Oregon State University Extension Service

GROWING

Extending Knowledge and Changing Lives in Linn and Benton Counties

March–April 2024
Volume 44, Issue 2

Non-Profit Org.
U.S. Postage
PAID
Permit #115
Albany, OR

Extension Tractor Safety Training Vital for Farms

By Mitch Lies,
GROWING Editor

Each summer, Oregon farmers hire thousands of teenagers to help bring in their crops. Youth can be seen driving windrowers and combines through seed fields at harvest and steering tractors with flail mowers through fields after the crops have been brought in.

Before they can work that equipment, however, in Oregon, youth need to be certified. And for that, many Oregon farmers turn to Oregon State University Extension.

Led by Linn County 4-H Outreach Coordinator Andrea Leao, OSU Extension sponsors several Tractor Safety Training courses each spring and summer, certifying hundreds of youth for farmwork.

The three-day Tractor Safety Training courses provide some rudimentary instruction on operating farm equipment. But the main focus, Leao said, is how to do so safely. "We're not here to teach them how to run the equipment," Leao said. "The entire goal of our class is to teach them what operating equipment safely looks like."

"We teach them to watch for things like: Do you have rollover protection? Do you have a working seat belt, and are you wearing your seat belt?

PHOTO BY ANDREA LEAO

Tom Meyerhofer of Victor Point Farms instructs students in tractor safety as part of the OSU Extension Tractor Safety Training and Certification classes.

And when getting on and off the tractor, we teach them to make sure you have three points of contact. Most common injuries happen when you're getting on and off equipment. People will jump down and won't look where they are going and then they twist an ankle," Leao said.

Classes also include instruction on what to do in cases of emergencies. "A lot of it is practical things," Leao said, "like is there a fire extinguisher handy in case there is a fire in the field, and what do you do if there is a fire.

"One of the other things that we focus on is teaching kids to know your surroundings so if there is an emergency, do you know how to get back to someone? Do you know where

Continued on Page 2

PHOTO BY MITCH LIES

Ron Staley at his home site in Lebanon has been awarded for his logging stewardship by the Oregon Department of Forestry.

Lebanon Logger Honored for Conservation

By Mitch Lies, *GROWING Editor*

To Ron Staley, it's all part of his signature: The way he approaches a job and how he leaves a site once it's completed is all part of who he is.

"It's kind of like signing your name," he said. "We try to go over and above on clean up, make sure ditches are clean and water is going where it's supposed to go. And if it's dry, we get everything ready for when the water does come. We'll scatter straw to prevent erosion. And then we do our own brush piling when the unit's done."

Staley, of Ron Staley Enterprises in Lebanon, Oregon, recently was chosen by the Oregon Department of Forestry as Operator of the Year for Northwest Oregon. The award recognizes forest operators who, while harvesting timber or doing other forestry work, protect natural resources at a level that meets or exceeds requirements of the Oregon Forest Practices Act.

According to an ODF press release, Staley was recognized for working with conservation-minded landowners to protect forested buffers

Continued on Page 8

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.

Program Staff Phone Numbers

Linn County 4-H Youth Development	Andrea Leao	541-730-3534
Linn County 4-H Youth Development	Vacant	541-730-3469
Benton County 4-H Youth Development and Benton County Liaison	Carolyn Ashton	541-713-5004
Benton County 4-H Youth Development	Elli Korthuis	541-713-5015
Field Crops*	Christy Tanner	541-730-3537
Livestock & Forages*	Shelby Filley	541-672-4461
Dairy*	Jenifer Cruickshank	971-600-1222
Small Farms*	Melissa Fery	541-730-3538
Small Farms*	Teagan Moran	541-713-5011
Small Farms*	Todd Anderson	541-713-5007
Small Farms & Forestry*	Crystal Kelso	541-730-3539
Tree Fruit and Small Fruit	Erica Chernoh	541-344-1709
Small Farms & Groundwater Education*	Chrissy Lucas	541-713-5009
Community Horticulture*	Otillia Schreuder	541-730-3471
Forestry, Natural Resources*	Lorelle Sherman	541-713-5016
Regional Fire Specialist*	Kayla Bordelon	541-730-3543
FCH & SNAP Ed*	Tina Dodge	541-730-3541
FCH	Jennie Gilbert	541-730-3531
SNAP Ed*	Iris Carrera	541-713-5005
SNAP Ed*	Alli Stephenson	541-730-3535
EFNEP & LatinX*	Diana Camacho Figueroa	541-730-3542

* Multi-county assignment

Administration and program support serving Linn County

Office specialist	Laurie Gibson	541-248-1088
Office specialist	Jody Hill	541-967-3871
Office manager & Linn County Liaison	Michele Webster	541-248-1087

Administration and program support serving Benton County

Office specialist	Kelly Cotter	541-713-5000
Office manager	Liz McGovern	541-713-5000
Office specialist	Nicole Mason-Martin	541-713-5000
Regional Director	Richard Riggs	541-967-3871
GROWING editor	Mitch Lies	541-967-3871

Oregon State University Extension Service

Extension Tractor Safety Training Vital for Farms

Continued from Page 1

you're at, because most fields don't have an exact address that you can direct someone to. And not everywhere has cell phone service," Leao said.

Classes also teach youths to stand up for themselves and to speak up if they feel like a particular job isn't safe.

"We spend quite a bit of time talking about how they have to be their own advocate," Leao said. "If the person they are working for asks them to do something that they don't feel safe doing, it is up to them to step up and say, 'I don't feel like I can do this safely. Is there something else I can do?'"

The training, which minors under the age of 18 are required under state law to pass before they can work on farm equipment, provides invaluable instruction, according to Jesse Rue, an owner of Victor Point Farms, which hosts a class each summer. And the 45 to 48 youths the farm hires each summer are critical to the farm's operation.

"They are absolutely necessary to our operation," Rue said. "We have everything from the younger kids who are sitting in the seats operating the equipment to crew bosses, who are more experienced kids who have been working with us for two, three, maybe even four years."

The work also benefits youth, Rue said, providing them a summer income and a valuable learning opportunity. "They gain from the physical activity of farmwork and in other areas, as well, such as learning how to take on responsibilities. The crew bosses, for example, have to make sure that everything is running the way it should. They have to be able to read a map and move their crew from one field to the next. It is a lot of responsibility and they're doing this job at a very young age, relatively speaking, and I think it's valuable experience. They have to step up to the plate and exude those leadership skills in order to do the job correctly."

PHOTO BY ANDREA LEAO

Participants in the OSU Extension Tractor Safety Training classes are required to steer a tractor with and without a trailer attached through an obstacle course, such as this one at Victor Point Farms in Sublimity.

The work also provides opportunities for youth to pick up driving skills, according to Joel Rue, Jesse's father, starting from when they take the skills portion of the Tractor Safety Training, which includes steering a tractor through an obstacle course with and without a trailer. "They are learning driving skills that a lot of their peers don't have," Joel Rue said. "And they are learning what you do when you encounter a slow-moving vehicle or a big piece of equipment on the road."

Youths also gain from the responsibility of maintaining equipment and from working with different kids, Jesse Rue said. "They don't necessarily get the same crew every single day, because with vacation and sports and all that, we're constantly putting different crews together. So they learn to work with a lot of different people over the course of a summer."

The Rue's who purchased Doerfler Farms three years ago, have hosted tractor safety classes ever since the purchase. Prior to that, Doerfler Farms hosted classes for many years. Doing so benefits their Sublimity, Oregon, farm in that they hire many of the youths who complete the class, Rue said. But it also benefits other farms in the Willamette Valley. "We just want to do our part," Jesse Rue said.

He added that instructors, like Tom Meyerhofer of Victor Point Farms, works hard to ensure kids pass the course. "They'll stay overtime to make sure every kid passes," he said, "because it is only to the kids' benefit and our benefit that they do so."

This spring and summer, Tractor Safety Training and Certification classes are available through the Extension Service at the OSU North Willamette Research and Extension Center in Aurora, at Boshart Trucking in Tangent, at Harney County Fairgrounds in Burns, and at the Central Oregon Ag Research Center in Madres. Leao is also putting together a class this spring at the Knife River Training Center in Albany.

Students can sign up for hybrid classes, where students take a written portion online and perform the skills portion in-person, or a three-day in-person class. Class costs range from $75 to $95.

For more information, go to https://extension.oregonstate.edu/4h/youth-tractor-safety-certification-classes.

Family and Community Health

Tina Dodge
541-730-3541
tina.dodge@
oregonstate.edu

Jennie Gilbert
541-730-3531
jennifer.gilbert@
oregonstate.edu

Spending, Mindful Eating:
A Budget-Friendly Guide to Nutrition

By Allie Passmore,
Illinois State Dietetic Intern

In a time where economic uncertainties weigh heavily on households, the pursuit of a healthy lifestyle may seem like a difficult goal for many. In 2022, the average inflation rate was 8.0 percent. In August of 2023, gas prices spiked 10.6 percent. A 2011 Pollock Communications survey of 1,000 Americans found that greater than 57 percent of participants referenced cost as a major barrier to eating a healthful diet. In this article, we delve into practical strategies and insightful tips on how to navigate the realm of healthy eating without straining your budget. Because, in the midst of financial constraints, good nutrition should not be a luxury but an accessible choice for everyone.

The first tip is to buy fruits and vegetables that are in season. Seasonal produce is much more affordable than produce that is out of season. Out of season produce is typically flown in from the Southern Hemisphere and is several times more costly than local in season produce.

In grocery stores, it is common to see produce that has been prewashed and/or precut. Avoid purchasing these as this adds a convenience cost. Produce that must be washed and cut at home is less expensive. However, if the convenience of produce being prewashed and/or precut will help you to consume more fruits and vegetables, the health benefits may outweigh the additional cost.

Planning is key for saving money. Before going grocery shopping, create a weekly meal plan and grocery list. This will help you to avoid impulse buying as well as make it easy to fill your kitchen with foods that you can make a meal out of in a hurry. In addition to this, check weekly grocery store ads and try to plan your meals around foods that are on sale. For non-perishable items, buy them in bulk when they are on sale to save money over time. An important tip to always remember; don't go shopping when you are hungry!

Avoid eating out as much as possible as restaurants, take out, and fast-food meals are more costly than preparing meals at home. If finding time to cook is challenging, cooking in large batches over the weekends and then freezing the meals for when you need them can be helpful for saving time in the kitchen.

When it comes to protein foods, they can commonly be the highest priced items on the grocery bill. Foods that are good sources of protein and reasonably priced include beans, edamame, peanut butter, eggs, canned fish, cottage cheese, Greek yogurt, and legumes. Adding a couple of meatless meal options each week can significantly decrease food costs.

Through careful planning and exploration, individuals can effectively extend their grocery budget while still upholding a balanced and nutritious diet.

References upon request

What is a Regenerative Diet?

By Allie Passmore, Illinois State Dietetic Intern

Sustainable living continues to be popular; a regenerative diet is a holistic approach to nutrition that goes beyond personal health. Regenerative agriculture, a land management approach, encourages a perspective that envisions agriculture as an interconnected web rather than a linear supply chain. This approach involves farming and ranching practices designed to nourish both people and the earth. There is no rigid rulebook, specific practices may differ among growers and regions. Instead, regenerative agriculture follows principles aimed at restoring soil and ecosystem health, addressing inequity, and preserving the land, waters, and climate for the well-being of future generations.

