



GROWING

Extending Knowledge and Changing Lives in Linn and Benton Counties

Master Food Preserver Program Revitalized

By **Mitch Lies**,
GROWING Editor

Last May, in one of her first interactions with the public as head of the Linn and Benton County Extension Master Food Preserver program, Jennie Gilbert was right at home as she drew a crowd of more than 300 people over the course of a single day.

Gilbert and two of her veteran volunteers were doing a steam-canning demonstration at the Family Farm Expo at the Linn County Expo Center and displaying dehydrated food items on a display table. “It was a little overwhelming,” Gilbert said. “But it was great to talk to that many people.”

It turns out that interacting with people about food preservation comes naturally for Gilbert, a former schoolteacher who started with OSU Extension Dec. 30, 2022.

“It’s the perfect thing for me because I love to educate people and I love working with food,” Gilbert said. “I tell people I can’t believe they pay me to do what I do because it is everything I love kind of rolled into one job.”

When Gilbert joined Extension, she took over a program that had been without a leader for six months, and one that had been operating behind the scenes at a limited

capacity for the better part of three years. Today, with COVID restrictions on in-person gatherings lifted and with Gilbert at the helm, the program has been revitalized.

Master Food Preservers volunteers this past year could be seen at farmers’ markets, at food banks and at community events like Get Outdoors Day in Benton County and the Family Farm Expo in Linn County.

“We were tabling events to demonstrate what we are doing to get our faces back out there,” Gilbert said.

In all, Gilbert said the Master Food Preserver program participated in 26 events over the spring, summer and fall of 2023. And this past fall, Gilbert, with the help of her volunteer mentors, was able to train seven additional Master Food Preserver volunteers that will table events, staff the Food Preserver Hotline, and hold workshops at community centers and other sites through 2024.

Gilbert’s accomplishments with the program started inauspiciously in that when she joined Extension, she wasn’t even certified as a Master Food Preserver. “I myself had to take the Master Food Preserver course,” Gilbert said. “And so, I took that along with three other people who were new hires. And while I was doing that,



Jennie Gilbert, left, assists a Master Food Preserver workshop participant in measuring a jar’s head space in Philomath.



Jennie Gilbert, right, guides a Master Food Preserver program participant through a sauerkraut making demonstration at the Linn County Extension Office in Tangent.

I was out in the community saying, ‘Hey, we’re back and looking for opportunities,’ and so I got reconnected with the farmers’ markets and reached out to some of the community food pantries in places like Halsey and Philomath that had asked for food preservation classes in the past.”

The program has tried to make itself more accessible to those hoping to volunteer by going to a hybrid approach for its training, which the program used for the first time this past

fall. It involved switching from all in-person learning to a training regime that included part remote and part in-person learning.

“This was the first hybrid model that we’ve had,” Gilbert said. “It was kind of a test drive for us, and it seemed to work pretty well.”

The reason for the change was to facilitate volunteers who wished to participate but weren’t able to attend in-person classes on weekdays.

“In the past, we would

have an eight-hour class every Monday (for seven weeks). But we could only get people that didn’t have jobs or were retirees. And so, with the change, we were trying to be more friendly towards people who were working or had families and had other things going on,” Gilbert said.

“Without Master Food Preserver volunteers, OSU Extension wouldn’t be able to have such a robust food security and safety program,” Gilbert

Continued on Page 2

Who We Are

The Oregon State University Extension offices in Linn County and Benton County offer practical, lifelong learning experiences. We sponsor conferences, workshops, demonstrations, tours, and short courses. We recruit, train and manage volunteers who assist us with community outreach and education. Our Extension faculty and volunteers answer questions and give advice by phone, in person, through e-mail, and on our Websites. We provide brochures and flyers with specific information on a variety of subjects. We are funded by a cooperative partnership between Oregon State University, the U.S. Department of Agriculture, and our local counties.

Office locations and hours

The Benton County office is located at 4077 SW Research Way in Corvallis. Office hours are 8 a.m. until 5 p.m. Monday through Friday. Telephone: 541-713-5000. <http://extension.oregonstate.edu/benton>.

The Linn County office is located at 33630 McFarland Rd (on the corner of Old Highway 34 and McFarland Road), in Tangent. Office hours are from 8 a.m. to 5 p.m., Monday through Friday. Phone 541-967-3871. <http://extension.oregonstate.edu/linn>.

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Oregon State University
Extension Service

Linn and Benton Faculty and Staff Well Represented at Extension Annual Conference

Several members of the Linn and Benton County Extension offices received awards for their hard work at this year's Extension Annual Conference. Congratulations, team!



Andrea Leao, 4-H outreach coordinator in Linn County, is congratulated on her Hoecker Experienced Faculty award by (from left) Nancy, Ken, and Peggy Hoecker and, Ivory W. Lyles, OSU Vice Provost for Extension and Engagement and Director of the Extension Service.



Iris Carrera (fourth from left), Diana Camacho-Figueroa (fifth from left) and Tina Dodge (sixth from left), are congratulated on their Hoecker Replication and Innovation Grant.



The OSU Extension Agricultural Tourism Extension Program, led by Melissa Fery (left) and Audrey Comerford (center) received the OSU Extension Association Search for Excellence Award.



Michele Webster, administrative office manager and local liaison in the OSU Extension office in Linn County, received an inaugural Excellence in Communication and Marketing Award.



Chrissy Lucas, coordinator of the Ground Water Quality Outreach Program in the Small Farms Program, accepts an inaugural Excellence in Communication and Marketing Award on behalf of herself and the Be Well Team.



Richard Little, a volunteer with Master Gardeners, Oregon Master Naturalists and the Oregon Bee Atlas, received the Ask Extension award for volunteer.

PHOTOS CREDITED TO EXTENSION COMMUNICATIONS

Master Food Preserver Program Revitalized

Continued from Page 1

added. So, the change was needed.

The new format included two evening classes a week, instead of the one full day class, and one of the evening classes was held online via the Zoom platform. The participants met at the Linn County Extension Office for their in-person training.

As part of Gilbert's first year with the program, she also took a shift answering the OSU Extension Food Safety and Preservation Hotline (1-800-354-7319), which Master Food Preserver volunteers staff five days a week from 8 a.m. to 4 p.m. from July through mid-October, and check daily during the offseason.

"This past year we've had some trouble staffing it, so I took a

regular shift, and I actually like it," Gilbert said. "I like knowing what it is the public is having trouble with, what do they need to know. It helps me plan my workshops. And there are just a lot of really interesting questions that people have. And I like talking to them and helping them through their problems over the phone.

"It feels good to call them back and have them go 'Oh, my gosh. Thank you for calling me. I'm having problems with my pears.' And then helping them through that is rewarding for me. So, I've enjoyed doing the Hotline shifts," Gilbert said.

The next big goal for the local

Master Food Preserver Program, Gilbert said, is to reach people that in the past haven't accessed the program.

"Part of our new programming will be trying to reach populations that wouldn't normally access what we do," she said. "Maybe they aren't able to drive to Albany, for example. Or maybe they don't know about us. So, we're trying to bring classes and workshops and information to the community, instead of having the community coming to us all the time. We are trying to do a better job of spreading the word, and making sure everybody is being safe with their food preservation."



Chrissy Lucas
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Groundwater Protection Education

Is It Time To Pump Your Septic Tank?

Take a few moments to see if your tank is getting close to the pumping window based upon the tank size and how many people live in your household. Septic tanks that are not routinely pumped can push sludge out into your drainfield. When your drainfield is damaged by sludge build-up you may have to replace the entire field and have excess nitrate and bacteria that can contaminate the aquifer. There is no substitute for pumping. We do not recommend any additives to "eat or breakdown" sludge, they are ineffective, and many

Tank size (gallons)	Suggested Pumping Interval (years)					
	Household size (number of people)					
	1	2	3	4	5	6
500	5.8	2.6	1.5	1.0	0.7	0.4
750	9.1	4.2	2.6	1.8	1.3	1.0
1,000	12.4	5.9	3.7	2.6	2.0	1.5
1,250	15.6	7.5	4.8	3.4	2.6	2.0
1,500	18.9	9.1	5.9	4.2	3.3	2.6
1,750	22.1	10.7	6.9	5.0	3.9	3.1
2,000	25.4	12.4	8.0	5.9	4.5	3.7
2,250	28.6	14.0	9.1	6.7	5.2	4.2
2,500	31.9	15.6	10.2	7.5	5.9	4.8

times can harm the breakdown processes happening within the tank.

Check out EC 1343 Septic

Tank Maintenance found on the online at: <https://extension.oregonstate.edu/catalog>

New OSU Publication about Arsenic in Drinking Water

The OSU Extension Service has released EM 9401 *Arsenic in Drinking Water*. Arsenic can contaminate well water, leading to serious health conditions. But if you don't test for it, you won't know it's there. Arsenic in groundwater can come from natural sources (volcanic rock or soil), industrial processes, or historical use of arsenic-based pesticides and pressure-treated wood. A new guide from OSU Extension shows people who use



well water how to remove arsenic from the water they drink every day. With brand new visuals and graphic elements. Peer reviewed and pilot tested we are so excited to share this resource with all of you. You can find the publication at <https://beav.es/Tpy> in pdf and html formats. We recommend the pdf version if you are sharing with others. A Spanish version is also available, along with sister publication *Lead in Drinking Water*.



Living With Your Water Well and Septic Systems Winter Webinars

Did you know there are possible contaminants in your well water that you cannot see, taste, or smell? Municipal water is regulated by the EPA, so consumers can be quite confident that the quality of the water coming from their tap is sufficient. However, well water does not face such stringent regulations and contamination testing often only occurs when the well is first installed or in some locations, when property ownership changes.

It is very important that well water users understand when and how to monitor their water quality and the associated benefits of doing so. Proper maintenance and monitoring of your septic systems ensures proper treatment of the effluent and a longer life of the system.

Learn steps to protect the health of your family, neighbors, and animals, your property investment, and the safety of groundwater resources during these FREE webinars.

Continued on Page 9

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LCB 5718



Foods and Seasonal Affective Disorder

By Tyng-Yu Chen,
OSU Dietetic Intern

Seasonal Affective Disorder (SAD) is a condition classified as a major depressive disorder with seasonal pattern.

Although it may happen in summer for some people, SAD usually occurs during fall and winter and is called winter-pattern SAD, but it is more than “winter blues.” It is associated with biochemical imbalances in the brain and the symptoms are similar to other major depression such as feeling sad or worthless, loss of interest or energy, change in sleep or appetite, difficulty concentrating or making decisions, oversleeping, overeating, social withdrawal, or thoughts of death or suicide.

