

# Central Oregon Agriculture

VOLUME 23 ISSUE 3

MAY / JUNE 2014

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## Transitions - Marvin Butler Retires as COARC Director, Carol Tollefson Appointed as New Operations Director

On April 30, 2014, Marvin Butler retired as the Central Oregon Agricultural Research Center (COARC) Director. He is now working half time through the end of 2015 as a research leader, as well as conducting critical ongoing research.

Effective May 1, 2014, Carol Tollefson was appointed the Operations Director for COARC. For the past two years Carol has served as the Administrative Assistant for the research center. Carol brings high quality person strengths important to success, in addition to an MBA and administrative experience. Congratulations Marvin and Carol on your future endeavors!

*Katie Ralls, COARC Education Coordinator*

## Irrigated Pasture and Grazing Management Field Day

**What:** Pasture and Grazing Tour

**When:** Thursday, May 22, 6:00 p.m. - Dusk

**Where:** 5680 SW Quarry Road, Redmond, OR

**Cost:** FREE

The pasture will be our laboratory and the animals and plants will be our focus. Tom Bennett, NRCS, Tammy Harty, DSWCD, and Mylen Bohle, OSU/Crook County Extension Service, and others will be presenters.

Agenda and Discussion:

- Introductions
- Goals of the Pasture
- Demonstration of Pasture Stick
- Dig & Look at Roots
- Look at Pasture Plants
- Watch the Animals Graze
- Pasture Fertility
- Grazing Heights and Clipping Height Plots (not confirmed)
- Irrigation Management
- SWCD Programs
- When and Where is the Next Pasture Field Day in July?

Please RSVP to Tammy Harty, DSWCD, (541) 815-0203 or email: [tammyharty@msn.com](mailto:tammyharty@msn.com).

*Mylen Bohle*

## Equipment Training

**What:** Trimble Ag Training from SITECH

**When:** Friday, May 23, 9:00 a.m. - 4:00 p.m.

**Where:** COCC Madras Campus, 1170 E Ashwood Rd., Madras, OR

**Cost:** FREE

Join the experts from SITECH for a day of training on the latest equipment from Trimble for the ag industry. Lunch and snacks will be served.

Please RSVP to Eric Wavra, SITECH, (541) 499-1875 or email: [ewavra@sitechnorcal.com](mailto:ewavra@sitechnorcal.com)

*Katie Ralls, COARC Education Coordinator*

**Central Oregon Agriculture** is a bi-monthly newsletter produced by the Central Oregon Extension offices and the Central Oregon Agricultural Research Center. The intent of this newsletter is to extend agricultural research-based information to solve problems, develop leadership and manage resources wisely. Please direct comments and changes to the mailing list to your local County office.

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- ◆ Pamela Wiederholt, Ag Newsletter Coordinator/ Webmaster, (541) 447-6228

#### Central Oregon County Extension Offices

(all area codes are 541)

- ◆ Dana Martin, Regional Administrator, 548-6088

**Crook County** Extension Service - Phone 447-6228, 498 SE Lynn Blvd., Prineville, OR 97754

**Deschutes County** Extension Service - Phone 548-6088, 3893 SW Airport Way, Redmond, OR 97756

**Jefferson County** Extension Service - Phone 475-7107, 850 Dogwood Lane., Madras, OR 97741

**Warm Springs** Indian Reservation - Phone 553-3238, 1110 Wasco St., PO Box 430, Warm Springs, OR 97761

#### Central Oregon Agricultural Research Center

- ◆ Carol Tollefson, Operations Director, 475-7107

Madras Site – Phone 475-7107, 850 Dogwood Lane, 97741

Powell Butte Site - 8215 SW Hwy. 126, 97753

#### Extension Service & Experiment Station Web Sites

Crook County: <http://extension.oregonstate.edu/crook>

Deschutes County: <http://extension.oregonstate.edu/deschutes>

Jefferson County: <http://extension.oregonstate.edu/jefferson>

Central Oregon Agricultural Research Center:

<http://oregonstate.edu/dept/coarc/index.php>

#### Central Oregon Agricultural Extension Service Staff

- ◆ Mylen Bohle, Forage, Hay, Pasture, Cereals, 447-6228
- ◆ Marvin Butler, Vegetable Seed, Grass Seed and Peppermint Production Research, 475-7107
- ◆ Tim Deboodt, Range Resources and Livestock, 447-6228
- ◆ Amy Jo Detweiler, Horticulture, 548-6088
- ◆ Jeremiah Dung, Plant Pathologist, 475-7107
- ◆ Toni Stephan, Horticulture & Small Farms Instructor, 548-6088

The above individuals are devoted to extending agricultural information to producers. Many of the individuals, in addition to agriculture, have assignments in research, 4H/youth, administration and community resource education.

