IR-4 Project Management Committee

Summer Meeting

June 11-13, 2023
Agenda and Handouts

AGENDA
PROJECT MANAGEMENT COMMITTEE

Summer Meeting, 2023 - All Times Eastern Daylight Time
Via Zoom:
https://ncsu.zoom.us/j/91553428576?pwd=dGFlVFNUbkw2UFJXWVZieVdjWjVJZz09
Meeting ID: 915 5342 8576 **Passcode:** 123456

Tuesday Jul. 11th 10:30 am to 4:30 pm

1) Welcome/Introductions ***(Matt Hengel)***
2) Approval of minutes & new agenda items ***(Matt Hengel)***
3) Unit updates
   - ***a)*** AAs Report ***(Doug Buhler, et. Al.)***
   - ***b)*** NRSP-4 Midterm Outcome & Next steps ***(Steve Lommel)***
   - c) NIFA Update ***(Michelle Samuel-Foo)***
     - i) Including 2023 grant status, work detail
   - ***d)*** CLC & Friends of IR-4 Update ***(Keith Pitts & David Beaudreau)***
   - e) Regions (NER, NCR, SOR, WSR, ARS & HQ)
4) Program updates
   - a) Food Program
     - i) Field Residue Studies/submissions ***(Debbie Carpenter)***
     - ii) Quality Assurance Unit ***(Johanna Mazlo)***
     - ***iii)*** Product Performance ***(Alice Axtell)***
     - iv) Integrated Solutions (***Alice Axtell)***
     - v) International/Minor Use Foundation ***(Dirk Drost)***
   - ***b)*** Environmental Horticulture ***(Cristi Palmer)***
   - ***c)*** Biopesticides Regulatory Support ***(Michael Braverman)***
5) Communications Update (***Hannah Ross)***
6) iAdvantage electronic Field Data Notebook Pilot Update ***(Philip Moore/Jimmy Byrtus)***
7) Nuts & bolts of national SOPs (***Debbie Carpenter and Cristina Marconi)***
8) Laboratory Update/Backlog *(Debbie Carpenter)*
   - a) Additional discussions in Executive Session

Wednesday Jul 12th 10:30 am to 4:30 pm

9) Crop Safety/Efficacy data prior to residue studies ***(Jerry Baron)***
10) Proposed parameters of 2023 field research program (***Alice Axtell & Jerry Baron***)
11) Analytical Difficulty Calculator (***Debbie Carpenter and Christina Dineen***)
12) Network Expansion Project ***(Jaimin Patel)***
    - i) Training Modules
13) EPA Issues ***(Jerry Baron)***
    - a) Endangered Species Act Protections implementation
    - b) Endocrine Disruptor Screening & impact
    - c) Public Interest Findings-Weight of the Evidence
14) Path Forward Implementation Performance Expectations (***Jerry Baron)***
    - a) Regional Field Coordinators & HQ Management,
15) GLP training for Sponsors/Testing Facility Management and Regional Directors ***(Johanna Mazlo)***
16) National Education Conference/Training Committee ***(Cristina Marconi)***
    - a) NEC 2-years vs. 3-years
    - b) Training opportunities between NEC
    - c) Training Committee Leadership
17) Awards (***Jerry Baron***)
    - a) Change Meritorious/Technical Service awards to once every three years
    - b) SOAR
    - c) Special Award nomination
18) Executive Session

Thursday Jul. 13th: 10:30 am to 4:00 pm – IF NECESSARY

Past Meeting Minutes for Approval

MINUTES
Joint IR-4 Commodity Liaison Committee/Project Management Spring 2023 Meeting
March 7-9, 2023
Hybrid Meeting - Washington D.C.

MOTIONS AND ACTION ITEMS

Motions/Consensus Items:

1. **CLC Vote:** A motion was made to approve the "Track D" Commodity Liaison Committee membership list by Michael Bledsoe; seconded by Amy Upton. **Unanimously approved.**
2. A motion to approve the minutes of the Fall 2022 and Special Meeting of January 19, 2023 meetings was made by John Wise, seconded by Todd Scholz. **Unanimously approved.**
3. A motion was made to approve the "Track D" Commodity Liaison Committee membership list by Todd Scholz; seconded by Jerry Baron**. Unanimously approved.**
4. **Consensus** was held to hold the Summer PMC meeting virtually; and to look at the agenda to see if the meeting date could be reduced to two days, rather than three.
5. **Consensus** was given to develop a national Standard Operating Procedure (SOP) template, pilot it on the Electronic Field Data Notebook, and evaluate it.
6. A motion to adjourn the regular session at 5:15 pm and to move to Executive Session, was made by Alvin Simmons; seconded by Simon Zebelo. **Unanimously approved.**
7. A motion to accept the nomination of Dr. Bernard Zandstra as an IR-4 Hall of Fame Award Recipient was made by Alvin Simmons, seconded by Jerry Baron**. Unanimously approved.**
8. **Consensus** was given on the potential for IR-4 Headquarters to modify the budget on the research side of the food use workshop to account for costly projects, and bring back to the PMC for review.
9. A motion was made to adjourn the meeting at 11:00 am by Alvin Simons seconded by Todd Scholz. **Unanimously approved**

Motions/Consensus Votes Made Via Email In-Between Regular Meetings:

1. The PMC voted via email for approval of the IR-4 Project Biopesticide Program to provide regulatory assistance for the use of a dsRNA for control of the Red Palm Weevil. **Approved by written consent (1 abstention: Jerry Baron).**
2. The PMC voted via email for approval of Debbie Carpenter to receive a Special Exceptional Leadership Award to be presented at the 2023 National Education Conference. **Approved by unanimous written consent.**
3. The PMC voted via email for approval of the IR-4 Project Biopesticide Program to provide regulatory assistance for an attenuated strain of Cucumber Green Mottle Mosaic Virus (CGMMV) that acts as a vaccine through cross-protection. **Approved by written consent (1 abstention: Jerry Baron).**

4. The PMC voted via email for approval of the appointment of Ryan Wysocki of the Michigan Blueberry Industry as a member of the Commodity Liaison Committee. **Approved by unanimous written consent.**
5. The PMC voted via email for approval of the IR-4 Project Biopesticide Program to provide regulatory assistance for the attractant Combi Protec. **Approved by written consent (1 abstention: Jerry Baron).**

Action Items:

- **Action Item:** Headquarters will develop a brief white paper for RFCs on the difficulties of propiconazole projects; and the importance of considering alternatives.

Members:

Michael Aerts; CLC
Jerry Baron; IR-4 Executive Director
Zach Bagley; CLC
Chris Bardenhagen; CLC
Michael Bledsoe; CLC
Doug Buhler; Administrative Advisor-NCR
Jennifer Clarke; CLC
Maggie Elliot; CLC
William Frantz; CLC
Liwei Gu; Regional Director-SOR
Matt Hengel; PMC Chair; Regional Director-WR
Marcel Holyoak; Administrative Adviser – WR
Bob Jones; CLC
Moses Kairo; Administrative Adviser – NER
Steve Lommel; Administrative Adviser- HQ
Michael Martin; CLC
Armando Moterroso; CLC
Joe Munyaneza; Administrative Adviser - ARS
Keith Pitts; CLC Vice Chair
Rachel Roberts; CLC
Steve Salisbury; CLC
Michelle Samuel-Foo; USDA-NIFA
Johnathan Saranger; CLC
Todd Scholz; CLC Chair
Robert Simerly; Outgoing CLC
Alvin Simmons; USDA-ARS
Barry Tanner; CLC
Dave Trinka; CLC
Amy Upton; CLC
Lee VanWychen; CLC
Herman Waguespack; CLC
John Wise; Regional Director-NCR
Simon Zebelo; Regional Director - NER

Presenters:

David Beaudreau; DCLRS
Michael Braverman; IR-4 HQ
Debbie Carpenter; IR-4 HQ
Krystal Chojnacki; IR-4 HQ
Dirk Drost; MUF
Cristina Marchesan Marconi; IR-4 HQ
Johanna Mazlo; IR-4 HQ
Cristi Palmer; IR-4 HQ
Venkat Pedibhotla; IR-4 HQ
Hannah Ross; IR-4 HQ

Tuesday March 7, 2023 10:00 am to 4:00 pm ET

Matt Hengel called the meeting to order at 10:10 am–

1. Welcome and comments: (Scholz and Hengel)
   - Introductions
     - M. Hengel initiated introductions around the room and on zoom. T. Scholz made an introduction

2. CLC Report (Scholz)
   - Membership report (Presentation)

        - T. Scholz provided an update on new CLC membership, reviewed a membership report; noted that Jonathan Saranger will be the new Chair of the Government Affairs Sub-Committee (GASC); shared the "Track D" members who needed a vote for renewal; and introduced the new CLC members:
            - Michelle Grainger, NC Sweet Potato Commission
            - Chris Bardenhagen, Michigan Cherry Institute
            - Ryan Wysocki, Michigan Blueberry Council
            - John Wayne Boatright, American Farm Bureau
            - Zach Bagley, California Tomato Research Institute.
    - **A motion was made to approve the "Track D" Commodity Liaison Committee membership list by Michael Bledsoe; seconded by Amy Upton; unanimously approved.**
- CLC Government Affairs Sub-Committee
    - J. Saranger addressed the group stating that he is based in Washington DC and is happy to represent the group as needed and encouraged other members of the CLC to attend meetings and to bring forth ideas for the group to consider.

3. Friends of IR-4 Report (Beaudreau and Crow)
    - D. Beaudreau reported that: this week was a big one with the Hill visits and lunch and learn; provided an overview of the significance of the meetings of this year; provided an update on the Farm Bill; shared plans and logistics about the lunch and learn on the Hill this week; updated that the Friends of IR-4 is up to 24 members and thanked folks for their membership and reported on a new individual membership category; and provided key points to share as meetings are being held on this Hill this week.
    - A discussion was held regarding positive efforts made with Office of Management and Budget (OMB) over the last few years; that DCLRS can help set-up meetings with Congressional offices throughout the entire year as well as the importance to meet with Members of Congress at home; and the importance of also seizing opportunities to advocate for increased funding for our partner USDA-ARS.

4. Awards Presentations
    - J. Baron reported on National Recognition of Excellence Awards issued at the 2023 National Education Conference in February 2023 to: Dan Heider, Sherita Normington, Wilfredo Robles Vasquez, and Debbie Carpenter.
    - J. Baron presented Special Awards to: Bob Simmerly and Dave Trinka, former CLC Members; and Dan Rossi, Headquarters.

Break at 11:10 am. The meeting reconvened at 11:16 pm –

5. IR-4 2022 Year End Summary (Presentation)
    - J. Baron reported on the 2022 Annual Report and reformatting that occurred in the report this year; reviewed the 2022 activities and accomplishments as outlined in the report; highlighted other deliverables such as crop groups, data requirements and international harmonization for MRLs; shared the current org chart and headquarters team; and spoke to questions about the future challenges of the work of IR-4, pesticide regulatory changes, addressing forthcoming retirements, and the vision for the next 5 years.

6. Greater demand for efficacy data/modification to funding models (Presentation)
    - J. Baron reported: on the increase in requests for efficacy and/or crop safety data in support of residue projects; that states are moving to a required review prior to

registration; reported that the PMC has responded to this need by approving the move of additional resources into this area in order to facilitate registration; and shared the ideas of weighted priorities in these areas.
- J. Baron further reported on modifications of field funding models including recent increases ($7,777); not meeting overhead at some research sites; and proposed moving away from the current standard funding model to more fluid models that would support core sites, secondary sites, and contractor sites.
- A discussion was held regarding the use of cost-share models for integrated solutions (IS) projects; reflecting on lessons learned by IS projects and how to build upon them; and the European Union's acceptable variables for trial differentiation and how that impacts IR-4 projects.

7. Priority setting plans - Dates and Processes
   - 2023 Food Workshop Plans and Cost (Presentation)
     - V. Pedibhotla shared the 2023 Food Use Workshop (FUW) deadlines including company meetings, the Industry Technology Session; forthcoming Project Clearance Requests (PCR) deadlines; and shared a draft agenda for the 2023 FUW on September 12-14, 2023.
     - K. Chojnacki reported on the 2022 registration fee, and proposed increased 2023 registration fees.
     - A discussion was held regarding if this increase with equalize our costs; audio visual requirements; if we will utilize zoom (Canadian PMC is not using zoom to have people come in person); review a corporate rate for registration (or registrants, researchers and growers); universities cannot pay resort fees on rooms; and reducing hybrid meeting costs (in 2022 we did this with a video).
   - 2023 Environmental Horticulture (Palmer)
     - C. Palmer reported that the workshop will held on October 10-12, 2023; meeting will be 1.5 days long in Little Rock, Arkansas; in–person with hybrid format; and there will be a pre-meeting session for technology from the registrants.

Break for lunch at 12:30pm. Reconvened at 1:30 pm--

- Future: In-person vs. Virtual
  - J. Baron introduced a discussion about hosting priority setting in-person versus virtually. A discussion was held regarding: the benefits of hybrid (participation even if you are unhealthy); preferences for in-person and valuable side discussions; preference for the earlier, separate industry technology session; keeping the fee for attending virtually; existing policy for selecting a location for workshops (two time zones); and defining the success of the workshops during the pandemic.

8. Path Forward 2.0 Update (Presentation)
   - J. Baron reviewed the primary six recommendations that emerged from the Path Forward 2.0 report (performance expectations, field trial reimbursement, communications, training, technology, and laboratory backlog) and the work performed to date in strengthening these areas; and the electronic field data notebook (eFDN) implementation and roll-out.
   - A discussion was held regarding the reception by the team to the eFDN at the National Education Conference.

9. Communications Update (Presentation + Video)
   - IR-4 60 Years-Update education and celebration plans

- H. Ross reported: in February, the 60 year's celebration and branding campaign was launched; shared materials developed for promotional purposes this year; reviewed social media engagement and boost in analytics; reviewed partner engagement and the benefits of joint promotion; and showed a new video highlighted on our home page.

10. Endangered Species Act (ESA) and pesticide approvals for specialty crops (Presentation)
    - J. Baron reported: on U.S. EPA's ESA's work plan to focus on litigation cases and registrations with new active ingredients; endangered species protection bulletins issued; and that the EPA will be trying to bundle IR-4 new uses with an ESA assessment being done for a company.
    - A discussion was held regarding impacts from the ESA on product development and research; the opportunities of mitigation and offsets; working with the EPA to get clear data requirements to navigate the ESA; broad spectrum products are vulnerable; and if the needed research (mapping) could be included in our prioritization process.

Break at 3:10 pm. The meeting reconvened at 3:25 pm –

11. Approval of minutes, new agenda items
    - **A motion to approve the minutes of the Fall 2022 and Special Meeting of January 19, 2023 meetings was made by John Wise, seconded by Todd Scholz; unanimously approved.**

12. Administrative Advisor(s) Report
    - NRSP-4 Midterm documents
        - D. Buhler reported that everything is on track and the process should move through with the committee regional reviews and committee reviews next spring; and that the IR-4 Project remains in good standing.
        - M. Holyoak reported that he is working with the grants office to work on getting subawards through to contract researchers; and have issues with break-ins on campus and so University has bolstered security staff.

13. ARS NPL Report
    - A. Simmons reported: that the Salinas laboratory is moving to a new facility later this year; the Tifton laboratory has one technician vacancy and one working on Propiconazole projects; they are working with UC Davis to develop a common moiety method; and there is a support scientist to assist Alvin is in the queue with human resources.

14. Approval of Track D CLC Membership
    - **A motion was made to approve the "Track D" Commodity Liaison Committee membership list by Todd Scholz; seconded by Jerry Baron; unanimously approved.**

15. Upcoming meetings
    - Research Day (April 11)
    - Summer PMC meeting (July 11-13) Virtual
    - New Technology Session (July 20)
    - 2023 Food Workshops-Raleigh (Sept. 12-14)
    - Environmental Horticultural Workshop-Little Rock, AR (Oct 10-12)
    - Fall PMC meeting/NRPM-Raleigh (October 23- 27)

- Global Minor Use Summit-Madrid Spain (Feb 5-9 2024)
- 2024 Joint CLC/PMC meeting-Washington (March 5-7/March 12-14, 2024)
    - J. Baron led a discussion of upcoming events/meetings for the CLC and PMC.
    - A discussion was held regarding the Summer PMC meeting being held virtually; that the Fall PMC meeting will be held first and followed by the NRPM; and the 2024 Joint CLC/PMC meeting in Washington, DC will wait for folks to check their calendars (might need to focus on the second week).
    - **Consensus was held to hold the Summer PMC meeting virtually**; **and to take a look at the agenda to see if the meeting date could be reduced to two days, rather than three.**

The meeting recessed for the evening at 3:46 pm to the 60 Years reception.

