Friends,

Thank you for your continued support of the Western IPM Center and the important work we do. If we haven’t met yet, I had the privilege of joining the Center in August, coming from the IPM Innovation Lab at Virginia Tech. At the Innovation Lab, we promoted integrated pest management to growers in developing nations, and my work involved a lot of international travel and teaching.

So for me personally, and for the Western IPM Center itself, 2019 was a year of transition and change.

The Western IPM Center was understaffed for the first half of the year, then in the fall our funder, the U.S. Department of Agriculture’s National Institute of Food and Agriculture, relocated from Washington, D.C. to Kansas City, Missouri. The move resulted in huge turnover at NIFA, and we’re hopeful that as the agency hires new staff in Kansas City that business will keep running smoothly.

Through those challenges, the Western IPM Center stayed vital and active. We funded 10 projects in 2019, from rodent and kochia work groups to research into codling moth mating disruption and bacterial blight in seed crops.

We launched a new signature program helping extension educators throughout the West better understand and communicate the uncertainties of risk (especially pesticide risk) to growers and stakeholders.

Center Associate Director Matt Baur, in addition to leading the Center for much of 2019 and overseeing our grant program, also was an active participant in the Western Governors’ Association initiative on invasive species. Matt continues to work with the WGA on implementing its initiative to better share and communicate information about newly detected or spreading invasive species.

Center Communicator Steve Elliott continued to spotlight the variety of places and ways integrated pest management is used to protect people and the environment from pests, reporting stories from as far away as Guam and as unexpected as IPM in Yellowstone National Park. His work received four awards from the Association of Communication Excellence in Agriculture and Natural Resources, including gold honors for stories on emerald ash borer in Colorado and coyotes in Southern California.

The year ended with our call for proposals for the 2020 funding cycle. We received 36 proposals representing 10 of the 13 Western states, and our review panels were impressed by the quality of those submissions. The projects selected for funding are listed in this report.

Thank you for reading and sharing our annual report, and for your help in creating a healthier West with fewer pests. I look forward to working with you in the year ahead.

Amer Fayad

Amer Fayad, Ph.D
At a Glance: 2014-2018 Western IPM Center Grant Outputs

24 journal articles
273 conference papers or presentations
26 websites
3,933 people directly involved
84 workshops
88 survey instruments
28 videos

IPM Strategic Planning for Organic and Conventional brassicaeaeVegetable Crops in Oregon and Washington
Kate Murray, Oregon State University, $14,999
Type: Planning Document
Center Priorities Identified: Biological Control of Pests, IPM and Ecosystem Services, IPM for Pest-Resistance Management, New Technologies to Manage Pests and Ecosystem Services, IPM for Indigenous, Insular and Isolated People, IPM for Pest-Resistance Management

The Pacific Northwest is a premier production area for both conventional and organic brassicaeaeVegetable crops including broccoli, Brussels sprouts, cabbage, cauliflower, Brussels sprouts, cabbage, cauliflower, and kohlrabi. Many of these crops have overlapping and supplemental populations peaks which makes spray programs alone unsuccessful; instead, integrated approaches with cultural management and biocontrol are needed. This project will develop an IPM Strategic Plan for the region. The plan will outline pest monitoring strategies that documents the current practices and priorities of both organic and conventional farmers. The project will enable the industry to discuss and identify current and emerging pest management concerns and needs. For a full description of each priority area, visit westernipm.org/index.cfm/center-grants/priorities

Mid Klamath Invasive Species Management Collaboration
Tanya Chapple, Mid Klamath Watershed Council, CA, $30,000
Type: Work Group
Center Priorities Identified: Biological Control of Pests, IPM and Ecosystem Services, IPM for Pest-Resistance Management, New Technologies to Manage Pests and Ecosystem Services, IPM in New Places, IPM for Indigenous, Insular and Isolated People, Invasive Species Management

This project seeks to strengthen and build capacity of a long-established project that includes the Klamath, Kuska, Hoopa, Tunison, and Hoopa tribes, the Quatana Indian Reservation, two national forests and multiple resource conservation districts and watershed councils. (Among the other work group will address invasive species concerns across political boundaries of Humboldt and Siskiyou counties, national forests and the ancestral territories of the Karuk, Yurok and Hoopa tribes. The region warrants an invasive species management area due to concerns unique to the Klamath Mountains, such as their remote location, rugged terrain, critical habitat, and committed community opposition to invasive species.

Development of an Integrated Pest Management Services, Planning Document for the Western San Luis Valley in California
Ally Garry, University of California, $14,998
Type: Planning Document
Center Priorities Identified: IPM Culture and Capacity, IPM in New Places, New Technologies to Manage Pests

To capture the current state of pest management in the California dairy industry, this project will produce a Pest Management Strategic Plan following the guidance outlined by Oregon State University Extension for an IPM Strategic Planning Process. The resulting document will describe the modern dairy industry in California as well as the major pest-related challenges it now faces and the needs for future research and regulatory action to support the dairy industry. Major pests and strategies to manage these pests will be identified by production personnel and extension personnel, and ranked by their economic importance.