A combination of



nutrition, pharmacological, and light therapy may benefit the treatment result of SAD. Although there is no certain answer to one single nutrient supplement or diet

intervention to treat SAD; some nutrition advice is given to people with SAD based on the emerging evidence.

Vitamin D

According to the National Institute of Mental Health, vitamin D deficiency is commonly found in people with winter-pattern SAD. Vitamin D is addressed to promote the activity of serotonin, a neurotransmitter. Vitamin D supplements may improve SAD, but recent research shows mixed results. Few studies found some positive results for SAD patients taking vitamin D supplements. Other studies found no effect of taking vitamin

D supplements for SAD patients. However, vitamin D is still recommended for people with SAD due to emerging evidence indicating that vitamin D deficiency is associated with the development of depression.

Other than exposing your skin to sunlight, vitamin D can be obtained from foods. Fatty fish such as salmon, tuna, and mackerel, fish liver oil, beef liver, egg yolks, and cheese are common sources of vitamin D.

Vitamin B12

Just as the relationship between vitamin D and SAD, vitamin B12 supplementation also has a complex relationship with SAD with most research finding no direct association between the two. More research, however, found vitamin B12 to be associated with depression because of its crucial role in forming S-adenosylmethionine (SAM), which is the essential methyl donor to monoamine neurotransmitters, aiding neuro and brain health.

Vitamin B12 Rich Food	Amount	% DV based on the amount*
Beef liver	3 oz	2944 %DV
Clam	3 oz	708 %DV
Salmon	3 oz	108 %DV
Tuna	3 oz	104 %DV
Ground beef	3 oz	100 %DV
Milk, 2% milkfat	1 cup	54 %DV
Breakfast cereals, fortified with 25% of the DV for vitamin B12	¾ cup	25 %DV

More vitamin B12 rich food list: <https://www.nal.usda.gov/sites/default/files/page-files/Vitamin%20B-12.pdf>

Omega-3 polyunsaturated fatty acids

As the nutrients above, omega-3 is also recommended based on the reason of its contribution to aiding the treatment of depression. Plant oils, nuts and seeds, fatty fish, and omega-3 fortified foods are great sources of omega-3.

More vitamin omega-3 rich food list:

<https://ods.od.nih.gov/factsheets/Omega3FattyAcids-HealthProfessional/>

Information above is intended to be educational and not to be used as diagnosis and/or treatment for patients with SAD. Consult with your healthcare provider before making any diet change. References upon request.

Vitamin D Rich Food	Amount	% DV based on the amount*
Cod liver oil	1 tablespoon	170 %DV
Salmon	3 oz	71 %DV
Mushroom, white, raw, sliced, exposed to UV light	½ cup	46 %DV
Milk, 2% milkfat, vitamin D fortified	1 cup	15 %DV
Soy, almond, and oat milks, vitamin D fortified	1 cup	13-18 %DV
Ready-to-eat cereal, fortified with 10% of the DV for vitamin D,	¾ cup	10 %DV
Egg	1 large	6 %DV
Beef liver	3 oz	5 %DV
Cheddar cheese	1.5 oz	2 %DV

*DV: Daily Value. It is the recommended nutrient amount. The DV for vitamin D is 20 mcg (800 IU) for adults and children aged 4 years and older.



More vitamin D rich food list: <https://www.dietaryguidelines.gov/resources/2020-2025-dietary-guidelines-online-materials/food-sources-select-nutrients/food-sources>

Food Hero for Older Adults: Focus on Vitamin B12

It's never too late or early for eating healthy to make a difference. A healthy eating routine is important at every age and stage of life. Make every bite count with foods that are full of nutrients. Explore www.foodhero.org and www.myplate.gov for targeted information for older adults.

Most people get enough vitamin B12 in the food they eat, but starting around age 50, our stomach produces less of the acid and enzymes that help us absorb the B12 in animal based foods. The B12 added to fortified foods is easier to absorb. Extra B12 is not considered harmful but talk to a healthcare provider if you have questions about how much you are

getting.

- The best way to get the nutrients we need every day is to eat a wide variety of foods.
- Vitamin B12 helps keep our nerve and blood cells healthy.
- The recommended daily intake of B12 is 2.4 micrograms (mcg)
- Look at the Nutrition Facts labels on fortified foods for the mcg and percent Daily Value (%DV) of vitamin B12.
- B12 is found naturally in animal based foods such as meats, poultry, fish, eggs, and dairy products.
- Some foods are fortified with added B12, such as breakfast cereals.

Nutrition Facts	
3 servings per container	
Serving size 2 muffin halves (174g)	
Amount per Serving	
Calories	300
% Daily Value*	
Total Fat 12g	15%
Saturated Fat 4.5g	23%
Trans Fat 0g	
Cholesterol 35mg	12%
Sodium 570mg	24%
Total Carbohydrate 30g	11%
Dietary Fiber 5g	18%
Total Sugars 7g	
Includes 0g Added Sugars	0%
Protein 20g	
Vitamin D 1mcg	6%
Calcium 325mg	25%
Iron 2mg	10%
Potassium 348mg	8%
Vitamin A 145mcg	16%
Vitamin C 2mg	2%
Vitamin B12 0.5mcg	22%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

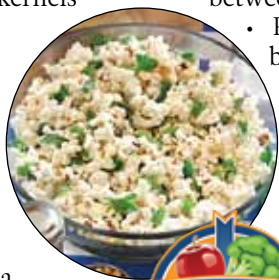
Microwave Popcorn - Food Hero style!

Ingredients

- 1/4 cup popcorn kernels
- spray oil
- 1 teaspoon (or more) seasoning (see Notes)

Directions

- Wash hands with soap and water.
- Place popcorn in a small paper bag. Fold the top over to close the bag.
- Pop the kernels on HIGH for 2 1/2 to 3 minutes or until



there are about 3 seconds between pops.

- Pour popped corn into a bowl. Spray lightly with spray oil and sprinkle with seasonings. Enjoy right away.
- Store leftovers in an airtight container at room temperature.

Notes - Try these seasoning ideas:

- Salt, pepper, fresh herbs
- Food Hero

Harissa Spice Mix or Soulful Seasoning, tatin or chili powder

- Food Hero Pumpkin Pie Spice, cinnamon or cardamom with powdered sugar or vanilla
- Food Hero Taco Seasoning, lime juice and chopped cilantro
- Parmesan cheese or nutritional yeast
- Low-sodium soy sauce, dried seaweed flakes and sesame seeds

Fortified nutritional yeast is a food product that is often fortified with vitamin B12. Sprinkle it on popcorn (see recipe) or rice and beans, or stir it into soup or tuna salad for a savory, cheesy flavor and a boost of vitamin B12. Look for it in the spice or bulk area of your grocery store.

Master Food Preservers Train New Class of Volunteers



By Jennie Gilbert

After a four-year hiatus, the Master Food Preserver Program (MFP) took applications for new volunteer trainees in August 2023, the last class of Linn-Benton volunteers having completed training in spring of 2019.

The MFP volunteer hybrid training is new to the program and is designed to be more inclusive to draw volunteers who are still working and may have families at home. In the past trainees attended an all-day class once per week. Several counties around Oregon participated in the new hybrid training, experimenting with different times and days for the hands-on labs and all counties participating in the once-a-week evening Zoom class. Classes were recorded and kept in an online classroom along with supplemental reading, videos, and homework for trainees to complete.

There were seven trainees between Linn and Benton Counties for the new hybrid class that started the first week of October 2023, and continued for 7 weeks. Each week the class attended an online Zoom lecture on Tuesday evenings that covered the food safety and preservation subject for that week. The trainees also met in person with their mentors and coordinator for a hands-on lab once a week on Thursday evenings. Each person was matched with a mentor who was a veteran MFP volunteer.

Training for the MFP program covers a wide variety of food safety and preservation information. The trainees must show their knowledge by practicing food safety and preservation in labs, in homework, and by taking a final exam. They then are in training for a minimum of six months with mentors to "learn the ropes" of volunteering in the community.

During the seven weeks of training, volunteers learn all about food safety and are encouraged to attain their food handler's card if they intend to help teach

Continued on Page 9

Walk with Ease

Walk with Ease is a fitness program that can reduce pain and improve health in general. If you can stand for 10 minutes without feeling pain, you can benefit from Walk with Ease

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allison.studnick@oregonstate.edu



Oregon State University
Extension Service



Gearing Up for Gardening—2024

These popular brown bag gardening talks are back! Come to the Corvallis-Benton County public library and get some great gardening tips from local experts. Bring your lunch and join us in the large meeting room at noon. Presentations are free and open to everyone. Whether you're just getting started or a long-time gardener, you're bound to learn something new. The talks are Tuesdays, January 9 through February 27, **EXCEPT for Monday, January 22**. See the schedule below for dates and topics. The library is located at 645 NW Monroe Ave, Corvallis. The talks are co-sponsored by the Benton County Master Gardener Association and the

Corvallis-Benton County Public Library.

- **January 9** - The Good Guys and the Bad Guys—Native Plants and Invasives; Michael Ahr and Sara Roberts, Benton Soil & Water Conservation District
- **January 16** - Poisonous Plants—Who Knew??; Lisa Borgerson, Benton County Master Gardener
- **MONDAY, January 22** - If You're Going to Use Pesticides—Be Safe; Jennifer Gervais, OSU College of Ag Sciences, Environmental and Molecular Toxicology
- **January 30** - Yes, You Can Grow Vegetables Without Irrigation—Dryland Gardening; Darren

- Morgan, Nursery Manager, Shonnard's Nursery
- **February 6** - Another Surprise! Growing Subtropicals in Oregon; Todd Anderson, OSU Dept. of Horticulture
- **February 13** - Yes, Climate is Changing—Learning to Garden in a Changing Climate; Joleen Schilling, Chemeketa Community College Dept. of Horticulture
- **February 20** - We Can Also Grow Citrus!; Kneque Chaffin, Home Grown Gardens
- **February 27** - Last Surprise! Garden Myths; Janet Magedanz, Benton County Master Gardener

Save the date! 10th Annual BEEvent Pollinator Conference! Saturday, March 2, 2024 - Linn Expo Center, Albany

We are excited to have Dr. James Hung as the key note speaker for the 10th BEEvent Pollinator Conference. Dr. Hung has a B.A. from Dartmouth College, a Ph.D. from the University of California-San Diego, and is currently at the University of Oklahoma - Asst. Professor of Biology and is a pollinator biologist on the Oklahoma Biological Survey.