Often it is appropriate to mention brand names of some commercial products; however, they are used only for the purpose of information. Extension does not guarantee or warrant the standard of the product, or does it imply approval of the product to the exclusion of others.

## Central Oregon Agricultural Research Center (COARC) Hires Plant Pathologist

Central Oregon Agricultural Research Center and Oregon State University's Selection Committee are pleased to announce the COARC Plant Pathologist position has officially been filled. After an extensive search and interview process, the selection committee offered the COARC plant pathologist position to Jeremiah Dung, which he accepted. Jeremiah began working at COARC on December 31, 2013.

Jeremiah received a Bachelor of Science degree in Biology from Eastern Washington University (Cheney, WA), where his studies focused on botany and mycology. After graduating from EWU, Jeremiah went on to earn his Master of Science and Ph.D. degrees in Plant Pathology at Washington State University (Pullman, WA) under the direction of Dr. Dennis Johnson, where he conducted research on Verticillium wilt and other diseases found in mint and potatoes. Before arriving at COARC, Jeremiah was a postdoctoral scholar with Philip Hamm at the Hermiston Agricultural Research and Extension Center. During his time there, he investigated the epidemiology and control of ergot in grass seed crops. Jeremiah has extensive experience working in applied, extension-based research programs. He particularly enjoys working with growers and stakeholders to find solutions to local and regional plant disease problems.

Jeremiah's research program at COARC will focus on plant disease epidemiology, or the study of factors that influence the initiation, development, and spread of plant diseases. The objective of this research will be to advance the understanding of diseases impacting high-value seed and specialty crops grown in Central Oregon, with the ultimate goal of improved and sustainable plant disease management. Specific research areas will include: identifying and detecting sources of disease inoculum; developing a better understanding of how plant pathogens become established and spread; determining environmental factors that contribute to plant disease epidemics; and developing or improving chemical, cultural, and other disease control methods.

Jeremiah was born in Berkeley, California before moving to his adopted hometown of Spokane, Washington. As a youth, he spent his summers at his grandparents' home in Pomeroy, Washington, where he was exposed to agriculture and nature at an early age. In his spare time, Jeremiah enjoys backpacking, fishing, gardening, cooking, bicycling, and spending time in the outdoors. He is also an active member of the American Phytopathological Society, the Mycological Society of America, and the Potato Association of America.

*Katie Ralls, COARC Education Coordinator*

### Plant Sale

**What:** OSU Extension Central Oregon Master Gardener™ Plant Sale

**When:** Saturday, June 7, 2014, 10:00 a.m. - 2:00 p.m.

**Where:** Bend Senior Center, 1600 S.E. Reed Market Road., Bend, OR

**Cost:** FREE

The Central Oregon Chapter of OSU Master Gardeners™ Plant Sale is scheduled Saturday, June 7<sup>th</sup>, at the Bend Senior Center, 1600 S.E. Reed Market Rd., from 10:00 a.m. - 2:00 p.m. The Senior Center still is accessible during the road improvement construction on Reed Market Road; look for detour signs. It's a great opportunity to purchase vegetables, flowers, and herbs.

*Deschutes County Extension Service, (541) 548-6088*

## Tractor Safety Training

**When:** June 16-18, 2014

**Where:** Mt. Jefferson Rifle, Archery & Pistol Association (RAPA), 2209 NW Clackamas Drive, Madras, OR

This is for youth ages 14-17. Space is limited so sign up early. For more information contact Jon Gandy in the Jefferson County Extension office at (541) 475-3808.

*Mylon Bohle*

## Powell Butte Station History and Update

In 1977, a Charitable Remainder Trust was created from a gift C. Victor Wiley made to the Oregon State University (OSU) Foundation which included 240 acres of property in Crook County. The creation of this trust created an income stream to Mr. Wiley during his lifetime and gave the OSU Foundation control of the property. After the creation of the trust, 80 acres of the property were sold to fund the annuity, 80 acres (now known as "Powell Butte Station") were rented by the Central Oregon Agricultural Experiment Station (then located in Redmond) and 80 acres were rented by a local rancher. In 2005, Mr. Wiley passed away and in July, 2007 the OSU Foundation sold the 80 acres which had been rented out by a local rancher. At that time, the Wiley Endowment was created from the proceeds of the sale to benefit research by the Central Oregon Agricultural Experiment Station.