Demonstration and Outreach for Control of Stable Flies and Cattle Bunching on California Cattle Farms
Keith Underhill, University of California, $23,000
Type: Outreach & Implementation
Center Priorities Identified: IPM Culture and Capacity, IPM in New Places, New Technologies to Manage Pests

Demonstrations will evaluate various strategies to manage these pests will be identified by producers, veterinarians and extension personnel, and ranked by their economic importance. This project will investigate whether changes in habitat management as a means to augment biological control by aphid parasitoids in Organic dairies, adjustment of dairy management practices to engineer the habitat would be effective as a management strategy to control alfalfa aphids.

Habitat Management in Alfalfa Irrigation Ditches: Evaluating the Potential for Conservation Biological Control of C. argentea
Elizabeth Pringle, University of Nevada, $29,996
Type: Project Initiation
Center Priorities Identified: Biological Control of Pests

Aphids cause serious yield losses in Western alfalfa. The bio-control insect species that are used for aphid control can be managed to reduce their economic impact. This project will investigate whether changes in habitat management as a means to augment biological control by aphid parasitoids in Organic dairies, adjustment of dairy management practices to engineer the habitat would be effective as a management strategy to control alfalfa aphids.

Identification of Environmental and Agronomic Factors Influencing Potato Powdery Scab Disease in the San Luis Valley, Colorado
Ana Cristina Fullibolt, Colorado State University, $23,000
Type: Project Initiation
Center Priorities Identified: New Technologies to Manage Pests and Ecosystem Services, IPM for Pest-Resistance Management, IPM in New Places

(c) 2015, The American Association for the Advancement of Science. All rights reserved.

2014-2018 Western IPM Center Funded Projects

In consultation with our advisory committee and stakeholders, the Western IPM Center adopted 11 priorities in 2019 and for the first time asked grant applicants which priority area their project supported. Each of those priorities is addressed in one or more of these 10 projects selected for funding:

Demonstrating and Outreach for Control of Stable Flies and Cattle Bunching on California Cattle Farms
Erik Lehnhoff, New Mexico State University, $29,999
Type: Project Initiation
Center Priorities Identified: New Technologies, Tree and Weed Killing Technique

Western Hemp IPM Work Group
Amanda Skidmore, New Mexico State University, $29,990
Type: Work Group
Center Priorities Identified: IPM Culture and Capacity, IPM and Ecosystem Services, IPM for Pest-Resistance Management, IPM in New Places

While production of industrial hemp (Cannabis sativa) is rapidly expanding, developing IPM plans for the industry is a challenge because of a lack of information available due to the crop being banned for more than 60 years. Also, because industrial hemp is grown in a variety of situations, IPM recommendations are essential for keeping the crop healthy, effective, but refinements and advancements are needed to make it applicable for more situations and weed species, and to increase user friendliness.

Erik Lehnhoff, New Mexico State University, $29,999
Type: Project Initiation
Center Priorities Identified: New Technologies, Urban Pest Management

Urban weed management in the United States costs billions of dollars and uses millions of pounds of herbicide annually, yet weeds remain abundant and problematic. Many cities, seeking to alleviate concerns about the health and safety of herbicides have banned the use of some herbicides, which further exacerbates management difficulties. This project will involve urban environments to test, refine and showcase a new technology the project team previously developed to manage weeds safely and effectively with electricity. The chosen technology demonstrated the technology’s effectiveness, but refinements and advancements are needed to make it applicable for more situations and weed species, and to increase user friendliness.
Introducing the Western Integrated Pest Management Center

At the Western IPM Center, we promote smart, safe and sustainable pest management to protect the people, environment and economy of the American West. Our vision is a healthier West with fewer pests.

The Western IPM Center funds and promotes IPM development, adoption and evaluation to solve pest problems in agriculture, natural settings and communities. As one of four Regional IPM Centers funded by the USDA National Institute of Food and Agriculture, we serve as the hub of a multi-state partnership and communication network helping researchers, growers, extension educators and others work across state lines and academic disciplines to manage pests safely and effectively.

From our main office in Davis, California, and through network coordinators in Arizona, Hawaii and Oregon, we serve 17 Western states and Pacific Island territories.

Contact Us:
Director Amer Fayad - afayad@ucanr.edu
Associate Director Matt Baur - mebaur@ucanr.edu
Communicator Steve Elliott - sfelliott@ucanr.edu

On the Web
www.westernipm.org

This material is based upon work supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award number 2017-70006-28881. Any opinions, findings, conclusions or recommendations expressed in this publication are those of the authors and do not necessarily reflect the view of the U.S. Department of Agriculture.