At the forefront of his research are studies of the impacts of climate change and invasive species on pollinator and plant pollinations. His research is also refining techniques for effective monitoring of pollinator populations.

Additionally, researchers from the Oregon Department of Agriculture will cover hornet species with an emphasis on the

species that have been known to establish outside their native ranges' vs the common look-a-likes. From Oregon State University, Gail Langelotto's Garden Lab team will give an update on their current pollinator research. Linn Master Gardener, Rene Miller, will cover the latest best practices for the Blue Orchard Mason Bee. We will also learn more about a new invasive that is a major threat.

You can talk to our knowledgeable volunteers and get answers to your pollinator questions. An exciting raffle and door prizes along with great vendors are part of the experience, too.

While at the conference, you may purchase mason bee

supplies and get locally sourced native mason bee cocoons that are produced using best practices. There is also an option to purchase supplies and cocoons at the Linn County Extension office, or on our website and arrange for pick up. We do not ship any supplies.

Registration opens in February at LinnMasterGardeners.com, cost is \$35. New this year will be an option to attend virtually via Zoom link if you are unable to attend in person.

Tickets for the in-person option or the Zoom option will be sold at the Insights into Gardening event on February 10, as well.

We hope to see you at the 10th BEEvent Pollinator Conference on March 2, 2024.



INSIGHTS INTO GARDENING



Presented by

Benton County Master Gardener™ Association

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Saturday, February 10 2024

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Information and to register
beginning Jan. 2 visit :
bentonmg.org/iig



OSU Extension Service prohibits discrimination in all its programs, services, activities, and materials. Accommodation requests related to a disability should be made by two weeks ahead of the event to OSU Extension: 541-713-5000

Novel Extension Resource to Resolve Plant and Home Pest Issues Now Available

By Otillia Schreuder, Ebba Peterson, Signe Danler, Silvia Rondon

A new resource is available to help manage pests around your home and garden with reduced risk to people, pets, and the environment. This tool, called Solve Pest Problems, was spearheaded by Weston Miller, former member of OSU Extension from the Portland



Continued on Page 9

January-February Gardening Calendar for Western Oregon

Oregon State University Extension Service encourages sustainable gardening practices.

Practice preventive pest management rather than reactive pest control. Identify and monitor problems before acting, and opt for the least toxic approach. Conserve biological control agents such as predators and the parasitoids that feed on insect pests.

Use chemical controls only when necessary and only after thoroughly reading the pesticide label. First consider cultural, then physical and biological controls. Choose the least-toxic options, and use them judiciously. Some examples include insecticidal soaps, horticultural oils, botanical insecticides, and organic and synthetic pesticides.

Trade-name products and services are mentioned as illustrations only. This does not mean that the Oregon State University Extension Service endorses these products and services or intends to discriminate against products and services not mentioned.

JANUARY

Planning

- Plan to replace varieties of ornamental plants that are susceptible to disease with resistant cultivars (<https://pnwhandbooks.org/plantdisease/cultivar-tables>) in February.
- Take hardwood cuttings of deciduous ornamental shrubs and trees for propagation.
- Order a soil test to determine your garden's nutrient needs. Contact the Extension office for a list of laboratories or view Analytical Laboratories Serving Oregon. (<https://catalog.extension.oregonstate.edu/em8677>)
- Begin planning this year's vegetable garden. Check with local retail garden or nursery stores for seeds and seed catalogs.
- Keep a garden journal. Consult your journal in the winter, so you can better plan for the growing season.

Maintenance and clean up

- Place windbreaks to protect sensitive landscape evergreens against cold, drying winds.
- Reapply or redistribute mulch that has blown or washed away during winter.
- Clean pruners and other small garden tools with rubbing alcohol.
- Water landscape plants underneath wide eaves and in other sites shielded from rain.
- Do not walk on lawns until frost has melted.

Pest monitoring and management

- Scout cherry trees for signs and symptoms of bacterial canker. Remove infected branches with a clean pruner or saw. Sterilize tools before each new cut. Burn or send the branches to a landfill before bloom. See *Managing Diseases and Insects in Home Orchards* (<https://catalog.extension.oregonstate.edu/ec631>).

- Watch for field mice damage on lower trunks of trees and shrubs. Eliminate hiding places by removing weeds. Use traps and approved baits as necessary.
- Use dormant sprays of lime sulfur or copper fungicide on roses for general disease control, or plan to replace susceptible varieties with resistant cultivars (<https://pnwhandbooks.org/plantdisease/cultivar-tables>) in February.
- Moss in lawn may mean too much shade or poor drainage. Modify site conditions if moss is bothersome.
- Spray peach trees with approved fungicides to combat peach leaf curl and shothole. Or plant curl-resistant cultivars such as 'Frost', 'Q1-8' or 'Creswell'.
- Monitor landscape plants for problems. Don't treat unless a problem is identified.

Houseplants and indoor gardening

- Monitor houseplants for correct water and fertilizer; guard against insect infestations; clean dust from leaves.
- Protect sensitive plants such as weeping figs from cold drafts in the house.
- Propagate split-leaf philodendrons and other leggy indoor plants by air-layering or vegetative cuttings.
- Plant dwarf annual flowers such as coleus, impatiens and seedling geraniums inside as houseplants.
- Gather branches of quince, forsythia and flowering cherries and bring them indoors to force an early bloom.

FEBRUARY

Planning

- Tune up lawn mower and garden equipment before the busy season begins.
- Have soil tested to determine its nutrient needs. For more information, contact the Extension office for a list of testing laboratories or view Laboratories Serving Oregon: Soil, Water, Plant Tissue, and Feed Analysis (<https://catalog.extension.oregonstate.edu/em8677>) (EM 8677).
- Select and store healthy scion wood for grafting fruit and nut trees. Wrap in damp cloth or peat moss and place in plastic bag. Store in cool place.
- Plan an herb bed for cooking and creating an interesting landscape. For example, choose parsley, sage, chives, and lavender. Choose a sunny spot and plant seeds or transplants once the danger of frost has passed (late-April or early-May).
- Plan to add herbaceous perennial flowers to your flowering landscape this spring. Examples include candytuft, peony, penstemon, and coneflower.

Maintenance and clean up

- Repair winter damage to trees and shrubs.
- Make a cold frame or hotbed to start early vegetables

or flowers.

- Fertilize rhubarb with manure or a complete fertilizer.
- Incorporate cover crops or other organic matter into soil.
- Prune and train grapes; make cuttings.
- Prune fruit trees and blueberries.
- Prune deciduous summer-blooming shrubs and trees.
- Prune and train trailing blackberries (if not done the prior August); prune back raspberries.
- Prune fall-bearing raspberries (in late-February or early-March).
- Prune clematis, Virginia creeper, and other vining ornamentals.

Planting and Propagation

- Plant windowsill container gardens of carrots, lettuce, or parsley.
- Plan to add herbaceous perennial flowers this spring: astilbe, candytuft, peony, and anemone.
- Good time to plant fruit trees and deciduous shrubs. Replace varieties of ornamental plants that are susceptible to disease with resistant cultivars (<https://pnwhandbooks.org/plantdisease/cultivar-tables>).
- Plant asparagus if the ground is warm enough.
- Plant seed flats of cole crops (cabbage, cauliflower, broccoli, and Brussels sprouts), indoors or in a greenhouse.
- Where soil is dry enough and workable, plant garden peas and sweet peas. Suggested varieties of garden peas include: Corvallis, Dark Green Perfection, Green Arrow, Oregon Sugar Pod, Snappy, Knight, Sugar Snap, Oregon Trail, and Oregon Sugar Pod II.
- Good time to plant new roses.

Pest monitoring and management

- Monitor landscape plants for problems. Don't treat unless a problem is identified.
- Use delayed-dormant sprays of lime sulfur for fruit and deciduous trees and shrubs.
- Remove cankered limbs from fruit and nut trees for control of diseases such as apple anthracnose, bacterial canker of stone fruit and Eastern filbert blight. Sterilize tools before each new cut.
- Control moles and gophers with traps.
- Elm leaf beetles and box-elder bugs are emerging from hibernation and may be seen indoors. They are not harmful, but can be a nuisance. Remove them with a vacuum or broom and dustpan.
- Monitor for European crane fly and treat lawns if damage has been verified.

Houseplants and Indoor Gardening

- Pasteurize soil for starting seedlings in pots or flats, or use clean sterile commercial mixes.

New Master Gardener Coordinator for Linn and Benton County

By Otilia Schreuder

If you are a Master Gardener in Linn or Benton County, we may have already had the pleasure of meeting. My name is Otilia Schreuder, and I am the new Master Gardener Coordinator. In my short time in this role, I have been fortunate to attend many Master Gardener events, and I'm excited to see the community impacts moving forward.

Growing up, I spent much of my life outside and in the garden. I worked extensively with the Outdoor School Program in the metro area, which fueled my profound interest in outdoor education and working with the public. Following the completion of my undergraduate degree in Agronomy from OSU, I worked in commercial native tree and flower production in the Willamette Valley where I gained a passion for working in community horticulture. My goal is to provide opportunities to learn about and engage with food production, gardens, and ornamental plants.



In my role at Extension, I am focused on supporting quality horticultural knowledge in Linn and Benton County. I am driven by my desire to provide quality information and connect the community with the outdoors through gardening. Working with both the Linn and Benton County Master Gardener Associations has allowed me to collaborate with dedicated Master Gardener volunteers. Moving forward, I will strive to provide quality training and horticultural knowledge to these loyal volunteers as well as the local community. I am currently working on developing the 2024 Master Gardener course as well as community connections. As I settle into my position, I look forward to providing high-quality education to both Master Gardeners and local community as a whole.

I want to thank the OSU Extension staff and Master Gardeners for their warm welcome. I look forward to collaborating to provide relevant garden knowledge and opportunities for the community in Linn and Benton County.

OSU EXTENSION SERVICE MASTER GARDENER™ PROGRAM

BECOME A MASTER GARDENER!



Oregon State University Extension Master Gardener volunteers are neighbors, friends and family who you can go to for garden advice that is grounded in science and locally relevant.

We are garden educators and on-the-ground community scientists.

Master Gardeners receive extensive training and complete a university-taught course in topics including botany, pest identification, soil management and diagnosing plant problems, to name a few.

Let's talk plants!



OSU Extension Service prohibits discrimination in all its programs, services, activities, and materials. Accommodation requests related to a disability should be made by 1/22/24 to Otilia Schreuder at Otilia.Schreuder@oregonstate.edu. This publication will be made available in an accessible alternative format upon request.

Apply now for 2024 training!

In person and online based classes begin in February, with the hybrid model allowing for people with full time jobs and families to participate. In person classes are taught by OSU experts and experienced Master Gardener Volunteers.

