SUMMARY | PEST MANAGEMENT ADVISORY COMMITTEE ALLIANCE GRANT REVIEW MEETING
CALIFORNIA DEPARTMENT OF PESTICIDE REGULATION
May 12, 2016
Produced by the Center for Collaborative Policy, CSU Sacramento

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1. Attendance

Pest Management Advisory Committee (PMAC) Members

1. Anne Katten, California Rural Legal Assistance Foundation (via webcast)
2. Caroline Cox, Center for Environmental Health
3. Dave Tamayo, California Association of Sanitation Agencies
4. David Bakke, U.S. Forest Service (USFS)
5. Jenny Broome, Driscoll Strawberry Associates, Inc.
6. John Roncoroni, University of California Cooperative Extension
7. Kevin Wright, California Agricultural Commissioners and Sealers Association
8. Laura Brown, California Citrus Mutual
9. Marcia Gibbs, Sustainable Cotton Project
10. Nicole Quinonez, Consumer Specialty Products Association
11. Rebecca Sisco, UC Davis, Western Region IR4 Program
12. Robert Ehn, Western Plant Health Association
13. Steve Blecker, California Department of Food and Agriculture (CDFA)
14. Terry Gage, California Agricultural Aircraft Association
15. Veena Singla, Natural Resources Defense Council

California Department of Pesticide Regulation (DPR)

16. Brian Leahy, Director
17. Joe Damiano
18. Mark Robertson
19. Doug Downie
20. April Gatling

Facilitation Support

21. Tania Carlone, Center for Collaborative Policy, CSUS
22. Stephanie Horii, Center for Collaborative Policy, CSUS

2. Opening Comments and Background

Introductions and Chair's Opening Comments

Brian Leahy, Director of the Department of Pesticide Regulation (DPR), welcomed everyone and thanked them for joining the meeting. The goal of this meeting is to obtain the PMAC's recommended Pest Management Alliance Grant proposals for possible DPR funding.

DPR Policy on Supplemental Environmental Projects under AB 1071

April Gatling, DPR Senior Attorney, first presented an overview of DPR's Supplemental Environmental Projects (SEP) Policy as it applies to implementing the newly-adopted AB 1071. A SEP is an environmentally beneficial project for which an entity that is subject to an enforcement action voluntarily agrees to undertake in settlement to offset a portion of a civil penalty. Most DPR SEPs result from settlement cases that involve unregistered or misbranded chemicals. DPR's SEP Policy, in compliance with AB 1071, will incorporate the following:

- Consideration of the relationship between the location of the violation and the proposed SEP.
- Prioritization of proposed SEPs that benefit disadvantaged communities.
- Assurance the proposed SEP does not directly benefit the violator or is used to satisfy an agency's statutory obligation.
- Public posting of a list of potential SEPs on the California Environmental Protection Agency (CalEPA) website.

Ms. Gatling encouraged PMAC members to provide input to help identify and promote proposals for SEPs. She directed them to DPR's website for more information: http://www.cdpr.ca.gov/docs/enforce/enfords/sep_policy.htm

Ms. Gatling offered the following responses to PMAC members' clarifying questions:

- DPR undertakes approximately 100 enforcement cases annually; about 2 per year have included SEPs. This number may increase now that DPR has a formal SEP Policy.
- DPR cannot use SEPs to satisfy its statutory obligations; SEPs can only supplement its mission.
- DPR currently has general categories of potential SEPs on its website. As DPR receives specific proposed SEPs, it will post these proposals to the website.
- Generally the violations that DPR receives are statewide and not location-driven. For violations that happen to location specific, DPR will likely prioritize proposed SEPs related to that location.

Background

Dr. Doug Downie then provided background for DPR's Pest Management Alliance Grant Program. The Alliance Grant Program aims to promote the adoption of established Integrated Pest Management (IPM) practices that reduce the use of pesticides of human health or environmental concern through the guidance of a collaborative team of knowledgeable participants known as an "Alliance." The 2016-2017 Alliance Grant Program has $400,000 available for funding proposals. The balance of funds will be awarded competitively to projects

focusing on outreach; research may be a minor component. DPR expects it will fund approximately two projects.

The 2017-2018 Alliance Grant Program will fund projects that focus on adoption of IPM practices in agricultural settings near schools in response to forthcoming new regulations for pesticide use near schools.

