

CENTRAL OREGON AGRICULTURE

SEPTEMBER/OCTOBER 2020 VOLUME 29 ISSUE 5

Running Out of Irrigation Water?

Is your farm/ranch or part of your farm/ranch running out of water soon? Irrigation district is shutting down sooner than normal? Want to save some water for next year (if your system allows you to do so)? You might consider shutting off water to your grass and alfalfa hay fields and pastures and allow them to go dormant. You want to do this right after a harvest, leaving 3-4 inches of minimum growth on the field, whether haying or grazing. Ideally with no regrowth (the first part of regrowth utilizes stored sugars and carbohydrates from the crown and root). You do not want to wake the plants up right at the end of irrigation season to regrow and then have them go dormant again. Nor do you want to dribble water to these fields every couple of weeks to keep them alive. Let the plants go dormant. If they have been dormant, and you have a month's worth of regular watering to revive the plants, and grow new roots and create tillers for next year's crop, you can do that.

Planting alfalfa, pasture, or grass hay fields in the late summer? You want to make sure the new establishing plants will be established enough to go through the winter. If water is cut off the end of September, that could mean no moisture during the month of October. We hope it rains, though.

If you are wondering whether to apply what limited water you might have left, to your grass or alfalfa hay fields, apply to your grass. Alfalfa with its large storage root will suffer through a drought period better. It is always better to have your grass (and alfalfa) hay field going into winter with moisture. Next year's first cutting hay or grazing is developed in the Fall as new tillers and roots are regenerated in the late Summer and Fall. Let's hope for rain, and later, snow, lots of snow!

A number of years ago, the Timothy producing area around Ellensburg, WA was short on water. Many growers dried up their fields of timothy immediately after harvesting first cutting. Other producers tried to irrigate with a little bit of water every couple of weeks for the rest of the summer to keep the plants alive. The following year, the fields that lay dormant the previous mid to late summer after first cutting, substantially out-yielded the fields that were watered, to keep their plants alive.

Mylen Bohle

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If you would rather get this newsletter ONLY by email, please contact your local Extension office (Crook, Deschutes, Jefferson, or Warm Springs). We will be glad to switch you over to EMAIL. And then you will also receive the biweekly CO Ag e-News as well, which contains updates and more information.

Tri-State Growers Convention

The Tri-State Grains Conference has been rescheduled for *November 30 to December 3, 2021*. Oregon Wheat Growers' League will hold their annual meeting on *December 1, 2020*. For more details go to: <http://www.owgl.org/>.

Mylen Bohle

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Central Oregon Agriculture is a bi-monthly newsletter produced by the Central Oregon Extension offices and the Central Oregon Agricultural and Extension Research Center (COAREC). 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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850 Dogwood Lane., Madras, OR 97741

Warm Springs Confederated Tribes- Phone 553-3238,
1110 Wasco St., PO Box 430, Warm Springs, OR 97761

Central Oregon Agricultural Research and Extension Center

850 Dogwood Lane, Madras 97741

- ◆ Carol Tollefson, Director, 475-7107

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>

Warm Springs: <http://extension.oregonstate.edu/warmspings>

Central Oregon Agricultural Research Center:
<http://oregonstate.edu/dept/coarc/index.php>

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Websites

OSU Ag Information <https://extension.oregonstate.edu>

Oregon's Ag Progress <https://oap.oregonstate.edu>

OSU Extension Publications Catalog

<https://catalog.extension.oregonstate.edu>

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.

Cereal Hay Testing!

There seems to be a fair amount of cereal hay around this cropping season so if selling or buying cereal hay, really think about testing that hay for nitrates. Elevated nitrate levels in forage, is more of an issue for ruminant animals, while horses are much more tolerant of higher nitrate levels in forage. Of course any grass, grass/alfalfa, and even alfalfa forage that was stressed for one reason or another, should also be tested. This is a good bulletin on Nitrate Poisoning in Ruminants: <http://pubs.cahnrs.wsu.edu/publications/pubs/fs139e/>. *There is some recent new research out, that has shown that ruminant animals can handle higher nitrate content while grazing green standing forage compared to the same nitrate content in dry hay.*

Mylen Bohle

What is Hay Worth?

