



# SUMMARY | PEST MANAGEMENT ADVISORY COMMITTEE ALLIANCE GRANT REVIEW MEETING CALIFORNIA DEPARTMENT OF PESTICIDE REGULATION

May 13, 2021

*Produced by the Consensus and Collaboration Program, CSU Sacramento College of Continuing Education*

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## 1. Attendance

### Pest Management Advisory Committee (PMAC) Members

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| 1. Steve Blecker, Department of Food and Agriculture                           | 10. Hanna Kahl, Community Alliance with Family Farmers           |
| 2. Jim Farrar, Director, Statewide UC IPM Program                              | 11. Eric Lauritzen, California Strawberry Commission             |
| 3. Steve Scheer, California Agricultural Commissioners and Sealers Association | 12. Caroline Cox, Center for Environmental Health                |
| 4. Lynn Wunderlich, University of California Cooperative Extension             | 13. Margaret Reeves, Pesticide Action Network North America      |
| 5. Whitney Brim-DeForest, University of California Cooperative Extension       | 14. Jonathan Evans, Center for Biological Diversity              |
| 6. Greg Browne, USDA Agricultural Research Service                             | 15. Anne Katten, California Rural Legal Assistance Foundation    |
| 7. Nate Laux, California Citrus Mutual   | 16. Dave Tamayo, California Association of Sanitation Agencies   |
| 8. Jenny Broome, Driscoll Strawberry Associates, Inc.                          | 17. Nick Lupien, California Association of Pest Control Advisers |
| 9. Robert Ehn, CA Garlic and Onions Research Board                             |  |

18. Jon Holmquist, Association of Applied IPM Ecologists

19. Renee Pinel, Western Plant Health Association

20. Nicole Quinonez, Consumer Specialty Products Association

21. Terry Gage, California Agricultural Aircraft Association

### **California Department of Pesticide Regulation (DPR)**

22. Val Dolcini, Director

23. Ken Everett

24. Aimee Norman

25. John Gerlach

26. Leslie Talpasanu

27. Matt Fossen

28. Jordan Weibel

29. Rodney Jones

30. Catherine Bilheimer

31. Tory Vizenor

32. Lynette Komar

33. Kristen Driskell

### **Facilitation Support, CSU Sacramento**

34. Ariel Ambruster

35. Julia Van Horn

## **2. Opening Comments and Background**

### **Introductions and Chair's Opening Comments**

Ken Everett, Assistant Director, Department of Pesticide Regulation (DPR), welcomed everyone and thanked Pest Management Advisory Committee (PMAC) members for participating in the meeting. He welcomed two new PMAC members: Nate Laux, representing California Citrus Mutual, and Greg Browne, representing the United States Department of Agriculture.

Due to safety precautions related to COVID-19, the meeting was held remotely. Mr. Everett said that public comments and questions would be taken after each agenda item, via both the Zoom meeting platform and through email for those watching the meeting by webcast.

Mr. Everett shared the following department updates:

- DPR has proposed to expand integrated pest management (IPM) programs, including increasing grant funding for IPM research and innovation, as part of the Governor's budget. The expansion is proposed to be funded through a revision of DPR's mill assessment with a new tiered structure aligned with pesticide toxicity.
- Senate Bill 86, passed in 2020, requires that DPR submit quarterly reports on chlorpyrifos use; the first such report will cover the first quarter of 2021.
- DPR is gathering and reviewing information to reevaluate the use of second-generation rodenticides, as per a law passed in 2020 that limits their use pending this reevaluation.
- In response to recommendations from the Chlorpyrifos Working Group, DPR convened a Sustainable Pest Management Working Group to develop a roadmap for improving, promoting, and implementing safe, sustainable pest management strategies. The Working Group held their first meeting in April 2021.

Val Dolcini, Director, DPR, thanked PMAC members for their time and commitment to reviewing the grant proposals.