Tuesday March 7, 2023 5:30 pm to 7:30 pm ET

16. IR-4 60 Year Celebration Program
    - Welcome
    - Brief Comments by Program Partners
        USDA – Sanah Baig
        EPA- Rick Keigwin
        CropLife-Chris Novak
    - Additional Comments
        Ted McKinney, NASDA CEO

Wednesday March 8, 2023
9:00 am to 11:00 am ET

Matt Hengel reconvened the meeting at 9:02 am --

17. Operational Unit Reports (NCR, NER, SOR, WR, ARS, HQ)
    - NCR (Handout): J. Wise reported on: the finalization of the lab shutdown; that Nicole Soldan has been designated as Regional Field Coordinator; the FRDs doing well on field work; and looking to provide more training and support new FRDs.
    - NER (Handout): S. Zebelo reported on: the increased ease of transferring funds to subawards with IDC this year; reported on 2021/2022 final reports and field data books being submitted; the great work of Marylee Ross and Megan James Hickman for ensuring deadlines are being met; and working to support travel expenses for SLRs in the region.
    - SOR (Handout): L. Gu reported: the field program is progressing well; in 2022 the analytical lab achieved 13 ASRs and the lab has set a goal of 20 ASRs for 2023; there are staffing changes in the lab with three new hires in 2022 and two in 2023; that Matt Hengel came to give a lab training for the team; there have been equipment transfers from the NCR and new purchases; and that QA is progressing with some travel shifts and cooperation with HQ.
    - WR (Handout): M. Hengel reported: that Michael Horak has retired and Kari Arnold has been hired as the new Regional Field Coordinator; work continues to establish a field site in New Mexico; that QA is up to date with completing reports and audits; the lab is operating well and is about 70% done with the lab closures and shifting of projects; that a new piece

of equipment will be installed soon; and that updates being made to the onsite building and the Laboratory will require another temporary relocation.
- ARS: A. Simmons reported: on the success of the EPA audit in Charleston in spite of a short turnaround after receiving notice; that the IR-4 research is going well even while short-staffed; they ahead of 2021 in terms of sending field data books to QA; and that the agreement with NC State for support services from QA and EHC will be extended with funding levels at 2021 levels.
- HQ: J. Baron reported: that HQ receives excellent support from the administration and units at NC State; the organizational chart is mostly full but we are hiring for an open QA position; Juliet Thompson has been promoted to start being trained to perform QA audits; and IR-4 will host and NC A&T biology student for a science communications summer internship.

18. NIFA NPL Report
    - Status of 2023 RFA
        - M. Samuel-Foo reported that the RFA was released to IR-4 HQ with an increased amount of funding and that NIFA will be requesting some of the awarded funding to be provided to the network expansion taskforce expanding to the 1890s Land Grant Universities.

19. 2023 funding distribution and related topics
    - J. Baron reported: on the NIFA RFA and the total grant allocation $13,874,243 after NIFA mandated holdback to support operations; and on proposed funding levels for each region, Rutgers, and HQ (awaiting RFC validation) including core, residue, eFDN, field supplement, lab analysis, performance, IS, and EHC.
    - A discussion was held regarding indirect costs on contracts; comparisons with 2022 funding levels; and deadlines for interim reporting (early June).

The meeting recessed for the Lunch and Learn at 10:35 pm --

11:15 to 2:00 pm ET

20. Congressional Lunch and Learn (noon-1:30 PM) - 1539 Longworth House Office Bldg.
    - Welcome and Introduction of IR-4
    - Speakers representing specialty crops (hops, mushrooms, tomatoes, among others)
    - IR-4 Current and Future Issues: FY 2023 and FY 2024
    - Questions and Closing

The meeting reconvened from the Lunch and Learn at 2:45 pm --

A brief update was provided regarding the success of the Lunch and Learn; the presentation panel was effective and there were approximately 15 staffers in attendance.

2:15 pm to 5:30 pm ET

21. Program Reports and Issues
    - Food Program
        - Residue Research Program;
            - 2023 Field trials/studies (Presentation)
                - D. Carpenter reported on a new final rule published on several crop groups (CG 15,16, 6 and 7) and another to be published soon (IR-4's portion of the

work is complete) and congratulated the registration and QA teams for their hard work to get these items completed.
    - A discussion was held regarding an open public comment period for an ESA project.
- Status of pre-2022 Field Data Notebooks
    - D. Carpenter: reviewed the outstanding Field Data Notebooks and noted the issues the delays the receipt of these books are causing; reported that sample shipping delays need to be reduced; and that samples need to be shipped to the labs in order to progress projects in an expeditious way.
    - A discussion was held regarding the issues field data notebook and sample delays are causing and if regional directors can help.
- Analytical Laboratory Discussions
    - Backlog update & reassignment of samples
        i. D. Carpenter reported: that backlog is dropping but that there are no quick fixes; the labs have done a great job working to reduce the backlog; the need for additional documentation needed for projects that went to other labs or contract labs; the method difficulties that are causing delays; the UC Davis lab taking all of the difficult hemp projects in addition to the transferred projects; and the Florida lab's great work reducing their backlog to only one.
        ii. A discussion was held regarding the distribution of in-house projects and contract labs to ensure a backlog does not reoccur.
    - Analytical difficulty calculator
        i. D. Carpenter reported on the existence of a lab difficulty calculator and work toward further developing it for use in developing projects before the Food Use Workshop or to aid in assigning projects to IR-4/ARS labs.
        ii. A discussion was held regarding the benefit of this tool when it comes to assessing project requests and other items for consideration when selecting projects to pursue.
- Quality Assurance Unit (Presentation)
    - J. Mazlo reported on: EPA compliance monitoring; onsite inspections conducted recently; reviewed new ways of working on inspections as a national team; activities during the last quarter; and the 2022 audit/inspection data and a comparison with 2021.

- Product Performance Research & Integrated Solutions Research (Presentation)
    - V. Pedibhotla reported: on the 2023 NIFA allocated budget including indirect costs for performance and integrated solutions; an increase in the number of performance projects and integrated solutions as compared to 2021; and reviewed 2023 projects by discipline.
    - A discussion was held regarding how CDFA trials are applied to surrounding states.

- International Update - PMC/Canada & Minor Use Foundation
    - D. Drost gave an overview of the Minor Use Foundation including: the mission and vision; current projects; funding activity and fundraising; shared staffing updates; and the future Global Minor Use Summit in February 2024 in Madrid, Spain.

Break at 3:53 pm. The meeting reconvened at 4:05 pm –

- National Education Conference Debrief and other educational issues (Handout)
  - C. Marconi reported: the results of the 2023 National Education Conference (NEC) post meeting survey; the positive feedback about the agricultural tour in Puerto Rico; and the kick-off for the 60th Year celebration that was held at the NEC.
  - A discussion was held regarding the positive feedback about the event and the planning groups were commended; and if the NEC should be held more frequently or additional regional trainings.

- Biopesticide Regulatory Support Update (Presentation)
  - M. Braverman reported on: EPA submissions underway; EPA packages under development; EPA registration packages underway; work on Aluminum Potassium Phosphate for management of fire blight; work on an active ingredient transfer; new projects approved for work on; that the ESA is also impacting bio pesticide projects; and ongoing outreach and regulatory training.

- Other items
  - Standardized SOPs (Presentation)
    - D. Carpenter reported on the review of SOPs that could potentially be standardized; boundaries set to identify eligible SOPs; SOPs presented for standardization at the NEC; and the overall response was positive.
    - A discussion was held regarding developing a national template for SOPs and to pilot it on the eFDN; and standardization concentrated in an overall look.
    - **Consensus was given to develop a national Standard Operating Procedure (SOP) template, pilot it on the Electronic Field Data Notebook, and evaluate it.**
  - Archiving Challenges/Solutions
    - D. Carpenter provided a background on archiving space in HQ and long term archiving in DocuSafe in New Jersey; stated the need for a more local to HQ archive space; and reviewed potential changes to the current archiving process, allowing more local archiving near regional offices.
    - A discussion was held regarding the current archival storage process; the need for original documents during audits; the possibility of moving completely to electronic; the number of archival companies available; and the need to explore costs of regional storage (as there was interest).

- Environmental Horticulture (Presentation)
  - C. Palmer reported on: final data summaries for 2022; registrations for 2022 that have slowed a bit due to exogenous factors; outcomes and impacts since the program inception in 1977; existing registration support research network; national projects for 2022/2023; 2023 protocols; and funding/distribution from 2010-2023.
  - A discussion was held regarding EHC work is shared for pathogens on tropical fruits (yes, the results are publically shared on the database).

22. New Awards
    - J. Baron requested that this item to be moved for discussion in Executive Session.

A motion to adjourn the regular session at 5:15 pm and to move to Executive Session was made by Alvin Simmons; seconded by Simon Zebelo; unanimously approved.

Thursday March 9, 2023 (8:00 am to noon ET)

Matt Hengel convened the Executive Session at 8:09 am --

23. Executive Session

Break at 10:25 am. The meeting reconvened at 10:35 am –

The members reconvened from Executive Session at 10:59 am with the following motions or actions out of Executive Session:

- **A motion to accept the nomination of Dr. Bernard Zandstra as an IR-4 Hall of Fame Award Recipient was made by Alvin Simmons, seconded by Jerry Baron; unanimously approved.**
- **Consensus was given on the potential for IR-4 Headquarters to modify the budget on the research side of the food use workshop to account for costly projects, and bring back to the PMC for review.**
- **Action Item: Headquarters will develop a brief white paper for RFCs on the difficulties of propiconazole projects; and the importance of considering alternatives.**

24. Adjourn

A motion was made to adjourn the meeting at 11:00 am by Alvin Simons seconded by Todd Scholz; unanimously approved

CLC & Friends of IR-4 Report

Presenters: Keith Pitts and David Beaudreau

Appropriations Updates:

June 15, 2023. Bloomberg Government:

Fighting for Farm Research — One of House Agriculture's subcommittees heard from academic leaders yesterday about the importance of agricultural research, and Bloomberg Government chatted with the conservation, research, and biotechnology subcommittee Chairman Jim Baird (R-Ind.) post-hearing. He told her he's "going to be pushing for making sure we've got the right kind of research" covered in the Republican spending bill. (Democrats have dinged the GOP proposal for cuts to agriculture funding). Amelia also caught up with ranking member Abigail Spanberger (D-Va.), who told her research money will be a farm bill priority. "These are investments that actually pay substantial dividends," she said.

Overall Spending Cuts:

House Republicans Plan Domestic Spending Cuts

Appropriators set allocations for the 12 annual funding bills

Subcommittee	2023 enacted (in millions)	2024 House plan	Change	Percentage change
Agriculture-FDA	$25,480	$17,838	$-7,642	-30%
Commerce-Justice-Science	82,441	58,676	-23,765	-29
Defense	797,736	826,448	28,712	4
Energy and Water	54,000	52,378	-1,622	-3
Financial Services	27,556	11,311	-16,245	-59
Homeland Security	60,703	62,793	2,090	3
Interior-Environment	38,850	25,417	-13,433	-35
Labor-HHS-Education	207,367	147,096	-60,271	-29
Legislative Branch	6,900	6,746	-154	-2
Military Construction-VA	154,168	155,701	1,533	1
State and Foreign Operations	59,693	41,367	-18,326	-31
Transportation-HUD	87,332	65,208	-22,124	-25
Total	1,602,226	1,470,979	-131,247	-8

Bloomberg

House Ag Appropriations Report Language:

Minor Crop Pest Management.—The IR–4 Project has been critical to securing registrations for new plant protection products for specialty crops and the primary avenue for new reduced-risk

pesticides, while improving impacts on the environment, worker safety, and more sustainable production systems for holistic wellbeing. The Committee provides funding to continue the Project's mission of food security research infrastructure and meeting consumer demands for high-quality food.

Funding:

NATIONAL INSTITUTE OF FOOD AND AGRICULTURE RESEARCH AND EDUCATION ACTIVITIES

[Dollars in thousands]

Program/Activity	Authorization	Committee provision
Hatch Act	7 U.S.C. 361a–i	$265,000
McIntire-Stennis Cooperative Forestry Act	16 U.S.C. 582a through a–7	38,000
Research at 1890 Institutions (Evans-Allen Program)	7 U.S.C. 3222	89,000
Payments to the 1994 Institutions	7 U.S.C. 301 note	7,000
Education Grants for 1890 Institutions	7 U.S.C. 3152(b)	30,000
Scholarships at 1890 Institutions	7 U.S.C. 3222a	10,000
Centers of Excellence at 1890 Institutions	7 U.S.C. 5926(d)	10,000
Education Grants for Hispanic-Serving Institutions	7 U.S.C. 3241	16,000
Education Grants for Alaska Native and Native Hawaiian-Serving Institutions.	7 U.S.C. 3156	5,000
Research Grants for 1994 Institutions	7 U.S.C. 301 note	5,000
New Beginnings for Tribal Students	7 U.S.C. 3222e	5,000
Capacity Building for Non-Land-Grant Colleges of Agriculture	7 U.S.C. 3319i	6,000
Grants for Insular Areas	7 U.S.C. 3222b–2, 3362, 3363	2,500
Agriculture and Food Research Initiative	7 U.S.C. 3157	460,000
Veterinary Medicine Loan Repayment	7 U.S.C. 3151a	10,000
Veterinary Services Grant Program	7 U.S.C. 3151b	4,000
Continuing Animal Health and Disease Research Program	7 U.S.C. 3195	4,000
Supplemental and Alternative Crops	7 U.S.C. 3319d	2,000
Multicultural Scholars, Graduate Fellowship and Institution Challenge Grants.	7 U.S.C. 3152(b)	10,000
Aquaculture Centers	7 U.S.C. 3322	5,000
Sustainable Agriculture Research and Education	7 U.S.C. 5811, 5812, 5831, 5832	45,000
Farm Business Management	7 U.S.C. 5925f	2,500
Research Equipment Grants	7 U.S.C. 3310a	5,000
Alfalfa Seed and Alfalfa Forage Systems Research Program	7 U.S.C. 5925	4,000
Minor Crop Pest Management (IR–4)	7 U.S.C. 450i(e)	15,000
Agricultural Genome to Phenome Initiative	7 U.S.C. 5924	2,500
Laying Hen and Turkey Research Program	7 U.S.C. 5925	1,000
Special Research Grants:	7 U.S.C. 450i(c)	.....
Potato Research	.....	4,000
Aquaculture Research	.....	2,200
Total, Special Research Grants	.....	6,200
Necessary Expenses of Research and Education Activities:		
Grants Management Systems	.....	7,924
Federal Administration—Other Necessary Expenses	.....	12,597
Total, Necessary Expenses	.....	20,521
Total, Research and Education Activities	.....	$1,085,221

NATIVE AMERICAN INSTITUTIONS ENDOWMENT FUND

2023 appropriation	($11,880,000)
2024 budget estimate	(11,880,000)
Provided in the bill	(11,880,000)
Comparison:	
2023 appropriation	– – –
2024 budget estimate	– – –

COMMITTEE PROVISIONS

For the Native American Institutions Endowment Fund, the Committee provides $11,880,000.

EXTENSION ACTIVITIES

2023 appropriation	$565,410,000
2024 budget estimate	611,862,000
Provided in the bill	564,860,000
Comparison:	
2023 appropriation	−550,000
2024 budget estimate	−47,002,000

House and Senate Spending Allocations:

House and Senate Set Spending Allocations

Senate figures match debt-limit deal, while House provides less

Subcommittee	2023 enacted	2024 House plan (in millions)	House percentage change	2024 Senate plan (in millions)	Senate percentage change
Agriculture-FDA	25,480	$17,838	-30.0%	$25,993	2.0%
Commerce-Justice-Science	82,441	58,676	-28.8	69,637	-15.5
Defense	797,736	826,448	3.6	823,267	3.2
Energy and Water	54,000	52,378	-3.0	56,730	5.1
Financial Services	27,556	11,311	-59.0	16,807	-39.0
Homeland Security	60,703	62,793	3.4	56,923	-6.2
Interior-Environment	38,850	25,417	-34.6	37,850	-2.5
Labor-HHS-Education	207,367	147,096	-29.1	195,231	-5.9
Legislative Branch	6,900	6,746	-2.2	6,761	-2.0
Military Construction-VA	154,168	155,701	1.0	154,352	0.1
State and Foreign Operations	59,693	41,367	-30.7	58,358	-2.2
Transportation-HUD	87,332	65,208	-25.3	88,091	0.9
Total	1,602,226	1,470,979	-8.2	1,590,000	-0.8

House and Senate Appropriations Committees

Bloomberg Government

Farm Bill:

McConnell Warns Extra Money for Next Farm Bill 'Hard to Come By'

Senate Minority Leader Mitch McConnell (R-Ky.) warned that the tight spending atmosphere after the debt ceiling debate will limit any additional money for the next farm bill.
"New spending is going to be hard to come by" for the farm bill, he said.

McConnell's remarks at a University of Kentucky agriculture event on the reauthorization of the five-year farm measure reinforce the idea that the House's and Senate's agriculture committees would need to remain at or below baseline spending levels for the trillion-dollar food and farm legislation. Both parties had requested more funds.