PMAC Member Survey

Dr. Downie reviewed the results of a survey sent to PMAC members to obtain feedback on the PMAC grant review process (19 individuals participated in the survey):

- High support for DPR to share reviewers' comments to PMAC members who cannot attend the meeting.
- Split support for DPR to include a compilation of reviewers' comments in the handout package (DPR included each reviewer's own individual comments in his/her handout package for this meeting).
- General agreement that there is sufficient diversity among applicants for DPR Pest Management Research Grants (Research Grants); however, split agreement that there is sufficient diversity among applicants for Pest Management Alliance Grants (Alliance Grants). This may indicate that DPR may want to explore options to increase diversity.
- Little to no interest in reviewing the proposal concepts.
- Slightly higher agreement that it is a reasonable requirement for PMAC members involved in a proposed project to recuse themselves from the entire review process.
- Willingness to review up to 10 Alliance Grant proposals; more willingness to review up to 15 Research Grant proposals.

Background on DPR's Pest Management Research Grant Program and Basic Procedures

Dr. Doug Downie provided an overview of the grant application process and the seven proposals.

Key grant program milestones are as follows:

- Concept proposals were received by February 5, 2016.
- Full proposals were received by April 1, 2016.
- Following the review period, grant projects will be selected by June 30, 2016.
- Project start date is September 1, 2016.

DPR selected 7 project proposals for PMAC members' review. The following table summarizes those proposals:

2016/2017 Alliance Grant Summary of Submitted Proposals		
Proposal Short and Full Title	**Principal Investigator**	**Budget**
Bourcier - ASD Continued adoption of ASD through educational workshops, demonstrations, and outreach materials for all California growers	**Stefanie Bourcier**, Farm Fuel, Inc.	$243,396
Casey - Bees Demonstrating and teaching the effectiveness of bee pollinator-compatible IPM programs in ornamental horticulture	**Christine Casey** UC Davis	$396,632

2016/2017 Alliance Grant Summary of Submitted Proposals		
Proposal Short and Full Title	**Principal Investigator**	**Budget**
Choe - Urban Run Off Reducing the Insecticide Runoff by Implementing Lower Risk Urban IPM Strategies	**Dong Hwan Choe** UC Riverside	$187,703
Cronquist - Cut Flowers Reducing Pesticide Risk in California Cut Flower Production	**Kasey Cronquist** CA Cut Flower Commission	$209,213
Dudley - Tamarisk Biocontrol California Alliance for Tamarisk Biocontrol	**Thomas Dudley** UC Santa Barbara	$188,043
Haviland - Almonds Demonstration and Implementation of IPM in Almonds	**David Haviland** UC-ANR	$203,646
Silva - Roadside Weeds Integrated Pest Management for Road Maintenance Operations	**Constance Silva** County of Santa Cruz	$214,000

Dr. Downie explained that the objective for this meeting is for the PMAC to recommend which project proposals DPR should consider for possible Pest Management Alliance Grant funding. He stated that committee members should not vote based upon how DPR might allocate grant funds.

He reiterated that PMAC committee members who are principal investigators or key team members are not eligible to receive funds through a project unless they recuse themselves from the entire grant review process; PMAC members who serve in an advisory capacity on a proposed project must recuse themselves from review of only that proposal. However, organizations with which the committee members are associated are eligible for funding.

Dr. Downie then introduced the facilitator Ms. Tania Carlone from the Center for Collaborative Policy, California State University, Sacramento. Ms. Carlone reviewed the meeting goals:

- Identify the proposals PMAC considers fundable
- Rank those proposals in order of preference
- Record merits and concerns for all proposals
- Provide Grant Program feedback

3. Rankings Based on Reviewers' Scoring

Prior to the meeting, 19 PMAC members reviewed and scored the 7 proposals. The numeric scores were converted to ranks, where 1 was the most highly regarded proposal and 7 was the least, as presented in the following chart:

2016/2017 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**	**$**
Haviland - almonds	1	1	1	2	3	4	2	3	3	5.5	3	1	1	3	4	1.5	2	1	5	4	**2.63**	1	6	$203,646
Bourcier - ASD	2	5	5	1	4	1	6	1	1	1	6	2	3	1	6	3	3	3	ND	1	**2.94**	1	6	$243,396
Dudley - tamarisk biocontrol	3	7	3	4	1	2	1	2	2	2	4.5	6	2	2	1	7	5	5	1	5	**3.29**	1	7	$188,043
Choe - urban run off	4	2	4	5	2	7	3.5	5	5	7	1	4	4	6	2	4	1	2	4	2	**3.71**	1	7	$187,703
Cronquist - cut flowers	5	4	2	3	6	3	3.5	4	4	4	2	5	5	4	3	6	4	4	3	3	**3.82**	2	6	$209,213
Casey - bees	6	3	7	7	ND	5.5	5	6	7	3	4.5	3	6	5	5	5	6	7	2	6	**5.17**	3	7	$396,632
Silva - roadside weeds	7	6	6	6	5	5.5	7	7	6	5.5	7	7	7	7	7	1.5	7	6	ND	7	**6.14**	2	7	$214,000

4. Discussion of Proposals

Initial discussions focused on which proposals the PMAC members felt were less fundable compared to the other proposals. The group agreed to remove two proposals: Casey - Bees and Silva - Roadside Weeds. However, PMAC members discussed the merits and concerns for all 7 projects proposals. Below is a summary of PMAC members' comments for each of the 7 proposals. Comments reflect individual PMAC member observations, not consensus opinions. Thus, merits and concerns may occasionally appear to be contradictory.

[Removed from Meeting Poll] Silva - Roadside Weeds: Integrated Pest Management for Road Maintenance Operations

Merits

- The concept has applicability to other locales and general public interest; decision-makers would likely entertain economically feasible and effective alternatives in response to political pressures from the community to halt use of glyphosate.
- The proposal has good technical merits (e.g., mapping).
- The proposal identified examples of successful precedence and provided references for reviewers to further examine that information if desired.

Concerns

- May be better suited for a Research Grant because the applicants' proposed methods have not been proven to be substantially successful yet.
- The outreach component seems insufficient and does not clearly outline how this project's methodologies will expand to other locales.
- Selecting a chemical like glyphosate (i.e., Roundup®) may prove to be too politically-charged and controversial.
- The alliance team seemed too limited to its own organization, which gave the impression the proposal aimed to gather funds for expanding existing operations and less about promoting others to adopt this methodology. The applicants should have built a broader team to demonstrate the project's applicability.
- The proposal seemed to lack comprehensive technical understanding of glyphosate. For example, few organizations monitor for glyphosate in the water, and reliable detection is doubtful. Therefore it is challenging to clearly demonstrate whether a glyphosate water quality issue actually exists.
- The proposal budget and narratives had several inconsistencies.
- The alternative chemical's warning label restrictions may prevent the applicants from even using the alternative. This is uncertain though without knowing what the alternative chemical is.
- Certain budget components seem high.

Requested Clarification

- Further explain the alternative methodology and chemistry.
- Provide further discussion on the barriers to success.

[Removed from Meeting Poll] Casey - Bees: Demonstrating and Teaching the Effectiveness of Bee Pollinator-Compatible IPM Programs in Ornamental Horticulture

Merits

- Public awareness of bee health is incredibly important. Pollinator health is a serious issue right now.
- Proposal outlined good outreach efforts and quantitative measures to describe its outreach.
- One of the goals included educating the public on control measures that have environmental benefits but also non-target negative impacts.
- Project team is highly qualified.
- Primary project site is in a good, accessible location which enhances public awareness of the issue.

Concerns

- Requested budget is high given the proposal lacked specificity on how the funds would be allocated. Needed to justify certain budget line items (e.g., full-time salaries).
- The recommended IPM strategies regarding neonicotinoids may have severe detrimental effects on the citrus industry.
- The proposal appeared to lack sufficient quantitative evidence to support its statements. The proposal should have acknowledged and referenced the large body of existing research on this topic.
- The project may be more appropriate for the Research Grant Program. Encourage the applicant to resubmit under the Research Grant Program.
- The goals seemed too ambitious and broad (which might partly justify the high cost).
- The proposal should have narrowed its scope to a particular sector, geographical location, type of urban garden, etc.

Requested Clarification

- Provide additional specifics (e.g., what funds would go to outreach, how experts planned to train locals on implementation, how urban gardening methods could relate to agriculture production, etc.).

1. Cronquist - Cut Flowers: Reducing Pesticide Risk in California Cut Flower Production

Merits

- The need to address pesticides in the cut flower industry is high. If successful, this project has the potential to have enduring and far-reaching impacts in the cut flower industry and even other industries.
- Project team is highly qualified and from different parts of the industry, which demonstrates a strong team alliance.
- Included the appropriate players on the alliance team.

