

III. Program Summary Narrative

Introduction

This dossier is submitted for my merit review for the period October 1, 2017 to September 30, 2019. I am the Director of the University of California Statewide Integrated Pest Management Program (UC IPM) and my payroll title is Academic Administrator VII, Step 11.

The overall goal of UC IPM is to promote a healthier California with fewer pests through adoption of IPM practices that protect human health, the environment, and the economy while effectively managing pests. This goal aligns with the UC ANR condition changes and many of the public value statements. In this dossier the conceptual framework is that themes #1 and #2 buttress theme #3 leading to a healthier California with fewer pests.

Administrative Responsibility (if applicable)

As Director of the UC IPM, I am responsible for administration and leadership of the Program. UC IPM develops and implements research and extension programs to increase the knowledge and utilization of integrated pest management systems in California. I work with stakeholders from agricultural, urban, and natural resource settings to identify and address priorities for research and extension-based education. I have led the statewide program since October 1, 2015 by facilitating, collaborating, and supporting information exchange between campus-based UC academics, UCCE advisors and specialists, community stakeholders, scientists, growers, and advocacy groups. I implement strategic planning and networking to improve IPM programs and adoption. In addition, I became the Strategic Initiative Leader for Endemic and Invasive Pests and Diseases on January 1, 2018. In this role, I promote all pest management efforts in UC ANR.

Theme #1: Administer and Lead UC IPM Program

I lead and administer the UC IPM Program including implementation of the 2015-2025 IPM Program Strategic Plan, management of budget and resources, supervision of academics and staff, and direction of programmatic activities. In implementing the UC IPM Strategic Plan, I consulted with members of the IPM Program Advisory Committee and all of the staff and academics in the IPM Program (during our annual IPM Program Planning meeting) for input on priority objectives. We identified several priority objectives and focused on achieving the specific milestones and deliverables for these objectives. In addition, members of the UC IPM leadership team document milestones and deliverables for all twenty objectives in a shared strategic plan progress file.

UC IPM commemorated its 40th anniversary in 2019. I worked with Anne Megaro, Director of Governmental and Community Relations, to obtain an Assembly Resolution recognizing the anniversary. I also developed list of 40 UC IPM Program impacts over the last 40 years, which is the basis for a series of tweets from @UCIPM which I retweet from @FarrarJJ.

I manage the annual UC IPM Program budget allocation from ANR. In collaboration with the UC IPM leadership team, I obtain and manage additional resources through grants, contracts, training fees, publication revenue-sharing and donations. The annual UC IPM Second Street (i.e. not including IPM Advisors) budget is approximately \$3.9 million which includes

about \$2 million from ANR and about \$1.9 million from grant, contract, and other sources. Of the 22.3 UC IPM FTE in the Second Street building, 9.2 FTE are soft funded. The additional resources and people funded with those resources allow UC IPM to have greater impact. A 2016 UC Berkeley economic analysis estimated the value of the UC IPM website at \$57 million.

In order to increase Program resources, I worked with Scott Brayton from ANR Development Services to develop a plan focused on 'partners program' similar to the 'corporate affiliate partners program' at UC Davis. Scott and I have met with influential people from commodity organizations, food processors, and large farming groups to identify the components of a partnership program that would appeal to potential donors. We also consulted with IPM leadership team, IPM Program Advisory Committee, and IPM academics and staff to understand their perspectives on the opportunities and pitfalls of a partners program. Currently, Scott and I are implementing the program through initial discussions with potential donors. I negotiated an MOU with ScoutPro to allow them access to our potato pest identification information, which they plan to develop into a scouting app for field use. ScoutPro will pay a fee to access our information for their app. This is the first agreement of this kind for UC IPM. In another effort to increase Program resources, we transitioned all our online continuing education courses to eXtension and began charging a fee for new courses. In calendar years 2018 and 2019, IPM online courses were completed 13,035 times for CEUs for Pest Control Adviser, Qualified Applicator Certificate, Qualified Applicator License, Pesticide Applicator Certificate, and Structural Pest Control Board licenses. In transitioning from free to fee-based online courses for CEUs, we saw a significant decrease in the number of people taking courses for the 'other' category but an increase in the number of people taking the 'laws and regulations' courses. For people interested in the information but not the CEUs for licensing, all of our courses are also available free on YouTube. These new sources of funding will allow us to continue to provide pest management information based on the best UC science.

I coordinate Program activities through regular communication with academics and staff. I hold monthly IPM Leadership Team meetings to discuss administrative and programmatic issues. I also meet individually with each member of the IPM Leadership Team and with the Director of the Western IPM Center to stay current with their programmatic activities and to provide guidance. I participate in the bimonthly UC IPM staff meeting, which is organized and chaired on a rotating basis by UC IPM staff. In collaboration with others in the Program, I organize and participate in the annual IPM Advisors meeting and the IPM Program Planning meeting. The overall goals of these meetings are programmatic coordination, decision-making transparency, and shared commitment to future program successes.

I supervise the academics (Berger, Blecker, Crump, Fayad, Martin) at Second Street and four IPM Area Advisors (Greer, Stapleton, Tollerup, and Windbiel-Rojas) based in counties. In 2018, the project funding for Berger ended and Crump took a position at UC Davis. Amer Fayad was hired as the new Director of the Western IPM Center in July 2019. Windbiel-Rojas has a split position at 80% Associate Director for Urban IPM and 20% Urban IPM Advisor for the Capitol Corridor MCP. I also provide Program-level supervision for the county-based IPM Advisors. Seven IPM Advisors (del Pozo Valdivia, Kron {hired September 2019}, Rijal, Symmes, Sutherland, Taravati, Varela {retired June 2019}, and Wilen) report to a local County Director and I am second-level reviewer for merit and promotions. Affiliated IPM Advisors are Haviland,

Pourezza (moved to a Specialist position in 2018), Reiter, Roncoroni, and Quinn. I am also second-level reviewer for merit and promotions for Affiliated Advisors. I have not pursued new affiliations due to operational budget cuts. This is one of the areas I would like to fund with resources from the partners program. In addition, Jeremy James (Sierra Foothill REC) is an Affiliated Specialist and Neil McRoberts (UC Davis, Dept of Plant Pathology) is our first Affiliated AES faculty. I work with County Directors and others in UC ANR to prioritize new Area IPM Advisor and pest management related positions to meet the needs of all Californians.