Northeast Region Report

Presenters: Dr. Simon Zebelo and Dr. Moses Kairo

Northeast Region PMC Report

January 1 – June 30, 2023

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

Program Summary

Trials At-A-Glance

Food Use MOR Trials - Summary	2021	2022	2023
Trials Placed	26	29	30
Canceled Trials	1	5	0
Completed Trials	25	23	2
FDB's Received at RFC Office	25	17	0
Completed QC Reviews	25	11	0

Food Use Performance Trials - Summary	2021	2022	2023
# of Trials	20	11	21
Completed Trials	20	10	0
Reports Submitted	20	6	0

Env. Hort Efficacy - Summary	2021	2022	2023
# of Protocols	4	6	4
Projects Placed	4	6	4
Canceled Projects	0	0	0
Reports Submitted	4	4	0

Env. Hort Crop Safety - Summary	2021	2022	2023
# of Protocols	4	1	1
Trials Placed	47	21	21
Canceled Trials	0	0	0
Reports Submitted	47	13	0

Integrated Solutions- Summary	2021	2022	2023
# of Trials	9	10	7
Completed Trials	9	10	0
Reports Submitted	9	10	0

Update from the Director's Office

All (Twenty-two) NER 2022-2023 sub-sub award contracts have been signed, and we have sent 20 purchase requisitions, received 18 invoices, and issued 18 checks. In addition, the University of Maryland's budget has been transferred internally through our financial system.

UMES submitted the 2022-2023 IR-4 NER continuation work statement, budget, and budget justification as a sub-awardee of North Carolina State University. Moreover, UMES is awaiting to receive no-cost extension approval for the 2022-2023 FY budget, and we have received a few a sub-sub-awardee request for no-cost extension.

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 are processing the SLRs support as sub-awards and adding 10% IDC. So far, we have sent 12 SLR sub-awards, and nine of them has been signed.

UMES is in the process of receiving USDA-ARS funding through NC-state to implement and complete 5 to 10 crop safety screening trials and 1 - 2 efficacy experiments under high-priority projects as determined by the 2021 Biennial Environmental Horticulture Workshop. Healthy specimens of test plants will be cultivated in greenhouse or field conditions, test active ingredients will be applied, and data will be collected on crop impact or efficacy against target pathogens or pests. Reports will be submitted for posting on the IR-4 Environmental Horticulture Program's web pages.

The IR4-project Northeast Region (NER) has decommissioned the GLP test site at Rutgers Fruit Research and Extension Center at Cream Ridge, NJ. Since 2009, the Field Research Director, Tom Freiberger, has conducted several GLP trials at Cream Ridge. However, Tom retired in January 2022, and since then, no magnitude of residue trials have been placed in Cream Ridge. Therefore, on August 12, 2022, the decision was made to decommission the research center at Cream Ridge. All the documents from this center have been collected and archived at the headquarters. U.S Environmental Protection Agency has been informed that this test site decommissioned to fulfill the requirement of 40 CFR 160.195(g). However, in the future, IR4 might conduct GLP or non-GLP trials in this research center.

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 well in the NER.

Regards,

Simon

Update from the Regional Coordinator's Office

We have launched another busy year.

I gave an IR-4 presentation to the National Association of Raspberry and Blueberry Growers in Tampa Florida. I invited Janine Spies to join me and we tag teamed the presentation.

Megan spent many hours helping to plan the National Education Conference. The training Committee did a tremendous job putting together a great program and the tour was fabulous in Puerto Rico!

In early February I became immersed in planning our fist in person Educational Tour for EPA, USDA and IR-4. There were several meetings and 2 dry run trips made to be sure of the timing and directions. Many hours were spent coordinating and preparing. June 21 turned out to be a wet and blustery day, but the tour went on and was a huge success. All of the hosts were great!

We held our Northeast Region Annual Meeting April 12. Our new system for engaging SLRs appears to be working. We received a great deal of information from them and expect several requests to be submitted as a result. We will be encouraging the submission of those requests and hold regional priority setting meetings near the end of July.

There is a large and growing interest among the "sugarbush farmers." The maple sap producers are experiencing quite a detrimental effect of Spotted Lantern Fly. They have found SLF can reduce the sugar content of the sap by more than 40%. That can make syrup production unrealistic. A request and 16 supporting requests have been submitted to the Integrated Solutions program. Canada has interest also.

On April 14th, Megan gave a presentation about IR-4 at her alma mater, Delaware Valley University.

We have participated in numerous meetings concerning the implementation of the iAdvantage electronic field notebook. We are almost ready to start using it. We have the equipment we need now and Jennifer Fisher in NJ will soon. It has been difficult to devote a lot of time to this during an exceptionally busy time. I believe once we get the hang of it, things will roll smoothly.

The Northeast region team held regular meetings to keep all of us up to date on funding and all other issues involving IR-4 at UMD and UMES.

I have been able to make a few field site visits. On May 1st I traveled to Rutgers Marucci Center for Blueberry and Cranberry Research. Our new FRD Weseley Bouchelle experienced his first Facility Audit with Jane Forder. It is a great facility and Wes has brought everything in to GLP compliance. I am confident that Wes will be a fine FRD.

I was at Lange Research in North Rose, NY in mid-May for Keagan Handley's first application and QA audit with IR-4. Keagan is at Lange Research in North Rose, NY. I was also able to visit with Tessa Lessord who is doing some performance trials for IR-4. While in that part of the state I visited with Ken Trammel, owner of ACDS Trucking. We talked about his many years of association with IR-4 and the purchase of ACDS by Lange Research. It should be a very smooth transition.

Until next time,

marylee

Program Report

Food Use Program

Magnitude of Residue

In 2023, thirty 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)
-Rutgers Marucci Center for Cranberry and Blueberry Research, Chatsworth, NJ (Rutgers University)

So far there has only been one loss; TRT03 of the Fluazifop-P-Butyl peas conducted in MD. The plants in TRT 03 bloomed early and simultaneously. The timing was off for 14-day PHI and preboom harvest. TRT 01 and TRT 02 are beautiful and samples will be collected before you see this report. TRT 03 will be repeated later this year.

Two samples have been shipped and no Field Data Books (FDBs) have been received at the RFC office yet. Eleven Quality Control (QC) reviews have been completed and the FDBs sent to Quality Assurance (QA) for 2022 with more in progress.

Performance

In 2023, twenty-one performance trials are being conducted in the Northeast Region. The Efficacy and Crop Safety trials are being conducted at ten 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)
- Pennsylvania State University Horticulture Research Farm, State College, PA (Pennsylvania State University)
- Carvel Center for Agricultural Research, Georgetown, DE (University of Delaware)
- Wye Research and Education Center, Wye Mills, MD (University of Maryland)
- Woodman Horticultural Research Farm, Durham, NH (University of New Hampshire)
-WVU Plant Diagnostic Clinic, Morgantown, WV, (West Virginia University)
- Rutgers Agricultural Research and Extension Center, Bridgeton, NJ (Rutgers University)
- UVM Horticulture Research and Education Center, Burlington, VT (University of Vermont)

No trials have been completed and no reports have been submitted yet.

Environmental Horticulture Program

In 2023, there are four efficacy protocols and one crop safety protocol. Under these protocols, we placed four efficacy projects and thirty-one crop safety trials.

The four efficacy projects are being conducted at:

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

The thirty-one crop safety trials are being conducted at:

-Long Island Horticultural Research Lab, Riverhead, NY (Cornell University)
-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, no reports have been submitted.

Integrated Solutions

In 2023, seven 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)
-Rutgers Agricultural Research and Extension Center, Bridgeton, NJ (Rutgers University)
-Rutgers Marucci Blueberry and Cranberry Experiment Station, Chatsworth, NJ (Rutgers University)
- University of Maryland College Park, College Park, MD (University of Maryland)

To date, no trials have been completed or reports submitted.

Quality Assurance

During the period of this report, I [Jane Forder} conducted 10 audits of field data books, 9 final report audits including amended reports and 2 contributing scientist reports. I performed a second review on 10 final reports, performed 13 closing report checks and typed up 2 QA statements. I conducted 16 field in-life inspections, 3 in Texas, 7 in the northeast region and 6 in the northcentral region. I provided extensive SOP support to the Trevor Nichols Research Center field research director. I attended the National Education Conference in San Juan Puerto Rico and the NAICC annual meeting in Nashville, Tennessee.

Southern Region Report

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

UF UNIVERSITY of FLORIDA

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

The IR-4 Project

1642 SW 23rd Drive
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Southern Region Report for CLC and PMC

Liwei Gu, Janine Spies, Gail Mahnken, and Kathleen Knight

June 30, 2023

1. Field programs and QC

QC of FDBs:

2020 trials – As of late June, all 2020 FDBs have been through QC review except for one cyproconazole/orange FDB, which is awaiting responses of the QC review.

2021 trials – As of late June, all 2021 FDBs have been through QC review except for two outstanding mefenoxam/passionfruit FDBs from Homestead; one trial is completed and one is ongoing.

2022 trials – As of late June, 58 of the 91 FDBs have been received, including six FDBs from terminated trials (2 hemp, 1 radish from Citra; 1 sesame in TX; 1 lychee in Homestead; 1 greenhouse lettuce in NC). Thirty-two FDBs are still outstanding and seven FDBs are pending QC review.

SOP review: SOPs have been reviewed and revisions approved for the IR-4 facility at North Carolina State University, University of Florida Tropical Research & Education Center in Homestead, and University of Florida Plant Science Research & Education Unit in Citra.

Status of IR-4 facility at Texas A&M, Weslaco: The Southern Region Field Coordinator and Study Director Cristina Marconi travelled to the Texas A&M AgriLife Research Center in Weslaco March 2-3 to recover the remaining documents and raw data that remain at the IR-4 facility and sent them to IR-4 Headquarters for archiving. The notification of decommission of the research field site at Texas A&M AgriLife Research and Extension Center in Weslaco, TX has been sent to the EPA.

2023 GLP assignments:

Seventy-two GLP trials have been assigned to SOR for 2023. Several ethaboxam citrus trials were assigned in 2022 that will be conducted in 2023 in FL (3 orange) and TX (1 grapefruit). Four trials were negotiated and awarded to contract researchers: one citrus trial (processing) in Florida, and 3 trials in Cypress TX including cucumber and peanut (x2). The SOR IR-4 centers will conduct x

number of trials in 2023: TAMU Uvalde = 5, Homestead = 9, Puerto Rico = 13, NCSU = 20, and Citra = 22. Guava (FL) and banana (PR x 3) Minor Use Foundation trials assigned will be conducted in 2023. Other 2022 assigned projects that will be conducted in 2023 include lychee, pineapple, miracle fruit, and strawberry. Propiconazole/guava trials previously assigned to Homestead and PR have been cancelled. Fluazinam/avocado trials will be delayed until performance work is completed to finalize the rate.

Food Crop Product Performance Trials: As of late June, 20 of 36 Food Crop Performance trials assigned to the Southern Region in 2022 have been received. Several trials are ongoing, and reports are expected in 2023, including for broflanilide/sugarcane, penthiopyrad/avocado and glufosinate/dragon fruit, mango trials. Two pyroxasulfone/sesame trials are being repeated in 2023. Forty-six Food Crop Performance trials have been assigned to SOR researchers in 2023.

Integrated Solutions (IS) trials: Reports have been received from 14 of the 16 2022 Integrated Solutions trials. Pythium/hemp trials are ongoing and will be completed in Fall 2023. Twenty-one IS trials were assigned to SOR researchers in 2023.

Environmental Horticulture Trials: All reports for the projects assigned in 2022 have been received except for crop safety trials being conducted in PR. In 2023, twenty-seven projects were assigned across the region: seven weed science, nine plant pathology, and eleven entomology projects.

2023 SOR Priority Setting: The priority meeting for SOR Food Use Program will be virtual and conducted *via* a series of discipline specific webinars to identify the region's priority needs for 2023. Three discipline meetings were conducted the week of June 19th. The stakeholders invited to attend include an extensive list of university extensions scientists, research faculty and State Liaison Representatives, as well as representatives from the growers and commodity groups, and lead biologists from IR-4. The number of attendees for entomology, plant pathology/nematology, and weed science were 32, 21, and 19, respectively. A final call will take place with August 8th. There will also be a priority setting meeting for Environmental Horticulture to discuss needs for the Southern Region. Information for the grower's survey has been shared with stakeholders and a virtual meeting will take place early September 2023 to discuss the findings and identify SOR priorities.

Training: SOR field researcher directors (FRDs) and regional management attended weekly virtual training seminars in May to learn about the electronic Field Data Book application. We expect to be ready to begin use of the electronic Field Data Book by July.

Extension: See below for a summary of the extension activities in 2023.

- Poster presentation at Southeast Regional Fruit & Vegetable Growers Meeting January 6-7 in Savannah, GA.

- Joint IR-4 presentation with Northeast RFC at North American Raspberry & Blackberry Association meeting January 23-24 in Tampa, FL.
- Involved with planning, organizing, and providing training at the 2023 National Education Conference February 7-9 in San Juan, Puerto Rico.
- Presented on ongoing IR-4 research at the SPARC (Carinata) Workshop March 14-15 in Tifton, GA.
- IR-4 presentation provided during the Southern IPM Hour hosted by the Southern Region IPM Center April 5.
- Attended Orchard Field Day at Plant Science Research & Education Unit in Citra, FL April 27.
- Attended Perennial Peanut Field Day at the North Florida Research & Education Center in Quincy, FL June 1.

Grants: The IR-4 Southern Region has four ongoing grant projects funded by the Florida Department of Agriculture and Consumer Services that were awarded approximately $580,000. The projects are evaluating a range of pest management practices for specialty crops, including disease management in strawberries, new pesticides for whitefly control in squash, pepper weevil control, and new products for invasive thrips species in snap beans.

2. Analytical Lab

Equipment: A new Thermo Scientific Orbitrap MS/MS has been installed. A replacement walk-in freezer is being installed.

New Personnel: Stephanie Long started as an analyst in June 2023 replacing Danni Cui who resigned to take a new position.

Projects and reports finished: The lab has targeted 18 projects for completion in 2023. To date for the year 2023, 6 analytical summary reports (ASR) were submitted.

#	Submission Date	PR No	Pesticide	Commodity	Trial	
					Year	Number
1	04/20/23	13084	Spidoxamat	Pepper (GH)	2021	4
2	05/08/23	13352	Inpyrfluxam	Squash	2022	6
3	05/22/23	13351	Inpyrfluxam	Cucumber	2022	8
4	06/02/23	13350	Inpyrfluxam	Cantaloupe	2022	8
5	06/08/23	13083	Spidoxamat	Cucumber (GH)	2021	4
6	06/12/23	13082	Spidoxamat	Tomato (GH)	2021	4

Transferred Projects: The following projects were transferred out of the lab for analysis. Project #2 was transferred to the registrant. Contributing Laboratory Reports have been submitted for each project. Seven of the projects were listed as backlogged.

#	Contributing report	PR No	Pesticide	Commodity	Trial	
					Year	Number
1	01/31/23	12811	Linuron	Stevia	2020	4
2	02/13/23	13167	Broflanilide	Sugarcane	2021	6
3	02/16/23	11772	Linuron	Bean (succulent)	2020	13
4	03/08/23	10558	Glufosinate	Sweet Potato	2020	9
5	03/08/23	13178	Glufosinate	Sunflower	2021	8
6	03/28/23	11995	Flutolanil	Pepper	2020	10
7	04/20/23	12605	2,4-D (amine)	Ginseng	2020	5
8	04/20/23	09498	2,4-D (amine)	Coffee	2020	5

Ongoing Projects and goals: The following projects are currently in progress in the laboratory. Two trials are listed as backlogged.

#	**Project Number**	**Chemical**	**Crop**	**Last Sample Receipt Date**	**Status**	**Anticipated Date ASR to HQ**
1	13062	Flumetsulam	Clover	08/02/22	ASR in preparation	07/2023
2	13076	Pyraziflumid	Tomato	05/24/22	ASR in preparation	08/2023
3	12752	Fluazaindolazine	Mint	10/07/22	Trial analysis	09/2023
4	13132	Spinetoram	Sesame	01/13/22	Trial analysis	11/2023
5	12975	Pyraziflumid	Lettuce	03/21/23	Trial analysis	09/2023
6	13169	Fluazaindolazine	Radish	02/20/23	Trial analysis	08/2023
7	08560	Zeta-cypermethrin	Lychee	Pending	Pending trial analysis	11/2023
8	13242	Dimethomorph + Ametoctradin	Basil	09/27/22	Method dev./trial analysis	02/2024
9	13304	2,4-D choline	Strawberry	Pending	Trial Analysis	12/2023
10	11881	Fludioxonil + Pydiflumetofen	Strawberry	05/24/23	Trial Analysis	08/2023
11	13157	Fluoxapiprolin	Ginseng	07/12/22	Method Development	09/2023
12	13195	Prothioconazole	Grasses	08/02/22	Method Development	09/2023
13	12673	Fludioxonil + Pydiflumetofen	Cucumber	05/24/23	Trial Analysis	08/2023
14	13288	Fludioxonil + Pydiflumetofen	Cherry	Pending	Trial Analysis	11/2023

Pending Projects: Trials from the following projects have been received but work on the projects has not started.