- This project focuses on a different industry and topic than previous proposals, which helps enrich the Grant Program.

Concerns

- One of the outcomes appears to be to develop a tool for proprietary uses, which may not align with the intent of the Alliance Grant Program. Appeared to focus on labels and marketing rather than pesticide risk reductions.
- Focused too much on just one component of IPM practices.
- There are still open research questions that warrant further attention before implementing the proposed methods (e.g., BioIPM for cut flowers).

Requested Clarification

- Add further details on the project activities (e.g., success of the model, certification program process, number of farmers who use Bloom Check, components of the subcontracts, transition from research to outreach, etc.).

2. Choe - Urban Run Off: Reducing the Insecticide Run Off by Implementing Lower Risk Urban IPM Strategies

Merits

- Project team is highly experienced.
- Pesticides in surface water is a major problem statewide, and there is growing concern with the effects of the commonly-used pesticide (fipronil) on human health and the environment. There are few urban IPM tools available, so the objective is important and of interest to several agencies.
- This proposal was previously submitted under the Research Grant Program. This resubmittal under the Alliance grant reflects a lot of the PMAC's feedback.
- Proposal was well written with explicit and cohesive descriptions of the problem and the proposed methods.
- Budget is reasonable.
- Involvement of industry leaders demonstrates a strong alliance.

Concerns

- Uncertain whether the project uses an appropriate efficacy metric (i.e., callbacks). Perhaps supplement with additional measurements such as water quality testing.
- The proposal would have been stronger if it had industry partners' letters of commitment to use these IPM practices in some manner.
- Project scope seemed to focus on just pesticide reduction rather than other components of IPM, such as prevention.
- The proposal could have cited existing research on fipronil reduction methods (e.g., research by Lee Greenberg).
- Outreach focused on the pest management professionals (PMPs); perhaps the project should expand its outreach to homeowners if appropriate. It is appropriate to focus on PMPs in regards to fipronil because only PMPs can use fipronil.

Requested Clarification

- Elaborate on the IPM protocols that will be used at study sites.

3. Dudley - Tamarisk Biocontrol: California Alliance for Tamarisk Biocontrol

Merits

- Highly qualified team from a broad range of expertise.
- This proposal was previously submitted under the Research Grant Program. This resubmittal under the Alliance Grant reflects a lot of the PMAC's feedback.
- The proposal is well written with clearly-presented goals and objectives.
- Tamarisk is a major ongoing environmental and economic problem in California and requires greater public awareness.
- The wildland component of this project adds diversity to the range of proposals, which are primarily agriculture- or urban-focused.
- The project may significantly help the agriculture sector reduce pesticide use in the attempt to control tamarisk.
- The project may help promote the most appropriate pest management technology while also providing water supply/quality and environmental benefits.

Concerns

- The proposal did not sufficiently address regulatory implementation challenges, such as the current regulation on moving the tamarisk beetle in California. The project team should partner with those related agencies – U.S. Fish and Wildlife (US FWS) and Animal and Plant Health Inspection Service (APHIS) – or conduct greater regulatory outreach to garner their support.
- The project focuses on the impacts on water use and habitat; pesticide use seems to be a secondary component. This insinuates other natural resources agencies and organizations may be more appropriate funding sources. However, since this is the applicant's third submittal, it behooves DPR and PMAC to notify applicants of this issue early on in the review process.
- The project's objective seems to already possess sufficient buy-in and primarily needs the funds for operational costs.
- Incorporating monetary values to tamarisk damage and the economic benefits of the proposed project would better describe the problem and potential benefits.

Requested Clarification

- Include additional outreach beyond publications to increase awareness of this issue.

4. Bourcier - ASD: Continued Adoption of ASD through Educational Workshops, Demonstrations, and Outreach Materials for All California Growers

Merits

- Anaerobic Soil Disinfestation (ASD) is an important topic.
- Strong collection of alliance partners.

- The ASD adoption rate seems promising.
- The diverse outreach plan (e.g., workshops, multimedia, and print materials) will help perpetuate ASD adoption.
- The project will explore applying ASD to other carbon sources and different crops.

Concerns

- The project team would benefit from a greater range of expertise (e.g., nematologists).
- Exploring other carbon sources indicates the project may be better suited for the Research Grant Program.
- The cost to implement may be too high to be economically feasible for lower value crops. Growers are less inclined to adopt ASD methods if the costs are too high.
- The project outcomes could include more manuals and other documents in Spanish.