Currently, soil erosion is happening at a rate of 10 to 100 times faster than the natural process of soil formation. This is causing nutrient runoff, harmful algal blooms in bodies of water, monocropping (growing one crop type for years), and other dangers to local plant and animal variety, including pollinators. Financial gains from regenerative agriculture include reduced costs by minimizing chemical use, enhanced economic stability through diversified revenue, and the promotion of rural economic growth.

A regenerative diet focuses on consuming foods that support regenerative agriculture. This involves having a better understanding of the foods that you eat and buy. Purchase local foods at farmers' markets and engage with farmers to discuss their practices in soil health. When shopping at grocery stores, review food packages, visit the product's website, or contact the company. A 2022 study found regenerative practices result in crops with elevated levels of phytochemicals, vitamins, and minerals. The study proposes that regenerative farming enhances

Continued on Page 5

Oil Unveiled: Navigating the Controversy of Seed Oils in Nutrition

By Allie Passmore, Illinois State Dietetic Intern

If you have been lurking on any social media platforms, podcasts, and/or any area of the internet lately, you may have noticed a lot of talk surrounding seed oils and how detrimental they are for your health. Seed oils have ignited a fierce debate within health and wellness circles. From claims of cardiovascular diseases to concerns about inflammatory effects, the controversy surrounding these oils has sparked intense scrutiny and diverse opinions.

What are seed oils?

Seed oils are oils that come from oil rich seeds when pressed. These types of oils include canola, sunflower, grapeseed, cottonseed, rice bran, safflower, soybean, and corn oil. These vegetable oils are commonly used in everyday cooking and regularly consumed in a typical diet.

The main criticism surrounding seed oils is that they are high in omega-6 fatty acids (specifically linoleic acid), causing inflammation. The rationale behind this is that linoleic acid turns into another fatty acid, arachidonic acid, within the body, which serves as a precursor to compounds known to induce inflammation. It's worth noting, however, that only a small proportion of linoleic acid undergoes conversion into arachidonic acid.

What does the research say?

Research shows that there is no correlation between omega-6 fatty acid consumption and inflammation. A systematic review from 2011 found that differing amounts of linoleic acid consumption did not affect arachidonic acid levels in the tissues and that the levels remained the same. This shows that high consumption of linoleic acid in the diet does not increase tissue levels of arachidonic acid.

Arachidonic acid has benefits for the body. Arachidonic acid serves as a building block for compounds that combat inflammation. The fear that seed oils cause inflammation comes from research that was done on rodents; however, it's crucial to

Continued on Page 5

Growing and Canning Your Own Salsa

By Jennie Gilbert

Tomatoes and Peppers

It's time to start planning the garden!

I am often asked what kinds of peppers and tomatoes to grow for salsa or canning in general. These questions come up at workshops and calls on our home food preservation hotline. This ultimately depends on the preferences of the person eating the products they are growing and canning.

I always recommend San Marzano plum tomatoes because they can be used for any type of tomato canning. They are just sweet enough, the skin is easily removed when blanched, and it is easy to remove the seeds if you like a seedless salsa. San Marzano's also keep their structure very well and do not become mushy in salsa.

The important thing to remember about any tomato product like salsa and canned tomatoes is to add acid according to the recipe. Tomatoes are high enough Ph (low acid) that you need to add lemon, lime, or vinegar to make sure it is safe.

As for peppers, they are interchangeable in any safe salsa recipe. This means for instance if the safe recipe calls for 5 cups of peppers, you can use any combination of different peppers, or all of one kind of pepper, including bell, hot, mild, and whatever your preference may be. I grow Jalapenos, Poblanos, Habaneros, and sweet bells. These are all included in our salsas.

My favorite salsa is the Ball Zesty Salsa recipe. We can fine tune this as we like with safe substitutions. This recipe calls for 5 cups of green pepper, and 2.5 cups of hot peppers. You can combine any variety of peppers to make 7.5 cups of peppers. Same with tomatoes. You can use any variety of tomatoes so long as you have peeled them.

If you prefer a green salsa with tomatillos or green tomatoes, there are some great safe recipes for this too.

Any kind of onion may be used when it calls for them in a recipe except green onions (unless specifically stated green onions). Most recipes do not call for fresh cilantro or parsley, but the Zesty recipe does. If the recipe does not call for fresh, you can safely use dried herbs and spices.

Ball Zesty Salsa

- 10 cups chopped cored peeled tomatoes (about 25 medium)
- 5 cups chopped seeded green bell peppers (about 4 large) – You can sub any peppers
- 5 cups chopped onions (about 6 to 8 medium)
- 2-1/2 cups chopped hot peppers, such as hot banana, Hungarian wax, serrano or jalapeño (about 13 medium) seeds or no seeds – you can sub any peppers
- 1-1/4 cups cider vinegar (at least 5% acidity)
- 3 cloves garlic, finely chopped
- 2 Tbsp finely chopped fresh cilantro (or parsley)
- 1 Tbsp salt
- 1 tsp hot pepper sauce, optional

Canning Salsa with the Domed Steam Canner

For the first time last summer I used a domed lid steam canner for processing salsa. This canner is a complete game changer. The cost of the steam canner has varied throughout the year, but it is sold on Amazon and some specialty canning supply stores for about $60. The steam canner holds 7 quarts, 7-8 pints, or about 10 jelly jar ½ pints. There is a rack in the bottom of a shallow pan, and you add about 2 inches of water. The jars sit up out of the water on the rack. The domed lid sits over the jars. It has a temperature gauge on top, and a small hole in the front at the bottom of the lid. When the gauge reaches the temp and elevation for your area, and a steady 6-inch stream of steam comes out the hole for one minute, you start timing your jars.

The processing time is the same for steam canning as it is for boiling water canning. The only exception between the two is you cannot steam can any product over 45 mins processing time because it will run out of water. It is not safe to add more water during processing.

In my opinion, and I've canned salsa most of my life, the domed steam canner produces a fresher and more structured salsa. In the past I have dealt with salsa being over cooked, mushy, or too watery because of the long processing time in boiling water, but the steam canner seems to resolve these issues. The same applied to the fruit and pickled vegetables that I canned over the summer in the steam canner.

Other things to consider when using the domed steam canner:

- Less water is used so there is no heavy pot of hot water to deal with.
- Less time to process since the water boils quickly producing steam and cooling/standing time is less as well.
- Products stay firmer, seem fresher after processing time.
- Most glass top stoves will accommodate the domed steam canner since it's very light and does not produce the weight and heat a boiling water canner might.

For more information about food safety and preservation check out our online catalog under food preservation at catalog.extension.oregonstate.edu

Call our hotline: 800-354-7319 (monitored weekly in the winter) Email: jennifer.gilbert@oregonstate.edu

Nutrition in Focus: making dietary decisions on body health and environmental health

By Allie Passmore,
Illinois State University
Dietetic Intern

Are you stumped on what the best 'diet' is for overall health? The answer may differ based on your intention. Are you wanting to improve physical health? Environmental? Both? Other? In the world of nutrition, it is easy to become confused about what 'healthiest' way to eat is. Whether it be through word of mouth, social media, or the internet, there is constant misinformation being spread regarding nutrition, making it difficult to know what to believe.

For the Body

Navigating the landscape of nutritional choices is a fundamental aspect of maintaining a healthy lifestyle, and for Americans, the Dietary Guidelines for Americans (DGA) serves as a compass for this. Developed by health experts and updated every five years, these guidelines provide a comprehensive framework for making informed dietary decisions at every stage of life.

The following are key recommendations of the DGA 2020-2025:

- Adopt a lifelong nutritious eating routine for optimal health, weight management, and reduced risk of chronic illnesses.
- Tailor nutrient-rich meals to personal preferences, cultural traditions, and budget constraints.
- Prioritize the fulfillment of food group requirements through nutrient-rich foods and drinks while staying within personal calorie limits.

The food groups that make up a healthy diet include:

- All vegetables—dark green, red, orange, beans, peas, lentils, starchy, etc.
- Whole fruits
- Grains, with at least half being whole grains.
- Dairy, choosing fat-free or low-fat options, lactose-free versions, fortified soy beverages, and yogurt as alternatives.
- Protein—lean meats, poultry, eggs, seafood, beans, peas, lentils, nuts, seeds, and soy products.
- Oils, both vegetable sources and those naturally present in foods like seafood and nuts.

Limit foods and drinks high in added sugars, saturated fat, and sodium, and moderate alcohol intake. Aim for less than 10 percent of daily calories from added sugar, less than 10 percent from saturated fat, less than 2300 milligrams of sodium daily, and limit alcoholic beverages to 2 or fewer per day for men and 1 or fewer per day for women.

For the Environment

The DGA, although plant-based offers no insight into processed packaged foods or the best dietary patterns for the environment. The 2019 Lancet Report on Planetary Health revealed a close connection between human and environmental health. Shifting toward nutrient-dense, plant-based diets globally could alleviate both health risks and environmental burdens. A plant-based diet focuses on nutrient dense, whole foods such as vegetables, fruits, nuts, seeds, oils, whole grains, beans, legumes. It involves reducing, but not eliminating, dairy and meat products. Ultra-processed packaged foods also have a major effect on the environment, and its food production consumes significant land, water, energy, herbicides, and fertilizers, leading to eutrophication and environmental degradation through greenhouse gas emissions and packaging waste accumulation.

The Beyond Burger vs Beef

The Beyond Burger, a plant-based alternative, has gained popularity for its ability to closely mimic the taste and texture of traditional beef burgers while offering a more sustainable option. From a health standpoint, a Beyond Burger and a beef patty are comparable fat and calorie wise. A Beyond Burger requires 99% less water, 93% less land, and 46% less energy compared to a beef patty. However, it is an ultra-processed food and a less processed meat alternative is a more nutrient dense option. But, if you are craving a burger and want to be environmentally conscious, the Beyond Burger may be the best choice for you.

What is a Regenerative Diet?

Continued from Page 3

soil health, and therefore people health, leading to higher levels of compounds known to reduce the risk of chronic diseases. Foods from regenerative practices may have greater disease-fighting capabilities than traditionally farmed ones. If interested in a regenerative diet, start small, avoid restrictions if options are limited, and prioritize affordability.

Thank you to our local farmers that conduct generative agriculture practices:

- Decreasing dependence on synthetic herbicides, pesticides, and chemical fertilizers to encourage the return of beneficial insects and wildlife, irrespective of pursuing organic certification.
- Implementing "chicken tractors" for mobile chicken enclosures to allow birds to consume insect pests and fertilize pastures.
- Adopting "no-till" farming to minimize mechanical soil disturbance and preserve the beneficial structures created worms, bacteria, and fungi.
- Practicing diverse crop and livestock rotations to disrupt weed cycles, enhance soil fertility, and allow pasture grasses sufficient time to regrow during livestock rotation.
- Employing composting to convert waste from manure or food into fertilizer.
- Incorporating trees and shrubs into crop and animal systems, a practice known as agroforestry, mimicking forest systems and recognizing Indigenous practices.
- Utilizing grazing livestock to control brush that could contribute to wildfires.
- Reducing farm reliance on fossil fuels for sustainability.

References upon request.

Oil Unveiled

Continued from Page 4

acknowledge that rodents do not exhibit the same responses to linoleic acid as humans. Human research has indicated that linoleic acid does not cause inflammation.

A review and analysis were completed in 2017 of 30 different studies with a total of 1,377 participants. No correlation was discovered between an elevated linoleic acid diet and markers of inflammation. A 2019 review of 30 studies with 68,659 participants from 13 countries revealed that elevated linoleic acid levels were linked to a reduced risk of cardiovascular events. A 2020 review of studies reinforced this, indicating that higher linoleic acid intake is modestly associated with a lower risk of all-cause mortality, including cardiovascular and cancer-related factors.

