



## **IR-4 Project Management Committee Fall Meeting**

October 23-25, 2023  
Agenda and Handouts



# NRPM/PMC Agenda

## October 23-27, 2023

IR-4 Headquarters & Park Alumni Center  
(Wednesday) Raleigh, NC

**Monday, October 23 (Markle Room-1st Floor of Venture IV, Suite 105)**

<https://ncsu.zoom.us/j/95117902189?pwd=Tm5meTdPb3RHNDFlOEJ4U1RoYWZJQT09>

**12:30 pm**

**Van leaves from Aloft Hotel to the Venture IV Building**

**1:00 pm - 5:00 pm**

**PMC Meeting**

- 1) Welcome- Steve Lommel
- 2) [Approval of minutes](#), new agenda items (Hengel)
- 3) Funding update
  - a) Delays in distribution of 2023 funds (Chojnacki)
  - b) Status/expectations with 2024 Appropriations
  - c) CLC/Friends of IR-4 plans for FY 2025 (Scholz and Beaudreau)
    - i) OMB
    - ii) Lunch and Learn
    - iii) Hill visits
    - iv) Additional advocacy
    - v) Farm Bill
- 4) AA Update
  - a) NRSP-4 funding and potential plans for 2024
- 5) Unit update
  - a) USDA
    - i) NIFA
      - (1) Potential meeting with Dr. Misra/NIFA Leadership
    - ii) ARS
      - (1) Managing Shutdowns
      - (2) Support for Analytical Laboratories
  - b) CLC
    - i) New Members
    - ii) Other topics
  - c) North Central Region (Buhler and Wise)
  - d) [Northeast Region](#) (Kairo and Zebelo)
  - e) [Southern Region](#) (Davis and Gu)
  - f) Western Region (Holyoak and Hengel)
  - g) Headquarters (Lommel and Baron)

**5:10 pm**

**Van leaves from Venture IV Building to the Aloft Hotel**

## Tuesday, October 24 (Markle Room-1st Floor of Venture IV, Suite 105)

\* A continental breakfast will be served at HQ.

<https://ncsu.zoom.us/j/95117902189?pwd=Tm5meTdPb3RHNDFlOEJ4U1RoYWZJQT09>

|                       |  |
|-----------------------|--|
| 8:30 am               | <b>Van leaves from Aloft Hotel to the Venture IV Building</b>  |
| 9:00 am - 12 noon     | <p>PMC Meeting, Continues</p> <ul style="list-style-type: none"><li>6) Research Program update/discussions<ul style="list-style-type: none"><li>a) Food Program (Carpenter, et.al)<ul style="list-style-type: none"><li>i) <a href="#">Field</a><ul style="list-style-type: none"><li>(1) Field Databooks in timely manner</li></ul></li><li>ii) <a href="#">Analytical Laboratories</a></li><li>iii) <a href="#">Quality Assurance Unit</a></li><li>iv) <a href="#">Product Performance</a></li><li>v) <a href="#">Integrated Solutions</a></li></ul></li><li>b) Environmental Horticulture Program (Palmer)</li><li>c) <a href="#">Biopesticides Regulatory Support</a> (Braverman)</li></ul></li><li>7) International/Minor Use Foundation (Gore)<ul style="list-style-type: none"><li>a) GMUS - 4</li></ul></li><li>8) Electronic Field Data Notebook (Moore and Byrtus)</li><li>9) <a href="#">Training Committee</a> (Protocol template, Standardized SOPs, next NEC, Membership, etc.) (Dineen)</li><li>10) <a href="#">Future workload in the residue research</a> (Baron &amp; Carpenter)</li><li>11) <a href="#">Environmental Horticulture Review Update</a> (Baron and Scholz)</li></ul> |
| 12:00 noon - 12:45 pm | <b>Lunch</b>   |
| 12:45 pm - 5:00 pm    | <p>PMC Meeting, Continues</p> <ul style="list-style-type: none"><li>12) <a href="#">Examination of IR-4's Biopesticide Regulatory Support activities</a></li><li>13) Workshop Debrief<ul style="list-style-type: none"><li>a) <a href="#">Food Program</a></li><li>b) EH Program</li></ul></li><li>14) Discussion of Path Forward 2.0 Implementation<ul style="list-style-type: none"><li>a) Performance Expectations</li><li>b) Field Funding Reimbursement<ul style="list-style-type: none"><li>i) New Funding Models<ul style="list-style-type: none"><li>(1) Residue</li><li>(2) Product Performance</li></ul></li></ul></li><li>c) <a href="#">Communications</a></li><li>d) Enhanced Training</li><li>e) Technology Team</li><li>f) Analytical Laboratory Backlog</li></ul></li><li>15) Engaging a larger research/extension community (Patel)</li><li>16) "All Hands" meeting preview (Baron)</li><li>17) Executive Session I</li></ul>   |
| 5:10 pm               | <b>Van leaves from Venture IV Building to the Aloft Hotel</b>  |

**Wednesday, October 25 (Park Alumni Center, 2450 Alumni Drive, Raleigh, NC 27606)****There is no charge for parking at the Park Alumni Center.***\* A continental breakfast will be served at the Alumni Center.*<https://ncsu.zoom.us/j/95117902189?pwd=Tm5meTdPb3RHNDFlOEJ4U1RoYWZJQT09>

|                       |   |
|-----------------------|---|
| <b>8:30 am</b>        | <b>Van leaves from Aloft Hotel to the Park Alumni Center Building</b>   |
| 9:00 am - 12:00 noon  | PMC Meeting, Continues<br>18) Executive Session II  |
| <b>11:45 a.m.</b>     | <b>Van leaves from Aloft Hotel to the Park Alumni Center Building</b>   |
| 12:00 noon - 12:45 pm | <b>Lunch</b> for PMC/RFCs and HQ  |
| 12:45 pm - 2:30 pm    | RFC/ HQ MEETING   |
| 2:30 pm - 3 pm        | <b>Break</b>  |
| 3:00 pm - 4:30 pm     | RFC/PMC//HQ/Lab Coordinator/QA Technical Meeting <ol style="list-style-type: none"><li>1. Welcome (Hengel)</li><li>2. IR-4 Communications Update (Ross and Chojnacki)</li><li>3. Timely completion of Field Databooks for final report submissions (Carpenter)</li><li>4. Standardized SOPs</li><li>5. The IR-4 Project: 60 Years...now what (Baron)<ol style="list-style-type: none"><li>a. PathForward 2.0 Implementation</li><li>b. E3 Challenges &amp; the Changing Landscape of Pest Management</li><li>c. Holistic decisions regarding infrastructure investments</li><li>d. Strategic Planning</li></ol></li></ol> |
| <b>4:40 pm</b>        | <b>Van leaves from Park Alumni Center Building to the Aloft Hotel</b>   |
| 5:30 pm - 7:30 p.m    | <b>Reception</b>  |

**Thursday, October 26 (Markle Room-1st Floor of Venture IV, Suite 105)***\* A continental breakfast will be served at HQ.*

|                       |   |
|-----------------------|---|
| <b>7:30 am</b>        | <b>Van leaves from Aloft Hotel to the Venture IV Building</b> |
| 8:00 am - 12:00 noon  | RESIDUE & PRODUCT PERFORMANCE RESEARCH PLANNING               |
| 12:00 noon - 12:45 pm | <b>Lunch</b>  |
| 12:45 pm - 2:45 pm    | INTEGRATED SOLUTIONS RESEARCH PLANNING                        |
| 2:45 pm- 3:00 pm      | <b>Break</b>  |
| 3:00 pm - 5:00 pm     | ENVIRONMENTAL HORTICULTURE RESEARCH PROGRAM                   |
| <b>5:10 pm</b>        | <b>Van leaves from Venture IV Building to the Aloft Hotel</b> |



**Friday, October 27 (Markle Room-1st Floor of Venture IV, Suite 105)**

*\* A continental breakfast will be served at HQ.*

**7:30 am**

**Van leaves from Aloft Hotel to the Venture IV Building**

8:00 am - 12:00 noon

FINALIZE FOOD PROGRAM: RESIDUE, PERFORMANCE & IS

**12:15 pm**

**Van leaves from Venture IV Building to the Hotel**

# Past Meeting Minutes for Approval





**MINUTES**  
**Project Management Committee**  
**Summer 2023 Meeting**  
**July 11-12, 2023**  
*Virtual Meeting*

**MOTIONS AND ACTION ITEMS**

**Motions/Consensus Items:**

1. A motion to approve the minutes of the Spring 2023 Joint CLC and PMC Meeting of March 6-9, 2023 was made by Alvin Simmons; seconded by Liwei Gu. **Unanimously approved.**
2. A motion was made to approve the nomination of Peter Nelson of the Michigan Cherry Institute, as a member of the Commodity Liaison Committee, was made by Jerry Baron; seconded by John Wise. **Unanimously approved.**
3. **Consensus** was given for the training committee to continue to manage and review updates on national SOPs.
4. **Consensus** was given for IR-4 to independently assess the risk of crop injury and the need for crop safety data prior to a residue study based on registrant recommendations, available crop safety data, and extrapolations from similar uses. For the most vulnerable uses (e.g. herbicides on annual crops) IR-4 Headquarters will establish a pilot project where IR-4 will solicit data from industry and the scientific community to better perform the assessment.
5. A motion for IR-4 to require cooperation from the requestors of a use, to assist in the development of a weight of evidence approach when necessary, prior to the National Research Planning Meeting if not the project will be put on hold was made by Jerry Baron; seconded by Alvin Simmons. **Unanimously approved.**
6. A motion to accept the performance expectations of the Regional Field Coordinator as written was made by Jerry Baron; seconded by Liwei Gu. **Unanimously approved.**
7. A motion was made to appoint Christina Dineen as the new chair of the IR-4 Project Education and Training Committee was made by Jerry Baron; seconded by Liwei Gu. **Unanimously approved.**
8. A motion was made to issue regional technical and meritorious service awards when IR-4 meets at a national education conference by Alvin Simmons; seconded by Jerry Baron. **Unanimously approved.**
9. A motion for approval of a special award for Ken Trammel was made by Jerry Baron; seconded by Simon Zebelo. **Unanimously approved.**
10. A motion to approve the 2024 Field Research Budget with the modification of reducing the Food Use Priorities from 49 to 47 and transferring those savings to the Product Performance program to address the backlog was made by Matt Hengel; seconded by Alvin Simmons. **Unanimously approved.**
11. A motion was made to adjourn the meeting at 5:09 pm by Matt Hengel; seconded by Alvin Simmons. **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 to the Florida Citrus Research and Development Foundation (CRDF) for the EPA registration of a Citrus Tristoea Virus Vector System for expressing several Spinach defensin proteins (SoD). **Approved by written consent (1 abstention: Jerry Baron).**
2. The PMC voted via email for approval of the IR-4 Project Biopesticide Program to provide regulatory assistance to Village Farms for the product AC 203 for the treatment of Fusarium wilt. **Approved by written consent (1 abstention: Jerry Baron).**

### **Action Items:**

1. **Action Item:** Debbie Carpenter and Christina Dineen will pilot the Analytical Difficulty Calculator ahead of the Food Use Workshop (FUW) this year, on a few crop groups, and use it as an advisory to making determinations at the FUW to educate stakeholders.
2. **Action item:** Jaimin Patel will engage with the International Association of Black Entomologists to give a presentation at their November meeting.
3. **Action Item:** Johanna Mazlo will send out a doodle poll to determine GLP training times for Sponsors/Testing Facility Management and Regional Directors.
4. **Action Item:** Alice Axtell to make the IS request form more flexible and bolster outreach on the IS program.

### **Members:**

Jerry Baron; IR-4 Executive Director  
Doug Buhler; Administrative Advisor-NCR  
Liwei Gu; Regional Director-SOR  
Matt Hengel; PMC Chair; Regional Director-WR  
Marcel Holyoak; Administrative Adviser – WR  
Moses Kairo; Administrative Adviser – NER  
Steve Lommel; Administrative Adviser- HQ

Joe Munyaneza; Administrative Adviser - ARS  
Keith Pitts; CLC Vice- Chair  
Alvin Simmons; USDA-ARS  
John Wise; Regional Director-NCR  
Simon Zebelo; Regional Director - NER

### **Presenters:**

Alice Axtell, IR-4 HQ  
David Beaudreau; DCLRS  
Michael Braverman; IR-4 HQ  
Debbie Carpenter; IR-4 HQ  
Krystal Chojnacki; IR-4 HQ  
Christina Dineen; IR-4 HQ

Cristina Marchesan Marconi; IR-4 HQ  
Johanna Mazlo; IR-4 HQ  
Philip Moore; IR-4 HQ  
Jesse Ostrander; USDA NIFA  
Cristi Palmer; IR-4 HQ  
Veronica Picado; MUF

### **Tuesday July 11, 2023 10:30 am to 4:30 pm ET**

Matt Hengel called the meeting to order at 10:30 am–

1. Welcome and comments: (Hengel)
  - Introductions
    - M. Hengel welcome the group and initiated introductions on zoom.
2. Approval of minutes, new agenda items

- **A motion to approve the minutes of the Spring 2023 Joint CLC and PMC Meeting of March 6-9, 2023 was made by Alvin Simmons, seconded by Liwei Gu; unanimously approved.**
- J. Baron requested the addition of an agenda item: Discussion of the Integrated Solutions program.

### 3. Unit updates

- AAs Report
  - M. Holyoak reported: that the Western lab is running smoothly but have an upcoming temporary move out of the existing building for seismic renovations; and there have financial discussions surrounding indirect costs associated with the NIFA grant and subawards, as well as subcontracts versus fee for service work.
  - A. Simmons (on behalf of Joe Munyaneza) reported: that Jim Park was permanently appointed as the Associate Administrator for Research and Management; there are vacancies in several labs; they are processing the amendment to the Cooperative Agreement with NC State for Quality Assurance and Environmental Horticulture work in the Northeast Region; ARS continues to have a flat budget but the work continued in spite of weather difficulties; and the Salinas laboratory is having a grand opening in November.
  - M. Kairo reported: that all is going well and that they are working on renovating a facility to facilitate the Environmental Horticulture work for the ARS Cooperative Agreement; and they will be breaking ground on a new facility with adequate space for future greenhouse research.
- NRSP-4 Midterm Outcome & Next steps (Lommel)
  - S. Lommel reported: that he met with the award panel and conducted a mid-term review of NRSP-4; there was universal consensus of the importance of the NRSP contributing to IR-4, however due to the funding increase from USDA NIFA via the grant, the review committee is considering recommending that the funding be cut.
  - A discussion was held regarding: the potential upcoming federal budget cuts to grants and the potential impact of this additional cut; the annual amount we currently receive; the potential need to do outreach to the NRSP Board membership; the funding ties to Hatch allocations to research stations; and how NRSP determines which projects receive funding.
- NIFA Update (Ostrander)
  - 2023 grant status, work detail
    - J. Ostrander gave an introduction and provided an update: the continuation award has been forwarded to the Award Management Division and anticipate those funds will be available on time as of August 1, 2023; NIFA has a new agency director Dr. Manjit K. Misra, Dr. Samuel – Foo is on a temporary detail in the office of the Director as a Chief of Staff, and we can reach out to Dr. Rubella Goswami or Jesse Ostrander if assistance is needed.
- Commodity Liaison Committee (CLC) & Friends of IR-4 Update (Pitts & Beaudreau)
  - D. Beaudreau provided a report on: spending cuts proposed through the appropriations process (30% cut to agriculture); the House and Senate have allocated \$15 million for the IR-4 Project in their allocations; provided updates on the progress of the Farm Bill; and that the Friends of IR-4 continue to advocate for a funding increase authorization for IR-4 to \$50 million discretionary funding up from \$25 million.
  - A discussion was held regarding: implications of a continuing resolution for the 2024

- budget; and the excellent work DCLRS has done for the Friends of IR-4 and the CLC.
  - K. Pitts reported: we may be looking at cuts to agriculture (hopefully smaller than 30%); that the Friends of IR-4 will continue to advocate for IR-4; work with FFAR to look at climate ecosystem services and pest management and identify gaps in research in this area; and that the CLC recommends Peter Nelson as the new representative of the Michigan Cherry Institute and is seeking PMC Approval.
  - A discussion was held regarding Peter Nelson's work resume and support for his position; and biostimulant definition and label regulations.
  - **A motion was made to approve the nomination of Peter Nelson of the Michigan Cherry Institute as a member of the Commodity Liaison Committee was made by Jerry Baron, seconded by John Wise; unanimously approved.**
- Regions (NER, NCR, SOR, WSR, ARS & HQ)
  - NER: S. Zebelo reported: UMES is in the process from receiving ARS funding for Environmental Horticulture trials and Dr. Kairo has approved funding to make improvements to an existing hoop house for use on this project; the decommissioning of Cream Ridge is officially complete; conducted a successful EPA/USDA tour in the NER region and acknowledged Marylee and Megan's preparation work; and held a great meeting with State Liaison Representatives (SLR).
  - NCR: J. Wise reported: lab and quality Assurance unit shutdown activities are officially complete; Nicole Soldan's transition into the Department as the Regional Field Coordinator (RFC) was smooth and have allocated some additional staff time to provide support activities; Field Research Directors (FRDs) are happy with trail assignments; and that a review was conducted with MSU sponsored programs regarding the appropriate vehicle for subawards/contracts.
  - SOR: L. Gu reported: the field program progresses well and they have completed the decommissioning of the Weslaco field site; the lab has a new instrument getting installed and are on target to finish projects; the QA unit is performing well; and that the SOR is being audited by USDA NIFA.
  - WSR: M. Hengel reported: QA is working on some critical in-life inspections; an EPA inspection was conducted at the University of Idaho site and there were no major findings; Kari is getting settled into her role in the WR and is doing a good job; new FRD in New Mexico completed his first trial this Spring and is doing well; Kearney field site is asking for more funds to conduct trials at the field site and they have been able to offset that with CDFA funds but that funding is not long-term; lab work slowed a little with staff on leave but has picked back up and will finish the first hemp project soon; the lab has had a new instrument installed; the lab will need to temporarily relocate for a six month period; and discussions with sponsored programs to initiate subawards.
    - An in-depth discussion was held regarding issues with indirect cost distribution to subawards at the regional host institutions.
  - HQ: J. Baron reported: that last fall we completed hiring to fill the HQ org chart but now have vacancies due to staff transitions including Venkat Pedbihotla and Allison Ballantyne; HQ is working to hire the new position - Program Operations Coordinator - and refill the Assistant Director position; concerns about the future of chemical pesticides with the endangered species act and endocrine disruptors; the European Union is reducing MRLs in commodity exports; issues with raw data retrieval and delivery to audit sites from contract storage location; reported on the great partnerships with EPA, registrants, and Canadian partners; and award issuance issue from year 2 NIFA grant.

Break at 12:45 pm and reconvene at 1:15 pm.

#### 4. Program Reports

- Food Program
  - Residue Research Program
    - Field Residue Studies/submissions (Presentation)
      - D. Carpenter reported: that crop grouping has been completed through JMPR and thanked Bill Barney; on outstanding field data notebooks from 2020 and 2021; that there are fifty studies in final report processing; and 130 studies are TBD for submission and most are signed and ready to submit however companies are asking us to hold off until the impact of the endangered species act is more clear.
    - Quality Assurance Unit (Presentation)
      - J. Mazlo reported: on EPA compliance monitoring; staffing updates, and introducing new HQ Auditor Joshua Peterson; training activities that have been completed and are underway including participation in the Borlaug Fellows program and with the electronic field data book; reviewed QA activities by region; shared 2023 Audit and Inspection information; and provided an eQA/eDocs update.
    - Product Performance Research & Integrated Solutions Research (Presentation)
      - A. Axtell reported: on the number of 2023 Projects in Product Performance (PP) (65) and Integrated Solutions (IS) (34); provided an update on the 2023 Industry Technology Session including number of presenters, number of attendees registered, and that the draft agenda is posted on the website; and provided an overview of the draft agenda for the Food Use Workshop.
    - International Update/Minor Use Foundation
      - V. Picado reported: that there are several projects underway in South America and Asia; invited members to consider attending the Global Minor Use Summit in Madrid, Spain February 5-9, 2024; and that a new training center of excellence in National University of Colombia has been established.
  - Environmental Horticulture (Presentation)
    - C. Palmer reported: on data summaries completed in 2023; shared a graphic of the registration support research network for the EHC program; the EHC average per trial funding allocations; and shared plans for the 2023 Biennial Priority Setting Workshop and the 2022/2023 Grower Survey.
  - Biopesticide Regulatory Support (Presentation)
    - M. Braverman reported on the process for providing and approving regulatory support for biopesticide projects including: where new projects come from; determining whether it is a worthy project; initiating a project request; securing approval via email from the PMC; biotechnology approval – PIPs; regulatory assistance for EPA registration; and challenges to the process.
    - A discussion was held regarding the process and whether or not we can charge a fee for the service.