**Zoom Orientation**

The facilitator, Ariel Ambruster from the Consensus and Collaboration Program at California State University, Sacramento, oriented PMAC members and the public to the Zoom remote meeting platform and reviewed the meeting agenda. She noted that public comments and questions, taken after each agenda item, would be limited to three minutes each.

**3. Alliance Grant Proposal Overview**

Tory Vizenor, Alliance Grants Program Lead, DPR IPM Branch, reviewed Alliance Grants Program information. She presented a review of the 2020 IPM grants:

- Two Alliance Grants projects were funded, totaling \$390,308
  - *Fostering Reduced-Risk Pest Management for Sacramento’s Hmong and Lu Mien Farms by Increasing Adoption of Integrated Pest Management, Improving Pesticide Efficiency and Safety, and Building an Agricultural Support Network* – Dr. Margaret Lloyd
  - *Development of An Interactive Training Facility for California’s Structural Pest Management Professionals* – Dr. Andrew Sutherland
- Four Research Grants projects were funded, totaling \$524,946
  - *Developing Best Management Practices for Diseases in Newly Emerging Vegetable Transplant Production Systems in California* – Dr. Johanna Del Castillo
  - *Evaluation of an Artificial Sweetener as Potential Bait Toxicant and an Insecticide Synergist Against German Cockroaches, an Important Indoor Pest of Public Health* – Dr. Chow-Yang Lee
  - *Enhancing Virus Control in Lettuce and Melons by Optimizing Immunity Priming Approaches* – Dr. Kerry Mauck
  - *Research Toward Potential of Reducing Soil Fumigation in California’s Seedless Watermelon Using Grafting and Trichoderma-Containing Biologics* – Dr. Zheng Wang

The two 2020 Alliance Grant projects are in progress and the four Research Grant projects will begin soon.

Dr. Vizenor outlined the 2021 Alliance Grants solicitation. DPR received four proposal applications totaling \$776,318. With \$400,000 of funding available, the proposals represent 194% of the available funding. Dr. Vizenor noted that the review criteria were updated for the 2021 solicitation.

2021-2022 Alliance Grant Summary of Proposals		
Proposal Short and Full Title	Principal Investigator	Budget
Roseman – MD Pheromones for NOW Control Promoting Small Farm Use of Navel Orangeworm Mating Disruption Using Online Mapping and Neighborhood Management	Jesse Roseman	\$120,373

2021-2022 Alliance Grant Summary of Proposals		
Proposal Short and Full Title	Principal Investigator	Budget
<b>Loudon – Bed Bug Management</b> Using Entrapping Surfaces to Augment Non-Chemical IPM Approaches to Bed Bug Control	<b>Catherine Loudon</b>	\$172,500
<b>Zabaglo – Tahoe Keys Weed Growth</b> Tahoe Keys Invasive Aquatic Plant Integrated Treatment Project	<b>Dennis Zabaglo</b>	\$185,945
<b>Burger – Herbicide BMPs</b> BMPs for Herbicide-Based Approaches to Invasive Plant Management	<b>Jutta Burger</b>	\$297,500

Nineteen PMAC members reviewed the proposals ahead of the meeting and submitted scores for each proposal out of 100 possible points. Dr. Vizenor shared the submitted scores, as presented in the following chart. As the chart illustrates, the average scores all fell within a fifteen-point range. Roseman – MD Pheromones for NOW Control received the highest average score at 87.58, Loudon – Bed Bug Management ranked second at 82.11, Zabaglo – Tahoe Keys Weed Growth ranked third at 76.53, and Burger – Herbicide BMPs was the lowest scored proposal at 73.16.

