**SUMMARY | PEST MANAGEMENT ADVISORY COMMITTEE GRANT REVIEW MEETING**
**CALIFORNIA DEPARTMENT OF PESTICIDE REGULATION**
May 14, 2013
*Produced by the Center for Collaborative Policy, CSU Sacramento (CSUS)*

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# 1. Attendance

**Pest Management Advisory Committee (PMAC) Members and Alternates**

1. Kassim Al-Khatib, University of California Statewide IPM Program (UC IPM)
2. David Bakke, US Forest Service
3. Jenny Broome, Driscoll Strawberry Associates, Inc.
4. Caroline Cox, Center for Environmental Health
5. Terry Gage, California Agricultural Aircraft Association
6. Marcia Gibbs, Sustainable Cotton Project
7. Janine Hasey, University of California (UC) Cooperative Extension
8. Juli Jensen, California Agricultural Commissioners and Sealers Association
9. Anne Katten, California Rural Legal Assistance Foundation
10. Cliff Ohmart, SureHarvest
11. Nicole Quinonez, Randlett Nelson Madden
12. Mark Quisenberry, California Agricultural Commissioners and Sealers Association
13. Rebecca Sisco, UC Davis, Western Region IR-4 Program
14. William Thomas, California Cattlemen's Association
15. Dave Tamayo, California Association of Sanitation Agencies
16. Cindy Wire, Regional Administrator, U.S. EPA, Region IX

**Interested Parties**

17. Rachel Kubiak, Western Plant Health Association
18. John Steggall, California Department of Food and Agriculture

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

19. Nan Gorder
20. Brian Leahy, Director
21. Marshall Lee
22. Mark Robertson
23. Doug Downie
24. Steve Blecker
25. Pat Matteson
26. Basil Ibewiro
27. Christine Uhrik
28. Paul Verke
29. Charlotte Fadipe
30. Ann Schaffner

**Facilitation Support**

31. Dorian Fougères, Center for Collaborative Policy, CSUS
32. Orit Kalman, Center for Collaborative Policy, CSUS

## 2. Background

**Introductions and Chair's opening comments**
Dr. Mark Robertson, Senior Environmental Scientist, DPR, welcomed participants and invited Brian Leahy, Director, DPR, to make opening remarks.

Director Leahy remarked that the PMAC review of the alliance grant proposals is a positive process. Over the past few years it received primarily urban proposals, this year has more agricultural proposals. Director Leahy also reviewed the results of the February PMAC meeting, in which members reviewed and recommended funding for research grants. DPR is in the process of finalizing the funding of four projects (a total of $1,000,000). The four funded grants are:

1. Integrated Pesticide Reduction Strategies for Insect and Disease Management in Cole Crops: Alternatives to soil fumigant use and organophosphate use of the Central Coast. Carol Shennan of UC Santa Cruz. ($400K)

2. Reducing Dependence on Pre-Plant Soil Fumigation in Almond and Stone Fruit Orchards: Aims to eliminate non-essential fumigant usage by up to 50 percent in almond and stone fruit orchards in the Central Valley. Greg T. Browne of US Department of Agriculture- Agricultural Research Services (USDA-ARS). ($130K)

3. Methyl Bromide (MeBr) Alternatives for Strawberry Nurseries: Research MeBr alternatives for strawberry nurseries. Lynn Epstein of UC Davis. ($153K)

4. Reduced Risk Approaches to Manage Maggot Pests in Cole Crops in the Central Coast: Study how to better manage pests that target cole crops like lettuce, yet reducing the use of organophosphates. Shimat Joseph of UC Division of Agriculture and Natural Resources (UC ANR). ($302K)

Director Leahy mentioned a recent California Assemble Oversight Hearing chaired by Assemblymember Luis Alejo on finding alternatives to the soil fumigant, methyl bromide, for strawberry growers. DPR, together with cooperators, will be sponsoring a one day symposium/seminar on soil health in the near future. This topic was included as a priority research area by DPR's Nonfumigant Strawberry Working Group Action Plan for accelerating the development of nonfumigant techniques to produce strawberries.