I manage the UC IPM staff located at the ANR Building. I strive to maintain both high expectations and high morale through transparency and shared successes. I thoroughly documented 13 'exceeds expectations' and three 'exceptional' ratings of staff performance in the last two years, and successfully defended these evaluations to staff human resources. I also worked with a supervisor on my team to release an under-performing staff member during probationary period.

In order to promote outstanding achievement, I nominate people for awards outside of UC IPM. I nominated Peter Goodell and Frank Zalom for Lifetime Achievement awards at the 9th International IPM Symposium. Both were awarded in 2018. I nominated Cheryl Wilen for ANR Outstanding Leader, David Haviland for Outstanding Extension, Andrew Sutherland for Outstanding New Academic and the Sacramento Valley Orchard Team for Outstanding Team at the 2018 ANR Statewide Conference. Wilen and Haviland were awarded. I also nominated David Haviland for Excellence in Extension and Jhalendra Rijal for Early Career Professional in the Entomology Society of America-Pacific Branch. Haviland was awarded and therefore competed for the national award. I nominated the Soil Fumigant Alternatives / Biosolarization Team led by Jim Stapleton for the 2019 Department of Pesticide Regulation IPM Achievement Award. The team was awarded. Although not a member of UC IPM *sensu stricto*, I nominated long-time IPM collaborator, Joe Nunez for the Oscar A. Lorenz Award for outstanding research and extension to benefit the California vegetable industry. Nunez was awarded.

Theme #2: Represent and Promote IPM at State, Western Region, and National Levels

I participate in several state, western region, and national programs or committees related to pest management. The overall goal of this work is to promote inclusion of good IPM principles in policy and resource allocation decision-making. I am a member of the Pest Management Advisory Committee at Department of Pesticide Regulation, which reviews pest management research and extension grant proposals. I manage the grant review process for the Pierce's Disease/Glassywinged Sharpshooter Board organized under CDFA. The review panels recommend research proposals to develop management tools for Pierce's disease, grapevine leafroll viruses, red blotch virus, sharpshooters, mealybugs, and brown marmorated stink bug in grapes in California. I am a member of the UC Herbicide Taskforce, which developed recommendations to President Napolitano on a path forward after she announced a temporary ban on the use of glyphosate on UC property. The Taskforce report and President's decisions occurred after the time period of this review.

At the western region level, I am PI on the grant from USDA-NIFA that supports the Western IPM Center. I participate in the Center staff and advisory committee meetings and

attend Regional IPM Center meetings at the national level. As leader of the UC IPM Program, I participate in regional technical committee WERA 1017 - Coordination of Integrated Pest Management Research and Extension/Educational Programs for the Western States and Pacific Basin Territories. WERA 1017 activities allow UC IPM to leverage outputs of other western state IPM programs to efficiently address California pest issues. A recent example is the Western Bed Bug Workgroup, which was funded by a grant from the Western IPM Center. Another outgrowth of WERA 1017 is the Western Pesticide Risk Management Workgroup, which is focused on identifying and communicating pesticide risks to pest management practitioners in the West. I collaborate with Western Region IR-4 and participate in their national project priority setting meetings – the Food Use Workshop and the Biopesticide Workshop. I am a member of the Administrative Council for the Western Sustainable Agriculture Research and Education program. The Administrative Council oversees the operations of the program, approves the annual budget, and makes final decisions on grant funding based on input from technical review committees. I was a member of the External Advisory Board for the Western Center for Agricultural Health and Safety until December 2018 when Lisa Blecker took my place.

At the national level, I am on the Advisory Committee for the plant disease diagnostic lab certification program, *System for Timely Accurate and Reliable Diagnostics (STAR-D)* under the National Plant Diagnostic Network. The STAR-D committee approves lab certifications and recommends strategies for improving and expanding the program. I participate in the National IPM Coordinating Committee of the American Public Land Grant Universities. In 2018 and 2019, I managed the grant review panels for the Methyl Bromide Alternatives Program at USDA-NIFA. I am on the Board of Directors of IPM Voice, a non-profit organization that is conducting a multi-year national effort to reframe communication about good farming practices.

Theme #3: Support Research and Extension to Increase Adoption of IPM in California

IPM programs in California are constantly evolving in response to new invasive pests, changes in endemic pest pressure, shifting crops and crop production systems, and regulatory changes for pesticides. IPM Advisors lead most of the research in the IPM Program or they are collaborators with campus-based Specialists and AES faculty. I regularly disseminate grant state and federal grant opportunities, offer to facilitate team formation, provide input on grant proposals and write letters of support. At the statewide level, the UC IPM Program provides the extension education material to support adoption of new pest management practices. UC IPM continually updates and improves this material to reflect current IPM practices and online communication standards. In the last two years, the Program completed revisions or updates of 19 Pest Management Guidelines, updates of 18 UC Guide pages, revisions of 25 Pest Notes, revisions of 39 Quick Tips, revisions of 12 Quick Tips in Spanish, and removal of chlorpyrifos from 26 Pest Management Guidelines in response to changes in state regulation. The Program published a revision of the book *Pests of Garden and Small Farm* and related vegetable pest ID card set, six issues each of the *Green Bulletin* and *Retail Nursery and Garden Center IPM* newsletters. The Program created a new online course *Proper Selection, Use, and Removal of Personal Protective Equipment*, supported 12 UC Ag Experts Talk webinars for CEUs, updated *Best Management Practices to Protect Bees from Pesticides* and *Bee Precaution Pesticide*

Ratings and published a Pest Alert on a new species of root knot nematode in California. We are moving all of our webpages to a responsive web format, which optimizes screen presentation for smart phones, tablets, laptops or desktops. In conjunction with the web format update, we are databasing all of the content in the Pest Management Guidelines. This will allow us to update them more easily and also to collaborate with IT industry partners in future. To date 20 of 47 crop Pest Management Guidelines have been databased and updated to the mobile-friendly format. UC IPM website information was accessed 7,612,434 times in FY 2017-18 and 7,636,500 times in FY 2018-19.

