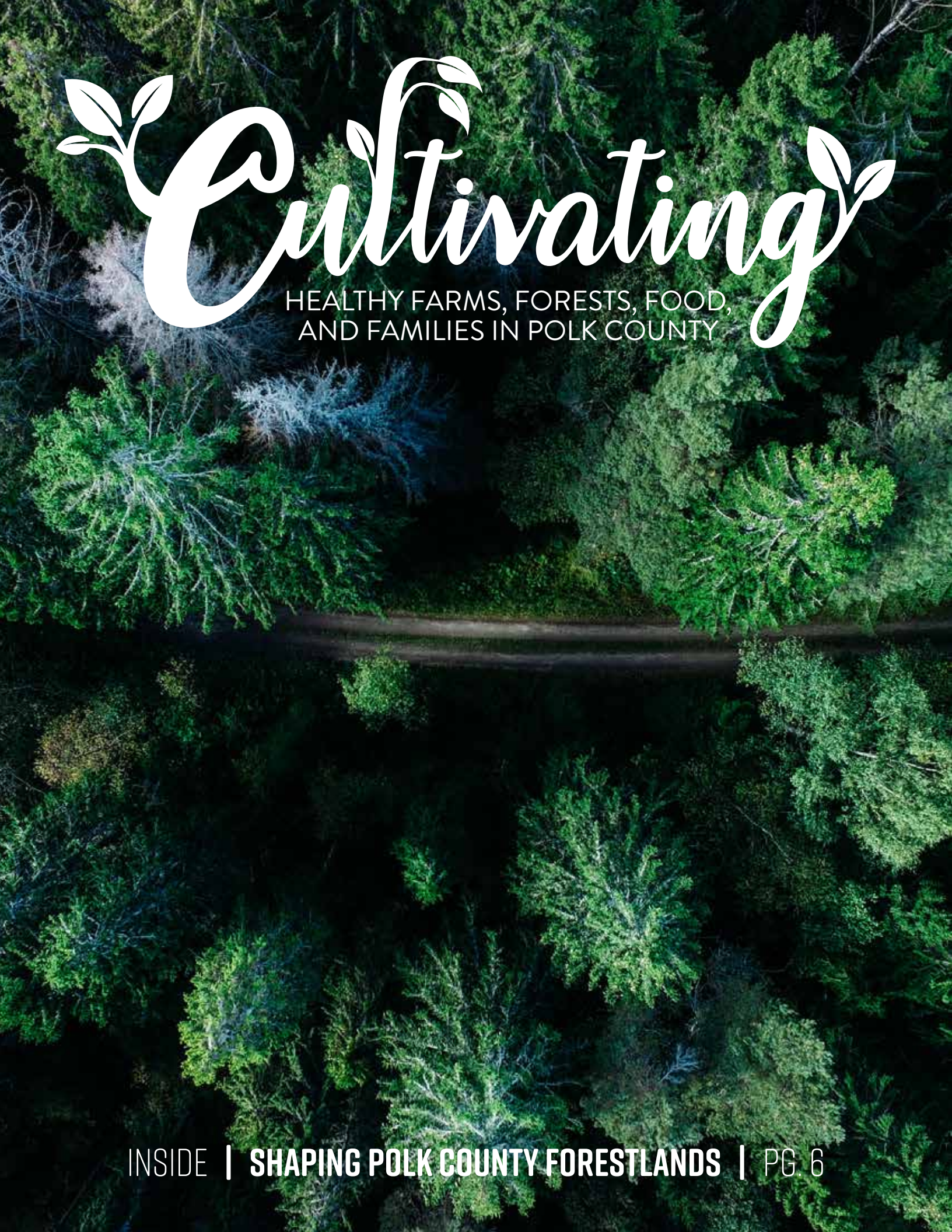
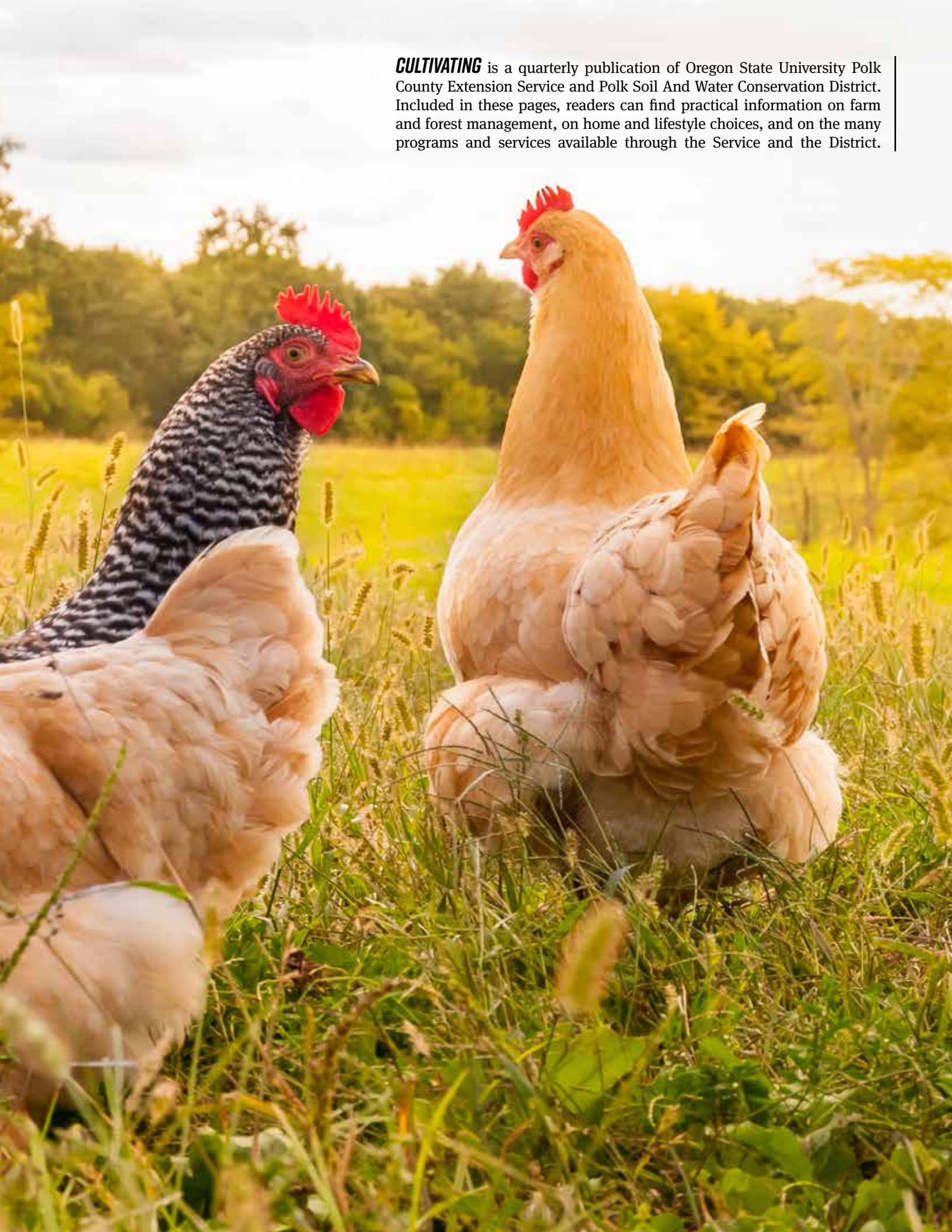


