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

May 12, 2022

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

Contents

1. Attendance

Pest Management Advisory Committee (PMAC) Members

1. Brenna Aegerter, University of California, Agriculture and Natural Resources
2. Bill Allayaud, Environmental Working Group
3. Whitney Brim-DeForest, University of California Cooperative Extension
4. Greg Browne, USDA Agricultural Research Service

5. Robert Ehn, California Garlic and Onion Research Committee
6. Jonathan Evans, Center for Biological Diversity
7. Jim Farrar, Director, Statewide UC IPM Program
8. Terry Gage, California Agricultural Aircraft Association
9. Brian Gress, California Department of Food and Agriculture
10. Jon Holmquist, Association of Applied IPM Ecologists
11. Hanna Kahl, Community Alliance with Family Farmers
12. Anne Katten, California Rural Legal Assistance Foundation
13. Farzaneh Khorsandi, UCD Department of Biological and Agriculture Engineering
14. Gabriele Ludwig, Almond Board of California
15. Nick Lupien, California Association of Pest Control Advisers
16. Melissa O'Neal, Marrone Bio Innovations, Inc.
17. Margaret Reeves, Pesticide Action Network North America
18. Steve Scheer, California Agricultural Commissioners and Sealers Association
19. Eric Stein, Western Plant Health Association

California Department of Pesticide Regulation (DPR)

20. Aimee Norman
21. John Gerlach
22. Leslie Talpasanu
23. Jordan Weibel
24. Matt Fossen
25. Catherine Bilheimer
26. Tory Vizenor
27. Lynette Komar
28. Brian Ingel
29. Kimberly Crispin
30. Hannah Jensen
31. Andy Nguyen

Facilitation Support, CSU Sacramento

32. Ariel Ambruster
33. Jessica Walker

2. Opening Comments and Background

Introductions and Opening Comments

Aimee Norman, Chief, Department of Pesticide Regulation (DPR) Integrated Pest Management (IPM) Branch, appearing on behalf of DPR Director Julie Henderson, welcomed everyone and thanked Pest Management Advisory Committee (PMAC) members for their time and commitment to reviewing the large number of Alliance grant proposals this year.

Ms. Norman explained that, with the recent expiration of Governor Newsom's Executive Order N-1-22 allowing for teleconference meetings because of COVID, this meeting was held in-person. As required under the Bagley-Keene Open Meeting Act, the addresses of teleconferencing locations of those PMAC members participating remotely were listed on the agenda.

Public comments and questions would be taken after each proposal item, in the room, via email to DPRpmgrants@cdpr.ca.gov for those watching the meeting by webcast, and by raised hand on Zoom at the remote teleconferencing locations.

Ms. Norman introduced a new PMAC member, Gabriele Ludwig of the Almond Board of California.

Ms. Norman expressed appreciation for PMAC, saying the committee plays a critical role in advancing safer and sustainable pest management. A brief process reminder was given indicating that PMAC rankings are evenly weighted with DPR staff rankings to create a combined average overall ranking list that is used to make funding recommendations to the Director. Funding recommendations have consistently reflected the projects that have achieved the highest combined ranking, to the extent allowed by available funds.

Department Updates

Ms. Norman shared the following department updates and highlights:

- In April, DPR awarded $3.75 million to fund ten IPM research projects, a 617% increase from previous year funding. The projects included:
    - Pesticide-free mating disruption for spotted lanternfly
    - Use of biocontrol systems for tadpole shrimp control
    - Use of targeted insect growth regulators for ant control
    - Biting mite identification and management guidelines
    - Baiting systems for termites that support fumigant use reduction
    - Attract and kill baiting methods for palm weevils to reduce use of large-scale pesticide treatments
    - Non-chemical entrapment devices for bedbug management
- The Sustainable Pest Management Work Group is on target to release a draft sustainable pest management road map in June for public comment, with adoption of the final road map expected in late 2022. She acknowledged PMAC members serving in the Work Group: Jenny Broome, Jim Farrar, Gabriele Ludwig, Margaret Reeves, and Dave Tamayo.