What are the recommendations?

The Dietary Guidelines for Americans, the American Heart Association and the American Diabetes Association all recommend consumption of liquid plant oils as part of a healthy diet. The existing research indicates that diets incorporating plant oils, including seed oils like canola oil, can offer health benefits.

References upon request.

Community Horticulture

Otillia Schreuder
541-730-3471
otillia.schreuder@
oregonstate.edu

Attract and Protect Native Pollinators

Of the 600-700 species of native pollinators, Linn County Master Gardeners focus is on mason bees. Mason bees pollinate early blooming flowers and fruit trees.

Learn more about native pollinators including mason bees at the 10th Annual BEEvent Pollinator Conference, March 2nd.

Linn County Master Gardeners are here to support you in your efforts to successfully raise mason bees. We have 10 years of experience caring for and harvesting mason bees. Our goal is to provide best practices to help improve the health and survival rate of your mason bees. Bee houses, supplies and cocoons are available the day of the BEEvent Pollinator Conference.

The Linn Master Gardeners 10th Annual BEEvent Pollinator Conference will be recorded. Once registered, you will be able to view the video approximately 2 weeks after the conference.

The speakers at this year's BEEvent Pollinator Conference cover the many aspects of gardening with pollinators:

Dr, Gail Langellotto, Professor of Horticulture at OSU, will talk about the OSU Garden Ecology Lab. Her group studies garden plants and practices that support beneficial insects including bees.

Dr. James Hung's educational endeavors started at Dartmouth College and then on to San Diego. He is currently an assistant professor at the University of Oklahoma. There he heads a research program focused on the conservation of pollinators and pollination services in a rapidly changing environment.

Dr. Ramesh Sagili is an associate professor at OSU. He got his doctoral degree in entomology at Texas A&M. He will address current and emerging problems pertaining to commercial beekeeping.

Bee supplies, including cocoons, are for sale on our web page: LinnMasterGardeners.com. Place your orders on-line and select the pick-up option that is most convenient for you.

Watch for our fall mason bee cocoon harvesting classes. That schedule will be available in mid-September at LinnMasterGardeners.com.

Extension Hosts Heirloom Cider Orchard Pruning Workshops

By Otillia Schreuder and Don Lyon

Through two pruning workshops hosted by OSU Extension, 15 Master Gardeners gathered to learn how to prune the heirloom cider orchard located at Thompson's Mills State Heritage Site in Shedd. Built in 1858, Thompson's Mill Heritage State Heritage site is home to Oregon's only surviving water-powered mill and is open to the public for free tours every day from 9 a.m. to 4 p.m.

Led by Don Lyon (Master Gardener since 2013), participants gained valuable insight into pruning tool maintenance, sanitation of pruning tools, and basic pruning skills applicable to most fruit trees. The trees in the heirloom cider orchard provided a unique training opportunity about orchard rehabilitation due to neglect and scaffolding branch damage.

PHOTO BY OTILLIA SCHREUDER

Don Lyons advises Linn County Master Gardeners on pruning specifics with damaged cider apple trees.

If you are looking specifically for resources on pruning, PNW 400 Training and Pruning Your Home Orchard by Jeff L. Olsen contains extremely useful information. Additionally, there are plentiful pruning resources available on the OSU Extension website under Catalog Publications at https://extension.oregonstate.edu/catalog/new-releases.

Gardeners, Mark Your Calendars

Benton County Master Gardener Association Plant Sale and Clinic

Have you caught a case of Spring Fever? Well, we have the cure—the annual Benton County Master Gardener Association Plant Sale and Clinic. Join us on Saturday, May 4, at the Benton County Fairgrounds, 110 SW 53rd St, Corvallis, for Great Plants at Great Prices. The sale offers more than 10,000 locally grown plants for both landscape and productive gardens. The sale is under cover in the Solar Barn and the Floral Courtyard, so don't let a little rain keep you away. Payment can be made by cash, check, credit or debit card. Admission and parking are free. Sale hours are 9:00 a.m. to 3:00 p.m. Come early for the best selection.

After the cold and ice of winter, we imagine our gardens taking on new beauty and productivity. Pretty flowers catch our eye and visions of plump tomatoes tempt us. But how do you know which plants will thrive in your garden? Experienced Master Gardeners will be on hand to help you find the right plants for each location. Even if you don't have much space, many plants can be grown in containers on your sunny patio or deck, including those plump tomatoes!

Proceeds from the sale support educational programs in the county's schools and communities. Master Gardeners answer hundreds of questions at Farmer's Markets, local plant clinics, and through the Extension office either online or in person. If you have a particular concern or question, bring it along for special clinic table experts to research the answer. More information about the Benton County Master Gardener Association, or how you can become a member, is available at www.bentonmg.org.

PHOTO PROVIDED BY BENTON COUNTY MASTER GARDENERS

The Benton Master Gardener Plant Sale features more than 10,000 locally grown plants for both landscape and productive gardens. There is truly something for everyone!

March-April Gardening Calendar for Western Oregon

Timely advice on garden chores, fertilizing, pest control, and more from OSU Extension. These tips are not necessarily applicable to all areas of Oregon. For more information, contact your local Extension office.

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 the predators and the parasitoids that feed on insect pests.

MARCH

Planning

- Plan your vegetable garden carefully for spring, summer and fall vegetables that can be eaten fresh or preserved. If you lack in-ground gardening space, plan an outdoor container garden.
- Use a soil thermometer to help you know when to plant vegetables. Some cool season crops (onions, kale, lettuce and spinach) can be planted when the soil is consistently at or above 40 degrees Fahrenheit.

Maintenance and clean up

- Lawn mowing: Set blade at 0.75–1 inch for bentgrass lawns; 1.5–2.5 inches for bluegrasses, fine fescues and ryegrasses.
- Compost grass clippings and yard waste, except for clippings from lawns where weed-and-feed products or weed killers have been used.
- Spread compost over garden and landscape areas.
- Prune gooseberries and currants; fertilize with manure or a complete fertilizer.
- Fertilize evergreen shrubs and trees if needed. If established and healthy, their nutrient needs should be minimal.
- If needed, fertilize rhododendrons, camellias and azaleas with acid-type fertilizer. If established and healthy, their nutrient needs should be minimal.
- Western Oregon: Prune spring-flowering shrubs after blossoms fade.
- Western Oregon: Fertilize caneberries using band fertilizer, broadcast fertilizer, a complete fertilizer or manure.

Planting and propagation

- Divide hosta, daylilies and mums.
- Use stored scion wood to graft fruit and ornamental trees.
- Plant insectary plants such as alyssum, phacelia, coriander, candytuft, sunflower, yarrow and dill to attract beneficial insects to the garden. For more information, see Encouraging Beneficial Insects in Your Garden.
- Western Oregon: If soil is dry enough, prepare vegetable garden and plant early cool-season crops (carrots, beets, broccoli, leeks, parsley, chives, rhubarb, peas and radishes). Plant onions outdoors as soon as the soil is dry enough to work.
- Western Oregon: Plant berry crops (strawberries, raspberries, blueberries, blackberries, currants, gooseberries and other berry-producing crop plants). See OSU Extension publications for berry varieties.

Pest monitoring and management

Use chemical controls only when necessary and only after studying 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.

- Spray trees and shrubs for webworms and leafrollers, if present.
- Protect new plant growth from slugs. Least toxic management options include barriers and traps. Baits are also available for slug control; use with caution around pets. Read and follow all label directions prior to using baits or any other chemical control.
- Learn to identify the predatory insects that can help keep aphids and other pests under control.
- Spray to control leaf and twig fungus diseases in dogwood, sycamore, hawthorn and willow trees.
- Prune ornamentals for air circulation and to help prevent fungus diseases.
- Western Oregon: Start rose blackspot control tactics at budbreak. Control rose diseases such as black spot. Remove infected leaves. Spray as necessary with a registered fungicide.
- Western Oregon: Monitor for European crane fly and treat lawns if damage has been verified.
- Monitor landscape plants for problems. Don't treat unless a problem is identified.

Indoor gardening

- Start tuberous begonias indoors.
- Western Oregon: Take geraniums, begonias and fuchsias from storage. Water and fertilize. Cut back if necessary. Move outdoors next month.

APRIL

Planning

- Write in your garden journal throughout the growing season.
- Prepare garden soil for spring planting. Incorporate generous amounts of organic materials and other amendments, using the results of a soil analysis as a guide.
- Prepare raised beds in areas where cold soils and poor drainage are a continuing problem. Incorporate generous amounts (at least 2 inches) of organic materials.
- Use a soil thermometer to help you know when to plant vegetables. When the soil is consistently above 60 degrees Fahrenheit, some warm season vegetables (beans, sweet corn) can be planted.

Maintenance and clean up

- Allow foliage of spring-flowering bulbs to brown and die down before removing.
- Apply commercial fertilizers, manure or compost to cane, bush (gooseberries, currants, and blueberries), and trailing berries.
- Place compost or decomposed manure around perennial vegetables, such as asparagus and rhubarb.
- Cut back ornamental grasses to a few inches above the ground.
- Cover transplants to protect against late spring frosts.
- This is an optimum time to fertilize lawns. Apply 1 pound nitrogen per 1,000 square feet of lawn. Reduce risks of runoff into local waterways by not fertilizing just prior to rain, and not overirrigating so that water runs off the lawn and onto the sidewalk or street.
- Western Oregon: De-thatch and renovate lawns. If moss has been a problem, scratch the surface before seeding with perennial ryegrass.
- Western Oregon: Prune and shape or thin spring-blooming shrubs and trees after blossoms fade.

Planting and Propagation

- Plant gladioli, hardy transplants of alyssum, phlox and marigolds, if weather and soil conditions permit.
- It's a great time to start a vegetable garden. Among the vegetables you can plant, consider:
- Western valleys, Portland, Roseburg, Medford: Broccoli, Brussels sprouts, cabbage, carrots, cauliflower, chard, chives, endive, leeks, lettuce, peas, radishes, rhubarb, rutabagas, spinach and turnips.

Pest monitoring and management

- Clean up hiding places for slugs, sowbugs and millipedes. Least toxic management options for slugs include barriers and traps. Baits are also available for slug control; use caution around pets. Read and follow all label directions prior to using baits or any other chemical control.
- Monitor strawberries for spittlebugs and aphids; if present, wash off with water or use insecticidal soap as a contact spray. Follow label directions.
- If necessary, spray apples and pears when buds appear for scab. See Managing Diseases and Insects in Home Orchards.
- Cut and remove weeds near the garden to remove potential sources of plant disease.
- Use floating row covers to keep insects such as beet leaf miners, cabbage maggot adult flies, and carrot rust flies away from susceptible crops.
- Help prevent damping off of seedlings by providing adequate ventilation.
- Western Oregon: Manage weeds while they are small and actively growing with light cultivation or herbicides. Once the weed has gone to bud, herbicides are less effective.
- Western Oregon: Spray stone fruits, such as cherries, plums, peaches and apricots, for brown rot blossom blight, if necessary.

Lebanon Logger Honored for Conservation

Continued from Page 1

around fish-bearing streams while minimizing soil compaction and disturbance.

"Staley was singled out for use of new tools and technologies to enhance harvests and protect resources to the highest standards of the Oregon Forest Practices Act," according to the ODF release. Among harvest techniques the release highlighted are his use of drones to fly rigging lines over buffers. And members of the award selection committee said they were impressed that Staley protected buffers by moving his yarding rig from one side of a protected buffer to the opposite side in order to pull logs up away from the buffer, thus avoiding any chance of damaging the buffer.