Director Leahy stated that $400,000 will be awarded under the Alliance Grant program this year. The Grants programs began 17 years ago with the purpose of giving seed money to research and later to support implementation of IPM systems. DPR relies on the collective knowledge of PMAC in deciding how to distribute the money.

**Background on DPR's Pest Management Alliance Grant Program and Basic Procedures**.
Dr. Robertson stated that the goal of the PMAC meeting is to make a recommendation to the Director on projects that are fundable. The PMAC members are asked to rank the proposals and

the Director will make the final selection with PMAC input in mind. Dr. Robertson urged the members to consider the proposals as written. Changes will not be considered later during the agreement phase, and projects are funded as they are proposed to maintain integrity of the grant process. The Alliance Grant program seeks to promote:

- Adoption of integrated pest management (IPM) practices
- Reduction of risk to human health and environment
- Collaboration
- Outreach
- Broad-scale implementation (both geographic and audience)

DPR staff reviewed 21 concept proposals. DPR priority areas relate broadly to protecting human health, wildlife, endangered species, and the environment through adoption of reduced-risk IPM systems. Nine concepts were invited to submit a full proposal. DPR received nine submittals from both urban and agricultural interests.

The following table summarizes the nine proposals selected for PMAC review.

| 2013/2014 Alliance Grant Summary of Submitted Proposals | | |
|---|---|---|
| **Proposal** | **PI** | **Budget<br>Duration** |
| ***Tribal Child Care*** | A. Alkon<br>UC San Francisco | $152,895<br>2 years, 8 months |
| ***Family Child Care*** | A. Alkon<br>UC San Francisco | $178,806<br>2 years, 8 months |
| ***Rodent IPM*** | J. Baumgartner<br>Wild Farm Alliance | $186,979<br>2 years, 8 months |
| ***Healthy Homes*** | S. Mehta<br>City and County of San Francisco | $250,000<br>2 years, 6 months |
| ***Field Edge Plantings*** | R. Long<br>UC Cooperative Extension, Yolo | $123,015<br>2 years, 8 months |
| ***Urban Farmers*** | M. Altieri<br>Center for the Study of the Americas, Berkeley | $275,000<br>2 years, 8 months |
| ***Grapevine Pest Management*** | M. Cooper<br>UC Cooperative Extension, Napa | $278,196<br>2 years, 8 months |
| ***Applicator Training*** | M. McGiffen<br>UC Riverside | $127,978<br>2 years, 8 months |
| ***ASD Treatment*** | S. Bourcier<br>Farm Fuel, Inc. | $247,850<br>2 years, 6 months |

Dr. Robertson introduced the facilitator, Dr. Dorian Fougères, from the Center for Collaborative Policy, CSU Sacramento. Dr. Fougères reviewed the meeting goals:

- Discuss the merits/concerns of each project.
- Develop consensus.
- Make recommendation to the Director.

## 3. Rankings Based on Reviewers' Scoring

Prior to the meeting, fifteen PMAC members reviewed and scored the nine proposals as follows:

| 2013/2014 Alliance Grant Review Summary by PMAC Reviewer | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reviewer | | | | | | | | | | | | | | | | |
| Project | Rank | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | Avg | Requested |
| Grapevine Pest Management | 1 | 1 | 1 | 6 | 4 | 7 | 2 | 4 | 3 | 1 | 1 | 1 | 3 | 1 | 2 | 1 | 3.2 | $278,196 |
| Field Edge Plantings | 2 | 1 | 4 | 4 | 4 | 6 | 4 | 1 | 3 | 5 | 2 | 5 | 1 | 6 | 2 | 3 | 3.6 | $123,015 |
| Tribal Child Care | 3 | 6 | 7 | 2 | 7 | 8 | 3 | 2 | 1 | 3 | 4 | 8 | 2 | 4 | 8 | 6 | 4.3 | $152,895 |
| ASD Treatment | 4 | 9 | 2 | 7 | 3 | 4 | 1 | 8 | 1 | 7 | 6 | 7 | 7 | 7 | 1 | 4 | 4.7 | $247,850 |
| Family Child Care | 5 | 6 | 9 | 4 | 8 | 3 | 5 | 2 | 6 | 5 | 3 | 2 | 3 | 5 | 9 | 4 | 5.3 | $178,806 |
| Rodent IPM | 5 | 8 | 3 | 3 | 2 | 2 | 8 | 6 | 7 | 9 | 8 | 8 | 6 | 8 | 6 | 7 | 5.3 | $186,979 |
| Healthy Homes | 7 | 3 | 8 | 8 | 1 | 1 | 7 | 9 | 5 | 7 | 5 | 3 | 8 | 3 | 5 | 9 | 5.4 | $250,000 |
| Applicator Training | 8 | 4 | 5 | 1 | 6 | 9 | 9 | 4 | 8 | 4 | 7 | 5 | 5 | 1 | 4 | 1 | 5.6 | $127,978 |
| Urban Farmers | 9 | 4 | 6 | 9 | 9 | 4 | 6 | 7 | 8 | 2 | 9 | 3 | 9 | 9 | 7 | 8 | 6.1 | $275,000 |

## 4. Discussion of Proposals

The initial discussion focused on the merits and concerns that PMAC members identified when scoring each proposal. The group started with the lowest ranking proposals and worked its way to the highest ranking proposals. The facilitator asked members who gave a proposal an outlier value (i.e., a value significantly higher or lower than the overall ranking) to help the group understand their considerations. The following comments were made by PMAC members.

### Urban Farmers

- Concerns
  - This project is not ready for implementation. Additional research is needed.
  - It is unclear how information will be translated and distributed to the project target audience.
  - The potential for pesticide use reduction is unclear.
  - The goal of reaching 500 growers is overly ambitious.
  - The proposal is not well developed and is based on implementation assumptions, with a questionable outcome.
- Merits
  - Project targets an under-served and diverse group.
  - Alliance team has worked well for many years.

### Applicator Training

- Concerns
  - Project may not be a good use of funding.
  - The program's focus on training does not fit the Alliance Grant program goal of implementing IPM.
  - The proposal repeats training of professionals that are already trained.
  - The geographic scope is limited to Southern California.
  - The Alliance team is missing key statewide players.
  - Part of the budget is allocated to equipment purchase (spray backpacks) and it is unclear who, ultimately, will own the equipment.
  - A large part of the budget is allocated to professional and statistician support. (A member suggested that the amount allocated was reasonable.)
  - Although the proposal has merits, the Alliance Grant program is not the appropriate venue for funding.
- Merits
  - The proposal addresses the need for training in the applicator sector.
  - The proposal is concise and provides for measurable outcomes rather than relying on meetings attendance.
  - The proposal meets all the Alliance Grant program requirements.
  - The project will include a Youtube video and pre- and post-surveys.

### Healthy Homes

- Concerns
  - The proposal's focus on job creation is not appropriate for this grant process.
  - The proposal is not well written; there are no references or scientific basis to judgment and statements.
  - The proposal focuses on eliminating pesticides rather than considering IPM. This approach may not be implementable.
  - The proposal does not clearly state how clientele will be recruited without cash incentives.
  - Overall budget seems high and allocation for professional individuals seem unreasonable.
  - The distribution of the budget is unclear.
  - This proposal is based on a previous proposal that was submitted and rejected last year. It is unclear if the cash incentive approach is an appropriate motivation for participation in the program, given that the goal is long-term adoption.
  - The proposal does not demonstrate a path to safe or better use of pesticide.
  - Transferability of this project is unclear.
  - Longevity of the project beyond this funding period is unclear.
- Merits
  - The proposal provides a good matrix and travel costs seem low.
  - The proposal provides an innovative approach with merit.
  - The Alliance team is well connected in the community; therefore, their efforts are likely to succeed.

