

Central Oregon Agriculture

VOLUME 25 ISSUE 2

MARCH/APRIL 2016

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The Central Oregon Hay Growers' Association Annual Meeting

The Central Oregon Hay Growers' Association Annual Meeting and Banquet will be held on *Friday, March 18*, at the Wind River Banquet Room (8320 Hwy 97) next to the Pumphouse in Terrebonne. No-host social hour starts at 6:00, dinner at 6:30 pm, Business meeting at 7:00 pm. At 8:00 pm, Kyle Gorman, Water Resources Region Manager of the South-Central Region, will be the key note for the evening talking about the "2016 Water Outlook from Both a Physical and Legal Standpoint". Call 541-447-6228 to RSVP by March 11th (Pumphouse wants numbers by March 11th) to reserve a spot and tell us your dinner choice of either Chicken or Tri-Tip Dinner for \$30 (you can pay at the door).

Mylen Bohle

OSU Blueberry School

This two-day OSU Blueberry School will be held on March 16-17 at the LaSells Stewart Center and CH2M Hill Alumni Center, OSU Campus, Corvallis. The Blueberry School is intended for both new and experienced blueberry growers, farm managers, crew leaders, advisors, packers/shippers, and consultants. Experts from Oregon State University, USDA Agriculture Research Service, Washington State University, and the blueberry industry will address key issues.

Some of these key issues will include where the blueberry market is going; how you might be more successful in tight labor or volume markets; which cultivars are easiest to grow and are in most demand; how to establish new acreage using cutting-edge methods; projected costs and the resources available to growers for selecting new planting sites; how to best manage existing acreage to maximize returns of high-quality fruit; basic information on blueberry plant physiology to help growers minimize environmental stresses and improve yield potential; nutrient management programs for optimal growth and quality; irrigation and fertigation practices for higher quality and better efficiency; use of organic amendments and mulches; using weed mat as a mulch (strengths and possible weaknesses); planning for and improving machine harvest efficiency; pruning for hand or machine harvest (where can you cut corners...or not), maximizing pollination for good fruit and seed set; overviews of the most important blueberry viruses, diseases, insects, weeds, and vertebrate pests; and tools for good pest management.

Information throughout the program will address the needs of conventional, transitional, and organic growers. For more information, see the draft agenda at: <http://osublurberryschool.org/>.
Bernadine Strik, OSU

Central Oregon Wine and Grape Growers Association

The Central Oregon Wine and Grape Growers Association is planning some events this growing season. Whether you are interested in growing wine or table grapes, whether you have 5 grape plants, or 15,000 grape plants, everyone is welcome. Their web site is at <http://www.centraloregonwine.com/> Their next meeting starts at 6:00 pm, March 16, at the Wind River Banquet Room (Pumphouse) in Terrebonne. Contact Kerry Damon, President, at 541-771-7817 to talk about membership or locations of the meetings and upcoming educational events.

Mylen Bohle

Central Oregon Agriculture is a bi-monthly newsletter produced by the Central Oregon Extension offices and the Central Oregon Agricultural Research Center (COARC). 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 of your local County office.

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- ◆ Kim Herber, Ag Newsletter Coordinator, (541) 447-6228

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(all area codes are 541)

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- 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, 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://loregonstate.edu/dept/coarc/index.php>

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- ◆ Carol Tollefson, 475-7107

The above individuals are devoted to extending agricultural information to producers. Many of the individuals, in addition to agriculture, have assignments in research, 4-H 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.

Thank you to sponsors of C.O. Forage Seminar.

Almost 80 people attended the Central Oregon Forage Seminar on January 27th held in Prineville on January 27th. The OSU Extension Service and Central Oregon Hay Growers' Association very much thanks and appreciates the following sponsors for making the event a great success.

- Proline Fabrication (\$500 gift certificate)
- High Desert Auto Supply
- Helena Chemical, Inc
- J&R Avila Farms
- Thompson Pump
- Homestreet Bank
- CHS
- Midstate Fertilizer
- Bobcat of Central Oregon
- McGinnis Ranch
- KBE
- Peterson Cat
- Miller Oil
- Mid-Columbia Insurance
- Whitaker Farms
- Columbia Bank
- Dustin Deines
- Pape' Machinery
- Ag West Supply
- Midstate Power
- Bend Distillery
- Cascade Pump
- Oregon Feed & Irrigation
- Wilbur Ellis, Co.
- Mid-Columbia Producers/Bend Oil

Greg Mohnen, President, COHGA, and Mylen Bohle

Apples, Apples, Apples.....