Cultivating

HEALTHY FARMS, FORESTS, FOOD, AND FAMILIES IN POLK COUNTY

INSIDE | **SHAPING POLK COUNTY FORESTLANDS** | PG. 6

CULTIVATING is a quarterly publication of Oregon State University Polk County Extension Service and Polk Soil And Water Conservation District. Included in these pages, readers can find practical information on farm and forest management, on home and lifestyle choices, and on the many programs and services available through the Service and the District.



WHO WE ARE

Oregon State University
Extension Service
Polk County

The Polk County Office of the Oregon State University Extension Service provides research-based educational information and programs in Agriculture, Forestry, 4-H/Youth and Family and Community Development for the citizens of Polk County.

OSU Extension's mission is to convey research-based knowledge in a way that is useful for people to improve their lives, their homes, and their communities.

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CALENDAR OF EVENTS

OSU Extension Polk County and Polk SWCD

MARCH

13 - PSWCD – Board Meeting, Long Range & Annual Work Planning Session, Budget Audit – Roth's, 1130 Wallace Road NW, Salem, OR 97304 – 5:00pm

13 - OSU – Mək Mək Mania – Grand Ronde Gym – 10am–1pm

14 - OSU – OSU Extension Agri-Eco Tourism Conference – Unitarian Universal Congregation of Salem – 8:30am–3pm

25-29 - OSU – OSU Extension Spring Break 4-H STEP Classes. Check Polk County 4-H Facebook for details!

27-29 - OSU – Youth Tractor Safety & Certification – North Willamette Research and Extension Center, Aurora, OR. Registration Required 971-801-0324. – 8:30am–4:30pm

APRIL

TBA - Claudia comes out for the season! – See advertisement in this issue.

26 - Claudia rented to City of Albany

10 - PSWCD – Monthly Board Meeting – Polk SWCD Office – 580 Main Street, Suite A, Dallas, OR 97338 – 6:00pm

MAY

1 - PSWCD – OWEB Small Grant Window Opens

10 & 11 - OSU – Polk County Master Gardener Plant Sale – Polk County Fairgrounds – 9am–4pm

13 - PSWCD – OWEB Small Grant Window Closes

15 - PSWCD – Monthly Board Meeting & Budget Committee Meeting – Polk County Fairgrounds – Arts & Crafts Building – 520 South Pacific Hwy., Rickreall, OR 97371 – 6:00pm

22 - PSWCD – Budget Committee Meeting (if needed) – Location TBD – 6:00pm

27 - OSU & PSWCD – Memorial Day – Office Closed

JUNE

12 - PSWCD – Monthly Board Meeting & Budget Committee Meeting – Polk County Fairgrounds – Arts & Crafts Building – 520 South Pacific Hwy., Rickreall, OR 97371 – 6:00pm

JULY

1 - PSWCD/NRCS – Elk Meadows and Soil Erosion in Orchards Strategy roll-out

4 - PSWCD – 4th of July - Office Closed

4 - Polk County 4th of July Parade – Independence, OR – Claudia rented

10 - PSWCD – Monthly Board Meeting – Polk SWCD Office – 580 Main Street, Suite A, Dallas, OR 97338 – 6:00pm

WHO WE ARE

POLK SOIL AND WATER
CONSERVATION DISTRICT

Nearly 3,000 Soil and Water Conservation Districts (SWCD) across the United States are helping local people conserve land, water, forest, wildlife, and related natural resources. SWCDs are charged with directing programs to protect local renewable natural resources.

Polk SWCD was formed in April 1966, and promotes erosion control, reduction of invasive species, improvements to farms and forests, control of animal waste, as well as improving wildlife habitat and water quality/quantity issues in Polk County. The Polk SWCD is administered by 7 locally elected volunteer directors representing 5 zones and 2 at-large positions within the county. The Polk SWCD is a source of information and education on natural resources.