And the release praised Staley for excellence in logging-road construction and clean up.

"Of all the operators I have worked with, this company consistently does by far the best job of post-harvest cleanup of the road system," said Jerrin Roberts, an ODF Stewardship Forester. "Examples include shaping of roads to minimize runoff, cleaning ditches and catch basins and pulling any temporary crossings."

Staley, who has been recognized in the past by the Oregon Department of Forestry for work on individual sites, said he was honored to receive the award.

"It's humbling," he said. "I wasn't expecting this. I've never been nominated before, so when I heard I was nominated, I figured if that was as far as it went, I would be happy."

Staley said he is fortunate to work with a landowner that embraces conservation. He added that a lot of the extra steps he takes on a job are done to meet his own standards.

"A lot of times, we have to drive by that job, and we want it to be what we want it to be," he said. "We have our own set of standards. And it's been going on like this for a long time. We've spent a lot of years trying to maintain a high standard. So, I was really thankful that they acknowledged that."

Staley received his award at the Oregon Board of Forestry meeting in January in Salem.

Growing Gardeners Talks Returning to Albany and Lebanon Libraries

By Otillia Schreuder OSU Master Gardener Coordinator & **Melissa Selby** LCMGA-VP

Growing Gardeners talks (formerly known as the PNW Brown Bag talks) have returned to the Albany and Lebanon libraries with support from the Linn County Master Gardener Association (LCMGA) and OSU Extension! These free drop-in talks will cover relevant gardening topics presented by local experts and Master Gardeners. These talks are a great way to get involved with gardening and the local community. We hope you will join us!

Albany Public Library Garden Talks

Garden Talks are held on Wednesdays at the Albany Public Library, 2450 14th Ave SE, from noon-1 p.m.

- 3-6 Dry Gardening, Darren Morgan, Shonnard's Nursery
- 3-13 Artificial Intelligence and Plant ID Apps, Leo Sherry
- 3-20 Eco Therapy, Susannah Prenoveau
- 3-27 Starting a Honey Bee Colony, Fred Selby

Lebanon Public Library Garden Talks

The Lebanon Public Library, 55 Academy Street, hosts Garden Talks on Thursdays from 1:30-2:30 p.m.

- 3-7 Dry Gardening, Darren Morgan, Shonnard's Nursery
- 3-14 Artificial Intelligence and Plant ID Apps, Leo Sherry
- 3-21 Eco Therapy, Susannah Prenoveau

BENTON COUNTY MASTER GARDENER HELP DESK

Contact Us:

- Email: bentonmg@oregonstate.edu
- Phone: 541 - 713 - 5010
- Drop off samples at Benton County Extension Office

Have a plant health or gardening questions? The Master Gardeners™ in Benton County are here to answer your questions!

Oregon State University Extension Service Master Gardener™

Benton County Master Gardener Association

OSU Extension Service prohibits discrimination in all its programs, services, activities and materials. Accommodation requests related to a disability should be made by 12/10/2024 to Otillia Schreuder at Otillia.Schreuder@oregonstate.edu. This publication will be made available in an accessible alternative format upon request.

Chrissy Lucas
541-713-5009
chrissy.lucas@
oregonstate.edu

10 Ways to Protect and Conserve Groundwater

- **Go Native:** Use native plants in your landscape. They look great, and don't need much water or fertilizer. Also choose grass varieties for your lawn that are adapted for your region's climate, reducing the need for extensive watering or chemical applications.
- **Reduce Chemical Use:** Use fewer chemicals around your home and yard, and make sure to dispose of them properly - don't dump them on the ground!
- **Manage Waste:** Properly dispose of potentially toxic substances like unused chemicals, pharmaceuticals, paint, motor oil, and other substances. Many communities hold household hazardous waste collections or sites - contact your local health department to find one near you.
- **Don't Let It Run:** Shut off the water when you are brushing your teeth or shaving, and don't let it run while waiting for it to get cold. Keep a pitcher of cold water in the fridge instead.
- **Fix the Drip:** Check all the faucets, fixtures, toilets, and taps in your home for leaks and fix them right away or install water conserving models.
- **Wash Smarter:** Limit yourself to just a five minute shower, and challenge your family members to do the same! Also, make sure to only run full loads in the dish and clothes washer.
- **Water Wisely:** Water the lawn and plants during the coolest parts of the day and only when they truly need it. Make sure you, your family, and your neighbors obey any watering restrictions during dry periods.
- **Reduce, Reuse, and Recycle:** Reduce the amount of "stuff" you use and reuse what you can. Recycle paper, plastic, cardboard, glass, aluminum, and other materials.
- **Natural Alternatives:** Use all natural/nontoxic household cleaners whenever possible. Materials such as lemon juice, baking soda, and vinegar make great cleaning products, are inexpensive, and are environmentally friendly. When using any cleaners make sure to follow the directions.
- **Learn and Do More!** Get involved in water education! Learn more about groundwater and share your knowledge with others. http://wellwater.oregonstate.edu has a ton of information on how to get involved in your local community.

Reprinted courtesy of wellowner.org

It's Groundwater Awareness Week!

Facts about groundwater

- The Oglalla Aquifer stretches more than 450,000 square kilometers (174,000 square miles) through the United States, including parts of South Dakota, Wyoming, Nebraska, Colorado, Kansas, New Mexico, Oklahoma, and Texas, according to National Geographic. The Oglalla Aquifer holds more than 3,000 cubic kilometers (2.4 billion acre-feet) of groundwater.
- The average household's leaks can account for nearly 10,000 gallons of water wasted every year, according to the U.S. Environmental Protection Agency.
- Ten percent of homes have leaks that waste 90 gallons or more per day, according to the EPA.
- Of the estimated 29 billion gallons of water used daily by households in the United States, nearly 9 billion gallons, or 30 percent, is devoted to outdoor water use, according to EPA's WaterSense program. In the hot summer months, or in dry climates, a household's outdoor water use can be as high as 70 percent.
- The United States uses 82.3 billion gallons per day of fresh groundwater for public supply, private supply, irrigation, livestock, manufacturing, mining, thermoelectric power, and other purposes, according to the U.S. Geological Survey.

Benton County 4-H Youth Development

Elli Korthuis
541-713-5000
elli.korthuis@
oregonstate.edu

Carolyn Ashton
541-713-5000
carolyn.ashton@
oregonstate.edu

PHOTO BY AMY PIPER

Paige wearing her award-winning creation.

Benton County Represented at National Fashion Revue Contest

A delegation of Oregon 4-H members had the opportunity to travel to San Antonio and compete in the National Family and Consumer Science (FCS) Classic in January. Among them was Benton County 4-H member, Paige Piper.

Paige qualified at the Oregon State Fair Fashion Revue Contest in 2023 by earning a medallion award and was then invited to compete in the Construction class, meaning that she made her garment. That garment was a stunning dress that she designed herself, without the aid of a pattern. She also used a dress form, an added challenge as this is a different method than she was accustomed to for working on sewing projects. Fortunately, she also had the support of her 4-H club leader, Betty Collins.

Once she was in San Antonio, Paige had the opportunity to meet youth from around the nation who were competing in a number of FCS contests. She then modeled her dress in front of the judges and gave her speech.

All of the challenges that Paige worked through to create and model her dress paid off as she earned the national award for first place in Construction Modeling. Paige's advice for 4-H members interested in participating at the national level is to take risks with your projects and push yourself.

This competition is the highest honor for the FCS project members. Along with Fashion Revue Construction, Oregon participants also competed in the FCS Skill-a-thon, FCS Bowl, and the Fashion Revue Ready to Wear class.

Benton County 4-H Scholarships

Each year, Benton County 4-H graduating seniors have the opportunity to earn money for college through county and state scholarships. This year, the Scholarship, Awards, and Recognition Committee had their hands full with some tremendous applications. Eight Benton County 4-H members applied for county scholarships. Through their applications, the youth receiving these scholarships demonstrated strong club and county leadership, community service, and project work. The Hitchcock, Decker, and Bateman Scholarships are awarded to youth in any project area. The Steve Moos Scholarships are awarded to youth participating in sheep, swine, beef, or dairy cattle projects. Each year a 4-H club raises a donation animal to be auctioned off in the Lee Allen Memorial Youth Livestock Auction with proceeds to benefit the Steve Moos Scholarship. This year, the Hoskins Livestock 4-H Club is raising the donation animal.

County Scholarship Award Recipients

- **Bateman ($5,000)** – Lorelei Schell
- **Moos ($4,000)** – Lorelei Schell, Tanner Dowless, Jenica Baker
- **Decker ($1,000)** – Madison Gray, Hallie Dapp, Hayden Spaulding
- **Hitchcock ($1,000)** – Tanner Dowless, Madison Gray, Hallie Dapp, Hannah DeVries

This year, the judges have granted all available scholarships, including the recently expanded Bateman scholarship. The Bateman Family Scholarship, originally established in honor of John and Ruth Bateman, has been increased to recognize their son, Thomas Bateman. The Bateman family was deeply engaged in 4-H, with John's focus on agricultural projects and his subsequent Ph.D. in animal husbandry from Oregon State University, where he later taught agricultural techniques in Costa Rica. Ruth, on the other hand, was involved in home economics projects and remained dedicated to teaching cooking and sewing throughout her life. Their union stemmed from their involvement in 4-H. Their son Tom excelled in livestock projects, even winning a Clean Pig Pen award at the county fair. He went on to establish and lead a community 4-H club in Salem for two decades, engaging 4-H members across various projects.

The Bateman family's generous donation has significantly enriched the scholarship, offering an exceptional opportunity for a deserving 4-H senior. Recipients are selected based on their well-rounded engagement within and beyond 4-H, outstanding academic accomplishments, and most importantly, their personal growth within the organization. Successful candidates demonstrate unwavering commitment through leadership roles, community service, and contributions to the state of Oregon. Examples of achievements demonstrating these include becoming a 4-H State Ambassador, attending National 4-H Congress, and state-level service projects.

The Benton County 4-H program is extremely proud of the hard work that these seniors have dedicated their time towards in order to be chosen for their scholarships.

PHOTO BY BENTON COUNTY 4-H

Senior 4-H member provides a horse-themed presentation.

4-H Presentations Contest

The 4-H Presentations Contest offers participants the opportunity to improve their communication skills and is being held March 6-8, at the Benton County Fairgrounds. 4-H members can give a speech, illustrated talk, demonstration, or impromptu presentation in front of a judge and audience. Along with the public speaking skills development, youth learn to interview with a judge, manage their time wisely, utilize technology if it is part of their presentation, and more. This contest is a qualifying event for several larger opportunities including the State 4-H Presentations Contest, 4-H Spring Classic, and even some national contests.

Horse Regional Contest

On Sunday, January 28, twenty-eight 4-H members, aged 9-19, from Benton, Linn, and Lincoln counties came together to participate in the Western Regional Horse Judging and Hippology Contest at the Benton County Events Center and Fairgrounds. 4-H members demonstrate their knowledge of the horse project during this contest by completing 11 classes.

The hippology (the study of the horse) classes are comprised of the following: feed/hay identification, a 10- question multiple choice written exam, a 10-question multiple choice station test with photos, a 10-question multiple choice feed identification test, an individual problem given to a member by a judge who grades them on their verbal answer, and the score from 1 conformation and one performance judging class.

