



Pivotal Moments

A Quarterly Newsletter for
Friends of HAREC



**HERMISTON AGRICULTURAL RESEARCH &
EXTENSION CENTER**

SPRING 2018

From the Director

Philip B. Hamm

Welcome to Issue 4 of "Pivotal Moments", a quarterly newsletter from the Hermiston Agricultural Research and Extension Center (HAREC).

Spring planting season is upon us and faculty at HAREC have already planted the wheat and potatoes research plots and soon will be planting carrots, onions and corn, to mention a few.

You may have read recently about the visit to HAREC by Congressman Greg Walden and state Senator Bill Hansell. We had a great visit. They have been great supporters of HAREC.

If you have not already seen or heard about the proposed OSU Extension Service District, to be voted on May 15th in the primary election, let me share a few details with you.

The funds raised will support extension activities and agricultural research conducted in both Umatilla and Morrow Counties. That means supporting the extension offices in both counties and the experiment stations

located in Pendleton and Hermiston. As you know, OSU has programs in every city in both counties.

Each county will be voting separately to establish a Service District in their respective county. If passed, the funds will be under the responsibility of the county commissioners in each county who will appoint a budget committee to oversee the expenditure of these funds.

These funds cannot be used for anything other than OSU related expenditures and are strictly for local OSU use. OSU in Corvallis does not receive any of these funds. Lastly, these funds will not be specifically used to give raises to any OSU employee.

The funds would be used to pay electrical bills, repair and or replace equipment, or help pay salaries for some support personnel and faculty, as examples.

The amount requested is \$0.33/1000 of property value or \$41/year for property valued at \$125,000. Twenty-five other counties in Oregon have already established OSU Service Districts.

Please let me know if you have any questions. Happy Spring!

The Invertebrate Ecology Lab Springs into 2018

By Sandra DeBano, Associate Professor & David Wooster, Associate Professor

It's been a busy new year for the Invertebrate Ecology Lab!



Sandy launches a new project with fellow HAREC scientist, Scott Lukas, and Lesley Morris, at the OSU Agriculture and Natural Resources Program at EOU.

The project, funded by the Foundation for Food and Agriculture Research (FFAR) Pollinator Health Fund, seeks to understand how fire, exotic annual grass invasions, and livestock grazing influence pollinators in rangelands.

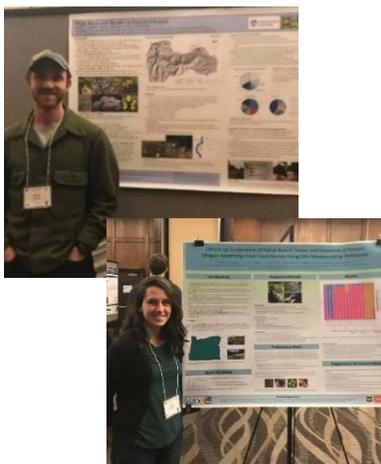
Sandy and her colleagues look forward to starting the fieldwork portion of the study at the Zumwalt Prairie in April and appreciate the funding for this research project.

FFAR awarded \$7 million to 16 researchers across the country for 2018.

Sandy's research focuses on ways to maximize ecological services provided by beneficial invertebrates, including native bees and spiders.

She works in agricultural systems, grasslands, and riparian areas. Recent projects focus on how invasive weeds, fire, and ungulate herbivory influence these beneficial groups.

Sandy and her three graduate students, Lauren Smith DiCarlo, Katie Arstingstall, and Scott Mitchell, all presented research on native bees at The Oregon Wildlife Society Meetings in Portland this February.



Scott Mitchell & Katie Arstingstall

It was an exciting meeting and presented opportunities to interact with colleagues. We discussed the results of our projects directed at enhancing pollination in agroecosystems of eastern Oregon.



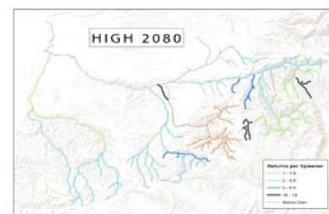
Lauren Smith DiCarlo

Lauren Smith DiCarlo's research was featured in Western IPM, "Grassland Restoration Effects on Native Bees &

Spiders." Lauren was also recently awarded another Prairie Biotic Grant – Congratulations, Lauren!