#### 5. Communications Update (Presentation)

- K. Chojnacki reported (on Hannah Ross' behalf): on the 60<sup>th</sup> Year Campaign activities underway and planned; new print outreach materials developed including the EHC one-pager, RFC contact Postcard, and the YES Document; new story content released and under development; shared Instagram and social media highlights; and introduced our Science Communications intern Raven Baez.

- Discussion was held regarding an opportunity to reach out to each commodity liaison and their perspective commodity group for newsletter (EPA tour – every specialty crop commodity might have interest in); how the increase of IR-4 in social media traffic has spurred greater interest; and the great job Hannah has been doing.

Break at 2:56 pm and reconvene at 3:06 pm.

#### 6. Laboratory Update/Backlog (Presentation)

- D. Carpenter reported: on the current status of backlog projects at each lab; that the focus moving forward will be on method development time efficiencies; the use of contract labs to reduce backlog but planning for a reduction in that need moving forward; sorting through Michigan lab data in the absence of lab personnel; and streamlining national lab processes and procedures.
- Discussion was held regarding the new positive cooperative environment among the laboratories. Additional discussions to be held in Executive Session.

#### 7. iAdvantage electronic Field Data Notebook Pilot Update (Presentation)

- P. Moore provided an update on the eFDB including: training, guidance, and regular communications updates for eFDB; author, review, and sign off on SOPs for the eFDB field use, administrator functions, and for eFDB validation; GLP validation protocol, validation testing, and final report with all raw data and audited by QA; errors that occurred with some forms/users and features; identify trails that are available, amend protocols and ensure GLP compliance; and next steps.
- A discussion was held regarding: what industry standards are regarding the errors with features; the reception of the eFDB by FRDs and willingness to participate; and the PMC expressed gratitude for the team's work on testing the programs. Additional discussions to be held in Executive Session.

#### 8. Nuts & bolts of national SOPs

- C. Marconi reported on next steps for National SOPs: to consider forming a national SOP committee to review updates on SOPs instead of the training committee; the use of eQA to distribute the national SOPs; and requiring training on the national SOP prior to work with the eFDB.
- Discussion was held regarding: the past use of Advisories and an oversight committee; the training committee has a good mix of representation of job classifications to serve as an oversight body; and the potential for postponing SOP development during training committee prep for NEC.
- **Consensus was given for the training committee to continue to manage and review updates on national SOPs.**

#### 9. Crop Safety/Efficacy data prior to residue studies

- J. Baron reported on: whether we should require efficacy and crop safety data before we agree to do a study to prevent the loss of projects and time; that current approach is to not require it but encourage it; and that some states require submission of this data at the time of review.
- A discussion was held regarding: the percentage of studies that this impacts is minimal (low percentage); it is a risk we must accept if the percent is small; it could delay many projects if we require this data; that crop safety is the great risk; whether or not this



occurred enough that the additional step of requiring written documentation would be required; and getting the data from the manufacturer prior to approval of the project.

- **Consensus was given for IR-4 to independently assess the risk of crop injury and the need for crop safety data prior to a residue study based on registrant recommendations, available crop safety data, and extrapolations from similar uses. For the most vulnerable uses (e.g. herbicides on annual crops) IR-4 Headquarters will establish a pilot project where IR-4 will solicit data from industry and the scientific community to better perform the assessment.**

The meeting recessed for the evening at 4:30 pm.

### **Wednesday, July 12<sup>th</sup> 10:30 am to 4:30 pm**

Matt Hengel reconvened the meeting at 10:33 am --

#### **10. Proposed parameters of 2024 field research program (Presentation)**

- A. Axtell provided a presentation on: the current Food Use program versus 2024; number of proposed "A" priority residue studies (49), PUPs/regional upgrades (8); performance project priority allocations including new residue (60) and proof of concept /H+ (10) and carryovers (45); and the number of IS priorities including carryovers (14).
- A discussion was held regarding: how to balance the 1.5% reduction in the core; increasing the EHC or Food allocation to offset increased research costs across regions; the trend of increased performance projects to move toward securing registration; if alternative funding sources will be able to offset costs (state grants, etc.); the potential to drop the number of IS/Residue/Performance/EHC priorities to free up funding; that ARS has capacity to increase the number of residue trials; and staying nimble to the shift to new technologies/biotechnologies in pest management in our budget, research and labs. Additional discussions to be held in Executive Session.

#### **11. Analytical Difficulty Calculator**

- C. Dineen reported: the calculator was discussed previously at a PMC Meeting and has since been refined; that it is a tool to assess or predict the difficulty of the project as it relates to the lab by assessing variables such as chemistry, number of samples, difficulty of the analytical methodology; and posed questions to the PMC as to whether or not they want us to use this tool, how to use the tool (prior to FUW) and how can it be further refined.
- A discussion was held regarding: that the tool can be used to help supplement labs; that it is a good idea for pre-Food Use Workshop evaluations on nominations to determine resources; that it cannot be used for projects that we do not know the method or metabolites; the possibility of adding the additional performance and crop safety work into the calculator; how to handle projects with two active ingredients; and performing a pilot program at this year's FUW.
- **Action Item:** Debbie Carpenter and Christina Dineen will pilot the Analytical Difficulty Calculator ahead of the Food Use Workshop (FUW) this year, on a few crop groups, and use it as an advisory to making determinations at the FUW to educate stakeholders.

#### **12. Network Expansion Project**

- J. Baron reported: that this initiative is to reach out to researchers at minority serving institutions; Jaimin Patel will be leading the initiative and has been meeting with NC HBCUs; the group has requested the development of training modules including "How to Submit a Request," "How to Nominate a Project," "What to Expect at the Food Use Workshop," and "How to submit a Priority Upgrade Proposal," and introductory email was sent to 1890 Land Grant Institutions to encourage involvement; and the initiative has involved cooperative extension.
- A discussion was held regarding engaging with the International Association of Black Entomologists in November.
- **Action item:** Jaimin Patel will engage with the International Association of Black Entomologists to give a presentation at their November meeting.

Break at 12:05 pm and reconvene at 12:35 pm.

### 13. EPA Issues

- Endangered Species Act Protections implementation
  - J. Baron reported: that the Endangered Species Act (ESA) has become an issue to securing registrations; that this has emerged as the result of recent lawsuits against the EPA; that companies are hesitant to proceed with submissions; that ESA is especially relevant in HI and Puerto Rico where there are a higher number of endangered species; and that it will become critical that we meet timelines into EPA to prevent missing the endangered species assessment period.
  - J. Wise reported on: a new mapping tool used to know the location of endangered species; that EPA is developing mitigation steps allow for cost-benefit analysis; and that when a farm is in the mitigation zone that options for mitigation measures will be offered.
  - A discussion was held regarding: ESA also impacting biopesticides; endangered species in natural, agricultural and all habitats and pesticide drifts; and researchers are not providing feedback to inquiries on proposed mitigation measures and it may be a gap in understanding.
- Endocrine Disruptor Screening and impact
  - J. Baron reported: EPA has to screen for endocrine disruptors when an active ingredient is registered; there is a current issue due to lawsuits; that this is a difficult assessment to conduct; and that EPA is currently holding discussions on how to screen, assess and mitigate.
  - A discussion was held as to if registrants do endocrine disruptor screenings as part of their phytotoxicology assessment.
- Public Interest Findings- Weight of the Evidence
  - J. Baron reported: that this process starts when EPA performs a stoplight analysis, the size of the crop is reviewed (is it a specialty crop), and at times IR-4 has to submit a Weight of Evidence argument to waive PRIA fees; there is a need to develop these arguments earlier in the process; proposed that when a weight of the evidence argument is needed, IR-4 would like to do this early in the process (after FUW but before NRPM) with cooperation from submitters, and if there is no cooperation we may pause on submitting the project that year.
  - A discussion was held regarding: support of getting the weight of Evidence information upfront and developing a 1-pager with what information is expected; people will tend to provide the information before a project is funded rather than after; there are only a handful of these a year; and sending the public interest finding

docket/list of criteria to cooperators to help identify what information is needed from them.

- **A motion for IR-4 to require cooperation from the requestors of a use, to assist in the development of a weight of evidence approach when necessary, prior to the National Research Planning Meeting if not the project will be put on hold was made by Jerry Baron; seconded by Alvin Simmons; unanimously approved.**

#### 14. Path Forward Implementation Performance Expectations

- Regional Field Coordinators & HQ Management
  - J. Baron reported: that progress has been made on some of the path forward recommendations; that performance expectations for job functions was a directive and two have been developed for the Regional Field Coordinators and Headquarters management; the difficulty in evaluating these positions due to institutional associations; and that this tool will be an informational tool for new and existing hires.
  - A discussion was held regarding: sharing this document with institutional positions who conduct annual reviews; that this would not replace a job description but could supplement the annual reviews; and that there was still need to complete a few other positions at IR-4 Headquarters.
  - **A motion to accept the performance expectations of the Regional Field Coordinator as written was made by Jerry Baron, seconded by Liwei Gu; unanimously approved.**

#### 15. GLP training for Sponsors/Testing Facility Management and Regional Directors

- J. Mazlo reported: IR-4 is required under EPA GLP that management and supervisors have GLP training and that it has been a while since this has been done by Regional Directors and management; and proposed a GLP training session to be held after the FUW and NRPM.
- A discussion was held regarding: considering combining some of the training with the Fall Board Meeting (in-person, Monday morning); and sending out a doodle poll to assess availability.
- **Action Item:** Johanna Mazlo will send out a doodle poll to determine GLP training times for Sponsors/Testing Facility Management and Regional Directors.

#### 16. National Education Conference/Training Committee

- NEC 2-years vs. 3- years
  - J. Baron reported: if the NEC should remain on three year cycle, or with all the new hires it should be a 2 year cycle.
  - A discussion was held regarding: every three years works fine, except with the new hires coming on board; using regional trainings to supplement the NEC; potentially combining regional trainings between NEC; targeted remote trainings from headquarters (eQA or eFDB); a new path forward orientation to IR-4; more virtual trainings between every NEC; training topics such as GLP or general topics; and hiring an internal training coordinator or outsourcing a trainer. Conversation will be continued outside of the PMC meeting.
- Training opportunities between NEC
  - C. Marconi reported: on activities of the Education and Training Committee since the last PMC meeting including the first National SOP for the eFDB.
- Training Committee Leadership

- C. Marconi reported: she would like to resign her role as the Chair of the Education and Training Committee; and nominated Christina Dineen as the new chair based on her qualifications.
- **A motion was made to appoint Christina Dineen as the new chair of the IR-4 Project Education and Training Committee was made by Jerry Baron, seconded by Liwei Gu; unanimously approved.**

#### 17. Awards Presentations

- Change in Meritorious/Technical Service awards to once every three years
  - J. Baron reported that the Regional Field Coordinators felt that giving the technical & meritorious awards was more impactful among their peers at the National Education Conference and that this was being brought forth to this body for consideration.
  - A discussion was held regarding: regarding asking the lab coordinators for feedback; and how to handle if someone leaves or retires.
  - **A motion was made to issue regional technical and meritorious service awards when IR-4 meets at a national education conference by Alvin Simmons, seconded by Jerry Baron; unanimously approved.**
- SOAR
  - K. Chojnacki announced that the SOAR Award Nomination period is open and accepting nominations.
- Special Award Nomination
  - J. Baron reported that Ken Trammel of ACDS is retiring and his name is being submitted to the PMC for a special award
  - A discussion was held of all of the positive merits of Ken Trammel.
  - **A motion for approval of a special award for Ken Trammel was made by Jerry Baron, seconded by Simon Zebelo; unanimously approved.**

#### 18. Discussion of the Integrated Solutions Program

- J. Baron introduced the item reporting: on the mission of the Integrated Solutions (IS) program and the change of IS to just focusing on new technologies which was a shift from the original intent of any solutions, not just new; and that discussion was held with the RFCs about this mission drift.
- A discussion was held regarding: expanding the project beyond expansion of product labels; mission drift prevention strategies; engagement in IS has decreased due to the focus solely on novel technologies; reviewed the research areas; using the crop-pest issue as the driver of the project; missed opportunities from limiting just to label expansion; revisiting IS to get the most out of it such as addressing vulnerabilities of IPM approaches to be more sustainable; ESA mitigation being a large issue moving forward; removing limitations; and letting the priority setting process regulate what we work on.
- **Action Item:** Alice Axtell to make the IS request form more flexible and bolster outreach on the IS program.

Break at 3:27 pm and the members convened to Executive Session at 3:40 pm.

#### 19. Executive Session

The members reconvened from Executive Session at 5:09 pm with the following motions or actions out of Executive Session:

- **A motion to approve the 2024 Field Research Budget with the modification of reducing the Food Use Priorities from 49 to 47 and transferring those savings to the Product Performance program to address the backlog was made by Matt Hengel, seconded by Alvin Simmons; unanimously approved.**

20. Adjourn

**A motion was made to adjourn the meeting at 5:09 pm by Matt Hengel, seconded by Alvin Simmons; unanimously approved.**

# Northeast Region Report

Presenters: Dr. Simon Zebelo and Dr. Moses Kairo



# Northeast Region PMC Report

July 1 – September 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    | 6    | 2    |
| Completed Trials              | 25   | 23   | 23   |
| FDB's Received at RFC Office  | 25   | 19   | 1    |
| Completed QC Reviews          | 25   | 18   | 0    |

| Food Use Performance Trials - Summary | 2021 | 2022 | 2023 |
|---------------------------------------|------|------|------|
| # of Trials                           | 20   | 11   | 21   |
| Completed Trials                      | 20   | 10   | 1    |
| Reports Submitted                     | 20   | 10   | 1    |

| 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   | 6    |
| Reports Submitted             | 9    | 10   | 0    |

# Update from the Director's Office

The details of NER 2022-2023 sub-sub award contract processing are presented in the following table.

| Activities                      | Number of Researchers       | Number of SLRs             |
|---------------------------------|-----------------------------|----------------------------|
| Sub awards Signed               | 22                          | 10                         |
| Purchase Requisitions completed | 20 (N/A for the 2 for UMD)* | 9 (N/A for the 1 for UMD)* |
| Purchase Orders processed       | 20 (N/A for the 2 for UMD)* | 9 (N/A for the 1 for UMD)* |
| Invoices received               | 20                          | 5                          |
| Checks issued                   | 19                          | 4                          |
| NCE Requested                   | 6                           | 4                          |

\* The University of Maryland's budget has been transferred internally through our financial system.

Some researchers requested a no-cost extension (NCE) for the 2022-2023 FY budget, and UMES approved the NCE requests. We started sending the Northeast Region SLRs travel budget and approved the NCE requested by some SLRs (See the table above).

Despite the delay in releasing the 2023-2024 budget in the Northeast region, we proceeded to process the sub-awards, and the statement of work was sent to researchers for their approval. Meanwhile, we are preparing the subaward documents for expedited processing.

UMES is awaiting USDA-ARS funding through NC-state to implement and complete crop safety and efficacy Environmental Horticulture (EH) trials. Despite the delay, UMES runs a few EH trials on crop safety. Moreover, UMES- School of Agricultural and Natural Sciences (SANS) is renovating a hoop house with a cooling and heating system dedicated to IR4 crop safety and efficacy trials.

House Ag Committee Chairman Thompson and Congressman Harris held a listening session on the Farm Bill at UMES. Moreover, the Congressmen had visited select labs. One of the labs visited was my lab, and I had a chance to convey some of the IR4 project activities in general.

The IR-4 NER team had several regular virtual meetings. Thanks to the hard-working colleagues Marylee, Megan, Jane, John, Josh (UMES research office), SLRs and the researchers, things are progressing well in the NER.

Regards,

Simon Zebelo



# Update from the Regional Coordinator's Office

Greetings,

As Autumn begins here in the Northeast we are reaching the completion of field trials for the year. We have only 4 residue trials left to finish and almost all Performance and Integrated Solutions trials are done. Now we are anticipating final reports to start coming in.

We held our final Regional Priority Setting calls at the end of July. There was a separate session for each discipline. Entomology and Weed Science were very well attended which is so important to our ability to be prepared to represent them at the workshops. Pathology was not well attended, but we are involving several new pathologists so hopefully that will improve in 2024.

This was our first year providing State Liaisons with funding as a subaward with expectations of a report on the needs identified in their respective state as well. The funds are used to attend meetings, etc. It is nice to have outreach materials to provide them with so they can spread the word about IR-4 as well as gather information about grower needs. We had 100% participation in our Annual Regional meeting and all SLRs submitted a report.

We continue to hold regular team meetings with Dr. Zebelo.

It was great seeing everyone at the Food Use Workshop!

'til 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)

TRT03 for the Fluazifop-P-Butyl trial is being repeated right now and on track to be completed this fall. The Bifenthrin/Green Onion trial in MD is also being repeated and on track to be completed this fall. Two trials were cancelled this year due to the national cancellation of all BCS-CW64991 work. This unfortunately resulted in having to discard 18 samples before sending them to the lab.

Twenty-three samples have been shipped and one Field Data Books (FDBs) has been received at the RFC office. Eighteen 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)

One trial has been completed and one reports has been submitted.

### **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, six trials have been completed and no reports have been submitted.

## **Quality Assurance**

During the period of this report, I conducted 4 closing checks, I audited 1 FRA2 amended report, 1 FRA2 report. I conducted 15 field in-life inspections, 8 in the Northeast region and 7 in the Northcentral Region. I provided training for Juliet Thompson on conducting field critical inspections and closing check inspections.

# Southern Region Report

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





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



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## **Southern Region Report for Project Management Committee**

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

October 15, 2023

### **1. Field programs and QC**

#### **GLP Centers:**

*University of Florida at Citra, FL* – This site was assigned 22 GLP trials in 2023. Four ethaboxam citrus trials assigned in 2022 are being conducted in 2023. Two strawberry field trials are currently being planted and will be completed in early 2024. The tiafenacil/pepper trial was terminated due to phytotoxicity, and two trials were canceled due to the registrant. Thirteen FDBs have been received at the regional office. Also, an FRD will be conducting one 2023 trial using the new eFDB system (starting in early 2024).

*University of Florida at Homestead, FL* – The site was assigned nine GLP trials in 2023, including one trial for the Minor Use Foundation. Two miracle fruit trials were assigned and were delayed until 2023; one is completed, and one is scheduled to be initiated this month. Two avocado trials were delayed due to protocol and will be conducted in 2024. The current FRD, Rebecca Tannenbaum, will be retiring at the end of the year. Vladimir Seregin was hired this month and is currently training with Rebecca to assume full responsibilities for the residue program in Homestead as FRD in 2024. Two FDBs have been received at the regional office.

*University of Puerto Rico* - The site was assigned thirteen GLP trials in 2023, including one trial for the Minor Use Foundation. One avocado trial was delayed due to protocol and will be conducted in 2024. Two pineapple trials that were assigned in 2022 were completed in 2023. Unfortunately, one trial was terminated because FedEx temporarily lost the treated cooler which caused a significant delay. Another trial was assigned and should be completed by the end of 2023. Adjustments have been made to the PR shipping procedure to ensure proper delivery of the samples in the future. One coffee trial was terminated due to insufficient sample size; another was assigned and should be completed by early next year. Also, the FRD will be conducting one 2023 trial using eFDB.

*North Carolina State University* – This site was assigned 20 GLP trials in 2023. One trial was terminated (glufosinate/peanut) due to insufficient sample. One trial was canceled due to registrant. Two strawberry trials assigned are currently being planted and will be conducted into early 2024. While the NC site continues to conduct CBD hemp trials successfully, they have struggled with the fiber/seed trial. They are not interested in conducting additional trials unless seed and fiber samples can be divided into two separate trials, or noting that different varieties may favor the production of one over the other. Five FDBs have been received at the regional office. Also, the FRD will be conducting one 2023 trial using eFDB.

*Texas A&M at Uvalde, Texas* – The site was assigned 5 GLP trials in 2023, including one carryover grapefruit trial assigned TBD in 2022. Trials are ongoing in the field. The FRD, Kim Cochran, continues to receive GLP training *via* education sessions and in-person site visits, notably from QA this summer. We are still working with Kim to increase her capacity for trials and to identify a research technician to assist with the IR-4 program at Uvalde. Infrastructure improvements at the site have been slow. Kim, however, has a great attitude and aptitude for conducting research and has been successful at identifying cooperators off-site to work with, including at the Texas A&M Citrus Research Station in Kingsville.