Adoption of IPM practices is a step towards the ultimate goal of reducing the economic, human-health, and environmental risks from pests and pest management practices. Documenting the adoption and impact of IPM is vital for justifying continued federal, state and university investments. During this review period, I co-authored reports detailing IPM practices in mosquito control and melon production in California.

The UC IPM Program consists of four Academic Coordinators, nineteen staff, eleven IPM Advisors, four Affiliated Advisors, one Affiliated Specialist, and one Affiliated AES faculty. However, many more Advisors, Specialists, and AES faculty throughout California are the pest management experts vital to development and peer-review of IPM extension materials. To develop and maintain collaborative relationships with these academics, I participated in several Program Team and Workgroup meetings and attended several campus-based seminars. Participation in these events also helps me to stay current in pest management and identify new opportunities for the program.

I continually seek opportunities to support research and extension leading to greater adoption of IPM practices through networking with pest management-related groups outside of UC. I routinely communicate with Department of Pesticide Regulation, California Department of Food and Agriculture, California Association of Pest Control Advisors, commodity boards, agricultural manufacturers and distributors, third-party certifiers, and non-profit organizations about pest issues and IPM.

In 2018, we completed the two-year 'Pests, Pesticides, and IPM' project by hosting a one-day summit and publishing a white paper laying out a road map for greater IPM adoption throughout California (see bibliography). The summit and white paper were a synthesis of stakeholder listening sessions to gain better understanding of Californian's concerns about pests, pesticides, and the potential for IPM to address risks from both. Department of Pesticide Regulation Director Val Dolcini is using the white paper as a guide for future activities.

I continued collaboration with the Western Region IR-4 Project and Western IPM Center to provide IPM input to new requests for pesticide registrations on California specialty crops and identify Federal Register pesticide regulation dockets that need written comments from California. From this collaboration, we published a paper describing the criteria for evaluating the compatibility of a new pesticide use in the IPM program for a crop.

University & Public Service

My university service is focused on representing UC IPM within UC ANR and UC. My public service is primarily focused on representing UC IPM at state, western region, and national levels to advance the adoption of IPM practices.

Professional Competence

Evidence of my professional competence includes professional presentations; participation in planning and priority setting meetings at the state, western region, and national levels; and grant review panel organization and participation at the state, western region, and national levels. I presented to the Pacific Division meeting of the American Phytopathological Society and participated in Western Region IPM, IR-4, and SARE priority settings activities. I managed grant reviews for the Pierce's Disease/Glassywinged Sharpshooter Program at California Department of Food and Agriculture and the Methyl Bromide Transitions Program for USDA-National Institute of Food and Agriculture. I participated in grant review panels for California Department of Pesticide Regulation and Western SARE.

I participated in several professional development activities. I leverage pest management professional development activities to develop and maintain relationships with pest management researchers and IPM practitioners. I participated in the 2018 UC CORO Leadership Program and completed all the required online trainings for UC employees.

Affirmative Action

I promoted personnel and programmatic affirmative action in the IPM Program and ANR. I was a search committee member for a Specialist position at UC Davis, ex-officio for four searches in IPM and an interview committee member for a staff position in ANR Communication Services. In addition, there were six staff recruitments in the IPM Program. In each case, the position vacancy announcements and staff position descriptions were widely distributed and all candidates were given thorough consideration. On the programmatic side, the UC IPM website has significant extension resources in Spanish and the Pesticide Safety Education Program coordinator and community educator often present trainings in Spanish. I contributed to the UC CORO leadership program northern cohort project focused on increasing the diversity of senior leaders in the UC system.

IV. Supporting Documentation

A. Project Summary

Project Title	Role	Collaborators	Support Amount/Duration (if applicable)	Support Source
Promote IPM at State, Western Region, and National Levels (3)				
Regional Coordination of IPM – Western IPM Center	PI	Kassim Al-Khatib, @ UC Davis, Steve Elliott @ UC ANR, Matt Baur @ UC ANR, Amer Fayad @ UC ANR, Peter C Ellsworth @ University of Arizona, Paul C. Jepson @ Oregon State University	\$4,000,000 09/01/2018 to 02/28/2023 \$4,000,000 09/01/2014 to 02/28/2019	USDA-NIFA Crop Protection Pest Management Program
WERA 1017 – Coordination of Research and Extension / Educational Programs for the Western States and Pacific Basin Territories	Collaborator	Cheryl Wilen @ UC ANR, Karey Windbiel-Rojas @ UC ANR, Tunyalee Martin @ UC ANR, Matt Baur @ UC ANR, Paul C Jepson @ Oregon State University, Peter C. Ellsworth @ University of Arizona, Al Fournier @ University of Arizona, Dawn Gouge @ University of Arizona, Frank Peairs @ Colorado State University, Katie	N/A	N/A

Project Title	Role	Collaborators	Support Amount/Duration (if applicable)	Support Source
		Murray @ Oregon State University, Marion Murray @ Utah State University, Diane Alston @ Utah State University, Mark Wright @ University of Hawaii, Mary Burrows @ Montana State University-Bozeman, Rhonda Hirnyck @ University of Idaho, John Connett @ University of Wyoming, Doug Walsh @ Washington State University		
UC Herbicide Taskforce	Taskforce Member	Jarrod Colvin @ UC Santa Barbara, David Eastmond @ UC Riverside, Bridget Gustafson @ UC Berkeley, Timothy Malloy @ UC Los Angeles, Nurit Katz @ UC Los Angeles, Ken Smith @ Office of the	Travel support	UC Office of Risk Services

Project Title	Role	Collaborators	Support Amount/Duration (if applicable)	Support Source
		President, Sapna Thottathil @ Office of the President Cheryl Wilen @ UC ANR, Tracey Woodruff @ UC San Francisco		
Support Research and Extension to Increase Adoption of IPM in California (5)				
Pests, Pesticides and IPM	PI	Peter Goodell @ UC ANR, Lori Berger @ UC ANR	\$578,792 08/15/2016 – 09/30/2018	California Department of Pesticide Regulation
Western Pesticide Risk Management Workgroup	Collaborator	Karey Windbiel-Rojas @ UC ANR, Tunyalee Martin @ UC ANR, Lisa Blecker @ UC ANR, Paul Jepson @ Oregon State University, Katie Murray @ Oregon State University, Peter Ellsworth @ University of Arizona, Al Fournier @ University of Arizona, Diane Alston @ Utah State University, Marion Murray @ Utah State University, Frank Peairs @ Colorado State	None directly	Grant from Western SARE 2016-2018, Western IPM Center Signature Project 2018 to current

