Calibration	Vial 5	10.0				15.77				
07202021a_010.d         7.708         687-2M19 0.25 pq/ut         Calibration         Vial 2         10.0         71.40           07202021a_011.d         7.694         687-2M17 1.0 pg/ut         Calibration         Vial 2         10.0         152.84           07202021a_012.d         7.694         687-2M17 1.0 pg/ut         Calibration         Vial 1         10.0         0.100         10.0           07202021a_012.d         7.694         687-2M17 1.0 pg/ut         Calibration         Vial 1         10.0         0.100         0.1000         1.52.84           07202021a_013.d          29148         DBA-TX380         Sample         P1-A1         10.0         0.100         0.1000         31.35           07202021a_013.d         7.694         29148C0.0184         DBA-TX380         Sample         P1-A2         10.0         0.1000         0.1000         32.73           07202021a_013.d         7.694         29148C0.0184         DBA-TX380         Sample         P1-A2         10.0         0.1000         0.1000         32.73           07202021a_013.d         7.694         29148C0.0184         DBA-TX380         Sample         P1-A2         10.0         0.100         0.1000         32.73           07202021a_013.d         7.69	07202021a_009.d	7.694	687-2M20 0.10 pg/µL		Calibration	Vial 4	10.0				28.79				
07202021a_011.d         7.694         687-2M18 0.50 pg/uL         Calibration         Vial 2         10.0         15.284           07202021a_012.d         7.694         687-2M17 1.0 pg/uL         Calibration         Vial 1         10.0         317.95           07202021a_012.d         7.694         687-2M18 0.50 pg/uL         Calibration         Vial 1         10.0         0.100         10.0         0.1000            07202021a_013.d          291480.0184         DBA-TX380         Sample         P1-A1         10.0         0.100         0.1000            07202021a_015.d         7.694         291480.0184         DBA-TX380         Sample         P1-A1         10.0         0.100         0.1000         31.35           07202021a_015.d         7.694         291480.0184         DBA-TX380         Sample         P1-A2         10.0         0.100         0.1000         31.35           07202021a_015.d         7.694         291480.0184         DBA-TX380         Sample         P1-A2         10.0         0.100         0.1000         31.35           07202021a_012.d         7.694         291480.0184         DBA-TX380         Sample         P1-A3         10.0         0.100         0.1000         31.35 <td>07202021a_010.d</td> <td>7.708</td> <td>687-2M19 0.25 pg/µL</td> <td></td> <td>Calibration</td> <td>Vial 3</td> <td>10.0</td> <td></td> <td></td> <td></td> <td>71.40</td> <td></td> <td></td> <td></td> <td></td>	07202021a_010.d	7.708	687-2M19 0.25 pg/µL		Calibration	Vial 3	10.0				71.40				
07202021a_012.d         7.694         687-2M17 1.0 pg/µL         Callbration         Vial 1         10.0         0.100         10.0         0.1000          17.95           07202021a_013.d          29148         DBA-TX380         Sample         P1-A1         10.0         0.100         0.000            0.100         10.0         0.100         0.100             0.100         10.0         0.100         0.100               0.100         10.0         0.100         0.100             0.100         1.1.0         0.100 <t< td=""><td>07202021a_011.d</td><td>7.694</td><td>687-2M18 0.50 pg/µL</td><td></td><td>Calibration</td><td>Vial 2</td><td>10.0</td><td></td><td></td><td></td><td>152.84</td><td></td><td></td><td></td><td></td></t<>	07202021a_011.d	7.694	687-2M18 0.50 pg/µL		Calibration	Vial 2	10.0				152.84				
07202021a_013.d          29148         DBA-TX380         Sample         P1-A1         10.0         0.100         10.0         0.100            07202021a_014.d          29148         DBA-TX380         Sample         P1-A1         10.0         0.100         10.0         0.1000            07202021a_015.d         7.694         29148C0.01R4         DBA-TX380         Sample         P1-A2         10.0         0.100         10.0         0.1000         3.273           07202021a_015.d         7.694         29148C0.01R4         DBA-TX380         Sample         P1-A2         10.0         0.100         10.0         0.1000         3.135           07202021a_017.d         7.694         29148C1.0R4         DBA-TX380         Sample         P1-A3         10.0         0.100         10.0         0.1000         31.35           07202021a_013.d         7.694         29148C1.0R4         DBA-TX380         Sample         P1-A3         10.0         0.100         10.0         0.1000         31.35           07202021a_013.d         7.694         29148C1.0R4         DBA-TX380         Sample         P1-A3         10.0         0.100         0.100         0.1000         30.35	07202021a_012.d	7.694	687-2M17 1.0 pg/µL		Calibration	Vial 1	10.0				317.95				
07202021a_014.d          29148         DBA-TX380         Sample         P1-A1         10.0         0.100         10.0         0.1000            07202021a_015.d         7.694         29148C0.01R4         DBA-TX380         Sample         P1-A2         10.0         0.100         10.0         0.1000         3.273           07202021a_015.d         7.694         29148C0.01R4         DBA-TX380         Sample         P1-A2         10.0         0.100         10.0         0.1000         3.135           07202021a_017.d         7.694         29148C1.01R4         DBA-TX380         Sample         P1-A2         10.0         0.100         10.0         0.1000         3.135           07202021a_019.d         7.694         29148C1.01R4         DBA-TX380         Sample         P1-A3         10.0         0.100         40.0         0.0025         7.491           07202021a_019.d         7.694         29148C1.01R4         DBA-TX380         Sample         P1-A3         10.0         0.100         10.0         0.1000         3.135           07202021a_020.d         7.694         29148C1.01R4         DBA-TX380         Sample         P1-A3         10.0         0.100         0.1000         3.010           07	07202021a_013.d	l	29148	DBA-TX380	Sample	P1-A1	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		
07202021a_015.d         7.694         29148C0.01R4         DBA-TX380         Sample         P1-A2         10.0         0.100         10.0         0.1000         32.72           07202021a_016.d         7.694         29148C0.01R4         DBA-TX380         Sample         P1-A2         10.0         0.100         10.0         0.1000         31.35           07202021a_017.d         7.694         687-2M20.01.0 pg/µL         Calibration         Vial 4         10.0         0.100         40.00         39.79           07202021a_019.d         7.694         29148C1.0R4         DBA-TX380         Sample         P1-A3         10.0         0.100         400.0         0.0025         74.91           07202021a_019.d         7.694         29148C1.0R4         DBA-TX380         Sample         P1-A3         10.0         0.100         40.0         0.0025         73.87           07202021a_020.d         7.694         29148C1.0R4         DBA-TX380         Sample         P1-A4         10.0         0.100         10.0         0.1000         38.17           07202021a_020.d         7.694         287-7X380         Sample         P1-A4         10.0         0.100         10.0         0.1000         38.97           07202021a_020.d         7.694 <td>07202021a_014.d</td> <td></td> <td>29148</td> <td>DBA-TX380</td> <td>Sample</td> <td>P1-A1</td> <td>10.0</td> <td>0.100</td> <td>10.0</td> <td>0.1000</td> <td>1</td> <td>&lt;0.10</td> <td>&lt;0.01</td> <td>&lt;0.01</td> <td></td>	07202021a_014.d		29148	DBA-TX380	Sample	P1-A1	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01	
07202021a_016.d         7.694         29148C0.01R4         DBA-TX380         Sample         P1-A2         10.0         0.100         10.0         3.37           07202021a_017.d         7.694         687-2M20.010 pg/µL         Calibration         Vial 4         10.0         0.100         40.0         0.000         3.37           07202021a_017.d         7.694         687-2M20.010 pg/µL         Calibration         Vial 4         10.0         0.100         400.0         0.0025         74.91           07202021a_019.d         7.694         29148C1.0R4         DBA-TX380         Sample         P1-A3         10.0         0.100         400.0         0.0025         73.87           07202021a_019.d         7.694         29148C1.0R4         DBA-TX380         Sample         P1-A3         10.0         0.100         10.0         0.1000         38.13           07202021a_020.d         7.694         687-2M19.0.25 pg/µL         DBC-TX380         Sample         P1-A4         10.0         0.100         10.0         0.1000         38.87           07202021a_020.d         7.694         687-2M19.0.25 pg/µL         DBC-TX380         Sample         P1-A4         10.0         0.1000         10.0         0.1000         36.00           07202021a_022.	07202021a_015.d	7.694	29148C0.01R4	DBA-TX380	Sample	P1-A2	10.0	0.100	10.0	0.1000	32.72	0.1057	0.0106		
07202021a_017.d         7.694         687-2M20.1.0 pg/µL         Calibration         Vial 4         10.0         39.79           07202021a_018.d         7.694         59148C1.0R4         DBA-TX380         Sample         P1-A3         10.0         0.100         400.0         0.0025         74.91           07202021a_019.d         7.694         29148C1.0R4         DBA-TX380         Sample         P1-A3         10.0         0.100         400.0         0.0025         73.87           07202021a_019.d         7.694         29148C1.0R4         DBA-TX380         Sample         P1-A4         10.0         0.100         400.0         0.0025         73.87           07202021a_020.d         7.694         29150         DBC-TX380         Sample         P1-A4         10.0         0.100         10.0         38.97           07202021a_020.1d         7.694         687-2M19.0.25 pg/µL         Calibration         Vial 3         10.0         0.100         10.0         0.1000         38.97           07202021a_022.4         7.694         687-2M19.0.25 pg/µL         Calibration         Vial 3         10.0         0.100         10.0         0.1000         56.09           07202021a_023.4         7.694         687-2M19.0.25 pg/µL         Calibration	07202021a_016.d	7.694	29148C0.01R4	DBA-TX380	Sample	P1-A2	10.0	0.100	10.0	0.1000	31.35	0.1014	0.0101	0.0104	1040
07202021a_018.d         7.694         29148C1.0R4         DBA-TX380         Sample         P1-A3         10.0         0.100         400.0         0.0025         74.91           07202021a_019.d         7.694         29148C1.0R4         DBA-TX380         Sample         P1-A3         10.0         0.100         400.0         0.0025         73.87           07202021a_019.d         7.694         29148C1.0R4         DBA-TX380         Sample         P1-A4         10.0         0.100         400.0         0.0025         73.87           07202021a_020.d         7.694         29150         DBC-TX380         Sample         P1-A4         10.0         0.100         10.0         0.1000         38.87           07202021a_020.1a         7.694         687-2M19.0.25 pg/µL         Calibration         Vial 3         10.0         0.100         10.0         0.1000         38.87           07202021a_022.1a         7.694         687-2M19.0.25 pg/µL         Calibration         Vial 3         10.0         0.100         10.0         0.1000         56.09           07202021a_022.4         7.694         687-2M19.0.25 pg/µL         DBD-TX380         Sample         P1-A5         10.0         0.100         10.0         0.1000         50.0 <td< td=""><td>07202021a_017.d</td><td>7.694</td><td>687-2M20 0.10 pg/µL</td><td></td><td>Calibration</td><td>Vial 4</td><td>10.0</td><td></td><td></td><td></td><td>39.79</td><td></td><td></td><td></td><td></td></td<>	07202021a_017.d	7.694	687-2M20 0.10 pg/µL		Calibration	Vial 4	10.0				39.79				
07202021a_019.d         7.694         29148C1.0R4         DBA-TX380         Sample         P1-A3         10.0         0.100         400.0         0.0025         7.3.87           07202021a_020.d         7.694         29150         DBC-TX380         Sample         P1-A4         10.0         0.100         10.0         0.100         38.19           07202021a_020.d         7.694         29150         DBC-TX380         Sample         P1-A4         10.0         0.100         10.0         38.19           07202021a_022.d         7.694         687-2M19 0.25 pg/µL         Calibration         Vial 3         10.0         0.100         10.0         0.1000         38.87           07202021a_022.d         7.694         687-2M19 0.25 pg/µL         Calibration         Vial 3         10.0         0.100         10.0         0.1000         36.09           07202021a_022.1a_022.4         7.694         687-2M280         Sample         P1-A5         10.0         0.100         10.0         0.1000         56.09           07202021a_024.d         7.694         687-2M20 0.10 pg/µL         DBD-TX380         Sample         P1-A5         10.0         0.100         10.0         0.1000         62.91           07202021a_025.d         7.694 <t< td=""><td>07202021a_018.d</td><td>7.694</td><td>29148C1.0R4</td><td>DBA-TX380</td><td>Sample</td><td>P1-A3</td><td>10.0</td><td>0.100</td><td>400.0</td><td>0.0025</td><td>74.91</td><td>0.2394</td><td>0.9575</td><td></td><td></td></t<>	07202021a_018.d	7.694	29148C1.0R4	DBA-TX380	Sample	P1-A3	10.0	0.100	400.0	0.0025	74.91	0.2394	0.9575		
07202021a_020.d         7.694         29150         DBC-TX380         Sample         P1-A4         10.0         0.100         10.0         0.100         38.19           07202021a_021.d         7.694         29150         DBC-TX380         Sample         P1-A4         10.0         0.100         10.0         0.100         38.87           07202021a_022.d         7.694         687-2M19 0.25 pg/µL         Calibration         Vial 3         10.0         0.100         10.0         0.1000         38.87           07202021a_022.d         7.694         687-2M19 0.25 pg/µL         Calibration         Vial 3         10.0         0.100         10.0         0.1000         56.09           07202021a_022.1a_022.d         7.694         687-2M20 0.10 pg/µL         DBD-TX380         Sample         P1-A5         10.0         0.100         10.0         0.1000         62.91           07202021a_024.d         7.694         687-2M20 0.10 pg/µL         DBD-TX380         Sample         P1-A5         10.0         0.100         10.0         0.1000         62.91           07202021a_025.d         7.694         687-2M20 0.10 pg/µL         DBD-TX380         Sample         P1-A5         10.0         0.1000         62.91         0.1000         62.91         0.100	07202021a_019.d	7.694	29148C1.0R4	DBA-TX380	Sample	P1-A3	10.0	0.100	400.0	0.0025	73.87	0.2361	0.9444	0.951	950
07202021a_021.d         7.694         29150         DBC-TX380         Sample         P1-A4         10.0         0.100         10.0         0.1000         38.87           07202021a_022.d         7.694         687-2M19 0.25 pg/µL         Callbration         Vial 3         10.0         0.100         10.0         79.00           07202021a_022.d         7.694         687-2M19 0.25 pg/µL         Callbration         Vial 3         10.0         0.100         10.0         79.00           07202021a_022.d         7.694         687-2M20 0.25 10 DBD-TX380         Sample         P1-A5         10.0         0.100         10.0         62.01           07202021a_024.d         7.694         687-2M20 0.10 pg/uL         DBD-TX380         Sample         P1-A5         10.0         0.100         10.0         62.01           07202021a_024.d         7.694         687-2M20 0.10 pg/uL         Callbration         Vial 4         10.0         0.1000         62.91	07202021a_020.d	7.694	29150	DBC-TX380	Sample	P1-A4	10.0	0.100	10.0	0.1000	38.19	0.1231	0.0123		
07202021a_022.d 7.694 687-2M19 0.25 pg/µL Callbration Vial 3 10.0 79.00 07202021a_023.d 7.694 587-2M19 0.25 pg/µL Sample P1-A5 10.0 0.100 10.0 0.1000 56.09 07202021a_024.d 7.694 29151 DBD-TX380 Sample P1-A5 10.0 0.100 10.0 0.1000 62.91 07202021a 025.d 7.694 687-2M2 0.10 pg/µL Callbration Vial 4 10.0 0.100 10.0 0.1000 62.91	07202021a_021.d	7.694	29150	DBC-TX380	Sample	P1-A4	10.0	0.100	10.0	0.1000	38.87	0.1252	0.0125	0.012	
07202021a_023.d 7.694 29151 DBD-TX380 Sample P1-A5 10.0 0.100 10.0 0.1000 56.09 07202021a_024.d 7.694 29151 DBD-TX380 Sample P1-A5 10.0 0.100 10.0 0.1000 62.91 07202021a 025.d 7.694 687-2M2 0.10 pd/uL Calibration Vial 4 10.0 10.0	07202021a_022.d	7.694	687-2M19 0.25 pg/µL		Calibration	Vial 3	10.0				79.00				
07202021a_024.d 7.694 29151 DBD-TX380 Sample P1-A5 10.0 0.100 10.0 0.1000 62.91 07202021a 025.d 7.694 687-2M20.0.10 pg/uL Calibration Vial 4 10.0 31.00	07202021a_023.d	7.694	29151	DBD-TX380	Sample	P1-A5	10.0	0.100	10.0	0.1000	56.09	0.1798	0.0180		
07202014 025.d 7.694 687-2M20 0.10 pq/uL Calibration Vial 4 10.0 31.00	07202021a_024.d	7.694	29151	DBD-TX380	Sample	P1-A5	10.0	0.100	10.0	0.1000	62.91	0.2014	0.0201	0.019	
	07202021a_025.d	7.694	687-2M20 0.10 pg/µL		Calibration	Vial 4	10.0				31.00				
Calculated LOD at 0.045 pg/µL = 14	Calculated LOD at 0.045 pg	/hf =	14												
Calculated LOQ at 0.10 pg/µL = 31	Calculated LOQ at 0.10 pg/	ut =	31												