- Last year, DPR detected residues of the neonicotinoid insecticide imidacloprid in 15 groundwater wells in Fresno, Santa Barbara, and Tulare counties. The Department initiated the Pesticide Contamination Prevention Act review process and is conducting public hearings to determine if the registration of imidacloprid agricultural products should be allowed to continue.
- DPR is working with Riverside, Stanislaus, Santa Cruz, and Ventura counties to launch pilot projects to support DPR's development of a statewide pesticide application notification system.
- DPR is studying the mill assessment, a fee on pesticide sales to support the State pesticide regulation program, to identify the appropriate funding structure and rates to adopt in 2023 to support protecting public health and the environment long-term. DPR is seeking to engage a wide range of stakeholders through sector-based consultations this summer and fall. Questions, feedback, and comments can be submitted to DPR in writing via email at ProjectMillStudy@cdpr.ca.gov.

A PMAC member asked why a Research Grant proposal ranked highly by PMAC, the Fennimore band steamer pasteurization proposal, was not awarded funds.

Ms. Norman responded that the consolidated DPR staff and PMAC rankings are incorporated into the funding recommendation to the Director. This year there was a divergence in how DPR staff viewed ranked proposals and how PMAC ranked proposals. DPR will be sharing out more information about that and the ultimate awards to PMAC members in writing.

3. Alliance Grant Proposal Overview

Dr. Tory Vizenor, Alliance Grants Program Lead, DPR IPM Branch, reviewed the day's agenda and the process for reviewing and ranking. She then shared updates to the 2023 IPM Grants Program.

- Alliance Grants
  - The Alliance Proposal applications period will re-open in July
  - There is $1.5 million in available funding
- Research Grants
  - Research Proposal applications periods will re-open in July
  - There is $3.15 million in available funding

Dr. Vizenor outlined the current 2022 Alliance Grants program status. There is $1.8 million in funding available, for projects two and a half years in length. DPR received 15 proposal applications, and 11 qualified for PMAC review. Over $4.4 million in funding is being requested by eligible projects which is 2.4 times the amount of available funding.

2022-2023 Alliance Grant Summary of Proposals

Proposal Short and Full Title	Principal Investigator	Budget
Baumgartner – Promoting the Use of Natural Enemy Habitat Bridging the Gap Between Science and Adoption: Promoting Pest Insect Suppression and Pesticide Reduction Through the Use of Natural Enemy Habitat	**Ms. Jo Ann Baumgartner**	$196,064
Lin – UV-C Technology for Strawberries Demonstration and Implementation of Cost-Effective UV-C Technology for California Strawberry Pest Management	**Dr. John Lin**	$341,028
Nansen – LED Technology for Greenhouse Crops Demonstration and Training in Smart-Use of LED Technology to Enhance Pest Management in Greenhouse Crops	**Dr. Christian Nansen**	$240,168
De Palma-Dow – Clear Lake Shoreline Restoration Using IPM Methods to Create Strong and Sustainable Shorelines on Clear Lake, CA.	**Ms. Angela De Palma-Dow**	$350,138
Brown – Sterile Insect Technology (SIT) for Mosquito Control Using Sterile Insect Technique to Control Invasive Aedes Mosquitoes in San Bernardino County, California	**Dr. Michelle Brown**	$831,756.19
Choe – IPM For Urban Pest Ants Adoption, Alliance Formation, and Implementation of Low-Impact IPM for Urban Pest Ants	**Dr. Dong-Hwan Choe**	$271,748
Dudley – Cape Ivy Biocontrol California Alliance for Cape-Ivy Biocontrol	**Dr. Tom Dudley**	$212,925
Burger – Herbicide Calibration for Wildland Weeds Mainstreaming Effective Herbicide Calibration for Wildland Weed Work	**Dr. Jutta Burger**	$165,389
Ibrahim – Healthy Homes in South LA Healthy Homes in South Los Angeles	**Ms. Nancy Ibrahim**	$813,638
Ashby – Webpage Enhancements and On-Demand Training Central Valley Integrated Pest Management Webpage Enhancements and On-Demand Training Module	**Ms. Karen Ashby**	$276,000
Yuma – Cannabis Outreach Program Implementing Holistic, Bio-Friendly, Pest Management Techniques in Cannabis Cultivation	**Mr. Tayler Yuma**	$598,373

Twenty-one PMAC members reviewed the proposals ahead of the meeting and submitted ranks for each proposal. Dr. Vizenor shared the initial ranking, as presented in the following chart, shown in ranked order. She drew attention to the Brown and Choe proposals, noting that they received identical ranked scores and Brown is shown above Choe only because of alphabetical order.