OFFICE LOCATION & HOURS

580 Main Street, Suite A
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manager@polkswcd.com | Ext. 110

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CONTENTS

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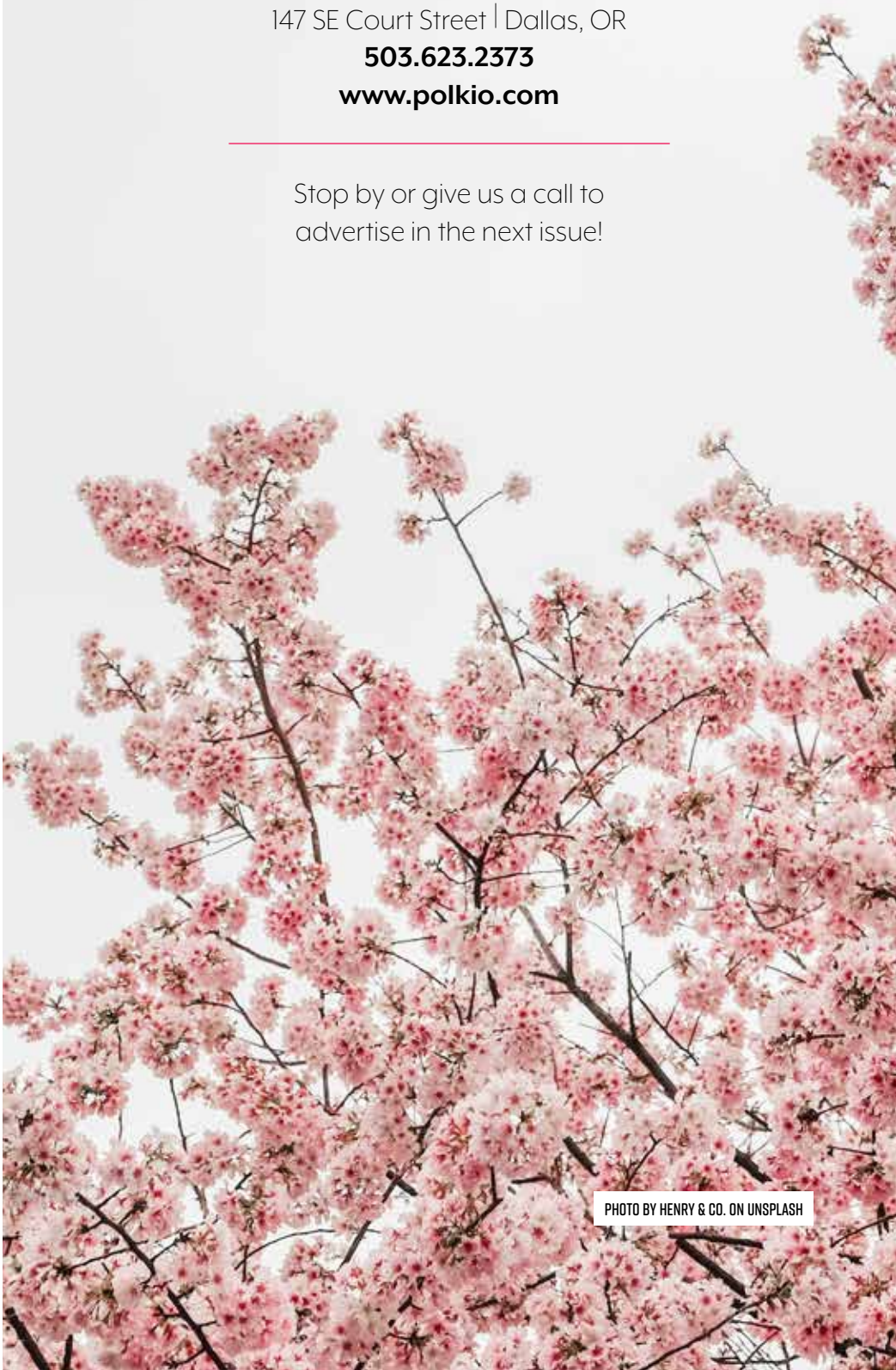
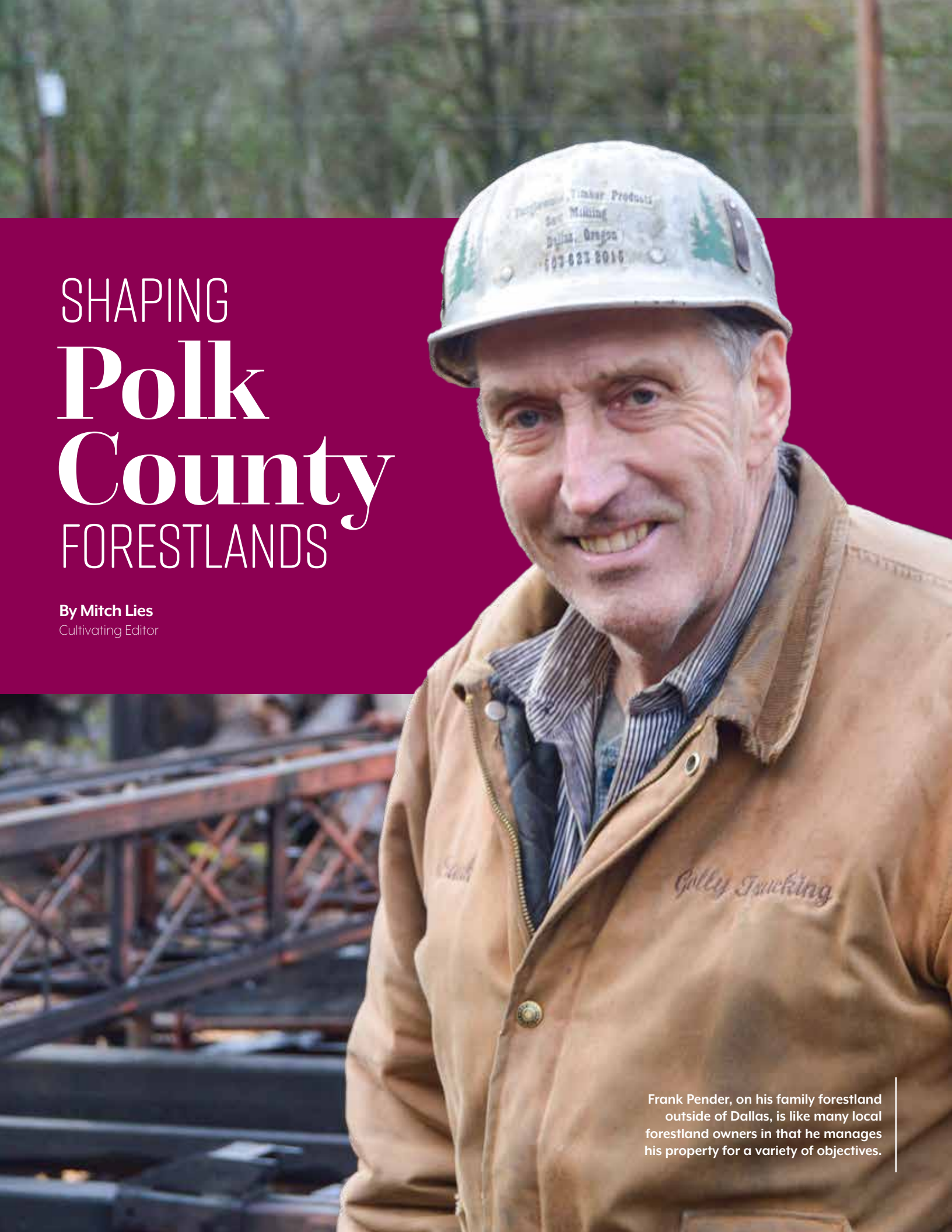