### **Contracted trials**

Seven GLP trials were assigned to CROs in 2023, including 3 carryover orange trials assigned TBD in 2022. Three trials were assigned to Trevor Jones at AgGro Innovations, Inc. in Region 6 (2 peanut and 1 cucumber), and four orange trials were contracted, including 1 to Dudley Sutherland at Glades Crop Care in Region 3. The other three orange trials, including one processing, were assigned to Michael Frost at Biotek in Region 3. Michael has been replaced by Steven Crane who has completed 2 of the 3 trials and will complete the third next month. QA recently conducted a Facility Inspection with Steven Crane in Oveido. One FDB from Trevor has been received and reviewed.

### **QC of FDBs:**

*2021 trials* – All 2021 FDBs have been through QC review except for two outstanding mefenoxam/passionfruit FDBs from Homestead. Both trials have been completed and samples received at the lab.

*2022 trials* – As of late October, 76 of the 91 FDBs have been received, including six FDBs from terminated trials (2 hemp, 1 radish from Citra; 1 sesame processing in TX; 1 lychee in Homestead; 1 greenhouse lettuce in NC) and 1 from canceled quinclorac/beet project. Fifteen FDBs are still outstanding and three FDBs are pending QC review.

*2023 trials* – As of late October, 22 of the 72 FDBs have been received, including 1 FDB from a terminated tiafencil/pepper trial in Citra and 2 from canceled BCS-CW64991 projects. Fifty FDBs are still outstanding and eleven FDBs are pending or have ongoing QC review.

**SOP review:** SOPs revisions were submitted and 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 in 2024. The FRD at Texas A&M Uvalde Station had a facility inspection with QA on August 1, 2023. SOPs at the facility were reviewed. The need for revisions was identified and specific guidance was provided in the Facility Inspection Audit posted on 9/24/23. SOR Field Coordinator and QA will work with the FRD to revise the SOPs for the Uvalde Research Center.

**Food Crop Product Performance Trials:** As of mid-October, 22 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 late 2023/early 2024, including broflanilide/sugarcane, penthiopyrad/avocado, glufosinate/dragon fruit, and glufosinate/mango trials. Forty-six Food Crop Performance trials were assigned to SOR researchers in 2023, and three have been received.

**Integrated Solutions (IS) trials:** Reports have been received from 14 of the sixteen 2022 Integrated Solutions trials. Two remaining trials are completed and reports are expected in 2023. Twenty-one IS trials were assigned to SOR researchers in 2023, and two reports have been received.

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

**2023 SOR Priority Setting:** The priority meeting for the SOR Food Use Program was conducted virtually this year. Three discipline meetings were conducted in June and were attended by university extension 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 discussion of food use priorities took place in early August with 41 participants. There was also a priority setting meeting for Environmental Horticulture to discuss needs for the Southern Region prior to the Environmental Horticulture Workshop with 28 participants in attendance.

**Training:** SOR field researcher directors (FRDs) and regional management continue to attend regular virtual training meetings to learn about the electronic Field Data Book application. Testing of the electronic Field Data Notebook is underway.

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

- Conducted a site visit to see ongoing residue and performance field research at the Tropical Research & Education Center in Homestead, FL April 17-19.

- Facilitated a virtual meeting with the Southern Region State Liaison Representatives to provide IR-4 Project updates and discuss extension materials with Hannah Ross, May 27.
- Attended a virtual webinar hosted by University of Kentucky on IPM in Fruit Crops, August 14.
- Visited research stations in North Carolina with FRD Cole Smith to see ongoing field research, September 11.
- Prioritized research projects for the National Program at the Food Use Workshop in Raleigh, NC September 12-14.
- Attended Hops Field Day at Gulf Coast Research & Education Unit in Wimauma, FL October 4.
- Identified research projects for the Environmental Horticulture Program and the biennial workshop in Little Rock, Arkansas October 10-12.

**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:** The newly installed Thermo Scientific Orbitrap MS/MS is being used for sample analysis. A replacement walk-in freezer is being installed.

**Projects and reports finished:** The lab has targeted 18 projects for completion in 2023. To date for the year 2023, 9 analytical summary reports (ASR) have been 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      |
| 7 | 08/22/23        | 13062 | Flumetsulam    | Clover (seed crop) | 2022  | 5      |
| 8 | 08/29/23        | 13076 | Pyraziflumid   | Tomato             | 2021  | 18     |
| 9 | 09/25/23        | 13157 | Fluoxapiprolin | Ginseng            | 2022  | 4      |



**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  | 13132          | Spinetoram                   | Sesame     | 01/13/22                 | ASR preparation                | 11/2023                    |
| 2  | 13169          | Fluazaindolazine             | Radish     | 02/20/23                 | ASR preparation                | 11/2023                    |
| 3  | 13195          | Prothioconazole              | Grasses    | 08/02/22                 | ASR preparation                | 11/2023                    |
| 4  | 11881          | Fludioxonil + Pydiflumetofen | Strawberry | 05/24/23                 | Trial Analysis                 | 12/2023                    |
| 5  | 12975          | Pyraziflumid                 | Lettuce    | 03/21/23                 | Trial analysis                 | 12/2023                    |
| 6  | 12673          | Fludioxonil + Pydiflumetofen | Cucumber   | 05/24/23                 | Trial Analysis                 | 12/2023                    |
| 7  | 13288          | Fludioxonil + Pydiflumetofen | Cherry     | Pending                  | Trial Analysis                 | 12/2023                    |
| 8  | 12752          | Fluazaindolazine             | Mint       | 10/07/22                 | Trial analysis                 | 01/2024                    |
| 9  | 13259          | Picoxystrobin                | Coffee     | 03/08/23                 | Method Validation/ Development | 01/2024                    |
| 10 | 08560          | Zeta-cypermethrin            | Lychee     | Pending                  | Pending sample receipt         | 01/2024                    |
| 11 | 13242          | Dimethomorph + Ametoctradin  | Basil      | 09/27/22                 | Pending storage study          | 02/2024                    |
| 12 | 13304          | 2,4-D choline                | Strawberry | Pending                  | Pending sample receipt         | 02/2024                    |
| 13 | 11568          | Thiophanate-methyl           | Radish     | 02/20/23                 | Trial Analysis                 | 11/2025                    |
| 14 | 13360          | Thiophanate-methyl           | Carrot     | 03/22/23                 | Trial Analysis                 | 11/2025                    |

**Projects with late ASR or backlogged:**

| # | Project Number | Chemical        | Crop    | Last Sample Receipt Date | Status          | Anticipated Date ASR to HQ |
|---|----------------|-----------------|---------|--------------------------|-----------------|----------------------------|
| 1 | 13195          | Prothioconazole | Grasses | 08/02/22                 | ASR preparation | 11/20/23                   |

**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 | 13498          | Tiafenacil        | Cucumber  | 9/13/23                  | 2022  | 8      |
| 3 | 13540          | Fluazifop-p-butyl | Squash    | Pending                  | 2023  | 10     |
| 4 | 13541          | Fluazifop-p-butyl | Pea       | Pending                  | 2023  | 9      |

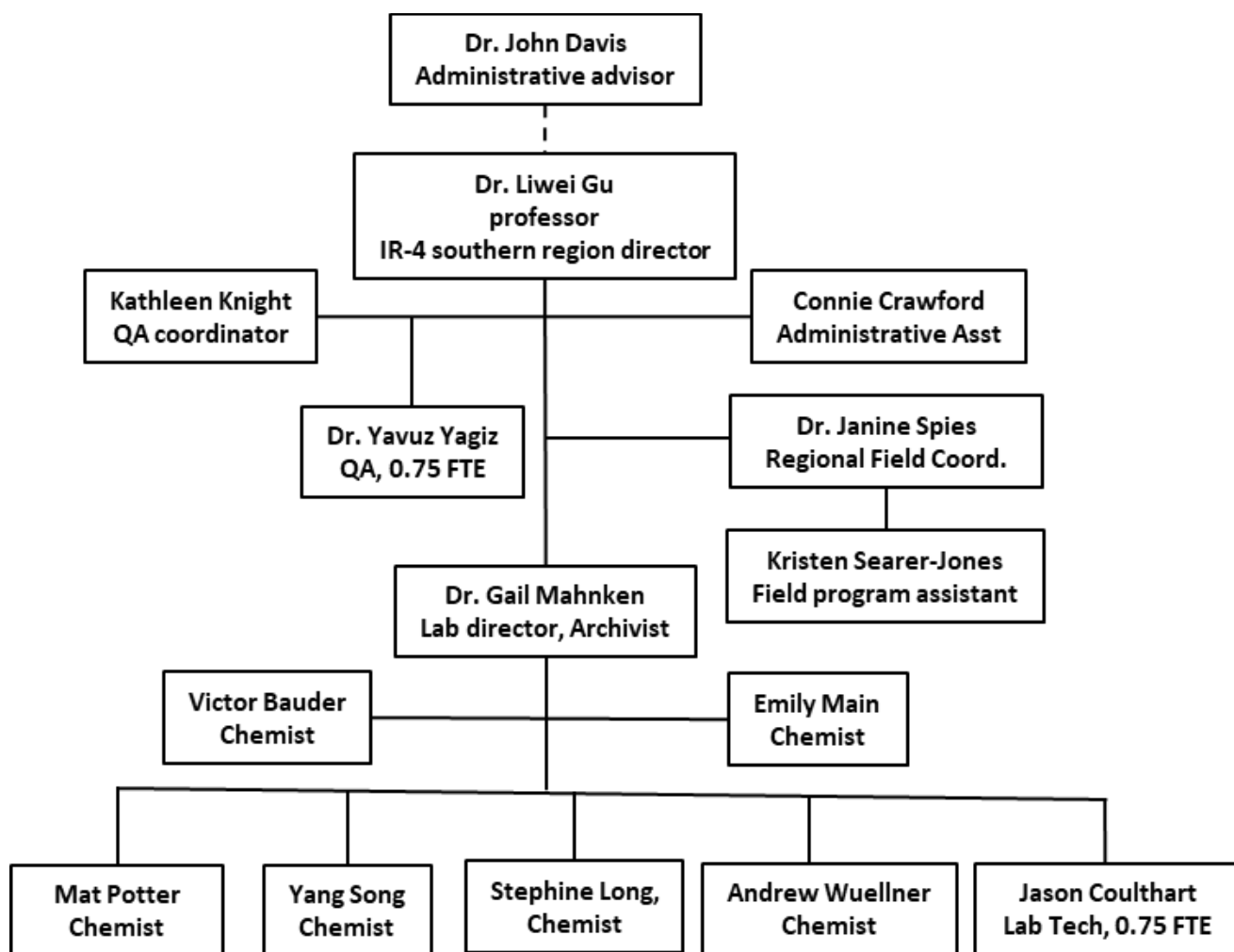
|    |       |                              |                 |         |      |    |
|----|-------|------------------------------|-----------------|---------|------|----|
| 5  | 13078 | Fludioxonil + Pydiflumetofen | Basil           | Pending | 2023 | 5  |
| 6  | 13293 | Fludioxonil + Pydiflumetofen | Mint            | Pending | 2023 | 6  |
| 7  | 13511 | Inpyrfluxam                  | Tomato          | Pending | 2023 | 18 |
| 8  | 13407 | Isocycloseram                | Strawberry (GH) | Pending | 2023 | 5  |
| 9  | 13405 | Isocycloseram                | Peppers (GH)    | Pending | 2023 | 5  |
| 10 | 13496 | Isocycloseram                | Sunflower       | Pending | 2023 | 9  |
| 11 | 07883 | Pyridate                     | Corn (sweet)    | Pending | 2023 | 14 |
| 12 | 13500 | Tiafenacil                   | Tomato          | Pending | 2023 | 10 |
| 13 | 13501 | Tiafenacil                   | Pepper          | Pending | 2023 | 12 |

### 3. Quality Assurance Unit

2023 is 75% complete. The average dwell time for Field Data Book audits is 16 days (about 2 and a half weeks). The dwell time for Analytical Summary Report/Raw Laboratory Data audits and Final Report audits is 15 days (about 2 weeks) and 4 days, respectively. Five of the Final Report Audits were rushed, and three of the Analytical Summary Report Audits were rushed as well. 48 of the Field Data Books were audited for the Headquarters QAU.

| QA items                               | Assigned<br>Or planned | Completed | Completion % |
|--|------------------------|-----------|--------------|
| Final Petition Audits                  | 13                     | 9         | 69%          |
| Field Data Book Audits                 | 129                    | 129       | 100%         |
| Field Critical Point Audits            | 33                     | 29        | 88%          |
| Lab Critical Point Audits              | 27                     | 21        | 78%          |
| Field Facility Inspections             | 0                      | 0         | NA           |
| EPA Audits                             | 0                      | 0         | NA           |
| Analytical Summary Report Audits       | 20                     | 10        | 50%          |
| Contributing Scientist's Report Audits | 8                      | 9         | 113%         |

## Southern region organizational chart



# Research Program Update: Food Program - Field

Presenter: Dr. Debbie Carpenter





**Food Program**  
**October, 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

## 17 Actions (new uses through September)

- Acifluorfen (11)
- Ethalfluralin (49)
- Flonicamid (97)
- Fluazifop-p-butyl (79)
- Fluopyram (306)
- Fluxapyroxad (2)
- Fomesafen (54)
- Glufosinate (103)
- Mandestrobin (16)
- Penthiopyrad (3)
- Pydiflumetofen (9)
- Pyraclostrobin (2)
- Rimsulfuron (57)
- Spinetoram (191)
- Spinosad (191)
- Trifloxystrobin (393)
- Trinexapac-ethyl (1)

Total = 1564 new uses,  
207 tolerances

# 2023 Submissions-9 (through September)

Bifenthrin

Cyazofamid

Cymoxanil

Dimethenamid-p

Ethaboxam

Famoxadone

Flutriafol

- Inpyrfluxam
- Pyridate
- Provided to registrant
  - Picarbutrazox/lettuce
  - Azoxystrobin  
Fludioxonil/sweet potato



# Crop Group Update

- **Crop Grouping Initiative**
- **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. Timing TBD.**
  - **Revision of the Codex Classification of Food and Animal Feeds finalized at Codex (pending approval of the Codex Alimentarius Commission).**



# Field Research

## 2023 Residue Program

- 50 New Studies
- 370 Residue Field trials

## 2024 Residue Program

- 49 New Studies
- 368 Residue Field trials
  - (Final red A trials - 38 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, 10/23

| Year                               | Total | FRD | RFC | QA | HQ  |
|------------------------------------|-------|-----|-----|----|-----|
|                                    |       |     |     |    |     |
| 2021                               | 382   | 2   | 2   | 0  | 378 |
| 2022                               | 347   | 48  | 8   | 21 | 270 |
|                                    |       |     |     |    |     |
| Many 2022 trials delayed into 2023 |       |     |     |    |     |

# Outstanding FDB, 10/23

- **Many studies with 2022 trial numbers were not started until 2023. Will have an impact in numbers moving forward**

| Notebooks with FRD |     |     |     |     |     |     |
|--------------------|-----|-----|-----|-----|-----|-----|
| Year               | ARS | WSR | NER | SOR | NCR | CAN |
|                    |     |     |     |     |     |     |
| 2021               | 0   | 0   | 0   | 2   | 0   | 0   |
| 2022               | 3   | 9   | 8   | 20  | 6   | 2   |
|                    |     |     |     |     |     |     |
| Notebooks with RFC |     |     |     |     |     |     |
| Year               | ARS | WSR | NER | SOR | NCR | CAN |
|                    |     |     |     |     |     |     |
| 2021               | 0   | 1   | 0   | 0   | 1   | 0   |
| 2022               | 0   | 5   | 1   | 2   | 0   | 0   |

# Timeline Summary

- *Field databooks from 2021 and 2022 are not all at HQ. 2023 books should be coming in. Completion of FDB is critical to meeting timelines.*
- *About forty-five studies in final report processing (Writing/QA etc)*
- *About 165 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. This impacts number of studies that are TBD.*



# 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***
  - *Impacts from Endangered species act still a concern*
    - *Path forward is not clear – resulting in some registrants holding submissions*
    - *Concern about mitigation proposals and how they will impact stakeholders*
    - *Once in compliance, will not want to be out of compliance*

Thank  
You!







#60YearsofIR4

# Research Program Update: Food Program – Analytical Laboratories

Presenter: Dr. Debbie Carpenter





# Laboratory Update/Backlog October, 2023

Debbie Carpenter

# Outline

- **Backlog**
  - Current status of each lab
  - Plans to address backlog
  - Use of contract labs
  - Summary
- **Other concerns**
  - MIR data
  - Are we on the same page?
    - Discussions with labs
    - Discussions with others impacted by labs
      - Study Directors, QA, Registrants



# Backlog Details - TIR

| 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            |        | 511/21  |          | 10/22                   | 6/24                    | Parent analysis completed, metabolites at CRO. Common moiety method analysis remains. May not need to be analyzed - not counting in backlog |           |            |         |
| 12560 | Propiconazole | Passion Fruit           |        | 51/22   |          | 10/21                   | 6/24                    | Parent analysis completed, metabolites at CRO. Common moiety method analysis remains. May not need to be analyzed - not counting in backlog |           |            |         |
| 12554 | Propiconazole | Avocado                 |        | 56/21   |          | 10/21                   | 6/24                    | Parent analysis 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 |

# Plans for Moving Forward

- **Backlog – Tifton**
  - **Still Working on Propiconazole/Avocado Analyses**
  - **Close to having a working method**
  - **Hope to finish method successfully before 2024 propiconazole avocado study is started.**
  - **If method is not acceptable by early next year, decision point.**



# Backlog Details - YAR

| 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                    | Analyses completed. Final report being drafted.  |                  |            |
| 11997 | Bicyclopyrone               | Pineapple                    |        | 04/23        |          | 10/23                   | 4/24                    | Analyses of all trials completed. Waiting for determination if storage stability analysis is required. Final report being drafted.   |                  |            |
| 11690 | Dimethomorph + Ametoctradin | Pepper (Bell & Non-Bell, GH) |        | 12/20        |          | 4/21                    | 8/23                    | Analyses completed. Final report for ametoctradin has been audited by QA and target for responses in by 10/20. Pepper has been received. Submission date will be pushed back as ASRs not yet received. |                  | 1          |
| 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 completed. Final reports (2) being drafted.   |                  |            |
| 12817 | s-metolachlor               | Greens (Mustard)             |        | 10/12/22     |          | 10/22                   | 04/24                   | Analyses completed. Final report being drafted.  |                  |            |
| 12818 | s-metolachlor               | Turnip Greens                |        | 6/12/22      |          | 10/23                   | 04/24                   | Analyses completed. Final report being drafted.  |                  |            |
|       |                             | Total trials backlogged      |        | 28           |          |                         |                         |  | Total backlogged | 9          |

# Plans for Moving Forward

- **Backlog – YAR**
  - Making progress
  - Still nine ASRs that need to be completed. Unlikely to be completed by end of year.
  - Six additional studies will become backlogged in 2024 if the previous 9 are not completed.
  - Will not assign future analytical work to YAR until backlog is down significantly
  - Will impact rest of program





# Backlog Details - CAR

| CAR   |                               |            |  |              |          |                         |                         |   |           |            |
|-------|-------------------------------|------------|--|--------------|----------|-------------------------|-------------------------|---|-----------|------------|
| PR    | Chemical                      | Matrix     |  | ASR Due Date | ASR Est. | Initial EPA Target Sub. | Revised EPA Target Sub. | Note  | Late ASRs | Backlogged |
| 12841 | Acifluorfen                   | dry pea    |  | 10/22        | 12/23    | 10/22                   | 12/23                   | ASR Prep.   |           | *          |
| 08552 | Flonicamid                    | Cantaloupe |  | 12/20        | 12/23    | 10/21                   | 10/23                   | ASR Prep'd, awaiting storage interval on standard (11/23)   |           | *          |
| 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. ASR to HQ |           | *          |
| 13067 | fluoxapiprolin                | basil      |  | 12/22        | 12/23    | 10/23                   | 4/25                    | In QA   |           | 1          |
| 12987 | flupyradifurone               | sugarcane  |  | 5/23         | 12/23    | 10/23                   |                         | In QA   |           | 1          |
| 12634 | sulfosulfuron                 | tomato     |  | 9/23         | N/A      | 10/24                   | 10/24                   | In progress, puree & paste left. Processed fractions not spiked at MIR, stability due 10/2025.              |           | *          |
| 12989 | trifloxystrobin and fluopyram | mango      |  | 9/23         | 1/24     | 10/24                   |                         | fluopyram, ASR prep. Trifloxy not needed.   |           | 1          |
|       |                               |            |  |              |          |                         |                         |   |           |            |
|       |                               |            |  |              |          |                         |                         | * = study is backlogged but either  |           | 3          |
|       |                               |            |  |              |          |                         |                         | waiting for a standard or transferred from another lab  |           |            |