A long-term agreement signed by the OSU Foundation and the Oregon Agricultural Experiment Station (OAES) to define how the Powell Butte location (or income from) would be used states "The OSU Foundation and the Oregon Agricultural Experiment Station (OAES) understand and agree that the benefits associated with Mr. Wiley's will are directed to agricultural research. The OAES will commit these resources and their produced income to Central Oregon agricultural research. The system or procedures by which the income will be directed to Central Oregon has not been identified at this time."

The Powell Butte location was developed by the Central Oregon Agricultural Experiment Station (now COARC) to perform local agricultural research which included producing seed for the statewide Potato Variety Trials around the state. COARC continued to conduct potato research at Powell Butte until 2010 when a new nematode, now identified as *Globodera ellingtonae*, was found to have been associated with the 2008 year seed crop. Since 2010, Bill Brewer of the Oregon Potato Commission, Russ Ingham, Russ Karow, Bill Boggess, in cooperation with the Animal and Plant Health Inspection Service (APHIS) in Washington DC, and the Oregon Department of Agriculture (ODA), has been managing the situation by limiting access to the site. The ODA approved OSU/Russ Ingham to do research at the location on the nematode.

On May 13, 2014, Bill Brewer (Oregon Potato Commission), Bill Boggess, Stella Coakley, Russ Karow and Russ Ingham (OSU) met to discuss the status of the research at the Central Oregon Agricultural Research Center (COARC) at the Powell Butte site. In cooperation with the ODA and the USDA APHIS, research directed by Dr. Russ Ingham (OSU) and Dr. Inga Zasada (USDA-ARS) will be continuing to determine whether the cyst nematode, *Globodera ellingtonae* has an impact on potato yield and what eradication options for the nematode may be.

Potato trials will continue through at least the 2015 season and access to the property will remain limited.

Questions regarding the nematode and ongoing nematode research may be directed to Bill Brewer, Bill Boggess, Stella Coakley, Russ Karow or Russ Ingham. Other questions regarding Powell Butte may be directed to Carol Tollefson at COARC.

*Carol Tollefson, COARC Operations Director*

## The Importance of Preventing Drift - Sensitivity of Grapes

In Oregon, wine grapes are being planted into areas that traditionally have been field crops, Christmas trees, or pastures. Grapes particularly are sensitive to some of the herbicides used in these other crops, including the phenoxy herbicides (e.g., 2,4-D and MCPP). Herbicide drift can injure foliage, shoots, flowers, and fruits. The introduction and expansion of commercial grape crops into these areas require that growers openly communicate with each other to ensure that all crops in an area can be produced without conflict.

If you plan to use an ester formulation of a phenoxy herbicide near a vineyard, talk to the nearby vineyard owner/manager. Find out if the grapes are at a particularly vulnerable growth stage, learn about how to minimize risks, and consider using alternative products. If you are a grape grower, share information regarding your crop with your neighboring growers (often multi-generational family farmers who may not be familiar with growing grapes) and help be part of the solution.

It is important to keep pesticides on their intended site of application. It is the responsibility of the pesticide user to fully learn about the properties of the pesticides used, including the potential to drift or volatilize. Drift can be minimized in a number of ways, including, but not limited to: reducing spray pressure, lowering boom height, using drift-reduction nozzles or certain spray adjuvants or selecting low or nonvolatile pesticides. Pesticide users should also learn about the factors which may influence drift, including: temperature, relative humidity, air flow patterns, temperature inversions and topography.

It also is critical that there is good communication between growers and hired commercial applicators. Growers should communicate information regarding nearby sensitive crops; this will allow the hired commercial applicator to take the necessary precautions.

It is all about common sense, good communication, being a good neighbor and having enough information to make informed decisions.

For more information:

Pacific Northwest Pest Management Handbook: Agrichemicals and Their Properties <http://pnwhandbooks.org/weed/sites/default/files/chapters/pdf/c-properties.pdf>

Preventing Herbicide Drift and Injury to Grapes, EM 8860 (Revised February 2014), <http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/45880/em8860.pdf>

*Andy Zimmerman, Oregon Department of Ag*

## Limited Irrigation and Rain this Year?

The “Drought” word is certainly creeping into more and more conversations as we head toward summer. We have links on the Crook County Extension Service web site that might be of interest to help producers manage their forage and livestock during drought conditions.

For more information: [Irrigation](#) (Link).