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Compound Injection TFNA-AM 7/20/	n Date 2021			いた/た	0 1e/	Am								
08550 - Flonicamid/Onion - Fielc	Samples TX38	0 - Extracted 7/20/2021 by A	WS											
				Sample		Inj Vol	,	i wel	ins Tai	Dorn	Conc	muu	Ave	% Ber
Data File	RT	SampleName	Sample Info	Iype	VIAI POS	(hr)	51	IL VOI	fur fiu	deau	[ ] ] ] ]	Indd		
07202021a_001.d	I	Condition		Sample	P1-A3	10.0								
07202021a_002.d	5.270	Condition		Sample	P1-A3	10.0								
07202021a_003.d	5.270	Condition		Sample	P1-A3	10.0								
07202021a_004.d	5.270	Condition		Sample	P1-A3	10.0								
07202021a_005.d	5.270	Condition		Sample	P1-A3	10.0								
07202021a_006.d	5.270	Condition		Sample	P1-A3	10.0								
07202021a 007.d	5.284	Condition		Sample	P1-A3	10.0								
07202021a_008.d	5.270	687-2M21 0.05 pg/µL		Calibration	Vial 5	10.0				55.89				
07202021a 009.d	5.270	687-2M20 0.10 pg/µL		Calibration	Vial 4	10.0				103.23				
07202021a_010.d	5.270	687-2M19 0.25 pg/µL		Calibration	Vial 3	10.0				301.87				
07202021a_011.d	5.256	687-2M18 0.50 pg/µL		Calibration	Vial 2	10.0				585.79				
07202021a_012.d	5.243	687-2M17 1.0 pg/µL		Calibration	Vial 1	10.0				1190.58				
07202021a_013.d		29148	DBA-TX380	Sample	P1-A1	10.0	0.100	10.0	0.1000	]	<0.10	<0.01		
07202021a 014.d	1	29148	DBA-TX380	Sample	P1-A1	10.0	0.100	10.0	0.1000	l	<0.10	<0.01	<0.01	
07202021a_015.d	5.270	29148C0.01R4	DBA-TX380	Sample	P1-A2	10.0	0.100	10.0	0.1000	122.16	0.1033	0.0103		
07202021a_016.d	5.270	29148C0.01R4	DBA-TX380	Sample	P1-A2	10.0	0.100	10.0	0.1000	129.47	0.1095	0.0109	0.0106	106%
07202021a 017.d	5.270	687-2M20 0.10 pg/µL		Calibration	Vial 4	10.0				123.94				
07202021a_018.d	5.270	29148C1.0R4	DBA-TX380	Sample	P1-A3	10.0	0.100	400.0	0.0025	305.49	0.2575	1.0299		
07202021a_019.d	5.270	29148C1.0R4	DBA-TX380	Sample	P1-A3	10.0	0.100	400.0	0.0025	311.86	0.2628	1.0513	1.04	104%
07202021a 020.d	1	29150	DBC-TX380	Sample	P1-A4	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		
07202021a 021.d		29150	DBC-TX380	Sample	P1-A4	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.01	
07202021a_022.d	5.270	687-2M19 0.25 pg/µL		Calibration	Vial 3	10.0				300.87				
07202021a_023.d		29151	DBD-TX380	Sample	P1-A5	10.0	0.100	10.0	0.1000	-	<0.10	<0.01		
07202021a_024.d		29151	DBD-TX380	Sample	P1-A5	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.01	
07202021a_025.d	5.270	687-2M20 0.10 pg/µL		Calibration	Vial 4	10.0				126.98				
Calculated LOD at 0.045 p	g/µL =	53												
Calculated LOQ at 0.10 pg	/µL =	118												
"" denotes response be	low area thresh	plor												

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104%

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130

0.0500

Calibration

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	nevi condition	A LEXUALDED 1/20/2012 - U	1/10										
Data Elle	Ta	SampleName	Sample Info	Sample Type	Vial Pos	Inj Vol (uL)	0	nL Vol	ing Inj	Resp	Conc (pg/ µL)	mqq	A
DI DI CUCUCCO		Condition		Sample	P1-A3	10.0	•						
07202021a 002.d	5.956	Condition		Sample	P1-A3	10.0							
07202021a_003.d	5.956	Condition		Sample	P1-A3	10.0							
07202021a_004.d	5.956	Condition		Sample	P1-A3	10.0							
07202021a_005.d	5.956	Condition		Sample	P1-A3	10.0							
07202021a_006.d	5.956	Condition		Sample	P1-A3	10.0							
07202021a_007.d	5.956	Condition		Sample	P1-A3	10.0							
07202021a_008.d	5.956	687-2M21 0.05 pg/µL		Calibration	Vial 5	10.0				15.06			
07202021a_009.d	5.956	687-2M20 0.10 pg/µL		Calibration	Vial 4	10.0				32.94			
07202021a_010.d	5.942	687-2M19 0.25 pg/µL		Calibration	Vial 3	10.0				82.96			
07202021a_011.d	5.942	687-2M18 0.50 pg/µL		Calibration	Vial 2	10.0				177.30			
07202021a_012.d	5.929	687-2M17 1.0 pg/µL		Calibration	Vial 1	10.0				353.29			
07202021a_013.d		29148	DBA-TX380	Sample	P1-A1	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	
07202021a_014.d		29148	DBA-TX380	Sample	P1-A1	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.0
07202021a_015.d	5.969	29148C0.01R4	DBA-TX380	Sample	P1-A2	10.0	0.100	10.0	0.1000	34.81	0.1025	0.0102	
07202021a_016.d	5,969	29148C0.01R4	DBA-TX380	Sample	P1-A2	10.0	0.100	10.0	0.1000	35.97	0.1057	0.0106	0.010
07202021a 017.d	5.942	687-2M20 0.10 pg/µL		Calibration	Vial 4	10.0				37.02			
07202021a_018.d	5.956	29148C1.0R4	DBA-TX380	Sample	P1-A3	10.0	0.100	400.0	0.0025	96.55	0.2766	1.1063	
07202021a_019.d	5.956	29148C1.0R4	DBA-TX380	Sample	P1-A3	10.0	0.100	400.0	0.0025	98.84	0.2830	1.1321	-
07202021a_020.d		29150	DBC-TX380	Sample	P1-A4	10.0	0.100	10.0	0.1000	l	<0.10	<0.01	
07202021a_021.d		29150	DBC-TX380	Sample	P1-A4	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.0
07202021a_022.d	5.942	687-2M19 0.25 pg/µL		Calibration	Vial 3	10.0				85.85			
07202021a_023.d		29151	DBD-TX380	Sample	P1-A5	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	
07202021a_024.d	]	29151	DBD-TX380	Sample	P1-A5	10.0	0.100	10.0	0.1000	1	<0.10	<0.01	<0.0
07202021a_025.d	5.942	687-2M20 0.10 pg/µL		Calibration	Vial 4	10.0				36.73			
Calculated LOD at 0.045 pg	/hr =	14											
Calculated LOO at 0.10 pg/i	ut =	34											

104%

112%

% Rec

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0.1000 0.0500

15.06

LO I

Calibration

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D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\07202021\0720201a\_025.d

Calibration

36.73

	mL Vol							
	D							
	Inj Vol (µL)	10.0	10.0	10.0	10.0	10.0	10.0	10.0
ann	Vial Pos	P1-A3	P1-A3	P1-A3	P1-A3	P1-A3	P1-A3	P1-A3
12/12/	Sample Type	Sample	Sample	Sample	Sample	Sample	Sample	Sample
ţ,	Sample Info							
xtracted 7/20/2021 by ASt	SampleName	Condition	Condition	Condition	Condition	Condition	Condition	Condition
Samples TX380 - E	RT		7.171	7.158	7.158	7.171	7.171	7.171
Injection Date 7/20/2021 onicamid/Onion - Field	Data File	02021a_001.d	02021a_002.d	02021a_003.d	202021a_004.d	202021a_005.d	202021a_006.d	02021a 007.d
Compound TFNG 08550 - FI		072	072	072	072	072	07.	075

	רעו כאולווופר חומ	00 - FYN BCIER 1/ 50/ 5051 0/ W												
				Sample		Inj Vol			1000		Conc	(acar	AVE	
Data File	RT	SampleName	Sample Info	Type	Vial Pos	(hr)	D	mL Vol	fur 6m	Kesp	(bg/hr)	bpm	mdd	No Kec
07202021a_001.d		Condition		Sample	P1-A3	10.0								
07202021a_002.d	7.171	Condition		Sample	P1-A3	10.0								
07202021a_003.d	7.158	Condition		Sample	P1-A3	10.0								
07202021a_004.d	7.158	Condition		Sample	P1-A3	10.0								
07202021a_005.d	7.171	Condition		Sample	P1-A3	10.0								
07202021a_006.d	7.171	Condition		Sample	P1-A3	10.0								
07202021a_007.d	7.171	Condition		Sample	P1-A3	10.0								
07202021a 008.d	7.171	687-2M21 0.05 pg/µL		Calibration	Vial 5	10.0				19.97				
07202021a 009.d	7.171	687-2M20 0.10 pg/µL		Calibration	Vial 4	10.0				39.93				
07202021a_010.d	7.171	687-2M19 0.25 pg/µL		Calibration	Vial 3	10.0				89.23				
07202021a_011.d	7.158	687-2M18 0.50 pg/µL		Calibration	Vial 2	10.0				181.08				
07202021a_012.d	7.158	687-2M17 1.0 pg/pf		Calibration	Vial 1	10.0				368.18				
07202021a 013.d		29148	DBA-TX380	Sample	P1-A1	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		
07202021a 014.d	ţ	29148	DBA-TX380	Sample	P1-A1	10.0	0.100	10.0	0.1000	l	<0.10	<0.01	<0.01	
07202021a 015.d	7.171	29148C0.01R4	DBA-TX380	Sample	P1-A2	10.0	0.100	10.0	0.1000	41.14	0.1080	0.0108		
07202021a 016.d	7.171	29148C0.01R4	DBA-TX380	Sample	P1-A2	10.0	0.100	10.0	0.1000	37.58	0.0983	0.0098	0.0103	103%
07202021a 017.d	7.158	687-2M20 0.10 pg/µL		Calibration	Vial 4	10.0				37.93				
07202021a_018.d	7.171	29148C1.0R4	DBA-TX380	Sample	P1-A3	10.0	0.100	400.0	0.0025	105.66	0.2854	1.1415		
07202021a 019.d	7.171	29148C1.0R4	DBA-TX380	Sample	P1-A3	10.0	0.100	400.0	0.0025	104.39	0.2819	1.1276	1.13	113%
07202021a_020.d	I	29150	DBC-TX380	Sample	P1-A4	10.0	0.100	10.0	0.1000	1	<0.10	<0.01		
07202021a_021.d	-	29150	DBC-TX380	Sample	P1-A4	10.0	0.100	10.0	0.1000		<0.10	<0.01	<0.01	
07202021a_022.d	7.171	687-2M19 0.25 pg/µL		Calibration	Vial 3	10.0				88.36				
07202021a_023.d	L	29151	DBD-TX380	Sample	P1-A5	10.0	0.100	10.0	0.1000	-	<0.10	<0.01		
07202021a_024.d	l	29151	DBD-TX380	Sample	P1-A5	10.0	0.100	10.0	0.1000	-	<0.10	<0.01	<0.01	
07202021a_025.d	7.171	687-2M20 0.10 pg/µL		Calibration	Vial 4	10.0				44.94				
Calculated LOD at 0.045	= h/pd	18												
Calculated LOQ at 0.10 p	og/hr =	38												