Volunteer hours are a key learning experience in becoming an OSU Master Gardener. In 2024 we are requiring 40 hours of volunteer service for new gardener's. All volunteer experiences are carefully selected to help you learn and engage with the community, including farmers market plant clinics, community garden classes, seed exchanges, and more.

Cost: \$150

For more information:
541-730-3471 EXT 73006
Otilia.Schreuder@oregonstate.edu



Oregon State University



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GarlandNursery.com
(541 753-6601)

Recognizing Accomplishments of Graduating Master Gardener Trainees and Volunteers



2023 Benton County Master Gardener graduates.

By Otilia Schreuder

On Saturday, November 19, Linn and Benton County Master Gardener Associations met to celebrate the 2023 Master Gardener graduates.

This event allowed the Master Gardeners to make connections, celebrate the many community impacts from this year, and share excellent food. Additionally, it offered a time to recognize some extraordinary Master

Gardener volunteers and congratulate the 2023 Master Gardener trainees for graduating. Thank you for all the hard work done by Master Gardener volunteers during the 2022-2023 year!



2023 Linn County Master Gardener graduates.

Master Food Preservers Train New Class of Volunteers

Continued from Page 5

food safety and preservation workshops. Other topics include: Boiling water and steam canning, pressure canning, freezing and storing foods, pickling and fermenting, jams; jellies; and pie filling, and volunteering in the local food system.

Once fully trained, volunteers then are able to

give back to their community in many ways. The MFP program staffs and supports many events and workshops throughout the year including farmers' markets, fairs, canning and preserving workshops, canner gauge testing events, food pantry support, canning hotline, Fill Your Pantry, and other

community events. The MFP program could not operate without the highly trained and dedicated volunteers that support the program.

The next volunteer training is planned for fall of 2024. For more information, please contact your local Extension office food safety staff.

Novel Extension Resource to Resolve Plant and Home Pest Issues Now Available

Continued from Page 5

area, and community partners six years ago. It is designed to provide a more user-friendly resource to OSU stakeholders than the Pacific Northwest Pest Management Handbooks and is now housed within the Oregon Integrated Pest Management (IPM) Center, which works to promote IPM strategies of pest control.

Solve Pest Problems (SPP) provides peer-reviewed biological and ecological information about common and emerging pests in one convenient-to-use website. Pests covered include weeds, household insects, mice, rats & other wildlife, a number of plant pests and diseases, and more. Resources are provided to help you identify your pest and determine if action is needed. Pest management options are rated by safety and effectiveness. To reduce risk to people and the environment, SPP focuses on providing non-chemical control methods. But SPP also has numerous guides on how to use pesticides safely around your home and family, and around pollinators. Lastly, SPP covers how to follow up with preventative steps to reduce problems in the future.

Solve Pest Problems can be found at: <https://solvepestproblems.oregonstate.edu/>

We are also running a donation campaign to be able to develop new content. Information can be found here: <https://solvepestproblems.oregonstate.edu/build-page-campaign>

Want to learn more about integrated pest management? Find more information at the Oregon IPM Center: <https://agsci.oregonstate.edu/oipmc>

Living With Your Water Well and Septic Systems Winter Webinars

Continued from Page 3

- January 10, noon-1:15 p.m. Living with your domestic water well
- January 10, noon-1:15 p.m. Living with your septic system
- January 18, 6:15-8:15 p.m. Living with your well and septic system
- January 27, 9-11:15 a.m. Living with your well and septic system

Register at <https://beav.es/qiT> (case sensitive)

Registration for the webinar is required to receive the zoom link ahead of time. For additional questions you can email Chrissy.Lucas@oregonstate.edu or leave a message at 541-713-5009.

Commercial Agriculture Small Farms

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New Episode of For the Love of Farming! Featuring Sunwave Farms

In this episode we sit down with James Miller from Sunwave Farms, a dahlia and vegetable farm near Elmira, OR. James is entering his 5th year farming and their third year farming on their own 5 acre property. James came into farming with

a background in military service as an aircraft rescue firefighter and EMT, an ongoing career in firefighting, working in Veteran support services, and running a café at the Veterans Hospital with his wife. What started as an exploration of how

to grow and make their own salsa for their café turned into an exploration of farming as a way of life for their family. James shares how they were able to access land through an owner carry finance model, how they have made a sloped and forested piece of property work in their favor, how he fell for the beauty of dahlias just driving down the road, and how he aligns farming with his goal of peace, tranquility, and overall well-being. We are grateful for James's open communication, generosity of time, and for trusting all of us with his story.

Listen here <https://spotifyanchor-web.app.link/e/Fg3WYL2igFb>



How to Read a Pesticide Label: A Guide for Small and Beginning Farmers

Information on how to read a pesticide label and the importance of understanding process and procedures when handling pesticides. <https://extension.oregonstate.edu/catalog/pub/em9410-s>



The farmer-to-farmer Willamette Valley Agritourism Network is growing in popularity

By Audrey Comerford,
OSU Small Farms Program

The OSU Extension Service Agricultural Tourism team has coordinated efforts to form a Willamette Valley Agritourism Network specifically for farmers and ranchers who are currently operating or interested in adding on-farm direct marketing and agritourism to their agricultural business. The hope is to create a space for information sharing amongst producers, a safe place to ask questions, and a way to join together to discuss issues. To start, communication will be through an email list-serve. If there is interest, the OSU team will help coordinate a few meetups each year to visit in person. There is no membership fee to be part of this network.

Not sure if this network is for you? Agricultural tourism (agritourism) is when you invite the public to visit your farm or ranch to sell agricultural products and promote the sales of products. This may include:

- Direct Sales (farm stands/stores, U-pick/U-cut, livestock and fiber sales)
- Education (farm tours, classes/demonstrations/workshops, tastings)
- Entertainment (festivals, open farm days)
- Outdoor Recreation (hiking/walking trails, birding, horseback riding, hunting/fishing)
- Hospitality (on-farm lodging, farm to table dinners, private events)

The network was launched in January and currently there are more than 85 producer members. In time, we would also like to offer opportunities to meet in person at various farms around the valley. We are committed to only adding

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Oregon State University

Register at: beav.es/wYh

SMALL FARMS. OREGONSTATE.EDU/SMALL FARMS/AGRICULTURAL-TOURISM

Willamette Valley Agritourism Network

Join here!

<https://beav.es/59V>

Farmer-to-farmer listserv for those interested in/currently offering agritourism

active farmers/ranchers who are currently offering agricultural tourism or moving in that direction to the network. This group exists so that farmers have a way to share and learn together. It is a place to post questions, ideas, best practices, opportunities, or concerns. If you are a farmer or rancher and would like to join, please go to <https://beav.es/59V>.

If you have any questions about the network or anything agritourism related, please feel free to contact Audrey Comerford at audrey.comerford@oregonstate.edu or Melissa Fery at melissa.fery@oregonstate.edu. You can find agritourism resources on the OSU Extension Agricultural Tourism website at <https://beav.es/w6M>.

Connecting With Small Farming Community

By OSU Small Farms Program

Joining organizations and networks of other farmers is a great way to be in regular contact with folks who share your values and have experience and interest related to topics that are important to you. The Small Farms Extension team has put together a list of networks and organizations that may be of interest to small farmers in Oregon. Happy connecting!

- **Agritourism Network**- Agritourism (agritourism) is when you invite the public to visit your farm or ranch to sell agricultural products and promote the sales of products. The goal of this network is to create a space for information sharing about agritourism amongst producers, a safe place to ask questions, and a way to join together to discuss issues. If you are a farmer or rancher and would like to join, please go to <https://beav.es/59V>.
- **Dry Farming Collaborative**- The DFC is a group of farmers, extension educators, plant breeders, and agricultural professionals partnering to increase knowledge and awareness of dry farming management practices with a hands-on participatory approach. Join the Dry Farming Collaborative Facebook Group
- **Niche Meat Processor Assistance Network** - NMPAN is a university Extension-based community of practice of people and organizations helping small meat processors thrive by growing our shared wealth of information and innovation. Learn more and sign up for NMPAN.
- **Oregon Farm to School & School Garden Network** - The OFSSGN provides

resources, technical assistance and networking opportunities to support members of Oregon's Farm to School and school garden community in their work to incorporate healthy, local food into school meals and implement food-, farm-, and garden-based education. We also advocate for state and federal policies that support farm to school success. Find a regional hub coordinator to connect with <https://oregonfarmtoschool.org/regional-hubs/> or email Michelle Markesteyn, OSU Farm to School Specialist michelle.markesteyn@oregonstate.edu

- **The Oregon Pasture Network**- OPN is <https://oregonpasturenetwork.org/> is a network of independent farmers & ranchers who are committed to expanding pasture based agriculture across Oregon. Learn more about joining at <https://oregonpasturenetwork.org/join/>
- **Pacific Northwest Cut Flower Growers**- This is a group for commercial cut flower growers in the PNW. Connect with them through their facebook group, which is used as a platform for learning, collaboration and community: Pacific Northwest Cut Flower Growers Facebook Group
- **PNW Mushroom Farmers Network**- This is a group of small scale mushroom farmers throughout the Pacific Northwest with a focus on Oregon producers with a mission to provide support, information and share resources to uplift one another. Reach out to Em Jones (jonesem7@oregonstate.edu) to be added to the network
- **Small Ruminants Group**- The Small Ruminants Group is a group of goat and sheep producers who

are interested in sharing information, knowledge, and skills with each other. They correspond primarily through an email listserv hosted by OSU Extension Service Small Farms program and have a directory, in the form of a shared google spreadsheet; if you're interested in joining, reach out to Genie Harden (genieharden@gmail.com).

- **Statewide Military Veteran Farmers Network**- This is a network for military veterans who are farming in Oregon. Network members can participate in farm tours and other learning and networking activities. If you're interested in joining, reach out to Teagan Moran- teagan.moran@oregonstate.edu.
- **Willamette Women's Farmer Network** - This is a group of female-identified farmers and ranchers in Linn, Lane, and Benton counties who connect via an email ListServ as well as through farm tours, workshops, etc. To sign up, contact Teagan Moran at Teagan.moran@oregonstate.edu
- **Your Local Farm Bureau Chapter**- Oregon Farm Bureau is a grassroots, nonpartisan, nonprofit organization representing the interests of farming and ranching families in the public and policymaking arenas. Learn about becoming a member of your local Farm Bureau Chapter.
- **Your Local Small Farms Extension Listserv** - Many Small Farms Extension Agents run an email group for small farmers in their service areas. We share timely resources with farmers on these email list, and farmers can share resources and information with other farmers on the list. Reach out to your local



Dry Farming Collaborative Winter Convening - Online

Wednesday, February 7, 9 a.m. - noon PST - Free

Dry Farming enthusiasts, you are invited to join us for our 9th annual winter meeting!