#	Project Number	Chemical	Crop	Last Sample Receipt Date	Trial	
					Year	Number
1	13333	Pydiflumetofen	Cranberry	11/07/22	2022	5
2	13259	Picoxystrobin	Coffee	03/08/23	2022	5
3	13360	Thiophanate-methyl	Carrot	03/22/23	2022	8
4	11568	Thiophanate-methyl	Radish	02/20/23	2022	6
5	13540	Fluazifop-p-butyl	Squash	Pending	2023	10
6	13407	Isocycloseram	Strawberry (GH)	Pending	2023	5
7	13405	Isocycloseram	Peppers (GH)	Pending	2023	5
8	13498	Tiafenacil	Cucumber	Pending	2023	8
9	13500	Tiafenacil	Tomato	Pending	2023	14

Projects with late ASR or backlogged:

#	Project Number	Chemical	Crop	Last Sample Receipt Date	Status	Anticipated Date ASR to HQ
1	13076	Pyraziflumid	Tomato	05/24/22	ASR ready for QA review	08/2023
2	13157	Fluoxapiprolin	Ginseng	07/12/22	Method Development	09/2023

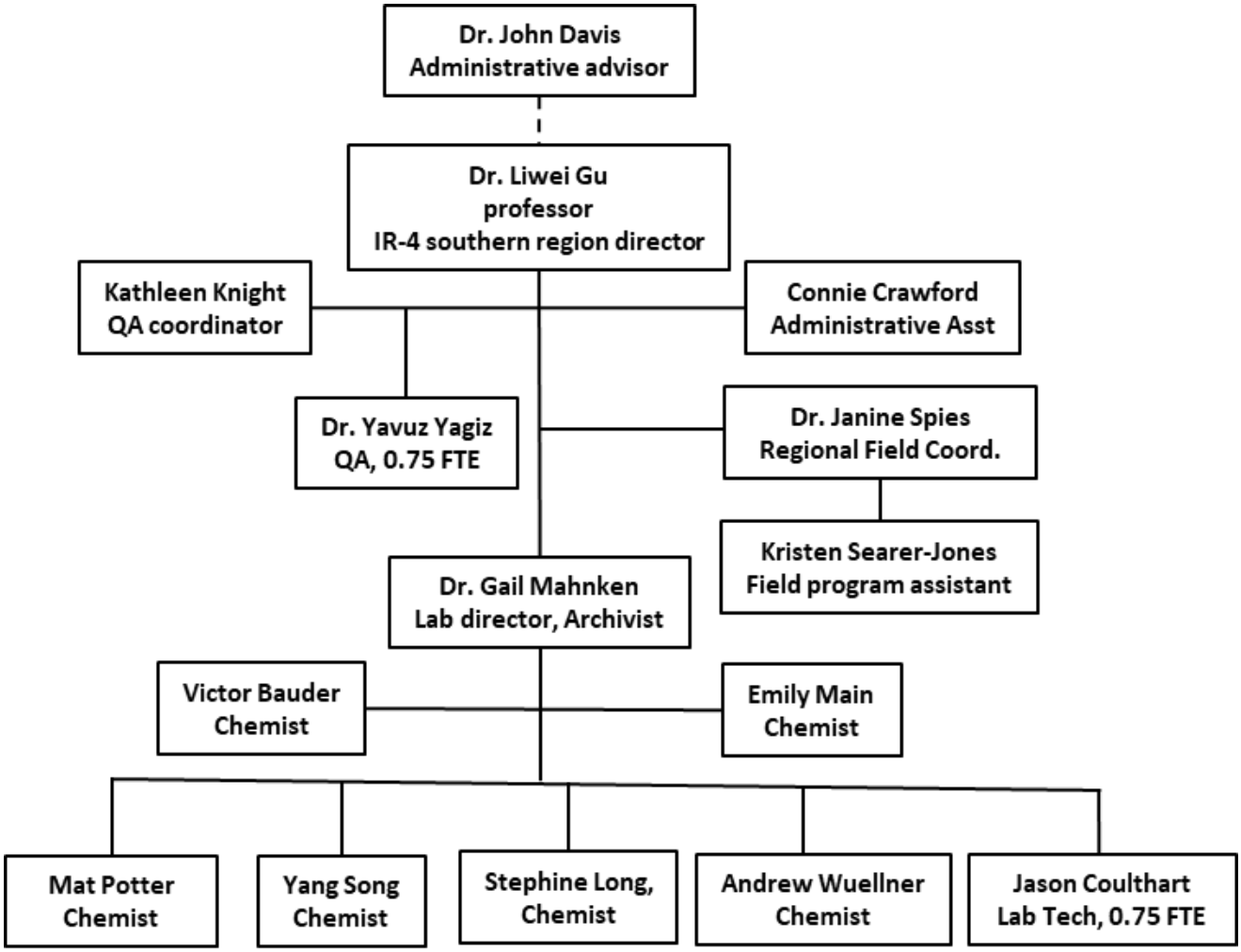
3. Quality Assurance Unit

2023 is 50% complete. The average dwell time for Field Data Book audits is 14 days. The dwell time for Analytical Summary Report/Raw Laboratory Data audits and Final Report audits is 18 days and 4 days, respectively. Four of the Final Report Audits were rushed, as were three of the Analytical Summary Report Audits. The QAU audited 30 additional Field Data Books in cooperation with other regional and Headquarters QA staff.

QA items	Assigned Or planned	Completed	Completion %
Final Petition Audits	13	7	54%
Field Data Book Audits	129	87	67%
Field Critical Point Audits	33	18	55%
Lab Critical Point Audits	27	17	63%
Field Facility Inspections	0	0	NA
EPA Audits	0	0	NA

Analytical Summary Report Audits	20	7	35%
Contributing Scientist's Report Audits	8	9	113%

Southern region organizational chart



Program Reports: Food Program

Presenter: Dr. Debbie Carpenter

Food Program
July, 2023

Debbie Carpenter

Outline

- New Uses 2023
- Submissions - 2023
- Crop Group update
- Residue Research Program (10 year history)
- Outstanding Field Notebooks
- Timeline Update
- Regulatory Challenges

2023 New Uses

9 Actions (new uses through May)

- Ethalfluralin (49)
- Fluazifop-p-butyl (79)
- Fluopyram (306)
- Fomesafen (54)
- Mandestrobin (16)
- Penthiopyrad (3)
- Pydiflumetofen (9)
- Rimsulfuron (57)
- Trinexapac-ethyl (1)

Total = 574 new uses,
74 tolerances

2023 Submissions -3 (through May)

Cyazofamid

Ethaboxam

Flutriafol

Crop Group Update

- **<u>Crop Grouping Initiative</u>**
- **Final Rule Published Sept 21, 2022**
  - **Phase VI: CG 15, Cereal Grains; CG 16, Forage, Fodder and Straw of Cereal Grains; CG 6, Legume Vegetables and CG 7, Foliage of Legume Vegetables**
- **Remain 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**
  - **Goal at Codex in 2023 is to finalize the revision of the Codex Classification of Food and Animal Feeds**

Field Research

2022 Residue Program

- 47 New Studies
- 347 Residue Field trials

2023 Residue Program

- 50 New Studies
- 370 Residue Field trials

Field Research Program

Region	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
NER	46	49	39	27/11*	34	39	36	33	26	28	30
NCR	85	68	59	67/4	66	61	39	50	51	49	76
SOR	88	76	92	78/19	85	78	90	100	95	90	71
WSR	156	171	185	162/16	167	149	164	140	151	128	127
ARS	75	54	62	52/15	67	55	49	62	49	46	55
Canada	48	41	36	32/3	31	19	29	31	10	6	11
TOTAL	498	451	472	418	450	401	407	416	382	347	370

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

Field Data Notebooks, 6/23

Year	Total	FRD	RFC	QA	HQ
2020	416	1	2	0	413
2021	382	5	0	4	373
2022	347	66	30	41	210

2020 trials – many started in 2021
Many 2022 trials delayed into 2023

Outstanding FDB, 06/23

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

Notebooks with FRD						
Year	ARS	WSR	NER	SOR	NCR	CAN
2020	0	1	0	0	0	0
2021	0	3	0	2	0	0
2022	2	22	8	28	6	0
Notebooks with RFC						
Year	ARS	WSR	NER	SOR	NCR	CAN
2020	0	0	0	2	0	0
2021	0	0	0	0	0	0
2022	0	14	8	6	2	0

Timeline Summary

- *Field databooks from 2020 and 2021 are not all at HQ. 2022 books should be coming in. Completion of FDB is critical.*
- *About fifty studies in final report processing (Writing/QA etc)*
- *About 130 studies are TBD for submission. Most are signed and ready to submit.*
- *Many cannot be submitted as a safety finding cannot be made or registrant is holding submissions.*
- *Two registrants will not move forward with IR-4 submissions, until the impact of the Endangered Species Act on existing registrations is clearer.*

Regulatory Challenges

- *Internal performance issues*
  - *Analytical backlog and quality – delays submissions*
  - *Delayed field databooks –*
    - *More critical as analytical backlog is addressed*
    - *One book holds up the whole study.*
    - *Concern that if we miss a submission, it could be years before it can go in.*
- *External issues*

Thank You!

#60YearsofIR4

Program Reports:
Quality Assurance Update

Presenter: Johanna Mazlo

Quality Assurance Report
IR-4 PMC Meeting
July 2023

Johanna Mazlo

Overview

- EPA Compliance Monitoring Update
- QA Update
- 2023 Audit/Inspection Data
- eQA/eDocs Update

EPA Compliance Monitoring

- EPA inspections
  - University of Idaho Twin Falls Research & Extension Center
    - EPA Inspector - William Wimbish

- Decommissioning
  - Rutgers Fruit Research Center – Cream Ridge, NJ
  - Texas A&M Agrilife Research & Extension Center – Weslaco, TX

EPA Compliance Monitoring

- FRDs and Field sites coming on board
  - Wesley Bouchelle – Rutgers Marucci Center for Blueberries and Cranberries
  - Chanz Robbins – NMSU
  - Kim Cochran – Texas A&M AgriLife at Uvalde

- New FRDs and Field CROs
  - Lange Research and Consulting
  - Biotek Agriculture USA
  - AGVISE Research Inc
  - Northern Plains Ag Research

QA Update

- Staff updates
  - New HQ auditor – Joshua Peterson
  - J. Forder - Lead QA Auditor – NER and NCR
  - S. Muir - Lead QA Auditor - Analytical Chemistry
  - J. Thompson - Research and Audit Specialist

- QA Training
  - QA training resources
    - Updated and increased resources
    - Centralized location for HQ QA GLP resources
  - Developed GLP Chats
  - WR QA performed audit training for SOR QA
  - SOR QA will be training new HQ auditors on Field Notebook audits
  - Attend Society meeting:
    - NAICC (J. Forder and S. Muir)
    - SQA Global Meeting (J. Mazlo)

QA Update

- Borlaug Fellows
  - Produced OECD GLP training documents
  - Spent 1 full day training Fellows on GLP

- Electronic Field Notebook
  - M. Beran was on the notebook committee
  - S. Muir participated in a video episode for training
  - QA has completed eFDB training
  - Reviewed SOPs
  - Assisting with system validation
  - Auditing the validation study

QA Update

- Michigan Lab
  - In 2023, Scott Muir has audited:
    - 10 contributing scientist reports
    - 5 analytical raw data
    - 5 analytical summary
  - Jane Forder has audited:
    - 2 contributing scientist reports
  - Sherita Normington was the lead auditor on a FRA1 for Azoxystrobin, Fludioxonil, and Difenconazole Sweet Potato (processing fractions) study

- NCR
  - J. Forder has been the lead reviewer for Fennville SOPs
  - J. Forder has completed 6 field in-life inspections
  - J. Mazlo has been reviewing SD SOPs
  - HQ is assisting the RFC with GLP issues

QA Update

- SOR
  - HQ QA has picked up Texas audits (currently, 3 in-life inspections completed)
  - SOR QA has pick up HQ Field notebook audits
    - Creating efficiency and cost reduction because all notebooks are scanned

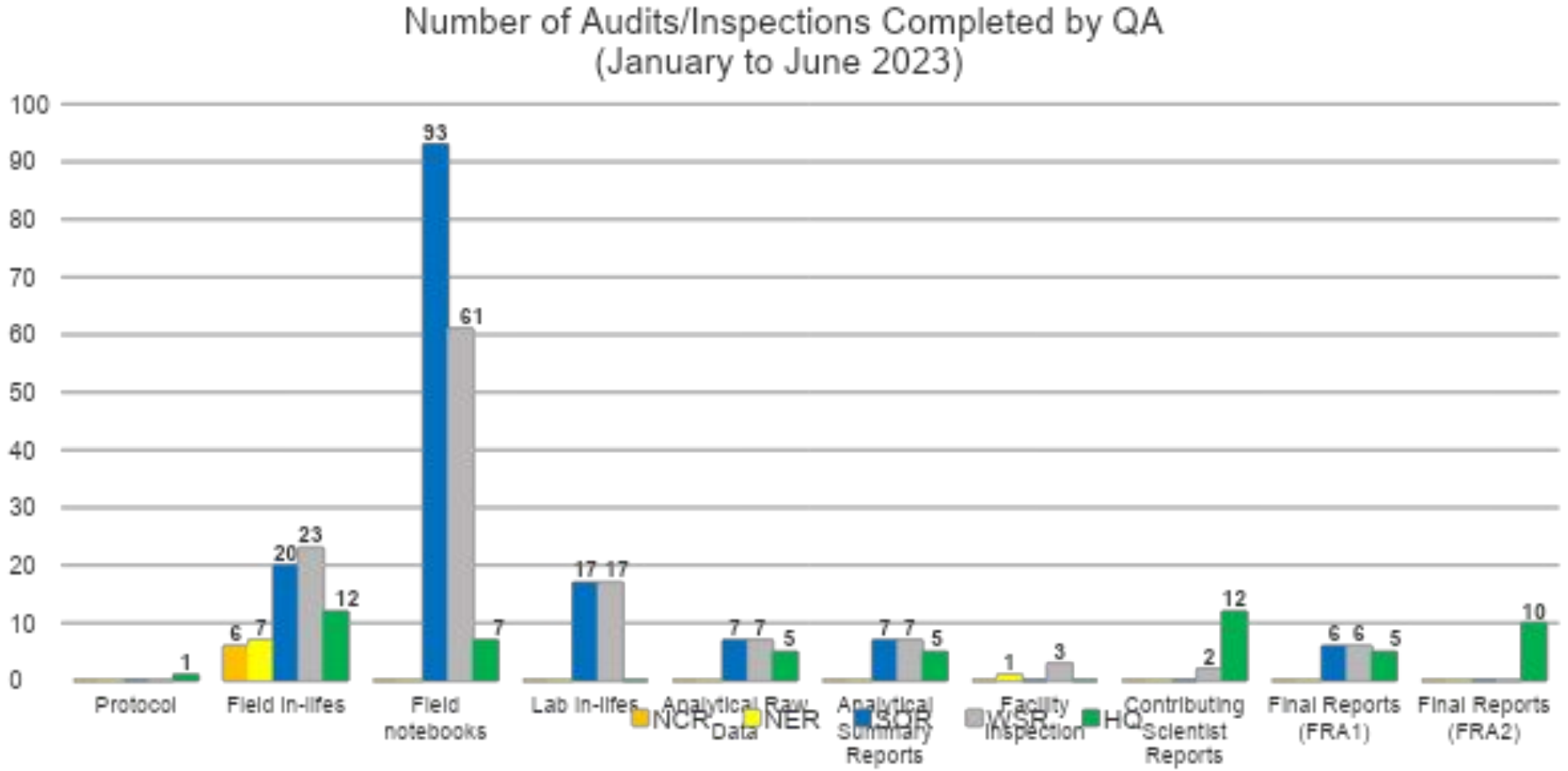
- WSR
  - WSR QA has picked up ARS Wapato Lab critical in-life inspections
  - Are backups along with HQ QA for analytical audits from ARS labs
  - WR QA serve as training resource