Wondering what the price of hay is whether you are buying or selling? Especially if you are raising and selling hay, you may want to get in on the weekly call from USDA Market News Service, Moses Lake, WA. The C.O. hay market report can be freely accessed at the home page:

http://www.ams.usda.gov/mnreports/ml_gr313.txt

Or, if you want to go directly to the page to check on all of the different state markets, go to this web site:

<https://www.ams.usda.gov/market-news/hay-reports>

Once you are signed up to participate in the hay market report if you would like to contribute to the report, someone from the office will call (or you can call) and inquire if you have sold hay, number of tons, for what price, what the quality is, etc. This information is then compiled weekly and put up on the Internet or is published in the Capital Press. The idea is if both seller and buyer know the market, then a true, free and fair market exists for all concerned. Hay Market Report contact phone number is 541-535-5001.

Mylen Bohle

2020 Oregon Hay Directory

The 2020 Oregon Hay Directories have arrived. Stop by your local Extension Offices to pick up a directory. The hay directory is published by the Oregon Hay and Forage Association (Ph: 541-447-6228). The hay directories are sent out to dairies and some feed stores in Oregon, Washington, and northern California, as well as to OHFA producer and industry members. An electronic version is online at:

www.oregonhaygrowers.com. (Central Oregon Hay Growers Association members can also advertise their hay on the www.hayfinder.org web site.) (We have copies at the Crook County Extension office and will get them out to the other C.O. Extension offices soon.)

Mylen Bohle

Far West Winter Conference

The Far West Agri-business Association will hold a Virtual Conference December 16-17, 2020. There are some good irrigated, dryland, pesticide, and safety related sessions always on the agenda. For more details and registration, keep checking this web site: <http://fwaa.org/>.

Mylen Bohle

Invertebrate Pest Management of Pastures in the Pacific Northwest

"A well-managed pasture has several ecological and economic benefits. However several species of arthropods (insects, mites, and garden symphylans), and gastropods (slugs) inhabit pastures of the Pacific Northwest and sometimes can diminish those benefits." This is a new PNW Extension Bulletin 750 (30 pages with pictures) published August 2020. <https://catalog.extension.oregonstate.edu/pnw750>

Mylen Bohle

2020 Cereal Variety Trial Update

The 2020 (and previous years) Oregon irrigated and dryland wheat variety trials yield, protein, and agronomic data are available at <https://agsci.oregonstate.edu/wheat-research/wheat-variety-trial-data>. A number of the trial sites yield data is up on the site. *Madras winter wheat data is posted on the site.* Trials are coordinated by Ryan Graebner, Extension Cereal Specialist, CBARC, Pendleton, OR.

If you are interested in barley; there are some new winter and spring forage, feed, food variety releases. Pat Hayes' Barley World website is <http://barleyworld.org/>.

Mylen Bohle

Fall Forage Management

We have about 4-6 weeks left of forage growth in our irrigated pastures and hay fields. How we manage these fields before the forage plants go dormant will determine how they perform next year.

Right now grass plants (if actively growing) are growing new root systems and new tillers are being formed (since the end of August/first of September) if there is moisture to grow. These new tillers will be next year's grazing or hay production. If we have grazed, clipped or harvested to an inch or less, that is not good plant management. This will restrict the root growth and tiller formation during the time the roots are trying to regenerate and when next year's forage growth tillers are forming.

While different plant species have different minimum grazing heights so they will perform optimally – around 3-4 inches minimum plant height going into the winter is what is needed for the majority of grass plants to function properly and optimally. Really, they do even better with higher and more plant height left behind. But consideration of rodents and what do you do with last year's forage in next year's bales are considerations as well. (Orchardgrass, as one example, may not fully recover the carbohydrates and sugars it had prior to its harvest, until the first 5 leaves of the plant are formed during growth.)

