

2017-2018 Pest Management Research Grant Evaluation

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For webcast: <https://video.calepa.ca.gov/>



2017-2018 Pest Management Alliance Grants

- Solicitation released January 3, 2017
- 6 Concepts received February 3
- Invitations to submit proposals February 24
- DPR will fund projects that focus on adoption of IPM practices in agricultural settings near schools.
- Proposal review will begin April 4



Department of Pesticide Regulation's Integrated Pest Management Research Symposium



Why: To showcase research funded by DPR to advance IPM in California

When: Tuesday, March 21, 2017, 9:00 AM-4:00 PM

Where: Sacramento State University, Modoc Hall, Willow Suites 2 & 3


More Details: 11 speakers scheduled, free parking, lunch provided

Save the date: Online registration coming soon!



Outline

- Research Grant Funding Priorities
- Critical dates
- The proposals
- Scores and discussion process



Funding Priorities

- \$1.1 million dollars available
- DPR will consider proposals requesting \$50,000 to \$500,000.
- No tiers (no tears?)
- DPR expects to fund two to five projects.

Critical grant program dates

- 17 concepts were received September 30, 2016
- Applicants invited to submit proposals October 20, 2016
- 12 proposals were received December 15, 2016
 - 7 ag fumigant, 4 ag non-fumigant, 1 urban
- Grants to be awarded, March 20, 2017
- Project start date, July 1, 2017

Alternatives to soil fumigants in California's fresh market carrot production

PI: Jörn Becker
Organization: UC Riverside
Amount Requested: \$185,255

Develop and demonstrate an IPM strategy that will replace soil fumigation in California's carrot production, using a resistant crop in rotation with carrot, new nematicides, or soil amendment.

Short title: Becker/Fumigant alts in Carrots



Integrated Approaches to Alfalfa Pest Management using Alternatives to Chlorpyrifos

PI: Claire Casteel
Organization: UC Davis
Amount Requested: \$265,415

Investigate the role of ethylene induction in alfalfa-aphid interactions, evaluate the use of ethylene inhibitors for aphid management in alfalfa, and compare production of susceptibility inducing volatiles among cultivars.

Short title: Casteel/Alfalfa Pest Management

Reducing risks associated with fumigation by improving current heat treatment and localized treatment

PI: Dong Hwan Choe
Organization: UC Riverside
Amount Requested: \$290,000

Incorporate volatile adjuvants (to lower lethal temperature) and volatile attractants (to pull termites to treated locations) to provide a method to make heat treatment for dry wood termites more effective with a minimal level of heat damage.

Short title: Choe/Termite Heat Treatment

Managing pathogens and weeds without soil fumigation

PI: Tom Gordon
Organization: UC Davis
Amount Requested: \$261,433

Assess the potential of the most promising available soil amendments to reduce the impact of disease and weeds and to buffer soils against pathogen introductions; and conduct an economic analysis that considers the cost of treatments and value of the crop.

Short title: Gordon/Managing Soil Pests Without Fumigation

Development of volatiles produced by *Muscador albus* for control of soil-borne and postharvest diseases.

PI: Pam Marrone
Organization: Marrone Bioinnovations
Amount Requested: \$300,000

Investigate artificial mixes of volatiles produced by the fungus *Muscador albus* for use as preplant and postharvest treatments, and determine conditions conducive to their efficacy against the soil borne pathogens in order to develop a new biopesticide.

Short title: Marrone/*Muscador albus* Volatiles

Beneficial Reuse of Saponin for Biological Control of Grape Powdery Mildew

PI: Pam Marrone
Organization: Marrone Bioinnovations
Amount Requested: \$260,012

Develop a fungicide product from the saponins found on the quinoa seed for use as a foliarly applied biofungicide for powdery mildew and other diseases, and as a seed treatment to control seedling diseases.

Short title: Marrone/Saponin Powdery Mildew Control

Development of site-specific management of soil pests using molecular quantification, remote sensing, and field scouting

PI: Alexander Putnam
Organization: UC Riverside
Amount Requested: \$486,916

Develop a zone-based precision fumigation system where fumigant is applied proportionally to the density of soilborne pathogens within a zone by quantifying and mapping levels of soil borne pathogens within selected fields to develop a site-specific preplant treatment plan.

Short title: Putnam/Precision Fumigation System

Improved IPM for key insect pests in the changing landscape of California citrus production

PI: Jay Rosenheim
Organization: UC Davis
Amount Requested: \$220,000

Use a combined experimental and ecoinformatics approach to adapt existing citrus IPM guidelines at the scale and pace needed for the range of conditions experienced in commercial fields; provide new/improved IPM recommendations for katydid and thrips.