2022/2023 Alliance Grants Program Initial PMAC Proposal Rankings *(average of 21 rankers)*

Principal Investigator	Short Title	Rank Order	Average Rank	Standard Deviation	High	Low
Baumgartner	**Promoting the Use of Natural Enemy Habitat**	1	**3.52**	3.17	1	10
Lin	**UV-C Technology for Strawberries**	2	**4.33**	2.27	1	9
Nansen	**LED Technology for Greenhouse Crops**	3	**4.90**	2.11	1	9
De Palma-Dow	**Clear Lake Shoreline Restoration**	4	**5.00**	3.30	1	10
Brown	**Sterile Insect Technology (SIT) for Mosquito Control**	6	**5.29**	2.47	1	11
Choe	**IPM For Urban Pest Ants**	6	**5.29**	2.27	2	9
Dudley	**Cape Ivy Biocontrol**	7	**6.10**	2.86	1	9
Burger	**Herbicide Calibration for Wildland Weeds**	8	**6.24**	2.64	2	10
Ibrahim	**Healthy Homes in South LA**	9	**7.24**	2.89	1	11
Ashby	**Webpage Enhancements and On-Demand Training**	10	**7.43**	2.36	2	11
Yuma	**Cannabis Outreach Program**	11	**10.90**	0.29	10	11

Quorum Count

Aimee Norman, DPR IPM Branch Chief, took roll and ascertained that a quorum of PMAC members was participating in the meeting, in accordance with the Bagley-Keene Act. Ms. Norman reminded PMAC members of their legal obligation to disclose any conflicts of interest and initiate recusal as appropriate, and said DPR had not been notified of any conflicts of interest or recusals for this set of proposals.

Ms. Norman noted that 2 members were being represented by their alternates:

- Brian Gress for Karen Ross, California Department of Food and Agriculture
- Eric Stein for Renee Pinel, Western Plant Health Association

Ms. Norman noted that the three Ex Officio members do not count toward quorum and affirmed that quorum had been attained. See above for the attendance list.

4. Alliance Grant Proposal Discussion

The facilitator, Ariel Ambruster from the Consensus and Collaboration Program at California State University, Sacramento, noted that the role of PMAC is to provide recommendations and feedback helpful to inform Director Henderson's funding decisions.

First, PMAC members discussed whether there was an obvious bright line separating out proposals they'd recommend not funding. PMAC members were in consensus that they would not recommend the Yuma proposal for funding.

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.

Baumgartner – Promoting the Use of Natural Enemy Habitat

Merits

- Natural enemy habitat is very beneficial.
- The proposal reflects the State's biodiversity priorities.
- This is a strong team. It's an extremely well-put together program, with the multiple speakers, the number of field days, the intent to educate 200-plus professionals, and working with Cooperative Extension and Oregon.
- The proposal did a good job of addressing all the solicitation questions.
- The project would leverage funds and programs.
- It is seeking to take a broad scale approach.
- There is inclusion of farmers' voices in the outreach effort.
- Farmscaping should help stabilize monoculture.

Concerns

- They would need incentives to get buy-in from the growers.
- There is a lack of sufficient data to show growers that doing this would give return on investment and be worth the extra cost.
- This might have merit in Sacramento Valley, where they've done the research, and the northern San Joaquin Valley and coastal areas, but might not work in areas with less water or with different species.
- What could be the environmental impacts of bringing in the predators, such as to managed bees?
- The program is not extensive enough to make enough of an impact that will lead to change.
- The proposal did not address the obstacles to implementation in terms of possibly taking land out of production, the cost of installing and maintenance, and possible food safety issues such as that caused by bird waste.
- This information is already widely available and known by farmers and it's not clear this program will make a difference.
- There are possible issues with farmers and field crews understanding how to undertake long-term maintenance.
- There is a need to fill in more details in the research – studies don't look at damage.
- There is a need for collaboration with producers and letters showing evidence of their support.

Clarifications

- None.

Public Comment

- None.