*Mylon Bohle*

## Miscellaneous Ag Articles

Crop Water Use Program / [Table.pdf](#)

Growing Degrees Update / [Table.pdf](#)

Nitrogen Needed to Produce Forage / [Table.pdf](#)

USDA's Farm Service Agency Disaster Assistance Program / [Disaster Assistance Information.pdf](#)

*Mylon Bohle*

## Living on a Few Acres (LOAFA) Conference Wrap-Up

The LOAFA Conference held in March at the Deschutes County Fair and Expo Center was a *HUGE* success. Attendees had the opportunity to attend 4 classes, from 30 choices, during the day. The greenhouse management and high tunnel classes filled to capacity as they were part of the requirement for securing grant money. The cost-share classes helped people learn of ways to access funds for energy efficiency upgrades for their homes and irrigation systems. They also learned of cost-share programs to help battle weeds on their property.

This year Superior Tractor gave classes on tractor driving safety, implement selection and hook-up. Barbara George, of Prineville, was thrilled to drive the tractor and wanted to go buy one right away. Tony Sarao, owner of Superior Tractor, showed how one model of tractor disconnected and reconnected front implements with just the raising and lowering of release levers on the implements. *Sweet!*

Ellen Hammond's class on Mastering Mud and Manure was excellent. Several of the attendees told me that the information was spot on and the class was more than they expected. I dropped in on this class in time to hear Ellen speaking about herbicide carryover problems in compost that is contaminated by a certain class of chemicals known as pyridine carboxylic acids; this includes picloram, clopyralid and aminopyralid. She suggested that people know what hay or pasture feeds are sprayed with before using the manures from animals feeding on said materials as an amendment in their landscape and vegetable gardens. This is something everybody that uses animal manures in their gardens needs to be aware of.

Some of the other classes that got rave reviews were, “Paddock Paradise” a drylot alternative for horses, taught by Karlie Wyman of NRCS. I overheard one gentleman who just came out of the class expressing how much he learned and that the speaker was a wealth of knowledge. Throughout the day I heard comments similar to this about Karlie's class. But this was something I heard often about many of the classes. Fara Brummer, newly assigned as the OSU Extension livestock agent for Central Oregon gave a talk on beef health and nutrition which drew perfect evaluations from attendees. I really appreciate that Fara was able to present this class as she was literally moving to North Dakota that day. Her vehicle was packed, her two dogs were waiting and she was headed out as soon as her class was done. That's what I call honoring a commitment! Cory Owens class on soils was so stimulating, people almost had to be dragged out of it in order for the next class to set up. Cory had participants do some hands-on learning as well as small group discussion. Who knew people would get so excited about soil?

We had new vendors too! Some had small woodlot tools to show off, others were introducing cut flowers as a business venture and another was trying to build clientele for his new organic amendment business. We had Friends of Family Farmers, Animal Welfare Approved and GreenSavers come to tell about themselves and introduce their work to attendees. Rogue Farm Corps came from the Rogue Valley to share their idea and to build interest in using interns on farms and ranches to help build the next generation of farmers and ranchers. This is an important concept as even our own LOAFA numbers show that farming and ranching is currently done by the older generation. Based on the evaluations turned in, 58% of 2014 LOAFA attendees were 55 years or older. We need more young people to return to the land and become the next generation of land stewards.

We were generously supported this year by Central Oregon Intergovernmental Council, Deschutes County Discretionary Grants, Right Risk/RMA, Ewing Irrigation Products, Central Oregon Irrigation District, Helena Chemical Company and Wy'East RC&D. Without the generosity of these sponsors we could not get such high quality speakers, such a nice facility or lunch. Thank you sponsors for your support!

*Toni Stephan*

## Forage Research in Central Oregon

New on-farm trials have been initiated this Spring in central Oregon. The Central Oregon Hay Growers Association are providing dollars to partially fund part of these trials; as well as Midstate Fertilizer Company, Central Oregon Organix and Helena Chemical Company, are providing product and support, too date.

The following is a brief description of each trial:

- \* Potassium rate effect on alfalfa – Terrebonne (The field tested 65 ppm and 105 ppm K and the hay tested less than 1% K.) Potassium rates applied are 0, 100, 200, 300, 400, and 100 + 100 split lb/ac.
- \* Potassium source and rate effect on mixed grass hay – Tumalo (The field tested 34 ppm K and the trial area tested 58 ppm K). Potassium rates of 0, 100, 200, 300, 100 + 100 split lb/acre, and manure rates are 0, 2, 4, 6, 2 + 2 split DM ton/acre.
- \* Tilled and non-tilled lime rate effect on grass hay – Tumalo. (The field tested 4.9 pH and 6.1 SMP) Rates of equivalent 100 lime score will be 0, 0.5, 1, 2, 3, and 4 ton/acre. This trial will start this Fall or next Spring.

The following trials were initiated in 2012 and 2013. North Lake County SWCD, Lake County Hay and Forage Association, Lake County Extension Service, Oregon Hay and Forage Association, Dan Banson, producer, Central Oregon Organix, OSU Forage/Livestock Research Endowment, and other companies are providing product and support, to date.

