

# The Western Integrated Pest Management Center

*Promoting Smart, Safe and Sustainable Pest Management  
in Agriculture, Open Lands and Communities*

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Rodenticides Work in  
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## NEWS BRIEFS

**Commodity Boards  
Can Submit Research  
Topics for Future  
AFRI Funding**

The 2014 Farm Bill allows eligible national and state commodity boards to propose topics for research and outreach

### *Rodent-killing machines*

## Research Focuses on Helping Barn Owls Work in Concert with Rodenticides on Farms



UC Davis's Breanna Martinico checking wing development of a barn owl.

Barn owls are big, beautiful biocontrol.

"Barn owls are rodent-killing machines," said Sara Kross, an assistant professor in environmental studies at Sacramento State University. "They are natural predators of gophers and voles which can be really horrible pests for agriculture."

But as good as the owls can be at controlling rodents on farms, growers may still need rodenticides to control the population explosions that can happen with any small rodent species. And because rodenticides don't kill immediately, barn owls can eat exposed voles, mice and rats and get exposed themselves, which may limit their ability to hunt and control pests.

that they are willing to equally co-fund through Agriculture and Food Research Initiative Competitive Grants.

Now's the time to submit topics.

Proposed topics must relate to established AFRI priority areas of plant health and production and plant products; animal health and production and animal products; food safety, nutrition and health; bioenergy, natural resources and environment; agriculture systems and technology; and agriculture economics and rural communities.

**See the details**

### **Sprayed-On RNA Vaccines for Plants Being Tested**



To combat plant pathogens, researchers are experimenting with double-strand RNA "vaccines" sprayed directly on the plant that target the pathogen but leave the plant unaffected.

Production of the RNA molecules has been difficult, but new techniques may make it cost-effective, according to the research out of the University of Helsinki.

It's an example of one pest-control method affecting another, and something Kross and a team of students are studying at five different California farms.

"We're looking to figure out ways farmers can utilize all the tools in their IPM tool chests," Kross said. "Rodenticides are tools that are sometimes necessary, and barn owls can be really effective tools as well. We want to figure out a way they can be used harmoniously without impacting the barn owls negatively."

**Read the full story**



Emily Phillips of UC Davis holds a sleepy male.



Farmer Greg Giguere holds an owl chick about to get weighed and measured.

***Within six months...***

### **After Lawsuit, EPA Allows Worker Protection Rules Requiring Pesticide Safety Training to Take Effect**

[Read more](#)

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### Testing of Cannabis In Oregon Discovers Contamination of Biopesticides



Mandatory testing of cannabis in Oregon, revealed a surprising outcome – the discovery of six biopesticides contaminated with more highly regulated chemicals.

State officials believe each instance was the result of inadequate clean-out procedures during manufacturing and packaging, not deliberate augmentation of the biopesticides with stronger synthetic ingredients.

[Read more](#)

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### Nominations Sought for Morrill Memorial Lectureship at APLU Annual Meeting



Each year the National Institute of Food and Agriculture joins with the Association of Public and Land-grant Universities to sponsor a lecture presented at the APLU Annual Meeting.

This year, the

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New pesticide safety training for farmworkers will soon be required after the U.S. Environmental Protection Agency dropped its suspension of the requirement in response to a lawsuit.



The trainings were required under the 2015 Worker Protection Standards. While many aspects of the new worker protection standards went into effect in 2017 or early 2018, the EPA announced last December it was suspending the rule requiring enhanced pesticide safety training for farmworkers and pesticide handlers. In May, three states sued the EPA, saying the suspension endangered workers, and last week EPA dropped its suspension and published a notice of availability about the new safety training material in the Federal Register. That triggers a 180-day deadline to incorporate the new material into training programs, which must be done by December 19.

[Here's the EPA notice](#)



**PERC** Pesticide Educational Resources Collaborative

The required training material and all the information needed to comply with the new Worker Protection Standards can be found on the website of the Pesticide Educational Resources Collaborative.