"----" denotes response below area threshold

-



0.0500

19.97

5

Calibration

D:\MassHunter\Flonicamid\08550\_Onion\Data\Results\0720201\0720201a\_008.d

### **ATTACHMENT C: STANDARD USE FORMS**

IR-4 Western Trace Analytic	Region Labo cal Laborator	ratory and Y				Number: 601
	RE	FERENCE ST	ANDARD RI	ECEIPT	T/USE	
Chemical IK	.1-220				Standard #	687
Parent IKI-2	20				Date Receiv	ed 05/12/20
Source <sup>1</sup> ISK Bi	osciences		Certifi	ed By _M	1RIGlobal	
Lot #9803			Physical	Form so	lid	
Original Exp	iration Date	<sup>2</sup> <u>11/06/23</u>	Original I	Purity <sup>2</sup>	99.8%	
Extended Ex	piration Dat	e/Purity/Recer	tified By <sup>3</sup> :	•		
1)		%1		Initia	al D	ate
2)		% /		Initia	al D	ate
3)		%1	- -	Initia	al D	ate
4)		% /		Initia	al D	ate
Notes Rec'd wi	ith dry ice. AKA: H	Flonicamid. PAI stands	s for Pesticide Active	Ingredient.		
CoA Rec'd ?	Yes CoA a	nd label agree: Y	<sup>(es</sup> (M)SDS:	Yes	Storage: Freeze	er
CoA Rec'd ?	Yes CoA an	nd label agree:	(es (M)SDS:	Yes	Storage: Freez	er
CoA Rec'd ? Signature	Yes CoA an Bronsen	nd label agree:	<sup>(es</sup> (M)SDS:	Yes Date	Storage: Freez	er 2.0
CoA Rec'd ? Signature	Yes CoA an Bronson	nd label agree:	(M)SDS:	Yes Date	Storage: Freez	er 20
CoA Rec'd ? Signature/	Yes CoA an	Amount	(es (M)SDS: D SE RECORD Balance	Yes Date S Initial	Storage: Freeze 5/12/. Amount	er 2.0 Standard Stock #
CoA Rec'd ?	Yes CoA and Bron Series	nd label agree:	(M)SDS: D SE RECORD Balance ID	Yes Date S Initial	Storage: Freeze 5 /12 /2 Amount Left (g) 0.3249 g	er 2-0 Standard Stock #
CoA Rec'd ?	Yes CoA an Bron Son Date 5/12/20	Amount Used (g)	(M)SDS: D SE RECORD Balance ID	Yes Date S Initial BH	Storage:       Freezon         5       / 12         Amount       Left (g)         0.3249 g	er 20 Standard Stock #
CoA Rec'd ? Signature/ Location Freezer 6 Freezer 4 # 6	Yes CoA an Bron Ser Date 5/12/20 5/20/20	Amount Used (g) Initial	(M)SDS: E RECORD Balance ID Scroppy	Yes Date S Initial BH BH	Storage: Freeze 5 /12 /2 Amount Left (g) 0.3249 g 0.29993	2-0 Standard Stock # 687 - 1
CoA Rec'd ? Signature/ Location Freezer 6 Freezer 6 Freezer ± 6	Yes CoA an Bron Son Date 5/12/20 5/20/20 5/03/2021	nd label agree:	(M)SDS: D SE RECORD Balance ID Scroppy Scroppy	Yes Date S Initial BH BH BH	Storage: Freeze 5 /12 / Amount Left (g) 0.3249 g 0.29993 0.27488	er 20 Standard Stock # 687 - 1 687 - 2
CoA Rec'd ? Signature/ Location Freezer 6 Freezer 6 Freezer 4 4 6 Freezer 26	Yes CoA an Bronson Date 5/12/20 5/20/20 5/03/2021	nd label agree: $d$ d d d d d d d	(es (M)SDS: D SE RECORD Balance ID Scroppy Scroppy	Yes Date S Initial BH BH Com	Storage: Freeze 5 /12 /2 Amount Left (g) 0.3249 g 0.29993 0.27488	er 2-0 Standard Stock # 687 - 1 <87 - 2
CoA Rec'd ? Signature Location Freezer 6 Freezer 6 Freezer ± 6	Yes CoA at Bron Ser Date 5/12/20 5/20/20 5/03/2021	nd label agree: D Amount Used (g) Initial 0.02497 0.02505	(M)SDS: D SE RECORD Balance ID Scroppy Scroppy	Yes Date S Initial BH BH BH	Storage: Freeze 5 /12 / Amount Left (g) 0.3249 g 0.29993 0.27488	er 20 Standard Stock # 687 - 1 687 - 2
CoA Rec'd ? Signature/ Location Freezer 6 Freezer 4 # 6 Freezer ± 6	Yes CoA at $Broase$ Date $5/12/20$ 5/20/20 5/03/2021	nd label agree:	(es (M)SDS: E RECORD Balance ID Scroppy Scroppy	Yes Date S Initial BH BH Com	Storage: Freeze 5 /12 /2 Amount Left (g) 0.3249 g 0.29993 0.29993 0.27488	er 20 Standard Stock # 687 - 1 687 - 2
CoA Rec'd ? Signature/ Location Freezer 6 Freezer 4 # 6 Freezer ± 6	Yes CoA and $Bron Sec.$ Date $5/12/20$ 5/20/20 5/03/2021	nd label agree: D	(es (M)SDS: E RECORD Balance ID Scroppy Scroppy	Yes Date S Initial BH BH Com	Storage: Freeze 5 /12 /2 Amount Left (g) 0.3249 g 0.29993 0.27488	er 2-0 Standard Stock # 687 - 1 <87 - 2
CoA Rec'd ? Signature/ Location Freezer 6 Freezer 4 # 6 Freezer ± 6	Yes CoA an Bron Son Date 5/12/20 5/20/20 5/03/2021	nd label agree:	(es (M)SDS: E RECORD Balance ID Scroppy Scroppy	Yes Date S Initial BH BH Com	Storage: Freeze 5 /12 /2 Amount Left (g) 0.3249 g 0.29993 0.27488	er 20 Standard Stock # 687 - 1 687 - 2
CoA Rec'd ? Signature/ Location Freezer 6 Freezer 4 # 6 Freezer ± 6	Yes CoA at $Bron Sec.$ Date $5/12/20$ 5/20/20 5/03/2021	Amount Used (g) Initial 0.02497 0.02505	(es (M)SDS: E RECORD Balance ID Scroppy Scroppy	Yes Date S Initial BH BH Com	Storage: Freeze 5 /12 / Amount Left (g) 0.3249 g 0.29993 0.27488	Er 2.0 Standard Stock # 687 - 1 687 - 2

<sup>2</sup>Enter the original expiration date and purity and when the standard was received. <sup>3</sup>When the standard is recertified enter the exfended expiration date, purity and company that recertified the standard.

\*\*\*\*\*Write Standard # on CoA and Original Standard Container\*\*\*\*

Revised on: 08/21/15

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IR-4 Western Region Laboratory and Trace Analytical Laboratory SOP Number: 601

**REFERENCE STANDARD RECEIPT/USE** 

Chemical TF	NA-AM		100000-00000-0000000000000000000000000		Standard #	688
Parent IKI-2	20 (Flonicamid	)	na an a		Date Received	05/12/20
Source <sup>1</sup> ISK Bi	osciences		Certifie	d By M	IRIGlobal	
Lot # 0006			Physical I	form so	lid	
Original Exp	iration Date	<sup>2</sup> <u>11/19/20</u>	Original P	urity <sup>2</sup>	99.9%	
Extended Exp 1) $11/5/2$	piration Date	e/Purity/Recer  -9 %/ MR1	tified By <sup>3</sup> : Global	Initia	al BIH Dat	e 11/17/20
2)	1	% /		Initia	ul Dat	е
3)		% /		Initia	al Dat	
4)	/	% /		_ Initia	ul Dat	e
Notes Rec'd wi	th dry ice. AKA: 4	-Trifluoromethylnicoti	namide.			
CoA Rec'd ?	Yes CoA ar	id label agree: Y	es (M)SDS:	Yes	Storage: Freezer	
Signature	Brms	2 the	ne D	ate	5/12/2	.0
		US	SE RECORDS	3		<b>4.</b> <i>A</i>
Location	Date	Amount Used (g)	Balance ID	Initial	Amount Left (g)	Standard Stock #
Freezer 6	5/12/20	Initial		ßIJ	0.3035 g	
Freezer #6	5/20/20	0.02509	Scrappy	BH	0.27841	688-1
Freezer #6	5/03/21	0.02517	Scrippy	asm	0.25324	688-2

<sup>1</sup>Enter the Registrant from the Protocol or the chemical company providing the standard.

<sup>2</sup>Enter the original expiration date and purity and when the standard was received.

<sup>3</sup>When the standard is recertified enter the extended expiration date, purity and company that recertified the standard.

#### \*\*\*\*\*Write Standard # on CoA and Original Standard Container\*\*\*\*\*

Revised on: 08/21/15

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R-4 Western Frace Analytic	Region Labo cal Laborator	ratory and			SOP	Number: 601
	RE	FERENCE ST	ANDARD RE	ссеірт	/USE	
C <b>hemical</b> TF	'NA				Standard #	689
Parent IKI-2	20 (Flonicamid	)			Date Receive	<b>i</b> 05/12/20
Source <sup>1</sup> ISK Bi	osciences		Certifie	ed By N	IRIGlobal	
Lot # 0006			Physical I	Form so	lid	
Original Exp	iration Date	<sup>2</sup> 11/17/20	— Original P	urity <sup>2</sup>	100.0%	
Extended Exp 1) <u>11   5   2</u>	piration Date -025/100	e/Purity/Recer .0 % / MR	tified By <sup>3</sup> : IGIObal	. Initia	al_ <u>BH</u> _Da	te 11 (17/2
2)		%/		Initia	ul Da	te
5) 1)				Initia	alDa	te
A) Rec'd w	ith drv ice. AKA: 4	-Trifluoromethylnicoti	nic acid.	Initia	al Da	
Notes	Var		/	Vaa	Excerce	
Signature	Brons	m) Hi US Amount	D SE RECORDS Balance	s	5 / 12 / 2 Amount	• Standard
Location	Date	Used (g)	ID		Left (g)	Stock #
Freezer 6	5/12/20	Initial		BH	0.3499 g	
Freezer #6	5/20/20	0.02503	Scrappy	BH	0.32487	689-1
Freezer #6	5/03/21	0.02514	Scrappy	asm	0.29973	689-2
				1		

<sup>2</sup>Enter the original expiration date and purity and when the standard was received.

<sup>3</sup>When the standard is recertified enter the extended expiration date, purity and company that recertified the standard.

\*\*\*\*\*Write Standard # on CoA and Original Standard Container\*\*\*\*\*

Revised on: 08/21/15

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IR-4 Western Region Laboratory and	SOP Number:	601
Trace Analytical Laboratory		

#### **REFERENCE STANDARD RECEIPT/USE**

Chemica	TFNG				Standard #	690
Parent	IKI-220 (Flonicamic	l) ·			Date Received	05/12/20
Source <sup>1</sup>	SK Biosciences		Certifie	d By C	ERI	
Lot # 20	1511		Physical I	Form so	id	******
Original	Expiration Date	<sup>2</sup> 10/31/21	Original P	urity <sup>2</sup>	99.7%	
Extended	l Expiration Dat	e/Purity/Recert	tified By <sup>3</sup> :			
1)		% /	สารสารศาสตร์	Initia	l Dat	e
2)		% /	anne ann an	Initia	l Dat	e
3)		% /		Initia	Dat	e
4)		% /		Initia	l Dat	e
Notes c	ec'd with dry ice. AKA:	N-(4-trifluoromethylnico	otinoyl) glycine. CoA	did not inc	icate the original archi	val location. Will
CoA Rec'd	? Yes CoA a	nd label agree: Y	es (M)SDS:	Yes	Storage: Freezer	
Signatur	e Bronson	n Hug	D.	ate	5/12/20	
r			SE RECORDS	5		
Locat	ion Date	Amount Used (g)	Balance ID	Initial	Amount Left (g)	Standard Stock #
Freeze	r <sup>6</sup> 5/12/20	Initial		вН	0.3171 g	
Treez #6	or 5/20/20	0.02512	Scrappy	вH	0.29198	690-1
Freezer #6	5/03/21	0.02506	Scrappy	asm	0.26692	690-2
		· · · · ·				
· · · · · · · · · · · · · · · · · · ·						

<sup>1</sup>Enter the Registrant from the Protocol or the chemical company providing the standard.