Lin – UV-C Technology for Strawberries

Merits

- This is a pretty strong team, with engineers, good partners.
- Letters include support from growers, shippers, and UV researchers.
- The proposal addresses cost and feasibility.
- There is an IPM benefit of UV light that is documented to work on powdery mildew. It's a great idea.
- The research has been done and we know it works, the question is how to scale it up and make it more efficient, which this proposal is trying to do.
- If adopted by growers, this will reduce pesticide use.
- The team has addressed the return on investment component.
- This addresses a major need as strawberries are often the highest ranked for containing pesticide residues.
- The fungicides used with strawberries have impacts to farm worker health.
- Something needs to be done for this important sector and we can't reduce available tools.
- Researchers are intrigued with this technology and see using it at night as being effective. Growers see autonomous units as necessary because of labor costs.

Concerns

- This may have a negative impact on the health of farm workers and others nearby if the UV-C radiation isn't handled appropriately.
- The autonomous vehicle platform is just working with one company. There are concerns about investing public money in research and development for a private company.
- Application coverage: It is important to be able to get the UV light to the targeted species, for example, the undersides of leaves, etc.
- Some variables need to be captured in this work to do a proper economic analysis which weren't explicitly mentioned, such as the percent reduction in spider mites and powdery mildew, what they are going to record to capture loss data.
- A mutagen could select for undesirable species such as UV resistant plant fungal pathogens.
- The Nansen proposal cited literature that UV-C is not effective on spider mites, which can avoid it.
- Researchers were mainly engineers, not biologists. The evaluation centers on the equipment, and should evaluate the biology. Growers need to know the impact of the process and how to integrate it.
- The proposal lacks methodologies and materials that discuss beneficial arthropods and potential impacts to them.

Clarification

- It was not clear how they are going to manage the regulatory environment regarding autonomous vehicles.
    - California requires supervision of autonomous vehicles.
- Proposal language lacked clarity: "reducing friction to adoption."
- Could the UV impact strawberry quality?

Public Comment

None.

Nansen – LED Technology for Greenhouse Crops

Merits

- There was literature included that shows this method is safe for beneficial arthropods.
- There are clear and measurable goals.
- The budget is very reasonable.
- The approach to the use of videos for outreach seems effective.
- It is potentially easier to implement UV within a greenhouse setting.
- Regarding economic feasibility, this approach is building on existing benefits.
- Using light-reflecting sheets addresses the issue of behavioral avoidance.
- There is a nice range of letters of support, including stakeholders.
- The team addresses the biological aspects of the project.
- Two-spotted spider mites and western flower thrips are the most important pests in greenhouses and any IPM tool that could potentially reduce populations will reduce pesticide use, which now includes multiple applications.
- This is a strong team.
- The greenhouse agriculture sector is growing so demand for this approach would be expanding.

Concerns

- Has the industry paid for this research before?
- Will this benefit all of California or focus just on one industry?
- There is missing information in the proposal regarding the methods and approach; it is not clear how ready this is to implement or whether it will work.
- Regarding LED as a source, there may be better and more effective ways to introduce UV radiation.
- More research is needed to show the efficacy of this technology.

Clarifications

- None.

Public Comment

- None.

De Palma-Dow – Clear Lake Shoreline Restoration

Merits

- It is great to see a proposal addressing tribal concerns.
- The potential impact is great – Clear Lake is the largest natural freshwater lake in California. There is benefit in supporting this group of concerns and the native plant restoration is worth investing in if it works.
- The alliance team is one of the most creative and diverse, including tribal representation.

- The before and after photo was visually impactful.
- There are potential benefits to water quality, recreation, mosquito reduction, and other co-benefits.
- The approach includes proven techniques.
- One of the best community organized alliance grants that I've seen. There are unique and impactful letters of diverse support from tribes, State entities, and local individuals, showing full commitment.
- The project involves Americorps which could lead to more youth involvement.
- We don't often see a project with both diverse economic and environmental benefits.
- There is community engagement to ensure long-term restoration effectiveness.
- This is an impacted system with a variety of imperiled species that would benefit.
- There don't seem to be other effective options to this low-impact, intensive method.
- They are attempting eradication of an aquatic invasive species without using herbicides.
- There is a plan for both public areas and an incentive plan for private areas.
- This proposal is holistic, multi-faceted and multi-beneficial and well designed.
- Tribes use the water for cultural purposes.
- What would happen if we don't address the problems at this natural lake? Could there be impacts to a native fish species if water primrose overtakes the lake?
- Could this approach be applicable to other areas, such as the Delta, and other invasive plants, such as water hyacinth?