This is a time where we gather to give updates on our collaborative projects; share successes, failures, lessons learned; plan for the next growing season; share research and case studies; and discuss the future of the Dry Farming Collaborative via presentations and facilitated Focus Group breakout rooms.

As a grassroots network, the Dry Farming Collaborative is built and strengthened by your direct participation!

*Please RSVP to let us know if you can attend this virtual meeting. Even if you cannot attend, please complete the registration process, and we will provide you with all meeting materials including the meeting recording, future opportunities to connect with meeting participants, and more ways to get involved with the Dry Farming Collaborative.



Small Farms Extension Agent to learn how to get added to the small farms listserv for your area.

- **Western Cover Crops Council**- This group of farmers and other agricultural professionals working in the western U.S. promotes the successful

adoption and integration of cover cropping into Western U.S. agricultural systems. Become a member here, and join discussions with other cover croppers in the Pacific Northwest by contacting the PNW Chairperson (pnw@westerncovercrops.org).

Commercial Agriculture Tree and Small Fruit

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January Orchard Tasks

By Erica Chernoh,
Commercial and community
horticulture

Though we are in the dead of winter, there are still plenty of tasks that need to be done around the farm during the dormant season. The dormant season is the best time to prune tree crops. Trees should be pruned to maintain a strong structure and to allow for more sunlight and air circulation. Always remove the three D's: dead, diseased, and dying wood. Also remove crossing branches or those growing into the center of the tree. Always use clean, sharpened tools, and sterilize your equipment between each tree by soaking them in rubbing alcohol for about 1 minute, and then wiping them off with a clean rag.

If you grow older varieties of hazelnuts, such as Barcelona or Ennis, scout the orchard for Eastern filbert bight (*Anisogramma anomala*). Before bud break, prune out and destroy branches with cankers, stomata, and dead leaves. Infected wood should be pruned out at least one to three feet below the cankers. It is best to remove severely infected trees. Destroy pruned out and infected wood by burning or chipping before budbreak in the spring. If you have trees with bacterial blight (*Xanthomonas arboricola* pv. *corylina*) in your orchard, then you must take extra precautions when pruning. Bacterial blight can spread via rain splash and potentially through pruning equipment. Look at the forecast and prune in dry weather and sterilize your pruning equipment between trees (use the two pruner method).

In apple and pear orchards,

prune the tree to open up the canopy to improve air circulation so that leaves dry out quicker after a spring rain. This will help reduce conditions that are conducive to the fungus apple scab (*Venturia inaequalis*). Rake up and burn fallen leaves if you have scab issues, the fungus can overwinter in the leaves, and remove any mummified fruit that is left in the tree. Prune out dead or diseased branches, such as those that have cankers from anthracnose (*Cryptosporiopsis curvispora*: (sexual: *Neofabraea malicorticis*)).

For those brave enough to grow peaches in the Willamette Valley, fall and winter is the time to treat for peach leaf curl (*Taphrina deformans*) and shothole fungus (*Wilsonomyces carpophilus*). The first spray for leaf curl should have been made at leaf drop (usually late October to early November), followed by two copper sprays around Thanksgiving and Christmas to control shothole. Then one last spray for leaf curl just before the buds begin to swell (usually in late February, before the floral buds open).

If you grow cherries, it is better to wait to prune until after harvest when the weather is dry, this will prevent the spread of bacterial canker (*Pseudomonas syringae* pv. *syringae*). However, winter is a good time to scout the orchard for bacterial canker and flag the branches that need to be removed. It is easier to find cankers and gummosis caused by bacterial canker when there aren't any leaves on the tree. You can prune out the cankered branches now, but be sure to wait for a period when there are



Amber colored gummosis due to bacterial canker on peach tree.

at least 3 days of dry weather in the forecast. Rain splashes can spread the bacterium which is why most commercial growers in Washington have moved to pruning in the summer after harvest, when the weather is dry. To prevent the spread of bacterial canker be sure to sterilize your pruning tools between cuts and burn infected branches.

Winter is a good time to scout for voles, look for damage on the lower trunks of trees. Remove weeds around the base of the tree, they create good hiding spaces for the voles. Look for tunnel openings, runways (1-2-inch-wide paths between tunnel openings), and fresh vole droppings. Simple wooden mouse traps baited with slices of apples or globs of peanut butter-oatmeal mixes can be used. Look for burrows and runways in the grass or mulch, and place traps at a perpendicular angle to the runways. Attach the trap to a stake so predators don't drag the vole and trap away. Check traps daily and reset them as needed.

If you have young trees, be sure to whitewash the trunks of your trees to prevent sunscald and sunburn. Sunburn



Vole runway and tunnel entrance.

occurs in the summer when young trees are exposed to solar radiation and heat. Sunscald happens in the winter when there are fluctuations in temperatures, such as sun exposure that is followed by a drop in temperature. Both sunburn and sunscald damage the cambium of the tree which causes the bark to peel back making it more susceptible to disease and insect issues, particularly borer insects such as the Pacific flatheaded borer (*Chrysobothris mali*). The damage is typically found on the south or southwest side of the tree that is exposed to the sun and is most severe on young trees or those that have been heavily pruned reducing shade from canopy cover. To prevent sunburn or sunscald, cover the trunks of young trees with trunk guards, or paint the lower trunk of the tree with a 50:50 mixture of white latex paint and water. Keep the trunk painted and protected for the first 5 years of its life.

Finally, winter is a great time to clean, sharpen and oil tools and equipment. Cleaned and sharpened tools not only last longer but they're easier and safer to use. Start by washing any soil or particles off

of the tool and dry it with a rag. Use a wire brush or fine steel wool to remove any rust from metal surfaces. Once the tools are clean, they are ready to be sharpened. When sharpening, follow the bevel or original angle of the blade, and be sure to sharpen only the beveled side of the blade. You can use a 6 to 10-inch mill file to sharpen most tools. Always push the file diagonally across the blade in a motion leading the sharpener away from your body. Once the tools are cleaned and sharpened, lubricate the blades with a 3-in-1 oil. If you have any tools with wooden handles, you can lightly sand the handle to smooth out rough surfaces and remove splinters. After sanding, apply linseed oil or mineral oil to the handle with a rag to protect and preserve the wood. Once your tools have been cleaned, sharpened, and oiled, store them in a dry space where they will be ready for the next time you need them.

For a list of pesticides registered for use in commercial or home orchards, visit the Pacific Northwest Pest Management Handbook: <https://pnwhandbooks.org/insect/tree-fruit/apple/apple-codling-moth>.



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Commerical Agriculture Field Crops

Winter 2024 OSU Extension
**SEED AND CEREAL CROP
PRODUCTION MEETING**

Grass Seed Pathology Updates: Yellow Dwarf
Virus and Anguina Nematodes
Hannah Rivalta, USDA-ARS Plant Pathologist

Carbon Banding for Weed Suppression
Clint Mattox, USDA-ARS Weed Scientist

Exploring New Approaches and Opportunities
with Precision Agriculture
Jing Zhou, OSU Precision Agriculture Specialist

Hyslop Farm Weather Data for Crop
Management
Sara Monk and Christy Tanner, OSU

Using Plant Disease Ecology to Serve Oregon
Seed Producers
Fletcher Halliday, OSU Plant Pathologist

Insect Pest Monitoring and Management
Updates
Seth Dorman, USDA-ARS Entomologist

2 ODA pesticide
recertification
credits
anticipated

Date:
Roth's Hospitality Center
1130 Hillside Rd, Hope, Oregon
Tuesday, January 9
8:30 a.m. – Noon

Linn County Fair and Expo
3700 Knox Butte Rd, Albany
Tuesday, January 9
1:30 p.m. – 5:00 p.m.

Forest Grove Elks Lodge
2810 Pacific Ave, Forest Grove
Wednesday, January 10
8:30 a.m. – Noon

Please register at <https://beav.es/qAb>
Need help registering? Call Laurie Gibson at 541-248-1088
Questions? Call Christy Tanner at 541-570-5642

Oregon State University Extension Service

Upcoming Events

- Oregon Mint Growers Annual Meeting, January 11 & 12, at the Salishan Resort, Gleneden Beach, Oregon. Visit oregonmint.com for more information.
- Oregon Ryegrass Growers Association Annual meeting, January 17, Linn County Fair & Expo Center, Albany
- Oregon Clover Growers Annual Meeting, January 31, at the Wilsonville Holiday Inn at 9 a.m.

South Valley Field Crop Notes for January-February

General Management

- Seed certification: make sure to submit over seeding documentation to seed cert to maintain eligibility.
- Slug baiting during cold winter months has limited efficacy. If you are determined to bait in January and February, do so at dusk and when night temperatures are in the low 40's, with no rain, and winds less than 5MPH.
- Continue to scout fields for winter cutworms, as they can remain active during colder months.
- Vole populations have decreased in many areas, however, populations can increase quickly in the spring. Vigilant baiting down holes during winter months is the best chance to keep populations in check. Remember ZP baits can deteriorate rapidly when exposed to moisture, so avoid baiting in saturated soils or when heavy rain is expected.

Grass

- Tall fescue begins spring growth ~4 days (turf-type) to ~10 days (forage-type) earlier than perennial ryegrass. Apply 100-140 lb/ac of N in the spring to tall fescue fields by the first week of April. Split applications are recommended, with the majority of N applied by mid-March. Peak N uptake for tall fescue is in late March/early April.
- Delay first nitrogen applications to perennial ryegrass until after T-Sum reaches 200 GDD (~mid-Feb). Apply 120-160 lb/a of N in the spring to perennial ryegrass fields by mid-April. Split applications are recommended for flexibility and matching crop demand, but rarely increase seed yield. Peak N uptake for perennial ryegrass is in late April.
- On saturated soils, the entire spring N application can be delayed until mid-March/early April without reducing seed yields (especially annual ryegrass). It is best to delay fertilizer where soils are saturated or ponded.
- In drier years, scout grass seed fields for late winter grain mite outbreaks.

Wheat

- Take soil samples in the last two weeks of January for the N-min test to help predict spring fertilizer rates.
- Apply nitrogen to winter wheat before the end of February to be sure it is fertilized before late tillering. Rapid N uptake begins at jointing (Feeks GS6).
- Try to complete post-emergence grass and broadleaf control herbicide treatments on winter wheat before wheat jointing (~March 1). Refer to individual product labels or the PNW Weed Management Handbook for specific information on application timings.