# Plans for Moving Forward

- **Backlog – CAR**
  - Three backlogged studies
    - Analytical work is completed
    - Either in QA or ASR is being written
  - CAR has analyzed many of the studies from Michigan
  - Hemp studies take much time, many crop fractions
  - No Action needed to reduce backlog, but cannot help other labs by taking additional studies



# Backlog Details - FLR

| FLR   |                 |                         |        |              |          |                         |                         |   |           |            |
|-------|-----------------|-------------------------|--------|--------------|----------|-------------------------|-------------------------|---|-----------|------------|
| PR    | Chemical        | Matrix                  | Trials | ASR Due Date | ASR Est. | Initial EPA Target Sub. | Revised EPA Target Sub. | Note  | Late ASRs | Backlogged |
| 13195 | Prothioconazole | Grasses                 |        | 8/23         |          | 4/23                    | 7/26                    | ASR in QA. Target submission pushed back by registrant. Moved inpyrfluxam forward to complete three studies in time for exclusive use submission. |           |            |
|       |                 |                         |        |              |          |                         |                         |   |           |            |
|       |                 | Total trials backlogged | 0      |              |          |                         |                         |   |           | 1          |

# Plans for Moving Forward

- **Backlog – FLR**

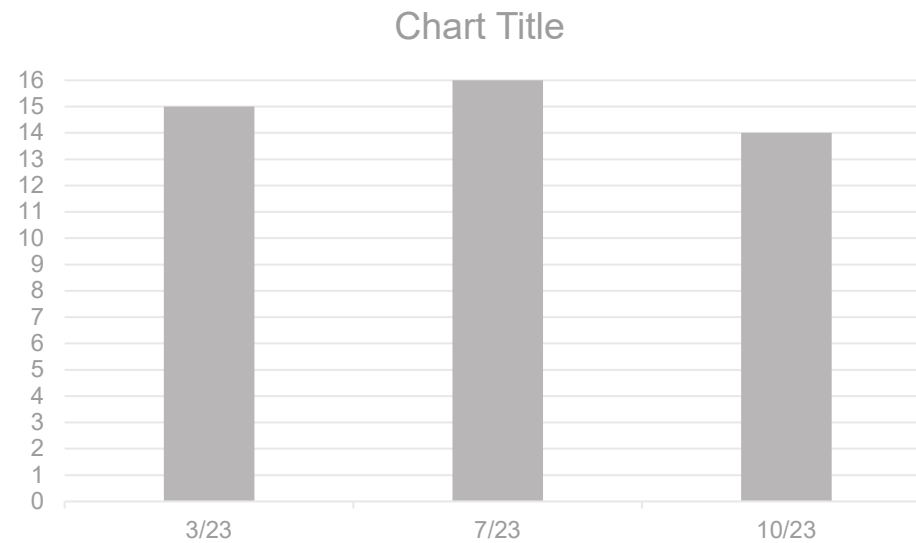
- One study backlogged and in progress now
  - National Lab Director moved 3 inpyrfluxam studies ahead due to timeline to meet exclusive use.
  - National Lab Director also looking at studies that are “red” at EPA and cannot be submitted immediately
- No Action needed to eliminate backlog
- Staff will continue to work hard to keep backlog from returning

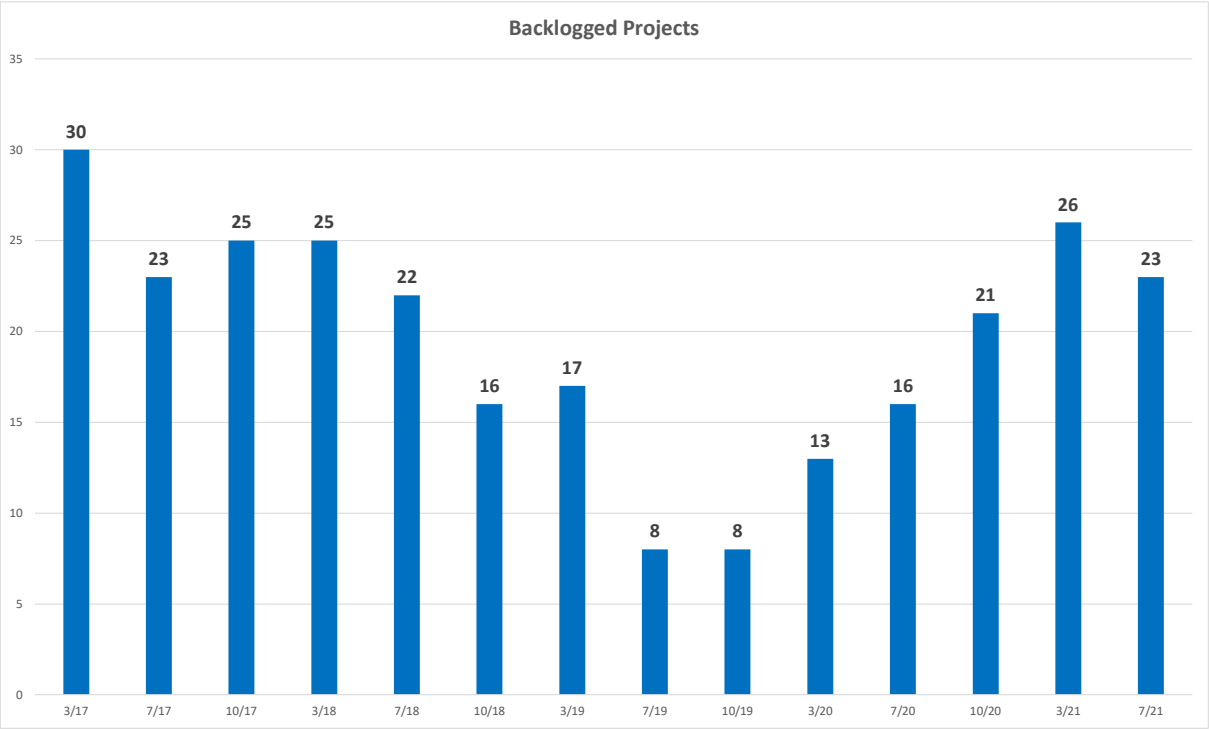


# Studies at Contract Labs

| CRO   |                                     |  |                 |              |          |                         |                         |                               |
|-------|-------------------------------------|--|-----------------|--------------|----------|-------------------------|-------------------------|-------------------------------|
| PR    | Chemical                            | Matrix                                     | Original Lab    | ASR Due Date | ASR Est. | Initial EPA Target Sub. | Revised EPA Target Sub. | Note                          |
| 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 (GPR) | 6/21         |          | 10/21                   | 6/23                    |                               |
| 10827 | azoxystrobin                        | 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                   |                               |
| 12220 | diquat                              | grape                                      | MIR(GPR)        | 10/20        |          | 10/21                   | 2/24                    |                               |
| 12675 | emamectin                           | linabean                                   | 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                     |                               |
| 9102  | Flutolanil                          | Strawberry                                 | GPR             |              |          | 10/25                   | 10/25                   |                               |
| 13295 | GF-4031                             | Cherry                                     | EUR             |              |          | 10/25                   | 7/24                    |                               |
| 13355 | GF-4031                             | Strawberry                                 | EUR             |              |          | 10/24                   | 7/24                    |                               |
| 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                    |                               |
| 13455 | Glufosinate                         | Strawberry                                 | Adpen           |              |          | 4/25                    | 4/25                    |                               |
| 13463 | Glufosinate                         | Peanut                                     | Adpen           |              |          | 4/25                    | 4/25                    |                               |
| 13408 | halosulfuron                        | stevia                                     | Adpen           |              |          | 10/24                   | 10/24                   |                               |
| 11772 | Linuron                             | Bean (Edible podded and succulent shelled) | 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 | Propiconazole 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        |
| 12544 | Ziram                               | Olive                                      | Symbiotic (GPR) | 02/21        |          | 10/21                   | TBD                     | Registration may be cancelled |

# Backlog Graph Post MIR





# Summary

- **Backlog**
  - Slowly addressing the backlog
- **Other concerns**
  - MIR data – through the analytical process. Study Directors addressing issues as final reports are written.
  - Are we on the same page? Addressing this is ongoing.
    - Discussions with labs
    - Discussions with others impacted by labs
      - Study Directors, QA, Registrants





Thank  
You!





#60YearsofIR4

# Research Program Update: Quality Assurance

Presenter: Dr. Johanna Mazlo





**Quality Assurance Report  
IR-4 PMC Meeting  
October 2023**

# Overview

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



# EPA Compliance Monitoring

- EPA inspections
  - University of California, Riverside
    - EPA Inspector - William Wimbish
- Decommissioning
  - Washington State University, Mt Vernon NWREC – Mt. Vernon, WA
  - Michigan State University, Plant Biology Lab – Lansing, MI



# EPA Compliance Monitoring

- Continuing to work with FRDs/LRDs (examples):
  - Wesley Bouchelle – Rutgers Marucci Center for Blueberries and Cranberries
  - Chanz Robbins – NMSU
  - Kim Cochran – Texas A&M AgriLife at Uvalde
  - Graig Riecks – South Dakota State University
  - Todd Wixson – USDA – ARS - YARL
- Continuing to work with new Field CROs (examples):
  - Lange Research and Consulting
  - AGVISE Research Inc
  - Northern Plains Ag Research



# QA Update

- Staff updates
  - J. Peterson – has been trained in several types of audits
  - J. Forder – working with NER and NCR on GLP training
  - J. Thompson - has been training to do auditing
  - K. Knight – continues to pick up field notebook audits
  - Continuing auditor training of analytical at UC Davis – 1Q 2024





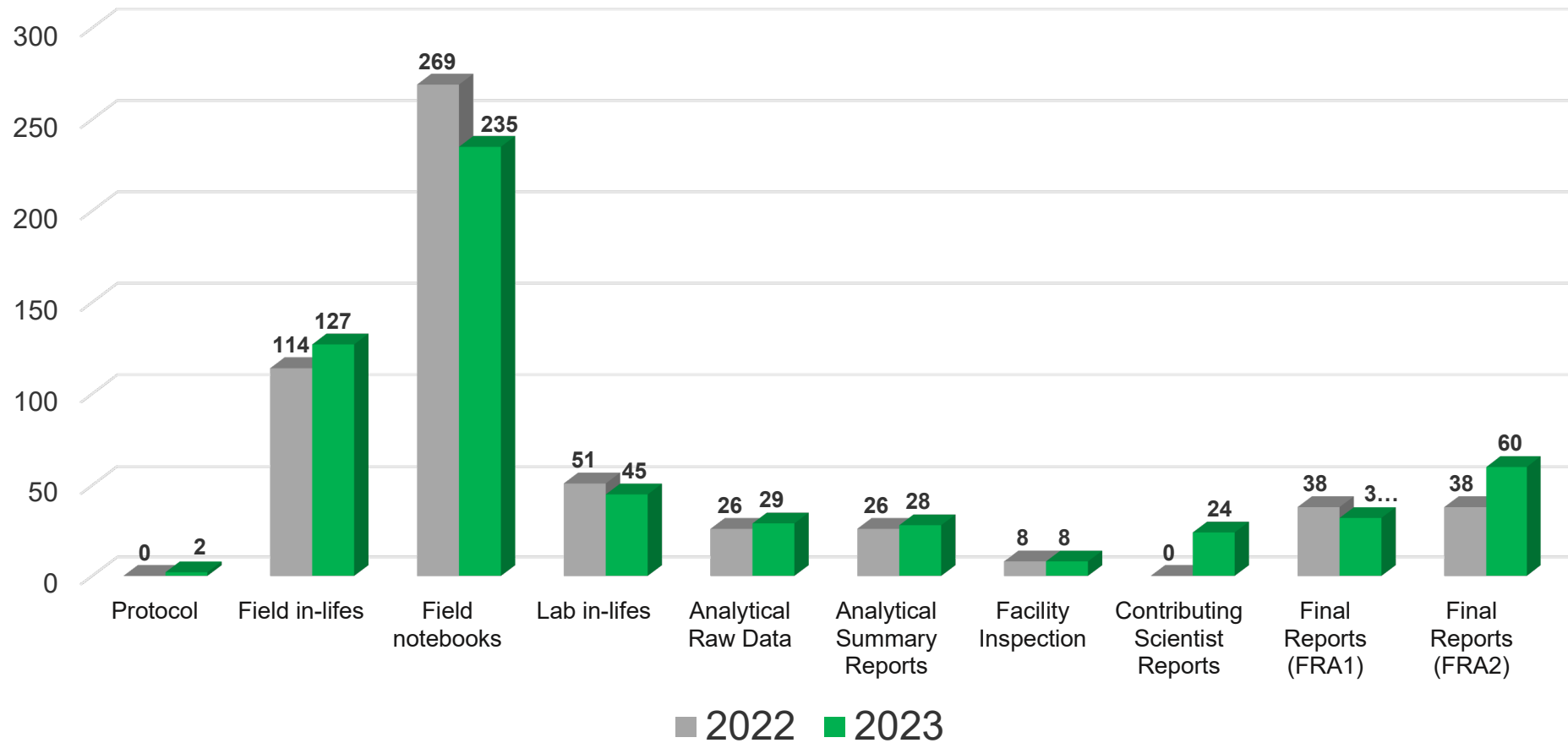
# QA Update

- Updates
  - Electronic field notebooks
    - Completed validation audits
    - Preparing and conducting field in-life inspections
    - Assisting with archiving process to ensure GLP
  - Working on scoping a replacement for eQA
  - Proactively work with FRDs/LRDs prior to government shutdowns
  - QA is assisting with USDA ARS YARL audits
  - Continuing to look at efficiencies
  - Increasing IR-4 QA's visibility in the EPA GLP arena



# 2022 and 2023 Audit/Inspection Data

Number of Audit/Inspections Completed by QA  
January to October Timeframe



Pest Management Solutions for Specialty Crops and Specialty Uses



# eQA and eDoc Update

- eQA
  - 21 people trained on eQA in 2023 with more scheduled
  - Managed approximately 878 new audit packets from Jan-Oct 2023
- eDoc
  - 5847 documents in the system
    - 406 Analytical Method/ Working Method
    - 171 Certificates of Analysis





#60YearsofIR4

# Program Reports: Product Performance and Integrated Solutions Update

Presenter: Dr. Alice Axtell





# 2024 Research Plan: Product Performance

Dr. Alice Axtell  
Interim Assistant Director & Principal Entomologist

Pest Management Solutions for Specialty Crops and Specialty Uses

# 2024 Proposed Budget Allocations

---

| 2024 Allocation*<br>\$15 M BUDGET |                                     |
|-----------------------------------|-------------------------------------|
| Core                              | \$8,438,400                         |
| Field Program Discretionary       | \$610,000                           |
| NIFA Residue Trials               | \$2,300,000                         |
| NIFA Performance Trials           | \$1,000,000 + ~\$150K (third party) |
| Integrated Solutions              | \$545,000                           |
| Environmental Horticulture        | \$650,000                           |
| TOTAL                             | \$13,543,400                        |

\*Discussed during the PMC meeting held in the month of July 2023



# Residue & Performance Resource Allocations

## Residue

| Founding Source (Residue Studies)      | 2024                       |
|--|----------------------------|
|  | No. of Trials <sup>2</sup> |
| NIFA Residue Trials                    | 296                        |
| ARS                                    | 70                         |
| Canada                                 | 12                         |
| California                             | 28                         |
| Estimated number of 2023 field trials  | -35                        |
| TOTAL No. of Trials                    | 371                        |
| TOTAL No. of A Priorities <sup>3</sup> | 49                         |
| 2024 No. of PUPs/Regional Upgrades     | 8                          |
| 2024 FUW Priorities                    | 41                         |

## Performance

| Project Type  | 2024                  |
|---|-----------------------|
|   | Est. No. of Trials    |
| CARRYOVER-Committed Residue E/CS trials <sup>1</sup>    | 30                    |
| CARRYOVER-Proof of Concept trials (H+) <sup>2</sup>     | 15                    |
| NEW- Committed Residue E/CS trials                      | 60                    |
| NEW-Proof of Concept trials (H+)                        | 30 (10 H+) Priorities |
| ADDITIONAL-Committed Residue or Proof of Concept trials | TBD                   |
| TOTAL   | 148                   |

### FINAL # OF NEW PRIORITIES

- 39 NEW “A” priorities
- 10 NEW H+ Priorities
- 8 RU & PUPs





# 2024 Proposed Budget Allocations (Post PMC Executive Session)

| 2024 Allocation <sup>1</sup><br>\$15 M BUDGET |   |
|---|---|
| Core  | \$8,438,400                                     |
| Field Program Discretionary                   | \$610,000                                       |
| NIFA Residue Trials                           | \$2,300,000 - \$116,000 = \$2,184,000           |
| NIFA Performance Trials                       | \$1,000,000 + ~\$150K (third party) + \$116,000 |
| Integrated Solutions                          | \$545,000                                       |
| Environmental Horticulture                    | \$650,000                                       |
| <b>TOTAL</b>                                  | <b>\$13,543,400</b>                             |

\$116,000 moved  
from Residue to  
Performance to  
cover 2022  
delayed projects

<sup>1</sup>Discussed during the PMC meeting held in the month of July 2023



# Residue & Product Performance (R&PP): New Projects

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## **Total New “A” Priorities: 43**

(2 CDFA & 2 AmVac-funded projects respectively)

### **- RESIDUE ONLY: 14 (33%)**

-Red A's: 36 trials

### **- RESIDUE + E/CS: 29 (67%)**

- ENTOMOLOGY: 8

- PLANT PATHOLOGY: 16

- WEED SCIENCE: 5

## **Total New “H+” Priorities: 11 (1 CDFA)**

- ENTOMOLOGY: 2

- PLANT PATHOLOGY: 1

- WEED SCIENCE: 8

## **Total Upgrades: 8**

-“A” Priorities: 6

-“H+” Priorities: 2

# R&PP (Performance Only): 2022 Delayed Projects & Projects w/ Carryover Trial(s)

---

- **Total 2022 priorities that were delayed (due to lack of funding):** 3 (ENT)\* + 7 (WS) + 1 (PP) = 11

***Based on \$350,000 available:***

- Projects that will start in 2024: 2 (ENT) + 5 (WS) + 1 (PP) = 8
- Further delayed to 2025: 1 (ENT) + 2 (WS) = 3
- \$116,000 left to allocate towards delayed projects

- **Total 2022 projects w/ carryover trial(s):** 7 (ENT) + 11 (WS) + 19 (PP) = 37

***Based on \$350,000 available:***

- Projects will be completed in 2024: 5 (ENT) + 6 (WS) + 8 (PP) = 19
- Further delayed to 2025: 2 (ENT) + 5 (WS) + 11 (PP) = 18

\*ENT= Entomology, PP = Plant Pathology, WS= Weed Science

# 2024 IS Resource Allocations

---

| Founding Source                  | 2024                       |
|----------------------------------|----------------------------|
|                                  | No. of Trials <sup>1</sup> |
| Integrated Solutions - \$550,000 | 59                         |
| No. of carryover IS trials       | -23                        |
| TOTAL No. of possible new trials | 36                         |
| <b>2024 No. of IS Priorities</b> | <b>14</b>                  |

<sup>1</sup>Data discussed during the PMC meeting held in the month of July, 2023

<sup>2</sup>On average we conduct 2.5 trials per IS project per year; the average cost per trial over the past 3 years and disciplines is = \$9,398 (includes IDC)

# Integrated Solutions

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## **Number of NEW “A” priorities: 18 (4 CDFA)**

- ENTOMOLOGY: 6
- WEED SCIENCE: 3
- PLANT PATHOLOGY: 9

## **Number of 2022 projects w/ carryover trial(s): 15\***

- ENTOMOLOGY: 6
- WEED SCIENCE: 3
- PLANT PATHOLOGY: 6

\*All 15 projects should complete in 2024 base on available budget for carryover trials



#60YearsofIR4

# Research Program Update: Biopesticide Regulatory Support

Presenter: Dr. Michael Braverman





# **The IR-4 Biopesticide and Organic Support Program Update.**

**PMC Meeting October 2023**

**Michael Braverman   Bill Barney**

**Philip Moore**

Pest Management Solutions for Specialty Crops and Specialty Uses



# **EPA Approval !**

FourSure- Mixture of 4 isolates of atoxigenic *Aspergillus flavus*.

Arizona Cotton Research and Protection Council- Manufacturer.

Texas Corn Producers Board- Registrant.

EPA has completed the registration and tolerance exemption.

# EPA Approval !

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

Arizona Cotton Research and Protection Council.

EPA completed the registration. Current tolerance exemption still in effect.

# EPA Submissions

Lepidext/ InsterusHz Pupae and InsterusHz Moths  
- *Helicoverpa zea* nudivirus-2 strain 901R71

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

# EPA Submissions

- Chestnut Blight resistant American chestnut.