Alfalfa – the whole time it is re-growing until it reaches a plant height of 6-8 inches is very dependent upon root reserves. If alfalfa does not grow taller than the 6-8 inches, over about 6 weeks of regrowth time, to begin to replenish the root carbohydrates, then it goes through winter in its most weakened state. If we harvest off the alfalfa, and there is no regrowth, there will be no reduction in the carbohydrate storage. If you are in a particular cold area, then having some stubble on the field to catch snow and help insulate to keep soil temperature warmer is good management. Once we frost down, and alfalfa goes dormant, then we can graze alfalfa and have less effect on it. Grazing alfalfa can have some detrimental effect on alfalfa crowns from hood action though.

Mylen Bohle

The Land Steward ONLINE Course Starts this September

Are you an owner of a woodland, small farm, or other rural land? Learn how to manage your property's natural resources more effectively with this online offering from OSU's Land Steward Program. It is well-suited for busy adults who enjoy online learning and want to figure out what their land needs. Included are three live virtual classes with resource experts and nine self-paced, online lessons. Topics include wildfire risk reduction, forest management, encouraging and controlling wildlife, stream/riparian ecology, pasture management, healthy soils, water systems, rural economics and stewardship planning. Participants will come away with a management plan for their land.

For more information visit: <https://extension.oregonstate.edu/land-steward/land-steward-training-online> or email rachel.werling@oregonstate.edu **Brochure:** [HERE](#) **Online Registration:** [HERE](#)

Course dates: Sept. 11 – Nov. 30, 2020. **Online Classes:** 6 – 8 pm Sept. 11, Oct. 15 and Nov. 13, 2020

Cost: \$150

Thomas Stokely

Coronavirus Food Assistance Program Deadline Extended

USDA has extended the deadline to apply for the Coronavirus Food Assistance Program (CFAP) to September 11, 2020. The Farm Service Agency announced producers with approved applications would receive 100% of their calculated payment. Final payments will automatically be issued. Additional details about the CFAP program and how to apply are available at: <https://www.farmers.gov/cfap>

Scott Duggan

Master Pollinator Steward Program

The Master Pollinator Steward Program will consist of a training course coupled with options for volunteer activity. The training course will be offered both in-person (one day) and via five online modules. Both courses will be interactive, using either electronic clickers or questions built into the online platform, in order to increase information retention and to evaluate student success in fulfilling learning objectives. Moreover, borrowing a technique used in our recently released pesticide training course (<https://pace.oregonstate.edu/catalog/getting-tough-pests-and-going-soft-pollinators>), the training will include pollinator management themes specific to agriculture in the PNW region.

The five modules of the course will be: 1) managed and native bee biology basics, 2) assessing honey bee colony strength for crop pollination, 3) pesticide use around pollinators and communication with beekeepers, 4) creating on-farm floral and nesting habitat and 5) accessing and implementing NRCS programs.

The course would qualify for Oregon, Washington State and Idaho Department of Agriculture mandatory pesticide recertification credits, which will incentivize the course for a broader range of growers than an uncertified course. Growers completing the course and passing an exit exam with more than 90% correct answers would be eligible to be Master Pollinator Stewards. Master Pollinator Stewards would be able to have their farm profile featured under the Oregon Bee Project Flagship Farm website (<https://www.oregonbeeproject.org/flagship-farms>) and to have a farm sign indicating their farm is enrolled in the program.

In addition to completing the course, each Steward would be required to complete annual service requirement, either in the form of: 1) outreach on farm pollinator issues through programs such as the state's Farm to School and School Garden Network, 4-H, FFA, local beekeeping clubs, or being featured on an episode of OSU's PolliNation podcast, 2) establishing a new pollinator conservation strip or pollinator hedgerow, 3) monitoring for native bees on their farm using passive trapping systems or 4) maintaining a bee-friendly farming certification through the Xerces Society Bee Better Program or Pollinator Partnership's Bee Friendly Farming Program.