The judging classes are comprised of at least 2 conformation classes (conformation is defined as the correctness of bone, musculature, and proportions). and at least two performance classes (examples of performance classes are showmanship, trail, English and western equitation, etc.). The final component of the judging contest is when 4-H members provide Oral Reasons. Oral Reasons are a 1-2-minute oral presentation that members provide to a judge justifying how the member placed a specific class of horses in the judging contest.

Thank you to the volunteers from the region that were able to help make this contest a success.

Beef Weigh in

Benton County 4-H Beef Project Members are off to a great start! 4-H members had an opportunity to weigh in their steers at our February weigh in. 37 members from 10 different 4-H clubs weighed in a total of 45 steers. 4-H members showcased their skills by unloading and loading their steers from a trailer, as well as leading their steers on a halter. The next weigh in is scheduled for April, where 4-Her's will learn about the daily rate of gain and proper hoof care for their animals. Daily Rate of Gain is the average amount of weight the animal gained per day between the two weigh-ins.


PHOTO BY BENTON COUNTY 4-H

Members with their steer projects waiting to step on the scale.

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.

Junior Leaders


PHOTO BY BENTON COUNTY 4-H

Twelve 4-H members acquired and advanced their leadership skills at the junior leader training.

Junior Leaders are motivated 7th-12th graders who are interested in increasing their leadership skills by taking on a Junior Leader project supervised by their club leaders. These projects can include providing leadership for a club fundraiser, a community service project, creating educational programming opportunities through guest speakers or field trips, and more!

On February 10th, a group of 7-12th graders participated in the Benton County 4-H Junior Leader Training. These members are taking their leadership skills to the next level by partnering with one of their club leaders to create a plan to develop their own junior leader project. During the training, members also learned about fun activities they could take back and lead at their club meetings. Adults learned about the importance of youth-adult partnerships, and how to best support their 4-H members who are doing junior leader projects.

4-H Dog Bowl

Benton County hosted the annual 4-H Dog Bowl on the evening of Tuesday, February 6th. 4-H dog members from Benton and Linn County showed up to be quizzed about topics ranging from dog health to breeds and show rules. This is also the Benton County qualifying contest for the Intermediate and Senior 4-H members wishing to participate in the state 4-H Spring Classic for Dog Bowl.

The 4-H members have been working hard throughout the fall and winter, socializing and training their dogs and also studying for events such as this. The 4-H Dog Bowl is the first county dog event of the 4-H year and kicks off several workshops and contests throughout the year.

Linn County 4-H Youth Development

Andrea Leao
541-730-3534
andrea.leao@
oregonstate.edu


PHOTO BY CASSI HYDE

Archery is always a fun activity at camp. Blake even made a bullseye!

Four Rivers 4-H Summer Camp

We are inviting all 4th through 8th graders to join us for fun and adventure at Four Rivers 4-H Camp June 19-23, 2024. This year's camp theme is "Folklore and Fairytales" so come prepared to have a magical good time at camp! Every day is filled with new adventures, new experiences, and a whole lot of fun! Campers will participate in swimming, archery, adventure swing, hiking, canoeing, crafts, and theme -based activities and games! The evenings will be filled with skits, campfire, and songs. Campers are

Continued on Page 13


PHOTO BY ANDREA LEO

Youth get to practice their rowing skills at Four Rivers 4-H Camp.

More Than Fair

By Jody Hill

You've seen it. Kids leading cows, sheep, pigs around the fairgrounds, the large room full of art, food, and clothing. FAIR! But do you know all the learning and community outreach these 4-H members do within the 4-H year? 4-H is so much more than contests. It's about gaining lifelong skills and giving back to the community.

Families have many reasons to sign up for 4-H. Most youth want to learn a skill. For example, how to care for an animal or maybe, how to can foods. Some want to enjoy friendly competition by taking a project to shows or county fair. Many homeschool families use 4-H to enhance in-home curriculum. For whatever reason a family wants to join 4-H, they walk away with much more.

Clubs work with families to create a safe learning environment to discover new interests and gain knowledge through hands-on activities in different project areas. Meetings focus on different aspects of a project and members have a chance to teach others through club demonstrations and displays. Goal setting and record keeping are required for members and translate well into adulthood.

Social awareness and community service are also taught in clubs. Many clubs participate in the county wide Veteran's Home celebrations and holidays by creating gifts and displays. Assisted living facilities receive seasonal door hangings created by club members. Members also bring their animals to the Spring Fling in Lebanon. Other service projects have included clubs decorating Christmas trees to be auctioned off for Friends of the Brownsville Library and the Moyer House Foundation. One club made up of members ages 4-8 sews pillows for a local hospital maternity ward. Many members carry this compassionate service forward and teach it to the next generation long after their time as a 4-H member is over.


PHOTO BY ABBY JOHNSON

Linn County 4-H Ambassadors give back to the community while they serve breakfast at Ag Fest in Salem.


PHOTO BY JODY HILL

Curious Clovers 4-H Club are learning new sewing skills while making pillows for those in need.


PHOTO BY CASSI HYDE

During our monthly Cloverbud meeting, office staff Jody joined in the fun - playing a game with some of our members.

Leadership skills are also developed through becoming a club officer or project jr. leader. Older youth have opportunities to see leadership in action at the governmental level through state and national 4-H conferences. Our Ambassador program meets monthly to learn how to lead. The program allows teens to direct many 4-H activities like the 4H dance and games at fair. They also coordinate, cook, and serve breakfast for the Willamette Valley AgFest. Ambassadors learn responsibility and cooperation through these avenues.

Friendship, sportsmanship, and cooperation come naturally in a club setting. Whether members help pass out snacks during a break, support each other's projects, or root for the club during competitions they are learning.

Summer and Leadership camps and conferences take 4-H members outside their comfort zones and broaden their understanding of their communities. In Linn County we offer the 4 Rivers camp for grades 4-6 where participants can learn natural science, explore, and play games that build confidence and team skills. High Desert Leadership Retreat is a chance for older members to bond while learning cooperative and leadership skills. There are also state and national 4H retreats and conferences to expand the members' experiences.

4-H also provides specialty classes

Continued on Page 13

2024 High Desert Leadership Retreat Was One for The Books


PHOTO BY LINN COUNTY 4-H

The weather was a bit of a challenge, but that didn't stop the 107 youth that participated in the 2024 HDLR from having a great time.

High Desert Leadership Retreat is a youth retreat designed specifically for 7th-12th grade youth to enhance and grow their leadership skills. The retreat takes place Friday-Monday of MLK weekend at Eagle Crest Resort near Redmond, Oregon. During the weekend, participants practice important life skills like budgeting, cooking meals, living with peers and tons of fun leadership tactics.

This year, Linn County had 17 youth travel to Redmond for this snowy adventure. They were some of the 107 youth that participated in the 2024 retreat. The weather was a bit of a challenge, but that didn't stop us from having a great time. Participants got to experience negative 7-degree weather, lots of snow, and a long car ride home. But the most important things were that they all made new friends, learned new skills, and in some cases, even came home with some new culinary tricks.

More Than Fair

Continued from Page 12

to give members job and life skills. Tractor safety courses are very popular in Linn County. Baby sitting courses are also offered to those looking for extra income. Students learn responsibility and safety during these classes. Adulting 101 is a new program offered to the public through the Linn County 4-H office. This "boot camp" offers classes from basic budgeting to self-defense, ironing clothes to comparative shopping.

So next time you go to fair, think beyond the cute kid holding the chicken. Imagine the knowledgeable future leader and compassionate human that this member might become due to their time in 4-H.

Four Rivers 4-H Summer Camp

Continued from Page 12

placed in small camp teams (4-6 campers), which are overseen by trained high school aged 4-H counselors, who are supervised by highly experienced and trained 4-H volunteers and 4-H faculty. All of the activity is located on the beautiful 4-H Center with more than 320 acres of lush forest, open pastureland and peaceful ponds. Campers will sleep in rustic and comfortable cabins. More information can be found at: https://extension.oregonstate.edu/4h/4-h-summer-camps

Shelby Filley
541-672-4461
shelby.filley@
oregonstate.edu

Commerical Agriculture Livestock and Forages

Producing with Purpose

By Shelby Filley, Regional Livestock and Forages


PHOTO BY SHELBY FILLEY

Producing cattle well requires purposeful pasture management.

Helping ranchers adopt and maintain efficient production practices is the main goal of my work with OSU Extension Service in western Oregon. I am on my 26th year here, and I have thoroughly enjoyed working with ranchers and farmers in beef cattle, sheep, and goat production and helping them grow forage in pastures and hayfields.

This year I want to renew my commitment to work very hard with individuals and groups to help ensure we are doing the very best we can with what we have. A relatively new term, regenerative ranching, has appeared on the scene. The word regenerative is defined as tending to regenerate. That is, formed or created again, spiritually reborn or converted, restored to a better, higher, or more worthy state (Merrian-Webster on-line dictionary).

Regenerative ranching is one of the latest phrases used to try and describe what most ranchers and farmers have been doing in the west for decades. There is nothing new here. We're still the original environmentalists, practicing sustainably.

I think we need to remind ourselves of the principles and practices embodied in these terms and make sure we are ranching and farming as we know we should. My job is to stimulate you to review your production management practices, use methods backed by science, and assist in any necessary improvements. That is producing with purpose.

In a recent RancHER presentation on Livestock and the Environment: Greenhouse gases, Sustainability, and Food by Dr. Robin White of Virgina Tech, one participant asked, "What are things that the individual rancher can do now to be more sustainable?" Dr. White advised that we keep good records and look for places to improve.

One example is reproductive efficiency. She said many ranching practices that improve production efficiency also improve sustainability in the beef industry. RancHER presentations are facilitated by Dr. Juliana Ranches, OSU Beef Specialist, and posted to the Eastern Oregon Agriculture Research Center YouTube site at https://www.youtube.com/@EOARC.

The remainder of this article focuses on practices that affect efficiency and profitability of production.

Ag economist, Dr. Harlan Hughes, professor emeritus at North Dakota State University, wrote about the profile of a profitable producer where he reported profitability by certain management practices. He observed over many years that high-profit producers followed certain practices at a high rate and low-profit producers followed practices at a low rate. His graph of these factors impressed me greatly. I lost track of the article, scoured the internet, and tried contacting him, but never could recover his original publication.

I subsequently developed a presentation called 'Critical Control Points of Livestock and Forage Production.' It is modeled after Dr. Hughe's observations, information from the Western Integrated Resource Education (WIRE) program, and available on the OSU Extension website at https://beav.es/qmB.

The presentation examines several different management practices that have the potential to impact the efficiency and profitability of livestock and forage operations. There is a built-in self-evaluation process so you can see which practices you may need to spend more time addressing.

I chose to emphasize seven Critical Control Points (CCP) including Ranch Economics, Forage Management, General Nutrition, General Health, Beef Cattle Management, Sheep Management, and Marketing. The presentation allows you to grade yourself on the attention you give each CCP (0 = no

Continued on Page 17

Commercial Agriculture Small Farms

Todd Anderson
541-713-5007
todd.anderson@oregonstate.edu

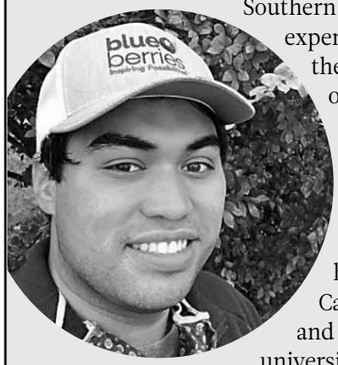
Crystal Kelso
541-730-3539
crystal.kelso@oregonstate.edu

Melissa Fery
541-730-3538
melissa.fery@oregonstate.edu

Teagan Moran
541-713-5011
teagan.moran@oregonstate.edu

Welcome Todd

Hello everyone, I'm Todd Anderson, a new member of the Small Farms team serving Polk, Benton, and Lane Counties. I am originally from the Sacramento area, and I've been involved in or around agriculture my entire life. My family on my mom's side has always been small farmers in the Southern Philippines. Their stories, experiences and connection to their land have always played an outsized role in my life. I intend to integrate their mindset of resilience, pragmatism, and resourcefulness into my work with Extension.