[Get the training material here](#)

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*Invasive weeds burn hot*

### It's Summer, so it's Fire Season in the West – and that's an IPM Issue

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organizations are seeking nominations to honor Justin Smith Morrill – the U.S. Senator primarily responsible for the legislation establishing the land-grant university system. The Justin Smith Morrill Memorial Lectureship is awarded to honor outstanding contemporary leadership in teaching and significant contributions as an educator.

Nominations are due July 15 and the lecture will be delivered at the APLU's annual meeting in November.

**[Learn more or make a nomination](#)**

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## **NEW & COOL: SCIENCE**

**Recent Edition of  
Science Focused  
on Resistance  
Issues**



In case you missed it, the May 18 edition of the journal *Science* focused on resistance issues, with five articles devoted to the topic. They are:

- Meeting resistance
- Wicked evolution: Can



One of the results of invasive grasses like medusahead and cheatgrass spreading throughout the West are more frequent and intense wildfires.

Native species are choked out, rangeland is less productive and resilient, recovery after a fire becomes harder and restoration is expensive.

Here are three recent publications focused on the problem. Click the titles for more information.

- A USDA Farmer.gov story on **[Wildfire and Weeds: Five Things Ranchers Should Know](#)**
- A USDA "Fridays on the Farm" multimedia feature titled **[Restoring Sagebrush Country With 'Modern Wildfire'](#)**
- A report by the Western Association of Fish and Wildlife Agencies titled **[Wildfire and Invasive Plant Species in the Sagebrush Biome](#)**

Three current (and many past) Western IPM Center-funded projects also focus on invasive plants or wildfire restoration.

**[See all our current projects here](#)**

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***Comment period extended to August 16***

## **Proposal to Constrict the Scientific Information Used by EPA Draws Many Comments**

The deadline to submit a comment on the U.S. Environmental Protection Agency's recent proposal to restrict the scientific information the agency will use in crafting regulations has

we address the sociobiological dilemma of pesticide resistance?

- Genomic insights into the emergence and spread of antimicrobial-resistant bacterial pathogens
- Worldwide emergence of resistance to antifungal drugs challenges human health and food security
- Prospects for harnessing biocide resistance for bioremediation and detoxification

We linked to one of the stories in the last newsletter, but not the whole issue.

[Read it here](#)

*Seen (or heard) something others might like?*

[Send us a link](#)

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## 2017 ANNUAL REPORT

been extended.

Comments are now due by August 16 on the proposal, which the EPA calls "Strengthen Transparency in Regulatory Science," and would exclude public-health and other scientific studies from consideration at EPA unless all the data underlying the studies is publicly available "in a manner sufficient for independent validation."

About 180,000 comments have been received so far.

A recent Bloomberg story focused on industry opposition to the proposal. The EPA's Scientific Advisory Board voted that the issue should be considered by the board before any new rulemaking takes effect.

The Western IPM Center plans to submit a comment before the August deadline.

[See the Bloomberg story](#)

[Read the Scientific Advisory Board memo](#)

[Comment on the proposal](#)

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*An interesting infographic*

## National Geographic Outlines Precision Agriculture Using Words and Images



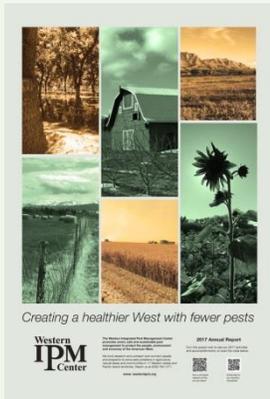
Precision agriculture got the National Geographic treatment earlier this month, when the magazine's website published a lengthy infographic story on the process.

The package includes an introduction to precision-ag practices and technology, and an exploration of the economics of adoption.

[Take a look](#)

**Specifically for Students**

Here are opportunities for graduate and



The Western IPM Center's 2017 Annual Report has been published, in a few different formats.