PHOTO BY HENRY & CO. ON UNSPLASH

SHAPING Polk County FORESTLANDS

By Mitch Lies
Cultivating Editor



Frank Pender, on his family forestland outside of Dallas, is like many local forestland owners in that he manages his property for a variety of objectives.

It took a while. More than three decades, in fact, before Frank and Alice Pender harvested some of their trees.

"We liked it just the way it was," Frank Pender said. "It was beautiful. It was like walking into a big park that had never been touched. And we had cougars, bear, bobcat and deer going through here, and lots of birds."

Finally, in 2006, the Penders took off about a million board-feet of timber from the tree farm they have owned and managed for decades.

Still, they left another half-million board-feet untouched, leaving trees to guard against erosion on canyon slopes, leaving hardwoods, such as oak savanna, to provide wildlife habitat and leaving stands of Douglas fir that hold sentimental value for the couple. And, following the harvest, Frank Pender replanted thousands of trees for carbon sequestration, beautification, recreation, water-quality preservation and, if ever the need arises again, to be harvested by the next generation.

The Penders, it turns out, are similar to many of the family forestland owners who manage tens of thousands of acres of Polk County forests. They have a variety of objectives for their woodlands.

"There is a huge range of interests and objectives among the thousands of family forestland owners in Polk County," said Oregon State University Forestry and Natural Resources Extension agent Brad Withrow-Robinson, who covers Polk, Linn and Benton counties. "Timber is among the top ten reasons for owning forestlands, but is usually pretty low on their top ten reasons. Ascetics, wildlife habitat, a place to live, leaving a legacy for future generation and recreation: Those are all prominent objectives people have for their woodlands."

Family forestlands make up 79,000 of the 262,000 total acres of timberland in Polk County, according to the Partnership for Forestry Education, a collaboration of state, federal and private organizations created to provide educational programming for forestry. The parcels range from a couple of acres on the rural interface just outside of Dallas to fairly significant tracts, hundreds of acres in some cases.

In nearly all cases, landowners, like Frank and Alice Pender, are passionate about their land, Withrow-Robinson said.