<sup>2</sup>Enter the original expiration date and purity and when the standard was received.

<sup>3</sup>When the standard is recertified enter the extended expiration date, purity and company that recertified the standard.

\*\*\*\*\*Write Standard # on CoA and Original Standard Container\*\*\*\*\*

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$\sim$	IR-4 Weste Trace Anal	ern Region L lytical Labor	aboratory and atory			SOP Number	: 602
			STANDARD	USE FORM	- STOCK		
	Name <u>IKI</u>	<u>-220*</u> Pu	rity99.8 %	Source <del>MRIC</del>	<del>Global</del> IS	& Biosciences	EE BH
	Date Rece	ived_05/12/	2020 Expirati	on Date11/6/	2023 Lot	#9803	11/10/24
	Stock Solu	ition:					
	0-02497 (g	, Χ <u>99.8%</u> Ρι	urity X 1000mg/§	g) <b>/_25</b> _n	nL = 1.0	_mg/mL	
	Solvent: A	Acetonitrile	Storage:	Freezer		2.21	EE 01
	Stock Stan	ndard #	687-1	Expiration Date	5/20	12020	5/20/20
	Prepared b	y form	nsad Hu	Dat	e_5/20	12020	
		/		<i>O</i> ALIQUOTS			
$\bigcirc$	Date	mL Removed	Syringe/Pipette Size	Spike or Dilution	New Std #	Expiration Date	Initial
	5/20/20	2.5	5mh Pipetman	Ð	687-1M1	11/17/20	BH
Late Entry	- DIS 2/11/21	2.5	Smi Pipetmen	D	687-IM4	5/20/21	aem
	* Flonicar	nid					
$\bigcirc$	Revised on:	6/03/08				Page #	

IR-4 Western Region Laboratory and Trace Analytical Laboratory	SOP Number:	602
STANDARD USE FORM - STOCK	66 5A1/21 084	EE 11/16/21 abr-
Name_IKI-220 (Floricarid) Purity_99.8 % Sour	M <del>RE Globa</del> l ce <u>ISK Biasci</u> c	ISK Birsciences
Date Received 5/12/2020 Expiration Date 11/06/2023	Lot #9803	3
Stock Solution:		
0.02505 (g X <u>99.8 %</u> Purity X 1000mg/g) <b>/</b> _25mL) =	1.0 mg/mL	
Solvent <u>Acetonitrile</u> Storage: RT/R(F)Oth	er	_
Stock Standard # 687-2 Expiration Date 5/03/20	22	
Prepared by ales Merfall Date 5/03/202	21	
ALIQUOTS		

Date	mL Removed	Syringe/Pipette Size	Spike or Dilution	New Std #	Expiration Date	Initial
5/3/21	2.5	5 mc Pipetman	D	687-2MI	11/03/21	asm

Revised on: 10/06/2020

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1	IR-4 Weste Trace Anal	ern Region L lytical Labora	aboratory and atory			SOP Number	: 602
0			STANDARD	USE FORM	- STOCK	<i>ЕЕ</i> ВН Ш	116/24
	Name <u>TF</u>	NA-AM*	<b>Purity</b> 99.9 %	Source M	<u>RIGlobal</u> -	ISK Biosci	iences
	Date Rece	ived05/12/	2020 Expiration	on Date <u>11/19/</u>	2020 L	ot #0006	
	Stock Solu	ition:					
	0.02509 (g	X <u>99.9 %</u> P	urity X 1000mg/	g)/n	nL= <u>1.0</u>	_mg/mL	
	Solvent:	Acetonitrile	Storage:	Freezer	5/20	2021	New CoA
	Stock Stan	dard #	688-1	Expiration Date	11/19	12020	BH 2/10/21
	Prepared b	yBr	mson th	Tung Date	5/2	0/2020	
			2	ALIQUOTS			
$\frown$	Date	mL Removed	Syringe/Pipette Size	Spike or Dilution	New Std #	Expiration Date	Initial
	5/20/20	2.5	5 mL Pipetman	Ð	687-1M1	11/17/20	BH
Late Entry 5/3/21 april	DI 2/11/21	SCARDED	5/3/2021 all Sml Pipetman	D	687-1M4	5/20/21	asm
	* 4-triflu	oromethyli	nicotinamide				
	Revised on:	6/03/08				Page #	£

IR-4 West Trace Ana	ern Region L lytical Labora	aboratory and atory			SOP Number:	602
		STANDARD	USE FORM	- STOCK		
Name <u>7</u>	FNA-AM	Pu	rity_ ৭৭.৭	<u>%</u> Sour	<u>FE SAH/2</u> AARE GIDbo CC <u>ISK BiDbo</u>	toon EE II/II J ISK BID TSK BID
Date Reco	eived 5/12/	2020 Ex	piration Date	11/05/2025	Lot #	006
Stock Soli	ution:					
1.01314						
(g Solvent	X 99.9 C	<u>%</u> Purity X 1000	)mg/g)/5 Storage: R7	$\underline{mL} = \underline{mL}$	nermg/ml	L
(g Solvent Stock Star	X <u>٩٩.٩</u>	<u>%</u> Purity X 1000 い <u>。</u> 88-ス	mg/g)/5 Storage: R Expiration Dat	$mL) = _mL) = _$	۱.0 mg/ml her	L 
(g Solvent Stock Star Prepared I	X <u>99.9</u> Acetonitri ndard # <u>6</u> oy <u>alex</u>	26 Purity X 1000 31e 88-2 Marall	mg/g)/ عم Storage: R Expiration Dat Date	$mL) = _mL) = _mL) = _mL) = _mL)$ $mE = _5 / 03 / 2$ $mE = _5 / 03 / 2$	1.0 mg/m] her 21	Ĺ
(g Solvent Stock Star Prepared I	X <u>99.9</u> <u>Acetonitri</u> ndard # <u>6</u> py <u>alex</u>	26 Purity X 1000 31e 88-2 Marall	mg/g)/ عمر Storage: R Expiration Dat Date ALIQUOTS	$mL) = _{mL}$ $F/R (F) Othe _ 5 /03 /20$ $e _ 5 /03 /20$	1.0 mg/m] ner シンス ス!	L 
(g Solvent Stock Star Prepared I Date	X <u>99.9</u> Acetonitri ndard # <u>6</u> oy <u>Alex</u> mL Removed	Murity X 1000 38-2 Marall Syringe/Pipette Size	mg/g)/ عمر Storage: R Expiration Dat Date ALIQUOTS Spike or Dilution	$mL) = _{mL}$ $F/R (F) Other   (F) Other $	I.O   mg/m]     her	Initial

5/3/21	2.5	SML Pipetman	9	687-2MI	11/03/21	com

Revised on: 10/06/2020

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	IR-4 Weste Trace Ana	ern Region Labora	aboratory and atory			SOP Number	: 602					
0	STANDARD USE FORM - STOCK EE BH 11/16/21											
	Name <u>TF</u>	NA* Puri	ty_100.0 %_ S	Source <u>MRIGI</u>	<u>obal</u> Is	K Bioscien	ces					
	Date Rece	eived05/12/	2020 Expiratio	on Date <u>11/17/2</u>	2020 Lot	#0006						
	Stock Solu	ition:										
	<b>0.0250</b> 3 (g	X <u>100.0 %</u>	Purity X 1000	mg/g) <b>/_25</b>	mL =	.o_mg/mL						
	Solvent:	Acetonitrile	Storage:	Freezer	5/20/	2021 No	en CoA					
	Stock Star	ndard #	689-1	Expiration Date	11/17/	2020	BH 2/10/21					
	Prepared b	y Bro	ison the	Tung Date	5/20/	20						
				ALIQUOTS								
$\frown$	Date	mL Removed	Syringe/Pipette Size	Spike or Dilution	New Std #	Expiration Date	Initial					
	5/20/20	2.5	5 mh Pipetman	D	687-1M1	11/17/20	B4					
Lote Entry	2/11/21	DISCARDED	5/3/2021 agu 5 mL Pipetman	D	687-1M4	5/20/21	asm					
	* 1 4.:0		i actinia coid									
	* 4-triflu	loromethyli	incounic acid									
$\frown$	Revised on:	6/03/08			4	Page #						

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IR-4 Western Region La Trace Analytical Labora	aboratory and atory			SOP Number:	602
	STANDARD	USE FORM -	- STOC	K	56 11/16
Name_TENA	Pu	rity_100.0	<u>%</u> Se	MRE Giste	) Isk Brose
Date Received 5/12	/2020 Ex	piration Date	105/20	25 Lot # _000	56
Stock Solution:					
0.02514 (g X 100.0 %	<u>%</u> Purity X 1000	0mg/g) <b>/25</b>	mL) =	= <u>1.0</u> mg/mL	
Solvent <u>Acetoniti</u>	e	Storage: RT	R F	Other	
Stock Standard #6	89-2	_Expiration Date	5/03/	2022	
Prepared by <u>Celes</u>	Merall	Date	5/03/	2021	
		ALIQUOTS			
Date mL Removed	Syringe/Pipette	Spike or Dilution	New Std #	Expiration Date	Initial

Date	Removed	Size	Dilution	Std #	Date	
5/3/21	2.5	5 ml Pipetman	D	687-2MI	11/03/21	asm
						0
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				s.,		
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Revised on: 10/06/2020

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	analytical Labor	ratory				
		STANDARD	USE FORM	I - STOCK		
					EZ	E BH
Name	TFNG* Pur	rity <u>99.7 %</u> S	ource <u>CERI</u>	ISK Bi	osciencos	
Date R	eceived 05/12	/2020 Expiration	on Date <u>10/31/2</u>	2021 Lot #	<u>‡ 201511</u>	
Stock S	Solution:					
0.02	51 <b>2</b> 9 X 99.7% P	urity X 1000mg/s	g) <b>/ 25</b> n	nL = 1.0	mg/mL	
Calcurat	A astanitrila	Starage:	Froozor		0	
Solvent	t: Acetonitrile	Storage:	<u> </u>			
Sonicat	ted stock solution	on for <u>/</u> mins		/	/	
Stock S	Standard #	690-1	Expiration Date	5/20	2021	
Prepare	ed by Bra	nson Hung	Dat	e <u>5/20</u>	2020	
		0	ALIOUOTS		FE	5/20
			ALIQUUIS	A 687-1	MI BH 3	,
Date	mL Removed	Syringe/Pipette Size	Spike or Dilution	▲ 687-1 New Std #	MI BH 3 Expiration Date	Ini
Date 5/20/2	mL Removed 20 2.5	Syringe/Pipette Size	Spike or Dilution	▲ 687-1 New Std #	MI Expiration Date II/17/20	Ini B
Date 5/20/2	mL Removed	Syringe/Pipette Size 5mL Pipetman 5/3/2021 at 5mL Pipetman	Spike or Dilution	▲ 687-1 New Std # 687-15- <sup>▲</sup>	M I Expiration Date 11/17/20	Ini B
Date 5/20/2 2/11/2	mL Removed 20 2.5 DISCARDED 1 2.5	Syringe/Pipette Size 5mL Pipetman 5/3/2021 at 5mL Pipetman	Spike or Dilution D D	▲ 687-1 New Std # <del>687-15-</del> ▲ 687-1M4	M I Expiration Date 11/17/20 5/20/21	Ini B
Date 5/20/2	mL Removed 20 2.5 DISCARDED 1 2.5	Syringe/Pipette Size 5mt Pipetman 5/3/2021 Qe 5mt Pipetman	Spike or Dilution	▲ 687-1 New Std # <del>687-15-</del> ▲ 687-1M4	M I Expiration Date 11/17/20 5/20/21	Ini Bl
Date 5/20/2 2/11/2	mL Removed 20 2.5 DIJCARDED 1 2.5	Syringe/Pipette Size 5mL Pipetman 5/3/2021 QE 5mL Pipetman	Spike or Dilution	▲ 687-1 New Std # <del>687-15-</del> ▲ 687-1M4	M I Expiration Date 11/17/20 5/20/21	Ini Bl
Date 5/20/2	mL Removed 20 2.5 DIJCARDED 1 2.5	Syringe/Pipette Size 5ml Pipetman 5/3/2021 Qe 5ml Pipetman	Spike or Dilution	▲ 687-1 New Std # 687-15- ▲	M I Expiration Date 11/17/20 5/20/21	Ini B
Date 5/20/ 2/11/2	mL Removed	Syringe/Pipette Size 5mL Pipetman 5/3/2021 ad 5mL Pipetman	Spike or Dilution	▲ 687-1 New Std # 687-15-	M I Expiration Date 11/17/20 5/20/21	
Date 5/20/2	mL Removed	Syringe/Pipette Size 5ml Pipetman 5/3/2021 at 5ml Pipetman	Spike or Dilution	△ 687-1 New Std # 687-15- 687-1M4	M I Expiration Date 11/17/20 5/20/21	
Date	mL Removed	Syringe/Pipette Size 5mL Pipetman 5/3/2021 at 5mL Pipetman	Spike or Dilution	△ 687-1 New Std # 687-15- △ 687-1M4	M 1 BH 3 Expiration Date 11/17/20 5/20/21	