It's available to download as a **two-sided poster** or as a **booklet**, or, if you want to experience it in its full-sized glory, we'll **send a copy**. (While supplies last...)

Thank you to everyone who worked with us throughout the West to make 2017 such a success!

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## OVERVIEW OF OUR CENTER



We recently published an **Introduction to the Western IPM Center** that highlights what we do and the value we add

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undergraduate students, including scholarships, travel grants, research opportunities and career advice.

If you have or know of an opportunity, **send it to us**. If you have students, please share this with them and **encourage them to subscribe**.

### **Student Activities at the Entomological Society of America Annual Meeting**

At its November annual meeting in Vancouver, the Entomological Society of America has several opportunities for students, including competitions, debates and student showcases. This page on the ESA website lists them all.

### **Career Resources for Entomologists (but others can benefit, too...)**

The Entomological Society of America has a career resources page on its website that collects opportunities to build experience, job listings and career-development articles that students and recent grads may find useful. While aimed at entomologists, the articles are worth a look for anyone in the sciences.

### **Invasive Plant Council Student Resources**

The Council provides a number of opportunities for students interested in invasive plant research and management, including job listings, travel awards and presentation opportunities at the Council's symposium in November 2018.

## Meetings and Conferences

Planning a meeting not listed here? **Send us details**.

### **International Symposium on Poisonous Plants**

September 16-20, St. George, Utah

### **North American Invasive Species Management Association and Upper Midwest Invasive Species Conference Joint Conference**

October 15-18, Rochester, Minnesota

### **International Oak Society Conference**

October 22-24, Davis, California

### **California Invasive Plant Council Symposium**

November 7-10, Monterey, California

to IPM programs around the West. It's a 12-page, 6x10 inch publication.

**[Download it now](#)**

**[Request a hard copy](#)**

## ABOUT US

The Western Integrated Pest Management Center promotes 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.**

We fund research and outreach to solve pest problems in agriculture, natural areas and communities in 17 Western states and Pacific island territories.



## REACH US

Please write or call with comments, suggestions or story ideas. Thanks.

**Director:**  
**[Amanda Crump](#)**  
**(530) 750-1271**

**Associate Director:**  
**[Matt Baur](#)**  
**(530) 750-1270**

**[Entomological Society of America](#)**  
November 11-14, Vancouver, Canada  
Submit a **[Virtual Poster](#)** by July 31

## Trainings and Webinars

Follow the links for details, cost and registration information. If you know of a webinar or training of interest not listed here, [send us the details](#).

### **[U.S. Fish & Wildlife Service and U.S. Air Force Pollinator Conservation Project](#)**

Host: U.S. Fish & Wildlife Service

June 27, 11 a.m. Pacific

Passcode: 18374033#

Get the USAF **[Pollinator Conservation Reference Guide](#)**

### **[Practical Food Safety in the Garden](#)**

Host: Oregon State University

June 28, 11 a.m. Pacific

### **[Diagnosing Herbicide Symptoms](#)**

Host: University of California

July 10-11, Davis, California

### **[Turning Failure into Success: Bedbug Management in Affordable Housing](#)**

Host: Stop Pests in Housing

July 11, 10 a.m. Pacific

### **[Meet the New Neighbors: Emerging Pest Issues in Oregon](#)**

Host: Oregon State University

July 26, 11 a.m. Pacific

### **[Bees, Wasps and Hornets. Oh My!](#)**

Host: All Bugs Good and Bad Series

August 3, 11 a.m. Pacific

### **[The Latest Research on Bees in the Garden](#)**

Host: Oregon State University

August 30, 11 a.m. Pacific

### **[Aquatic Weed School](#)**

Host: University of California

September 5-6, Davis, California

### **[Winterizing Your Home to Keep Out Pests](#)**

Host: All Bugs Good and Bad Series

September 7, 11 a.m. Pacific

### **[Developing a Pest-Exclusion Program for](#)**

**Communication  
Coordinator:  
Steve Elliott  
(530) 750-1269**

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Get the latest IPM  
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### Cockroaches and Rodents