QA Update

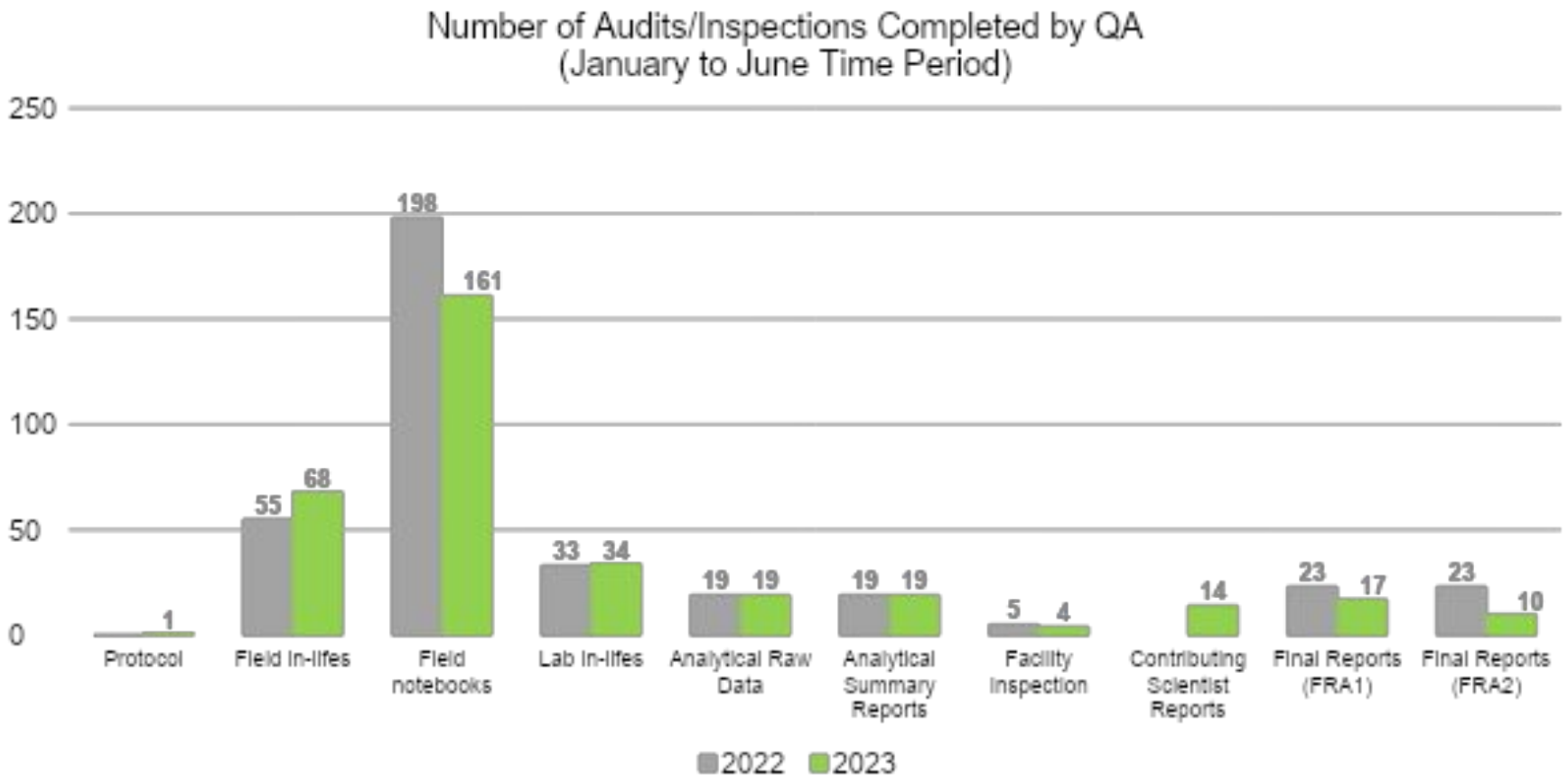
Continue to expand on a New Ways of Working:

- Goal: to increase efficiency without relaxing GLPs standards
- Increased amount of amended report audits
- Proven QA can work effectively across regions and teams
  - 14 XDE studies completed
  - Stadium Sweet Potato study
- Successfully hitting target deadlines when SD and TFM are at another organization
  - Registrant - sugarcane study

2023 Audit/Inspection Data



2022 and 2023 Audit/Inspection Data



eQA and eDoc Update

- eQA
- ~ 20 people trained on eQA with more scheduled
- Managed approximately 441 new audit packets in the first half of 2023

- eDoc
  - 5650 documents in the system
    - 353 Analytical Method category
    - 165 Certificates of Analysis

#60YearsofIR4

Program Reports: Product Performance and Integrated Solutions Update

Presenter: Alice Axtell

1963-2023 60 YEARS IR-4

2023 Performance and IS Update

July 12, 2023

Pest Management Solutions for Specialty Crops and Specialty Uses

No. of 2023 Projects*

		Product Performance	Integrated Solutions
Entomology	Ongoing	13 (4 carryovers)	14 (8 carryovers)
	Delayed	3 (new)	0
Plant Pathology	Ongoing	22 (12 carryovers)	13 (5 carryovers)
	Delayed	3 (2 carryovers)	0
Weed Science	Ongoing	30 (15 carryovers)	7 (3 carryovers)
	Delayed	8	0
TOTAL	Ongoing	65 (33 carryovers)	34 (16 carryovers)
	Delayed	14	0

* includes CDFA funded projects

2023 Industry Technology Session

- July 20 (Thursday): 11:30-4:00 pm et
- Currently, 15 companies participating; 22 presentations
- No. of attendees as of 6/19: 121
- Registration closed on 6/30

2023 FUW Agenda (Raleigh, NC)

Day One: Tuesday, September 12, 2023	
Time:	**Session**
7:00 – 8:30 a.m.	Coffee/Breakfast
7:00 – 8:30 a.m.	Registration
8:30 – 8:45 a.m.	Introduction & Welcome
8:45 – 10:00 a.m.	Speakers (TBD)
10:00 – 10:15 a.m.	**–Break and Refreshments–**
10:15 – 12:00 p.m.	Speakers (TBD)
12:00 p.m. – 1:00 p.m.	**Lunch**
	Priority Setting Begins
1:00 – 1:30 p.m.	Attendee Introductions
1:30 – 2:15 p.m.	EPA Update
2:15 – 2:30 p.m.	**–BREAK–**
2:30 – 5:00 p.m.	Priority setting: Weed Science
5:30 – 7:00 p.m.	Reception at Hotel

Day Two: Wednesday, September 13, 2023	
Time	**Session**
7:00 – 8:00 a.m.	Coffee/Breakfast
8:00 – 10:30 a.m.	Priority Setting: Plant Pathology
10:30 – 10:45 a.m.	**–Break and Refreshments–**
10:45 – 12:00 pm	Priority Setting: Entomology
12:00 – 1:00 p.m.	**Lunch**
1:00 – 2:15 p.m.	Priority Setting: Entomology
2:15 – 2:30 p.m.	**–Break and Refreshments–**
2:30 – 4:30 p.m.	Caucus Discussions

Day Three: Thursday, September 14, 2023	
Time	**Session**
7:00 – 8:30 a.m.	Coffee/Breakfast
8:30 – 10 a.m.	Finalize Priorities: All Disciplines
10:00 – 10:15 a.m.	**–Break and Refreshments–**
10:15 a.m. – 12:00 pm	Finalize Priorities: All Disciplines

**Times are subject to change

The IR-4 Project

Program Reports: Biopesticide Regulatory Support Update

Presenter: Dr. Michael Braverman

Biopesticide Program

Regulatory Project Acceptance Process: Behind the Scenes

July PMC Meeting

Michael Braverman, William Barney, Philip Moore

Examine the process

- What is the whole process?
- Personnel and research resources.
- Room for improvement?
- Other?

What types of biopesticides?

- Microbial- Fungi, bacteria, virus, metabolites
- Biochemical – Pheromones, plant extracts, minerals
- Biotechnology (PIPs Plant incorporated Protectants, RNAi, CRISPR, Delivery and extended expression platforms, Gene drives, Modified insects or Microbes and other Emerging technologies.

Where do new projects come from?

- Researcher hears about IR-4 through colleague.
- Grower contacts IR-4 and wants a product to become available.
- EPA referral. Our expertise is recognized.
- Consultant referral. Poverty case or IR-4 has specific skill.
- Literature/Press release- IR-4 makes contact with researcher. High priority pest.
- New company contact.
- IR-4 Integrated Solutions- Need regulatory assistance.
- Regional/USDA Coordinator informs researcher.

Is it a worthy project?

- New active ingredient or significantly different strain?
- Does it fit the scope of IR-4?
- Does IR-4 have a role? Reason to help private company?
- Does it solve a grower need?
- Is it efficacious and are expectations realistic?
- Is project ready to move forward? Many communications and advice provided prior to or outside of official projects before coming to PMC.
- Is it registerable? Is there a registrant, anticipated regulatory hurdles. Informal conversations with EPA. Registrant cooperation and $. Anticipate light or heavy toxicology package.

Is it a worthy project?

- Who owns what and is there a standardized production process? Does the registrant produce it themselves VS off the shelf or toll manufacturing. Cooperation and trustworthiness in both directions. Confidentiality agreement.
- Is there an easier path?- 25b, product claims versus marketing desires, Biostimulant.
- Grower acceptance- Biotechnology, market saturation, plethora of good products.
- Fulfilling organic needs.
- Worthy to IR-4 stakeholders and worthy to registrant.
- Suggest private consultants

Initiating Project Request

- Refer to website:

https://ir4app.cals.ncsu.edu/biopestPub/EpaRegiAssistForm

- Emphasize need for public sector request.
- Public sector researcher- Accept request directly or through colleagues.
- Private Sector or Public sector researcher creating spinoff company– Need independent public sector request.
- Suggest source who is familiar with the product or tested it to submit the request

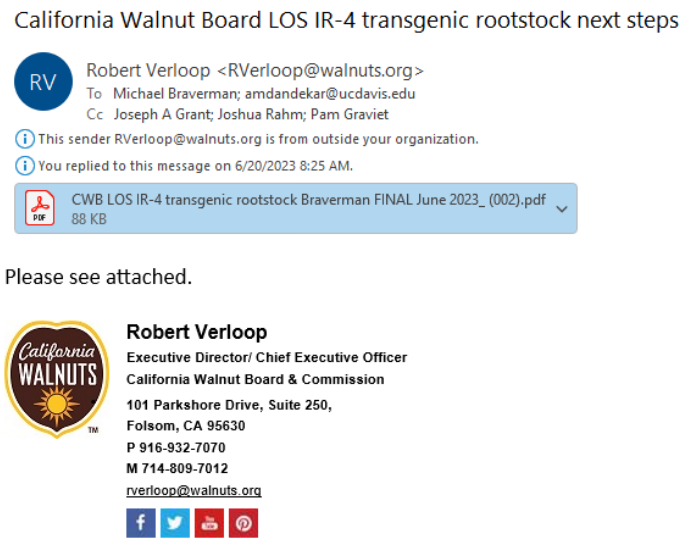
What the PMC sees.

- PCR Form- Public Sector
- Letter of request – Public Sector
- Efficacy data- Public or Private Sector

E-mail asking for PMC approval.

Why? Key- Public participation in the requesting and approval process

Biotechnology Approval- PIPs



California Walnut Board LOS IR-4 transgenic rootstock next steps

RV Robert Verloop <RVerloop@walnuts.org>
To Michael Braverman; amdandekar@ucdavis.edu
Cc Joseph A Grant; Joshua Rahm; Pam Graviet

This sender RVerloop@walnuts.org is from outside your organization.

You replied to this message on 6/20/2023 8:25 AM.

CWB LOS IR-4 transgenic rootstock Braverman FINAL June 2023_ (002).pdf
88 KB

Please see attached.

Robert Verloop
Executive Director/ Chief Executive Officer
California Walnut Board & Commission
101 Parkshore Drive, Suite 250,
Folsom, CA 95630
P 916-932-7070
M 714-809-7012
rverloop@walnuts.org

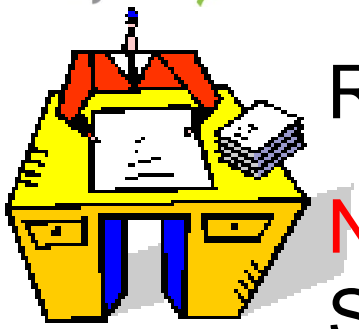
California Walnut Board (CWB) express our support of Dr Abhaya Dandekar's efforts to enlist IR4's assistance in registering a genetically modified walnut rootstock that suppresses crown gall.

The CWB representing over 4,500 growers and 75 handlers of California walnuts. California accounts for 99% of US walnut production and is the world's largest exporter of walnuts

CWB provided substantial funding for development of this rootstock. Crown gall disease is among the most serious problems faced by walnut growers.

We understand that the work by IR-4 is a critical step in making this new rootstock commercially available to our growers as a permanent and sustainable solution to this devastating problem. Thank you for your efforts on our growers' behalf.

Regulatory assistance for EPA registration



Receive Requests- Public sector

New Active Ingredients
Small companies, USDA, University
Arranging meetings with EPA
Writing data waiver scientific justification
Formatting documents
Government Forms
Label Modification
Communication, Negotiation
Toxicology review

Relative Costs to IR-4 Biopesticide Regulatory Assistance Program

Program	Function	Personnel Costs	Research Dollars
Food Program	Residue *	$	$
	Performance	$	$
	Integrated solutions	$	$
Environmental Horticulture	Product Performance Crop Safety	$	$
Biopesticide	EPA Registration	$	X

* In rare instances residue studies may be required for biopesticides.

Challenges

Who is IR-4?

Bigger companies have no qualms about conducting toxicology studies. Most registrants we work with are more dependent on scientific rationale/waivers. Bar is getting higher.

Pre-registration meetings are not as helpful as they once were.

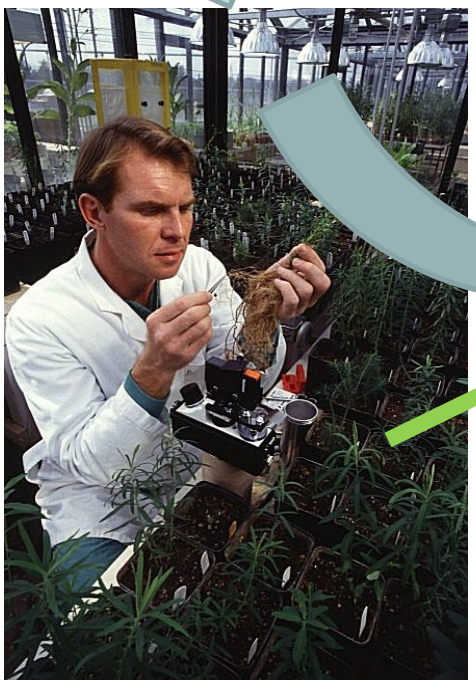
PRIA fees for asking – “Am I a Biopesticide?”

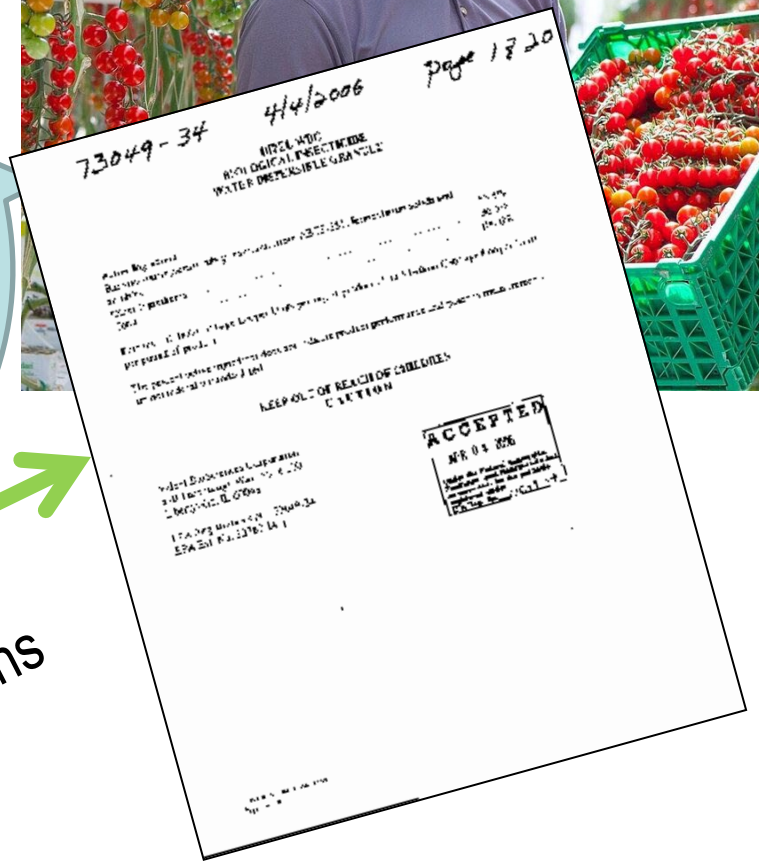
PRIA fees for biochemical classification

The IR-4 Project

Research

IR-4





Regulatory submissions EPA

Examine the process

- What is the whole process? ☑
- Personnel and research resources. ☑

QUESTIONS?

- Suggestions for improvement?
- Other discussion?

IR-4 Communications Update

Presenter: Dr. Krystal Chojnacki and Hannah Ross

Summer 2023 Communications Update

Dr. Krystal Chojnacki & Hannah Ross

Pest Management Solutions for Specialty Crops and Specialty Uses

Communications: What's New

- 60 Years campaign continues
- New print outreach materials
  - EHC one-pager
  - RFC contact postcard
  - YES document
- New story content
- Instagram & social media highlights
- Intern: Raven Baez

60 Years campaign continues

Driving the comms strategy forward through:

- *written stories*
- *social media content*
- *outreach materials*
- *events*
- *new projects*
- *many partners have now shared our 60Y press release*

USDA National Institute of Food and Agriculture
UNITED STATES DEPARTMENT OF AGRICULTURE

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NIFA Commemorates 60 Years of the IR-4 Project

February 9, 2023

THE INSTITUTE
- Who We Are
  - History
  - Relationship To USDA
  - Organizational Structure
    - Leadership

NIFA AUTHOR: Lori Tyler Gula, Senior Public Affairs Specialist

USDA's National Institute of Food and Agriculture (NIFA) is commemorating 60 years s the Interregional Research Project No. 4 (IR-4 Project). Since it was established by La and the USDA in 1963, IR-4 has championed specialty crop growers by facilitating the

Minor Use Foundation

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The IR-4 Project Benefits to Society Go Well Beyond Specialty Crop Support

The IR-4 Project, a publicly funded research entity devoted to supporting specialty crop production in the U.S., announced the results of an economic impact study conducted by the University of Michigan. Highlights include: the organization's efforts supported 111,470 domestic jobs with a total annual payroll of $5.34 billion dollars in 2021, contributing $8.97 billion to annual gross domestic product (GDP).