David Wooster is finishing up a long-term project that he and Sandy began a number of years ago focused on modelling how Umatilla River steelhead may respond to future conditions, including warming stream temperatures associated with climate change. Results suggest that steelhead will face challenging conditions by 2080!



David continues to enjoy his position serving on the review team for the Region 6 Oregon Watershed Enhancement Board, a state agency that provides grants to help improve river and wetland habitat.

Recently, David accepted a new graduate student, Kelsey Lotz, who will be the newest member of the USDA National Needs Graduate Fellowship team.

Kelsey, a native of Richland, Washington, worked for the Washington Department of Fish and Wildlife and the US Fish and Wildlife Service after finishing her undergraduate degree, & is looking forward to joining the Invertebrate Ecology Lab.

Irrigated Agricultural Entomology Program (IAEP)

By Silvia Rondon, Professor

Website: <http://oregonstate.edu/dept/hermiston/silvia-rondon>

The Rondon IAEP lab focuses on the ecology and management of insects in irrigated crops in the Columbia Basin.

Research themes are biology, ecology, control and management of main potato pests- including potato tuberworm, beet leafhopper, potato psyllid, aphids, Lygus; alfalfa weevil, wireworms, pea weevils, onions thrips, seed corn maggots, armyworms, and many more.

"Any insect issue that affects an irrigated crop," is our mission and gaining a better understanding of the landscape structure on insect ecology is developing a sustainable approach to pest management.

As the 2018 field season starts, please stop by to let us know how we can help you in your operations. Better ideas develop when you come directly to talk to us, sharing your questions and field observations. Your input is very valuable to us in guiding future research focus.



We are expanding!!! Along with our rearing rooms at the Horneck

building, we are adding more much-needed space in our headquarters.

THANK YOU very much for all your contributions that helped make the expansion possible.



Plant Pathology Lab

By Ken Frost, Assistant Professor

Currently, we are integrating grower-maintained data about cropping histories that may result in increased exposure of soil-borne pathogens to pesticides.

Our hypothesis is simple: fields that have had increased pesticide applications through time will be more likely to have pathogens or microbial communities that are insensitive to the applied pesticides.

Our goal is to refine pest management practices to include crop rotations that select for production attributes that correlate to high crop yield and quality but reduce pathogen persistence in the soil.

HAREC Plant Pathology Lab:
<http://oregonstate.edu/dept/hermiston/plant-pathology-plant-lab-testing>

You may bring in fresh plant samples to the Lab or Main Office, or mail them:

Robert Cating, OSU Extension Plant Pathology Lab, HAREC
2121 South 1st Street
Hermiston OR 97838

Horticulture Program

By Scott Lukas, Assistant Professor

This summer the horticulture program will be focusing on soil moisture monitoring in onion production systems using sub-surface drip irrigation.



The drip irrigation is designed to deliver water and nutrients directly to the root zone of the crop, thus increasing efficiency of water-use and reducing nitrate-leaching losses.

Previous research from other regions has demonstrated increased onion production with reduced environmental impacts, but no research-based information is available for the coarse-textured soils that we have in the Lower Umatilla Basin.

The research findings will be shared with regional producers to provide locally applicable information.

Scott will also be working with corn and a project on rangeland pollinators.

What's Cooking?

By Angie Treadwell, RD, LD
SNAP-Ed Program Coordinator

One of the Umatilla-Morrow SNAP-Ed unit's favorite ways to deliver nutrition education is through family cooking classes.

In the last several months, OSU Extension SNAP-Ed staff have worked with their community partners to provide evening cooking classes for families in Pendleton, Hermiston, Umatilla, Boardman and Irrigon.



As featured above, youth are taught how to prepare potatoes during a nutrition class, "Cooking Matters for Families" at AC Houghton Elementary School. Sagar Sathuvalli & his crew at Hermiston Agricultural Research & Extension Center (HAREC) grew the potatoes at the station.

Over the course of four to six weeks, adults and kids alike enjoy hands-on learning as we prepare a meal that we sit down and share together at the end of each two-hour session.

Class recipes emphasize fruits, vegetables and whole grains, many of which are grown right here in Umatilla and Morrow counties.



Cracking eggs for Food Hero Healthy Carrot Cake Cookies at McNary Heights Elementary.