I went to school for horticulture in San Luis Obispo, California where I worked and supported research in the university orchards as well as a few internships, one dealing with corn and one with endangered native plants in Kauai. After finishing my bachelors, I worked on Oahu with a private company experimenting with saltwater hydroponic systems before leaving to concentrate on my masters at the University of Hawaii at Manoa. At the University of Hawaii I worked on a sweet potato breeding program for niche local markets that collaborated with a Native Hawaiian led organization. The goal of the project was to develop cultivars that Hawaii farmers could market locally with a higher profit. To keep my head above water I also found myself working on other projects like assisting in a chili pepper breeding project, a seasonal potato virus screening, and cleaning equipment for a tissue culture lab.

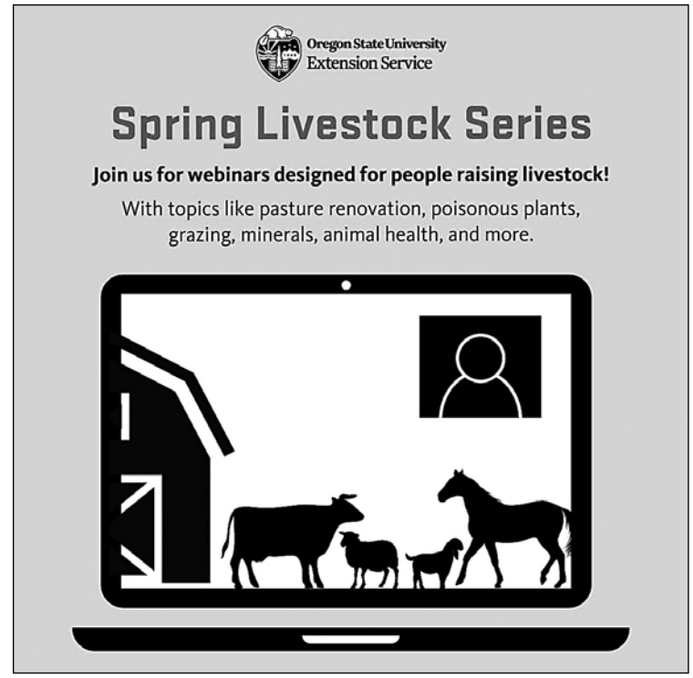
During 2020, I came to Oregon to work on a heat tolerant blueberry breeding project through the United States Department of Agriculture and Oregon State University collaborative breeding program. I'm wrapping this project and my doctorate up on the side. These last few years have been a crash course in the PNW Blueberry industry. If you have attended the blueberry field days at NWREC or have been involved with the Oregon Blueberry Commission in the last few years I might be a familiar face. This project allowed me to collaborate with growers across Oregon and Washington, giving me appreciation and love for both the horticulture and rural communities of our region.

In my free time I enjoy gardening, especially experimenting with what niche and hard to find plants that can be grown in my community garden plot, crabbing, trivia nights, exploring the West Coast, trying new food and anything with the ocean.

Elevate Your Livestock Management Skills! Online Spring Livestock Series

Whether you're a beginner looking to start your journey in raising grazing livestock or seeking to enhance your existing practices, this series has something for everyone.

- **Date:** Tuesdays and Thursdays from March 12th-21st
- **Time:** Each session begins at 6 p.m. (Pacific)
- **Location:** Online (Webinars)
- **Cost:** $5 – Includes all webinars and access to recordings



Led by expert instructors, each session delves into crucial topics essential for successful livestock and pasture management. From optimizing grazing and pasture management techniques to identifying and mitigating risks such as poisonous plants, weeds, and mud, we cover it all. Discover the different minerals vital for animal health, understand what should be in a livestock medical kit, and recognize when it's crucial to contact your vet immediately.

Don't miss out on this opportunity to expand your knowledge, refine your skills, and connect with fellow enthusiasts in the field. Join us and embark on a journey towards becoming a more proficient and confident grazier!

Learn more and register at: https://extension.oregonstate.edu/smallfarms/mid-willamette/events/spring-livestock-series

New Featured Resource! How to Read a Pesticide Label: A Guide for Small & Beginning Farmers

Available in both English and Spanish, these new publications are a must have for those that apply pesticides. Pesticides, both conventional and organic, can be a practical part of an integrated pest management plan when used appropriately. Incorrect use of pesticides can lead to problems with human health, crop production and environmental damage. Pesticide labels contain important information for keeping people who work with and near them safe and minimizing negative environmental impacts. This guide provides a roadmap to help pesticide applicators and handlers understand how to use pesticides more safely and effectively. When using pesticides, it is important to remember: the label is the law — it is a legally binding agreement between the applicator, manufacturer or registrant and state and federal regulatory agencies. https://extension.oregonstate.edu/ catalog/pub/em9410-s

Accelerator Program Brings New Dry Farmers Up to Speed

Around the Willamette Valley, small farmers and beginning farmers can struggle with access to irrigation water. In order to help new farmers grow food without irrigation, the OSU Dry Farming Project launched a Dry Farm Accelerator Program with funds from the Western SARE Research to Grassroots grant program. A cohort of 11 farmers participated in the Dry Farm Accelerator Program during the 2023 growing season.

What is dry farming?

Dry farming is the production of crops without irrigation during a dry summer growing season. To meet their water needs, dry-farmed crops use soil moisture that is retained from the winter and early spring rains. Dry farming is different from dryland farming, which is unirrigated farming in semi-arid regions, such as the interior west of the USA. In dryland regions, low rainfall may necessitate farmers keeping their fields fallow for one or more years to store sufficient water to produce a crop. Western Oregon receives an average of 48 inches of precipitation annually, meaning that a dry-farmed crop can be grown every summer. In suitable locations in Oregon, farmers have successfully dry-farmed many warm-season crops, such as tomatoes, melons, corn, sorghum, quinoa, amaranth, legumes, squash, and potatoes. The OSU Dry Farming Project conducts research, education, and outreach activities to help farmers produce dry-farmed crops profitably and sustainably.

Small and beginning farmers are interested in dry farming

Small farmers and beginning farmers are often interested in dry farming due to either a lack of water rights or because they have junior or limited water rights. However, there are many other reasons that farmers are interested in dry farming. Some lack the infrastructure or capital investment required to irrigate farmland. Additionally, many urban farmers can accumulate big water bills if using municipal water. Some farmers with a long history of irrigated farming are interested in dry farming to keep land without water rights in production, as a low-input weed management strategy, and for perceived improvements in flavor and storability of dry-farmed crops.

However, dry farming is riskier than irrigated farming. Not only are yields lower, but the risk of crop failure is higher. For example, on certain sites, drought stress in a tomato crop can result in a high incidence of blossom-end rot, resulting in the loss of a half or more of total tomato yields. One thing beginning dry farmers need to understand in order to successfully dry farm is whether their site is suitable for dry farming.

Location, location, location

Dry farming success can be highly dependent on the location of a farm or garden. Site suitability for dry farming encompasses many factors including climate, annual precipitation, growing degree days, exposure to wind, and the soil's available water holding capacity and subsoil constraints on root development. Soil type is extremely important for dry farming because the soil is the principal water source for the plants throughout the growing season. Thus, a good first step to determining if a plot of land is suitable for dry farming is to determine your soil series. A quick and easy method to do this is to look up how your site is mapped on the Web Soil Survey; however for more certainty, it is recommended to take a 5-foot-deep soil pedon (see picture). Then a determination of the soil's available water holding capacity (AWHC) can be made—the amount of plant available water a soil can hold against the force of gravity. At least 9 inches of AWHC in a 5-foot-deep soil sample is a suitable amount for dry farming warm season vegetables, and 11 inches or more is ideal. Root-restrictive layers such as a hardpan can also reduce roots' access to valuable subsoil moisture.


PHOTO CREDIT LUCAS NEBERT

Dry Farming Accelerator Program participants Justin and Julia Vastola of Perennial Hill pose with their 5' soil core, which was used to assess their soil's suitability for dry farming.


PHOTO CREDIT LEILANI MOCZKOWSKI

Jihelah Greenwald of Kasama Farm poses with dry farmed winter squash and corn plots. Their farm, located in the Hood River Valley, participated in the Dry Farming Accelerator Program.

Other relevant site factors are important too. Insufficient nutrients and low soil pH can affect root growth and crop development, which can restrict access to soil moisture. Climate and microclimate should also be considered. Hotter and drier sites will be less amenable to dry farming than cooler, humid sites. However, farmers will also want to make sure that their site has sufficient growing degree days to mature the crop. Finally, fast winds can pull water away from the crop and the soil. Sheltering the crop from the wind can help improve dry farming outcomes.

What is the Dry Farming Accelerator Program

Many small farmers, urban farmers, and homesteaders involved in the Dry Farming Collaborative are interested in having more hands-on involvement in OSU Dry Farming Project research. So, in 2022, the Dry Farming Project launched the Dry Farming Accelerator Program intended to make it easier for growers to adopt dry farming. This included a soil assessment by a soils expert, a soil nutrient test, an introductory dry farming curriculum (https://smallfarms.oregonstate.edu/article/dry-farming-accelerator-program), access to seeds and starts, and access to peer-to-peer groups of growers trialing dry farmed crops on their farms.

Every member of the cohort grew a trial of North Georgia Candy Roaster winter squash to compare the yield of their farm to others. The goal is to give growers a base of knowledge in dry farming and develop dry farming strategies for different climates and soil types in Oregon. Additionally, farmers could participate in multiple other trials including a toolkit for controlling blossom-end rot in tomatoes, "Oaxacan Green" dent corn trials, grafted tomato trials, and "Lilly" melon trials.

Next steps

Now that the 2022 cohort has completed the Dry Farming Accelerator Program, we look forward to continuing to work with them in future trials. We are also making the Dry Farming Curriculum that we produced for the program available to the broader community. If you are interested in learning more about dry farming, the Dry Farming Curriculum would be a good place to start. We hope to be able to do more cohorts in the future, and if you are interested you should contact Lucas Nebert at nebertl@oregonstate.edu, or Matthew Davis at davisma3@oregonstate.edu.

Erica Chernoh
541-344-1709
erica.chernoh@
oregonstate.edu

Hazelnut Updates: New EFB strain and Ice Storm Damage

By Erica Chernoh,
Commercial and Community Horticulture

New EFB strain on resistant varieties

A new aggressive strain of Eastern Filbert Blight (EFB) has been detected on hazelnut varieties with the Gasaway resistance gene, including Dorris, Jefferson, McDonald, Theta, Webster, and Yamhill. Thus far, the new EFB strain has only been found in the north Willamette Valley, however, growers throughout the valley need to be vigilant and monitor their orchards for symptoms. If you are growing resistant varieties, please regularly scout your orchard for EFB infections. The dormant and delayed dormant season is the best time to look for symptoms, before the trees fully leaf out. Look for cankers with fully developed black stromata on the trees (see photos).