1963-2023 60 YEARS IR-4

English

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Interregional Research Project No. 4 (IR-4)

Home > Research > Research and Education Centers & Locations > Interregional Research Project No. 4 (IR-4)

- Lower Eastern Shore Research & Education Center
- Poplar Hill Facility
- Salisbury Facility
- Interregional Research Project #4

The IR-4 Project Commemorates 60 Years of Impact

February 6, 2023 — This year, The IR-4 Project commemorates 60 years of operation. Since its establishment by land grant universities and the U.S. Department of Agriculture in 1963, IR-4 has championed specialty crop growers by facilitating the registration of safe, effective pest management solutions to meet their unique needs. Specialty crops (which include fruits, vegetables, nuts, herbs, and horticulture crops) are not typically served by agrochemical

Bee Culture®

Eastern Apicultural Society

The Magazine of American Beekeeping

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FEBRUARY 28, 2023

IR-4 60TH ANNIVERSAR

1963-2023 60 YEARS IR-4

The IR-4 Project Commemorates 60 Years of Impact

This year, The IR-4 Project commemorates 60 years of operation. Since its establishment by land grant universities and the U.S. Department of Agriculture in 1963, IR-4 has championed specialty crop growers by facilitating the registration of safe, effective pest management solutions to meet their unique needs.

Specialty crops (which include fruits, vegetables, nuts, herbs, and horticulture crops) are not typically served by agrochemical companies' registration efforts. Larger acreage, "major crops" (like corn and soybeans) typically yield higher returns on investment. This "minor use problem" spurred the founding of IR-4.

IR-4 upholds specialty crops as essential components of a healthy diet, a thriving landscape, and a robust U.S. economy. Since its founding,

NC State - College of Agriculture and Life Sciences
3,471 followers
4d •

For 60 years, The IR-4 Project has been a trusted ally of the specialty crop community. Since its inception, IR-4 has helped growers access safe products to protect their crops and facilitated the registration of effective pest man ...see more

NC State College of Agriculture and Life Sciences
@NCStateCALS

For 60 years, @IR4_Project has been a trusted ally of the specialty crop community. Since its inception, IR-4 has helped growers access safe products and effective solutions to protect their crops from pests. Find out more about their impact: ncst.at/YaPc50NB9Ev #60yearsofIR4

2:30 PM · Apr 5, 2023 · **732** Views

Janine Spies
@J9Spies

So proud to be apart of @IR4_Project and celebrate #60yearsofIR4. Learn more about the impact of the project for specialty crop production in the video link below.

N.C. Plant Sciences Initiative
Improving the World Through Plant Science Innovation
Higher Education · Raleigh, NC · 1,912 followers
See all 5 employees on LinkedIn

✓ Following | Visit website | More

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About

The North Carolina Plant Sciences Initiative (N.C. PSI) is the global home for plant science innovation. The complex challenges of agriculture don't fit into a singular academic or research discipline. Solving these challenges often requires interdisciplinary teams, strong partnerships, strategic technology and physical resources. The ... see more

See all details

Recently posted videos

Join us in celebrating 60 years of IR-4 🐱 Not familiar with the IR-4 Program? There's a video for that 👇

See all videos

New EHC One-Pager

THE IR-4 PROJECT
ENVIRONMENTAL HORTICULTURE PROGRAM

Image by Cristi Palmer

The IR-4 Project's Environmental Horticulture (EHC) Program facilitates regulatory approval of sustainable pest management products for environmental horticulture crops.

EHC research helps green industry growers foster a diverse selection of healthy plants for landscapes, homes, bouquets and urban forests — a service to the environment, to the economy, and to public wellbeing.

The EHC program is divided into three key areas:

REGISTRATION SUPPORT

EHC coordinates research to gather data on bio-based and chemical crop protection products. Research priorities are identified every two years based on the needs of growers, extension personnel and industry professionals. Registration support is the core focus of the EHC Program.

Outcomes
- More than 57,000 horticulture crop uses registered using IR-4 data
- More sustainable crop management tools for greenhouse and nursery growers

INVASIVE SPECIES

IR-4 investigates mitigation strategies and helps to increase knowledge of invasive pathogens and pests. EHC is currently studying options for newly introduced box tree moth.

Outcomes
- Improved management strategies and diagnostic tools
- Better understanding of pathogen infection and pest development

POLLINATOR PROTECTION

IR-4 has facilitated research to explore various risks and benefits to pollinators related to horticulture crops and pest management.

Outcomes
- Improved understanding of plants for pollinators already being sold
- Data on which application methods are low-risk for pollinators

ECONOMIC IMPACTS OF THE EHC PROGRAM*

- 9,700 total jobs supported (directly and indirectly)
- $725.5 million contributed to the annual GDP
- Annual crop losses mitigated valued at $506 million

**Source: 2022 Economic Impact of the IR-4 Project and Programs, Michigan State University Center for Economic Analysis*

CONNECT WITH THE EHC PROGRAM

Do you have a green industry pest problem (or potential solution) in mind?
Connect with IR-4 to voice your needs and get involved in our research.

Image by Cristi Palmer

Contact Information

Cristi L. Palmer, Ph.D.
EHC Program Manager
(609)286-9338
clpalmer@njaes.rutgers.edu

Jerry Baron, Ph.D.
IR-4 Executive Director
(919)515-3166
jjbaron@ncsu.edu

Scan to complete our EHC grower & extension survey

Learn more at **ir4project.org**

This material is based upon work that is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award number 2021-34383-34848 and 2020-34383-32455 with substantial cooperation and support from the State Agricultural Experiment Stations, USDA-ARS and USDA-FAS. In accordance with Federal Law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age or disability.

Worked with contractor Nikelle Orellana-Reyes to create new EHC material with same look & feel as main one-pager.

Find it on our EHC and Outreach web pages!

New Postcard ft. RFC Contact Info

CONTACT YOUR REGIONAL FIELD COORDINATOR

1963-2023 60 YEARS IR-4

Southern Region
University of Florida
Janine Spies
jrazze@ufl.edu

Northeast Region
University of Maryland
Marylee Ross
mross@umd.edu

North Central Region
Michigan State University
Nicole Soldan
schroe65@msu.edu

Western Region
University of California, Davis
Kari Arnold
klarnold@ucdavis.edu

USDA-ARS
U.S. Vegetable Laboratory
Alvin Simmons
alvin.simmons@ars.usda.gov

Connect with us! #60yearsofIR4 **ir4project.org**

The IR-4 Project | @IR4_Project | The IR-4 Project

Scan for full regional contact info

Worked with contractor Nikelle Orellana-Reyes to create this companion piece to the new one-pager.

2022 YES Document: now online!

2022 YEAR-END SUMMARY

Pest management solutions for
specialty crops and specialty uses

2022 At A Glance

FOOD USE PROGRAM

Successes
- **694** new tolerances for **13** active ingredients established by U.S. Environmental Protection Agency (EPA) resulting in **750** potential new product uses on food crops

Regulatory Actions
- **13** tolerance petitions submitted to the EPA covering **101** unique requests for assistance and crop group tolerance updates

Research
- **347** residue trials contributing to **47** Magnitude of the Residue studies
- **93** efficacy/crop safety trials contributing to **41** Product Performance projects
- **60** field trials contributing to **28** Integrated Solutions projects

ENVIRONMENTAL HORTICULTURE PROGRAM

Successes
- IR-4 submitted data to expand one EPA registration, supporting **41** additional environmental horticulture crop uses

Regulatory Actions
- **20** submissions of data reports to companies to support new or update existing registrations

Research
- **626** field and greenhouse trials (**321** efficacy, **305** crop safety) that contributed to **50** projects

INTERNATIONAL ACTIVITIES

- Provided technical leadership in international priority setting workshops, project planning and implementation
- Conducted capacity building on biopesticide regulations and GLP
- Assisted with a new international database
- Promoted harmonization of residue data development and MRLs in Europe and beyond
- Gave technical guidance to an import MRL program promoting the export of US specialty crop commodities to Southeast Asia

Find the full Annual Report at ir4project.org

View the YES on our Annual Reports page!

People of IR-4 Stories

Part of 60 Years strategy—how to incorporate more people into our digital content to show the faces behind our work, and engage more researchers in the process. First story in this series: Allison Robinson! Story was well received; Raven Baez currently working on the next story.

Read the story on our website!

Ohio State Hort Science shared the story! Facebook post had over 1,000 impressions.

Success Stories

Isofetamid success story by David Kuack

Ethalfluralin success story by Hannah Ross

Read both stories on our website.

IR-4 Buzz

Bee Culture Magazine published a story co-authored by Hannah Ross and Philip Moore on IR-4's work in support of honey bees and beekeepers. It is in Bee Culture's July print issue!

BEHIND THE SCENES FOR THE BEES:

How IR-4 Supports Beekeepers and Honey Bees through Research and Regulation

Photos by Logan Powers

Hannah Ross & Philip Moore

1963-2023 60 YEARS IR-4

From pest infestations to habitat loss to our changing climate, honey bees face formidable foes—both natural and anthropogenic. There is a delicate balance between protecting bees from those foes and ensuring colonies are unharmed by our interventions. How can we proactively protect bees while doing no harm?

This dilemma is nothing new to beekeepers. What may be lesser known is the rigorous regulatory work addressing this question behind the scenes. **The IR-4 Project** has an impactful sixty-year track record of securing safe, effective pest management products for specialty crops and specialty uses. IR-4's efforts also extend to the beekeeping community. IR-4 continues to help secure registrations of hive protection products to manage devastating pests like ***Varroa* mites**.

Joining Forces with Federal Agencies

In close partnership with the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Agriculture (USDA), IR-4 is working to fill gaps in beekeepers' pest management needs, with a focus on improving the safety, effectiveness and sustainability of approved products and technologies.

Providing Regulatory Expertise with the EPA

EPA has devoted significant resources to protecting pollinators and helping beekeepers, including the establishment of a Biopesticide and Pollution Prevention Department (BPPD) that specializes in evaluating novel tools like gene-based products. IR-4 has expertise in providing the necessary data for the EPA to evaluate the safety and proper use of new products and uses, based on rigorous standards.

Because of the steep regulatory burden, agricultural producers of specialty crops or niche products often lack access to safe, effective and EPA-approved pesticide options (whether conventional or biological). This is where The IR-4 Project comes into the picture, acting as a bridge between producer needs and regulatory requirements. While the core of IR-4's work is securing pest management solutions for growers of specialty crops like fruits, nuts, vegetables and horticultural crops, IR-4's expertise is vital to the beekeeping industry.

Expanding Producer Toolboxes with the USDA

The USDA is the funding agency for IR-4. Beyond this fiscal partnership, IR-4 and USDA work together on critical agricultural issues, including the protection of honey bees and native pollinators. USDA's **pollinator priorities** include forage, habitat and nutrition; environmental stressors; pests and pathogens; and genetics, breeding and biology.

Elizabeth (Izzy) Hill serves as Honey Bee and Pollinator Research Coordinator for USDA, where she works closely with IR-4 and USDA offices on a range of efforts, from putting more tools in beekeepers' pest management toolbox to strategically managing emerging threats. Hill highlights that supporting honey bee health is holistic work; USDA's pollinator priorities not only aim to serve pollinator health, but also our food system, economy and beekeeper livelihoods.

"It's hard to imagine how we would do what we need to do without IR-4," emphasizes Hill. "[Beekeeping is] a small industry; most pesticide registrants cannot make the economics work to invest in pest management products for honey bees. That's understandable. But bees are such a linchpin for pollinating so many of our crops… we need to ensure we are having the right tools in our toolbox for pest management. If honey bees are affected, then all of these crops are affected."

USDA and IR-4, in partnership with the EPA, notably joined forces on the registration of oxalic acid, an active ingredient registered for managing *Varroa* mites. Because the ingredient is so cheap, no private-sector registrants would take it on. USDA stepped in as a short-term registrant, working with IR-4 to submit the required data to EPA for this tolerance.

IR-4 Programs Serving Bees and Beekeepers

Through its **Biopesticide Regulatory Support Program**, IR-4 submits registration packages for biologically-based products on behalf of registrants. IR-4's **Food Crop Program** also lends expertise to conventional product registration efforts, assisting with the submission of residue and product performance data. The specialty crop producers that IR-4 serves have a vested interest in ensuring the health of honey bees for the pollination of their crops; with these growers and public wellbeing in mind, honey bee protection is vital to its mission.

IR-4's **Environmental Horticulture (EHC) Program** has driven significant pollinator protection efforts in the green industry, from determining the bee forage quality of various greenhouse and nursery crops to measuring pesticide residues in nectar following various application methods. These projects are helping develop the green industry's understanding of honey bee health and how they can support it, from the cultivars they stock to the way they manage pests.

"We've been studying the amount of residues that move into nectar from systemic insecticide applications," notes Dr. Palmer. "Foliar applications result in less residues than drench applications. If growers can shift to using foliar applications at the best times to avoid direct contact on bees, there is very little likelihood that the amount of residues in nectar are at a level that will harm bees."

To learn more about the work of Dr. Palmer and the team of pollinator researchers involved in this project across the country, visit the **Protecting Bees** website.

Impacts of IR-4's Honey Bee Work

In the field, access to pest management products has helped combat the devastating impacts of honey bee colony collapse. While there is a long way to go, existing products have moved the needle for beekeepers, as well as for growers who rely on honey bees for pollination.

Honing in on *Varroa* mite management has been crucial to stabilizing bee populations, and IR-4 knows that this pest is top of mind for beekeepers. IR-4 has been actively involved in nine out of 10 active ingredients currently approved for use on *Varroa* mites and is presently assisting with potential future registrations.* In addition to submitting registration packages to EPA, IR-4 has supported Section 18 approvals for emergency use, conducted magnitude of the residue studies on honey and beeswax, and funded efficacy studies for new active ingredients.

In his March 2023 *Bottom Board* column for *Bee Culture*, Ed Colby emphasizes the importance of proactive *Varroa* control. "Never ever assume that your mites are under control," writes Colby. "Colonies overrun with these little monsters are doomed."

Colby notes that management is always more successful in smaller numbers (before there is an infestation). He highlights his successes, failures and tips for using several active ingredients that IR-4 has been involved with, including oxalic acid, formic acid and thymol.

The existing toolbox for honey bee pest management is imperfect. With variations in efficacy, laborious and costly applications and increasing resistance to certain active ingredients (like amitraz), beekeepers often have to find their best solutions through trial and error.

"We do see some variation in efficacy due to environmental conditions—humidity, temperature—which can affect how certain products work," explains Hill. "We have researchers looking into these questions, making custom recommendations on what types of rates or application methods might be more appropriate. We are short on efficacious modes of action."

Knowing that more and better options are needed, IR-4 and its partners are hard at work behind the scenes fighting for accessible, workable solutions, and a deeper collective understanding of the pest management challenges we face (even those that are just emerging).

Looking beyond *Varroa*, IR-4 is needed now more than ever, with a new mite called *Tropilaelaps* gaining traction overseas. As we speak, IR-4 and USDA are collaborating on a "Tropi" working group led by USDA. Stay tuned for more on this emerging issue, and know that the brightest minds are developing strategic approaches to the management of emerging pests and pathogens. When it comes to mitigating the plight of honey bees and beekeepers, IR-4's support is here to stay.

Sixty Years and Counting

IR-4 invites the *Bee Culture* network to follow along this year as we commemorate **sixty years of impact** across the specialty crop community. Visit the **website** to learn more, subscribe to the **newsletter** and connect with us on social media.

*Review **this story** on IR-4's website to find the Appendix outlining IR-4's role in nine out of 10 active ingredients currently approved for* Varroa *mite management.*

Bee Culture also shared the 60 Years press release, as well as our story about how EPA/FDA jurisdiction issues that could impact honey bee work.