- \* Organic alfalfa fertility trial “I” - Fort Rock. 18 treatments of organic fertility enhancing products with and without 2, 3, and 4 ton/acre chicken manure, and 2, 3, and 4 ton/acre beef feedlot manure, plus, gypsum only, and sulfate of potash + bonemeal treatments.
- \* Organic alfalfa fertility trial “II” - Fort Rock. 12 treatments of organic fertility enhancing products with and without 2 and 4 ton/acre chicken manure.

The following trial is being supported by Loveland Products.

- \* Foliar K application effect on alfalfa – Terrebonne. (The field tested 65 and 105 ppm K and the hay tested less than 1.0% K). There are 4 different foliar potassium products being trialed.

The following two alfalfa trials are being supported by some of the alfalfa seed companies as well as the local marketers.

- \* Two alfalfa variety trials are being conducted at COARC, Madras, Oregon. A conventional variety and a Roundup Ready variety trial (this will be their third production year). Marvin Butler of COARC is supervising these two trials.

*Mylene Bohle*

## Two “New” (2013) Aquatic Weed Species Found in Deschutes County

Two highly-invasive aquatic weeds that until now had not grown locally, have recently been reported to Deschutes County and the Oregon Department of Agriculture. Residents with water features on or adjacent to their properties are urged to be on the lookout for “Yellow Floating Heart”, found in the Redmond area; and “Water Primrose”, found in the Terrebonne area.

Yellow Floating Heart flourishes in slow moving rivers, lakes, reservoirs, ponds and swamps. The floating, heart-shaped to almost circular leaves grow on long stalks. The 5-petaled flowers are bright yellow and float at the water’s surface, with one to several flowers per stalk.

Water Primrose may be floating, creeping, or upright and forms dense mats in ditches, ponds and lake margins. Leaves vary in appearance, are usually elongated, are willow-like and arranged alternately on reddish-brown stems. Water Primrose blooms in summer to early fall with bright yellow one-inch solitary flowers-having five to six petals each.

These plants have similar negative effects. Water recreation is impacted due to the loss of fish habitat, fishing access, clogging of boating waterways, and swimming areas. Infested waterways suffer drops in dissolved oxygen, which can kill fish and invertebrates. Waterfowl loose preferred food plants and feeding grounds. Species richness of all aquatic species drops significantly. Infested waterways often build up significant populations of mosquitoes because of the improved habitat conditions for them, which provide protection for developing larvae. In addition, water primrose can cause significant clogging of irrigation canals and drainage ditches where it has established growth.

**HELP FOR LANDOWNERS:** Deschutes County and the Oregon Department of Agriculture can assist landowners in the treatment and control of these two plants. Residents who think they may have this plant growing on their property are asked to contact Deschutes County Forester/Vegetation Manager Ed Keith at (541) 322-7117 or Oregon Department of Agriculture Integrated Weed Management Coordinator Mike Crumrine at (541) 604-6580 or, send email to [EdK@deschutes.org](mailto:EdK@deschutes.org).

For more information about Deschutes County noxious weed education programs, please visit [www.deschutes.org/weeds.link](http://www.deschutes.org/weeds.link).

*Mike Crumrine and Ed Keith*

## Calendar 2014

### May

- 22 Irrigated Pasture and Grazing Management Field Day (see article front page).
- 23 Equipment Training (see article front page).
- 28 OSU Hyslop Farm Field Day (Wheat Breeding Program and Grass Seed Crops), 8:30am - 12:00 Noon, Corvallis, Oregon, (541) 737-5098
- 28 Grass Seed Field Day, 8:30am - Noon, Hermiston, Oregon, (541) 567-2240.

### June

- 7 Plant Sale (see article page 2).
- 9 Wheat Field Day, 9:00 am - 12:45pm, Hermiston, Oregon, (541) 567-2240.
- 10 Pendleton Station Field Day, 7:45 am - 2:45 pm, Pendleton, Oregon, (541) 278-4186.
- 11 Sherman Station Field Day, 7:30 am -12:20 pm, Moro, Oregon, (541) 278-4186.
- 16-18 Central Oregon Tractor Safety Training (see article page 3).
- 25 Potato Field Day, 8:00 am - Noon, Hermiston, Oregon, (541) 567-2240.

### July

- TBA Irrigated Pasture and Grazing Management Field Day, Redmond, Oregon
- TBA COARC Cereal Field Day, Madras, Oregon.

### September

- TBA Irrigated Pasture and Grazing Management Field Day, Redmond, Oregon.

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