		STANDARD	USE FORM	- STOCK	EE 5/11/21	ee II/
Name	TFNG	Pu	rity99-7_	<u>%</u> Sou	rce I <del>SK Bros</del>	Teres I
Date Rec	eived 5/12	/2020 Ex	piration Date	10/31/202	۱ Lot # <u>م</u>	13
Stock Sol	ution.					
	ution.					
(g	X 99.7	<u>%</u> Purity X 1000	mg/g)/25	mL) =	1.0 mg/m	L
Solvent _	Acetonit	rile	Storage: R	Γ/ R (F) Otl	ner	
Stock Sta	ndard #	590-2	Expiration Dat	te 10/31/2	(COA)	
		<b>n</b> , <b>C</b> , n	_ 1	5/17/17	ובמ	
Prepared	by ally	Midall	Date	<u> </u>	Earm	
			ALIQUOTS		5/3/21	
			-			
Date	mL	Syringe/Pipette	Spike or	New	Expiration	Initial
Date	mL Removed	Syringe/Pipette Size	Spike or Dilution	New Std #	Expiration Date	Initial
Date 5/3/21	mL Removed 2.5	Syringe/Pipette Size	Spike or Dilution	New Std # 687-2m1	Expiration Date	Initial com
Date	mL Removed 2.5	Syringe/Pipette Size	Spike or Dilution	New Std # 687-2M1	Expiration Date	Initial com
Date	mL Removed 2.5	Syringe/Pipette Size	Spike or Dilution	New Std # 687-2M1	Expiration Date	Initial oon
Date	mL Removed 2.5	Syringe/Pipette Size	Spike or Dilution	New Std # 687-2M1	Expiration Date	Initial osn
Date	mL Removed 2.5	Syringe/Pipette Size	Spike or Dilution	New Std # 687-2M1	Expiration Date	Initial osm
Date	mL Removed 2.5	Syringe/Pipette Size	Spike or Dilution	New Std # 687-2M1	Expiration Date	Initial com
Date	mL Removed 2.5	Syringe/Pipette Size	Spike or Dilution	New Std # 687-2m1	Expiration Date	Initial com
Date	mL Removed 2.5	Syringe/Pipette Size	Spike or Dilution	New Std # 687-2m1	Expiration Date	Initial aom
Date	mL Removed 2.5	Syringe/Pipette Size 5ml Pipetmen	Spike or Dilution	New Std # 687-2m1	Expiration Date	Initial aom

Revised on: 10/06/2020

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	Storage	RT/ R/F/ O		Ч	Н	Ч	L	ı ۲	¥	2	Ч	ح	ч	wi to			
5	Exp. Date			5/20/21	5/20/21	5/20/21	12/02/5	12/02/5	5/6/21	5/6/21	5/6/21	5/6/21	516 121	r cert'd			
	JUSVIOL			ACN	ACN	ACN	ACN	Acu	0*	<b>*</b> *	▽*	⊲ *	<b>∆</b> *	rcine	mage 1		
OP Number	New Std#			D 687-2MT	687-2M2	687-2M3	1002-289	Smot- +89 Smi	SMI-782	2012-289 01111	8x12-239	5×17-289	0001	cotinoyl) gly	4+ 5/03/2	Page	
S	Final Conc.			100µg/mL	10µg/mL	1.0µg/mL	Jm/gu(01.0	0.010,ug/ml	1.093/146	0.5 pg/pul	0.25 pg/ml	0.1 pg/mr	0.05 pg/ml	romethylnic		5/3/3/2 45 LE 45 LE	
	Final Vol (mL)			25	25	25	52	25	25	2.5	75	25	25	-trifluo			
	of Ids		mL		2.5	2.5	2.5	5.2	2.5	1.25	0.625	0.250	0.125	** N-(4		adm	
ILUTIONS	Mixture Compoun	Mixed	Std#		687-2MT	1.M5 687-2,M2	1m6 687-3m3	Hydr-289 Emi	SNTE-289	sure-t89	5472-289	SW2-289	5x12-239 8m1	nic acid, ***	اد: ناماد	14 22/h	
M - D	pui	* *	mL	2.5	0	_							- 11	Inicotii	HUNDER		
<b>USE FOH</b>	Compou 4	TFNG*:	Std#	690-1										loromethy	5:45	LE abr	
DARD	pun	* *	mL	2.5										4-trifl	4	*	
STAN	Compo 3	TFNA	Std#	689-1										mide, ***		17)	
pr	pui	M**	mL	2.5										icotina		&m 5/3	\$
boratory ar ory	Compou 2	TFNA-A	Std#	688-1				×						romethyln		g G	TA A
ion Lal	pu	*	mL	2.5										-trifluo		)20	
Vestern Reg Analytical I	Compour 1	IKI-220	Std#	687-1										icamid, **4. =Acetonitrile		d on: 05/12/20	
IR-4 \ Trace	Date	Year 2021		11/10	3/11	וו/ד	4122	4/22						*Flon		Revise	

IR-4 Western Region Laboratory, University of California, Davis

602 SOP Number:

> IR-4 Western Region Laboratory and Trace Analytical Laboratory

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Storage	RT/ R/F/ O		Ľ.	ц	ц	Ľ.	ί <b>Γ</b>	ί <b>τ</b> ,
Exp. Date			5/06/21	5/06/21	5/06/21	5/06/21	5/06/21	5/06/21
Solvent			Δ	Φ	Δ	Δ	Δ	Φ
New Std#			111.087- B	11-15687- 2MT2	111-1687- 2MT3	11-15-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	111-1687- 23445	1
Final Conc.			1.0 pg/μL	0.50 pg/µL	0.25 pg/µL	0.10 pg/µL	0.05 pg/µL	1.0 pg/μL
Final Vol. (mL)			25	25	25	25	25	25
ure	ed	mL	2.5	1.25	0.625	0.250	0.125	2.5
Mixt	Mix	Std#	687- 2)45	687- 2M5	687- 2M5	687- 2M5	687- 2M5	687- 2M5
punc	* * *	mL	SWI	-				)
Compe 4	TFNG	Std#						
punc	* *	mL						
Compo 3	TFNA	Std#						
punc	4M**	mL						
Comp 2	TFNA-	Std#						
ound	20*	mL						
Comp 1	IKI-2	Std#						
Date	Year 2021		4127	47/2	444	5-17	£2/h	4/28

\* NOTE; Entire sheet completed as late entry 4/29/21 about

Revised on: 6/03/08

 $\Delta$  5:95 Acetonitrile: Water

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SOP Number:

Trace	Analytical	Labora	tory		STA	NDARD	USE FO	RM - D	NOLLULION	S							
Date	Compou	pun	Compc 2	puno	Comp 3	puno	Compc 4	pune	Mixture Compou	of nds	Final Vol (mL)	Final Conc.	New Std#	tnavlo2	Exp. Date	Storage	Initials
Year 2020	IKI-22	* 0	TFNA-/	AM**	TFN	***	TFNG	* * *	Mixe	q						RT/ R/F/ O	
	Std#	mL	Std#	mL	Std#	mL	Std#	mL	Std#	mL							
5/20	687-1	2.5	688-1	2.5	689-1	2.5	690-1	2.5			25	100µg/mL	687-1M1	ACN	11/17/20	Ľ.	НЯ
140									687-1MI	2.5	25	10µg/mL	687-1M2	ACN	11/17/20	ĹL.	BH
0/20		_							687-1M2	2.5	25	1.0µg/mL	687-1M3	ACN	11/17/20	ĹĿ,	BH
07/0																	
				_													
						-											
*Flor ACN	nicamid, ** =Acetonitr	4-triflu ile	loromethy	Inicotin	amide, *	**4-trif	luorometh	ylnicot	inic acid, *;	*** N-(	4-triflu	oromethylm	icotinoyl) gl	ycine			

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IR-4 Western Region Laboratory and Trace Analytical Laboratory

lnitials			Cen	OBW	WARD	Can	OBW		
Storage	RT/ R/F/ O		ίL.	н	F	Ľ,	ίĽι		
Exp. Date			10/31/21	10/31/21	10/31/21	10/31/21	10/31/21		
Solvent			ACN	ACN	ACN	ACN	ACN		
New Std#			687-2M1	687-2M2	687-2M3	687-2M4	687-2M5		
Final Conc.			100 μg/mL	10 μg/mL	1.0 μg/mL	0.10 μg/mL	0.010 μg/mL		
Final Vol. (mL)			25	25	25	25	25		
Ire	pa	mL		2.5	2.5	2.5	2.5		
Mixtu	Mixe	Std#		687- 2M1	687- 2M2	687- 2M3	687- 2M4		
punc	* * *	mL	2.5						
Compe 4	TFNG	Std#	690-2						
punc	***	mL	2.5						
Compo 3	TFNA	Std#	689-2						
ound	AM**	mL	2.5						
Comp 2	TFNA	Std#	688-2						
ound	20*	mL	2.5						
Comp 1	IKI-2	Std#	687-2						
Date	Year 2021		5/03	5/03	5/03	5/03	5/03		

Revised on: 6/03/08

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IR-4 Western Region	Laboratory,	University	of California,	Davis
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SOP Number:

IR-4 Western Region Laboratory and Trace Analytical Laboratory

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STANDARD USE FORM - DILUTIONS

lnitials			adm	Com	am	Germ	Cerm
Storage	RT, R/F O		Ц	Ц	Ľ	Ľ	L
Exp. Date			12/21/5	5/18/21	5/18/21	(2/8/5	5/18/2
Solvent			Δ	Δ	γ	Δ	ν
New Std#			687-2M6	687-2M7	687-2M8	687-2M9	687- 2M10
Final Conc.			1.0 pg/μL	0.50 pg/µL	0.25 pg/µL	0.10 pg/μL	0.05 pg/µL
Final Vol. (mL)			25	25	25	25	25
ure	ted	mL	2.5	1.25	0.625	0.250	0.125
Mixt	Mix	Std#	687- 2M5	687- 2M5	687- 2M5	687- 2M5	687- 2M5
puno	* * * *	mL					
Comp 4	TFNG	Std#					
puno	***	mL					
Comp 3	TFN/	Std#					
punc	AM**	mL					
Comp. 2	TFNA-	Std#					
puno	220*	mL					
Comp 1	IKI-2	Std#					
Date	Year 2021		40/5	ho/S	5/04	ho/S	5/04

Page

Revised on: 6/03/08

 $\Delta$  5:95 Acetonitrile: Water

IR-4 Western Region Laboratory and Trace Analytical Laboratory

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SOP Number:

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adu Initials RT/ R/F/ O Storage L 5/25/21 Exp. Date Solvent  $\triangleleft$ New Std# 687-2M11 Final Conc. 1.0 pg/µL (mL) Final Vol. 25 STANDARD USE FORM - DILUTIONS mL 2.5 Mixture Mixed Std# 687-2M5 Compound mL TFNG\*\*\*\* 4 Std# Compound mL TFNA\*\*\* 3 Std# TFNA-AM\*\* mL Compound 2 Std# mL Compound IKI-220\* Std# 5/11 5/0 66 am 5/m/21 Date Year 2021

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\*Flonicamid, \*\*4-trifluoromethylnicotinamide, \*\*\*4-trifluoronicotinic acid, \*\*\*\*N-(4-trifluoromethylnicotinoyl) glycine

Δ 5:95 Acetonitrile: Water

Revised on: 6/03/08

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SOP Number:

IR-4 Western Region Laboratory and Trace Analytical Laboratory **STANDARD USE FORM - DILUTIONS** 

Conr adm -mae -5 UNRO ABUM Ser adm S Initials RT/R/ F/O Storage L L L 1 12 L 11 11 11 11 6/2/2/ 8103/2-1 6/2/21 6/2/21 1 1/ EO/8 8/03/21 8/03/21 8/03/21 6/2/21 6/2/21 Exp. Date Solvent 4 4 4 ٩ ٩ 4 4 < 4 ۵ 81NE-239 EINE- 189 PIME- 189 0-1-VL- 689 EIN2-289 0.05 pg/m2-289 1m/80.00 EINE- 683 / 74/ 8005.0 1-EWE- 289 PINE- 733 14/8920.0 51WZ-289 New Std# 0.5098/46 0.05 85/100 71/8052.0 0-1085/146 1.0P8/ml Jul/881.0 1.098/201 Final Conc. Final Volume (mL)52 52 52 SC 52 25 Se 25 35 Sic 0.2.50 529:0 0.125 529.0 SWT-E89 0.250 0.125 5.6.1 mL 687-2M5 1.25 2.2 2.5 Compound \* Mixed SWT-189 SWZ-289 ent-too SWI-189 SWC-289 SWZ-289 4 SMC- +89 Swit-tas Std# Compound 3 mL Std# Compound 2 mL Std# mL Compound Std# 12/02/2 5/12/21 1-c/ac/ E 12/ar/2 12/ac/2 5/19/21 5/19/2 5/19/21 12/00/2 Date 5/19/21

\* Mix of Flowbowid, TFNA-AM, TFNA, and TFNG.

si ce < Δ 5:95 Acedonitrile: water 11/15/21 am Revised on: 6/03/08

5/19/21 abun

### **ATTACHMENT D: CERTIFICATES OF ANALYSIS**



MRIGlobal 425 Volker Boulevard Kansas City, Missouri 64110 Telephone (816) 753-7600 Telefax (816) 753-5519

**Certificate of Analysis** 

#### IKI-220 PAI, Lot No. 9803

Original data and GLP reserve sample are archived under MRIGlobal Project No. 310260.01.203.09.

#### **Data Requirement**

Good Laboratory Practice Standards of the U.S. Environmental Protection Agency's Federal Insecticide, Fungicide and Rodenticide Act (40 CFR Part 160).

#### Performing Laboratory

#### MRIGlobal 425 Volker Boulevard Kansas City, Missouri 64110

**Compound Identification** Common Names: **IUPAC** Chemical Name: CA Chemical Name: Empirical Formula: Molecular Weight: CAS Number: Structure:

#### IKI-220 PAI; Flonicamid

N-(cyanomethyl)-4-(trifluoromethyl)nicotinamide N-(cyanomethyl)-4-(trifluoromethyl)-3-pyridinecarboxamide C9H6F3N3O 229.17 158062-67-0

Study Sponsor

Ishihara Sangyo Kaisha, Ltd.