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

Petition to exempt from FIFRA.

Update-Working with State University of NY-Syracuse on an OxO Darling 58 chestnut distribution plan.

# EPA Registration – Citrus Greening

CTV-Spinach defensin proteins- Silvec/Southern Gardens.  
Update- Completed market basket study on spinach  
defensins. In process of utilizing bioinformatics programs  
to address allergenicity issues.



# EPA Registration – Citrus Greening

New *Pseudomonas* strain effective on fire blight and greening. University of Wisconsin- Initiating tox studies.

Peptides- New Mexico Consortium.



# J1-1A-Elite Crown Gall Resistant Transgenic 'Paradox' Walnut Rootstocks Line

**Transgenic  
Paradox**



**Wild Type Paradox**

## Update

- EPA informed us that this falls under the existing nucleic acid exemption from tolerance.
- Submitted information to have UC Davis recognized as a state agency to get a PRIA fee waiver. EPA agrees and suggested we proceed with submitting registration and the PRIA fee exemption

**Dr. Abhaya  
Dandekar  
UC Davis**

# New Projects

## Attenuated strain of Cucumber Green Mottled Mosaic Virus.

Request by Mike  
Bledsoe approved by  
PMC.

Update-  
Developing inert  
ingredient petitions.





## RNAi of Red Palm Weevil

In cooperation with  
John Wise  
and Gadot Agro.

Approved by PMC

Registrant decided to delay  
this project due to the lack  
of the pest in the US.



## Future Projects

Timothy Mcnellis- Penn State developing an attenuated strain of fireblight.

Trying to revive project on hypovirulence of chestnut blight. Thanks-Mary Hausbeck

# New Pest

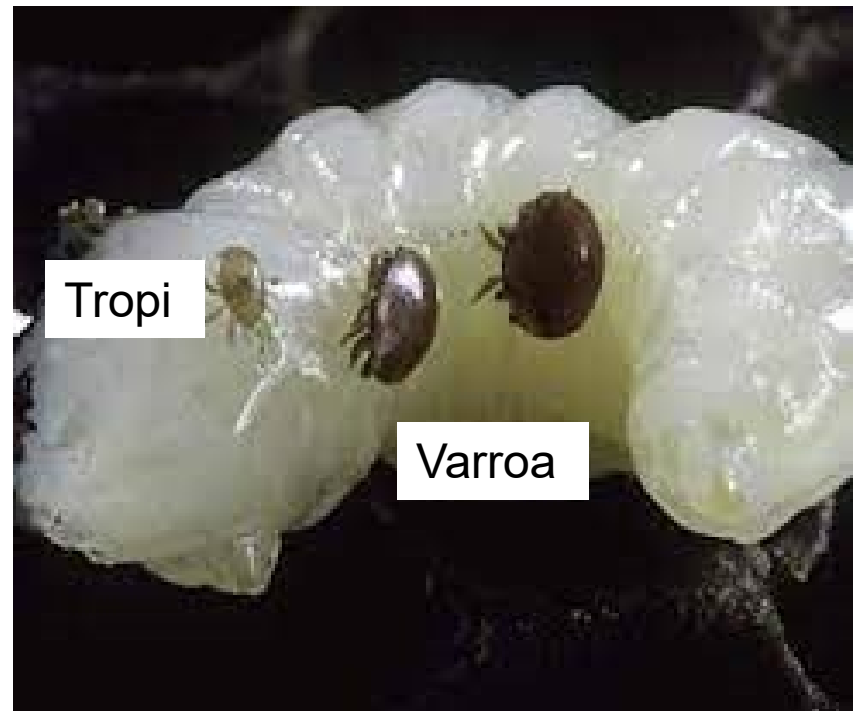
## Tropi Mite *Tropilaelaps mites*

Similar to varroa mite- USDA task force

Amitraz -no effect on *Tropilaelaps*.

Will need more frequent treatments  
than varroa. Only 7 days egg to adult.  
Dies without eating brood for 3 days.  
Need break in brood production.

EPA potentially moving responsibility  
of pest control products in honeybee  
to FDA. Prompted by flea collar issues.





# New Regulations APHIS-BRS



Animal and Plant Health Inspection Service  
U.S. DEPARTMENT OF AGRICULTURE

REVISED DRAFT

DOCUMENT ID:  
BRS-GD-2023-0001

DATE:  
October 13, 2023

## GUIDE FOR SUBMITTING PERMIT APPLICATIONS FOR MICROORGANISMS DEVELOPED USING GENETIC ENGINEERING UNDER 7 CFR PART 340

<https://www.aphis.usda.gov/biotechnology/downloads/draft-brs-microbe-permit-guide.pdf>

Primarily impacts permits for interstate movement of modified microbes that are plant pests and removes requirement for movement of disarmed *Agrobacterium tumefaciens*

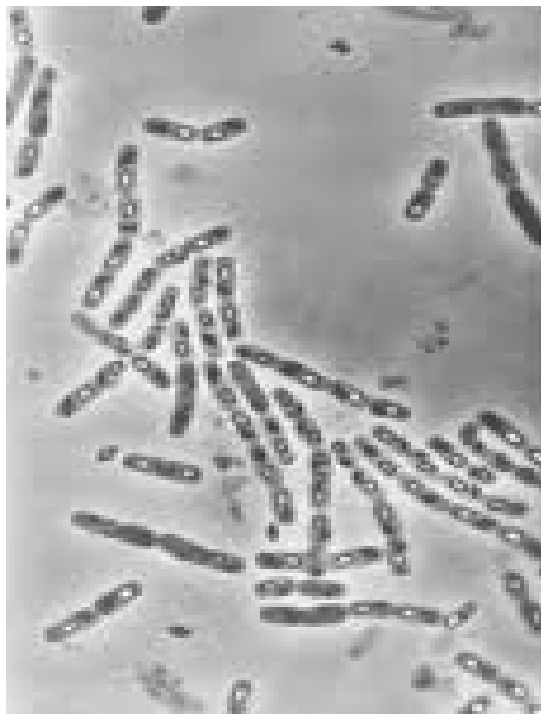
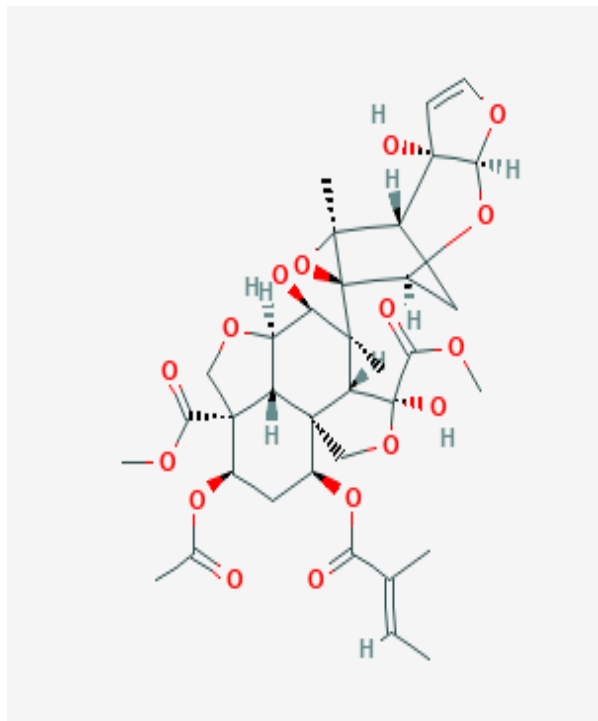
# Thank You

**Michael Braverman   Bill Barney   Philip Moore**

**BIOCHEMICALS**

**MICROBIALS**

**BIOTECHNOLOGY**



# Program Reports: IR-4 Education and Training Committee

Presenter: Christina Dineen





# Education & Training Committee Update

## IR-4 PMC Meeting

### October 2023

Christina Dineen

Pest Management Solutions for Specialty Crops and Specialty Uses

# Transition & New Team

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Thank you to Jennifer Fisher, Janine Spies, Will Meeks, David Ennes, and Cristina Marconi for your service to the E&TC!

## List of Current Members:

Mika Pringle Tolson (Assistant RFC / WSR)

Daniel Heider (FRD / NCR)

Megan James Hickman (FRD / NER)

Philip Moore (SD / HQ)

Scott Muir (QA / HQ)

Wilfredo Robles Vazquez (FRD / SOR)

Liwei Gu (RD / PMC)

Leona Horst (FRD / ARS)

Alex McFall (RLC / WSR)

Christina Dineen (SD / Chair)

Kristen Searer-Jones (Assistant RFC / SOR)

Nicole Soldan (RFC / NCR)

Johanna Mazlo (HQ Management)

Chanz Robbins (FRD / WSR)

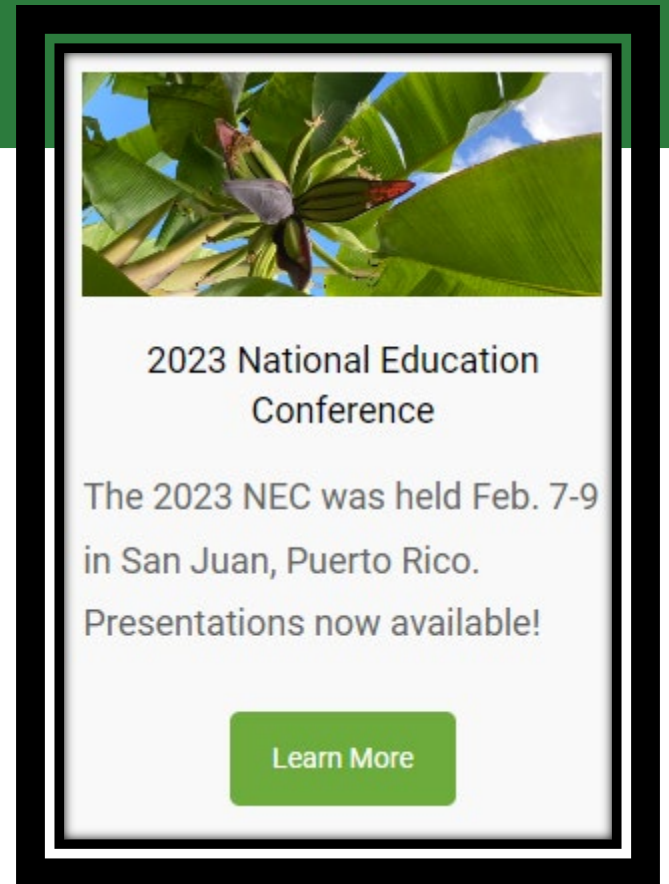
Faradeh Rehfield (Lab / ARS)





# Planning for NEC 2026

- Working on choosing the location for NEC 2026
- Looking for a field/GH component
  - Soliciting information from local researchers in different locations on feasibility of a tour
- Additional IR-4 input
  - Approximately 45 responses from post-2023 NEC survey and only 24 responses regarding location
  - Will plan to send out survey in December for top locations



# National SOPs – Moving Forward

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- Work on getting National SOPs distributed via eQA
- SOP roundtable discussions at NEC 2023:
  - EPA inspections, Training & documentation, QA/QA inspections
- Plan to move forward with writing next National SOPs, starting with: **EPA inspections**
  - Subcommittee to write
  - Review period for comments
  - Finalize & distribute via eQA



# Other Items for E&TC Discussion

- Protocol Template Revision
  - Request for draft by July 2024
  - Discuss with committee on path forward in November
- Advisory #2007-01 Shipping with Dry Ice
  - Clarification requested on allowing transport of frozen samples over short distances without the use of dry ice





#60YearsofIR4

# Future Workload in Residue Research

Presenter: Dr. Debbie Carpenter & Dr. Jerry Baron





# **Future Workload in Residue Research**

## **October, 2023**

Jerry Baron and Debbie Carpenter

# Future Workload in Residue Research -

- **Background**

- Food Use Workshop in 2022 and 2023 contained little discussion on priority projects for residue studies. It was easy to get to the number of residue studies that could be supported.
- In 2023, there was the opportunity for 8 regional upgrades and priority upgrade proposals, and only 8 were received. All residue projects received (6) were upgraded and will move forward.
- During the NRPM in 2022, there was a scramble to find good studies to use the money allotted to the residue program wisely.
- Will not add excess unneeded residue trials to a study just to fill up sites
- Concerns have been expressed regarding addition of studies of questionable value to fill up specific research sites



# Proposal

- When considering the hire of a new FRD for residue work, there is a need to discuss with HQ and PMC
- Why?
  - It is difficult to add new researchers without impacting budget.
  - Much GLP training and support is needed and IR-4 may not have the funds to continue the relationship.
  - Decisions no longer impact only the specific region.
  - Must consider whether a location continues to be needed as many EPA regions have enough FRDs.





# Proposal

- Due to variety of reasons (EPA stoplight/registrant stewardship), IR-4 is able to easily cover the cost of priority research projects at NRPM.
  - NRPM participants assess the B list for additional “good” residue projects. Even with that, funds may remain
  - If funds remain, would like prior PMC approval to empower NRPM participants move funds to cover deficit in performance funding



# Potential for a New Funding Model

**Bottom Line - With lower number of funded residue field trials and higher operational costs, IR-4 can no longer guarantee a minimum number of field trials for each location to cover all expenses of site.**

- **Potential plan**
  - Scale back the number of sites within each EPA data region to best match data needs for specialty crops. Provide multiyear base funds for site plus additional funds based on the number of assigned field trials. (Base plus Fee for Service)
  - With increased and stable funding there is an expectation that FRDs may need to travel within their EPA data region to meet required field trial separation criteria.
  - If possible, sites can do IR-4 performance work
  - Use CROs (contractors) to fill in the voids with field trials



Thank  
You!



# Environmental Horticulture Review

Presenters: Dr. Jerry Baron and Todd Scholz



IR-4 Project  
Environmental Horticulture Program  
2024 Program Review  
*Updated 9/29/2023*

**Program Review Authorization and Purpose**

The Environmental Horticulture Program 2024 Review is authorized by the IR-4 Project Management Committee at their October 2022 Meeting. The Purpose of the 2024 Assessment is to:

1. Have stakeholders assess the effectiveness and efficiencies of the IR-4 Environmental Horticulture Program in its current form, and
2. To ensure that the program's foundation can support future challenges and additional funding.

**Program Review Areas/Charge Points**

1. Research
2. Funding
3. Infrastructure

**Program Review Timeline**

1. January 2024 – Listening Session during the MANTS show in Baltimore, MD
2. February 2024 – Grower and Registrant Survey
3. July 2024 – Listening Session during the CULTIVATE show in Columbus, OH
4. August 2024 – Listening Session during Far West show in Portland, OR
5. September 2024 – Review Panel in-person Meeting, location TBD
6. October 2024 – Final Report Presented to IR-4 Project Management Committee

**Background**

The IR-4 Project was established in 1963 by the U.S. Department of Agriculture and land-grant universities to ensure that specialty crop farmers have legal access to safe and effective crop protection products. Specialty crops include many of the fruits and vegetables recommended for a healthy diet, as well as the flowers, trees and shrubs that enhance our environment.

According to the USDA, the Specialty Crops Competitiveness Act of 2004 defines specialty crops as, *“Fruits and vegetables, tree nuts, dried fruits, horticulture, and nursery crops (including floriculture). Eligible plants must be cultivated or managed and used by people for food, medicinal purposes, and/or aesthetic gratification to be considered specialty crops.”*

The IR-4 Environmental Horticulture Program provides the over \$13 billion national nursery, floriculture and landscape industries—collectively known as the horticulture industry—with critical tools in our toolbox. This program coordinates national and regional research projects to develop efficacy and crop safety data so that new biological and chemical active ingredients can be registered and current products expanded for new uses. The facilitation of new registrations and expanded uses for environmental horticulture crops promotes public health and wellbeing by addressing invasive species and managing damaging insects, plant diseases, weeds, and plant safety. In addition, these tools assist the horticulture industry to limit worker exposure, address invasive species, and protect pollinators.

A unique feature of the IR-4 Environmental Horticulture Program is that it is grower-driven. The data development for registration support takes place through this process:

- Identify grower needs through surveys and project requests
- Prioritize projects at biennial workshop
- Conduct research with key entomologists, horticulturists, plant pathologists and weed scientists throughout the US
- Communicate results by compiling trial data and posting summaries
- Track impacts of these research activities
- Network with growers, researchers, registrants and regulatory officials

Over 56,000 crop uses have been registered since 1977, when the Environmental Horticulture Program was established – known at that time as the Ornamentals Program. In 2019 alone, there were 673 environmental horticulture research trials conducted to support registrations in the greenhouse, nursery, landscape, Christmas Tree, and forestry industries.

### **Previous Review**

The last review of this program took place in 2008 with a purpose of addressing the four questions IR-4's Project Management Committee provided the review panel:

- 1) Should the program continue?,
- 2) If so, what should be the format for future success?,
- 3) What should be the impacts (endpoints)?, and
- 4) How should success be measured?

Through their review, the 2008 Review Panel unanimously voted to continue the IR-4 Ornamental Horticulture Program. The pros and cons of a competitive grant-based program were discussed. It was decided that the core program should remain the same, and that a grant-based program would only be implemented with new research dollars. Potential sources of increased funding for the Ornamental Horticulture Program were discussed, as were the funding pathways. Ways to improve and increase outreach to growers were proposed, including seminars, enhancing the IR-4 Ornamental Horticulture website. Ways to increase grower input into the priorities were discussed, including grower surveys, regional focus groups and increasing attendance at the IR-4 Ornamental Workshop. It was recommended that Registrants provide their information for the Products/Solutions List at the start of the workshop and highlight the List better in the workbook. Proposed researcher input included assisting in developing a grower list, participating in all aspects of the Ornamental Horticulture Program and including more extension faculty that deal directly with growers. Registrants/Researchers must share preliminary data prior to inclusion of a product as an 'A' priority. Modification of the mission statement was proposed to include the positive outcomes and benefits of the program. Impacts of the IR-4 Ornamental Program were discussed, including development of pest management solutions that are efficacious, cost-effective, 'green' and delay the development of pest resistance. Means to measure the success of the IR-4 Ornamental Horticulture Program were discussed, including recommending that an economist be subcontracted to define the economic impact of the IR-4 research. July 8-10, 2008 in Portland, OR was set as the target date for the final report to the full Project Management Committee.

END

# Examination of IR-4's Biopesticide Regulatory Support Activities

Presenters: Dr. Jerry Baron, Dr. Debbie Carpenter, Dr.  
Michael Braverman, Bill Barney and Philip Moore







# **IR-4 Project's Biopesticide Regulatory Support**

**J. Baron, D. Carpenter, M. Braverman, W. Barney &  
P. Moore**

Pest Management Solutions for Specialty Crops and Specialty Uses

# Why this topic?

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- **“Free is not free” ... Todd Scholz commented when assessing if IR-4 should provide regulatory support for a potentially new biopesticide product in early 2023**
  - **IR-4 utilizes staff scientists’ time when providing regulatory assistance**
  - **Implied question...Do the resources allocated to biopesticide regulatory assistance provide a reasonable return on investment?**
- **Original comment led to many questions**



# Acknowledgement of Success

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- **IR-4 has been involved in biopesticides since before 1982; contributed to many successful registration of innovative products, including biotechnology**
  - **Kudos to Michael Braverman/others**
- **Significant success while on limited funding**
  - **Previously - Data development; \$400,000/year - Dedicated biopesticide efficacy/crop safety projects (pre 2018) or Integrated Solutions (post 2016)**
  - **Regulatory Support – Originally 0.5 FTE, recently 1.35 FTE or investment of \$250,000 annually**



# Biopesticide Regulatory Assistance

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- **Focus - Assist in the registration of technology developed by public sector institutions and small businesses.**
  - Facilitate interactions between technology owner and EPA/BPPD to determine path towards registration.
  - Draft data waiver documents and submissions to support registrations
- **More demand for IR-4's services; steady influx of new requests over the last 5 years-mirrors shift in crop protection with more emphasis towards biopesticides and biotechnology**



# Securing EPA Approvals for Biopesticides

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**Perception - It is getting more and more difficult to get EPA to approve data waivers.**

- **Larger companies are now involved in biopesticides; have resources → Raised bar as EPA wants data for many studies.**
- **Required studies are more complex.**
- **Biopesticides are not getting “get out of jail free” card for Endangered Species and other hot button regulatory issues.**



# Action Items

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**Define the common reasons why IR-4 submissions have been rejected or project put on hold and how these holds can be overcome**

**and**

**Assess if it is still possible to achieve EPA registrations based on limited data and data waivers**



# Path Forward

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**If we cannot get approvals without data, IR-4 needs to reassess its role in Biopesticide Regulatory Support or secure funds to contract out development of data needed for approval**



# What else is needed?

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**If IR-4 maintains a Biopesticide Regulatory Support function we will need to:**

- **Improve Transparency**





# Transparency

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**We have a good track record of success → Published in Annual Report and other communication outlets (approx. one registration per year)**

**What is not apparent, status of projects that are/have been:**

- **Rejected by EPA**
- **Submission still under review by EPA**
- **Supporting packages currently in development**
- **Supporting packages in future development queue**
- **No clear path forward**
- **No longer needed**



# What else is needed?

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**If IR-4 maintains a Biopesticide Regulatory Support function we will need to:**

- Determine the time involved in developing regulatory support packages and estimate the cost for the “Average” project → assess what we can handle in a reasonable time frame with current investment**



# Become More Selective

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- **Limit the number of new projects added to work queue annually. Before considering project, determine if**
  - **Is managing the target pest important for growers?**
  - **Is the product effective with good supporting data?**
  - **Does EPA see a clear path towards registration?**
    - **What are their “hard” data needs**
    - **Is there a company and/or organization willing to make the investment to develop the required data**



## Become More Selective

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- **Recognize that IR-4 has limited resources and we cannot say YES to everything**
- **Prescreening and then prioritize potential new regulatory support projects on an annual cycle at IR-4 Workshop**

**Take on a small number of projects that show the most potential to solve grower needs, has strong 1<sup>st</sup> party support and defined path forward through EPA**



# Enhance Regulatory Project Screening

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**1. Form an Efficacy and Grower Needs Committee-** Goal is to have experts develop guidelines to screen the adequacy of efficacy data and if the crop pest combination aligns with grower needs- Meet on an ad hoc basis and forward a yes or no to the PMC

Bioinsecticides (Alice and John Wise, Alvin Simmons, etc.)\*

Biofungicides(Jamin, Mary Hausbeck, etc.)\*

Bioherbicides(Roger, Jerry, etc.)\*

**2. Form a Regulatory Pathway Committee-** Goal is to improve predictability of the regulatory pathway for new active ingredients. EPA\*, USDA\* and other regulatory experts.