Project Title	Role	Collaborators	Support Amount/Duration (if applicable)	Support Source
		University, John Connett @ University of Wyoming, Mark Wright @ University of Hawaii, Dawn Gouge @ University of Arizona		
Pierce's Disease / Glassywinged Sharpshooter Grant Review Management	Grant review manager	Deborah Golino @ UC ANR, Tunyalee Martin @ UC ANR, Matt Baur @ UC ANR, Tom Esser @ California Department of Food and Agriculture	~ \$80,000 per year	California Department of Food and Agriculture, Pierce's Disease Control Program
IPM Voice - Farming and Food Narrative Project	Collaborator	Michael Rozyne @ Red Tomato, Larry Gut @ Michigan State University, David Epstein @ Northwest Horticultural Council, Keith Pitts @ Marrone BioInnovations, Tom Green @ IPM Institute, Jerry Baron @ IR-4 Program	None directly	Project supported by grants from Northeast SARE and Foundation for Food and Agriculture Research
UC IPM Extension Implementation Project	PI	Cheryl Wilen @ UC ANR, Karey Windbiel-Rojas @	\$780,000 09/01/2017 to 08/31/2020	USDA-NIFA Crop Protection Pest Management

Project Title	Role	Collaborators	Support Amount/Duration (if applicable)	Support Source
		UC ANR, Tunyalee Martin @ UC ANR, Lisa Blecker @ UC ANR, Emily Symmes @ UC ANR		Program

B. Professional Competence and Professional Activity

Professional Development and Training

Begin Date - End Date	Location	Name, Description and Occurrence of Activity
Integrated Pest Management Professional Development		
Oct 9, 2017	UC Davis Plant Pathology Dept Seminar	Kelly Ivors - The Fight Against Fungicide Resistance in Strawberry Production
Oct 23, 2017	UC Davis Monday Afternoon Weeders Seminar	Robert Norris - Thresholds for weed management; are they appropriate?
Oct 26, 2017	UC Davis	Western Center for Agricultural Health and Safety Fall Symposium
Oct 30, 2017	UC Davis Plant Pathology Seminar	Juan Moral - Biology & Epidemiology of Anthracnose & 'Esudete' of Olive
Nov 6, 2017	UC Davis Plant Pathology Seminar	Philippe Rolshausen - Management of Pierce's Disease of Grapes with Endophytes
Nov 13, 2017	UC Davis Monday Afternoon Weeders	Katie McCauley - Rice Science for a Better World

Begin Date - End Date	Location	Name, Description and Occurrence of Activity
	Seminar	
Nov 30, 2017	UC Davis	2017-2018 California Processing Tomato Research Proposal Meeting
Dec 4, 2017	UC Davis Monday Afternoon Weeders Seminar	John Miskella, Flowering Rush Research in Idaho
Dec 6, 2017	UC Davis Plant Science Seminar	Feras Almasri, Toward the Search for Methyl Bromide Alternatives
Feb 12, 2018	online	Integrated Pest Management with Special Considerations for Food Safety, USDA NIFA Institute of Food Safety and Nutrition webinar
Feb 21, 2018	UC Davis	Current Wine and Winegrape Research
Feb 23, 2018	UC Davis Monday Afternoon Weeders Seminar	Hanan Eizenberg, Newe Ya'ar Research Center, Israel - Advanced technology for smart chemical control of Broomrape (<i>Phelipanche</i> and <i>Orobanche</i> spp.) in Israel: a long story with a happy end.
Jun 4, 2018	UC Davis Monday Afternoon Weeders	Jasmin Green, Plant Species Composition In Vacant Lots of Urban Areas seminar
Jun 25, 2018 - Jun 27, 2018	Portland OR	American Phytopathological Society - Pacific Division and Soilborne Plant Pathogens Joint Conference
Nov 26, 2018	Davis CA	Vegetable Crops Program Team Meeting
Mar 26, 2019	Sacramento CA	Department of Pesticide Regulation, 2nd Integrated Pest Management Research Symposium
Apr 9, 2019 - Apr 10, 2019	Sacramento CA	Department of Pesticide Regulation, Mitigation of Pesticides in Surface Water in California Agriculture Symposium
Sep 16, 2019	UC Davis Plant Science	Carol Mallory-Smith, Oregon State University, The Great Transgenes Escape: Roundup Ready Wheat and Creeping

Begin Date - End Date	Location	Name, Description and Occurrence of Activity
	Seminar	Bentgrass
Sep 30, 2019	UC Davis Plant Pathology Seminar	Kaitlin Gold, Cornell University, Hyperspectral systems for early detection in specialty crops
Administrative and Required Trainings		
Dec 6, 2017	online	UC Cyber Security Awareness Training - Refresher
Dec 12, 2017	UC Davis Health - Sacramento	Enhanced Diversity and Implicit Bias Training for Faculty Search Committee Members
Jan 9, 2018 - Dec 4, 2018	UC Locations in Northern CA	UC CORO Systemwide Leadership Training
Mar 23, 2018	online	UC Compliance and Conflict of Interest for Researchers
Mar 28, 2018	online	US Office of Government Ethics - Ethics Training for Special Government Employees
May 7, 2018	Davis CA	Introduction to Search Engine Optimization seminar
Aug 23, 2018	online	UC Sexual Violence and Sexual Harassment Prevention Training for Supervisors and Faculty
Oct 12, 2018	online	UC Cyber Security Awareness Training - Refresher
Jul 26, 2018	Great Falls MT	Cowboy Ethics - Code of the West
Aug 23, 2018	online	UC Sexual Violence and Sexual Harassment Prevention Training for Supervisors and Faculty
Oct 12, 2018	online	UC Cyber Security Awareness Training - Refresher
May 2, 2019	online	CITI Responsible Conduct of Research for Administrators
Aug 5, 2019	online	Building Collaborative Relationships
Aug 5, 2019	online	Choosing the Right Strategy for Implementing a Change
Aug 5, 2019	online	UC Strategic Onboarding
Aug 5, 2019	online	UC Hiring for Success