Clover

- Dormant season applications of oxyfluorfen, paraquat, diuron (red clover) and MCPA (white clover) should be completed on established white and red clover fields by early February or before growth starts.

Mint

- Dormant season applications of oxyfluorfen, paraquat, or other soil-applied herbicides on peppermint should be completed by early February or before growth starts.

Meadowfoam

- Complete fertilizer and pesticide applications on meadowfoam as soon as possible after February 1 to minimize potential crop injury.

What Are Noxious Weeds?

Noxious weeds are plants that have been designated by a government agency as harmful in some way. Some noxious weeds cause problems for farmers by competing with crops, while others cause harm to natural areas by crowding out native plant communities. Plants that are poisonous to people or livestock are also often found on noxious weed lists. Many noxious weeds are fast growing plants that spread aggressively that were introduced from other parts of the world. However, some noxious weeds can be native to the area. Weeds that are left to spread and produce seed can create large problems that are hard to clean up. Land owners that find noxious weeds on their property are encouraged to control those weeds. Contact your local Extension office for more information about how to control specific weeds.

Noxious Weed Profile: Poison Hemlock

The reason poison hemlock is commonly found on state noxious weed lists is in its name. All parts of this plant



Queen Anne's lace is often mistaken for poison hemlock, but there are some key differences that you can use to tell them apart. Queen Anne's lace is shorter than poison hemlock, rarely growing over 3 or 4 ft tall. Queen Anne's lace also has hairy stems, while poison hemlock has smooth hairless stems.

are highly toxic to both humans and livestock. Even dead and dried parts of the plant can remain toxic for years! Eating the plant is the most common way people or animals are poisoned, but it can also cause skin irritation.

Poison hemlock is a biennial member of the carrot family. During the first year of



Poison hemlock stems with purple spots.



growth, these plants produce fern-like low-growing leaves. In the spring of their second year, plants produce tall flowering stems that can reach 6-10 ft tall. Many tiny, 5-petaled flowers are produced on umbrella shaped structures called umbels. The stems are hairless and hollow with purple or red blotches.

Forestry and Natural Resources

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Welcome Crystal!

Hello all, my name is Crystal Kelso, and I'm excited to send out an official Hello, and re-introduce myself as the new Education Program Assistant for both the Small Farms Program, and the Forestry & Natural Resources Program in Linn & Benton counties.

I started last year as a Small Farms intern for Teagan Moran, the OSU Extension Ag Small Farms Coordinator, and continued on as a student worker while I finished my Bachelor of Science in Horticulture/Therapeutic Horticulture at OSU. I look forward to continuing to grow the relationships I built in the Statewide Veteran Farmer Network and Willamette Women's Farm Network, as well as build new ones throughout Small Farms and Forestry programs. I'm excited to connect the two programs and the communities, bringing together shared goals and opportunities. You can expect to hear from me in the network listserv's, newsletters, and on social media, as well as in-person on Farm Tours, Woodland Walks, workshops, and other learning experiences.

Please feel free to reach out if you're looking for resources, have any farm or forestry related questions, or just want to connect. I'm happy to be working with you all again!

Stewardship through the Seasons— Winter Woodland Care

By James C. Finley Center for Private Forests - Penn State College of Agricultural Science, Department of Ecosystem Science and Management

Some stewardship activities can be done easily during the winter, with the bare trees allowing a different perspective. It is a wonderful time for quiet reflection and a nice respite from outdoor projects. It also can be a very insightful time for learning and caring for your woodland.

Here are some selected activities for the winter months to help improve your woodland:

- **Cut vines from good-quality trees.** As vines spread through the crowns of the trees in the canopy, they reduce the light available to other plants and may damage tree limbs from their sheer weight.
- Check for hazardous trees and limbs near trails and structures. Assessing risks ahead of time can prevent expensive and time-consuming damage to fencing, tree cages, and other structures, while also preventing potential injury.
- **Identify and mark any "cull" trees** (with flagging and/or by marking on a map or aerial photo of your property). By removing some of the poor-quality trees in your woodland, you are giving other trees room to grow.
- **Identify and mark "crop trees"** of various sizes and species. One of the goals of forest stewardship is to improve the quality of the woods through active tending. In a forestry context, a "crop" tree is any tree that you want to grow to maturity because it meets one or more of your goals for your woodland (e.g., timber production, wildlife food source, providing seed for the next generation of trees, etc.).
- **Keep tabs on invasive plants.** Mark areas that need to be treated, prioritizing the easier-to-tackle small areas first, and monitor for the new

individuals that may have just established. Control efforts like cutting and mechanical pulling/wrenching can be more enjoyable in the cooler temperatures and open feel of a woodland in winter.

- **Gather information and input on your planned stewardship activities for the year.** Use winter months to catch up on research and planning. Reading is a great way to learn, but there is also much value in talking to fellow woodland owners about whom they've



Continued on Page 15

Putting our heads together to reduce wildfire risks in Linn County

By Kayla Bordelon,
OSU Extension Fire Program
Regional Specialist

Over the last year and a half, Linn County partners have been hard at work building a long-term plan to improve wildfire outcomes. Together, we're updating the Community Wildfire Protection Plan (CWPP), which serves as a roadmap for protecting lives, properties, and ecosystems against the negative impacts of wildfires. The five goals included in Linn County's plan are highlighted in the stand-out box. Insert box in this area.

A critical part of the Linn County's CWPP update process was to engage with community stakeholders to understand their priorities, build on their successes, and address their wildfire-related needs. OSU Extension's Fire Program supported this effort by co-organizing three opportunities for community engagement during the plan update process. In the first session, we invited city administrators from all the jurisdictions in Linn County to offer their input on priority concerns and what projects they wanted to see in the updated plan. In the second session, representatives from a wide range of community organizations which included interests in natural resources, public health, emergency response, wildfire recovery, and community services came together to express their input. Finally, in December we hosted



City managers and local officials share community priorities to include in the plan. There were opportunities for one on one discussions to provide insight into local wildfire preparedness concerns and priorities.



Some 23 representatives of community organizations attended the August input session, including partners from natural resources, conservation, public health, wildfire recovery, and community services.



Sweet Home Unit Forester Craig Pettinger shares updates from the Oregon Dept of Forestry with the 64 residents and agency partners who gathered for the Linn County Wildfire Ready Night on December 6.

a public community meeting in Sweet Home so residents could hear about the draft plan and offer input prior to the plan's approval. We are very grateful to the local leaders, fire districts, community members, and other partners who took time out

of their lives to help make our county a little safer through the CWPP update process.

Linn County's plan is expected to be finalized and approved in the next few months, at which point it will be available on the County website.

Linn County's Five Wildfire Protection Goals:

- **Enhancing Wildfire Response and Recovery:** Ensuring swift, effective response capabilities to protect life, property, and natural systems.
- **Empowering Stakeholders:** Equipping residents and stakeholders with knowledge and tools to understand, mitigate, and prepare for wildfire risks.
- **Reducing Structural Ignitability:** Implementing non-regulatory incentives to decrease the likelihood of structures igniting during wildfires.
- **Prioritizing Fuels Treatment Projects:** Collaboratively implementing fuels treatment projects on private and public lands to reduce risks and foster defensible landscapes.
- **Fostering Collaboration:** Enhancing opportunities for collaboration, coordination, and capacity building in the implementation of wildfire projects.

Stewardship through the Seasons

Continued from Page 14

- worked with, what activities they've had success with or learned from.
- **Document the story of your land and your stewardship.** Though not as apparent as the physical forest stewardship activities, telling the story of your land and sharing the stories--successes, challenges, shared memories, hopes for the future of the land-- is an important way to help ensure the long-term care of our forests.
 - **Share your passion for woodland stewardship.** It may serve as inspiration or motivation for your neighbor, or even evolve into an opportunity to share the cost of a service provider or to coordinate efforts on controlling invasive plants.

Source: Department of Ecosystem Science and Management <https://ecosystems.psu.edu/>

29th Annual LCSWA Tree Seedling Sale!



Pre-order your seedlings now. Shop and pay online!

The seedling sale is part of the annual fundraising for the Linn County Small Woodlands Association (LCSWA) to offer college scholarships to Linn County students with forestry and conservation majors. It also

provides annual funding for 4-H scholarships. These local 4-H students, their parents, and LCSWA members provide a volunteer workforce to make the sale a success.

- Date: February 3, 2024
- Time: 8 a.m. -12 p.m.
- Location: Linn County Fair and Expo Center

3700 Knox Butte Road E., Albany, OR 97322

- **ORDER HERE:** <https://linncountyswa.com/shop/>
- All orders must be picked up at the Linn County Fairgrounds between 8 and 11 a.m. on Saturday, February 3, 2024. There will be various tree

and shrub seedlings available for purchase the day of the event. Feel free to invite your neighbors and friends to join you!

If you have questions before the sale, please contact Lena Tucker at seedlingsale@linncountyswa.com.

Linn County 4-H Youth Development

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Four Rivers Camp looking for Counselors

4H overnight camp offers recreational and educational opportunities in a camp setting. 4H camp provides youth with the chance to meet new people, have fun, and experience the great outdoors. Meeting new friends and trying new things are two great reasons kids love coming to camp! Have you paddled a canoe, tried your aim in Archery or made a tie-dyed shirt before? Campers participate in classes on a broad range of topics such as art, games, and engineering! 4-H camp takes place at the Oregon 4-H Center in Salem. High School Counselors help make all of this happen!

Four Rivers 4-H overnight camp is looking for exceptional youth in grades 9-12 to be volunteer camp counselors at our 2024 Camp! Youth will gain valuable job experience while developing critical 21st century skills like leadership, decision making, problem solving, critical thinking, collaboration, creativity, and more.

We are also looking for college aged folks who are interested in being a part of our camp staff leadership team.

- No camp experience required.
- Camp positions are volunteer and there is no cost for training.
- Youth from any county in Oregon are welcome to apply.

Four Rivers 4-H Camp will be held from June 19-23, 2024 (Counselors arrive Tuesday, June 18. We will work with school schedule!)

Please email Andrea Leao for more information: andrea.leao@oregonstate.edu



2023 Camp Counselor group.



Teaching new songs at skits during Camp Fire.



All camp activity with a Dinosaur.



One of the fun activities at camp.



The collection of items donated were brought to Family Tree Relief Nursery on Wednesday, December 13.