The learning experience is enriched as class participants engage all their senses to hear, see, touch, smell and taste the nutrition messages we deliver.

Many do not realize that literacy, math and science concepts are woven throughout the lessons because we are having so much fun!

Our primary partner in delivering these cooking classes are staff from Umatilla-Morrow Head Start, Inc., with additional funding provided by the Umatilla School District, the Morrow County School District, and FEAST grant funding.



Angie prepares a Food Hero Broccoli and Everything Salad at Sunset Elementary with fresh broccoli grown by Scott Lukas at HAREC.

OSU Celebrates with Sun Grant Festival - April 9-20, 2018



OSU's 150th Anniversary celebration continues throughout the year. Here are some of the activities for the Sun Grant Festival. Check the website for additional information, registration and updates.

Monday, April 9th, 11 AM – 2PM, MU Quad on the Corvallis campus will focus on alternative power sources as they feature a demonstration on how to make **ethanol** and make **solar power** available through a portable solar trailer.

Friday, April 13th 1 – 3 PM, Corvallis. See how sustainability and innovation go hand-in-hand at the **Stahlbush Island Farms Tour**. This free tour will provide guests with sampling of fruits and vegetables grown on their **certified sustainable family farm**, & look at how they are turning waste into electricity via a **biogas plant**. Pre-registration required.

Tuesday, April 17, 2018, 4 PM – 6 PM Corvallis will host **Solar Array Tours** every 20 minutes. See how Agri-voltaics help provide a benefit to agricultural production, power and reduce plant stress. Please register.

Registration and Information:
<http://communications.oregonstate.edu/sun>

Need Answers? We have great online resources available.

Ask an Expert: <http://extension.oregonstate.edu/extension-ask-an-expert>

OSU Extension Publications: <https://catalog.extension.oregonstate.edu/>

Please Like, share & follow our Facebook™ page.

<https://www.facebook.com/OSU.HAREC/>

Contact our office to receive e-mails for field days & other events of interest.



	Event	Contact
April		
9-20	OSU150 Sun Grant Festival	http://communications.oregonstate.edu/osu150-sun-grant-festival/schedule
9	Cooking Matters for Families, 5:30 – 7:30 PM, Boardman, Offered thru May 14 th	angie.treadwell@oregonstate.edu
10	Children's Health Committee, 3:30 HAREC	angie.treadwell@oregonstate.edu
14	Hermiston Recycling Event, 9-3 - Free	http://www.hermiston.or.us
21	Hermiston Community Clean-up, 9-12	http://www.hermiston.or.us
22	Earth Day	
27-29	4-H Spring Classic, Pendleton	Shauna, 541-278-5404
30	Thru May 6, Screen Free Week, Hermiston - Various Activities	angie.treadwell@oregonstate.edu
May		
3	Screen Free Week, Hermiston Downtown	angie.treadwell@oregonstate.edu
7-13	Milton-Freewater Junior Show	Shauna, 541-278-5404
8	Children's Health Committee, 3:30 HAREC	angie.treadwell@oregonstate.edu
23	Grass Seed Field Day- HAREC	Ken Frost, 541-567-8321
28	Memorial Day – Offices Closed	
June		
13	Wheat Field Day - HAREC	Ray Qin, 541-567-8321
19	Children's Health Committee, 3:30 HAREC	angie.treadwell@oregonstate.edu
20	Potato Field Day - HAREC	Sagar Sathuvalli, 541-567-6337



The National Pesticide Information Center provides pesticide information and resources to the public.

National Pesticide Information Center (NPIC)

Open 8 AM – 12 PM, Monday - Friday
1-800-858-7378

npic@ace.orst.edu

<http://npic.orst.edu/>

En Espanol:

<http://npic.orst.edu/index.es.html>

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<http://oregonstate.edu/dept/hermiston/>

**Hermiston Agricultural Research & Extension Center
Mission Statement**

To advance scientific knowledge in agriculture, natural resources and biofortified crops, and support and educate our diverse local clientele and community in the areas of irrigated agriculture, plant breeding, natural resources, human health and youth development.



**Oregon State University
Hermiston Agricultural
Research and Extension Center**

Become a HAREC Supporter!

Contact our office to find out how you can contribute to the research, programs and growth of HAREC.