



Western IPM Center

2017 Annual Report



*Creating a
healthier West
with fewer pests*

Connecting People and Programs throughout the West

As a regional program covering 17 states and territories, one of the Western IPM Center's main responsibilities is connecting people across state, program and disciplinary boundaries. There were many examples in 2017.

We linked up with two other regionally focused programs to begin a joint project on biopesticides. The Center began work with the Western Sustainable Agriculture Research and Education program and the Western Region IR-4 program, which helps register pesticides for minor crops. Together, our three agencies are looking for ways to expand the availability and effectiveness of biopesticides in the West.

In addition, the Center published a joint paper with Western Region IR-4 about a process for looking at how well a pesticide fits within an IPM program in a particular crop.. This IPM-fit criteria has been incorporated into that agency's priority-setting process, making sure that new IR-4-promoted pesticides are IPM friendly.

We connected with several other programs as well, including the Centers for Agriculture Health and Safety in the West and the Western Extension Risk Management Education Center. While they're not focused on pest management, they are natural allies and partners as we pursue our overall vision of creating a healthier West with fewer pests.

Western IPM Center Director Amanda Crump also made presentations to other new groups for us, including the North American Invasive Species Management Association and the Pacific Island Forestry Professionals Workshop.

Amanda continued working with other evaluation

specialists on creating common measures to evaluate IPM program success nationwide.

To combat invasive species threats, we helped bring people together to plan responses to the coconut rhinoceros beetle threat in the Pacific islands and the South American palm weevil in Southern California.

We introduced several Western researchers to the Integrated Pest Information Platform for Extension and Education, which tracks the spread of pests, and supported the successful efforts of all the Western states to acquire Extension Implementation Program funding to enhance their state IPM programs.

Finally, we expanded our signature program for measuring crop pest losses and IPM adoption impacts into new states and crops. The previously Desert Southwest-focused effort connected with new audiences in the Pacific Northwest, where onion and cranberry growers have already taken the detailed survey about their pest-management tactics, and other growers soon will. It's an exciting expansion of the program, which has generated some of the strongest data available showing the environmental and economic benefits of adopting IPM.



Creating New IPM Solutions and Resources

The Western IPM Center creates IPM solutions by funding research and extension efforts through our annual grant and signature programs and by doing research in-house.

Our funding supported 10 new IPM projects in 2017, including school IPM training in Wyoming, sudden oak death preparedness in tribal land, soil solarization in the Pacific Northwest, IPM for hemp in Colorado, a regional bed bug work group and others. They are still working. We did get some final reports from 2016 grantees last year and here are highlights:



David Gent of the USDA Agricultural Research Service sampled powdery mildew in hops and created a model to predict disease spread. Grower interviews show that 88 percent changed cultural practices and on average growers reduced annual fungicide applications from 5.5 to 3.4 by using the areawide approach.

Heidi Chay of the Kenai Soil and Water Conservation District and **Janice Chumley** of the University of Alaska Fairbanks promoted the use of weed-free gravel in natural areas, resulting in the certification of 33 acres of gravel at seven sites – up from a single five-acre site in 2015. The Alaska Department of Transportation agreed to require weed-free materials for the first time on a major highway project.

Erik Lehnhoff of New Mexico State University focused on developing better management practices for saltceder control. Erik's team delivered a staggering 115 presentations on integrating mechanical, chemical and biological control for saltcedar, reaching 7,500 adults and 3,800 youth.

Lori Spears of Utah State University studied the range of spotted wing drosophila in Idaho and Utah and now researchers and growers better understand which crops and landscapes can harbor the pest.

We received a record 48 proposals for our 2018 grants. The eight selected for funding are:

- **The Identification and Control of Invasive Plants in Arizona**, Elise Gornish, University of Arizona
- **Low-Cost IPM for Medusahead and a Cost-Benefit Framework to Support Adoption**, Jeremy James, University of California, Division of Agriculture and Natural Resources
- **Enhancing IPM by Integration of Chemical and Biological Controls through Assessment of Selectivity of Chemistries and Function of Biocontrol**, Isadora Bordini, University of Arizona
- **Testing Community Functional Composition of Vegetation Buffers to Improve Post-Fire Invasion Resistance of Coastal Sage Scrub**, Lorelee Larios, University of California, Riverside
- **Utilizing Unmanned Aerial Vehicle Technology to Assess Pest and Disease Pressure in Berry Crops**, Jason Myer, Northwest Berry Foundation
- **An Integrated Weed Management Approach for Controlling Kochia in Wheat Using Physical and Cultural Tactics**, Steve Young, Utah State University
- **Novel Control of the Potato Zebra Chip Pathogen and its Psyllid Vector Using FANA Antisense Oligonucleotide Gene Silencing**, William Cooper, USDA-ARS
- **Informed Risks and Information-Driven Decision Making for Spider Mites**, Ann George, Washington Hop Commission

Center Associate Director Matt Baur was prolific on the research front. He contributed to a Council for Agricultural Science and Technology paper titled **Crop Protection Contributions to Agricultural Productivity** and was also the lead author on a Center special report on **Integrated Pest Management of Mosquitoes: A Case Study of West Niles Virus in California**.



Communicating IPM's Benefits and Western Needs

The Western IPM Center communicates with multiple audiences in multiple ways. In 2017 we prioritized communicating the benefits of IPM and the Regional IPM Centers to stakeholders in the West and Washington, D.C.

We worked actively to educate policymakers on the benefits of integrated pest management and need for continued research funding. We visited elected officials' offices in their home states and Washington, D.C., and spoke at listening sessions organized by the U.S. Department of Agriculture's National Institute for Food and Agriculture to set priorities for that agency.



Our 2016 Annual Report highlighted the many ways the Western IPM Center adds value to state IPM programs and other regional efforts in the West.

We communicated Western perspectives on regulatory proposals made by the U.S. Environmental Protection Agency. Our comment coordinators in Arizona, Oregon, Hawaii and California gathered information on how pesticides under federal review were actually used by Western growers and submitted 164 comments to the EPA.

In multiple instances, EPA used those comments to modify its proposed restrictions to allow for critical uses of products by Western pest managers while still protecting people and the environment. Desert Southwest Comment Coordinator Al Fournier discussed

these efforts at an American Chemical Society meeting in August.

We also published four new Pest Management Strategic Plans in 2017, documenting pest priorities in alfalfa seed , pulse crops, cranberries and onions.

Center Communication Coordinator Steve Elliott continued to visit states around the region in 2017, including Alaska, Oregon, Washington, Nevada and California, to write stories, take photographs and shoot video about the variety of ways IPM is needed and practiced in the vast and diverse West.

We updated the look and content of the very popular Western IPM Center monthly newsletter in 2017 to include more resources for IPM students and early career professionals, and produced special editions of the newsletter focused on alkali bees in Washington state and threats to California's oak forests from the gold spotted oak borer.

The Center ended 2017 by launching a new, fully responsive website at **www.westernipm.org**. It features IPM stories, resources and links, including information out our annual grant program. Readers can also subscribe to our newsletter from any page on the site.





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