2021/2022 Alliance Grant Review Summary by Reviewer, Initial Review																								
Project	Rank	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R17	R18	R19	Avg	High	Low	Budget
Roseman, MD Pheromones for NOW Control	1	87	88	89	99	82	94	89	98	90	90	97	73	75	80	90	70	94	93	86	87.58	1	3	\$120,373
Loudon, Bed Bug Management	2	92	78	80	100	87	90	89	88	83	79	99	50	61	62	88	74	88	94	78	82.11	1	4	\$172,500
Zabaglo, Tahoe Keys Weed Growth	3	80	81	86	98	71	70	79	84	82	69	98	30	61	49	85	76	81	87	87	76.53	1	4	\$185,945
Burger, Herbicide BMPs	4	25	80	45	85	97	92	86	95	50	87	75	68	63	46	82	70	84	92	68	73.16	1	4	\$297,500

### Quorum Count

Aimee Norman, Branch Chief, DPR IPM Branch, ascertained that the PMAC had a quorum of non-*ex officio* PMAC members, in accordance with the Bagley-Keene Act. See above for the attendance list. Ms. Norman reminded PMAC members of their legal obligation to disclose any conflicts of interest and initiate recusal as relevant. She noted that DPR received no conflict-of-interest disclosures ahead of the meeting. No PMAC members present recused themselves from review of any of the proposals due to conflicts of interest. Ms. Norman also noted that three members were being represented by their alternates:

- Lynn Wunderlich for Breanna Aegerter, University of California Cooperative Extension
- Hanna Kahl for Emily Buerer, Community Alliance with Family Farmers
- Steve Blecker for Karen Ross, California Department of Food and Agriculture

## 4. Alliance Grant Proposal Discussion

Ms. Ambruster explained the proposal review process and reviewed ground rules for the conversation. She noted that the various perspectives shared by PMAC members are helpful to inform Director Dolcini's funding decisions as well as to provide feedback to the teams submitting proposals.

Ms. Ambruster reviewed the mission of the Alliance Grants Program, which is to increase the implementation and adoption of proven and effective IPM practices that reduce pesticide impacts on public health and the environment through the utilization of an Alliance Team representing state, local, public, private, educational, and other stakeholders.

A PMAC member asked whether members who had not submitted rankings were still eligible to participate in the discussion. DPR staff affirmed that they are, though any PMAC member who did not submit initial scores may not submit a re-ranking.

PMAC members discussed whether there was an obvious bright line separating out proposals they'd recommend not funding. Some PMAC members said that there were proposals they would not consider funding. However, other PMAC members said that all proposals had beneficial aspects and should be considered. A PMAC member noted that the Burger proposal, which had the lowest average score, had a high standard deviation, and expressed interest in discussing why there was such variance in PMAC perspectives on that proposal. With no consensus, the PMAC moved into discussing each proposal.

During the discussion, a PMAC member asked whether PMAC written comments on proposals submitted ahead of the meeting were included in the record and passed along to Director Dolcini and the applicants. A DPR staff person responded that the comments are consolidated and included in DPR's record. Key areas for improvement are shared with applicants whose proposals are not funded, but they do not receive all individual comments about their proposal. DPR staff encouraged PMAC participants to share all comments about the proposals during the meeting so that the public may have a full understanding of the merits and concerns about each project.

In addition, a PMAC member asked for clarification about how the PMAC should consider proposals in terms of the funding amount. DPR staff asked the PMAC to consider each proposal on its own merits and issues, without taking into consideration the amount of available funding. DPR staff also directed PMAC members to consider the proposal based on the information it presents and not any additional information that PMAC members may contribute.

### **Discussion of Proposals**

PMAC members discussed the merits, concerns, and areas needing clarification for each project proposal, in the order of their initial ranking. Below is a summary of PMAC members' comments for each proposal. Comments reflect individual PMAC member observations, not consensus opinions. Thus, merits and concerns may occasionally appear to be contradictory.