Requested Clarification

- Explain the rationale for the high cost for consulting fees.
- Provide evidence to explain the efficacy and cost of implementation to use other carbon sources, such as almonds and grapes. Include indirect costs (e.g., transportation) to describe ASD implementation costs.
- Further explain the rationale for methodologies (e.g., different number of acres in different treatment groups does not appear to support parallel comparisons).
- Outline how these ASD methods can be applied to vegetation row crops.

5. Haviland - Almonds: Demonstration and Implementation of IPM in Almonds

Merits

- Strong need for outreach and adoption of IPM practices with this crop because almond fields are expanding. Relatively new Pest Control Advisors (PCAs) would also benefit from a refresher on IPM principles.
- For the given proposed budget, the project could have substantially high economic benefits.
- Proposal is well written and clearly describes the problems of increased almond fields and use of pesticides.
- The project addresses different pest issues in different parts of the Central Valley.
- The project team has highly-qualified individuals.

Concerns

- The project's efficacy is uncertain partly because the proposal lacked sufficient metrics to gauge the project's success (e.g., did not use market-based approaches to analyze efficacy).
- Key players were missing from the alliance, such as PCAs and growers. The project team should engage parties such as the California Association of Pest Control Advisors (CAPCA). The project needs a strong alliance team for IPM methods to be widely adopted.

- The project appears to focus on insect pest-control strategies. The project should incorporate other IPM components. However, increasing the scope of the project may also increase the needed funds.

Requested Clarification

- Identify the time allotted to the specific project tasks and who will conduct those tasks.

5. Revised Rankings and Summary Recommendations

Based on the discussion, PMAC members who had participated in the initial review re-ranked the remaining 5 proposals.

Re-ranking results are shown in the table below:

2016/2017 Alliance Grant Review Summary by Reviewer, Meeting 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	$
Dudley - tamarisk biocontrol	1	2	1	3	1	1	2	1	3	2	2	2	5	1	3.5	2	-	-	-	-	**2.10**	1	5	$188,043
Bourcier - ASD	2	1	ND	2	5	4	3	4	4	1	1	1	2	2	3.5	1	-	-	-	-	**2.46**	1	5	$243,396
Haviland - almonds	3	3	2	4	3	3	1	3	1	4	3	3	1	3	2	4	-	-	-	-	**2.67**	1	4	$203,646
Choe - urban run off	4	5	4	1	2	2	4	2	2	3	5	4	3	4	1	3	-	-	-	-	**3.00**	1	5	$187,703
Cronquist - cut flowers	5	4	5	5	4	5	5	5	5	5	4	5	4	5	5	5	-	-	-	-	**4.73**	4	5	$209,213
Casey - bees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$396,632
Silva - roadside weeds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$214,000

PMAC members reflected that the re-rankings remained relatively similar to the initial rankings. A committee member commented that Dudley - Tamarisk biocontrol and Haviland - Almonds appear to have less variance than Bourcier - ASD. PMAC members said they did not have additional concerns or remarks on the proposals.

6. Grant Program Process Feedback

PMAC members were invited to provide feedback to DPR on the Grant Program review process. Several individuals expressed gratitude for the meeting process and DPR's responsiveness to members' previous feedback (e.g., providing water and reminder e-mails). A committee member added that the PMAC has evolved into a respectful group that supports open dialogue with diverse perspectives. The following summarizes suggestions for improvements:

- Provide budget guidance to applicants. Budgets under $200,000 for the Alliance Grant is more realistic.
- Keep the number of proposals for PMAC review limited to 10 proposals or less. Try to evaluate the lower-ranking proposals faster to have more time and energy to discuss the higher-ranking proposals.
- The current evaluation criteria appears to place too much emphasis on whether the proposal is well-written, but excludes other important variables like economic aspects. Consider including additional criteria (e.g., is the proposal appropriate for this type of grant overall, how adoptable is the project, and what is the probable level of impact). Also consider differentiating the criteria appropriately between the Research Grant and the Alliance Grant criteria.

- Remind PMAC of DPR's grant priorities. It is very helpful to know that next year's Alliance Grants will prioritize pesticide use near schools.

7. Closing Remarks

Mr. Leahy concluded the proposal review discussion by thanking PMAC members for reviewing and commenting on the proposals. Their recommendations provide invaluable input for DPR's proposal review and expand DPR's services overall.

Upcoming PMAC Meeting

- TBD.