Tired of your wormy apples year after year? You're not alone. A high percentage of apple trees are common hosts to the codling moth, a serious pest both in Central Oregon and nationwide. Not only are apple trees a target, but European and Asian pears as well. You may not notice the damage until you go to harvest your fruit and find the larva of the moth has tunneled into and maybe out of the fruit leaving it damaged in its wake. As the population builds each season, it become increasingly more difficult to manage. That's where the Project Happy Apples website may be of assistance. This community outreach effort was launched last year in 2015. The goal of the project is to assist backyard growers in knowing when and how to best target codling moths to reduce the population and damaged fruit set. It is possible to reduce codling moth numbers on your tree, but using integrated pest management techniques at the RIGHT TIME is critical for effective control. We have set up a Project Happy Apples website page where you can opt in to receive timely email reminders of when to do what for best management. All of our suggestions are research based, and we do the math on knowing when the moth is in flight, which varies each year depending on weather. We are also posting our updates online for gardeners to review when convenient. If you are interested in learning more about Project Happy Apples, please go to our website at: <http://extension.oregonstate.edu/deschutes/project-happy-apples>

Amy Jo Detweiler

Comparing 2016 to 30 Year Average GDD's

The last couple of Spring season's have come really earlier than normal. Growing degree days are calculated based on a 32 degree base temperature and simple average to calculate comparisons. These following locations are ahead of the 30 year average on March 6 by:

Madras	30 days
Prineville	31 days
Redmond	35 days
Bend	41 days
Christmas Valley	31 days
Fort Rock	37 days
Seneca	37 days

If you would like to see the range comparison from 2007 to 2016, go to the Crook County Extension Website - <http://extension.oregonstate.edu/crook/>.

Mylen Bohle

Mentored Management Plan Writing Course

Got a plan? Whether you are updating your plan for Tree Farm certification, need to write a plan for a cost-share assistance program, or just want some help figuring out where to begin working on your land, writing a management plan can be a useful process for learning more about the state of your land.

The Oregon Department of Forestry, Natural Resources Conservation Service, and Oregon State University Extension Service are joining together to offer this multi-session course. This course will help you get all the information you need to complete a management plan, and help you learn more about managing your property along the way. You will be assigned a mentor who will be available to help along the way.

Thanks to support from a grant, this course is free, but you must register to attend.

<http://extension.oregonstate.edu/deschutes/mentored-management-plan-writing-course>

Agenda:

March 23, Woodland Discovery, Soil and Water

4pm – 7:30 pm, dinner provided

March 30, Session 2. Forest Vegetation, Fish and Wildlife

4pm – 7:30 pm

April 9, Field Tour Full Day (weather depending)

Qualitative and quantitative methods for assessing stand health, density.

Wildlife habitat management options, streams, rivers and ponds if applicable.

April 13, Session 3: Access and Protection, Scenery and Enjoyment, Tax and Business, Writing Action Plans

4pm – 7:30 pm

April 27- Graduation

4pm – 7:30 pm, Dinner provided

Landowners present their plan (goals, resource description and action plan).

To find out more, or to register for this course: nicole.strong@oregonstate.edu or call (541) 548-6088.

Nicole Strong

Crop Year and Calendar Year Precipitation

Agrimet Weather Station	October 1 – March 1		January 1 – March 1	
	2014/2015	2015/2016	2015	2016
Location	Precipitation (inches)			
Christmas Valley	3.58	4.61	0.81	1.15
Bend**	7.28	5.93	1.80	1.51
Powell Butte	4.72	5.79	1.17	1.87
Madras	5.49	5.85	1.79	1.73
Moody Farms Warm Springs	4.96	5.86	1.42	1.94

**The lawn sprinkler system is/may be adding to the precipitation totals in October.

Mysten Bohle

Irrigated Pasture and Grazing Management Class

There will be an Irrigated Pasture and Grazing Management Class held from 6:00 pm to 9:00 pm on April 19 at the Redmond Public Library meeting room, 827 Deschutes Ave, Redmond, Oregon. The class will be a power point presentation concerning all aspects of irrigated pasture production and grazing animals properly on an irrigated pasture to optimize production. The class is for all levels of producer knowledge.