Andony Melathopoulos, Assistant Professor Pollinator Health Extension, Corvallis

Irrigation Efficiency Workshop Zoom Video

If you catch a rainy day or need something to do in the evenings on slow days... This is a link to the Irrigation Efficiency Workshop that Ian McGregor, Klamath County Extension Livestock and Forage Agent, set up for the Klamath Basin in early summer 2020. Mylen Bohle talked about Agrimet, and response of forages to irrigation, and irrigating with wheel lines. Extension Irrigation Specialists, Troy Peters (WSU) and Howard Neibling (U of ID) talked about different irrigation practices and management, including LESA/LEPA/MDI, and drip irrigation for homeowners at the end of Howard Neibling's presentation. Brad Moore talked about the cost share dollars available through Energy Trust of Oregon (WY'east has a similar program). It is 3.5 hours. https://media.oregonstate.edu/media/t/0_c4bpicqn

Mylen Bohle

PPE Available to Agricultural Producers and Farmworkers

The Extension offices in Crook, Deschutes, and Jefferson Counties have KN95 masks and hand sanitizer still available at no cost for any agricultural producers and farmworkers that need these supplies. In addition to the PPE supplies, the Extension offices also have [high-speed hand-washing posters](#), in English and Spanish, designed by OSU Extension Family and Community Health faculty that illustrates how groups of people can properly wash their hands in five minutes or less.

Locations in Central Oregon to pick up PPE:

Crook County Extension Office

498 SE Lynn Blvd
Prineville, OR 97754
Phone: 541-447-6228

Deschutes County Extension Office

3893 Se Airport Way
Redmond, OR 97756
Phone: 541-548-6088

Central Oregon Agricultural Research and Extension Center

850 NW Dogwood Ln
Madras, OR 97741
Phone: 541-475-7107

Tracy Wilson

Pivot and Linear Irrigation System Upgrades

As the irrigation season is coming to an end in mid-October, this fall will be a good time to think about converting your Mid Elevation Sprinkler Application system pivot or linear (full size or mini) to a Low Energy Precision Application (LEPA) or Low Elevation Sprinkler Application or Mobile Drip Irrigation (MDI) system. An irrigation audit can help a producer better make the decision to convert. Both the area electric Co-ops (**through Wy'East RC&D**) and Pacific Power Co. (**through Energy Trust of Oregon**) customers can take advantage of cost share incentives to make that conversion. Producers are reporting about one third to one half of the cost is covered. So the good news is that on average, producers have reported power bill savings of around 18% and water savings of around 18%, annually, while maintaining yields. If you are short on water availability, you will find your yields can increase dramatically! Usually the system is set up to still deliver the same amount of water, although some have downsized flow capacity. But, I would caution against that.

One does need to match up the number, spacing, and height of nozzles based on the texture of soil. Some fields with less water holding water capacity and lighter soil will want the nozzles to be closer together - some of these pivots, have nozzles 30-inches apart, and are working very well. Others have pivots that have nozzle spacing from 40-50 inches on heavier clay-type soil with greater water holding capacity with better above and below soil, lateral movement of water.

I have seen some nozzle spacing at 57-inches and they are streaking when at 12-inches off the soil surface (Does Not Work). Twelve-inch nozzle height or less is ideal, but one needs to be able to adjust height for different crops, wheel tracks, pivot sag when full, and perhaps stages of maturity. LEPA nozzles at 40 inches spacing leaves striping in the field (grower switched to LESA). Most of these systems are going in with nozzles that can-be-switched back and forth, from LESA to LEPA, or vice versa, if wanted or needed.

In addition to the water and power savings, what are some of the other advantages? If we are irrigating below the canopy (12 inches or even lower is best); than there should be less lodging. Growers have reported less lodging locally in timothy hay, triticale hay, and spring wheat, compared to the MESA systems. In fact, the triticale was 6-9 inches taller in the LESA span and did not lodge; the rest of the pivot lodged. If we are not watering the canopy, then there "should" be less disease in crops, such as "brown leaf" in grass hay, or stripe and leaf rust in wheat, or foliar diseases in other crops, because we are Not watering the foliage. (We do need more research to document this.)