- The propsal highlights an important problem that does not get enough attention.
- The training curriculum created in this project can help fill gaps in information on IPM for urban settings.

### Rodent IPM

- Concerns
  - The proposal does not explain how quantifiable outcomes will be measured.
  - This project is premature due to upcoming changes to rodenticide regulations. (Another member suggested that upcoming changes are not critical to the implementation of this project.)
  - The proposal is not well written and does not provide all the required information; the timeline lacks details and the proposal is missing economic data.
  - The proposal scope is unrealistic. The goal of changing public policy is not well explained.
  - Outreach to farmers is not well planned. It is unlikely that farmers will join this effort.
  - Budget allocation for meetings and for setting the project framework is too high.
- Merits
  - The proposal addresses an important rodent issue that farmers continuously deal with.
  - In addition to agriculture, the rodent problem is important in urban settings and for natural resources.
  - Addressing rodent IPM is a priority and the proposal can help fill in gaps for UC IPM.
  - The information may be useful in urban settings.
  - The proposal addresses a legitimate problem since traditional controls are known to have adverse impacts on human health and endangered species.
  - The alliance team is strong but should include additional government agencies like California Department of Public Health, U.S. and California Fish and Wildlife Services, and a UC Urban IPM expert if reapplying for funding.

### Family Child Care

- Concerns
  - It is unclear why the previously developed IPM Toolkit for Early Care and Education Programs (Toolkit) needs additional funding for application. If the program is not self- sustaining, it may not merit another round of funding.
  - The proposal does not list the materials that will be used. Materials should be evaluated for safety and use risk, and weighed against the ant and spider problems they are designed to address.
  - The focus of the proposal is unclear.
  - This proposal does not fit well with the goals of the Alliance Grant program.
  - It is unclear if the program will become self-sufficient. A member suggested that tying the program to an accreditation mechanism might be helpful.

- Merits
  - The proposal is tailored to an important target audience.
  - The proposal provides a good balance between health and the need for pesticide use and IPM.
  - The budget is reasonable given the project's scope.
  - The proposal builds on previous efforts and an existing IPM toolkit.
  - The Alliance team is strong and relies on a shoestring budget.
  - The proposal provides for the appropriate incentives to promote adoption of practices.
- Clarification
  - An audience member clarified the distinction in target audience for this proposal and its previous project. This proposal addresses in-home childcare that is not covered by the California Healthy Schools Act (HSA), whereas the previous project focused on licensed childcare centers that were covered by HSA.

### ASD Treatment

- Concerns
  - The proposal's measures of success are unclear and the statistical analysis is inadequate.
  - The proposal relies heavily on anecdotal discussions with growers after the fact.
  - The Alliance team lacks representation from the strawberry commission, which is working on treatment options.
  - The proposal lays out a very ambitious timeline for recruiting growers and anaerobic soil disinfestation (ASD) application. (A member responded that the timeline is appropriate given weather conditions and growing season. Moreover, growers are already interested in this application.)
  - The project's economics are not convincing and there are not enough data to compare with alternatives. The proposal should include more detailed economic information that explains the tradeoffs between traditional fumigants and ASD treatment.
- Merits
  - The Alliance team will provide support and data collection for growers to implement ASD treatment.
  - This proposal implements an exciting new method. In addition to treatment, research shows 30 percent yield increase with this application.
  - This proposal covers a wide area and will be applied to both small and large farms.
  - The proposal utilizes rice bran, an agricultural by-product.
  - This proposal is easily transferable and demonstrations are needed.
  - This proposal is a private industry and university collaborative effort. The proposal supports potential commercial activity.
  - The proposal addresses an important need and fits the mission, goals, and high priorities of DPR.

- Comments

  There has been much focus and money spent to support research and work on strawberries. It may be important to balance support for strawberries with other commodities.