Concerns

- It was not clear how pervasive the problem is, as Clear Lake-derived drinking water impacts only 0.2% of Californians and this would impact only five acres of the lake. It is not a significant source of agricultural water.
    - The application says the lake provides 66% of Lake County's drinking water, so it is clearly important for that county, a low-income county.
- Similarly, it is not clear how the approach might be expanded to other areas of the state.
- It was not clear how the incentive program for private landowners would work. It would be important to have success in private areas to achieve the eradication goal. IPM often uses multiple tools, and it might be more impactful if landowners had an herbicide tool as well.
- The focus of this grant is on using IPM to reduce pesticide use and achieving the widest impact for Californians, so it's not clear this is the best match for this funding program.
    - PMAC has seen a similar proposal for Lake Tahoe, with similar concerns about how it would be generalizable to other parts of the state.
        - The outreach techniques, such as the landowner incentive program, might be replicable in other areas.
        - That could be true, but the plan does not incorporate sharing out its techniques.

Clarifications

- None.

Public Comment

- None.

Brown – Sterile Insect Technology (SIT) for Mosquito Control

Merits

- SIT is a great IPM idea and has the potential to have a major impact on reducing pesticide use. There is a lot of information available on how to implement it.
- It is effective in removing other pests, such as pink bollworms on cotton, and there is an increase in disease transmission from mosquitos, so the project has merit.
- There are clear public health benefits.
- The method is 45% less costly than what is currently being done.
- The technology is well demonstrated.
- There is low risk involved, compared to a new, more risky alternative involving release of genetically modified mosquitos.

Concerns

- SIT is already in practice and the request is too expensive.
- It wasn't clear they knew what level of density to release (overflooding ratio), which is essential to achieving success.
- This is a different technique, but the x-ray machine is what requires the large investment, and it's not clear how transferable the costly method would be to other districts.
- Most letters came from team members, rather than other stakeholders.
    - That is too bad, as they said they were working with other mosquito control districts, which is important to the success of replicating the method.
    - All letters seemed like form letters.
- There needs to be more information on the roles of the various alliance members.
- The proposal is more research- rather than outreach-focused, with little focus on sharing out the approach.
    - Much of the budget is going to monitoring effectiveness
- The proposal didn't cite the extensive SIT literature on this species, but referenced instead other species.
- The team is focusing effort on surveying public response, whereas replicating the method would be better served by sharing out success with other vector control agencies.

Clarifications

- None.

Public Comment

- None.

Choe – IPM for Urban Pest Ants

Merits

- There is a strong alliance team working with commercial applicators and utilizing technology that is already proven to work.
- The proposal has good training courses and outreach programs.
- The proposal is focused on adoption and showing applicators return on investment.
- The proposal has high potential to limit fipronil and other various pesticides in water runoff in urban areas.
- This targets an important urban pest, the top pest in Southern California and one of the most difficult to control.
- They would be working with companies and will have 60-100 homes per treatment – that will generate great data.
- There are highly qualified scientists.

Concerns

- How is this proposal adding value to the current problem, given there are highly effective and low-impact current methods? And do they do any damage or are more of an annoyance?
    - Regardless, the response is wide application of pesticides.
    - There can be health issues of infestations to the elderly.
- What would the demand be for applicators who would use this technique? Would master gardeners be an effective source of information to the public, and how does this address low-income areas more at risk for ants?
- The involvement of the manufacturer of a specific product in the testing of that product could create a conflict of interest.
- To what extent will the information gathered be shared broadly and publicly? It's not clear if and how they would outreach to homeowners to impact individual pesticide use.

Clarifications

- Is the product involving pheromones proprietary or is it going to be fully accessible by all the companies?
    - One PMAC member believed but was not sure that the product would not be proprietary, but would be provided by the research group.

Public Comment

- None.

Dudley – Cape Ivy Biocontrol

Merits

- This is a worthwhile proposal that addresses an important need: this is a pervasive invasive that impacts riparian areas statewide and crowds out native vegetation, there are few options for removal, and this project could reduce the use of herbicides.
- There are networks set up with USDA, which has experience in this type of project.
- This project has a broad focus on the entire state.
- Dr. Dudley has effective experience and an excellent team.

- The technique is simple, effective, elegant, and low risk.
- Given climate change and current fire risk, it is important to remove this weed as it creates ladder fuels.
- The proposal follows from prior research.
- There are no other options for funding outside of the State, such as commodity groups.
- The project uses an interesting approach of two very different organisms, which is how to get efficacy.
- The project includes ecosystem monitoring, which is rare.