4-H Hygiene Drive Illuminates Community Spirit: Clubs Unite for Service Learning and Generosity

At the core of 4-H's mission lies a commitment to community engagement and service learning, and the recent Hygiene Drive organized by Linn County 4-H, exemplified these principles. 4-H places a strong emphasis on empowering young individuals to become active and responsible citizens through hands-on experiences and community service initiatives. The Hygiene Drive beautifully showcased these values as 4-H members united in a collective effort to make a positive impact on their community.

The drive was not merely a charitable act but an embodiment of the 4-H pledge, which emphasizes the importance of "hands to larger service." In contributing various hygiene items, 4-H clubs actively participated in service learning, gaining valuable insights into the needs of their community, and developing a profound understanding of the impact they can have as individuals and as a group. Items donated included paper towels, soap, toothpaste, shampoo, conditioner, wipes, and more.

The Hygiene Drive demonstrated 4-H's dedication to fostering a sense of interconnectedness among its members and the broader community. By coming together for a common cause, these young individuals not only addressed a pressing need within their locality but also strengthened the bonds that form the fabric of a thriving community. This drive was not just about donating items; it was about instilling a lifelong commitment to service and nurturing a generation of compassionate and socially conscious leaders within the 4-H community.

Linn County 4-H Ambassadors Spread Holiday Cheer with Holiday Craft Day

The Linn County 4-H Ambassadors recently kicked off their year with a festive bang, hosting Holiday Craft Day. Held at the Linn County Extension Office in December, the event saw a flurry of creativity as teens from grades 7-12, each with at least a year of 4-H experience, gathered to engage in various craft activities. The Ambassadors, known for their commitment to leadership and community service, played a pivotal role in facilitating the day's events.

Holiday Craft Day holds a special place in the hearts of the Linn County 4-H community, being an eagerly anticipated annual tradition. This event is open to all Linn County 4-H members with the goal of spreading holiday joy and cultivating a sense of togetherness within the community. From the cookie decorating station to the intricacies of owl making and friendship bracelet crafting, participants loved creating the variety of crafts while fostering an atmosphere of shared creativity and celebration.

One highlight of the day was the cookie decorating station, where participants showcased their skills with frosting and sprinkles. Owl making, friendship bracelet crafting, holiday countdown chains, and holiday stick trees were among the other engaging activities that captured the imaginations of the participants. The Ambassadors, drawing on their diverse skills and experiences, guided their peers through each craft, fostering a sense of camaraderie and accomplishment.

Through their involvement in Holiday Craft Day, the 4-H Ambassadors honed essential leadership and teamwork skills. From coordinating logistics to patiently assisting younger participants with intricate crafts, the teens demonstrated their ability

to take charge and inspire others. This event not only provided a platform for creative expression but also served as a valuable learning opportunity for the Ambassadors, reinforcing the 4-H's commitment to personal development and community engagement.

As the Holiday Craft Day marked the beginning of the 4-H Ambassadors' year, the group extends an invitation to interested 7th through 12th

graders with at least one year of 4-H experience to join their ranks. Meetings, typically held on the second Sunday of each month, include icebreakers, team building activities, and leadership and communication skill development. As the Ambassadors continue to make a positive impact on the community, their dedication to fostering a spirit of creativity and service remains unwavering.



Ashley Gibb, 12, helps Theona Goldman, 6, create a friendship bracelet during the Holiday Craft Day.



Ada Marcoulier, 7, works on an owl during Holiday Craft Day.



Jayme Weinberg, 13 (back), and Amity Parker, 13 (front right), help youth participants create holiday countdown chains during the holiday craft day.



Rayanna Morris, 17, with her decorated cookie during the Holiday Craft Day.



Gary Jorgensen, 13 and Jodi Jorgensen, 12, create a Christmas tree craft facilitated by Adalynn Johnson, 12.



Judy Grove and Sue Berklund were inducted into the 4-H Hall of Fame in December. Andrea Leao, Abby Johnson, Judy Grove, Sue Berklund, Ellie Korthuis, Carolyn Ashton, Cathy Haas.

Oregon 4-H Hall of Fame

Judy Grove and Sue Berklund, two deserving and dedicated volunteers, were inducted in the Oregon 4-H Hall of Fame this past December in a fun afternoon ceremony.

Judy Grove began her 4-H journey at 10 years old in Linn County, engaging in diverse projects such as clothing, foods, dairy cattle, and swine. Returning to 4-H in 1982, Judy has been a staple in Linn and Benton Counties, as well as at the State 4-H level ever since.

Judy's multifaceted local contributions include leadership in a Benton County Communications club and judging record books. A staunch advocate for quality record-keeping, she emphasizes its relevance beyond 4-H, citing applications for scholarships (not just in 4-H), National 4-H Congress, camp counseling, colleges, and professional endeavors. Judy has also supported local 4-H through judging non-animal (static) exhibits at Linn County's fair and extends her services to other counties. She previously co-lead the Communications Unlimited club, fostering leadership and community service, a venture that resulted in a groundbreaking video about the juvenile judicial system.

When asked what makes her so passionate about 4-H she claims that seeing children develop respect, responsibility, and caring for others is very rewarding. Judy's past engagement includes roles in the Oregon State Fair planning committee, the Japanese Exchange Program, and the State 4-H Foundation Board. Currently, she actively participates in the State Recognition Committee, and helps to select Oregon youth for National 4-H Congress as well as financially supports the program annually.

Judy's enduring impact on 4-H is undeniable, leaving an indelible mark on the program. Her sage advice underscores the transformative power of leadership, highlighting the potential to make a lasting difference in a child's life.

Sue Berklund is a dedicated 44-year Benton County 4-H Leader, and was also inducted into the prestigious Oregon 4-H Hall of Fame. Sue participated in 4-H as a member in Benton County, and her passion for family and consumer sciences led her to become a vital force in the program as an adult.

In 1979, Sue's involvement intensified as she co-founded a Food & Nutrition/Sewing club, expanding its scope over the years. Her commitment to the program was evident in her encouragement for members to explore new interests,

Continued on Page 18

Benton County 4-H Youth Development

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Junior Leadership Opportunities

Youth in grades 7-12 have numerous opportunities to sharpen their skills in leadership, communication and more! The focus for 4-H Junior Leaders is to build skills and gain confidence while helping clubs succeed. Junior Leaders work with adult leaders to plan, organize, teach, and lead

activities within their club environment and beyond.

Junior Leader training is open to all youth in 7th-12th grades who want to expand their skills. The training will be held on Saturday, February 10, from 10 a.m. - noon at the Benton County Extension Office. Registration is required and

there is no cost to attend. Youth do not need to attend this training more than once in their 4-H career unless they would like a refresher or more ideas to sharpen their skills. One adult leader must accompany and attend training with the registered member. Registration details will be sent to 4-H families.

Benton County 4-H Teams shine at Eastern National 4-H Horse Round Up

This year the Benton County 4-H Program had two teams, horse bowl and hippology, competing at the Eastern National 4-H Horse Round Up held in Louisville Kentucky in early November. At this event, the top 4-H horse project knowledge teams come together from across the country to compete. Our Hippology Team finished 7th overall: 4th in judging, 6th in

Team problem solving, 7th in written and 8th in knowledge test. The Horse Bowl team

finished 6th overall, with Madison Gray finishing 9th individual overall.



Benton County 4-H National Team members jumping into action for National Competition.

Oregon 4-H Hall of Fame

Continued from Page 17

fostering a safe and welcoming environment for growth.

Sue's impact extended to her family, guiding her daughters through the Texas and Pennsylvania 4-H youth exchanges and chaperoning National Congress delegations in Chicago and Orlando. Even after her daughters graduated, Sue remained an active leader with the "Sew Good" 4-H club, involving her granddaughters in family and consumer science projects.

Sue has also served on the Scholarship, Awards, and

Recognition Committee for over two decades because she believes in the importance and value of good record keeping. As a Family and Consumer Science Superintendent, she has been an essential part of the Benton County 4-H Fair for over a decade, earning the Family and Consumer Science Leader of the Year Award.

Sue embraced new challenges, becoming a respected family and consumer science judge across Oregon. Known for her kindness and fairness, she motivates 4-H

members to excel and improve their projects.

Sue's unwavering belief in the 4-H program and commitment to community service defines her legacy. She instilled the values of giving back and overcoming life's challenges in her daughters and other 4-H members, making her a deserving inductee for the Oregon 4-H Hall of Fame.

It was an extra special honor for these friends who have volunteered side by side over the years to be recognized together!



PHOTO PROVIDED BY MARY ANN SWARD

Benton County 4-H Dog members participate in Turkey Trot - Mae Bennett and Rodey, Callie Bennett and Sugar, Mary Ann Sward and Bouda, Linda Eng and Courtney and Taylor, Hayden Somerville and Asher, and Lilly Donnelly and Ruby

4-H Dog Members Participate in "Fit Dog"

The Saturday after Thanksgiving was cold and dry, which was perfect for the Benton County 4-H members coming together to walk their dogs. The group of six members and leaders walked almost two miles that qualified each participating team for the AKC (American Kennel Club) Turkey Trot medal. The dog 4-H members have scheduled walks each month through September 2024, meeting their group walk requirement for the AKC Fit Dog title. Individually, many of the participating members over the coming months should be able to qualify for the Fit Dog Bronze or even Fit Dog Silver titles.

This is a fantastic way for 4-H members to bond with their dogs, make friends in 4-H, and learn about opportunities offered through AKC. More information about the Fit Dog title process is located on the AKC website: <https://www.akc.org/sports/akc-family-dog-program/akc-fit-dog/>

Horse Bowl

Benton County held a 4-H Horse Bowl Contest on December 6, 2023. Horse bowl is a quiz bowl/Jeopardy-style contest where contestants are asked questions to test their equine knowledge, and must "buzz" in before answering. There were 3 cloverbuds, 8 juniors, 2 intermediates and 7 excited senior participants. This is the qualifying contest to enter in the Statewide Spring Classic competition held in Spring of 2024 for intermediates and seniors.



PHOTO BY SARAH BATES

Benton County 4-H Senior Members eagerly await horse bowl competition.

4-H Awards Banquet

The 70th Annual Benton County Awards Program was held on Thursday, November 30th, 2023. It was a time to celebrate the accomplishments of Benton County 4-Her's and acknowledge the contributions of our 4-H leaders. Congratulations to our amazing 4-H members, leaders and families. It is truly a privilege and an honor to work with each and every one of you! Here are the 2022-2023 Award Recipients.

County Medal Awards

4-H County Medals are awards that can be earned in many different project areas by youth in 7th-12th grade. The recipients of these awards have been selected based on their strength in project work, leadership, and involvement and service to their community.