On their Tanglewood Timber forestland, Alice tends to the grass-lined roads that traverse the site, each with its own name and purpose. Frank tends to the forests, selecting species for replanting based on site adaptability and other factors. He chooses when to take out the 80- to 100-foot Douglas fir trees that are having difficulty surviving the drought conditions that have parched Western Oregon the past several years. "They don't like long rain events and long hot spells," Pender said. And Pender chooses which of the hardwoods to harvest and sell to furniture makers, who come from around the country to purchase the maple burl and other distinguishable pieces of timber growing on the property.

Raised just outside of Gresham, Ore., Pender came by his love of wood and wood products from two sources, he said. "I had an excellent high school woodshop teacher and my dad had a lumber company in east Multnomah county."

> "There is a huge range of interests and objectives among the thousands of family forestland owners in Polk County. Timber is among the top ten reasons for owning forestlands, but is usually pretty low on their top ten reasons."
>
> BRAD WITHROW-ROBINSON
> OSU Forestry and Natural Resources Extension agent

During his teenage years, Pender ran cattle, accumulating 150 head by the time he was a senior at Reynolds High School in east Multnomah County. Timber, he said, is easier to manage than cattle.

Pender, who is distinguishable among Dallas residents because of the hard hat he wears around town, served on multiple committees and boards over the years, including the Polk Soil and Water Conservation District Board, which he served on for more than 10 years, and on the legislative committee of the Oregon Small Woodlands Association. He continues to serve on the Southwest Polk Rural Fire District Board and is vice chair of the Willamette Education Service District's Board of Directors.

As for the hard hat, Pender said it got to be a hoot that he enjoys carrying on.

"It got to be kind of fun," he said. "And now, if I don't have it on, somebody says, 'Who are you hiding from?' I've been to conferences and meetings where people didn't see me because I didn't have my hat."

Pender, who actually has two hard hats, a Job Corps hat that is his everyday hat and a newer one that he wears for special events, also is distinguishable because of his knowledge of forestland management. He has been a master woodlands manager for 25 years, has gone through the OSU master watershed program, and several landowners have come to him over the years asking for help in writing forestland management plans.

In many cases, management plans are needed for landowners to access grants or cost-share programs available through public and private institutions, Withrow-Robinson said. In some cases, financial assistance is available to help write plans.

"Your first step, particularly if you are a new family forestland owner might be to get a small cost share to help get a management plan developed," Withrow-Robinson said. "Then you would use that to get into your restoration project."

Also, Withrow-Robinson said, OSU Extension has online resources to help landowners write plans.

Often, Withrow-Robinson said, one of the more difficult parts of writing a plan is determining objectives. "I can't tell you how many conversations I begin by helping landowners tease out their objectives," he said.

Once plans are in place, achieving goals also can be challenging, especially for people who don't have backgrounds in forestry.

"Things don't appear to move very fast in a forest," Withrow-Robinson said. "It is not like planting a garden and then three weeks later things have changed. But things do change in the forest, and there are windows of opportunity for doing certain things that come and go. One of the issues I have been encouraging people to think about for the past few years is thinning stands in a timely manner to help shape them to better fit objectives.

"Yes," he said, "it happens in years, not weeks, but sometimes those opportunities come and go more quickly than people realize."

Pender, who retired several years back after teaching for 30 years, spends a significant portion of his time on his forestland these days. "There are some pretty sacred areas up here," he said, scanning a stand of trees. "And there is a lot of sentimental value for me up here. I enjoy being up here immensely."

Good forestland management helps ensure that is the case.

Q+A with KARIN STUTZMAN

DISTRICT MANAGER | Polk Soil And Water Conservation District

Q: Can the District help me find answers to the many questions I have about using my lands natural resources?

A: Why yes, we can! This new Q and A format will accompany each quarterly Cultivating magazine. I'm beginning the conversation with some commonly asked questions to the District. If you have a question you would like me to try and answer, please email me at: manager@polkswcd.com.

Q: Is Rural Living for me?

A: Living in the country can be a rewarding and wonderful experience, but encountering the unexpected can be disheartening. I've listed some issues you can potentially encounter and will need to consider before moving to the country. What happens if you lose livestock or a pet to a predator? Do you have garbage service? Recycling? You are responsible for the quality of water that leaves your land, what are the regulations surrounding this? You are responsible for maintaining your well and septic systems, there is no municipal testing of the quality of your water source, does it contain nitrate, heavy minerals? What does that mean to you? The access road to your property is not publicly maintained and it is your responsibility to maintain it, do you have the money for that? The forested land next to the property you just bought is going to be logged, what happened to the peace, quiet, and beauty I thought I was purchasing with my property? Your neighbor applies pesticide that drifts onto your land and kills your roses, what can you do? You are responsible for a fire that starts on your land and spreads to other properties, how will you control it?