We will hold several irrigated pasture and grazing management sessions on-farm, around the central Oregon area, during the late spring, summer, and fall months. We will, in the late afternoon / early evening, walk through an irrigated pasture and talk about what is happening with the plants (top growth and root growth), watch animals graze, check grazing height, check compaction, talk about soil fertility, hear the management goals of the producer, evaluate the irrigation management, and do an overall pasture assessment (with a worksheet).

There will be a class fee of \$10 (you can pay at the door). OSU Extension Service, Deschutes County Soil and Water Conservation District, and NRCS are sponsoring the classes and on-farm pasture field days. Please RSVP for the class by April 18 to Deschutes County SWCD cell phone 541-815-8733 (Jan Roofner).

Tammy Harty, Jan Roofner, Mylen Bohle, and Scott Duggan

T-Sum Growing Degrees Update

The T-Sum (temperature summing) is calculated by summing the daily average temperature (adding the daily maximum and minimum temperature in degrees F and dividing by 2), and then subtract 32 degrees (base temperature for T-Sum). If the average is less than 0, discard the number; if the number is positive, it is accumulated, from January 1st as a growing degree-day (gdd). One web site you can track the thermal time is at: <http://uspest.org/OR/>, which is the direct web site to all weather stations on this system. Use “simple average” and 32 degrees base temperature to plug into the calculator.

This T-Sum 360 F or T-Sum 720 F system for calculating gdd's is only to be used for timing nitrogen fertilizer applications on grass pasture and hay fields. If you want earlier pasture production, then when 360 F gdd's is accumulated, that is the best time to apply 50 -60 lb/ac N. If you are applying high rates (100-150 lb/ac) of nitrogen to grass hay fields, than apply around 720 gdd's. This strategy is based on C.O. field research (2 site years at Powell Butte and 2 site years at Madras). On the Crook County Extension web site, the table goes back to 2007 for comparison.

This research was conducted years ago. With the loss of ammonium nitrate fertilizer, and only having ammonium/urea fertilizer sources available, the application dates become trickier. The new coatings to reduce volatilization are only good for up to 30 days, so you are depending upon adequate precipitation to water the Nitrogen fertilizer in the soil.

Table 1. T-Sum dates for the present year(s) for 180, 360, 540, 720, and 900 accumulated T-Sum growing-degree days (GDD's) from January 1st for selected Central Oregon locations. (Apply N around 360 gdd's for pasture, if you want earlier forage; and apply N around 720 gdd's for grass hay.) (GDD's using 32 degrees F base temperature)

Location/Elevation	Year	180 GDD's	Fertilize Pasture 360 GDD's	540 GDD's	Fertilize Grass Hay 720 GDD's	900 GDD's
Madras (Agrimet) (2440')	2014	Feb 17	Mar. 9	Apr 26	Apr 8	Apr 19
	2015	Jan 26	Feb 11	Mar 7	Mar 17	Mar 28
	2016	Feb 4	Feb 17	Mar 5		
Prineville 4 NW (2840')	2014	Feb. 4	Mar 5	Mar 28	Apr. 11	Apr 24
	2015	Jan 24	Feb 8	Feb 27	Mar 14	Mar 27
	2016	Feb 4	Feb 16	Mar 4		
Redmond (3077')	2014	Feb. 11	Mar. 5	Apr 3	Apr 15	Apr 29
	2015	Jan 27	Feb 13	Mar 12	Mar 24	Apr 10
	2016	Feb 7	Feb 25	Mar 11		
Powell Butte (3180')	2014	Feb 11	Mar 5	Mar 23	Apr 8	Apr 20
	2015	Jan 25	Feb 8	Mar 4	Mar 15	Mar 26
	2016	Feb 7	Feb 23	Mar 8		
Bend (Agrimet) (3650')	2014	Feb 11	Mar. 5	Mar 19	Apr 7	Apr 17
	2015	Jan 25	Feb 10	Mar 6	Mar 17	Mar 28
	2016	Feb 7	Feb 24	Mar 12		
Paulina (3688')	2014	Feb 27	Mar 15	Apr 3	Apr 15	Apr 30
	2015	Feb 2	Feb 15	Mar 8	Mar ?	Apr?
	2016					
Christmas Valley (4360')	2014	Feb 24	Mar 16	Apr 9	Apr 24	May 9
	2015	Feb 6	Mar 11	Mar 25	Apr 17	Apr 30
	2016	Feb 16	Mar 13			
Fort Rock (raws) (4430')	2014	Feb 18	Mar 13	Apr 4	Apr 13	Apr 30
	2015	Feb 4	Mar 5	Mar 19	Apr 5	Apr 22
	2016	Feb 25	Mar 20			
Seneca (4665')	2014	Mar 9	Apr 8	Apr 22	May 5	May 16
	2015	Feb 18	Mar 20	Apr 13	May 1	May 20
	2016	Mar 20				