For precaution, growers should consider implementing EFB management practices, including pruning out infected branches 1 to 3 feet below the cankered area and spraying to protect the trees. For more information on the biology of the disease and management practices, refer to the Pacific Northwest Plant Disease Management Handbook (https://pnwhandbooks.org/plantdisease/host-disease/hazelnut-corylus-avellana-eastern-filbert-blight) and the 2023 Hazelnut Pest Management Guide (https://catalog.extension.oregonstate.edu/em8328).

There is still a lot to learn about the new strain, and research is ongoing. If you have questions about what to look for or how to manage EFB, please do not hesitate to contact me at erica.chernoh@oregonstate.edu. If you are growing resistant varieties and find trees with the fully developed black stromata, please report it to Nik Wiman (nik.wiman@oregonstate.edu), OSU Extension Orchard Specialist, or Jay Pscheidt (Jay.Pscheidt@oregonstate.edu), OSU Extension Plant Pathologist. Include your contact information, location of the orchard, variety, age of planting, and an estimate of the percentage of trees infected in your orchard. They would also like to collect samples for testing.

Recent photos of EFB infections on hazelnut varieties with Gasaway resistance (L:R, McDonald, Yamhill, Jefferson). Note black stromata raised above the surface of the bark along cankers. Please report orchards with trees expressing these symptoms on resistant varieties.

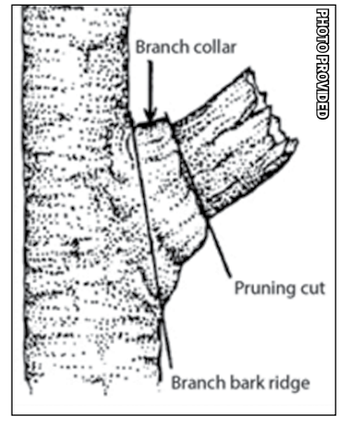


Image of branch collar from: https://extension.oregonstate.edu/crop-production/nuts/pruning-hazelnut-trees-basic-guide

8-year-old hazelnut tree damaged by ice storm. The tree has a split trunk and over 50 percent of the canopy was lost. This tree should be removed.

Ice Storm Damage to Hazelnut Orchards

The recent ice storm in January caused significant damage to hazelnut orchards in the south Willamette valley. For those with storm damaged trees, here are a few tips for assessing the damage. The first thing to look at is the extent of the damage. If a tree has one or two broken limbs, but no damage to the trunk, then you can simply prune out the broken limbs. For large broken branches, it is best to make a thinning cut and prune it all the way back to the trunk, but be careful not to cut through the branch collar, the raised tissue at the base of the branch (see figure). If the trunk is split or a significant portion of the trunk was ripped away, then the structural integrity of the tree and ability to transport water and nutrients has been significantly compromised, and the tree should be removed and replaced with a new healthy tree. Trees that have lost more than 50 percent of their canopy may not be able to regain their form or shape and may not have enough branches and leaves to photosynthesize and create the energy needed for the tree to send out new shoots. These trees should be monitored to see if they send out new shoots in the spring, and if not, consider removing and replacing the tree.

When removing broken branches, make clean cuts. Torn or shredded edges take longer to heal and are more susceptible to pest damage. Do not top the trees, the stubs of topped trees tend to send out multiple watersprouts that are weaker. For small branches, you can thin a broken limb back to where it connects with a larger branch or scaffold, and for larger broken branches or scaffolds, prune them back to the main trunk. If you have questions or need assistance assessing the damage, please do not hesitate to reach out.

Christy Tanner
541-730-3537
christy.tanner@
oregonstate.edu

South Valley Field Crop Notes for March-April

General Management

- Seed certification: the deadline for crop inspection sign ups is April 15.
- Keep up on slug monitoring efforts throughout the rest of winter and into spring. Be especially mindful of spring planted crops and bait pre-plant if needed. Remember the optimal baiting conditions: moist soil, overcast skies, no wind or rain.
- Scout for vole activity and spot treat with zinc phosphide down holes according to the label.
- Scout for aphids and cereal leaf beetle in wheat and grass seed fields through May.
- As temperatures warm, prevent phenoxy drift problems by using less volatile formulations, drift reduction nozzles, and good spraying practices.
- Watch for leaf spot diseases in brassica crops, including turnip seed fields. Contact your fieldmen or OSU Extension for fungicide recommendations in order to avoid infections reaching the seed.

Grass

- Complete fertilizer N applications to grass seed fields to match crop demand and field conditions (i.e. not on saturated soils or ponded fields).
- Fertilize perennial ryegrass and tall fescue from mid-February through March. Finish applications by the first week of April.
- Annual ryegrass applications should go on from mid-March through Mid-April
- Complete Rely herbicide treatments on PRG and TF seed fields by early April.
- Begin thinking about plant growth regulator applications. OSU research indicates the best seed yield responses in PRG and TF were reached with PGR applications between early stem elongation and early inflorescence emergence.
- Scout for billbug damage in orchardgrass seed fields in late March and use insecticides in early April if needed. Keep an eye out for similar damage in established tall fescue stands.
- Application of Bravo at boot and early head emergence remain the most cost-effective times to control headblight in orchardgrass. Look for boot stage in mid-late April.

A white clover seed production field in bloom. Can you find the four-leaf clover?

Wheat

- Complete N fertilizer applications on winter wheat if you have not already done so. Rapid N uptake begins at jointing (Feeks GS6), which often begins early March.
- Scout for stripe rust, paying close attention to early plantings and susceptible varieties. If growing Goetze, consider including a rust fungicide with spring herbicide applications.
- Control septoria on winter wheat when flag leaf is emerging (Feeks GS8). Make use of SDHI chemistry at this critical timing to combat fungicide-resistant septoria, but be aware SDHIs do not provide rust control.
- Apply phenoxy herbicides to winter wheat before the 2-node stage if the label allows treatment after jointing starts.
- Plant spring grains as soon as possible, and include 20 lbs N/ac with the seed. Seeding rate depends on seed size, aim for 33 seeds/ft (~120-150 lbs/ac).
- To help prevent lodging, limit total N on spring wheat to 75-80 lbs/ac. Fertilizer can be applied anytime between planting and jointing.

Thank You to ORGA sponsors

Despite an ice storm that lowered attendance, the Oregon Ryegrass Growers Association managed to pull off a very informative program for their 65th Annual meeting at the Linn County Fairgrounds in January. Attendance may have been lower, but the program content and lunch were very good. This meeting would not be possible without the help of our sponsors. The ORGA board would like to thank the following companies for their continued support in making this meeting happen each year.

- Agri Seed Testing, Inc
- AgWest Farm Credit
- Ampac Seed Company
- Birky Water Ways, LLC
- Corteva
- DLF
- Ernst Irrigation
- FMC Corporation
- Hilton Trenching, Inc
- Lakeside Ag Ventures
- Marion Ag Service, Inc
- Opel Family Farms
- Pennington Seed
- Pratum Co-op/Mountain View Seed
- Smith Seed Services
- Umpqua Bank - Ag Team
- West Coast Seed Mill Supply, Inc
- Wilbur Ellis Agribusiness

Producing with Purpose

Continued from Page 13

attention, 1 = minimal attention, 2 = moderate attention, 3 = lots of attention), add up your score from each area, and consider giving more attention to low scoring areas.

Let's preview two of these areas now.

Ranch Economics is the CCP #1 and includes unit cost of production (UCOP), that is production costs divided by yield; the use of Enterprise Budget Sheets; Benchmarking, that is, comparing yourself to other producers' costs and productivity; and risk management, for example, market insurance and forward contracts.

Beef Cattle Production is CCP#5 and includes Reproduction, a well-defined breeding/calving season with a calving interval of no greater than 365 days; pregnancy testing, heifer development, and body condition scoring; Genetics (EPD) for assessing what you have, sire selection based on what you need, bull management, breeding soundness exam; and Management, Low stress livestock handling, good working facilities, managed weaning, pre-conditioning calves, and planned culling priorities.

I hope this article has stimulated your interest in critically assessing your production practices. Make your goal to be the best producer you can be. For assistance and ideas, please contact me at shelby.filley@oregonstate.edu or 541-236-3016.

Forestry and Natural Resources

Lorelle Sherman
541-713-5016
lorelle sherman@
oregonstate.edu

Crystal Kelso
541-730-3539
crystal.kelso@
oregonstate.edu

Kayla Bordelon
541-730-3543
kayla.bordelon@
oregonstate.edu

Working on the Garden? Consider Fire-Resistant Landscaping Near Your Home

By Kayla Bordelon

Spring is almost here and many of us are enjoying the opportunity to work in the yard. If you live in an area that is at risk of being affected by wildfire, consider fire-resistant landscaping to reduce the chance that a wildfire ignites your home.

What is fire-resistant landscaping?

Fire-resistant landscaping means creating a buffer around your home of non-flammable materials (like stone) and low-flammability vegetation. This involves understanding a few best practices for creating that buffer (what we call "defensible space"), selecting the right plants for the job, and spacing them out strategically. By implementing these practices, you are taking steps to protect your home from wildfire and making your home a safer place for firefighters to work.

What are fire-resistant plants?

Fire-resistant plants are those that are less likely to ignite, burn rapidly, or send out sparks. This is due to certain characteristics like plant moisture content, age, total volume, dead material, and chemical content. It is important to know that fire-resistant plants are not fire-proof: they can be damaged or even killed by fire. However, they do not significantly contribute additional heat (fuel) to a fire.

Choosing the Right Plants

Go outside and grab the nearest bush. Rub the foliage between your fingers. Is it watery or waxy? Does it have a strong smell? Certain characteristics can tell us if the plants around our homes are likely to be more fire-resistant or highly flammable.

The author shares a demonstration of fire-safe landscaping principles at the Insights into Gardening conference in Corvallis last month.

Rows of highly flammable arborvitae can act as a pathway for fire to travel quickly towards your home

The three zones of defensible space - Immediate, Intermediate, and Extended

The large, supple leaves of Bergenia have a high moisture content.

Fire-resistant

- Branching patterns are open and loose.
- Plants have little dead wood and tend not to accumulate dry, dead material.
- Sap is waterlike and does not have a strong odor.
- Sap or resin are minimal.
- Leaves are wide, flat, moist and supple.

Highly flammable

- Plants contain fine, dry or dead material, such as twigs, needles and leaves.
- Leaves, twigs and stems contain volatile waxes, terpenes or oils.
- Leaves are aromatic. (They have a strong odor when crushed.)
- Sap is gummy, resinous and has a strong odor.
- Bark may be loose or papery.

Most healthy broadleaf shrubs and trees are fire-resistant. Some common shrubs used for privacy screening, such as arborvitae, Leyland cypress, and ornamental junipers are highly flammable.

Plant Placement

Where should you place your fire-resistant plants and where is it okay to incorporate more flammable vegetation? We can use some basic principles of defensible space (i.e., creating a buffer around your home to reduce fire spread) to understand where to plant and what spacing to use. In Figure 2, you see the 3 zones of defensible space. Planting and spacing recommendations for each zone include:

Immediate zone (0'-5' from your house): use only non-combustible materials, like pavers or rock. Avoid planting any vegetation this close to your house.

Intermediate zone (5'-30' from your house): select fire-resistant plants, keep them healthy and watered, and space them out into small clumps of vegetation with breaks of at least 10' in between. If you have trees in this zone, make sure branches are at least 15' from your roofline. Do not plant bushes underneath the trees that could send flames into the tree canopy (these are called "ladder fuels").