Short title: Rosenheim/Citrus IPM

Soil fumigant/ag burning alternative: biosolarization with local crop waste for California low desert veg production

PI: Jim Stapleton **Organization:** UC-IPM **Amount Requested:** \$298,908

Use combinations of management approaches such as physical heating and biorational employment of farm-produced organic crop residue amendments to produce beneficial changes in soil microbial community composition to optimize pesticidal efficacy of solarization and biosolarization.

Short title: Stapleton/Biosolarization with Local Crop Waste

Integrating irrigation, nitrogen management, and insect control in celery production

PI: John Trumble
Organization: UC Riverside
Amount Requested: \$254,998

Use nitrogen fixing endophytic bacteria, and water soluble fertilizer through a drip irrigation system to reduce use of granular N and limit N runoff. Test alternative strategies and safer pesticides in lab and field studies to replace class I and II insecticides as well as current fumigation methods.

Short title: Trumble/Celery Management

New fruit fly attractants to reduce pesticide use in eradication program

PI: Spencer Walse
Organization: USDA-ARS
Amount Requested: \$75,000

Develop new species-specific chemical attractants for tephritid fruit fly pests with the goal of reducing the use of organophosphate pesticides in eradication programs.

Short title: Walse/Fruit Fly Attractants

Utility of Brassica crops for nematode suppression by biofumigation and co-cropping in walnut orchards

PI: Andreas Westphal
Organization: UC Riverside
Amount Requested: \$256,425

Test Brassica species for biofumigation as a pre-plant treatment, as well as in-orchard co-cropping of Brassica species.

Short title: Westphal/Biofumigation in Walnuts

Today's Goals:

- Identify the proposals PMAC feels are fundable.
- Rank those proposals in order of preference.
- Record strengths and concerns for all proposals.

Folder Contents:

- Agenda
- Ground Rules
- PMAC Score totals
- Presentation
- Proposal Summaries
- Individual scores and comments

Tania Carlone, Associate Facilitator, CSUS Center for Collaborative Policy
 Corin Choppin, Assistant Facilitator, CSUS Center for Collaborative Policy

Scores

Project	Rank	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R17	R18	Avg	High	Low	\$	cumulative \$
Becker carrot fumigant salts	1	3	3	1	5	2	2	10	9	8	2	2	1	3	1	1	7	6	3	3.83	1	10	\$182,255	\$182,255
Westphal biofumigation	2	7	2	6	2	5	10	2	2	1	3	2	4	7	1	3	8	7	1	4.06	1	10	\$256,421	\$438,680
Rosenthal citrus	3	2	6	8	3	12	1	3	4	3	4	1	8	5	1	6	5	1	5	4.33	1	12	\$220,000	\$658,680
Gordon pathogens and weeds	4	4	5	3	7	7	3	6	7	7	5	4	10	9	1	4	1	4	7	5.22	1	10	\$261,433	\$920,113
Wake fruit fly attractants	5	12	8	5	1	1	4	8	11	10	1	9	2	5	6	8	4	2	3	5.56	1	12	\$75,000	\$995,113
Stapleton biocontrolization	6	11	12	4	8	7	1	3	1	10	6	8	2	11	1	1	9	9	6.12	1	12	\$298,308	\$1,294,021.00	
Putnam soil pests	7	5	1	2	8	4	6	11	12	11	7	4	5	11	1	3	5	6.29	1	12	\$486,916	\$1,780,937.00		
Marrone volatiles	8	1	7	9	12	3	8	7	6	6	9	7	3	1	10	11	10	10	7.06	1	12	\$300,000	\$2,080,937.00	
Choe termite treatment	9	9	3	4	10	9	5	9	9	9	7	4	7	10	7	10	9	8	7.61	3	10	\$290,000	\$2,370,937.00	
Marrone saproin biocontrol	10	7	9	10	10	6	12	3	1	4	6	9	4	11	7	7	11	12	7.83	1	12	\$260,012	\$2,630,949.00	
Casteel, alfalfa aphids	11	10	10	10	9	10	9	5	5	5	8	12	12	7	7	5	5	5	11	8.06	5	12	\$265,413	\$2,896,364.00
Tromble celery	12	6	11	6	6	11	11	12	8	12	12	11	10	4	12	9	9	11	2	9.06	2	12	\$254,998	\$3,151,362.00