Green, Yellow, Red light opinion forwarded to the PMC.

*\*This is a concept and individuals or organizations have not been asked to serve yet.*



# New Funds to Develop the Core Data to Support Registrations

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- **Contingent on new source(s) of funding, IR-4 develop a plan to develop the core data required by EPA necessary for Registration. This will allow IR-4 to consider products/projects that are just idling**
- **Consider using this new funds for:**
  - **PRIA fees -Non food uses, Biochemical Classification, Protocol or Waiver Review, EUP for transgenic.**
  - **Toxicology Studies -Acute oral/pathogenicity, acute dermal, primary dermal, eye irritation, inhalation, injection, sensitization, cell culture, honeybee, fish, birds, invertebrates, non-target insects**
  - **Miscellaneous- Protein expression, digestibility, residues, compositional analysis, growth parameters, independent method validation, toxicity, non-target insect, non-target plant studies.**
- **IR-4 does not have expertise for most of studies → Contractors**
- **Need significant funds if we want impact.**
  - **Ball park estimate - \$ 1 million/year**



# Nuclear option

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## **Eliminate or Reduce Biopesticide Regulatory Program and reinvest resources in**

- **Additional Integrated Solutions projects prioritized as needing biopesticide support and/or**
- **Dedicated biopesticide efficacy testing**



## Bottom Line Question

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**Should IR-4 maintain its Biopesticide Regulatory Support function but become more selective with Projects and if necessary solicit new funds to contract out development of required biopesticide core data**

**or**

**Eliminate/reduce IR-4 Biopesticide Regulatory Support and reinvest resources in other areas**





# Final point

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**The IR-4 Biopesticide Regulatory Support team does assist the rest of IR-4 in regulatory matters and other advice with biopesticides, biotechnology and emerging technologies.**



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# THANK YOU!



# Food Use Workshop Debrief

Presenter: Dr. Krystal Chojnacki



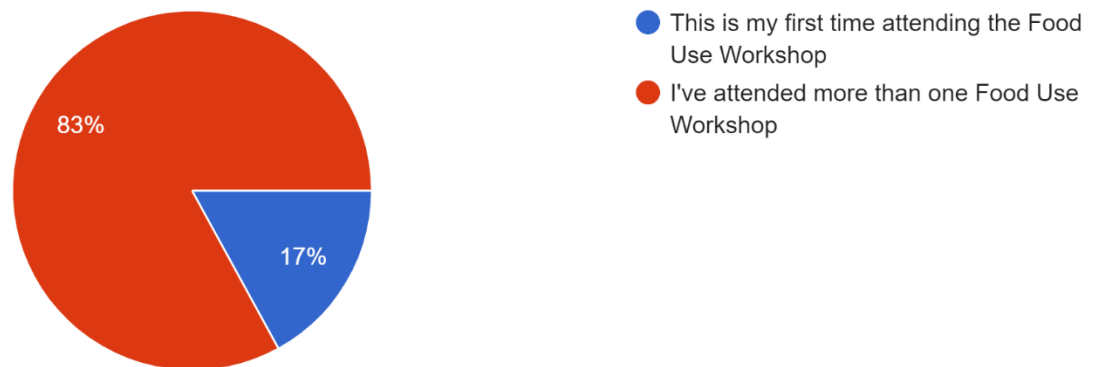
# 2023 Post FUW Survey Results

Total Attendees: 159 (131 in-person and 28 virtual)

## In Person

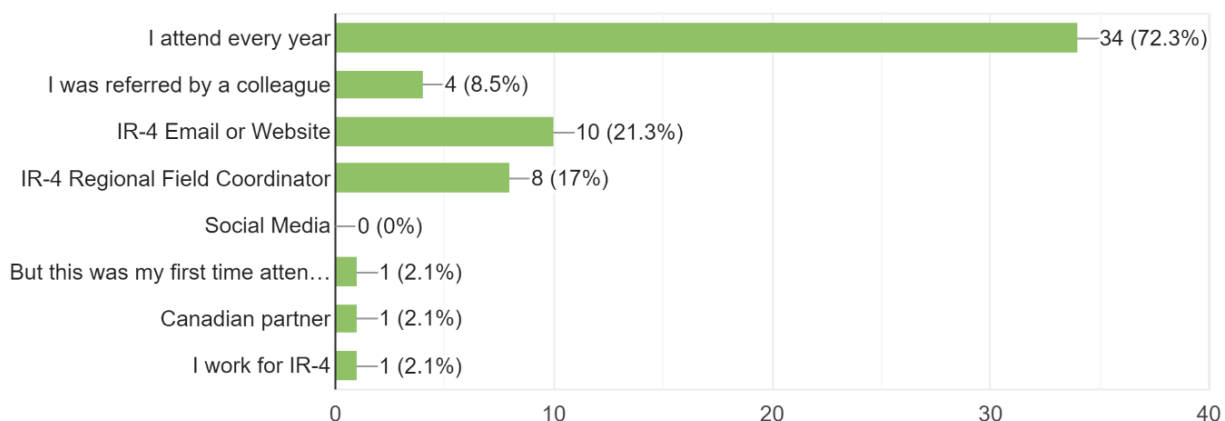
1) Please select one:

47 responses



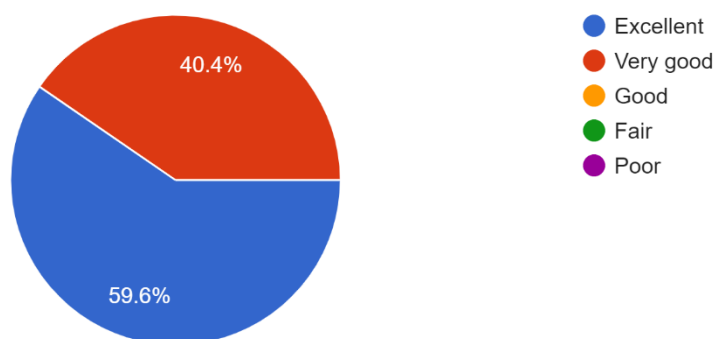
2) How did you learn about the 2023 Food Use Workshop? Check all that apply.

47 responses

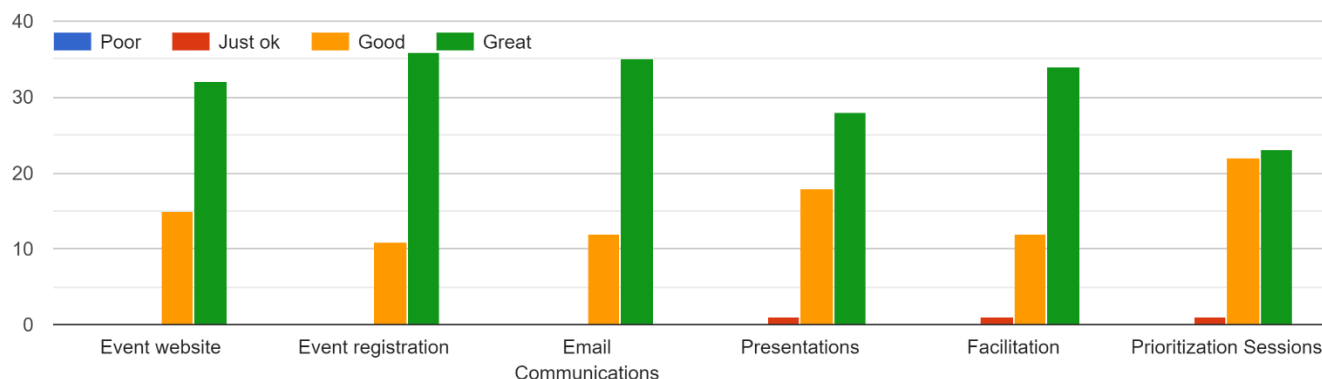


### 3) Overall: How would you rate the 2023 Food Use Workshop?

47 responses



### 4) Overall: For the FUW please rate the following:



Overall: Please let us know what we can improve in the areas listed above (event website, registration, email communications, presentations, facilitation, prioritization sessions):

- Getting a list of attendees names while at meeting could open doors to more discussion.
- Make sure documents to download are compatible with all attendees. I was unable to download due to my IT blocking google docs based files.
- Either online and in-person attendees need to understand the agenda is indeed fluid and can shift by 60-90 minutes, or those expecting flexibility in finishing the sessions early must be informed that despite finishing sections early the agenda is locked. IR-4 can't say "monitor email for schedule updates" and then still stringently adhere to the printed version because attendees (both virtual and in-person) treat it as gospel.
- The spreadsheet order was inconsistent at times, making it more challenging to follow along.

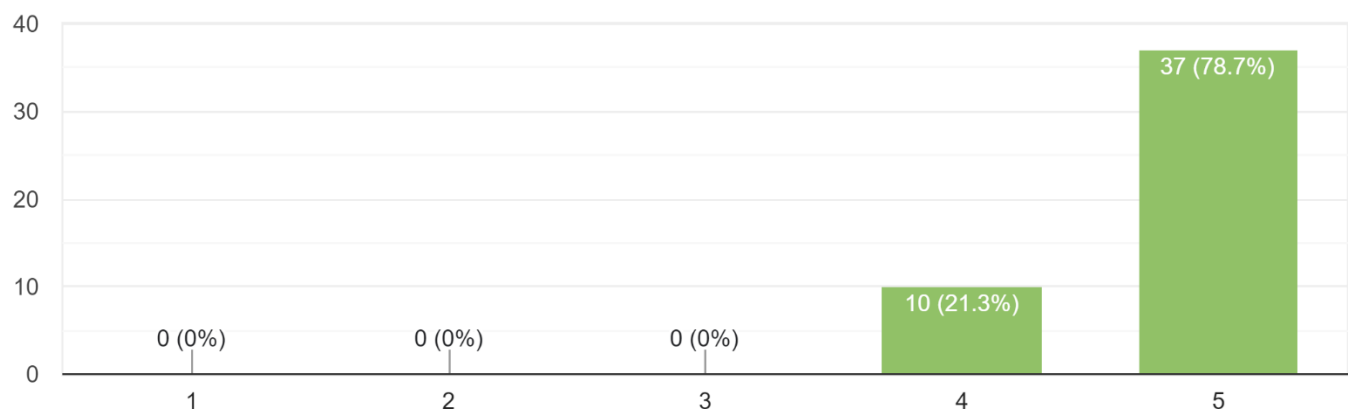
- I had an issue getting a room in the event hotel, but that was my fault b/c I waited too long to make my reservation (Bill was super helpful and I ultimately got a room). But I did hear from another person that the block of rooms filled up very fast. That might be something to look into. Also, when registering, I appreciated the section on Dietary Restrictions, but it only allowed for one choice. I happen to be gluten free and have an allergy to almonds. Would it be possible in the future to include as a comment box so that the respondent could leave more details about their dietary restrictions?
- During the prioritization sessions, large breaks should be avoided. It should be made clear at the start that the schedule is fluid to allow for us to keep moving forward. This would likely have allowed us to finish a day earlier.
- ask all participants to be prepared for adjustments of agenda timelines in cases where event is running ahead of schedule. Program should not be held up for the few not in the room.
- I thought the workshop was very well organized, facilitators were awesome (especially Alice!) but I did have trouble with the changing order of the priority list. The list of nominated projects that was posted and sent out was in a different order than the list displayed at the workshop and that made it challenging to follow.
- The only potential areas I see for improvement are the facilitation and prioritization process. Producers in my area usually criticize the process as the 'squeaky wheel gets the grease'. I think having a criteria for one priority per commodity in first round might help remedy this, and only when all regions agree to have more than two per commodity can the second be allowed. Additionally, it might interesting to implement a computerized, unbiased ranking system that took into account the acres grown, states/regions represented, crop value, number of registered compounds, needs, number of projects submitted. It would be difficult and maybe unfeasible, I'm just thinking if we started here and had this info about a week before the workshop, it might make the process faster. But maybe not.
- Keep presenters to their allotted time.
- the block of rooms should be larger, please
- It would help to have a company name on display for each group or company at the table where they are sitting like PMC does. Also, we introduced ourselves in the herbicide meeting but not the next day for the fungicide and insecticide sessions. There were different people present the second day so without introductions or table signs it was difficult to know who was in attendance.
- Extreme care with the spreadsheets to avoid errors.
- Prioritization sessions: on a technical level, some projects did not seem "ready for prime time" or had significant barriers to registration, or caveats to a project, that was not really able to be vetted within this format. I think the registration process is nuanced enough that commentary should be readily available, as to the path forward, from a HQ understanding of the EPA requirements/ study feasibility. Currently projects (residue specifically) are vetted (generally) by quality of the control and magnitude of the problem. However, some projects are easier or not to gain EPA registration for a given crop/chemical combination.

A stop light from HQ, where something is not a clear cut path or other watch outs would inform the audience in the room and open up debate, where currently the stop light is from the EPA perspective only, which is more chemical specific and not crop specific or crop/chemical specific. The public interest finding requirement brought this out from that perspective, but it wasn't shared until the end of the workshop and didn't include other nuances of a given crop, such as pennycress.

- The only negative comment I have is the fact that we could have made faster progress if we did not need to wait for the scheduled timeslots due to online participation. I am not sure of the best way to solve this problem, though.
- Move a bit slower through prioritizations
- During the prioritization sessions, can a column which has the MFG listed be added to the XLS? This would allow a quick filtering mechanism by company representative to be prepared to answer questions.
- There was A LOT of content (all of it great and relevant) presented the first morning. I know that was probably a reflection of the 60th Anniversary but it might be good to split up the presentations across different days or sessions if you can do it without losing momentum on the prioritization process.
- Additional notifications for registration
- extra social on the second night.
- Overall the workshop was excellent. Maybe a bit more time/or encouragement of discussion. Yes there is a lot to go through, but maybe a pause here and there a bit more would encourage discussion.
- The registration for NC State folks was a bit confusing since they didn't allow using a Pcard
- No suggestions. Alice did a great job keeping the sessions moving and organized! Thank you.

#### 6) Overall: How satisfied were you with the in-person meeting format?

47 responses



Overall: What were/are some advantages of having an in-person Food Use Workshop?

- Networking
- Getting a chance to work directly with based mfgs.
- Contact and able to communicate with other participants to clarify situations, products etc. and discussing related things.
- First hand contact and relationship building
- Discussion with other colleagues at the room
- Networking, understanding the dynamics of negotiations.
- Networking, understanding national needs and how to achieve regional objectives
- Meeting people within IR-4, and expanding professional relationships and collaborations.
- Networking opportunities
- The break times were very valuable to connect with various people involved in the program.
- A lot of important discussions and interaction happen in person at the FUW. Attending virtually allows for none of that.
- Facilitates discussions between regions and disciplines
- Networking and exchanging ideas with colleagues
- Ease of negotiation between parties when winnowing down priorities, as well as getting quick answers from registrants.
- networking
- It allows hallway and break discussions of the needs
- Across the table networking is very valuable and efficient for conversation sake.
- meeting people and the opportunity to have additional discussions were great benefits.
- The biggest advantage to the in-person meeting is being able to see and talk to people. Networking and catching up is really only possible in person, and building and maintaining relationships is an important part of the program running well. Having the stakeholders at the table with us allowed discussions that made it much easier to decide in the moment which projects we could give up and which ones we needed to hang on to. We were also able to talk to folks in the other regions to make alliances and combine projects. I appreciated the hybrid format because it allowed stakeholders who could not travel to attend and provide their input on specific projects.
- It is always helpful to speak to people in person, to make a personal & professional connection.
- Being able to network and learn more about the proposed projects was invaluable.
- Meet new stakeholders and re-connect with old ones.
- It is very important for the RFCs to meet and discuss prioritization, especially after the initial prioritization. This is easiest in person, where mingling and asking questions is easier. There is a lot of work done "off-stage" to narrow down the choices.
- Networking, easier and faster discussions
- The conversations and discussion during the breaks are very valuable
- Networking, Easier to communicate questions/answers
- building relationships and the camaraderie
- Networking and more detailed discussions with stakeholders and others.
- Networking and ability to discuss potential priorities with individuals and groups.
- Better interaction between participants



- Interactions between people in person is critical
- Networking
- networking/side discussions
- Networking outside of the meeting. I liked having the meeting in RAL.
- Informal visits with colleagues/networking.
- There is a lot more opportunity for one-on-one discussions and answering hard questions. There are definitely conversations that you can have in person that would be very different (and less helpful) if that happened in an email or in a Zoom chat.
- Networking that is very difficult by Zoom
- Coffee breaks and lunches :) Which are great times to reconnect with others and have sides discussions.
- Interactions with other researchers and work in other states. Networking!!! The in person is so much more fulfilling than online.
- Ability to catch up with folks, discuss priorities in more relaxed format

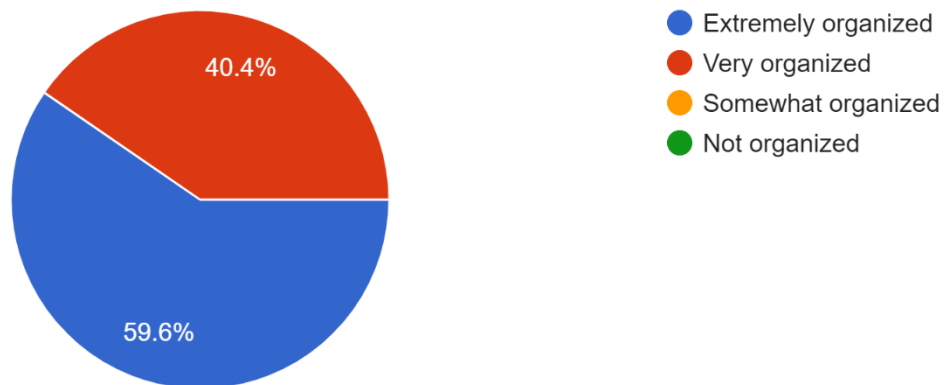
Overall: What were/are some disadvantages of having an in-person Food Use Workshop?

- None
- Cost and waste of time traveling
- Nothing to report
- None; IR-4 staff did a good job of monitoring online participants to allow them to chime in when needed.
- Time
- Traveling at this time of year can be challenging, since some of our field trials may still be ongoing. But I prefer in-person to virtual by far. I think having the workshop in-person but allowing for virtual attendance for those who just can't make it is the best way to go.
- n/a
- Difficult for some stakeholders to travel
- cost
- It is really convenient to have people online for regional contacts that time and budget may limit their travel. We have received a lot of positive feedback about having the online option.
- none noted
- The biggest disadvantage is having to take a week to travel. Being on the other side of the country means two whole days devoted to traveling. The time change is also a challenge.
- We had to travel a long way to attend.
- Travel expenses and time.
- Cost
- It is long but makes sense due to the large amount of projects covered
- Travel, away from family
- Travel (for those who come from far away)
- travel headaches and expense- but that doesn't outweigh the benefits
- None for me unless my sponsor decides not to fund my trip.