Disciplinary Society or Professional Association

Disciplinary Society/Prof. Assoc Name	Membership/Meetings Attended/Activities
American Phytopathological Society	member

Evidence of Professional Competency

Begin Date - End Date	Location	Name, Description and Occurrence of Award, Recognition, Professional Presentation, Office or Activity
Feb 15, 2018	Sacramento CA	California Department of Pesticide Regulation Research Grants review meeting
Apr 9, 2018 - Apr 12, 2018	Ontario CA	ANR Statewide Conference 2018
May 10, 2018	Sacramento CA	Department of Pesticide Regulation Pest Management Alliance Grants review meeting
Feb 14, 2019	Sacramento CA	California Department of Pesticide Regulation Research Grants review meeting
Feb 26, 2019	online	Peer review for Pest Note in Plant Disease
Mar 4, 2019	online	Peer review manuscript for Plant Disease
May 28, 2019	Davis CA	Presentation to USDA-Foreign Ag. Service international visitors

C. University Service

Begin Date - End Date	Name, Description, and Occurrence of Activity	Org Level	Your Contribution and Leadership Role
Jan 1, 2013 (Ongoing)	WERA 1017 Coordination of Integrated Pest Management Research and Extension/Educational Programs for the Western States and Pacific Basin Territories	National	Multi-State Committee Member
Oct 1, 2015 (Ongoing)	UC ANR Second Street Building Unit Leaders Committee	Division-wide	UC IPM Program representative
Jun 23, 2016 (Ongoing)	ANR Vice President's Council	Division-wide	UC IPM Program representative
Nov 1, 2016 - May 31, 2018	Field and Row Crops Entomology Specialist Search Committee	University-wide	Search Committee Member

Begin Date - End Date	Name, Description, and Occurrence of Activity	Org Level	Your Contribution and Leadership Role
Jul 1, 2017 - Jun 30, 2018	Academic Assembly Council	Division-wide	Past-President
Sep 1, 2017 - Apr 30, 2018	Area IPM Advisor - UCCE Monterey, Santa Cruz, San Benito search committee	Division-wide	Ex-officio for Search
Jan 1, 2018 (Ongoing)	Endemic and Invasive Pests and Diseases Strategic Initiative	Division-wide	Strategic Initiative leader
Jan 2, 2018 (Ongoing)	ANR Program Council	Division-wide	Member of Program Council
Jan 18, 2018 - Jan 19, 2018	ANR Strategic Plan Retreat	Division-wide	Participant
Feb 9, 2018	UC Presidential Chair in California Grown Rice	Division-wide	Selection Committee Member
Mar 19, 2018	UC ANR Administrative Review Workgroup	Division-wide	Committee Member
May 25, 2018	ANR Director of Publishing / Executive Editor	Division-wide	Interview Committee
Jul 16, 2018 - Jun 3, 2019	Western IPM Center Director search committee	Division-wide	Ex-officio for Search Committee
Aug 13, 2018 - Sep 20, 2018	UC IPM Program Business Manager search committee	Division-wide	Ex-officio for Search Committee
Dec 14, 2018	Strategic Initiative leaders	Division-wide	Health Families and Communities and Water SI leader interview committee
Apr 1, 2019 - Jul 19, 2019	Area IPM Advisor - UCCE Sonoma, Napa, Mendocino, Lake search committee	Division-wide	Ex-officio for Search Committee
Apr 5, 2019	California Renewable Resources Extension Act Logic Model Development	Division-wide	Participant
May 23, 2019	Academic reclassification review	Division-	Review Member

Begin Date - End Date	Name, Description, and Occurrence of Activity	Org Level	Your Contribution and Leadership Role
	committee for Academic Coordinator II to Academic Coordinator III	wide	

D. Public Service

Begin Date - End Date	Name, Description, and Occurrence of Activity	Org Level	Your Contribution and Leadership Role
Aug 1, 2014 (Ongoing)	Western Sustainable Agricultural Research and Education Administrative Council	National	Member of Administrative Council
Oct 1, 2015 (Ongoing)	IPM Voice	National	Member of Board of Directors
Oct 1, 2015 - Dec 31, 2018	Western Center for Agricultural Health and Safety - External Advisory Board	National	Advisory Board Member
Feb 15, 2016 (Ongoing)	California Department of Pesticide Regulation - Pest Management Advisory Committee	State	UC Representative
Feb 1, 2018 - Apr 30, 2018	USDA-NIFA Methyl Bromide Transition Program	National	Grant Proposal Review Panel Manager
Sep 19, 2018 - Sep 20, 2018	IR-4 Food Use Workshop	National	Project Prioritization Participant
Oct 23, 2018 - Oct 24, 2018	National IPM Coordinating Committee meeting	National	Participant
Oct 24, 2018 - Oct 25, 2018	Regional IPM Centers meeting	National	Participant
Nov 30, 2018 (Ongoing)	Arizona Pest Management Center	National	Advisory Committee Member
Dec 20, 2018 - Dec 21, 2018	Oregon State University Integrated Plant Protection Center program review	National	Review Team Member

Begin Date - End Date	Name, Description, and Occurrence of Activity	Org Level	Your Contribution and Leadership Role
Jan 15, 2019	CDFA Office of Pesticide Consultation and Analysis and Western Region IR-4 Program Stakeholder Meeting	State	Participant
Jan 22, 2019 - Jan 23, 2019	Technical Review Panel, Professional Plus Producer and Farmer/Rancher Grants, Western Sustainable Agriculture Research and Education	National	Grant Review Panel Member
Mar 4, 2019 - May 17, 2019	USDA-NIFA Methyl Bromide Transition Program	National	Grant Proposal Review Panel Manager
Sep 24, 2019 - Sep 25, 2019	IR-4 Food Use Workshop	National	Project Prioritization Participant