Social Media

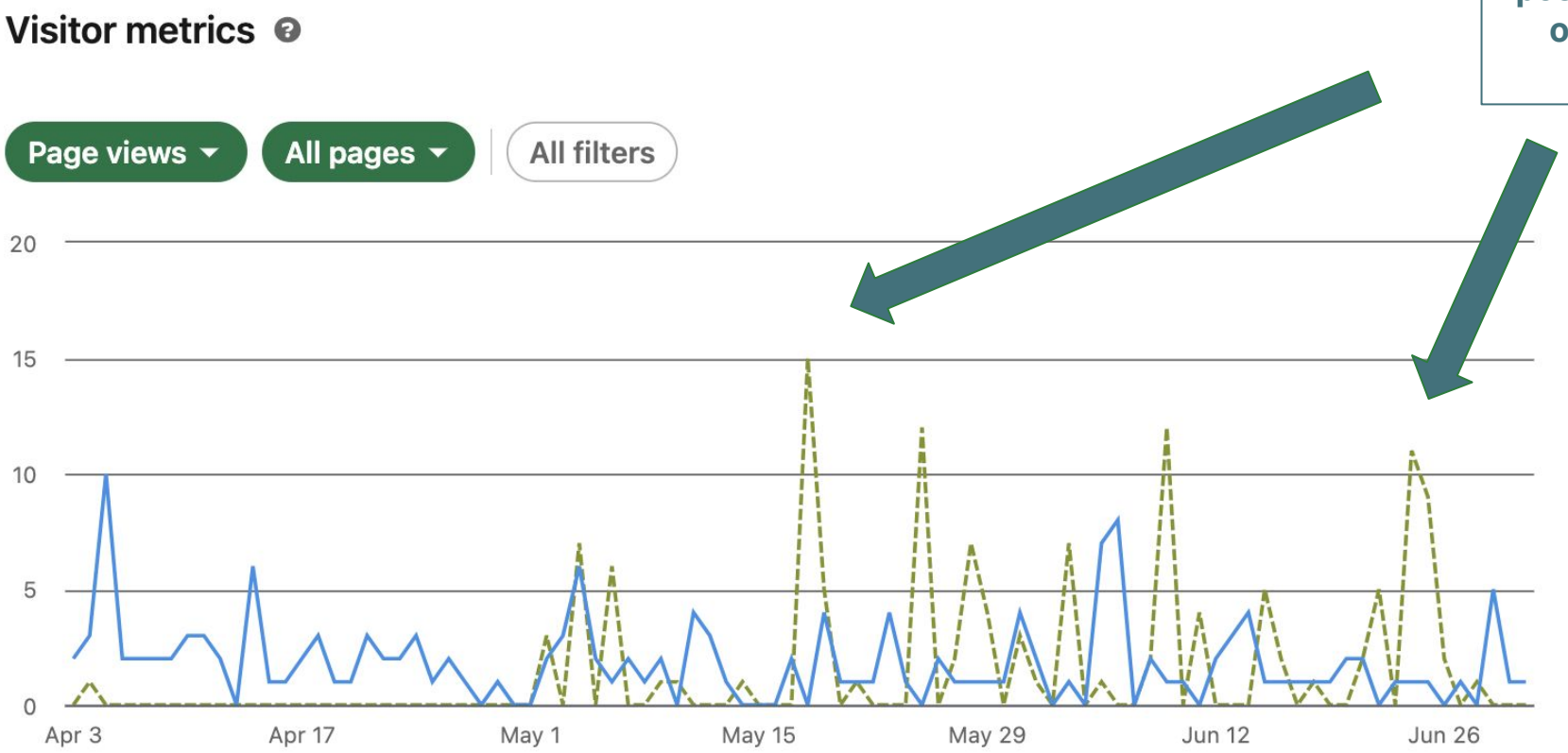
#60yearsofIR4

Posts continue to communicate timely IR-4 information in step with brand identity.

1963-2023
60 YEARS
IR-4

Social Media Analytics (a few key takeaways)

LINKEDIN



Spikes in new visitors followed several posts from May to July. The majority of our page's visitors are researchers.

New visitors to our LinkedIn page have increased by 20% in the last 90 days!

1963-2023 60 YEARS IR-4

Social Media Analytics (a few key takeaways)

Top-performing content: LinkedIn vs Facebook & Twitter

On LinkedIn:

- posts engaging external partners perform best
- top posts: EPA tour highlights, Borlaug visit recap

On Facebook:

- people-focused posts perform best
- top posts: Allison Robinson story, video of Cole Smith trellising tomatoes, Bernard Zandstra Hall of Fame announcement

On Twitter:

- similar to Facebook - people focused content performed well, along with re-tweets of researchers with large followings
- top posts: Allison Robinson story, Borlaug visit recap, a retweet of Wilfredo Roblez Vasquez

New Instagram Account

the_ir4_project Edit profile

17 posts 20 followers 65 following

The IR-4 Project
Increasing pest management options for specialty crop growers since 1963. Federally funded by USDA. Headquartered @ NC State.
ir4project.org

POSTS REELS SAVED TAGGED

Follow us!
@the_ir4_project

Science Communications Internship

SCONC Summer Science Communications Intern:
Raven Baez (Biology major at NC A&T)

- Mid-May to July (10 week program)
- Focused on learning communications technologies and skills to build a visual and written communications portfolio
- Projects have included:
  - EPA tour trip
  - People of IR-4 story (in the works - building skills in research, interviewing, writing, and publishing)
  - Learning Adobe Illustrator & designing graphics
  - Building photography skills
  - Learning Constant Contact, editing newsletters
  - Helping with launch of Instagram account
- Raven has been a fantastic intern! Connect with her on LinkedIn
- Look forward to continued involvement with this internship program

Science Communications Internship

A glimpse of Raven's design work!
Currently writing: People of IR-4 story featuring Bronson Hung

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60 YEARS IR-4

Coming Soon

- Regional one-pagers in the works!
- One-Pagers for Biopesticides, Integrated Solutions next on list (once program language is finalized)
- Instructional videos
- More EPA tour highlights and People of IR-4 stories

Keep Spreading the Word

HOW YOU CAN HELP:

- Suggest publications that might publish IR-4 stories
- Story / content ideas (maybe from your region or commodity group)
  - ***shoutout to Matt Hengel for the coffee content!!***
- Share our event announcements with stakeholders
- Re-post IR-4's social media posts
- In your own social media posts, use **#60yearsofIR4**









The IR-4



GROCERIES

Farmers Market
GROCERIES


#60YearsofIR4

Program Reports: Laboratory Update/Backlog

Presenter: Dr. Debbie Carpenter

Laboratory Update/Backlog
July, 2023

Debbie Carpenter

Outline

- Backlog
  - Current status of each lab
  - Focus on method development time and moving forward
  - Use of contract labs
  - Summary

- Other concerns
  - MIR data
  - Are we are on the same page?
    - Discussions with labs
    - Discussions with others impacted by labs
      - Study Directors, QA, Registrants

FLR

Chemical	Matrix	Trials	ASR Due Date	ASR Est.	Initial EPA Target Sub.	Revised EPA Target Sub.	Note	Late ASRs	Backlogged
Pyraziflum	Tomato	18	2/23		10/23	7/26	ASR in QA. Target submission pushed back by registrant. Moved inpyrfluxam forward to complete three studies in time for exclusive use submission.		
Fluoxapipr	Ginseng	4	9/22				In method development, Transfer from Michigan, received in Florida 7/22		
	Total trials backlogged	22							1

CAR

PR	Chemical	Matrix		ASR Due Date	ASR Est.	Initial EPA Target Sub.	Revised EPA Target Sub.	Note	Late ASRs	Backlogged
12841	Aciflurofen	dry pea		10/22	9/23	10/22	12/23	R&D Started		*
08552	Flonicamid	Cantaloupe		12/20	9/23	10/21	10/23	ASR Prep'd, awaiting storage interval on standard.		*
08553	Flonicamid	Summer Squash		11/20	4/23	10/21	10/23	ASR at HQ, rec'd 4/2023		*
09907	Flonicamid	Sugar Beet		4/22	8/23	10/21	10/25	Trans. From MIR, processed fractions not spiked at MIR, separate storage stability study started.		*
12293	Flonicamid	GH Basil		1/21	7/23	10/21	10/23	Addressing Findings		*
12576	flumioxazin+pyroxasulfone	Tomato		12/22	9/23	10/23	1/24	Both ASRs in QA		2
13067	fluoxapiprolin	basil	4	12/22	9/23	10/23	4/25	ASR Prep		1
		Total trials backlogged	4					* = study is backlogged but either waiting for a standard or transferred from another lab		3

TIR

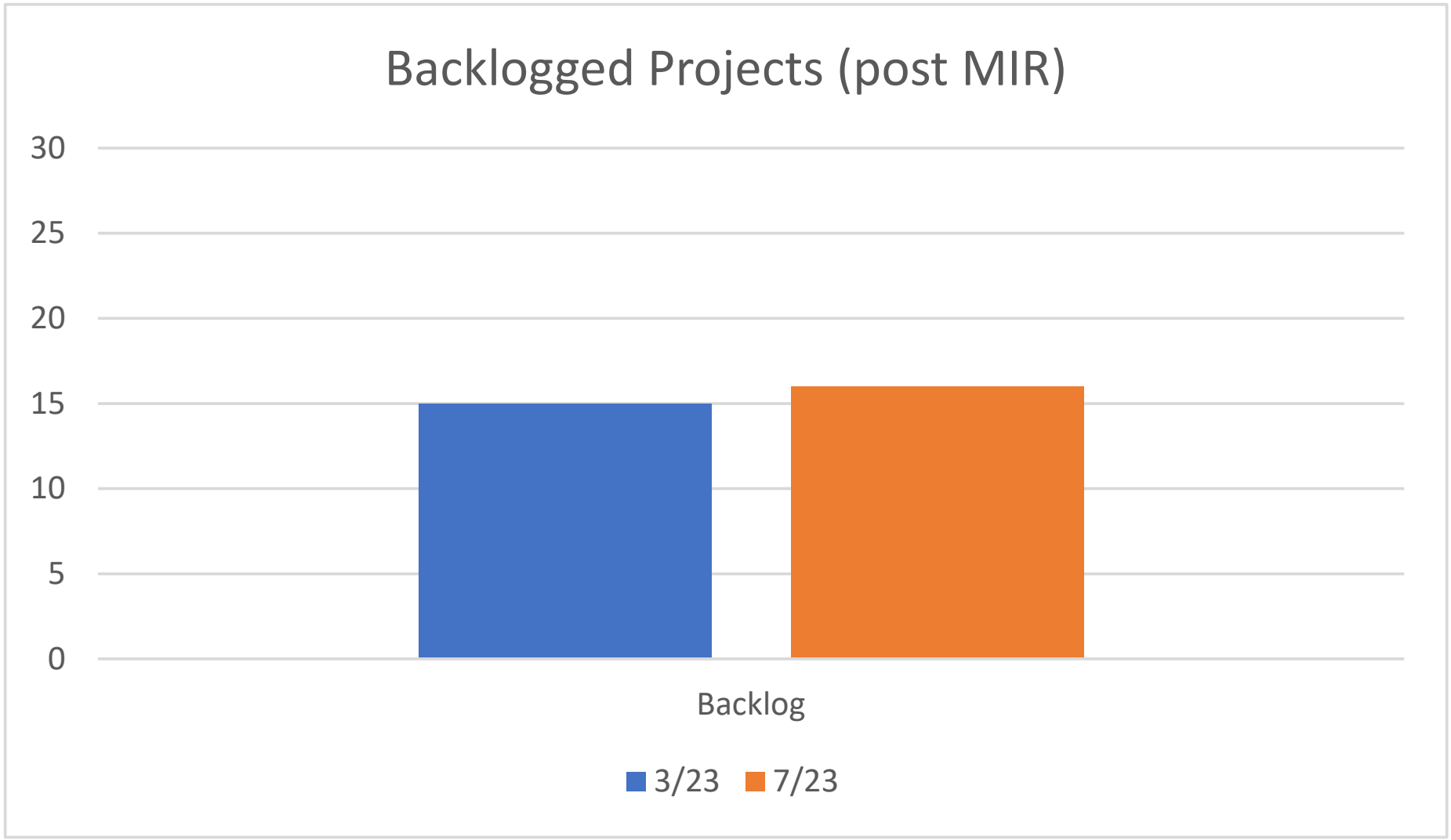
PR	Chemical	Matrix	Trials	ASR Due Date	ASR Est.	Initial EPA Target Sub.	Revised EPA Target Sub.	Note	Late ASRs	Backlogged
12556	Propiconazole	Dragon Fruit	5	11/21		10/22	6/24	Parent anlysis completed, metabolites at CRO. Common moiety method analysis remains. May not need to be analyzed - not counting in backlog		
12560	Propiconazole	Passion Fruit	5	1/22		10/21	6/24	Parent anlysis completed, metabolites at CRO. Common moiety method analysis remains. May not need to be analyzed - not counting in backlog		
12554	Propiconazole	Avocado	5	6/21		10/21	6/24	Parent anlysis completed, metabolites at CRO. Common moiety method analysis remains.		
		Total trials backlogged	15	(5 trials if dragon fruit and passion fruit don't need to be analyzed.)						1 study

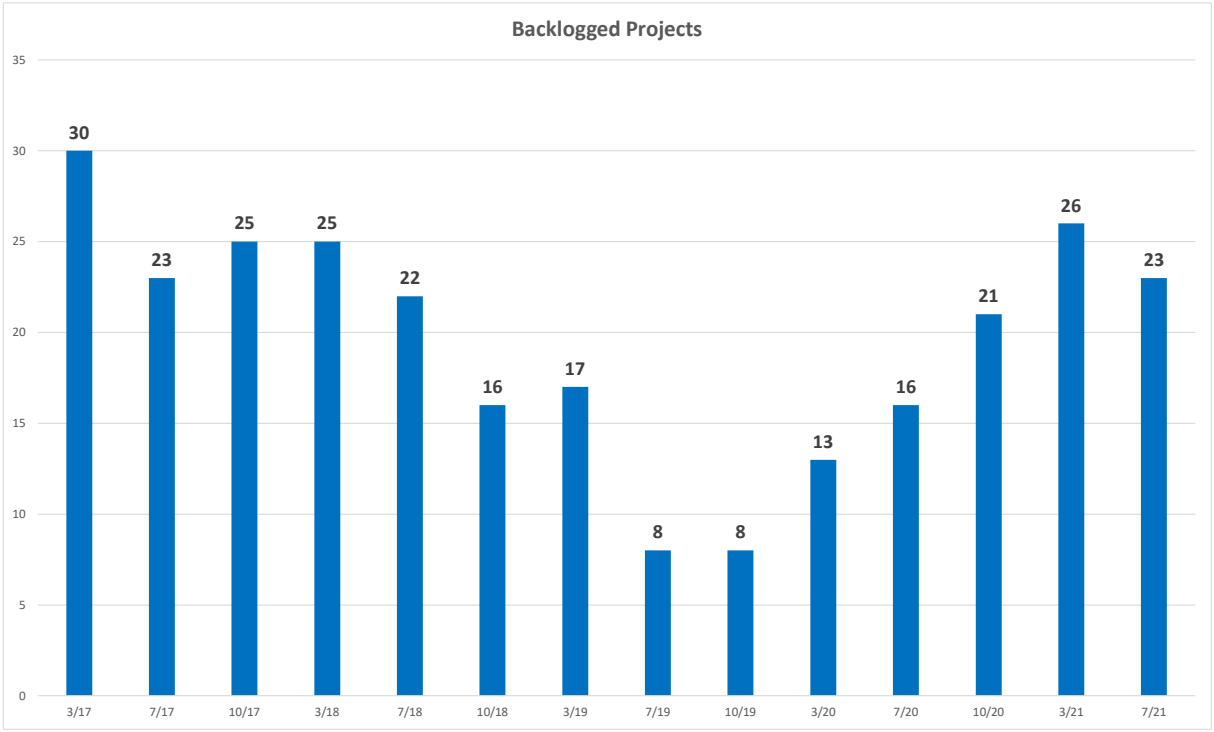
YAR

PR	Chemical	Matrix	Trials	ASR Due Date	ASR Est.	Initial EPA Target Sub.	Revised EPA Target Sub.	Note	Late ASRs	Backlogged
13111	azoxystrobin	Broccoli		02/23		10/23	4/24	All analyses completed. Other reports prioritized first, to bundle this with spinach		
11997	Bicyclopyrone	Pineapple		04/23		10/23	4/24	Trying to complete to submit to EPA and catch the ESA analyses.		
11690	Dimethomorph + Ametoctradin	Pepper (Bell & Non-Bell, GH)		12/20		4/21	8/23	Analyses completed. Final reports (2) being drafted. Submission date will be pushed back as ASRs not yet received.		2
11691	Dimethomorph + Ametoctradin	Tomato (GH)		1/21		4/21	8/23	Analyses completed. Final reports (2) being drafted. Submission date will be pushed back as ASRs not yet received.		2
12972	Fludioxonil +Pydiflumetofen	Peach	12	10/22		10/23	10/24	Analyses in progress		
12570	Quinclorac	Apple		1/21		10/21	8/23	In QA, Submission date will be pushed back as ASR not received.		
12571	Quinclorac	Pear		10/20		10/21	8/23	In QA, Submission date will be pushed back as ASR not received.		
12817	s-metolachlor	Greens (Mustard)	10	12/22		10/22	04/24	Analysis in progress		
12818	s-metolachlor	Turnip Greens	6	12/22		10/23	04/24	Analysis in progress		

CRO

PR	Chemical	Matrix	Original Lab	ASR Due Date	ASR Est.	Initial EPA Target Sub.	Revised EPA Target Sub.	Note
9498	2,4-D	Coffee	FLR(Adpen)	8/22		10/22	4/24	
12605	2,4-D	ginseng	FLR(Adpen)	4/22		10/22	4/24	
12564	abamectin	Miracle Fruit	MIR(GPR)	9/22		10/22	10/23	
12757	abamectin	sugar beet	MIR(GPR)	6/22		10/22	10/23	
11824	Asulam	Clover	Symbiotic (G	6/21		10/21	6/23	
10827	azosystrobin	pomegranate	MIR(GPR)	12/22		4/22	10/23	
12538	benzovindiflupyr and difenoconazole	stevia	MIR(Adpen)	02/21		10/21	10/23	
13411	cycloate	garden beet	GPR			4/24	12/23	
13409	cycloate	spinach	GPR			4/24	12/23	
13094	difenoconazole and azoxstrobin	spinach	TIR (Adpen)	3/23		10/23	4/24	
12220	diquat	grape	MIR(GPR)	10/20		10/21	2/24	
12675	emamectin	limabean	MIR(GPR)	11/21		10/22	6/23	
12903	Flutolanil	Radish	YAR(GPR)	02/22		10/22	TBD	
12904	Flutolanil	Tomato	YAR(GPR)	10/21		10/21	TBD	
11195	Flutolanil	Pepper, Bell and Nonbell	FLR(GPR)	12/21		10/22	TBD	
9520	Flutolanil	Garden Beet	MIR(GPR)	5/22		10/22	TBD	
12902	Flutolanil	Carrot	MIR(GPR)	6/22		10/22	TBD	
12933	Glufosinate	Kiwifruit	CAR(Adpen)			10/23	8/23	
9493	Glufosinate	Coffee	MIR(Adpen)	10/22		10/21	8/23	
10558	Glufosinate	Sweet Potato	FLR(Adpen)	12/21		10/22	8/23	
11148	Glufosinate	Sesame	Adpen			10/24	4/25	
13178	Glufosinate	Sunflower	FLR(Adpen)	(02/23)		10/23	8/23	
13330	Glufosinate	Dragon Fruit	Adpen			10/24	4/25	
13408	halosulfuron	stevia	Adpen			10/24	10/24	
11772	Linuron	Bean (Edible podded and succule	FLR(GPR)	9/22		10/22	12/23	
12811	Linuron	Stevia	FLR(GPR)	7/23		10/22	12/23	
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	6/24	
12556	Propiconazole	Dragon Fruit	TIR (Adpen)	11/22		10/22	2/23	May not complete study
12560	Propiconazole	Passion Fruit	TIR (Adpen)	1/22		10/21	6/24	May not complete study
12544	Ziram	Olive	Symbiotic (G	02/21		10/21	TBD	Registration may be cancelled


Backlogged Projects (post MIR)
30
25
20
15
10
5
0
Backlog
3/23
7/23


Backlogged Projects
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30
25
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7/21

Thank You!