Irrigation System Upgrades and Cost Share Assistance

Those producers who came to the C.O. Forage Seminar heard many presentations on irrigation management. For those producers with pivots and linears, there was some interesting information presented on Low Elevation Sprinkler Application (LESA). Producers need to check to see if changing to this new system, isn't something they should be looking at trying, maybe at first on a tower or two, and then, switching over all of their towers, once producers are convinced it will be a good hardware change for their operation. There are reports of water use efficiency well above 90%. There are reports of 98% water use efficiency using LESA type systems dragging bubblers on the soil in row crops. *Check out these and other new irrigation Technologies with your local irrigation company.*

There are cost-share programs for improving water and energy use efficiency (change out worn nozzles and leaky gaskets) including maintenance for wheel and hand line type systems as well. You can check to see if upgrading to a VFD pump would improve your system and lower your power bill, or not.

There are system upgrades and cost share programs available in central Oregon. You can get free energy assistance and irrigation audits completed on your farm or ranch through CEC (WY'East) or Pacific Power (Energy Trust). You can contact your local power companies that are participating, or contact the following people, depending upon your power company for more information, help, and cost share dollars, or other irrigation needs.

Central Electric Co-operative: Robert Wallace, Executive Director/Oregon RC&D Energy Program Manager, with Wy'East Resource Conservation and Development, Cell: 541-815-5503 or email Robert@Wyeast-RCD.org.

Pacific Power: Ulrike Mengelberg, *Outreach Manager for Industry+ Agriculture*, with Energy Trust of Oregon. Ph: 971.244.8193 Direct, or cell: 503-956-1568 or email ulrikemengelberg@cascadeenergy.com or their website at www.energytrust.org.

Other Resources:

USDA – Rural Development REAP (Energy Efficiency & Renewable Energy – Grants and Loan Guarantees)

- o <http://www.rd.usda.gov/programs-services/rural-energy-america-program-renewable-energy-systems-energy-efficiency>
- o <http://farmenergy.org/>

Oregon Dept. of Energy – Tax Credits – Small Premium Projects (VFD < 125 HP & Sprinkler Hardware, project up to \$20k) <http://www.oregon.gov/energy/BUSINESS/Incentives/Pages/EIP-SPP.aspx>

NRCS – CSP – Conservation Stewardship Program currently taking applications until March 31st. Several Irrigation related enhancements that can be selected under this program.

- o <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/or/programs/financial/csp/?cid=stelprdb1239749>
- o Conservation Activities or Practices/Enhancements available <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/or/programs/financial/csp/?cid=nrcseprd492010>

Jefferson SWCD has OWEB Small Grants – Irrigation Projects are eligible for a grant up to \$10k. (May also be available @ Crook & Deschutes SWCD, check with Staff)

- o Contact : Debbe Chadwick, Jefferson County SWCD, Ph:541-923-4358 X 101, www.jeffswcd.org

Central Oregon Irrigation District offers small grants for small acreage irrigation system improvements.

Numerous producers have already taken advantage of these programs. Check out these programs.