### Tribal Child Care

- Concerns
  - The proposal builds on previous projects; the proposal will use the Toolkit curriculum that has already been developed.
  - The proposal's expectation of 80 percent use reduction is unlikely.
  - The intention and definition of "culturally sensitive IPM" is unclear. An audience member suggested that the cultural reference is due to differences in language and perception of killing through the use of pest management.
- Merits
  - The proposal recognizes potential barriers that need to be overcome with the target audience.
  - The proposal is well written.

### Field Edge Planting

- Concerns
  - Field edge planting is expensive and thus, this proposal may not lead to widespread adoption.
  - The proposal suggestion of a 20 percent adoption rate seems overly optimistic.
  - The proposal does not address specific crops, which would be helpful when determining appropriate plants for hedgerows.
  - The Alliance team appears to already be doing the work outlined in the proposal; it is unclear why they need additional funding support.
  - The proposal needs to address pests associated with hedgerows.
- Merits
  - The proposal is well written and easy to follow.
  - Field edge planting is a pollinator habitat.
  - The budget for this project is reasonable.
  - The Alliance team already obtained commitments from growers for this project.
  - The research on which the project is based is ready for wide-spread implementation.
  - The proposal has a strong alliance team.

### Grapevine Pest Management

- Concerns
  - The proposal focuses only on the North Coast.
  - It is unclear if the proposal will have a significant impact since the techniques are already well-known and much work on this pest has been done in the past. Significant reduction in chlorpyrifos use has already been accomplished.
  - The proposal neither demonstrates understanding of existing research nor explains how this project will tie into existing work.

- The use of broadcast baits needs additional research. The proposal does not disclose which active ingredients are in the baits.
- The proposal's outreach effort is weak.

- Merits
  - The proposal provides a global approach to pest management.
  - The proposal supports commercial service.
  - The Alliance team is strong and has a long track record of research.
  - The proposal focuses on regional winegrapes. If the proposal has potential for transferability, many regions can be positively affected.
  - The proposal addresses an important need for demonstration.

## 5. Revised Rankings and Additional Discussion

PMAC members re-ranked the proposals based on the discussion. Results are shown in the table below.

**2013/2014 Alliance Grant Review Summary by PMAC Reviewer**

| | | Reviewer | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project** | **Rank** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **Average** |
| *Field Edge Plantings* | **1** | 5 | 3 | 6 | 4 | 1 | 3 | 1 | 2 | 4 | 2 | 2 | 2 | 2 | 1 | 1 | **2.6** |
| *Grapevine Pest Management* | **2** | 3 | 1 | 5 | 6 | 2 | 1 | 2 | 3 | 5 | 3 | 3 | 1 | 1 | 3 | 2 | **2.7** |
| *ASD Treatment* | **3** | 2 | 2 | 1 | 2 | 3 | 2 | 3 | 1 | 1 | 1 | 1 | 5 | 9 | 2 | 7 | **2.8** |
| *Family Child Care* | **4** | 1 | 9 | 2 | 5 | 5 | 5 | 6 | 5 | 6 | 5 | 6 | 6 | 5 | 4 | 9 | **5.3** |
| *Tribal Child Care* | **5** | 6 | 8 | 7 | 8 | 6 | 6 | 4 | 4 | 2 | 8 | 4 | 3 | 4 | 6 | 9 | **5.7** |
| *Rodent IPM* | **6** | 7 | 3 | 3 | 3 | 8 | 7 | 7 | 6 | 7 | 4 | 7 | 7 | 3 | 8 | 6 | **5.7** |
| *Healthy Homes* | **6** | 4 | 7 | 4 | 1 | 7 | 9 | 8 | 7 | 3 | 7 | 5 | 8 | 6 | 7 | 3 | **5.7** |
| *Applicator Training* | **8** | 9 | 5 | 8 | 7 | 4 | 4 | 5 | 9 | 9 | 6 | 8 | 4 | 8 | 5 | 5 | **6.4** |
| *Urban Farmers* | **9** | 8 | 6 | 9 | 9 | 9 | 8 | 9 | 8 | 9 | 9 | 9 | 9 | 7 | 9 | 4 | **8.1** |