#### **Roseman – MD Pheromones for NOW Control**

##### **Merits**

- Multiple participants noted that the proposal's regional IPM approach is valuable, both specifically because effective mating disruption requires contiguous fields and more broadly to improve IPM coordination at a regional level.
- The project leverages the Natural Resources Conservation Service's (NRCS) goals and practices.
- The project is likely to be impactful in reducing pesticide use – the web-sharing approach will give growers confidence that they are getting adequate protection, thereby encouraging smaller growers to use the mating disruption technique.
- The web-based approach is promising.
- The project works with small growers.
- By building on NRCS work, the project may encourage the mating disruption approach, which is a new and more expensive approach, by helping growers access funding.
- The project has a strong team.
- The technology has been proven in use against many other insects.
- The project is IPM at its best: there are huge issues related to insecticide use in almonds, and this project would replace an insecticide with pheromones.
- The proposal is low-cost yet has the potential for significant benefits.
- The proposal builds on a previous project, which was funded by DPR and showed that mating disruption can be effective against this pest, and addresses the main challenge to successful mating disruption identified in the earlier project.
- The most significant challenge to successfully implementing a regional IPM approach is coordination and cooperation between growers; this proposal addresses this challenge well.
- In addition to small almond growers, the proposal has the potential to benefit small growers of other navel orangeworm host trees, such as walnuts and pistachios.

### **Concerns**

- Growers often consider information about pests and pest management to be private; the project does not adequately ensure growers will be comfortable sharing this information. The project would be stronger if it included a component of gathering in person to build relationships and share private information.
- The proposal does not adequately address how the approach will be evaluated and how its outcomes will be communicated so that farmers beyond those directly participating in the project will be convinced of the merit of the approach.
- The proposal does not demonstrate grower interest and buy-in to the project and approach, though Blue Diamond is a key partner and generally has strong relationships with growers.
- The proposal would have been strengthened by naming additional Cooperative Extension advisors.

### **Clarifications**

- The second site was not clearly defined, including who will oversee it.

## Loudon – Bed Bug Management

### Merits

- Multiple participants applauded the proposal's innovative non-chemical approach to a serious problem.
- The proposal has strong support from pest control professionals.
- The project has the potential to reduce pesticide use.
- Use of an entrapping surface is innovative in the United States, but is practiced widely in other areas such as Central America for control.
- Though the entrapping material is not yet commercially available, it can be produced in quantities sufficient for the proposed demonstration.
- Multiple PMAC members said the proposal has a strong team.
- Multiple PMAC members said the proposal has strong letters of support.
- The project takes a classic IPM approach, using a trap rather than the unhealthy pesticides currently in use for bed bug management.
- The approach is like a hybrid between a research and an alliance project: now that the product's efficacy in the lab is established, the project includes the next research step of implementation in the field.

### Concerns

- Multiple PMAC members said the proposal does not adequately address whether the entrapping material will be used as a monitoring and/or control tool. In addition to this information gap, if the material is used as a monitoring tool, it may not ultimately reduce pesticide use.
- The proposal does not adequately demonstrate the efficacy of the entrapment material for control.
- Multiple PMAC members expressed concern about the scale of the proposal. The material is not yet manufacturable and the amount the proposal states will be produced – 100 square centimeters each month – does not seem to be enough for system implementation. The proposal also does not address whether expansion of this technology is practical.
- The scale within the project impacts whether it is appropriate for an Alliance grant; validation at a real-world scale could be considered Alliance work as it would support rapid implementation on the ground.
- The proposal lacks a detailed evaluation component.
- Multiple PMAC members said that the project seems a better fit with the Research Grants Program, as its stated purpose is evaluating the effectiveness of this approach rather than encouraging adoption of a known IPM approach.
- Multiple PMAC members noted that the proposal does not include a plan for extending the approach beyond direct project participants.
- The proposal is vague about what the product is, which makes it confusing.
- While the three objectives seem to support its relevance as an Alliance project, the

proposal is not clear enough about key information such as how the material will be used and the scale of implementation.