If you are going to cut cost, and leave your nozzle spacing at 50-60 inches, then you will want to have 24-inch nozzle height and will want the ability to raise the nozzles or lower them depending upon canopy height of the crops. You will not obtain the ultimate water savings, but it will still be substantially better than what you had before with the MESA system.

Every time - we water the crop canopy, we may be leaving up to one tenth of an inch of water on the foliage that evaporates off and never reaches the soil. So the closer we get these nozzles to the soil, the less evaporation there will be. The closer we get the nozzles to the soil, the less the wind will affect where that water is going.

"*Management-intensive*" – these words have to be in your vocabulary and you will have to more closely manage your pivots and linears with these new systems.

Check out these LESA/LEPA, and MDI publications at this link - <https://extension.oregonstate.edu/topics>. You will find many other subject matter topics as well – click on water and watersheds, then irrigation. Contact Mylen Bohle if you would like to talk about the advantages (there are many) and the disadvantages (there may be a couple) of converting your linear or Pivot. If you are already convinced of converting, contact your power company cost share providers and your irrigation equipment dealer.

Mylen Bohle

The Oregon Conservation Reserve Enhancement Program (CREP)

Do you have a stream, creek or river on your property in need of Riparian Restoration? CREP can provide funding for planting, fencing, seeding, Juniper removal, livestock water development and other practices to enhance habitat and improve water quality. The Conservation Reserve Enhancement Program is a partnership program between USDA's Farm Service Agency and Oregon Watershed Enhancement Board. This program serves Crook, Deschutes & Jefferson County private landowners. For more information, contact Victoria Fischella, CREP Planner for Jefferson, Crook and Deschutes Counties at:

Victoria.Fischella@usda.gov

Victoria Fischella, CREP Planner

Should Dietary Guidelines Recommend Red Meat?

"Should Dietary Guidelines Recommend Red Meat?" by Frederic Leroy and Nathan Cofnas in the Food Science and Nutrition Journal (British open access journal) from September 5, 2019, is a review of many different studies about red meat and related nutritional information. It is a very interesting, scientific read. <https://www.tandfonline.com/doi/full/10.1080/10408398.2019.1657063> Mylen Bohle

How to Purchase Meat Direct from Livestock Producers

Have you considered buying meat direct from a farm or ranch? Join Scott Duggan, OSU Livestock Extension Field Faculty, for a class that will guide you through the process involved in buying meat direct from livestock producers. This class will be held virtually via Zoom on Thursday, September 17, 2020 from 5:30-6:30 pm. Please register online and you will automatically receive the Zoom meeting information. Call-in option also available without internet access. Registration link: <https://beav.es/oqV>

For any questions please contact Scott Duggan: 541-447-6028 or scott.duggan@oregonstate.edu.
Scott Duggan

Calendar

September

- 11 Coronavirus Food Assistance Program Deadline (see article)
- 11- Nov.30 Land Steward Program Online Course (see article)
- 15-18 Lost Rivers Grazing Academy. Salmon, ID. Scott Jensen, scottj@uidaho.edu CANCELLED
- 17 How to Purchase Meat Direct from Livestock Producers (see article)

October

- 20-22 Oregon Vegetation Management Association Conference. CANCELLED
- 29-30 Oregon Society of Weed Science Annual Meeting. CANCELLED

November

- 20 Oregon Hay and Forage Association Fall Forage Day. Cancelled? Virtual? TBD
- 21 Oregon Hay King Contest CANCELLED
- 26 Thanksgiving Holiday

December

- 30-4 Irrigation Show & Education (Virtual) Conference. www.irrigation.org.
- 2-4 Hermiston (Virtual) Farm Fair. Hermiston, OR
- 16-17 Far West Winter Conference (see article)

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