Extended zone (30'-100' from your house): it is appropriate to begin incorporating less fire-resistant plants into your landscaping the further you get from your home. In this area, make sure that there is significant spacing (at least 10 feet) between clumps of vegetation. Rows of trees (such as those used as a privacy fence) can act as a pathway for fire to spread, so avoid rows of vegetation that approach your home.

Maintenance

It's important to tend to your plants, especially during the growing season, to keep them healthy and to limit their flammability. You can do that by keeping vegetation well-watered, removing any dead segments (like branches, spent blossoms, or stems and leaves), pruning up lower branches, and removing any weeds or invasives that encroach.

To learn more

OSU Extension recently updated the Fire-Resistant Plants for Home Landscapes publication. The guide includes over 40 pages of suggested plants to utilize in your fire-resistant landscaping, from groundcovers, to perennials, to shrubs and trees. You can access it for free online: beav.es/cZg.

Did your woodlands sustain damage from the ice storm?

Wondering what to do next? This will depend on the conditions of your site (like wind exposure) as well as your management plan. Each stand is unique, and each landowner has their own goals and objectives for their woodland property.

Your first actionable steps may look like the following:

1. Safety First! Wear proper PPE, and unless you are experienced with chainsaws, do not attempt to fell storm damaged trees yourself.

2. Assessment - Map the damaged area. Walk your property and note the extent of the damage on your maps or photos. Draw boundaries to help determine the size of the area impacted. Note species, size, type of damage, quality of trees, etc.

Trees with breakage:
- Trees with less than 50 percent crown (branches and leaves) loss will most likely recover.
- Trees with more than 75 percent crown top loss are likely to die and be a greater risk for both insects and diseases.
- Trees with 50 percent to 75 percent crown loss should be maintained but may develop stain and decay loss to the wood and should be reevaluated every 4 to 6 years.
- Trees with structural damage to the main trunk, including splits and fractures, should be removed.

Trees that are uprooted:
- If uprooted completely they will be degraded quickly by insects, stain, and fungi.
- Trees which are partially uprooted, and their crowns are still green with leaves will last longer.

Tree with major wounding:
- If these wounds are more than two inches deep and affect more than 25 percent of the circumference of the tree's trunk, they are major sites for stain and decay and should be salvaged.
- Smaller wounds do not represent major damage to trees.

Trees that are bent over:
- These trees often have cracks or fractures in the trunk and major limbs.
- If the cracks or fractures extend down more than 25 percent of the tree's trunk, harvesting is recommended.
- Trees less than 15 feet tall with small cracks will usually straighten and recover.

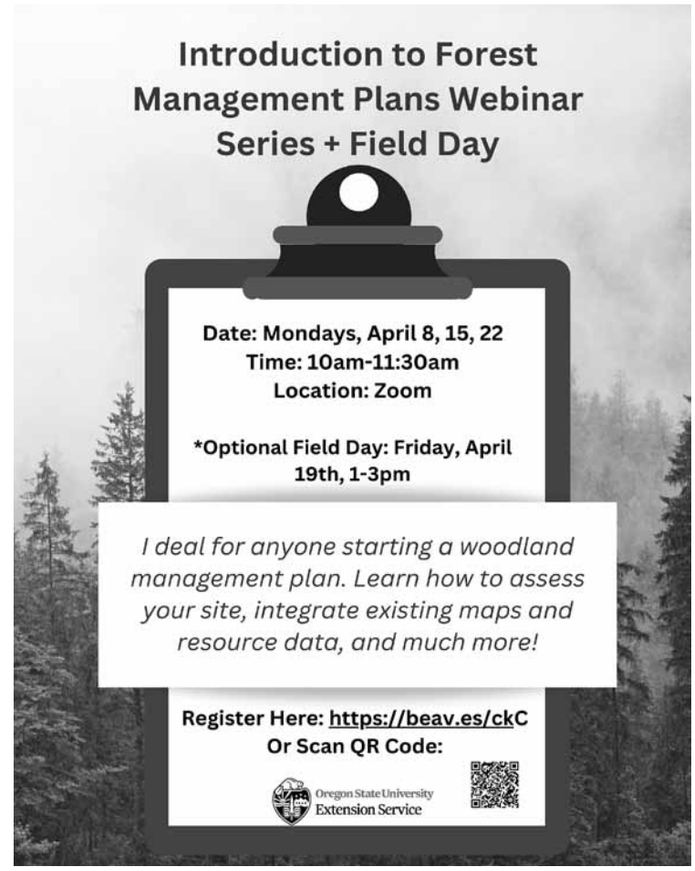
3. Salvage Potential – Tree value is determined by species, size, and quality.
- If salvageable trees are still standing and have branches with green leaves, they will not degrade significantly in the next 6 to 12 months.
- Trees which have blown over or are not standing should be salvaged before next spring.
- Wood on the ground begins to degrade immediately; there are some differences in species as to how fast stain and decay enter the wood.

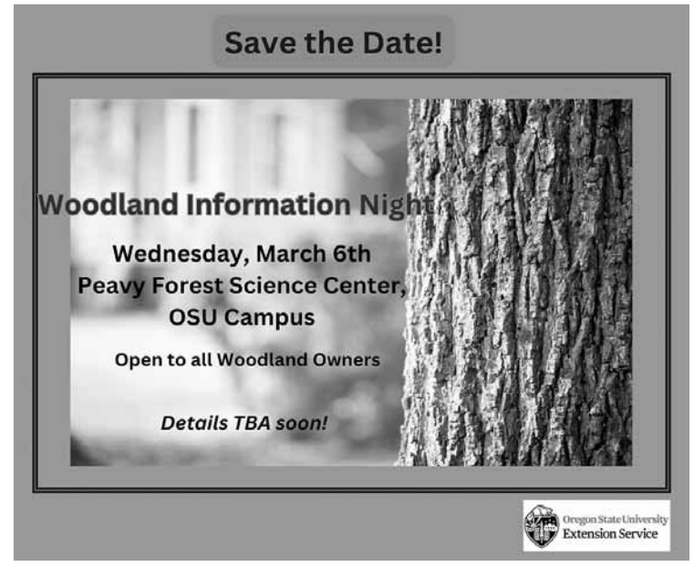
4. Woodland Management Plan – Revisit this, adjust and adapt as needed.
- Don't abandon good forestry practices when working with damaged woodlands.
- Don't remove too many trees.
- Look for opportunities to improve wildlife habitat in woodlands.
- Work with your forester to evaluate reproduction needs before harvesting.

Site Resource: Managing Storm Damaged Woodlands by Iowa State University Extension: https://naturalresources.extension.iastate.edu/encyclopedia/managing-storm-damaged-woodlands

OSU Extension Resource: Treatment Options for Young Forest Stands Damaged by Fire or Ice: https://extension.oregonstate.edu/forests/fire/treatment-options-young-forest-stands-damaged-fire-or-ice

We hope this information helps with your woodland management and care. Please reach out to your OSU Extension Forestry & Natural Resources Team if you have any questions or need further assistance.





Registration for Tree School Clackamas Now Open!

- **When:** March 23, 8:15 a.m.-5:15 p.m.
- **Where:** Clackamas Community College, 19600 Molalla Ave, Oregon City, OR
- **Link to Tree School Catalog and details:** https://beav.es/tree-school-clackamas

Tree School Clackamas, Oregon's largest forestry education event of the year, is scheduled for March 23rd at the Clackamas Community College in Oregon City. This year Tree School will have 73 classes offered covering forest management, wildlife, wildfire preparedness, fungi, weed management, and so much more. The Exhibit Hall will also host more than 50 local vendors and natural resources organizations. Registration opened February 6th. For more information and to view the full Tree School Catalog, visit https://beav.es/tree-school-clackamas. Advanced registration is required, there will be no day-of registration available. Questions? Please contact Jean at jean.bremer@oregonstate.edu or 503-655-8631.

Linn Soil and Water Conservation District

Kevin Seifert
541-926-2483
www.linnswcd.org

Rotation Grazing for Water Quality

By Kevin Seifert, Linn Soil & Water Conservation District

Pasture season is almost upon us. Warm weather led us to an early grazing season that is still plagued by wet pasture. It's almost time when your ruminants finally get to have a taste of that lush and plentiful grass that you've worked hard to maintain.

There are a few different grazing management styles: continuous, rotational, and high intensity. Each has its pros and cons.

It all starts with soil. Without this base foundation, it doesn't matter what you do in terms of seeding and fertilizing. Operators need to know how to manage the soil in order to manage the forage that grows on it in order to manage the ruminants grazing the forage. It's much more efficient to build up with that plan in mind. Oftentimes, we work backwards from the bovine.

Let's look at the three grazing management styles.

Continuous grazing involves a large area that the animals graze on for a long period of time. Advantages to continuous grazing include very little time and infrastructure invested. Kick the cattle out on grass and maybe check on them every so often.

There are more cons to continuous grazing. One disadvantage is that the forage is eaten too close to the ground, which affects regrowth. Also, the soil tends to compact in some areas and manure and urine is not deposited evenly, meaning some areas are over-fertilized and some areas are under-fertilized. And cows tend to select around certain weeds, which will lead to a weed problem as those weeds go to seed and the desirable grasses and legumes don't get a chance to reseed. This can also lead to the best chance for a water quality violation if grazing is held too long and impacts nearby streams from surface run-off.

Rotational grazing involves rotating the animals from pasture to pasture and introducing a new swath of grass on a defined schedule.

There are loads of different ways that one can plan a rotational grazing system. Some key pieces that need to be considered are water access and managing the grass in such a way that it has a chance to regrow and won't get nipped again within the critical first days of regrowth. Rotational grazing needn't involve daily moves. You could move your animals on a weekly basis as long as you give your forage a chance to regrow before the animals hit it again.

While there is more work with fencing and continuously moving animals, rotational grazing provides late season forage.

Example of overgrazing that happens with continuous use pastures.

Pros to rotational grazing are that forage has a chance to regrow, sending roots down deeper to protect against future drought. The fertility of the soil is spread out more evenly, and there tends to be less soil compaction because the animals are moving.

Cons are that this system takes a bit of infrastructure in terms of fencing off pastures and water access, as well as the time required to move the cattle.

High-intensity grazing is a version of rotational grazing. It consists of a fairly high stocking rate per pasture, but the number of pastures and the frequency of moves gets turned way up (daily, twice a day, or even more frequently).

As with traditional rotational grazing, each paddock gets a chance to regrow before the animals hit it again.

Pros to high-intensity grazing are the same as the pros to traditional rotational grazing with the added benefit of pesky weeds being eaten or trampled down. The short-term trampling helps soil structure and prevents compaction. Also, fertility is distributed rather evenly in a high-intensity system, making it ideal for soil health. And because the animals always get a "desirable" bite of grass, they tend to perform better.

There are many different options to consider in rotational grazing and cell/paddock design. However, whatever the design, research has shown time and time again that incorporating some rotation will help increase gains and allow you to have more cattle on the same acreage.

The tricky part is that each rotation that gets added involves more labor and possibly more fencing and water infrastructure. However, many people don't factor the long-term benefit to soil health that comes with managing their grass in a better way. Having a growing system leads to better gains, increased soil health, longer grazing seasons, and increased capacity.

Looking at making changes? There are services available to help make changes to higher intensity grazing structures. Help with watering facilities and fencing can be had through several programs available in Oregon. Contact your local Soil and Water Conservation District for a chat on how to better use your resources.