### Zabaglo – Tahoe Keys Weed Growth

#### Merits

- Numerous PMAC members said that the project team is strong, with a track record of achieving localized eradication of invasive weeds without herbicides in the Lake Tahoe system.
- The proposed methods are intriguing and could become a model for other areas.
- The homeowners in the area would contribute funding to the project.
- The project takes a non-chemical approach to a complex problem in an area on the lake that has been particularly challenging for some time.
- The project would be beneficial to an ecosystem that is a statewide and national treasure.
- The proposal includes a pre- and post-monitoring program.
- The issue of pesticides used on Lake Tahoe has been a major concern and movement toward other methods, even if incremental, is important.
- The proposal has strong community buy-in and opportunities for community engagement, though the approach is labor intensive and complex.
- The project timeline is well thought-out.

#### Concerns

- Numerous PMAC members said that the project lacks key Alliance Grant components for extending information about an IPM approach, despite these weeds being important throughout the state; instead the project focuses only on implementation of the clean-up.
- The accompanying paperwork submitted with the proposal should have been more concise.
- The project is a continuation of existing work and an approach that has already been in use in this area.
- The majority of the budget is payment of contractors to implement the work.
- The proposal does not sufficiently address documentation and evaluation of the methods.
- The proposal did not adequately document the research to-date on ultraviolet treatment approaches.

### Burger – Herbicide BMPs

#### Merits

- The project builds on previous work developing a decision support tool for non-herbicide best management practices (BMPs), based on scale, location, and the type of invasive. Though this project focuses on herbicides, adding these to the decision support tool would help ensure that herbicides are used appropriately and lessen their impact



on native species. Additionally, adding herbicide approaches to the tool will help improve efficacy of weed management around the state.

- The tool has the potential to have a significant impact by reaching a large audience.
- The team is strong and includes diverse groups.
- The proposal includes many strong support letters.
- Due to the increase in fires in California, effective weed control in natural areas is important and timely.
- The project is ambitious and its costs are appropriate given the scope and potential impact.

### **Concerns**

- Multiple PMAC members said the project is not IPM, as it focuses on herbicides and does not demonstrate how it would minimize herbicide use.
- The cost of the project is high, particularly given that the materials are likely redundant to existing materials on the California Invasive Plant Council website.
- The proposal did not include sufficient detail about the outreach and trainings; for example, how many people would be trained and how long the trainings would be. The project's success depends on outreach.
- The proposal lacks clarity about the BMPs and the problems the tool would be addressing, such as calibration, labeling, or other issues.
- The proposal does not provide sufficient information about the existing tool it is building on or the new tool, such as where it will be hosted.
- The project management and oversight portions of the budget are very high.
- The proposal lists many highly hazardous herbicides and only a few organic-approved herbicides.
- The proposal should include ecological context, such as weeds that would be targeted.
- The proposal does not address how the app will be maintained and kept up to date in the future as climate impacts and thus BMPs change.

There were no public comments on any proposal.

Following discussion, PMAC members were asked to re-rank the proposals, submitted via email DPR staff asked PMAC members to submit rankings with no ties.

## **5. Decision on Recommendations**

Quorum was confirmed and the re-rankings were reviewed. With sixteen PMAC members submitting re-rankings, the overall ranking order remained the same: Roseman – MD Pheromones for NOW Control received the top average ranking, Loudon – Bed Bug Management ranked second, Zabaglo – Tahoe Keys Weed Growth ranked third, and Burger – Herbicide BMPs was the lowest ranked overall.

2021/2022 Alliance Grant Review Summary by Reviewer, Re-Rank																								
Project	Rank	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R17	R18	R19	Avg	High	Low	Budget
Roseman, MD Pheromones for NOW Control	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	1.06	1	2	\$120,373
Loudon, Bed Bug Management	2	2	4	2	1	2	3	2	3	4	3	2	2	3	2	2	2	-	-	-	2.44	1	4	\$172,500
Zabaglo, Tahoe Keys Weed Growth	3	3	2	2	3	4	4	3	4	3	4	3	4	2	3	4	3	-	-	-	3.19	2	4	\$185,945
Burger, Herbicide BMPs	4	4	3	4	4	3	2	4	2	2	2	4	3	4	4	3	4	-	-	-	3.25	2	4	\$297,500

A PMAC member proposed that the full suite of feedback be shared with Director Dolcini for consideration, including the initial scores and re-ranks as well as the range of perspectives shared by the PMAC on merits, concerns, and areas needing clarification. Another PMAC member expressed support for this proposal.