Host: Stop Pests in Housing  
September 12, 10 a.m. Pacific

### Structural Misidentified Pests

Host: All Bugs Good and Bad Series  
October 5, 11 a.m. Pacific

### Lice, Scabies and Mites

Host: All Bugs Good and Bad Series  
November 2, 11 a.m. Pacific

### IPM: A Simple Solution to Pest Problems in Elderly and Disabled Public Housing

Host: Stop Pests in Housing  
November 14, 10 a.m. Pacific

### Pantry Pests

Host: All Bugs Good and Bad Series  
December 1, 11 a.m. Pacific

## IPM Jobs

Hiring? [Send us the announcement.](#)

### Associate Dean, College of Agricultural, Consumer and Environmental Sciences

New Mexico State University  
Position based in Las Cruces, New Mexico  
Closes June 30

### Cooperative Extension Advisor - Agronomy

University of California  
Position based in Yreka, California  
Closes July 6

### Coordinator, Sustainable Food Group

IPM Institute of North America  
Position location flexible  
Open until filled

## Available Funding

The following grants may be of interest to the IPM community. If you know of an open grant that isn't listed here, [send us the details.](#)

### Agriculture and Food Research Initiative - Sustainable Agricultural Systems

**Funding:** \$80 million

**Details:** This program focuses on approaches that promote transformational changes in the U.S. food and agriculture system within the next 25 years. The outcomes of the work being

student resources and job listings delivered directly to your inbox each month.

[Subscribe here](#)

proposed must result in societal benefits, including promotion of rural prosperity and enhancement of quality of life for those involved in food and agricultural value chains.

**Letter of Intent:** Due June 27

#### **Citrus Disease Research and Extension**

**Funding:** \$21.7 million

**Details:** This program makes awards to combat citrus diseases and pests, both domestic and invasive (including huanglongbing and the Asian citrus psyllid), and to support for the dissemination and commercialization of information, techniques and technologies targeting citrus pests.

**Deadline:** June 29

#### **Western Center for Agricultural Health and Safety**

**Funding:** \$30,000 project maximum

**Details:** This program seeks research proposals that address agricultural health and safety in Arizona, California, Hawaii or Nevada. Areas of current interest include, but are not limited to, health and safety related to air quality and climate change, wildland fires near agriculture, pesticide exposure, ergonomic hazards, night work in agriculture and mental health and stress in agricultural populations.

**Deadline:** July 27

#### **Cooperative Agreement to Support the National Pesticide Information Center**

**Funding:** \$1 million annually

**Details:** EPA is soliciting applications for a cooperative agreement from eligible organizations to support the National Pesticide Information Center (NPIC), a program that provides the public with objective, science-based information on pesticide-related subjects. As in the past, the cooperative agreement will carry out the NPIC through a website, toll-free telephone service and outreach. Trained experts will respond to questions on the risks associated with pesticide use, restrictions on pesticide use, who to contact for regulatory enforcement, and how to report information on incidents. It will also collect information on suspected incidents that callers give voluntarily.

**Deadline:** July 30

#### **Agriculture and Food Research Initiative - Foundational and Applied Science Program**

**Funding:** \$182 million

**Details:** The AFRI Foundational and Applied Science Program supports grants in six AFRI priority areas to advance knowledge in both fundamental and applied sciences important to

agriculture. The six priority areas are: plant health and production and plant products; animal health and production and animal products; food safety, nutrition and health; bioenergy, natural resources and environment; agriculture systems and technology; and agriculture economics and rural communities. Research-only, extension-only, and integrated research, education and extension projects are accepted.

**Deadline:** September 30

[Read this issue on the web or share the link with social networks and colleagues.](#)



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