Q: Can I construct a pond on my property?

A: Investigating and planning to build a pond on your property will be a complex and time consuming effort. The permit and approval process can take years to complete. Most ponds require a water right to store water. A water right is also required to use the water stored in the pond. There are many aspects to understand, such as the rules, permits, planning, design, and building of a pond on your property. Some key points to consider: determine the pond purpose and type, evaluate the land for a suitable pond site, investigate the need for permits and regulations, understand the basic pond design process, find sources of technical and financial assistance, what maintenance is required, and how often. Although the District does not have an expert on ponds, we can provide resources for you to read as you are thinking about building a pond.

Q: Is the District a regulatory agency?

A: No, we are not. Our mission is to lead local efforts to plan and implement conservation measures and watershed improvements on agricultural, forest, and other urban and rural lands. We strive to help landowners prevent soil erosion, control invasive species, control pollutants, and maintain water quality, amongst a variety of other topics. We do however have close working relationships with a variety of agencies, some that are regulatory, and some that are not. We work with federal, tribal, state and local agencies as well as a variety of citizen and watershed groups.

Submit Your Questions To:
KARIN**STUTZMAN**
manager@polkswcd.com

Arborist mulch.

Hazelnut shell mulch.

Leaf mulch.

Spring is a good time to mulch landscape

By Neil Bell
OSU Extension Community Horticulture

Spring is a very good time to consider adding or refreshing the mulch layer in the flower beds in your garden. The soil is well supplied with moisture from our winter rains and it's still a bit cool for summer annual weeds to germinate, so you can accomplish two main goals of mulching, water conservation and weed control, at one time.

Mulch could be defined as any material spread over the soil surface that has a modifying influence on the soil and perhaps an effect on the plants in the soil. Organic mulches occur naturally in forests or, for that matter, in gardens where leaves and organic debris are not removed. Mulches have a broad range of positive effects on soils. In general, using an organic mulch will conserve water, reduce weeds, improve soil quality and enhance plant growth. The most common organic mulches used in the Pacific Northwest include bark products, yard waste compost, arborist mulch, mint hay, deciduous tree leaves and hazelnut shells. Below is an overview of these products and their use in the garden.

Mention "mulch" for a shrub bed and this is the first thing most people think of. Bark is often referred to as "bark dust." The most common bark products are Douglas fir and Hemlock. A variety of grades of bark is available including fine, medium, and bark nuggets or rocks. The cost of fine or medium grade bark dust is usually similar. Nuggets (generally chunks less than 2" in size) or bark rocks (chunks 1.5-3" in size) are more expensive, although they are longer lasting than bark dust and will not compact like finer grades of bark will. Bark also contains a high proportion of lignin, a plant constituent that is highly resistant to decomposition. Bark contains very low levels of plant nutrients and fertilizer value.

Sometimes sold as "garden compost," yard waste compost is composed of grass clippings, leaves, brush, and tree and shrub prunings. Because of the array of plant components that go into making it, and because it is composted, it is a fairly good source of phosphorus, potassium, calcium, magnesium and nitrogen. Yard waste compost has a dark color and fine texture, which makes it

Mulched landscape.

Yard waste mulch.