There were no public comments.

In a roll-call vote on the proposal, fifteen of the fifteen participating PMAC members were in favor and the proposal was approved.

## 6. Charter and Process Review Discussion

### Charter Update Discussion and Adoption

Lynette Komar, Staff Counsel, DPR Office of Legal Affairs, presented a new addition to the proposed updated PMAC charter before the committee. In addition to a change discussed during the previous PMAC meeting, which added a list of laws and regulations pertaining to the conflicts of interest policy, DPR attorneys are recommending adding a statement about perception of bias. Ms. Komar said that the statement follows DPR’s solicitation and assures the public that DPR and PMAC are using the utmost care regarding financial and nonfinancial conflicts of interest.

Ms. Komar responded to questions from PMAC members about whether given scenarios represent a conflict of interest or perception of bias.

- Would a PMAC member need to recuse themselves from any proposal with a Principal Investigator (PI) or collaborator from the same institution the PMAC member works for, for example a large institution like the University of California, due to perception of bias?
  - Ms. Komar said that the example given does not entail conflict of interest or perception of bias, as long as the PMAC member is not involved directly in the proposal, for example as an advisor.

Ms. Komar clarified that the topic of “appearance of bias” is intended to address non-financial interests, such as:

- You or an immediate family member is the PI or on the management team for a proposal;

- You are or were a consultant or advisor for a project;
- You are in a dating relationship with a person who is the PI or on the management team for a project;
- You plan to contribute personal funds to the project; or
- The proposal was submitted by a prospective employer.

PMAC members continued questions to clarify the meaning of the new term.

- If a proposal addresses a problem that relates to a particular crop and a PMAC member is a producer of that crop, does that entail bias?
  - Ms. Komar said that this is too far removed to constitute perception of bias, as the PMAC member would not be benefitting directly from the proposal.
- If a PMAC member collaborates on a different project with someone who has submitted a proposal, but has not been involved in the project for which the proposal was submitted, is this a perception of bias issue?
  - Ms. Komar said it is not.

Ms. Komar encouraged PMAC members to contact DPR with further questions or to receive advice on a particular scenario.

A roll-call vote was taken on adoption of the revised charter. With all of the sixteen participating PMAC members in favor, the charter was approved.

### **Process Review Discussion**

PMAC members had an opportunity to raise proposal review process issues.

A PMAC member said that it had been challenging to review all thirteen of the proposals during the previous meeting and noted that there seems to be a wide range in the number of proposals reviewed during each meeting. Half of the yearly PMAC meetings have much less work. The PMAC member advocated for developing a process that would more evenly distribute the workload of proposal review among the meetings, particularly if the number of proposals increases as grant funding is increasing.

A PMAC member said that it is beneficial to hear the diverse perspectives PMAC members bring, including those present who participate less, and advocated for developing a process that would bring more members' perspectives into the discussion, for example by sharing all the PMAC members' pre-meeting written comments ahead of the meetings.

- Ms. Ambruster said that she will work to encourage quieter PMAC members to share during future meetings.
- A PMAC member agreed with the suggestion of sharing pre-meeting PMAC written comments.
- Another PMAC member requested that comments be shared anonymously.

DPR staff shared that this was a valuable discussion.

## **7. Closing Remarks**

On behalf of DPR and Director Dolcini, Mr. Everett thanked PMAC members for their input and the time they commit to reviewing the proposals.

The next PMAC meeting will take place on August 12, 2021.