- Travel is always time consuming and sometimes stressful. It is almost always worth it though.
- Cost is higher
- Having the online portion also
- Long sessions with limited opportunity to input
- time changes/flights/general travel issues
- Travel time and costs.
- Not everyone can travel so having an on-line option opens it up to more people.
- Travel across three time zones and it sounds like it will not be in the west again. The meeting needs to be in all regions in yearly rotations.
- travel cost and time, COVID??
- Travel.

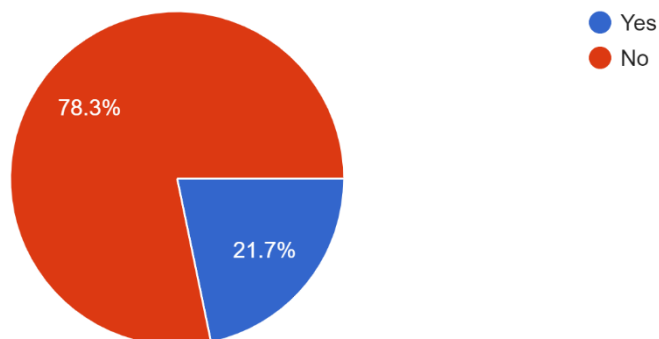
#### 10) Overall: How organized was the event?

47 responses



#### 11) Overall: Was there any information that was not communicated prior to the workshop that would have been helpful?

46 responses



If you answered "Yes" to question 11, please list that information here:

- List of attendees that check in. If only a list to check on individuals present.
- Dining plans for what was or wasn't within walking distance.
- It would have been useful to know the schedule in more detail before the event. We did not realize that attending the last day would have been really helpful in making sure our project moved forward.
- I think there could be a better way to communicate the EPA greenlight ratings. I am sure this is discussed with the RFCs but for other attendees it's sort of a surprise.
- I felt that there were many last minute project status changes and also projects that did not make it thru the EPA stoplight analysis, which created a bit of confusion and/or a need to re-shift during the workshop.
- It was difficult to identify the address of the hotel for the event, prior to arriving for the first time. There is more than one Embassy Suites in RTP, and also beside the airport. I went to the wrong one at first. Much of the communication only gave the name of the hotel as the location.
- The IS projects are non-transparent, meaning that specific ai's are not included in the description which makes that portion useless in my opinion. There is no debate due to a lack of transparency of the project.
- It would have been helpful to know that the Embassy Suites provides breakfast for guests a little earlier. I wasn't sure how to interpret the fact that breakfast was not provided as part of the conference.
- More notifications of early registration. Bigger block at the hotel for all registrants for the FUW to be in the same hotel.
- It would be great to have a process "Cheat sheet" for new people that explains the types of projects (residue, efficacy, integrated solutions, etc), and how many IR4 expects to fund from each.

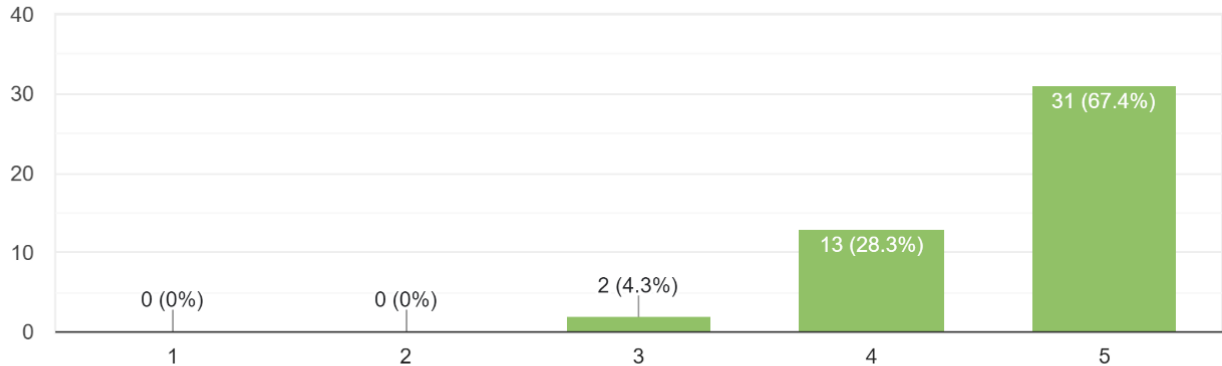
Overall: Please provide any additional feedback on workshop communications or the website here (likes/dislikes/improvements):

- Could maybe include pre-workshop communication or presentation during the event in the future that instructs how to find information in the IR-4 database for project requests and IS. it was very specifically reinforced what the priority levels are (A,B, H,M, Etc), before each session. And you can get the workshop specific materials to download from the event website. There is also communication videos about nominating projects, etc. But a participant can find lots of information beyond that during the critical vetting period, by searching the database, and its currently a black box for many, I imagine.
- Would be nice to have a general agenda one month prior to the meeting (describing discipline sessions) for sake of virtual attendees scheduling talks elsewhere, etc.
- Great food and drink options throughout the workshop. I think I gained 5 pounds (my fault!)
- The EPA presentations are short and they always seem to be hiding additional information. Many participants are worried about the DMIs and multi-site MOA fungicide registrations that the EPA is undergoing reviews. EPA should provide more details about these and other registrations being held up such as IR-4 submissions for Kasugamycin.

- nice to have the workshop summary and lists of projects sent to us post workshop

14) Overall: Were you able to contribute questions/comments at the meeting with ease?

46 responses



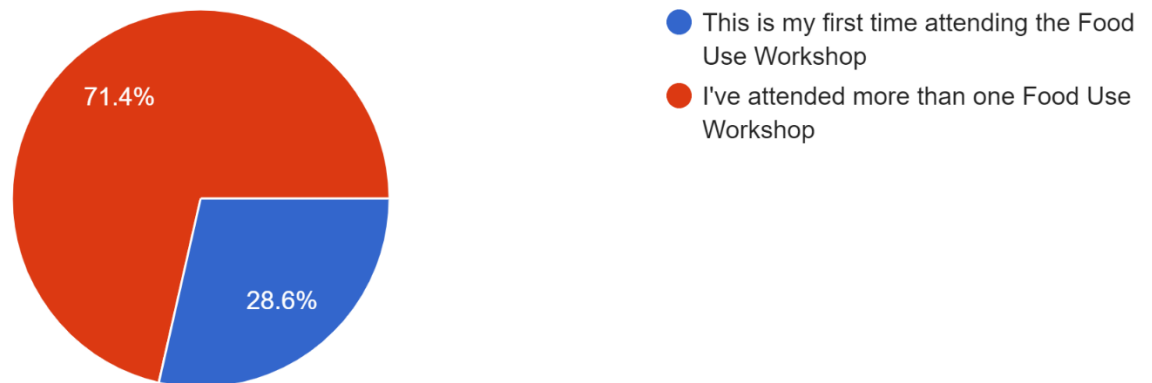
Overall: Please provide any additional comments you have on the handling of questions/comments at the conference.

- Only issue appeared to be minor technical difficulties with the microphones
- the microphone set up from the tables was a little awkward, but I have no suggestions for improvement
- The workshop moved efficiently but left sufficient time for comments.
- I would like to see the registrant names during the prioritization
- Great, respectful, professional.
- Overall yes, sometime the "q" in the chat would get missed and have to go back to the prior project in that case to discuss the comment from the virtual attendee. I would like some better communication to the audience in terms of professional conduct. Notions to "duke it out" or "fight for your project" were not as instructive as a message that says, "if you have specific concerns about the use of public IR-4 resources going to a given request, please raise those concerns either publicly during the event or privately to someone at HQ or the regional level." There can be hesitance to express oneself, especially for newer, or minority scientists, who could feel intimidated by the format. Can there be a way to advise how to provide comments without directly challenging or "shooting down" someone else's project? That would help I think increase the debate and dialog among attendees, which I felt was lacking, and particularly in some critical areas. Or perhaps the responsible HQ biologist just follows up with a given audience members' comment/ statement - acknowledging and rephrasing to ensure the comment was understood correctly, rather than there be "crickets" anytime a negative perspective is raised. Which can stifle further engagement, due to awkward science.
- The meeting was very well organized. Everyone was respectful and polite. Our western region coordinator and asst. coordinator did a great job bringing our region together and ensuring our voices were heard!

## Virtual

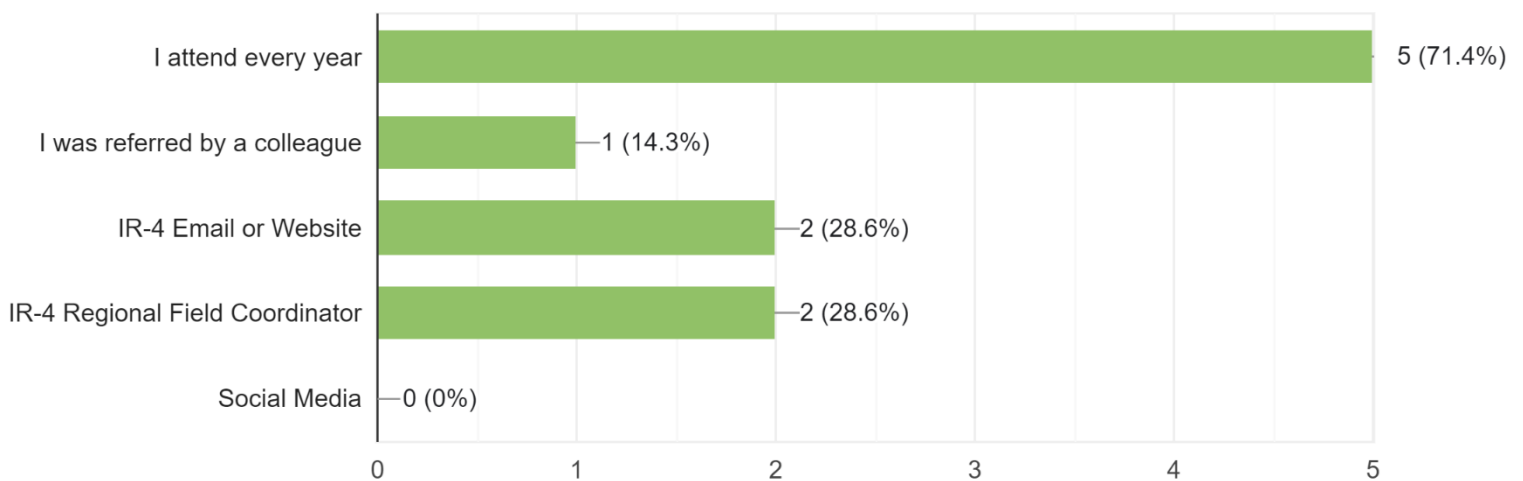
1) Please select one:

7 responses



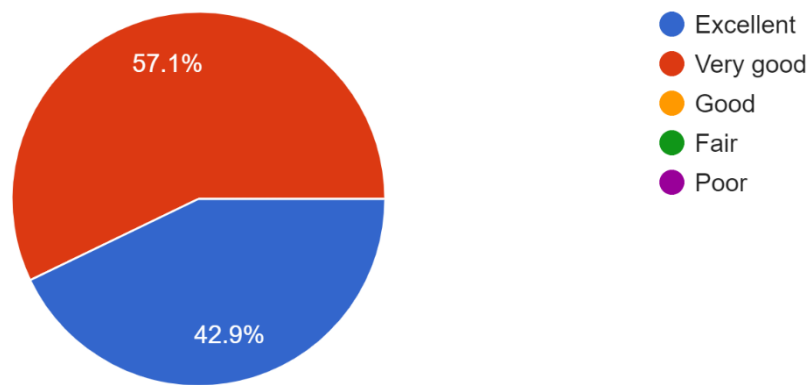
2) How did you learn about the 2023 Food Use Workshop? Check all that apply.

7 responses

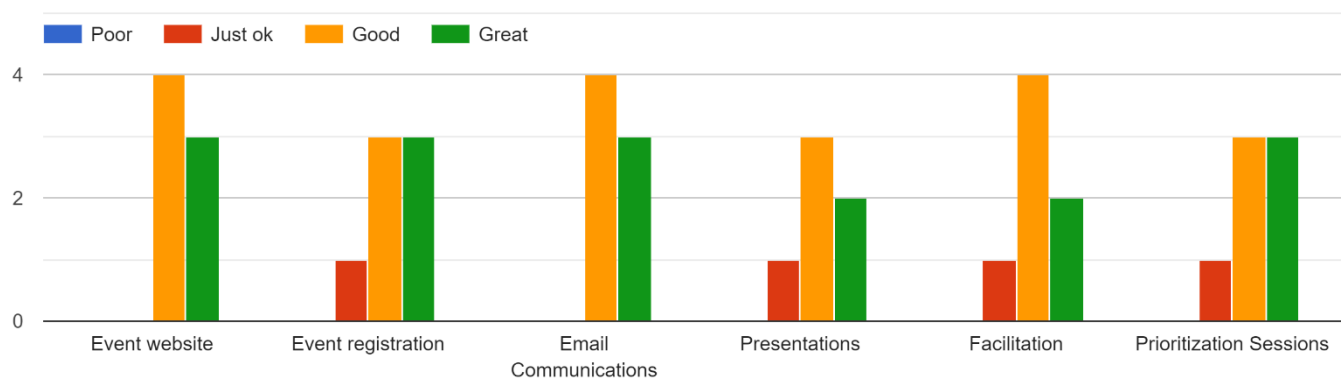


### 3) Overall: How would you rate the 2023 Food Use Workshop?

7 responses



### 4) Overall: For the FUW please rate the following:

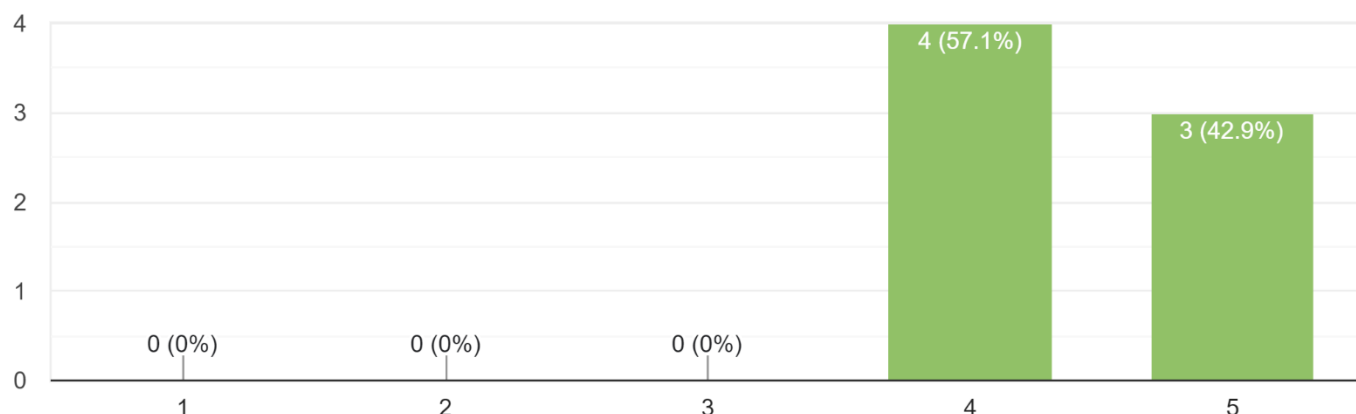


Overall: Please let us know what we can improve in the areas listed above (event website, registration, email communications, presentations, facilitation, prioritization sessions):

- Video of the presenters

## 6) Overall: How satisfied were you with the virtual meeting format?

7 responses



### Overall: What were/are some advantages of having a virtual Food Use Workshop?

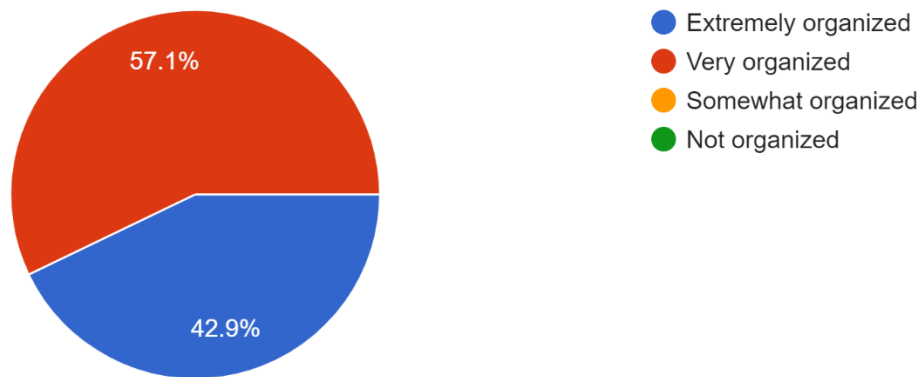
- not spending 5 days traveling
- Because of family obligations, I could not otherwise attend if there was not a virtual option
- This allowed me to attend between applications on trials in progress in the field.
- I was able to multitask
- I was not able to travel for medical reasons, so this option was very helpful
- Make it possible to participate when I cannot attend in person.

### Overall: What were/are some disadvantages of having a virtual Food Use Workshop?

- miss the interaction with colleagues; many distractions in home office; 3 hour time zone difference
- Can't see the audience or presenters, only the shared screen
- I missed interactions with the other IR4 personnel.
- Networking
- unable to make/renew those personal connections
- I was unable to mingle with my colleagues.

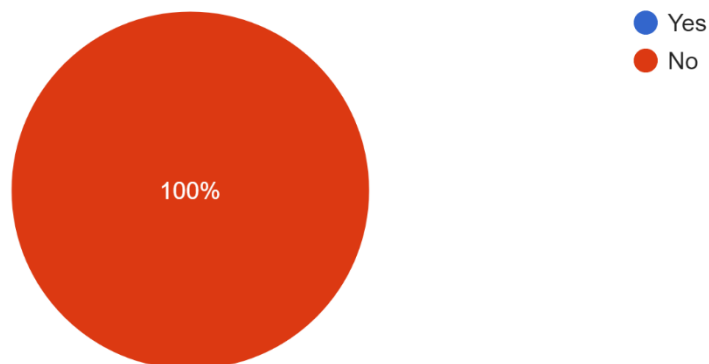
### 10) Overall: How organized was the event?

7 responses



### 11) Overall: Was there any information that was not communicated prior to the workshop that would have been helpful?

6 responses



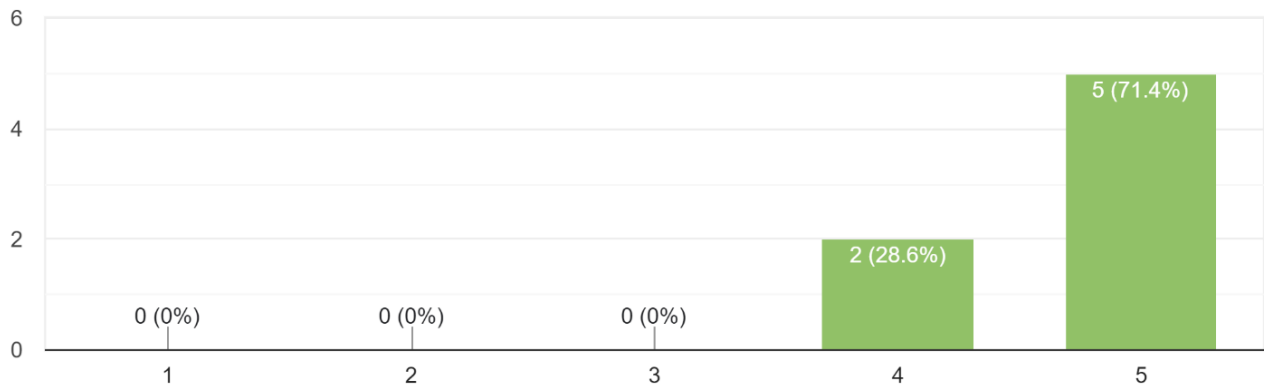
Overall: Please provide any additional feedback on workshop communications or the website here (likes/dislikes/improvements):

- really appreciate daily updates on the priority lists!
- Thanks for announcing location and dates for 2024.
- I thought that HQ personnel were well prepared.



14) Overall: Were you able to contribute questions/comments at the meeting with ease?

7 responses



Overall: Please provide any additional comments you have on the handling of questions/comments at the conference.

- when I joined by phone, I could not get audio; probably a tech issue on my end but I couldn't figure it out even after logging out and back in several times.
- It was hard to tell if my Q was not seen, or if it wasn't being recognized because of other activity/speakers in the room. Sometimes a Q wasn't recognized until after moving onto the next project request.
- Thank you for asking people to use the mic when they had questions or comments for the in person attendees.
- Questions and comments from the virtual attendees were handled very well, thank you.