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Analytical Difficulty Calculator

Presenters: Dr. Debbie Carpenter and Christina Dineen

The Analytical Difficulty Calculator can be found in the MS Excel Attachment or **via THIS LINK.**

Path Forward Implementation Performance Expectations

Presenter: Dr. Jerry Baron

DRAFT

IR-4 Performance Expectations

Name	
Unit	
Job Title	**Regional Field Coordinator**

IR-4 Related Job Functions

Management

- Manage and coordinate field research programing at sites in the region, including field trials in pesticide residue, product performance, Integrated Solutions projects and Environmental Horticulture projects. Assign field trials associated with IR-4 funded research to field research directors/cooperators. Distribute signed protocols to assigned researchers, track research progress and ensure quality data are submitted to HQ.
- Maintain knowledge of current field sites, researchers and available contract researchers and recruit new sites and personnel as needed to conduct IR-4 research in the region.
- Work with HQ, Regional Director and the region's grant coordinator to allocate funds to researchers.
- Serve on ad hoc committees and standing committees on behalf of the Regional Director and/or Executive Director. Assist in the development and/or implementation of policies/strategies for relevant aspects of IR-4 Project operations

Regulatory Compliance (GLPs)

- Ensure the Field Research Director and their staff have sufficient training, resources and experience to conduct Federal Good Laboratory Practice residue field trials as outlined in the protocols.
- Conduct site visits and maintain frequent communication with IR-4 sites performing pesticide residue field trials following GLP regulations. Inform Executive Director if there is concern about ability to successfully perform field research.
- Develop and coordinate training for research personnel in Good Laboratory Practice (GLP) regulations in collaboration with other regions and HQ.
- Review, and if appropriate, approve the Standard Operating Procedures for IR-4 Field Research Centers/research sites performing pesticide residue field trials
- Manage and conduct Quality Control reviews of data and coordinate with Quality Assurance Unit in collection and reporting of quality data and robust compliance systems.

Outreach

- Interact with stakeholder groups of the IR-4 Project including growers, commodity associations/grower groups, Cooperative Extension Agents & Specialists, Agricultural Experiment Station researchers, and others connected with pest management in specialty/minor uses. Also, interact with IR-4 State Liaison Representatives (SLRs).
    - The goal is to keep them informed of the opportunities available for IR-4 Project to solve critical pest management needs through data/approval of new crop protection products.
- Assist in the communication and outreach activities of the IR-4 Project; attend conferences, workshops and symposia and serve as a spokesperson for the IR-4 Project.
- Prepare grant applications to various grower organizations, state and industry groups for additional funds to help support IR-4 activities in the region
- Keep stakeholders updated with important dates such as Regional Meetings/Workshops and deadlines leading up to the Food Use Workshop. Provide guidance on Project Clearance Request submission and coordinate the project nominations.
- Recruit new stakeholders and involve them in regional/national meetings.
- Answer questions and provide guidance to field researcher network.
- Provide informational handouts (national and regional).
- Provide information and update materials for IR-4 Regional and National websites. .

Other

- Attend and participate in IR-4 National meetings and workshops, organize and facilitate regional events (priority meetings, training workshops, etc.)
- Recognize individuals in the regions who excel in performance of their duties via IR-4 issued awards or other method of acknowledgment

Program Reports: IR-4 Education and Training Committee

Presenter: Cristina Marconi

The IR-4 Project
NC State University
Campus Box 7710
Raleigh, NC 27695

Physical address:
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Raleigh, NC 27606

Phone: 919-515-1552
www.ir4project.org

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

Cristina M. Marconi

June 29, 2023

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 trainings, 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 2023:

- **2/7-9/23: 2023 National Education Conference**

  Topics: 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.

Updates since Spring PMC Meeting

National IR-4 Standard Operating Procedures (SOP):

In the Spring Meeting, PMC approved developing a National eFDB SOP and with that decision, there was a need for a National IR-4 SOP template, which is basically the SOP on SOPs. It outlines the formatting along with the "how to" develop, review, revise, maintain and archive SOPs.

IR-4 Management asked the E&TC to develop the National IR-4 SOP template given our diverse representation within the IR-4 and the purpose/responsibilities of the E&TC. We accepted the challenge and a subcommittee was formed with four representatives of the E&TC, Philip Moore, Alex McFall, Mika Tolson and myself, and two members of the Southern Region officer, Yang Song and Kristen Searer-Jones. The subcommittee worked diligently to have a satisfied draft by the beginning of May.

In the first week of May the draft of the National IR-4 SOP template was distributed by email to all members of the E&TC, IR-4 Management, QA Manager, the Regional Field Coordinators (RFC) and the Laboratory Research Directors (LRD) for comments. Following the comment period, the comments were incorporated and the final version was submitted to the PMC for approval. PMC approved by the voting members with 6 approvals and 1 abstain. Please find the approved National IR-4 SOP Template at the end of this report.

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)

National IR-4 Standard Operating Procedures

SOP N-01.1

Rev # 0

Title: National IR-4 Guidelines for Standard Operating Procedures

PURPOSE: To provide general guidelines for development, revising, reviewing, maintaining and archiving Standard Operating Procedures (SOPs).

SCOPE: Applies to all GLP research conducted through the National IR-4 Program.

PROCEDURES:

SOP Format and general guidelines:

1. All SOPs will be uniquely identified by SOP number (and the revision numbers). Each SOP number will begin with the prefix 'N' to identify it as a National IR-4 SOP, followed by SOP category, and sequential SOP number.

   SOP Categories: 01 Administrative
   02 Electronic Field Data Book (eFDB)

   a. Header Format: (National IR-4 SOP)-(sop category).(sequential number); next line (revision number); next line (Title)

      Example: SOP (N)-(01).(1)
      Rev# 0
      Title: National IR-4 Guidelines for Standard Operating Procedures

   b. Body Format: (Purpose); next line (SCOPE); next line (PROCEDURES); next line (APPENDICES)

      Example: **PURPOSE** (Brief description of the purpose of the SOP)
      SCOPE (Determines where and when the SOP is applicable)
      PROCEDURES (Describe the operating procedures in numerical order from beginning to end so that a person with knowledge of the process can carry out the procedures without any verbal input from other sources. Describes exactly how each activity addressed by the SOP will be conducted. As appropriate, number each paragraph (1, 2, 3, etc.) and specific steps if necessary (as a, b, c, etc.) for reference purposes)
      APPENDICES (if necessary, will provide additional information or clarification, such as an illustration, an example, or a list of specific items pertaining to that SOP. If more than one appendix per SOP number, letters will be used to differentiate, i.e. Appendix A, Appendix B, Appendix C, etc.)

SOP N-01.1

Rev # 0

Title: National IR-4 Guidelines for Standard Operating Procedures

2. New hires and SOP Revisions – the National SOPs will be provided through use of the training module in eQA or through an IR-4 Management approved process.

3. Deviations to the National IR-4 SOPs must be discussed with the study director (SD), if applicable, or with appropriate Regional or Laboratory Coordinator. It must be signed and dated by the person preparing the deviation, and if relevant for a study, by the SD.

4. The study protocol will supersede the National SOPs in case of conflicting information.

5. The following definitions/abbreviations apply to all National SOPs:

Abbreviation	Definition
ARFC, ARFCs	Assistant Regional Field Coordinator(s)
&	and
@	at
CAS	Chemical Abstract Number
CV	Curriculum Vita
eDOCs	An extension of eQA that is a repository for certain electronic documents
eFDB	electronic Field Data Book
E.G., e.g.	For Example
EPA	(United States) Environmental Protection Agency
eQA	The IR-4 electronic system for Quality Assurance Unit audit packets and documents
FDB	Field Data Book
FID #	Field Identification Number
FRD	Field Research Director
GLP	(EPA) Good Laboratory Practices
GPA	Gallons Per Acre
HQ	Headquarters
IR-4, IR-4 Project	Inter-Regional Research Project #4
LRD	Laboratory Regional Director
MSDS	Material Safety Data Sheet
PMC	Project Management Committee
QAU	Quality Assurance Unit
RH	Relative Humidity
RFC, RFCs	Regional Field Coordinator(s)

National IR-4 Standard Operating Procedures

SOP N-01.1

Rev # 0

Title: National IR-4 Guidelines for Standard Operating Procedures

SD	Study Director
SDS	Safety Data Sheet
SOP, SOPs	Standard Operating Procedure
TFM	Testing Facility Manager
TOC	Table of Contents
TRT	Treated
TS	Test Substance
UTC	Untreated (control)

Development and Revision:

1. Requests for a new SOP, or for a change to an existing SOP, may be made to the committee at any time throughout the year.

2. All requests should state the urgency of the request (and date needed if applicable), include an explanation of why the request is being made and an attachment of the drafted SOP. The draft SOP should be submitted in the correct format (described above), with the preferred wording incorporated into the SOP. If the requester is unable to draft the SOP, they are to contact the National SOP chairperson for a suggested author. The chairperson will determine the urgency of a request soon after receipt. The requester and committee members may also be consulted to help in the decision and to determine the effects on GLP compliance, etc.

3. The chairperson will acknowledge receipt of the draft SOP and circulate to the National SOP committee for review.

4. The SOP committee members will review the document for applicability to all sites and for any conflicts with other SOPs. If additional edits are needed, the chairperson may ask the author/reviewer of the SOP to rewrite it, and then circulate to the committee for approval.

5. The chairperson (or designee) will review all comments and incorporate the general consensus into an updated draft of the SOP. If significant changes are made, or if consensus is not reached, the updated draft will be re-circulated to the committee for further review. It is the responsibility of each committee member to express any concerns about suggested changes. If no opposition to the changes is received during the subsequent review period, the chairperson will submit the final version to Management for approval.

6. If consensus cannot be reached, acceptance of the SOP by the committee should be decided by a majority principle, with the chairperson having the ultimate responsibility to ensure the new or revised SOP is suitable for all users. If a committee member still strongly disagrees with the new or revised SOP, that committee member may ask for the Testing Facility Manager (TFM) to review the situation. In these cases, the decision of the TFM will be final.

7. When a National SOP is issued or revised, the eQA system will assign it to the relevant IR-4 personnel for training.

Review:

1. National IR-4 SOPs will be reviewed at a minimum of once approximately every 2 years for training purposes and to determine if revisions are needed. Revisions will follow the procedures described in the “Revising” item of this SOP.

2. After initial training, the eQA system will assign National SOPs for relevant IR-4 personnel to review every 2 years (based on settings established at the time of electronic approval).

3. Retired SOPs will be listed in the Table of Contents (TOC) as “Retired” for the first year and may be removed in subsequent years, however the retired SOP number will not be re-assigned.

4. A complete list (TOC) of National SOPs and their effective dates can be produced using the eDOCs report creation ability. Using report #24 “Document Listing by Location & Document Type” select the fields document type” National IR-4 Standard Operating Procedures” and the field Active “yes” to generate a report containing the Doc ID, Revision #, Title and Effective date for all HQ SOPs in the system.

Maintenance:

1. **National SOP Committee:**
   It is the responsibility of the National SOP Committee to ensure SOPs are developed, reviewed and revised (when needed) to meet the IR-4 Project needs. The TFM will appoint a committee and a ‘chairperson’ to address the National SOP needs of the IR-4 Project. The committee will include at a minimum RFCs (or designees), one member of IR-4 HQ, one member of the QA team, one member of the PMC, and others as needed to represent all aspects of the IR-4 Project. The chair is ultimately responsible to ensure the new or revised SOPs are suitable for all users. The members are required to be active

participants on the committee and may request to be removed if that cannot be accomplished.

2. **IR-4 Project Personnel:**
It is the responsibility of all IR-4 personnel to ensure that the National SOPs meet the needs of the IR-4 Project. If a new SOP is required, or an existing one does not meet the needs of a Test Site, Test Facility, or the program as a whole, IR-4 personnel should contact the National SOP Committee.

Archiving:

1. Original signed SOPs will be filed at the IR-4 Headquarters archive and copy(s) accessible through the eQA system. The latest version of the National SOPs may be posted on the IR-4 website.

2. Outdated SOPs will be permanently archived at the IR-4 Headquarters archive.

Awards

Recognizing Partners Who Help IR-4 SOAR

Submit a Nomination Today!

The IR-4 Project is now accepting nominations for the 2023 SOAR Award. This award honors external partners who exemplify the areas of **Service, Outreach, Altruism and Research,** while supporting specialty crop growers and the mission of The IR-4 Project.

If you know someone who demonstrates excellence in these areas, we encourage you to nominate them for this award. Anyone involved with IR-4 can be nominated, except for Project Management Committee members or full-time IR-4 staff.

Nominations will be accepted until 11:59 pm PST on Monday, July 24, 2023. To submit a nomination, please fill out the nomination form.

Ken Trammel is the man we think of when we think about transporting magnitude of residue samples safely. He has been delivering IR-4 frozen samples to laboratories since 1982. Good Laboratory Practices became effective in 1984. Ken has been delivering samples while maintaining GLP compliance from the very beginning.

Ken obtained his PhD in Entomology from University of Florida before becoming the tree fruit specialist for Cornell College of Agriculture and Life sciences in Geneva, NY. He resigned that position in 1975 to devote full time to his custom research firm, Agricultural Chemicals Development Services (ACDS). He was one of the first 5 original Contract Research Operators (CRO) conducting Magnitude of Residue studies. He understands there is no room for anything but top caliber, professional work on every detail and that collection, labeling, packaging and shipping samples must receive the utmost care.

By 1982 he realized a need for an alternative to shipping on dry ice. ACDS research activities were divested into two different CROs: ACDS Research, Inc. and Reality Research to continue field research services. A third entity, ACDS, Inc. became wholly committed to ground transport of frozen residue samples. Ken has been running ACDS, Inc. ever since. Ken has personally delivered samples to labs in Canada sparing us the difficulties involved with shipping through Customs on dry ice.

Ken has never lost a sample! In fact; Ken saved many samples when one of the strongest tornadoes ever to hit the Mid-Atlantic struck the ARS Beltsville, MD Agricultural Research Center, severely damaging 15 buildings including the analytical laboratory on April 28, 2002. The lab director called Ken and he immediately sent a freezer truck to hold the samples until they were able to restore power and secure storage for the samples.

There are many more examples of how Ken has so expertly served the needs of IR-4 for safe, reliable transport of our valuable samples. He understands.

We have come to depend heavily on the quality of service Ken has provided for decades. As the transition to Lange Research takes place over the next year the intent is to maintain this quality service in the legacy of what Ken has built. He has worked very hard to find the right buyer and to make the transition as seamless as possible. He cares.

I wholeheartedly believe Ken deserves special recognition for his lifetime of dedication to specialty crop growers and his 40 years of outstanding service to IR-4.