E. Extension Activities

Meetings Organized

Begin Date - End Date	Meeting Name and Type	Topic/no. of repetitions	Role	Location(s)	Total No. of Attendees
Promote IPM at State, Western Region, and National Levels (1)					
Nov 20, 2017	Benny Raccah, Israel Plant Protection and Inspection Service	Discuss development of a searchable national database of plant pests and disease agents in Israel. / 1	Meeting Organizer	UC ANR	1
Support Research and Extension to Increase Adoption of IPM in California (15)					
Jan 11, 2018	California Invasive Species Summit	Meeting jointly coordinated by state agencies and UC. / 1	Organization Committee Member	California State Capitol Building	200
Jan 16, 2019	Strategic Initiative Spotlight Webinar	Applied bed bug research and extension programs:	Organizer and Webinar Host	online	26

Begin Date - End Date	Meeting Name and Type	Topic/no. of repetitions	Role	Location(s)	Total No. of Attendees
		how UC ANR academics are leading the West / 1			
Apr 17, 2018	IPM Summit	Roadmap for IPM in California / 1	Organization Committee and Session Moderator	Davis CA	100
Mar 6, 2018	Virus Diseases of Grapevines Grant Review Panel	Grapevine Virus Grant Proposal Review / 1	Organizer and Facilitator	Davis CA	5
Mar 7, 2018	Insect Vectors of Grapevine Disease Review Panel	Insect Vectors of Grapevine Disease Grant Review Panel / 1	Organizer and Facilitator	Davis CA	5
Mar 15, 2018	Pierce's Disease of Grapevines Review Panel	Pierce's Disease of Grapevines Grant Review Panel / 1	Organizer and Facilitator	Davis CA	5
Apr 4, 2018	PD/GWSS Research Screening Committee	PD/GWSS Research Screening Committee / 1	Organizer and Technical Review Representative	Davis CA	10
Mar 6, 2019	Insect Vectors of Grapevine Disease Review Panel	Insect Vectors of Grapevine Disease Grant Review Panel / 1	Organizer and Facilitator	Davis CA	5
Mar 8, 2019	Pierce's Disease of Grapevines Review Panel	Pierce's Disease of Grapevines Grant Review Panel / 1	Organizer and Facilitator	Davis CA	5
Mar 15, 2019	Virus Diseases of Grapevines Grant Review Panel	Grapevine Virus Grant Proposal Review / 1	Organizer and Facilitator	Davis CA	5
Apr 2, 2019	PD/GWSS Research Screening Committee	PD/GWSS Research Screening Committee / 1	Organizer and Technical Review	Davis CA	10

Begin Date - End Date	Meeting Name and Type	Topic/no. of repetitions	Role	Location(s)	Total No. of Attendees
			Representative		
Administer and lead UC IPM Program (7)					
Feb 6, 2018	Kaitlyn Alvarez Noli, PhD student at UC Irvine	Pesticide regulation and agricultural health / 1	Interviewed for PhD Research Project	telephone	1
May 3, 2018	UC IPM Program Advisory Committee	Program Advisory Committee / 1	Organizer and Facilitator of Meeting	Davis CA	12
May 8, 2018 - May 9, 2018	UC IPM Program Planning Meeting	Program Planning / 1	Organizer and Facilitator	Davis CA	40
Oct 30, 2018 - Oct 31, 2018	IPM Advisors Meeting	Coordination of statewide IPM / 1	Facilitator	Modesto CA	15
Mar 13, 2019	UC IPM Program Advisory Committee	Program Advisory Committee / 1	Organizer and Facilitator of Meeting	Davis CA	12
Apr 16, 2019 - Apr 17, 2019	UC IPM Program Planning Meeting	Program Planning / 1	Organizer and Facilitator	Davis CA	40
Apr 26, 2019	CDFA Pest Exclusion staff and UC IPM meeting	Potential Collaborations / 1	Meeting Host	Davis CA	5

Educational Presentations

Begin Date - End Date	Meeting Name/Event	Presentation Topic/no. of repetitions	Location(s)	No. of Attendees
Promote IPM at State, Western Region, and National Levels (3)				
Nov 15,	Chinese Ministry of	UC Statewide Integrated	UC Davis	6

Begin Date - End Date	Meeting Name/Event	Presentation Topic/no. of repetitions	Location(s)	No. of Attendees
2017	Agriculture / US Grains Council Delegation Meeting	Pest Management Program / 1		
Mar 14, 2019	Department of Pesticide Regulation Brown Bag Seminar	The Pests, Pesticides, and IPM Project / 1	Sacramento Ca	25
May 20, 2019	Sustainable Agriculture Training	Practical Integrated Pest Management / 1	Chuuk, Federated States of Micronesia	45
Support Research and Extension to Increase Adoption of IPM in California (4)				
Jun 26, 2018	American Phytopathological Society - Pacific Division and Soilborne Plant Pathogens joint meeting	The IPM Concept of Thresholds in Relation to Plant Disease Management / 1	Portland OR	80
Dec 6, 2018	The Almond Conference	IPM Tools You Can Use / 1	Sacramento CA	125
Jan 10, 2019	California Melon Advisory Board annual meeting	IPM Improvements in California Melons 2003 to 2016 / 1	San Diego CA	100
Feb 27, 2019	Current Wine and Winegrape Research Symposium	UC IPM Tools for Winegrape Growers / 1	Davis CA	100
Administer and lead UC IPM Program (2)				
Nov 21, 2017	Achieving Website Objectives Mark Bell, ANR	How UC IPM is applying program goals to our products / 1	Davis, CA and via Zoom	6
Nov 28, 2018	California Specialty Crop Council Technical Committee Meeting	UC Statewide IPM Program Update / 1	Kingsburg CA	8

Other (including websites, social media, blogs, collaborations with other agencies, organizations, policy engagement)