Concerns

- There is a concern about introducing a new species to California and its potential environmental impacts.
    - USDA has completed research looking at potential impacts and has approved its release.
- There are questions about how effective the species would be: if it can function in dry conditions; if results from field releases showed an impact; and if the approach can reduce plant size up to 50%, how would it impact population sizes?
    - It reduces the vigor of the plant. Not any technique on its own will be fully successful.
    - Even moderate success would make the project worthwhile.
- Overall outcomes/numbers were not reported.
- There is no team developed.
- The proposal is short on details, a monitoring protocol, and promotion of results.
- There is a lack of support letters from a range of stakeholders.
    - Part of the proposal is to do that outreach.
- It's not clear how ecosystem monitoring would be supported past the grant period.
- There is a lack of information regarding economic feasibility and if the team will track costs.

Clarifications

- It is not clear how much herbicide is now used and how much this project could reduce its use.

Public Comment

- None.

Burger – Herbicide Calibration for Wildland Weeds

Merits

- This proposal is valuable and would fill a need – there are almost no communication techniques to the people who use these tools, so it gets at the heart of what an alliance approach is about, extending IPM.
- The project would improve the efficacy and the ability to use tools to prevent greater pesticide use.

- There are strong letters in support.
- Methods are well-thought out: the project offers both English and Spanish teaching tools, courses with DPR continuing education credits, and a well-fleshed-out extension model.
- This is a crucial, not-trivial problem to solve in both wildlands and agricultural settings.
- This proposal fills a gap we don't often do in IPM education: addressing how to actually do calibration.
- There is an experienced team.
- It is a good investment.

Concerns

- Who else is doing outreach on this topic?
- It would be nice if they included a step-by-step "how to" calibration video in the outreach program.
- This could have been a broader proposal, addressing species and physiology information, how you make decisions about using herbicides, non-chemical management methods, etc.
    - This project is an expansion on two existing projects that did produce broader chemical and non-chemical information that is available online (WeedCUT) and included research.
- It was not clear why they were proposing a literature review or if that had been done.

Clarifications

- None.

Public Comment

- None.

Ibrahim– Healthy Homes in South LA

Merits

- This project includes program educators who live within the community.
- There is potential to help impoverished people and reduce health ailments.
- The proposal has a broad scope.
- The proposal addresses often overlooked environmental justice concerns.
- There is documentation through the letters of relationships established beforehand with the community.

Concerns

- Only about 25% of funds are focused on pest-related issues, but the team is looking to the DPR grant to cover 100% of staff costs. The other social justice and healthcare focuses are valid and important but would best be covered by other sources.
- How would the benefits extend beyond the 125 people who are the focus of this project to other people and other geographic areas?
- The cost per household is high and raises the question of whether the funds would be

managed efficiently.
- The proposal content did not adequately address reduced pesticide use.
- The proposal is more healthcare focused than IPM focused.
- There were no letters of support from alliance members.

Clarifications
- None.

Public Comment
- Dave Tamayo, a PMAC member who was not able to attend the in-person meeting or establish a publicly accessible teleconference location, offered a comment as a member of the public: the holistic approach to deal with conducive conditions associated with generally poor housing conditions is an advantage, not a disadvantage.

Ashby – Webpage Enhancements and On-Demand Training

Merits
- The alliance includes stormwater management agencies in 20 cities and 6 counties and provides information in English, Spanish, and a third language, so the potential impact could be huge and it could be a great model.
- The project addresses pesticides in stormwater run-off.
- Agencies have a good view of the public and can disseminate the message better to them.

Concerns
- Who will read the web content, and will the target audience have broadband access?
- The only outreach tools are in-person meetings and the website, which repackages information that already exists on the web. That is too simplistic for the cost and effort.
    - Redundant platforms can be effective, and utility bill inserts can be a good vehicle.
- The proposal is vague and omitted information on IPM program components. What topics would be the focus? What will be enhanced? What pests and pesticides are being addressed?
- How will the website be maintained long-term?
- Website development can be expensive so the budget may not be realistic.
- How will these methods effectively change behavior?

Clarifications
- None.