### Not Recommended (NR) for Funding Discussion

In addition to re-ranking the projects, the facilitator asked the PMAC members to vote on any proposals that should not be considered for funding. Results are shown in the table below.

| 2013/2014 Alliance Grant Review Summary of 'not recommended' (NR) for funding votes | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Reviewer | | | | | | | | | | | | | | |
| **Project** | **#** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** |
| Field Edge Plantings | **0** | | | | | | | | | | | | | | | |
| Grapevine Pest Management | **0** | | | | | | | | | | | | | | | |
| ASD Treatment | **1** | | | | | | | | | | | | | nr | | |
| Family Child Care | **1** | | | | | | | | | | | | | | | nr |
| Tribal Child Care | **1** | | | | | | | | | | | | | | | nr |
| Rodent IPM | **0** | | | | | | | | | | | | | | | |
| Healthy Homes | **3** | | | | | | nr | | | | | | nr | nr | | |
| Applicator Training | **3** | | | | | | | | nr | nr | | | | nr | | |
| Urban Farmers | **6** | | | nr | nr | nr | | | | nr | | nr | nr | | | |

Although some proposals received “not recommended” votes, members felt that there was no clear consensus to eliminate any of the proposals from funding consideration. Dr. Robertson explained that DPR does not want to fund a project that PMAC members do not tentatively approve. Dr. Nan Gorder clarified that the members have provided adequate input through the discussion and it is appropriate to move forward with ranking and not eliminate any of the projects from the list.

### Final Comments on Proposals

The re-ranking indicates a strong preference for the top three ranked proposals. The conversation focused on these proposals:

1. Field Edge Plantings
2. Grapevine Pest Management
3. ASD Treatment

The following comments were offered by members of the committee:

- The Grapevine proposal has gotten a lot of funding work that was not considered in this proposal.
- Much effort and funding from DPR and others have focused on strawberries and it is time to support other commodities and have more diversity in funded projects.
- Alternatives to fumigants remain a huge issue; therefore, it is important to continue to identify practices that work for diverse commodities.
- The applicability of ASD to other crops was questioned. A member replied that there are successful trials on raspberries and it is used in limited application on vegetables in Japan.
- In response to a question on how ASD treatment will fit into the overall IPM program, a member stated that ASD is integrated into a soil-borne pest approach. It is believed that ASD treatment can help target pathogens and provide for crop yield increase.

### Urban vs. Agricultural Proposals

A member observed that urban projects are unlikely to be funded this year. Urban consumer pest products are an important issue and it is unfortunate that urban project proposals did not make it to the top ranking. It was noted that in previous years, the top ranked projects were urban rather than agricultural focused proposals. In their recommendations, PMAC members focus on the merits of the proposals and how well they meet the Alliance Grant program's goals.

### Project Scoring

Members observed that the scores were somewhat misleading. Members considered the need to represent the averaged scores differently by rounding up to highlight the relatively equal scoring of the top three projects. There were disagreements on whether the top three proposals should be considered equal or in ranked order. Ultimately, DPR staff will use the ranking and PMAC input in recommending which projects to fund. Director Leahy stated that PMAC provided sufficient feedback and DPR will consider both comments and rankings in their recommendation.

## 6. Closing Remarks

Director Leahy reiterated that staff will consider PMAC's input in making a recommendation. DPR recognizes that $400,000 will not fund a large number of projects. The department hopes to increase its funding through the legislative process.

Director Leahy reminded PMAC that the next round of Research Grant proposals will begin in the fall. The proposals will be downloaded using FAAST, an online tool, to improve the review process. The next PMAC meeting is scheduled for August 8, 2013. Director Leahy thanked members for their time reviewing the proposals and attending the meeting and closed the session.