Osaka 550-0002 JAPAN

3-15 Edobori 1-Chome, Nishi-ku

On 5/12/20 Rec'd with Std. Std # 687 ct 5/12/20 **Biosciences Business Headquarters** 



#### **Experimental Techniques**

Purity was determined using HPLC purity profiling methodology. Water content was determined using Karl Fischer titrimetry. Identity was previously verified using direct infusion mass spectrometry.

#### Quality

Purity (%): Water Content (%): Identity (Direct Infusion): HPLC Analysis Date: Storage Conditions: **Expiration Date:** 

 $99.8 \pm 0.0\%$  (w/w)  $0.04 \pm 0.00\%$  (n = 2) Confirmed November 6, 2018 Frozen November 6, 2023

Approved: und OU Candice C. Dillon, Study Director

MRIGlobal

Date:



MRIGlobal 425 Volker Boulevard Kansas City, Missouri 64110 Telephone (816) 753-7600 Telefax (816) 753-5519

#### Certificate of Analysis

#### TFNA-AM, Lot No. 0006

Original data and GLP reserve sample are archived under MRIGlobal Project No. 310260.01.177.04.

#### Data Requirement

Good Laboratory Practice Standards (40 CFR Part 160) of the U.S. Environmental Protection Agency's Federal Insecticide, Fungicide, and Rodenticide Act.

#### Performing Laboratory

#### Study Sponsor

MRIGlobal 425 Volker Blvd Kansas City, MO 64110

#### **Compound Identification**

Common Name **IUPAC** Chemical Name **Empirical Formula** Molecular Weight: CAS Number: Lot No.

Structure:

TFNA-AM 4-Trifluoromethylnicotinamide C+HsF3N2O 190.12 158062-71-6 0006



Ishihara Sangyo Kaisha, Ltd. **Biosciences Business Headquarters** 3-15 Edobori 1-Chome, Nishi-ku Osaka 550-0002 JAPAN

On 5/12/20 Reid with std. Std# 688 CT 5/12/20

#### **Experimental Techniques**

Purity was determined using HPLC impurity profiling methodology Structure was previously verified by Fourier transform infrared spectroscopy.

#### Quality

Purity (%) Identity Storage Conditions: Date of HPLC Analysis: Expiration Date:

Approved:

Paul J. Weller, Study Director Program Manager **MRIGlobal** 

99.9 ± 0.0 % Confirmed (FT-IR) Frozen (- -20°C) November 19, 2015 November 19, 2020

Date fransary 5, 2016



<u>MIRIGIcibal</u> 425 Volker Bouleyard Kansas City, Missouri 64110 Telephone (816) 753-7600 Telefax (816) 753-5519

#### Certificate of Analysis

#### TFNA-AM, Lot No. 0006

Original data and GLP reserve samples are archived under MRIGlobal Project No. 310260.01,225.02.

**Study Sponsor** 

Ishihara Sangyo Kaisha, Ltd.

Osaka 550-0002 JAPAN

**Biosciences Business Headquarters** 

3-15 Edobori 1-Chome, Nishi-ku

#### **Data Requirement**

Good Laboratory Practice Standards of the U.S. Environmental Protection Agency's Federal Insecticide, Fungicide and Rodenticide Act (40 *CFR* Part 160).

#### Performing Laboratory

MRIGlobal 425 Volker Boulevard Kansas City, Missouri 64110

#### Compound Identification Test Substance:

Common Name: IUPAC Chemical Name: Empirical Formula: Molecular Weight: CAS Number: Structure:

#### TFNA-AM Lot No. 0006

TFNA-AM 4-Trifluoromethylnicotinamide C7H5F3N2O 190.12 158062-71-6

CONH<sub>2</sub>

Rei'd by e-mail on 11/17/20

std # 688

BI4 11/17/20

#### **Experimental Techniques**

Percent purity was determined using high performance liquid chromatography (HPLC) methodology. Identity was previously confirmed using Fourier transform infrared (FT-IR) spectroscopy.

#### Quality

Percent Purity: Identity (FT-IR): HPLC Analysis Date: Storage Conditions: Expiration Date: 99.9 ± 0.0% (w/w) Confirmed November 5, 2020 Frozen (~ -20°C) November 5, 2025 TRUE COPY OF OF AL

Approved: Condiel llou Candice C. Dillon, Study Director MRIGlobal

Date: 11/10/2020



MRIGlobal 425 Volker Boulevard Kansas City, Missouri 64110 Telephone (816) 753-7600 Telefax (816) 753-5519

Certificate of Analysis

#### TFNA, Lot No.0006

Original data and GLP reserve sample are archived under MRIGlobal Project No. 310260.01.177.01

#### **Data Requirement**

Good Laboratory Practice Standards (40 CFR 160) of the U.S. Environmental Protection Agency's Federal Insecticide, Fungicide and Rodenticide Act

#### Performing Laboratory

#### Study Sponsor

MRIGlobal 425 Volker Blvd Kansas City, MO 64110

Ishihara Sangyo Kaisha, Ltd. **Biosciences Business Headquarters** 3-15 Edobori 1-Chome, Nishi-ku Osaka 550-0002 JAPAN

**Compound Identification** 

Common Name: **IUPAC** Chemical Name Empirical Formula: Molecular Weight: CAS Number: Lot No .:

Structure:

TFNA 4-TrifluoromethyInicotinic acid C-H4F1NO2 191.11 158063-66-2

0006

COOH

CF.

Read with Std on 5/12/20

Std# 689 CT 5/12/20

#### **Experimental Techniques**

Purity was determined using HPLC purity profiling methodology Identity was previously determined using Fourier transform infrared spectroscopy

#### Quality

Purity (%a): Identity Storage Conditions. Date of HPLC Analysis Expiration Date:

100.0 ± 0.0 % Confirmed (FT-IR) Frozen (- -20°C) November 17, 2015 November 17, 2020

Approved: 7

Paul J. Weller, Study Director Program Manager MRIGlobal

farmary 5, 2016 Date:



<u>MIRIGIc bal</u> 425 Volker Boulevard Kansas City, Missouri 64110 Telephone (816) 753-7600 Telefax (816) 753-5519

#### Certificate of Analysis

#### TFNA, Lot No. 0006

Original data and GLP reserve samples are archived under MRIGlobal Project No. 310260.01.225.01.

#### **Data Requirement**

Good Laboratory Practice Standards of the U.S. Environmental Protection Agency's Federal Insecticide, Fungicide and Rodenticide Act (40 *CFR* Part 160).

Study Sponsor

Ishihara Sangyo Kaisha, Ltd.

Osaka 550-0002 JAPAN

**Biosciences Business Headquarters** 

3-15 Edobori 1-Chome. Nishi-ku

#### Performing Laboratory

#### MRIGlobal 425 Volker Boulevard Kansas City, Missouri 64110

#### Compound Identification Test Substance:

Common Name: IUPAC Chemical Name: Empirical Formula: Molecular Weight: CAS Number: Structure: TFNA Lot No. 0006

TFNA 4-Trifluoromethylnicotinic acid C<sub>7</sub>H<sub>6</sub>F<sub>3</sub>NO<sub>2</sub> 191.11 158063-66-2



std # 689 Reald by e-mail on 11/17/20

BH 11/17/20

#### **Experimental Techniques**

Percent purity was determined using high performance liquid chromatography (HPLC) methodology. Identity was previously confirmed using Fourier transform infrared (FT-IR) spectroscopy.

#### Quality

Percent Purity: Identity (FT-IR): HPLC Analysis Date: Storage Conditions: Expiration Date:

100.0 ± 0.0% (w/w) Confirmed November 5, 2020 Frozen (~ -20°C) November 5, 2025

Approved: Candicul Candice C. Dillon, Study Director MRIGlobal

Date: 11 110 2020



5. Analytical result

Component	Purity (%)	Analytical method
TFNG	99.7 (%RSD=0.00, n=3)	High-performance liquid chromatography (HPLC)

Date of analysis 6.

November 1, 2018 October 31, 2021

Frozen

7. Expiration date 8.

Storage condition 9. GLP compliance

- This study was conducted in accordance with;
  - a) Notification on the Good Laboratory Practice for Agricultural Chemicals "(Annex) The Standards for the Good Laboratory Practice (GLP) for Agricultural Chemicals" (October 1, 1999, No. 11-Nousan-6283; latest revision; October 31, 2016, No. 28-Syouan-3225)
  - b) OECD Principles of Good Laboratory Practice, November 26, 1997, ENV/MC/CHEM (98)17

Chemicals Evaluation and Research Institute, Japan, Kurume

Date:

November 12, 2018 1. . M. Study Director Signature:

Yoichi Watanabe

## Attachment 4

# Checklist for Review of Analytical Summary Reports

Checklist for Review of Analytical Summary Reports

PR #:

Active Ingredient/Crop:

	17	11		
	Y es	N0	NA	Notes
1)Sample Preparation				
1.1 For each sample, was the full sample ground, and mixed thoroughly?				
2)Instrument Condition				
2.1 For GC/MS, are tune files or other appropriate				
documentation available for each run, to show that the				
instrument was in good working order at the time the run				
was made?				
If 2.1 is no, or if the analyst has concerns regarding				
the instrument condition, the LRD must be consulted. Was				
the LRD consulted?				
2.2 For other detectors, was the instrument in good				
working order for each run? The answer to this question				
will rely on the analyst's professional judgment and will				
include an evaluation of appropriate data obtained				
throughout the study, for example, the standard curve, the				
peak retention times, the area counts of the standards and				
the signal to noise ratio. Note what data was considered.				
If 2.2 is no, or if the analyst has concerns regarding				
the instrument condition, the LRD must be consulted. Was				
the LRD consulted?				

NA Notes												
No												
Yes												
	3)Analysis	3.1 Is the peak of interest distinct on each chromatogram? (No shoulder peaks on the peak of interest and no interfering peaks.)	3.2 Is the S/N ratio adequate? For example, when viewing the chromatograms for the standards through the course of the study, are there any runs where the S/N ratio has dronned significantly? A low S/N ratio is a concern The	answer to this question will rely on the analyst's professional judgment.	If 3.2 is no, or if the analyst has concerns regarding a change in S/N ratio during a study, the LRD must be consulted. Was the LRD consulted?	3.31 Are recoveries during method validation comparable to the recoveries in the reference method? (When the average recoveries are compared, the difference is <20%. Spot check the data, detailed calculations are not needed)	3.32 Are concurrent recoveries during analysis comparable to those seen in method validation? (When the average recoveries are compared the difference is $<15\%$ . Spot check the data, detailed calculations are not needed)	3.4 Did the r-squared value remain consistent during method validation and analysis of samples (Range $\leq 0.02$ )?	If 3.4 is no, what is the range of the r-squared values? Provide an explanation.	3.5 Are there manual integrations?	If 3.5 is yes, were any standards manually integrated?	If 3.5 is yes, is a reason provided in the ASR?

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	Yes	No	NA	Notes
3.61 Were duplicate injections used for concurrent fortifications?				
If 3.61 is yes, were duplicate injections within 30% of each other?				
3.62 Were duplicate injections used for unknowns?				
If 3.62 is yes, were duplicate injections within 30%				
4)Results				
4.1 Are control values non-detectable?				
If 4.1 is no, are they $<20\%$ of the highest residue value? (860 1340 n 2)				
If 4.1 is no, is this noted in the ASR and the				
pertinent chromatograms included?				
4.21 Are method validation recoveries and concurrent				
recoveries consistently >100%? (860.1340, p.2)				
4.22 For method validation and concurrent recoveries, is the CV (defined as the standard deviation/average) <20%?				
(860.1340, p.3)				
	Yes	No	NA	Notes
---	-----	----	----	-------
5)Analytical Summary Report				
5.1 Were any samples re-extracted and rerun?				
If 5.1 is yes, was the LRD consulted? The LRD				
judgment calls, for example, samples with unexpectedly				
high or low residue results, or a need for manual integration.)				
If 5.1 is yes, was the study director notified? (If the				
situation is covered in an SOP i.e. samples needing				
location was incorrect for injection, document in the study				
file. The study director does not need to be notified). If				
answer to this question is no, please note why.				
If 5.1 is yes, is there information explaining the				
situation and its resolution in the ASR?				
5.2 Is there documentation in the raw data regarding any				
unexpected circumstances during the run?				
If 5.2 is yes, was the LRD consulted? The LRD				
needs to approve judgment calls, for example, samples				
with unexpectedly high or low residue results, or a need for				
If 5.2 is yes, was the study director notified? (If the				
power failure or the vial location was incorrect for				
injection, the study director does not need to be notified).				
If answer to this question is no, please note why.				
If 5.2 is yes, is there information explaining the				
situation and its resolution in the ASR?				
If 5.2 is yes, are chromatograms of samples with				
unusual or inconsistent results included in the ASR?				
(860.1000, p.18)				

05/12/08

	Yes	No	NA	Notes
<ul><li>5.3 Are standard curves and peak heights/areas for all standards available in the ASR for each run? (860.1000, p. 18)</li></ul>				
If 5.3 is no, please attach a copy of any missing standard curves with peak heights/areas, so the study director may add them as an appendix to the final report.				
5.4 Are the dates the test compounds (standard solutions) were prepared included in the ASR? ( $860.1500, #3$ , p. 37)				
If 5.4 is no, please include this information with this checklist (A copy of the standards prep form(s) is fine).				
5.5Are all residue values reported in the ASR bracketed by the standard curve?				
If 5.5 is no, was the study director contacted?				

Analytical Summary Report Reviewed by:

Signature

Date

### IR-4 Laboratory Backlog Response Policy





### Modification of Backlog Committee "Backlog Response Policy" for inclusion into Lab Guidance Document.

### 1. Definition of a backlog

Analytical work should be done within 12 months after the last batch of field samples are received by a lab. A "backlog" exists when the sample analysis and ASR are not completed within 12 months.