Public Comment
- Dave Tamayo, a PMAC member who was not able to attend the in-person meeting or establish a publicly accessible teleconference location, offered comments as a member of the public: The proposal seeks to increase public awareness and access to the

extensive UC IPM resources, which are great. However, the public is largely unaware of them and the website is not easily navigated by the public. This proposal will efficiently provide tools for many public agencies that have an interest in promoting IPM to their constituents. Once the tools are in place, they would be readily adaptable from local agencies throughout the state.

Yuma – Cannabis Outreach Program

Merits

- There is a tremendous need for pest management education for these growers - cannabis is in a grey area, without being federally legal, and there are many pesticide application issues, runoff impacts, etc.
- There is market demand for the product.

Concerns

- There is a lack of research expertise in this group and there is not much pest management research support available from the State because of the Federal designation of cannabis.
- There were no specifics in this proposal: the pests, pesticides used, challenges, what practices promoted, what in-field teaching planned, no letters of support regarding the alliance team.
- The proposal has an excessive budget for filming and printed materials and listed repetitive expenditures of the same materials.
- The videos would not be effective, and there is no field teaching planned, no university people involved.
- It doesn't appear the applicant has the financial ability to administer the grant.
- The materials developed would not be publicly available, and would be used to fund the private educational programs.

Clarifications

- A PMAC member asked for clarification on whether the proposal involved hemp or commercial cannabis, and how PMAC works with regard to this unique crop.
    - Another PMAC member noted that the only approved pesticides for cannabis are low-risk biopesticides, and no restricted use pesticides are labeled for commercial cannabis.
    - A third PMAC member shared that all members understand that there has been environmental degradation from pesticides used in the cannabis industry, and if IPM practices were developed for all areas of cannabis, there could be environmental benefits. But it is a very difficult crop to address, given the federal limitations and grey areas.
    - A fourth member shared that hemp acreage has plummeted.

Public Comment

- None.

During the Yuma proposal discussion, some PMAC members expressed concern that there is an IPM need in the cannabis sector and that numerous proposals have come before the group, but none have been successful. One expressed that it is frustrating to continue having the same discussion without being able to realize any benefits to Californians for this complex and challenging sector.

- One PMAC member asked DPR officials if the Department might help to focus the segment, perhaps by issuing a targeted ask.
    - Leslie Talpasanu, Program Manager for the Agricultural Pest Management Unit and DPR's Grants Programs, said the Department shares PMAC and staff feedback with applicants. On occasion, DPR will prioritize funding in a particular area, such as chlorpyrifos or fumigants. She didn't think there would be any such initiative for cannabis, but it is possible.

Following discussion of each proposal, public comment was invited. There was none.

5. Decision on Recommendations

Based on the discussion, PMAC members re-ranked the proposals.

A final opportunity for public comment was offered prior to PMAC members beginning discussion on their recommendations. One public comment email was read [shown above under the proposal that it addressed].

Quorum was confirmed and the re-rankings were reviewed. Re-rankings are shown in the table below. With 19 PMAC members submitting re-rankings, the overall ranking order saw changes: the top four proposals remained the same, although there was movement within their ranks; the bottom three ranked proposals remained the same; and there was shifting among the several mid-range proposals. Once again, a tie occurred, this time involving the Burger and Choe proposals. The PMAC's re-rankings elevated:

1. Nansen
2. De Palma-Dow
3. Dudley

2022/2023 Alliance Grants Program Final PMAC Proposal Rankings *(average of 18 rankers)*

Principal Investigator	Short Title	Rank Order	Average Rank	Standard Deviation	High	Low
Baumgartner	**Promoting the Use of Natural Enemy Habitat**	1	**2.79**	2.59	1	9
Nansen	**LED Technology for Greenhouse Crops**	2	**4.00**	1.52	2	7
De Palma-Dow	**Clear Lake Shoreline Restoration**	3	**4.37**	2.58	1	10
Lin	**UV-C Technology for Strawberries**	4	**4.53**	2.52	1	9
Dudley	**Cape Ivy Biocontrol**	5	**4.95**	2.56	1	9
Choe	**IPM For Urban Pest Ants**	7	**5.42**	1.93	2	8
Burger	**Herbicide Calibration for Wildland Weeds**	7	**5.42**	2.82	1	10
Brown	**Sterile Insect Technology (SIT) for Mosquito Control**	8	**6.74**	2.38	3	10
Ibrahim	**Healthy Homes in South LA**	9	**8.16**	1.87	3	10
Ashby	**Webpage Enhancements and On-Demand Training**	10	**8.58**	1.70	5	10
Yuma	**Cannabis Outreach Program**	11	**11.00**	0.00	11	11

A PMAC member proposed that the full suite of PMAC feedback be forwarded to Director Henderson for consideration, including the initial rankings and re-rankings as well as the range of perspectives shared by the PMAC on merits, concerns, and areas needing clarification.