- Jenica Baker – Community Service
- Payton Bates – Horse
- Ace Bozievich – Poultry
- Falon Cleveland – Swine
- Hallie Dapp – Sheep
- James Deaton – Personal Development
- Shelzza Deaton – Leadership
- Tanner Dowless – Achievement
- Madison Gray – Horse
- Chloe Hendrickson – Sheep
- Alyssa Lillie – Horse
- Mason Luke – Rabbit
- Jake McGaughy – Sheep (breed)

- Hailey McKinley – Sheep
- Brooke McKinley – Pygmy Goat
- Jessica McLennan – Lamp of Knowledge
- Matt Noble – Beef
- Lane Schell – Swine
- Lorelei Schell – Achievement
- Isla Smith – Sheep (market)
- Hayden Spaulding – Goats
- Alyssa Weeber – Clothing & Textiles
- Kyah Weeber – Food & Nutrition

Record Medallion Awards

Record Medallions are given to 4-H members who have turned in top performing record books. They are acknowledged across all program areas.

- **Junior Division:** Corbin Ascherl, Daven Cleveland, Rolly Hart, Sadie Norman, Olivia Onderko, Elizabeth Rogers, Sienna Smith
- **Intermediate Division:** Makayla Lillie, Alyssa Lillie, Jake McGaughy, Hailey McKinley, Isla Smith, Alyssa Weeber
- **Senior Division:** Jenica Baker, Ace Bozievich, James Deaton, Shelzza Deaton, Tanner Dowless, Madison Gray, Chloe Hendrickson, Mason Luke, Brooke McKinley, Cameron McLennan, Jessica McLennan, Lane Schell, Lorelei Schell, Hayden Spaulding, Kyah Weeber

New Junior Leaders

Junior Leaders are 4-H members in 7th through 12th grade who mentor younger 4-H'ers and take on additional responsibilities for their club program.

Ava Abbott, Callum Barnum, Kira Bryant, Zelda Cardon, Emmy Lou Cook, Elizabeth Dye, Lou Engeholm, Jack Herman, Evelyn Krieger, Isla Smith, Hayden Spaulding, Megan Weldon, Lexus Winn

First Year Teen Leader Pin

Teen Leaders are 4-H members who are equal partners with adult volunteers and help organize their 4-H club.

Payton Bates, Chloe Hendrickson, Mason Luke

Outstanding Leader Awards

The following leaders were nominated and selected to receive the Outstanding Leader Award in recognition of their excellence in leadership and programming in their respective program area:

- Betty Collins, Family & Consumer Science, Arts & Sciences Project
- Chantelle Onderko, Cloverbuds Project
- Linda Dowless & Kerri Dowless, Associated Projects
- Sarah Bates, Horse Project
- Wendy & Steve Pilkerton, Large Animal Project



Outstanding 4-H Intermediate Award Recipients - Jake McGaughy and Hailey McKinley



Outstanding 4-H Senior Award Recipients - Tanner Dowless and Chloe Hendrickson

- Penny Steele, Dog Project
- Anita Houpert, Small Animal Project

Club Community Service Award

The Club Community Service Award is given to 4-H clubs who have made an impact in their community during the past year through their community service projects.

This year's Club Community Service Awards go to the Garden Gnomes and Prime Cuts 4-H Clubs.

Cooperator Award

The Cooperator Award is given in recognition of given to individuals, businesses, or organizations, who make a major contribution to the Benton County 4-H program.

This year's Cooperator Award recipients are the Goracke Brothers and Drs. David and Leah Gray, Rivers Edge, Pet Medical Center.

Outstanding Members

These 4-Hers were selected by the Scholarship, Awards and Recognition Committee to interview for the title of Outstanding Intermediate or Senior division 4-H member. They were selected based upon their overall excellence in their 4-H careers.

Outstanding Intermediate 4-H member Finalists

- Jake McGaughy - Awarded
- Hailey McKinley - Awarded
- Falon Cleveland - Runner Up
- Isla Smith - Runner Up
- Alyssa Weeber - Runner Up

Outstanding Senior 4-H member Finalists

- Tanner Dowless - Awarded
- Chloe Hendrickson - Awarded
- Madison Gray - Runner Up
- Lorelei Schell - Runner Up
- Hayden Spaulding - Runner Up

Benton County and Linn County Extension programs may offer opportunities that are only open to the residents of their respective counties. Please check with your county Extension Office if you have any questions about participation eligibility for specific programs.

Record Keeping - An Essential 4-H Life Skill!

An essential life skill that we teach in the 4-H program is record keeping. You'll often hear

4-Her's refer to the "record books" that they've been keeping since they began their 4-H career. Learning how to keep records is both an art and a science. While there are foundational pieces of information that need to be

kept in 4-H records, there is also room for 4-H'ers to personalize their 4-H stories.

Record keeping teaches 4-H members about accounting, reporting, and written communication. Furthermore, members who keep record books are eligible for 4-H scholarships, travel opportunities, leadership positions, and

awards at the county, state, and national levels. Record books also provide an invaluable personal history and memory book to look back on for years into the future.

Record keeping is a fundamental part of a member's 4-H experience, and we encourage all 4-H members to attend our annual Records Workshop,

which will be held on Saturday, February 10, from 1-4 p.m. at the Benton County Extension Office. New and returning youth and 4-H leaders will gain new and helpful tools to complete records more efficiently. There is no cost to attend! Registration details will be sent to 4-H families.



Soil Resiliency for Changing Weather

By Kevin Seifert, Linn Soil & Water Conservation District

Over recent years, Oregon has experienced both the challenge of too much and too little water. Both scenarios can reduce crop yield, as has been observed over the last several decades when yields were less when circumstances were not within optimal water availability conditions. While we have little control over how much rain we get from year to year, we can help buffer the impact of extreme weather by considering the soil.

Soils provide many essential things that crops need to grow: a place for the roots to anchor, a reserve of nutrients that can be accessed over time, and a place for water and oxygen to be both stored and used by the roots. Most plants need both available oxygen and water in the soil to thrive. If soils are saturated with water, roots will be unable to take in oxygen. Eventually, saturated conditions can cause stress to the plant, roots to rot, and possibly even death. Alternately, if there is not enough water in the soil, plants will wilt and eventually die. Ideally, soils will have a balance of water and air in the pore spaces, which is referred to as the available water capacity.

The amount of available water a soil has the capacity to hold determines how vulnerable crops will be to either limited or excess water conditions. Increasing the available water capacity is one way to improve soil's resiliency against extreme conditions. Generally, available water capacity is primarily determined by soil texture but is also impacted by soil structure.

We cannot easily change soil texture, or the relative proportions of sand, silt, and clay particles, because this characteristic is inherent to the type of soil that exists at a particular location. Instead, we can more effectively work to improve soil structure. One way of improving soil structure is by increasing the amount of soil organic carbon, which comes from decayed organic matter (crop residue and other dead plant material, manure, etc.) within the soil. Several agricultural best management practices can be used to do this such as using conservation tillage, cover crops, leaving crop residue, preventing overgrazing, and precision fertilization. While it may take years, implementing practices such as these increases soil organic carbon, boosts the amount of water soils can hold



Soil Compaction Probe tool used to see Soil Health.



Wheat roots in healthy soil.

and make available to growing crops, thus reducing crop yield losses due to either drought or flooding. Although changing management practices may be viewed as a risk, investing in improving soil health can lead to more stable yields in a changing climate.

Just remember soils have a major role to play in buffering the impact of climatic water availability on crop yields. When managing to avoid crop water stress, certain soil properties such as field capacity, permanent wilting point, and saturation point are important soil health indicators to track.

- Field capacity is the amount of water that a soil can hold after excess water has drained away and the soil has had time to settle. It is the maximum amount of water

that the soil can hold before it begins to drain away. If the soil is holding more water than the field capacity, there may be excess water that can lead to waterlogging and root rot.

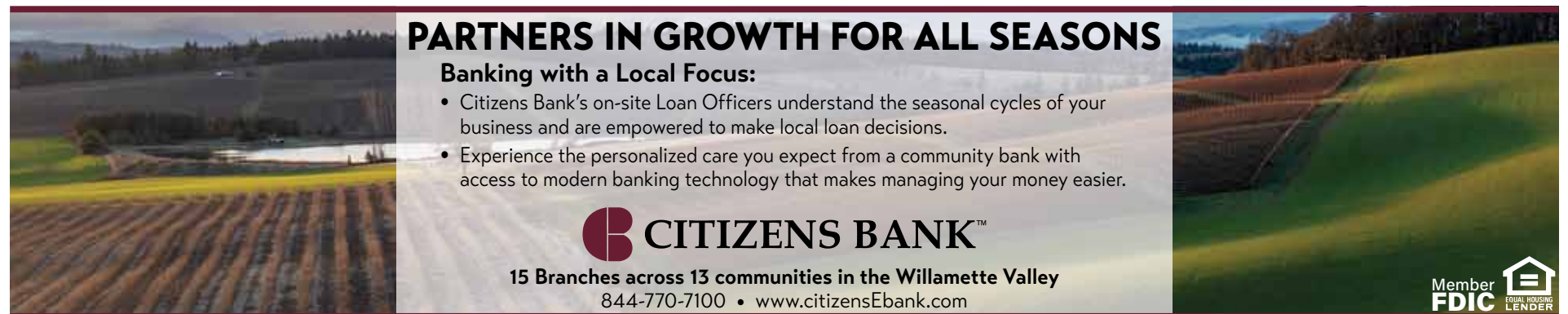
- Permanent wilting point is the point at which a plant can no longer extract water from the soil. At this point, the plant will wilt and will no longer be able to maintain its normal functions. If the soil is holding less water than the permanent wilting point, the plant may not have enough water to survive.
- The saturation point of soil is the point at which the soil is completely saturated with water and can hold no more. At this point, the pores in the soil are completely filled with water, and there is no

air space left for the roots to take in oxygen. Without oxygen, the roots will be unable to perform their functions properly, and the plant will be stressed or may even die. In addition, saturated soil can lead to other problems, such as waterlogging, erosion, and the leaching of nutrients.

Variation in these three soil characteristics dictates the vulnerability of crops to water limitations and water excess conditions. The difference between field capacity and the permanent wilting point is called available water capacity, which represents the ability of soils to hold water that is available for crop uptake.

Look at implementing soil resiliency practices on your farm to help with climatic impacts and use farming practices to help build humus in your soils to act as a capacitor to help stretch through the drought and over-inundation of water.


Contact the Linn Soil and Water Conservation District or USDA NRCS or OSUs Small Farm Program to learn about implementing practices on your farm that can help with soil resiliency.




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