Projects will not be considered backlogged if the following situations have occurred:

- HQ management reprioritization of study timeline
- Unable to receive standards from registrant
- Government or University shutdown impacting IR-4 and/or ARS operations

### 2. Strategy for preventing future backlogs

- Better planning
  - As much as possible, assign projects based on previous experience and expertise, recognizing that workloads need to be balanced and new actives will be analyzed.
  - Each lab should plan for the anticipated projects in advance, for example, to do method development before samples from last trials arrive.
  - Management will assure that personnel, resources, facilities, equipment...are available as scheduled.
  - Management to evaluate status of labs during Spring PMC meeting to determine if all labs have sufficient resources such that IR-4 laboratories may accept outside contract work.
- Better communication and transparency
  - Management to foster a culture where timelines are met, and issues are raised and addressed to prevent backlogs.
  - Cap the time for method development to <u>3 months</u>
    - i. Suggested Method Development Timeline
      - 1. After 1<sup>st</sup> month: LRD contacts AC-AC to engage other chemists for ideas. Concurrently, LRD reaches out to registrant (chemist and IR-4 representative) for assistance. The Study Director (SD) and National Laboratory Director (NLD) are kept in the loop either as part of AC-AC discussions or direct communications.
      - After 2<sup>nd</sup> month: LRD re-engages with AC-AC to report back results for various attempts and discusses possible next steps. LRD shares efforts with IR-4 and regional management (Regional Director (RD), NLD and SD).

- 3. After 3<sup>rd</sup> month: LRD meets with RD, NLD and SD to discuss options to facilitate the timely completion of the project.
  - a. Transfer project to different IR-4 lab
  - b. Transfer project to contract lab
- 4. For the purposes of reporting, color levels will be used.
  - a. After 1<sup>st</sup> month: Yellow
  - b. After 2<sup>nd</sup> month: Orange
  - c. After 3<sup>rd</sup> month: Red

#### 3. Consequences for backlog

Once a project or projects become backlogged per the definition above, an email note will be sent by the National Lab Director to the IR-4 Executive Director, the Lab Director and the Regional Director. This note will provide notification that there is a backlog and request a formal response containing an explanation of the current status, and a proposal for corrective actions to meet the analytical timeline(s). The email response will be generated by the Lab director, approved by the Regional Director, and should be sent to the IR-4 Executive Director and National Lab Director within two weeks. HQ will decide if a meeting between the Lab Director, Regional Director, IR-4 Executive Director (and others as requested) is needed to approve the proposal or to discuss alternatives to make corrections to meet study timelines. If a meeting is not deemed necessary, approval for the plan will be provided via email. Once the backlog situation has been successfully addressed, a follow-up email will be sent from the National Lab Director to the Lab Director, with copies to the Regional Director and the IR-4 Executive Director.

### Environmental Horticulture Review

### Presenter: Dr. Jerry Baron





Proposal to conduct an assessment/review of the IR-4 Project Environmental Horticulture Program

#### Jerry Baron and Todd Scholz

The IR-4 Project Environmental Horticulture (EH) Program has been a part of the core IR-4 Project research since it was established in 1977. The EH Program has been successful in the development of data to expand registrations of bio-based and chemical pesticides for wide range of plants primarily grown for aesthetic reasons. The IR-4 Project EH Program claims to have developed data to support approx. 60,000 uses. While this number is extremely difficult to validate as many registrations of pesticides utilize broad (open) labels, most can agree, IR-4's efforts have been instrumental in supporting this industry valued at \$13.78 billion annually. In the recent Economic Assessment of the IR-4 Project, the authors estimated that the IR-4 Projects efforts in the EH Program have provide \$0.725 billion dollars to the gross domestic product.

While the IR-4 Project has been reviewed on a consistent basis for efficiencies and productivity and these reviews often touch lightly on the EH Program. It has been over 15 years since the EH Program has been formally assessed by stakeholders who are familiar with the ornamental production industry, its pest management needs, and the companies that market their products. Furthermore, there have been significant changes in markets, regulatory challenges and available technology.

It is being proposed that the IR-4 Project Management Committee establish and authorize an ad-hoc committee to perform a detailed assessment of the IR-4 Project Environmental Horticulture Program. This EH Review Committee will be charged to assess:

- Does IR-4's activities to develop product performance/crop safety data on ornamental crops continue to service the needs of the industry?,
- Are there other types of data IR-4 could develop to further assist the industry?,
- Is IR-4 using its limited resources in the most efficient manner? If no, what can be modified to improve efficiencies?,
- Can IR-4 research overhead and non-research expenses be reduced and more resources invested in research by merging activities of the Food Program with the Environmental Horticulture Program (eg. establishment of research priorities, company interactions, research management, database management, data reporting, etc)?

I have been discussing this potential review with Todd Scholz and we are proposing that a committee of seven stakeholders be established to perform this assessment. Representatives on the committee include Commodity Liaison Committee members representing the EH area, a representative from crop protection industry, a representative from IR-4 research network, a representative from an IR-4 Regional office and a representative from IR-4 Headquarters. Cristi Palmer will be available to assist the committee as requested. Todd and I have met with Amy Upton, CLC member representing Michigan Nursery and Landscape Association and had a positive response to this idea. She has agreed to Chair the Committee if it is authorized.

The goal will be to perform the review and report out during the Spring 2023 Joint PMC/CLC meeting.

### Path Forward 2.0 Implementation Plan





## Path Forward 2.0 Implementation Plan

### Path Forward Task Force 2.0 Recommendations:

### **Management** (Recommendation 1)

The Path Forward 2.0 Task Force wrote:

The national headquarters office should set strong performance expectations that accompany the funding it distributes annually. The evolution that has been occurring from a collection of independent regional efforts to a single cohesive national program led by headquarters should continue. The success of this approach will be dependent on headquarters acting in a service leadership role with active engagement, input and buy-in from the regions. Management should consider developing more clearly defined staff roles and procedures for headquarters staff to have more systematic input into performance of regional staff. Input from the regions would also be valuable to the reviews of headquarters personnel.

In order to address the disparity between the current cost reimbursement level for residue field trials (\$6500) and the true value of the Field Research Directors' time, IR-4 management should consider, when resources are available, increasing the reimbursement level".

### Proposal

<u>Performance Expectations</u>: The IR-4 Project (IR-4) concurs with the need to develop detailed IR-4 centric performance expectations for Regional Directors, Region Field Coordinators, Regional Laboratory Coordinators, QA Unit members, Study Directors, Biologists and Headquarters management. Headquarters will take the leadership in drafting these performance expectations and how the information will be obtained. The performance expectations will be vetted with members of each group and submitted to the Project Management Committee for acceptance. Proposed timeline for completion and implementation are:

- Regional Directors & IR-4 HQ Management; November 15, 2022
- Regional Field Coordinators: December 15, 2022
- Regional Laboratory Coordinators; January 15, 2023
- Quality Assurance Unit; February 15, 2023
- Study Directors/Biologist; March 15, 2023

In addition to establishing performance expectations for IR-4 employees, IR-4 will also perform an annual assessment of performance expectations for employees in the above categories. Specific process and procedures for annual assessments will be presented to the Project Management Committee at the July 2023. The results of these annual assessments will be shared with employee's supervisor for consideration in that person's formal performance evaluation. IR-4 will consider the assessment of performance expectations when making future financial commitments.

<u>Field Funding Reimbursement</u>: IR-4 recognizes that adequate funding of field research units (Field Research Farms or research cooperators) is paramount to the success of the entire IR-4 Project. There are increased fiscal demands on these IR-4 field research units. To keep our field research units strong and fiscally supported, the Project Management Committee has agreed to increase the standard funding for residue field trials in the 2023 season; funds reimbursed will increase from its current level \$7,222 (\$6500 plus indirect) to \$7,777 (\$7000 plus indirect).

Additionally, IR-4 Headquarters will open meaningful dialogue with the Regional Field Coordinators to increase funding reimbursement for product performance, integrated solutions and environmental horticulture research for the 2023 field season.

Future increases in all program areas involving field funding reimbursement will be considered based on total Project funding.

### Communications-Internal/External/Resources (Recommendations 2, 3, 4)

The Path Forward 2.0 Task Force wrote:

**Internal communications** platforms and practices should receive additional attention. The dispersed management of the program across multiple functions, regions and institutions presents unique challenges that can best be addressed through good communications. These needs include the array of data management platforms that can support better information sharing; planning and management communications systems that can work seamlessly across multiple institutions; systems to capture best management/standard operating procedures; and descriptions of roles and responsibilities of various staff positions.

In addition to deployment of the systems which support information sharing, it is important to increase cross-functional and cross-regional communications activities. Many aspects of the Project suffer from a silo effect. Although the current system has worked well in the past with long-term experienced staff, the influx of new staff has created the need for people to better understand how their particular role meshes with the other functions to deliver results.

There are many examples of people working in one function regularly engaging with their counterparts in other regions. This increased collaboration should be applauded and encouraged moving forward. However, there are fewer examples of people actively engaging across functions within regions. Regional directors should increasingly play a role in improving better coordination among functions within their regions. They should also insure improved communication regarding staffing, funding issues and other updates coming out of PMC meetings.

**External communications** activities warrant additional attention. Considerable improvement has occurred over the past year. However there is still a perception that stakeholders close to the Project do not adequately understand how the Project is funded and functions. People outside the Project do not appear to have easy access to information that "markets" the Project and answers their questions. The Project could benefit from increased attention to communicating the societal, nutritional and food security benefits derived from the IR-4 Project. We have also heard that potential new hires and legislative staffers have not been able to find the information they seek on the current communications platforms. In addition, stakeholders have expressed interest in being able to have more user-friendly access to the status of projects. The development of a landing site on the website should be considered. Management should also consider assigning a single point of contact to each project who could provide status updates to stakeholders.

Increased attention to internal and external communications require the investment of additional human resources to this area. The current national communications program consist of one full- time professional. While funding remains a serious constraint, a reallocation, even on a limited basis, will likely generate a considerable return on the investment over the long-run. If increased funding is forthcoming, then definite consideration should be given to increased investment of resources in this area. Another consideration may be the appointment of an advisory committee including regional staff to support the Communications Officer.

### **Proposal**

The need for improvements in IR-4 internal and external communications is highlighted in many parts of the Path Forward 2.0 report. The IR-4 Project Management Committee acknowledges that this deficiency needs attention at the national, regional and local level. Addressing this issue will require involvement by many.

The IR-4 Project Management Committee proposes the following:

- The four Regional Directors will establish a monthly Regional meeting with field, lab (if appropriate) and QA staff to share issues, listen to concerns and gather additional feedback.
- After every scheduled PMC meeting, the Executive Director will hold an "All Hands" meeting with field, lab, QA, HQ staff and interested stakeholders to debrief the participants on important information from the recent PMC meeting. Additional "All Hands" meetings and information will be shared as needed and warranted. We will attempt to transition these meetings from the traditional one-way communication to encourage staff to participate in open discussion and provide feedback.
- The Executive Director will reinstitute annual visits to the Regions to meet with team members. These meetings will consist of a general overview and listening session.
- IR-4 will establish an internal intranet site to facilitate removal the overabundance of technical information from the main IR-4 webpage and transfer this to the intranet page. This page can also host a forum that will facilitate groups focusing on issues or suggestions. We will also

explore if an IR-4 app for android and IOS is feasible in lieu of an intranet site.

- The IR-4 National Communications Officer will attend in-person Regional meetings to solicit input from the State Liaison Representatives and Field Research Directors on what could be provided on a local basis to share new information about IR-4.
- *IR-4 will reach out to commodity groups and similar outlets to establish relationships that will facilitate the sharing news of success (new registrations) and other IR-4 relevant communications.*

The IR-4 Project Management Committee agrees that IR-4's external communications have improved tremendously over the past 18 months. Unfortunately, since writing the Path Forward 2.0 report, the IR-4 National Communications Officer, Jennifer Heiss, has resigned from this position. IR-4 is in the process to refill this position. We anticipate that a new communications professional will be on staff on/about September 1, 2022.

IR-4's communications channels are many; written reports, website, social media, electronic bulletins, etc. IR-4 Headquarters is committed to provide the new National Communications Officer with resources to assist in the many diverse functions of this job to help this professional succeed. Depending on the person hired, their skill sets and strengths we will evaluate next steps. Specifically, IR-4 will evaluate options to hire additional communication professional(s) or works with communications consultants to obtain assistance.

The suggestion to establish a Communication Advisory Committee is sound and this will be facilitated by December 31, 2022 by the new National Communication Officer and the National Chief of Staff.

### **Training (Recommendation 5)**

Increased staff cross-training across regions, across functions and across disciplines should be encouraged. Historically, IR-4 has had the benefit of long-term staff staying with the Project for much of their careers and becoming extremely proficient and experts in their roles. The relocation to NC State has resulted in a new generation of staff which may have more fluid careers. The new headquarters location provides a rich talent pool to hire from but also offers a

wealth of other career opportunities for IR-4 staff who have gained valuable experience through the Project. More frequent staff turnover may be a fact of life for the Project going forward. Increased staff cross-training will help minimize disruption, maintain program continuity and provide staff a greater sense of ownership and opportunity within IR-4.

Training of staff and partners to be prepared to work with new and emerging technologies should be prioritized. A team should be appointed to determine how best to develop training materials for headquarters and regional staff. Serious consideration also needs to be given to increased professional development opportunities across all staff within the Project.

The task force fully supports the PMC decision for IR-4 Headquarters to have the authority to make decisions about QA audits, inspections, and other associated assignments and funding. In the future, consideration should be given to an analysis of ways to broaden QA training to external stakeholders to further support the IR-4 program.