Another PMAC member offered a counter proposal, that the PMAC recommend for funding those proposals re-ranked 1 through 7 on the re-ranking table, including both tied proposals ranked at 7, which would total $1.77 million, within the pot of $1.8 million in available funding.

In discussion, PMAC members engaged in discussion around these questions and points and sought clarifications:

- Is the Director required to follow PMAC's recommendation?
    - A member stated that PMAC's funding recommendation was just a recommendation and the Director could decide to fund differently if based on more considerations.
- If PMAC only recommends the top eight proposals, and for some reason one of those top proposals can't be funded, PMAC's recommendation doesn't address any of the rest that might end up being before the Director for potential funding.
    - The Director would still have PMAC's further rankings and deliberation if a proposal falls through.
- One PMAC member preferred, and a second agreed, to set a bright line separating out the last three, rather than the last four, proposals, in other words including the Brown proposal re-ranked at 8 in those recommended for funding, but withdrew that suggestion after the maker of the 2nd proposed recommendation was unwilling to adjust their proposal to accommodate that.
- The preferences of the top ranked proposals would be evident if PMAC forwards its full deliberations.

- In response to questions regarding whether and to what extent the Director might be bound by a PMAC recommendation, DPR staff noted that the Director is free to decide to fund as she prefers, although PMAC and staff recommendations are highly valued, deeply considered, and generally fully followed.

Faced with two options for recommendations, the PMAC agreed to show its support for the competing recommendations via raised hands, so that a roll call vote could be held for the proposed recommendation showing the greatest amount of PMAC support.

The second recommendation resulted in a slightly larger number of raised hands. Therefore, a roll-call vote was held on the following recommendation:

> **The PMAC recommends that the Director fund those proposals ranked 1 through 7 on the re-ranking table, including the tied proposals ranked at 7.**

The recommendation was adopted by a majority PMAC members, with 15 supporting and four opposed.

6. Process Review Discussion

In the course of the meeting, PMAC members raised questions and made comments about meeting process. Topics raised and DPR responses included:

- It was suggested that at the next meeting, all in-person PMAC members have microphones so that the public watching the webcast and PMAC members participating remotely can clearly hear all speakers.
    - DPR staff agreed with the need for more microphones.
    - DPR staff said the next two meetings will be held at the CalEPA Building in downtown Sacramento, which provides greater audio capability, and further meetings as well, if space is available.
- A PMAC member asked if feedback on proposals gets incorporated into them to improve them.
    - Leslie Talpasanu responded that PMAC comments are incorporated into recommendations presented to Director Julie Henderson, but staff do not typically change a proposal, although that is possible. If a proposal is not funded, the Department makes recommendations on how the proposal can be improve for next time.
    - She clarified the process: staff combine PMAC and a separate, simultaneous staff ranking, which is submitted to the Director. The top proposals are typically funded.
- In response to a PMAC member question about how to handle a proposal that seems expensive, PMAC members said the Director takes the entirety of PMAC comments and can still choose based on funding priorities. PMAC members can look at how a proposal budget is designed and provide comments on the cost/benefit

ratio and whether the budget might seem high for what is proposed to be accomplished.

- Aimee Norman explained that the Director considers the total funding pool available in awarding funding, and may shift awards outside the ranking to maximize awards and the overall potential IPM benefit gained with the funding.
- Leslie Talpasanu confirmed that proposals are able to request any dollar amount up to $1.8 million.
- The facilitator and PMAC members noted that DPR staff have directed that PMAC focus on the quality of the individual proposals at hand, rather than making recommendations thinking about total funding available.

7. Closing Remarks

On behalf of DPR and Director Henderson, Ms. Norman thanked PMAC members for their interest, commitment and willingness to volunteer, and the time they committed to reviewing the proposals and attending the day's meeting.

The next PMAC meeting will take place on August 11, 2022.