Begin Date - End Date	Description	No. of Instances
Promote IPM at State, Western Region, and National Levels (9)		
Oct 1, 2015 - May 31, 2019	Revision of USDA-NRCS Conservation Practice Standard 595 - Pest Management Conservation System	6
Nov 2, 2017	USDA-NIFA Listens: Investing in Science to Transform Lives	1
Aug 28, 2019 (Ongoing)	CDFA / Cal EPA / DPR Chlorpyrifos Workgroup	5
Sep 24, 2019 - Sep 25, 2019	IR-4 Food Use Workshop	1
Oct 1, 2015 (Ongoing)	Monthly Western IPM Center Conference Calls	30
Oct 23, 2018 - Oct 24, 2018	National IPM Coordinating Committee	1
Oct 24, 2018 - Oct 25, 2018	Regional IPM Centers Meeting	1
May 16, 2018 - May 17, 2018	WERA 1017 Annual Meeting	1
Sep 18, 2019 - Sep 19, 2019	WERA 1017 Annual Meeting	1
Support Research and Extension to Increase Adoption of IPM in California (11)		
Jun 21, 2018	Meet with Len Coop regarding uspest.org system for weather-based models for pest management	1
Apr 24, 2018	Food Narrative Project Communication Meeting	1
Feb 11, 2019 - Feb 12, 2019	Food Narrative Project Communication Meeting	1
Mar 11, 2019 - Mar 12, 2019	Food Narrative Project Communication Meeting	1
Feb 2, 2019	Meeting with Annemiek Schilder, UCCE Ventura to discuss potential collaboration	1
Sep 1, 2017 (Ongoing)	Western Pesticide Risk Management Workgroup monthly conference calls	24
May 17, 2018 - May	Western Pesticide Risk Management Workgroup	1

Begin Date - End Date	Description	No. of Instances
18, 2018	meeting, Portland OR	
Sep 20, 2019	Western Pesticide Risk Management Workgroup meeting, Richland WA	1
Sep 20, 2019	Western Pesticide Risk Management Workgroup meeting	1
Dec 17, 2018 - Dec 19, 2018	Pierce's Disease / Glassywinged Sharpshooter Symposium, San Diego CA	1
Jun 1, 2015 (Ongoing)	IPM Voice Monthly Conference Calls	1
Administer and lead UC IPM Program (2)		
Oct 1, 2017 – Oct 15 2019	Discussions to incorporate UC IPM content into ScoutPro app, agreement completed with ScoutPro	5
Nov 7, 2017	Senate Select Committee on California's Wine Industry; Assembly Select Committee on Wine - Joint Information Hearing, UC Santa Barbara	1

Other (including TV and/or radio interviews/programs, newspaper/trade magazine interviews)

Begin Date - End Date	Interviewed/ Written By (optional)	Topic	Name of Media or Publication
Support Research and Extension to Increase Adoption of IPM in California (2)			
Jan 31, 2018	Staff writer	A New Tool for Picking the Right Pesticide for an IPM Program	Entomology Today
Mar 19, 2018	Tyler Ash	California Fights Costly Battle Against Invasive Species	Agri-Pulse

F. Publications (Bibliography)

Academic Administrator VII, Step XI

Peer Reviewed	
B - Peer-reviewed scholarly journal publications – total (this period)	13 (1)
C - Other peer-reviewed publications – total (this period)	2 (1)
Non-Peer Reviewed	
D - Technical reports and other non-reviewed articles – total (this period)	8 (4)
E - Published abstracts – total (this period)	11 (1)
TOTAL	34

PEER REVIEWED

B - Peer-reviewed scholarly journal publications (this review period in bold text)

- Davis, R.M.; Kegel, F.R.; Sills, W.M.; J.J., Farrar (1989). Fusarium ear rot of corn. California Agriculture. 43:6, 4-5.
- Farrar, J. J.; Davis, R. M. (1991). Relationships among ear morphology, Western flower thrips, and Fusarium ear rot of corn. Phytopathology. 81, 661-666.
- Farrar, J.J.; R.F., Evert (1997). Seasonal changes in the ultrastructure of the vascular cambium of Robinia pseudoacacia. Trees: Structure and Function. 11, 191-202.
- Farrar, J.J.; R.F., Evert (1997). Ultrastructure of cell division in the fusiform cells of the vascular cambium of Robinia pseudoacacia. Trees: Structure and Function. 11, 203-215.
- Farrar, J.J. (1999). Structure of rock cress false-flowers caused by infection with the rust fungus, Puccinia consimilis. Great Basin Naturalist. 59, 384-386.
- Farrar, J. J.; Nunez, J. J.; Davis, R. M. (2000). Influence of soil saturation and temperature on Erwinia chrysanthemi soft rot of carrot. Plant Disease. 84, 665-668.
- Farrar, James J.; Nunez, J. Joseph; Davis, R. Michael (2002). Repeated soil applications of a fungicide reduce its activity against cavity spot of carrots. California Agriculture. 56:2, 76-79.
- Farrar, James J.; Pryor, Barry A.; Davis, R. Michael (2004). "Alternaria diseases of carrot." Plant Disease 88: 776-784.
- Farrar, James J.; Nunez, J. Joseph; Davis, R. Michael (2009). "Losses due to lenticel rot are an increasing concern for Kern County potato growers." California Agriculture 65: 127-130.
- Farrar, J.J.; Baur, M.E.; Elliott, S.F. (2016). Adoption of IPM Practices in Grape, Tree Fruit, and Nut Production in the Western United States. Journal of Integrated Pest Management. 7:1, 8.
- Pokorny, A.; Smilanick, J.; Xiao, C.-L.; Farrar, J.J.; Shrestha, A. (2016). "Determination of fungicide resistance in Botrytis cinerea from strawberry in the central coast region of California." Plant Health Progress 17: 30-34.

- Farrar, J.J.; Baur, M.E.; Elliott, S.F. (2016). Measuring IPM Impacts in California and Arizona. Journal of Integrated Pest Management. 7:1, 13;1-6.
- **Farrar, James J.; Ellsworth, Peter C.; Sisco, Rebecca; Baur, Matthew E.; Crump, Amanda; Fournier, Al F.; Murray, M. Katie; Jepson, Paul C.; Tarutani, Cathy M; Dorschner, Keith W. (2018). Assessing compatibility of a pesticide in an IPM program. Journal of Integrated Pest Management. 9:1, 3; 1-6.**

C - Other peer-reviewed publications (this review period in bold text)

- Farrar, J. J. (2012). Management of important foliar and fruit diseases. Tomato Health Management. R. Davis, K. Pernezny and J. Broome. APS Press.: 87-93.
- **Crump, Amanda; Farrar, James; Fournier, Alfred; Ellsworth, Peter (2018). Employing California Pesticide Use Data for Evaluating Integrated Pest Management Programs and Informing Pesticide Policy and Regulation. Managing and Analyzing Pesticide Use Data for Pest Management, Environmental Monitoring, Public Health and Public Policies. M. Zhang, S. Jackson, M. Robertson and M. Zeiss. American Chemical Society Symposium Series #1283. 225-237. 2018.**