### Proposal

Working with the Regions, IR-4 Headquarters will establish a Leadership Development Program. Anyone currently working within IR-4 would be eligible to apply for this program.

The vision of the program would consist of a 3-4 day session every 8-10 weeks over an 18 month period to explore many and diverse aspects of the IR-4 Project. Anticipated sessions include:

- 1. Overview of IR-4
- 2. Regulatory Studies/GLPs/QA
- 3. Product Performance/Integrated Solutions/Environmental Horticulture/Project Planning
- 4. Regulatory field trials/Analytical chemistry
- 5. EPA pesticide regulations
- 6. USDA interactions
- 7. International/Harmonization of MRLs
- 8. Crop protection industry

In addition to the Leadership Development Program, IR-4 Project Management Committee will encourage "sabbaticals" to become more familiar with a specific job function. During that time, the person on sabbatical learns the duties of that position and enhance their skill sets.

*IR-4 will also develop a standard orientation/training program. New hires will be asked to view an online program, which includes an overview of the IR-4 Project, functions, culture, how to use the website, common jargon and acronyms and organization understanding.* 

IR-4 Headquarters and Regions would be able to open up "mini-sabbatical" opportunities as soon as reasonable. The Leadership Development Program would take some more time to organize. We believe the first class could start in mid to late 2023. The new employee-training module would be targeted for completion in late 2023

### **Technology (Recommendation 6)**

There were a number of areas where additional investment in new information technology is needed in terms of both staff and financial resources across all operational areas. The Task Force suggests the appointment of a dedicated task force in the near future to identify and evaluate specific options, costs and potential funding plans.

### **Proposal**

The IR-4 Project Management Committee strongly agrees with this recommendation. If fact, IR-4 has taken some immediate steps to implement. Specifically the pilot of Electronic Field Data Notebook.

There are other areas where IR-4 is already making a transition from existing paper centric process to new electronic means. IR-4 also needs to explore if existing electronic technical tools (e.g. eQA) are still relevant.

Moving other systems to electronic means is not only a technology challenge but is also a culture challenge. IR-4 will need to address this uneasiness and pushback to new systems. Frankly, some people do not want change.

As suggested, IR-4 will establish a dedicated Task Force to identify and evaluate options for further transitions of systems to take advantage of technology. It is feasible to get this Task Force organized and operational by October 1, 2022. As part of the charge to the Task Force, they should be requested to address not only the technology but any potential resistance to implementation. While we cannot allow a small number of individuals to defer progress of many, we should go into this process with clear understanding that fear of change is real. To minimize the resistance, the IR-4 Project Management Committee will come out with a strong statement to the national IR-4 team members supporting the move to utilization of more electronic technical tools.

The Task Force will include representatives from all regions/ARS as well as representatives from all aspects of the Project (i.e. Field Research Director, Regional Field Coordinators, Laboratory Coordinators, Quality Assurance Unit, Study Directors, Biologists, and Project Management Committee.

### **Analytical Laboratory Backlogs (Recommendation 7)**

The following options are offered for consideration in addressing the analytical laboratory backlogs and overall efficiency across all IR-4 and ARS analytical laboratories:

*Opportunity to Reallocate Work* – Develop a process to provide a "safety valve" or "off ramp" and identify back-up resources when a lab runs into challenges. It would be helpful to create procedures to reevaluate work assignments and to determine progress and identify additional resources needed to complete projects. Additionally, there should be a process developed to consider the complexity of a project instead of just counting the number of field trials represented during laboratory assignments and evaluations.

*Early Input on Projects* – Consideration should be given to allow the RLCs to screen the grower's priority list prior to the Food Use Workshop and perhaps when it is sent to EPA for the stoplight analysis. The RLCs could be asked to identify any potential issues that might prevent a

lab from being successful. For example, when registrants are making presentations on possible projects, the labs could determine if there are reference samples available to the lab, is there a working method, and is special equipment required to complete an analysis. Identifying issues earlier in the process may help the labs resolve them prior to IR-4 committing resources in the field.

*IR-4 Headquarters Centralized Coordination of Lab Assignments/Priorities* – Management should consider creating a position associated with IR-4 headquarters to function as a coordinator of laboratory work/priorities for all labs. Such an individual will need the right skill sets and experience. It would be important for the person to be a chemist with experience working in an analytical laboratory who understands the complexity/requirements of lab analysis and the quality assurance requirements.

This position could provide additional accountability when a lab runs into problems and projects are not completed on time. Having someone who understands what was going on in all the labs could help trouble shoot problems. The backlog issues that some labs have experienced are related to staffing shortages or getting stuck on an analysis and there is limited ability to reassign the project or divert other projects.

In addition, this position could provide coordination of lab analyses that are contracted out to commercial labs.

*Create a Central Depository for Analytical Methods* – To gain efficiencies across all the IR-4 and ARS analytical laboratories, consideration should be given to creating a central repository where all successful analytical methods developed are stored so other labs have access to this information. An adoption of e-notebooks would be ideal but at a minimum a central location of scanned pdf copies that everyone has access to would be desirable.

#### **Proposal**

The IR-4 Project Management Committee acknowledges the tremendous improvement in cooperation and coordination between the IR-4 analytical laboratories. This is a huge improvement from the past when the laboratories were in competition with each other. While there has been great progress on cooperation and coordination, there still remains some fundamental issues with meeting timelines and delivering quality data. The issues are not with every location or with every project, however, it is serious enough to warrant additional attention.

*IR-4 concurs with the recommendation of the Path Forward 2.0 Committee to assign a qualified person at IR-4 Headquarters the assignment of better coordinate the laboratory activities. In fact, the following MOTION has been approved:* 

"IR-4 Headquarters will maintain project-wide awareness and oversight of all GLP residue projects, while they are in the analytical phase. This includes the authority to make decisions regarding lab assignments/reassignments, prioritization of studies, establishing and adhering to timeframes for successful completion of studies, and determining a path forward for studies where difficulties are

encountered. The lab directors will maintain oversight of the day-to-day operations in each lab. Because the ARS labs fall under a different authority structure and have funding independent of the IR-4 NIFA grant, IR-4 will work with the ARS Minor Use Pesticide Coordinator concerning the ARS labs."

Furthermore, the person assigned to do the coordination will also be asked to develop a simple system to assign a value of resources to analysis of samples from a study based on size of study, difficulty of sample analysis and methodology. Not all studies are created equal; some are more complex than others and the associated costs may be much higher. Having this reasonable measure of residue study analysis cost will allow IR-4 to implement more appropriate priority setting financial models that are based on a fee-for-service approach.

*IR-4 anticipates that these additional duties can be outlined and a HQ staff member identified to take them on prior to October 1, 2022.* 

MANAGEMENT	TARGET DATE	STATUS
Performance Expectations		
Regional Directors/HQ Management	15-Nov-22	
Regional Field Coordinators	15-Dec-22	
Regional Laboraoty Coordinators	15-Jan-23	
Quality Assurance Unite	15-Feb-23	
Study Director/Biologist	15-Mar-23	
Performance Evaluations		
Regional Directors/HQ Management	30-Jul-23	
Regional Field Coordinators	30-Jul-23	
Regional Laboraoty Coordinators	30-Jul-23	
Quality Assurance Unite	30-Jul-23	
Study Director/Biologist	30-Jul-23	
Field Funding Reimbursement Increase		
Residue Field trials	31-Oct-22	COMPLETED
Product Performance	31-Jan-23	
Integrated Solutions	31-Jan-23	
Environmental Horticulture	31-Jan-23	
COMMUNICATIONS		
Monthly Regional Meetings	on-going	
All Hands Meetings	on-going	
Executive Director visits to Regions	on-going	
Development of intranet site	1-Oct-23	
National Communication Officer attend Regional meetings	on-going	
Enhanced Communication with commodity groups	on-going	
Establishement of Communication Advisory Committee	31-Dec-22	
TRAINING		
Leadership Development Program	31-May-23	
Sabaticals	on-going	
New Employee Training module	30-Nov-23	
TECHNOLOGY		
Establish Technology Task Force	1-Oct-22	
ANALYTICAL LABORATORY BACKLOG		
National Laboratory Director	1-Oct-22	COMPLETED

### IR-4 Performance Expectations Appraisal Template: Regional Directors and HQ Management





### **IR-4** Performance Expectations

Name	
Unit	
Job Title	Regional Director

### **IR-4 Related Job Functions**

### Leadership

- Attend and participate in IR-4 Project Management Committee Meetings
- Attend and participate in other key and/or ad hoc IR-4 meetings as appropriate.
- Attend the appropriate IR-4 Regional meeting(s)
- Serve as voting member of Project Management Committee
- Assist in the development and implementation of policies/strategies for all elements of the IR-4 Project operations.
- Serve on ad hoc committees and standing committees on behalf of the PMC or as Regional representative
- Facilitate communications and information exchange between PMC and Regional personnel

### Management

- Provide primary leadership, supervision and mentorship for Regional Field Coordinator, Laboratory Coordinator (Southern and Western Regions only) and Regional Quality Assurance Coordinator.
- Provide second level or backup leadership and supervision for IR-4 employees in the Regional office and laboratory (if appropriate).
- Empower IR-4 employees within the Region to successfully perform research to support the registration of safe and effective bio-based and chemical pesticides on fruit, vegetables, nuts, herbs, ornamentals, other specialty crops and minor crop protection uses on major crops.
- Recognize individuals in the Region who excel in performance of their duties via IR-4 issued awards or other method of acknowledgment

### **Regulatory Compliance (Fiscal and GLPs)**

- Serve as institution's Principal Investigator/Project Director in grant submission, grant management, and reporting.
- Ensure that grant applications and required reporting are completed on or before deadlines. Promptly reply to questions or request for information to manage grants.
- Participate in training involving Good Laboratory Practice (GLP) regulations as published in Chapter 40 Code of Federal Regulations, Part 160.
- Initiate and/or support actions to ensure compliance with GLPs
- Work with Executive Director to ensure that Regional office and laboratory (if appropriate) have the resources to allow them to perform their job functions.

#### Outreach

- Interact with regional and national stakeholders of the IR-4 Project to keep them informed of the opportunities available through "partnership" with the IR-4 Project.
- Assist in the communication and outreach activities of the Region; attend conferences, workshops and symposium and serve as a spokesperson for the IR-4 Project.
- Solicit donations of funds or in-kind service (e.g. analysis or residue samples) from agriculture products companies, commodity associations and food to offset the cost of a planned or on-going IR-4 research study.

### **IR-4 Performance Expectations**

Name	Jerry Baron
Unit	IR-4 Headquarters
Job Title	Executive Director

#### **IR-4 Related Job Functions**

#### Leadership

- Attend and participate in IR-4 Project Management Committee Meetings
- Attend and participate in other key and/or ad hoc IR-4 meetings as appropriate.
- Attend the appropriate IR-4 Regional meeting(s)
- Serve as voting member of Project Management Committee
- Assist in the development and implementation of policies/strategies for all elements of the IR-4 Project operations.
- Serve on ad hoc committees and standing committees on behalf of the PMC
- Facilitate communications and information exchange between PMC and IR-4 personnel

#### Management

- Provide leadership, supervision (primary or secondary) and mentorship for IR-4 Associate Director, Assistant Director, Managers, Biologists, Study Directors, Quality Assurance Unit team and Administrative team.
- Empower IR-4 employees within Headquarters to successfully perform research/other functions to support the registration of safe and effective bio-based and chemical pesticides on fruit, vegetables, nuts, herbs, ornamentals, other specialty crops and minor crop protection uses on major crops.
- Recognize individuals in the IR-4 Project who excel in performance of their duties via IR-4 issued awards or other method of acknowledgment

### **Regulatory Compliance (Fiscal and GLPs)**

- Serve as Principal Investigator/Project Director on IR-4 Project within North Carolina State University grant submission, grant management, and reporting.
- Ensure that grant applications and required reporting are completed on or before deadlines. Promptly reply to questions or request for information to manage grants.
- Participate in training involving Good Laboratory Practice (GLP) regulations as published in Chapter 40 Code of Federal Regulations, Part 160.
- Initiate and/or support actions to ensure compliance with GLPs
- Work with Regional Directors to ensure that Regional facilities (field research farms/centers, office and laboratories have the resources to allow them to perform their job functions.

#### Outreach

- Interact with stakeholders of the IR-4 Project to keep them informed of the opportunities available through "partnership" with the IR-4 Project.
- Assist in the communication and outreach activities of the IR-4 Project; attend conferences, workshops and symposium and serve as a spokesperson for the IR-4 Project.
- Solicit donations of funds from the crop protection industry or other stakeholders to offset the cost of a planned or on-going IR-4 research study and other operations.

### Electronic Field Data Notebook eStudy Update

### Presenters: Jerry Baron and Jimmy Byrtus







# Path Forward: iAdvantage eStudy Update

Pest Management Solutions for Specialty Crops and Specialty Uses

### **Actions Taken**

- 36 eFDB forms, representing 370 individual data entry points (variables) were created in July. Based on paper forms.
- Five Build Team meetings conducted to review proposed forms in August.
- Forms revised, tested, and corrected in September.
- 16 trial notebooks, from 7 studies sent to FRDs, RFCs, and HQ for pilot in October.
- 4-5 trials will use the eFDB in field settings, remaining are only office transcription from paper.



### **Remaining Actions**

- Second round of "office testing" to be done in November, due to max user numbers.
- All FRDs and any other non-lab personnel will have opportunity to test the eFDB prior to the NEC.
- Results and feedback from the pilot will be compiled in December and available to PMC by mid January.
- Planning two time slots at NEC –one for all of IR-4 to introduce the program, second for training and panel discussion for Q + A.
- SOPs for eFDB use and validation in progress. Syngenta SOPs provided for adopting similar language.