Please provide any feedback on how we can continue to improve the Food Use Workshop:

- Please keep offering virtual options.

Please provide your reason for attending this workshop virtually

- couldn't attend in person due to obligations at home
- Family obligations
- I had applications to apply to ongoing projects in the field and a sample collection.
- medical reasons prevented travel
- I was unable to attend in person this year.

# IR-4 Communications Update

Presenter: Hannah Ross





# Communications Update

—FALL 2023—

**Hannah Ross**

Pest Management Solutions for Specialty Crops and Specialty Uses

# Communications: What's New



- 60 Years campaign continues
- New print materials
  - North Central Region one-pager
  - Food Use Workshop handouts
- New stories
- Instructional videos
- Instagram & social media highlights
- Brand look & feel refresh for 2024



# 60 Years campaign continues

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## Continuing the campaign:

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







National Institute of Food and Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE

TOPICS

GRANTS

DATA

RESOURCES

ABOUT

HOME > ABOUT NIFA

# IR-4 Petition Yields First Conventional Pesticide Tolerance for Hemp

August 18, 2023



Crop Protection Action Coalition For Trade (CPACT)

105 followers

1mo • Edited •

The [US Environmental Protection Agency \(EPA\)](#) has established the first pesticide tolerance for hemp.

In April 2023, The EPA issued docket EPA-HQ-OPP-2021-0130 regarding a final tolerance rule that established the maximum amount of ethalfluralin residues allowed to remain in or on hemp seed. This decision came in response to a petition submitted by the Interregional Research Project No. 4 (IR-4) in October 2020. This is a significant success for [The IR-4 Project](#) and hemp growers who have actively pursued additional pest management tools. To learn more about the specific activities undertaken by the IR-4 Project to this achievement, please visit: <https://lnkd.in/gA5g4HcH>



IR-4's ethalfluralin on hemp success story was shared by key partners



Faculty and Staff

## Field Tested

CALS alumnus Cole Smith leads the IR-4 Project's field research in North Carolina.

September 6, 2023 | [Emma Macek](#) | 3-min. read



Photo credit: Hannah Ross

This year, Cole Smith is working with 17 different crops. From peanuts to peaches, Smith, the North Carolina field research director for the [IR-4 Project](#) and a two-time alumnus of the College of Agriculture and Life Sciences, helps bring pest management research to fields across the state.

*Cole Smith featured by NC State CALS in September*



## EARNED MEDIA

## Specialty crop and minor-use pesticide prioritization at the 2023 IR-4 Food Use Workshop

[Nicole Soldan](#), Michigan State University Department of Horticulture, and [John Wise](#), Michigan State University Department of Entomology - October 09, 2023

[Share](#) [Tweet](#) [Save](#) [Share](#) [Print](#) [Email](#)

Participants at the 2023 IR-4 Food Use Workshop identified the most important research projects for the 2024 IR-4 food-use research program.



Well done Nicole Soldan & John Wise—thanks for spreading the word about our 2023 Food Use Workshop outcomes via MSU's website



# People of IR-4 Stories

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Part of 60 Years strategy—incorporating more people into our digital content to show the faces behind different aspects of our work. **Second story** in this series authored by Raven Baez: Bronson Hung! Like Allison Robinson's feature, this was very positively received. Next story to feature QA.

Read the  
story on our  
website!



# Success Stories

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## IR-4 Commends Bill Barney for Codex Revision Completion

*By Hannah Ross*



## MANDESTROBIN TOLERANCE HELPS GROWERS GAIN GROUND ON LETTUCE DROP

*Success story by David Kuack*

Read both stories on our website.



# New North Central Region One-Pager



Image Credit: Michigan State University

The IR-4 Project has a 60-year track record of impact facilitating pest management solutions for specialty crops and specialty uses. According to a 2022 economic analysis, IR-4 contributes an estimated **\$8.97 billion** to the annual U.S. gross domestic product. **Seven jobs can be attributed to every \$1000** of public investment in IR-4.

By facilitating EPA registration of safe, effective pest management products and technologies, IR-4 helps specialty crop growers access the tools they need to produce healthy, abundant harvests—including fruits, vegetables, nuts, herbs and horticulture crops.

IR-4's federally-funded research evaluates various pest management strategies—including reduced-risk chemical products, bio-based pesticides, emerging technologies, and integrated solutions to serve both conventional and organic production systems.

IR-4's North Central Region (NCR), based at Michigan State University, is one of four regional offices. With its temperate climate, ample water resources, well-established processing facilities, and proximity to major markets, this region excels in the diversity of specialty crops produced.

The NCR team works collaboratively with stakeholders to identify and prioritize pest issues, and secure tools to help midwestern agriculture thrive.



Image Credit: Michigan State University

**Have a pest problem (or solution) in mind?** Anyone may submit a Project Request to IR-4. Projects are prioritized by stakeholders through a participatory, national research cycle that begins in the regions. The NCR team can help you submit a Project Request (see reverse for contact information).

## The IR-4 North Central Region Includes:

North Dakota, South Dakota, Nebraska, Minnesota, Iowa, Kansas, Missouri, Wisconsin, Illinois, Michigan, Indiana, and Ohio



## Key Crops of the North Central Region:

Apples, asparagus, beans, beets, blueberries, celery, tart cherries, cranberries, pickling cucumbers, ginseng, hemp, hops, mint, onions, peas, potatoes, ornamentals and more

## North Central Region Highlights

The NCR team has secured strategies for many pressing regional pest issues, including:



Downy mildew on cucumbers

Image Credit: Michigan State University



Spotted wing drosophila on fruit crops

Image Credit: NC State University



Botrytis on greenhouse ornamentals

Image Credit: Michigan State University



Rusty root on ginseng

Image Credit: NC State University

*\*Click on the images above to learn more about each IR-4 success!*

## Have a pest management problem (or solution) in mind?

Connect with the NCR team to get involved, submit a Project Request, or seek assistance:

Michigan State University  
Plant and Soil Sciences Building, Room A448  
1066 Bogue St.  
East Lansing, MI 48824

Regional Field Coordinator  
Nicole Soldan  
(517) 353-0416  
schroe65@msu.edu



Scan to visit the IR-4 North Central Region website.  
To learn more, check out [ir4project.org](https://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 numbers 2022-79111-38469 and 2021-34383-34848 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 begin  
regional outreach material collection  
with same look & feel as main one-  
pagers.*

**Find it on the Regional  
Contacts page**



# Collaborations with Biology Team



## 60 YEARS IR-4

### IR-4 Project 2023 Sweetpotato Update

**The IR-4 Project** is a federal organization that generates data to register pesticides for use on specialty crops and ornamental plants. Since its inception, IR-4 research has supported 25 registrations and re-registrations of pest control products in sweetpotatoes. Below are IR-4's current sweetpotato projects and their statuses, as of October 2023.

#### Residue Study Pipeline

**Recent Registrations:**

- **Thiabendazole (Mertect 340F):** Post-harvest use for black rot (August 2021)

**US Tolerance Established:**

- **Mandestrobin (Intuity SC):** In-furrow spray use for black rot (March 2023)

**Under EPA Review:**

- None at this time

**Data Complete, Ready for Submission:**

- **Diquat (Reglone):** Preplant burndown of weeds

#### Current Product Performance Studies

- **Glufosinate (Rely):** Preplant burndown of weeds. Little to no injury seen in current reports.
- **Paraquat (Gramoxone):** Plant bed application for weed control, plus chemical mowing of early emerging slips for uniformity of transplants
- **Metribuzin (Glory FDF):** Reduce rotational interval after use in the previous crop

#### Current Integrated Solutions Studies

- **Performance of organic fungicides for post-harvest management of black & soft rot:** NC (Dr. Quesada) trials involving new products such as Cerafruta, Funthyme 2, Howler & Bio-Save 10LP

#### CONNECT WITH US

**Spies, Southern Regional Field Coordinator**  
edu | (352)294-3991

**tell, Principal Entomologist and Interim Research Planning and Product Performance**  
su.edu | (919)515-3055

**Petition Prep:**

- **Linuron (Linex):** EPOST broadcast weed control

**Ongoing Studies:**

- **Glufosinate (Rely):** Preplant burndown of weeds
- **Tolpyralate (Shieldex):** EPOST – broadleaf weeds

**Roger Batts, Principal Biologist - Weed Scientist**  
rbatts@ncsu.edu | (919) 515 3054

**Dr. Jaimin Patel, Principal Plant Pathologist**  
jpatel38@ncsu.edu | (919)515-4287



Scan to sign up for our newsletter

**MARK YOUR CALENDAR**  
IR-4 Research Symposium: 4.9.24  
More event dates to come!

[ir4project.org](http://ir4project.org)  
[ir-4\\_project@ncsu.edu](mailto:ir-4_project@ncsu.edu)

## Integrated Solutions



The Integrated Solutions (IS) program evaluates diverse pest management strategies and technologies that specialty crop growers can incorporate into existing crop protection programs to meet their complex needs.

## The Integrated Solutions Platform

Effective tools to manage pests so they can preserve the quality, value and yield of crops like weeds, diseases, arthropods and nematodes can be difficult to manage, especially in a changing climate and a shifting regulatory landscape.

For many specialty crop growers, existing pest management tools are insufficient. Challenges like pesticide resistance, tough-to-manage pests, gaps in organic solutions, and residue mitigation often necessitate novel approaches.

To address these challenges, IR-4 created the Integrated Solutions (IS) platform in 2018. Integrated Solutions evaluates diverse pest management strategies and technologies that specialty crop growers can incorporate into existing crop protection programs to meet their complex needs.

# Instructional Videos

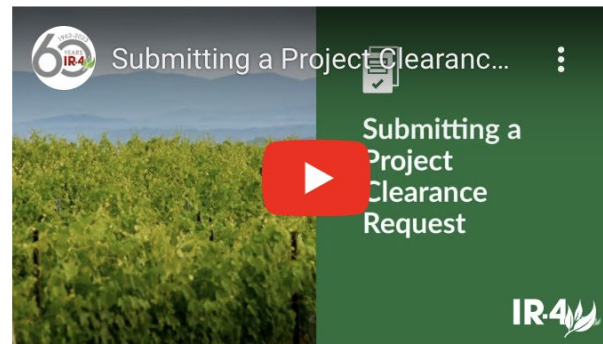
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## EDITING + BRAND IDENTITY SUPPORT

First 2 videos completed  
in collaboration with  
Krystal Chojnacki,  
Biology Team and  
Rhombus Learning.

Next up: Food Use  
Workshop & Project  
Upgrade Proposal videos  
(target dates spring &  
summer 2024)

### New Video: How to Submit a Project Clearance Request



This video demonstrates completing and submitting a Project Clearance Request form to IR-4's Food Use Residue and Product Performance Program. For assistance submitting a request, please contact your **Regional Field Coordinator**.

### NEW VIDEO: Nominating Projects for the Food Use Workshop



In this video, learn how to nominate projects using our Food Use Data Management System (accessible via the link to the left).

---



# Events: New FUW Handouts

## A Guide to Food Use Workshop Terminology

### PROJECT STATUSES



A project status indicates the data needed by the manufacturer and regulatory agencies to pursue registration of the desired use. The statuses of projects that are eligible for nomination at the Food Use Workshop (FUW) are as follows:

**Under Evaluation:** In most cases this involves a new Project Clearance Request (PCR) not yet fully vetted by the manufacturer; IR-4 will ask the manufacturer if it supports pursuing registration of the proposed use, and what data (residue, efficacy and/or crop safety) are necessary. A project **Under Evaluation** is eligible for nomination, but its status must be updated to either **"Potential"** or **"Researchable"** by the manufacturer at (or before) the FUW in order to be designated as an "A" priority and receive funding.

**Potential, needs E/CS data before approval for residue study:** The status means that the manufacturer requires efficacy and/or crop safety (E/CS) data to assess product performance before giving IR-4 acceptance to conduct residue studies. If the results are acceptable to the manufacturer, the PCR will be reclassified as **Researchable** (see below) and will be prioritized at future IR-4 Food Use Workshops.

**Researchable:** There are four variations on researchable projects, as indicated by their specific statuses:

- Researchable, only residue data needed:** Only residue data are needed to establish a tolerance and pursue product registration.
- Researchable, only E/CS data needed:** Only E/CS data are needed to add the pest/crop to the product label.

**Researchable, both residue and confirmatory data needed:** Both residue and confirmatory data are needed to start registration and trials can be started.

**Researchable, residue data needed:** Satisfactory E/CS data are needed.

**Labeled, needs E/CS data to add crop/pest to label & Tol est.; need E/CS data to add crop/pest:** A pesticide tolerance has been established by U.S. Environmental Protection Agency (EPA) that supports a potential registration. E/CS data must be generated to add the commodity, pest of interest, or modified use pattern to the product registration.

**Labeled, residue data needed for export:** A pesticide tolerance/registration has been approved to allow domestic use. Additional residue data is needed to support international trade of the crop.

## FUW Terminology Guide



## IR-4's Research Cycle

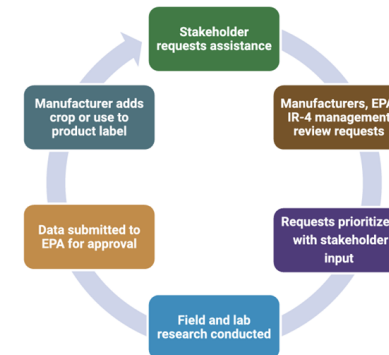
*Guided by the needs of growers*

The **Food Use Workshop** is a pivotal event in our annual season of regional priority setting meetings, stakeholder input, and course for next year's research, prioritizing high-impact projects involved by connecting with your regional IR-4 office to address needs throughout the year.

### Research Cycle Handout

A few ways to get involved:

1. Contact your Regional Field Coordinator and join regional priority-setting meetings
2. Submit a Project Clearance Request (PCR)
3. Nominate top projects you'd like to see prioritized prior to future Food Use Workshops



These resources are here to help, including **2 new video tutorials!**



Scan to connect with your Regional Field Coordinator.



Scan for a Project Clearance Request video tutorial.



Scan for a FUW project nomination video tutorial.

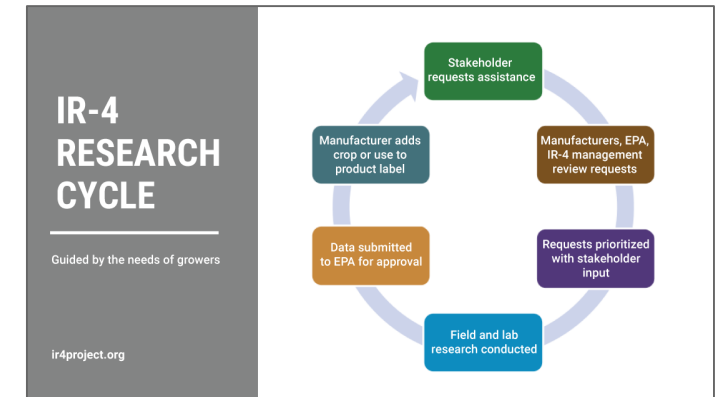
# Events: EHC Workshop



Celebrating 60 Years of IR-4 through branded event setup, thoughtful swag, and of course...cake!



# Social Media



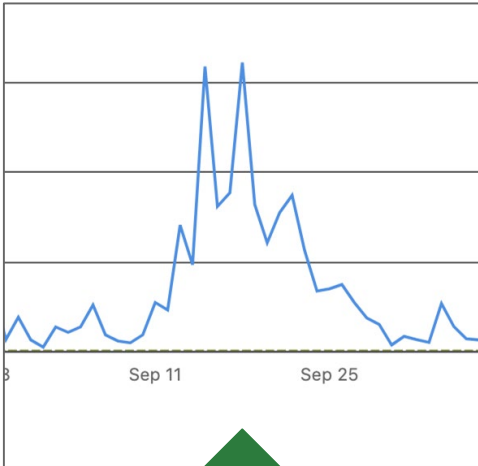
Posts continue to communicate timely IR-4 information in step with brand identity.



# Social Media Analytics (a few key takeaways)

## LinkedIn

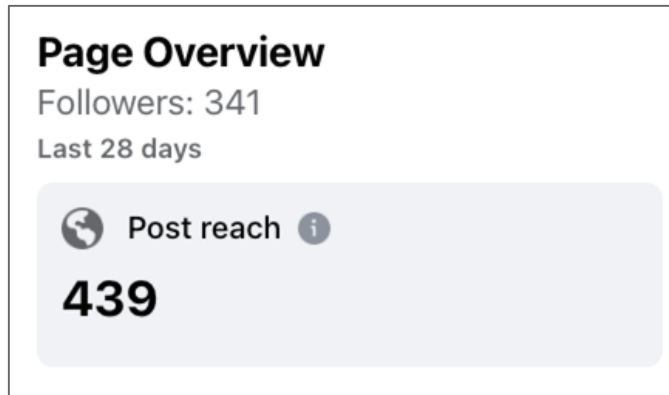
posts around Food Use Workshop created a spike in impressions



New visitors to our LinkedIn page have increased by 22% in the last 90 days!

## Facebook

posts reaching over 400 people per month (mid Sept - mid Oct)



## X (Twitter)

Spike in September:

SEP 2023 SUMMARY

Tweet impressions  
**3,293**

New followers  
**15**

This quarter's events sparked increased page visitors, impressions and engagement—especially when partner organizations or sponsors were tagged.



# Social Media Analytics (a few key takeaways)

**The IR-4 Project**  
873 followers  
1mo • Edited •

The 2023 #FoodUseWorkshop is a wrap! It's been an exceptional week of collaboration. Thank you to all the stakeholders who came together to chart the course for our 2024 Food Crop Program research, and thank you to our sponsors who made all of this possible! We are proud to be part of this community advocating for the needs of #specialtycrop growers.

corporation, ADAMA Ltd., BASF, Cerro Kerley, Inc., Envu, Gowan, WAC: An American Vanguard, America Inc., AgroSpheres, SePRO Corporation, K-I CHEMICAL U S A INC, Vestaron Corporation

**Thank You To Our 2023 Event Sponsors**

Platinum **syngenta** **CORTEVA** agriscience

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Krystal M. Chojnacki, PhD, MPA and 73 others 1 repost

Reactions

+66

3,396 impressions

**The IR-4 Project**  
873 followers  
1mo •

Day one of the #fooduseworkshop was a great success, from excellent speakers to a smooth priority-setting session to a fun evening celebrating #60yearsofIR4 together. Can you tell what the North Central Region crew (plus David) is spelling in the image to the left? 🤔

Now we're diving into day two, and yesterday's speaker presentations have been added to the event web page:

<https://lnkd.in/eHeH9qjD>

**Here's to 60 years!**

with Jerry Baron and 3 others

Alice Axtell, Ph.D. and 41 others 7 comments • 1 repost

Reactions

784 impressions

Based on these top performing posts - what content works?

OUR PEOPLE  
OUR PARTNERS





# New Instagram Account



@the\_ir4\_project

So far: an effective platform for engaging researchers, especially a younger audience. People-focused posts do best.



# 60 Years of IR-4 Video



Search



## THE IR-4 PROJECT

Pest Management Solutions for  
Specialty Crops and Specialty Uses

**604 views**  
*(just on YouTube)*

0:02 / 4:38



# 60 Years campaign concludes

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## Concluding the campaign:

- shifting 60 Years message from what we've done to where we're headed; including more voices
  - video content captured at FUW >> short video
- gradually transitioning away from 60th and towards (refreshed) original IR-4 logo and updated color palette in 2024
- social content at the end of 2023 will focus on gratitude for this commemorative year & looking ahead to the next 60 years





# Coming Soon



- More regional print materials still in the works!
- Boothing items to be mailed to regional teams to improve continuity with event outreach
- More video content in progress (instructional and promotional)
- Continued emphasis on People of IR-4 through our digital content
- Updated logo files & visual strategy for 2024



# Path Forward Progress: Intranet

- In communication with **NC State web content team** to develop an intranet site on the university's WordPress platform
- **Current status:** internally reviewing IR-4 website (and NEC session feedback) to map out what needs to be included before engaging NC State team (need to be able to specify what is included & where)
- **Next steps**
  - work with NC State team to create an **implementation plan**
  - map out **hierarchy of information** - could hire their team for strategy consultation (and/or engage our current graphic design contractor)
  - start building a **development site** to test next year
  - the **free version** of NC State's web theme should have all the features we need for intranet (unbranded available in Dec.)
  - **timeline** for building: roughly 6 months once strategy is set



# Sneak Peak: New Social Media Video



To highlight IR-4's various impacts over 60 years, we asked some of our community how they would complete the phrase:

**"60 years of ..."**



**60 YEARS OF \_\_\_\_\_**  
*Captured at the Food Use Workshop*







#60YearsofIR4