NON-PEER REVIEWED

D - Technical reports and other non-reviewed articles since 2013 (this review period in bold text)

- Farrar, James; Baur, Matthew E.; Elliott., Steve (2015). Adoption and Impacts of Integrated Pest Management in Agriculture in the Western United States. Western IPM Center. 66. March. <http://westernipm.org/index.cfm/about-the-center/publications/special-reports/adoption-and-impact-of-ipm-in-western-agriculture/>
- Farrar, James; Baur, Matthew E.; Elliott., Steve (2015). Impacts of the Regional Integrated Pest Management Competitive Grants Program in the Western United States. Western IPM Center. 20. July. <http://westernipm.org/index.cfm/about-the-center/publications/special-reports/western-ripm-retrospective-full-pdf/>
- Farrar, James J.; Baur, Matthew E.; Murray, Katie; Elliott, Steve (2015). Integrated Pest Management Improvements in Hops from 2008 to 2015. Western IPM Center. 4. <http://westernipm.org/index.cfm/about-the-center/publications/special-reports/ipm-improvements-in-hops-pdf/>
- Pokorny, Andrew; Shrestha, Anil; Smilanick, Joseph; Xiao, Chang-Lin; Farrar, James J. (2016). Multiple-fungicide resistant Botrytis cinerea in strawberry in the Central Coast Region. CAPCA Advisor. 36-40. June.
- **Baur, Matthew; Crump, Amanda; Elliott, Steve; Farrar, James (2017). Integrated Pest Management of Mosquitos: A Case Study of West Nile Virus in California. Western IPM Center. 23 pages. <http://westernipm.org/index.cfm/about-the-center/publications/special-reports/mosquito-pdf/>**
- **Baur, Matthew; Crump, Amanda; Farrar, James; Elliott, Steve (2018). Integrated Pest Management Improvements in California Melons from 2003 to 2016. Western IPM Center. 8 pages. <http://westernipm.org/index.cfm/about-the-center/publications/special-reports/melon-ipm-report-pdf/>**

- Berger, Lori A., James J. Farrar, Peter B. Goodell, and Joseph McIntyre. 2018. Roadmap for Integrated Pest Management: Systems Thinking to Build Better IPM for All Californians. 19 pages. <https://www2.ipm.ucanr.edu/pests-pesticides-and-ipm-project/>
- Atwood, Paul, Donald Baclay, Gwynn Benner, Emily Bustos, Cynthia Chiarappa, John Elliott, Jim Farrar, David Gilbert, Molly Greek, Brett Henrikson, Jennifer Johnson-Hanks, Ermias Kebreab, Adrienne Lawson, Leti McNeill Light, Mary McNally, Matthew Mednick, Stephanie Metz, Zishan Mustafa, Christopher Payne, Alejandra Rincon, Rachael Sak, Stacey Sketo-Rosener, Holly St. John, Kira Stoll, Theresa Triplett, Seamus Wilmot. 2018. Leading with Diversity: UC as a National Model for Cultivating Diverse Leaders. UC-CORO Systemwide Leadership Collaborative Report. 70 pages. https://www.ucop.edu/human-resources/coro/2018_forms/2018_uc_coro_northern_cohort_final_report.pdf

E - Published abstracts since 2013 (this review period in bold text)

- Farrar, J.J; Thomas, C (2013). Supporting integrated pest management in the Western United States. Phytopathology. Pacific Division; Tucson, AZ, American Phytopathological Society. 103(3), S3.13. June 17-19. <http://apsjournals.apsnet.org/toc/phyto/103/9S>
- Farrar, J.J; Baur, M; Elliott, S (2014). Western IPM Center Grant Program. Pacific Division; Bozeman MT, American Phytopathological Society. 104(S3), S3.181. July 9-11. <http://apsjournals.apsnet.org/toc/phyto/104/11S>
- Farrar, J; Baur, M; Elliott, S (2015). Adoption of IPM practices for disease management in the Western U.S. Phytopathology. Annual Meeting; Pasadena CA, American Phytopathological Society. 105(4), S4.42. August 1-5. <http://apsjournals.apsnet.org/toc/phyto/105/11S>
- Farrar, J; Hirnyk, R; O'Neal, S; Sisco, R (2015). Western Region IR-4: Protecting specialty crops, practicing IPM, promoting global trade. Phytopathology. Annual Meeting; Pasadena CA, American Phytopathological Society. 105(4), S4.42. August 1-5. <http://apsjournals.apsnet.org/toc/phyto/105/11S>
- Hirnyk, R; O'Neal, S; Farrar, J; Sisco, R (2015). Western Region IR-4: Protecting specialty crops, practicing IPM, promoting global trade. 8th International IPM Symposium. Salt Lake City UT. March 23-26. <http://www.ipmcenters.org/ipmsymposium15/posters.html>
- Farrar, J.; Baur, M.; Elliott, S. (2016). Impact of integrated pest management (IPM) in California.(abstract). Phytopathology. 106:S4, 197-198.
- Farrar, J.; Baur, M.; Murray, K.; Elliott, S.; Crump, A. (2016). Pest Management Strategic Plans improve investment in integrated pest management in Pacific Northwest hops. (abstract). Phytopathology. 106:S4, 197.
- Baur, Matthew; Farrar, Jim; Murray, Katie; Elliott, Steve (2016). The raison d'etre for pest management strategic plans. Annual Meeting of the Pacific Branch of Entomology Society of America. Honolulu HI. 17. April 3-6, 2016. <https://esa.confex.com/esa/2016pb/webprogram/Paper113067.html>
- A., Crump; Farrar, J.; Fournier, A.J.; Ellsworth, P.C. (2017). Pesticide Use Data Informs Regulatory Policies. American Chemical Society 254th National Meeting and Exposition. Washington D.C.
- J., Farrar; Crump, A.; Fournier, A.J.; Ellsworth, P.C. (2017). Pesticide Use Data to Evaluate the Impact of Integrated Pest Management Programs in Arizona and California. American Chemical Society 254th National Meeting and Exposition. Washington D.C.
- **Farrar, James J. (2018). The IPM concept of thresholds in plant disease management. Phytopathology. Supplement 2, S2.45.**