Mylon Bohle

Cover Crops

If you are thinking about drying up some of your irrigated acres this growing season, if water looks like it will be short for your particular farm, this might be the year to think about planting a cover crop on some of those fallow irrigated acres and see how it works out? There are a lot of good reasons and situations to try a cover crop.

Interested in learning more about cover crops? *Managing Cover Crops Profitably (2007 edition)* explores how and why cover crops work, and provides all the information needed to build cover crops into any farming operation. Along with detailed management information on the most commonly used species—including grasses, grains, brassicas and mustards, and legumes—*Managing Cover Crops Profitably* offers chapters on the role of cover crops in broader topics such as crop rotations, pests and conservation tillage. It also has appendices on seed suppliers and regional experts. 244 pages and published in 2007, the online version is free. Following is a link <http://www.sare.org/> once on the home page, click on the learning center and it will take you to the following link:

<http://www.sare.org/Learning-Center/Books/Managing-Cover-Crops-Profitably-3rd-Edition/Text-Version>

Other Resources:

Cornell Website: <http://covercrops.cals.cornell.edu/>

Midwest Cover Crops Council: <http://www.mccc.msu.edu/>

USDA List of Cover Crops: <http://plants.usda.gov/java/coverCrops>

Cover Crop Topic Room/Western SARE: <http://www.sare.org/Learning-Center/Topic-Rooms/Cover-Crop-Topic-Room>.

Mylon Bohle

Calendar 2016

March

- 12 Living on a Few Acres Expo. Deschutes County Fairgrounds, Redmond, OR. (See article)
- 16-17 OSU Blueberry School. LaSells Stewart Center and CH2M Hill Alumni Center. OSU Campus. Corvallis.
<http://osublueberryschool.org/>
- 16 Central Oregon Wine and Grape Growers' Association. Wind River Banquet Room (Pumphouse), Terrebonne. (see article)
- 18 Central Oregon Hay Growers' Association Annual Meeting and Banquet. Terrebonne (see article)
- 19 Northwest Bison Association Spring Meeting. H2H Bison Ranch, 30585 S. Ditmore Rd., Worley, Idaho
www.nwbisonassociation.com
- 19 Women in Agriculture Conference. <http://womeninag.wsu.edu/>. La Grande, Roseberg, and Salem.
- 23 Mentored Management Plan (see article, page 3)
- 30 Mentored Management Plan (see article)

April

- 2 Crook County Stockgrowers Banquet and Annual Meeting, Carey Foster Hall, Prineville, Tyler McCormack tmccormat@gmail.com
- 4 Oregon Women for Agriculture: Central Oregon Chapter Meeting. NW Farm Credit Services, Redmond.
(Meetings are usually 2nd Tuesday in Feb/Apr/Jun/Aug/ Oct/Dec, Contact Jessica Hanna at 541-408-5232 or email:
auntjessa@hotmail.com)
- 9 Mentored Management Plan (see article)
- 13 Mentored Management Plan (see article)
- 16 Oregon Women for Agriculture Auction. Linn County Fair and Expo Center. Albany.503-243-3276 or <http://owaonline.org/>
- 19 Pasture and Grazing Management Workshop. Redmond Library, Redmond (see article)
- TBA Deschutes SWCD, NRCS, and OSU Extension Service Pasture Field Day (see article)
- 27 Mentored Management Plan (see article)
- 23or30 North Lake County SWCD Annual Meeting and Field Day (Organic Alfalfa Fertility Trials Preliminary Results will be shared.)
Contact Justin Ferrell at 541-947-5855 (Office) lakecountyswcd@hotmail.com.

May

- TBA C.O. Sheep Growers Pasture and Grazing Management Workshop (Contact Billie Estridge: 541-480-1340)
- TBA Central Oregon Hay Growers' Association, OSU Extension Service, and COARC Forage Research Tour.
- TBA Deschutes SWCD, NRCS, and OSU Extension Service Pasture Field Day (see article)
- 12 Oregon Forage and Grassland Council Annual Meeting & Field Day, Oldfield Animal Science Teaching Facility, OSU Campus, Corvallis. Details: Jerry Hall 503-559-1823.

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