PHOTOS BY NEIL BELL | OSU EXTENSION

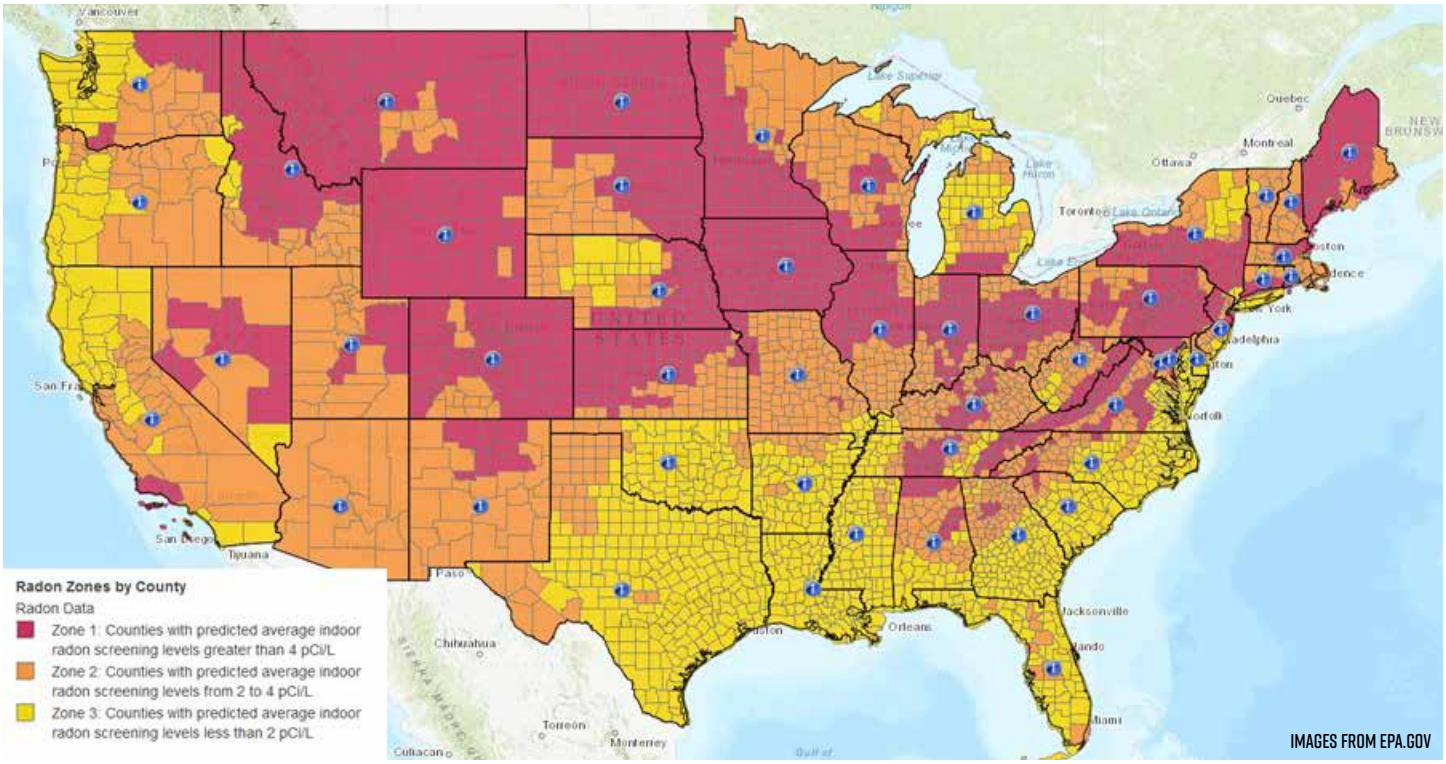
attractive as mulch. However, it breaks down fairly quickly and provides a good medium for weed growth.

Arborist mulch is available from tree service companies and consists of chipped limbs and trunks of trees they have pruned or removed. Therefore, it contains wood and bark as well as leaves from one or more tree or shrub species. Arborist mulch is typically very coarse, and may contain some large pieces, so it is not uniform in appearance like bark mulch. Studies have shown it does a good job of suppressing weeds and conserving water. The large particle size for arborist mulch, combined with the fact that it is very "woody," means that it is resistant to decomposition and does not readily pack down. However, in some cases the lack of uniformity may cause problems in spreading it on the landscape, and to some people it may not possess the aesthetic appeal of bark mulch or yard waste compost.

Deciduous tree leaves are a readily available organic matter source. Some cities will deliver leaves collected from streets to your property at little or no charge. Leaf mulch, or leaf mold (partially decomposed leaves), has a near-neutral pH (6 to 7.5). Most kinds of leaves are a good source of potassium.

Peppermint hay, consisting of leaves and stems that have been heated to remove peppermint oil, is one of the most commonly available residues from Willamette Valley farms. Mint compost may be available in bulk from growers or mint processors. It is less commonly sold by retailers of other types of mulch and soil products. Freshly cooked peppermint hay, offered for sale in August, is a relatively good source of nitrogen and potassium. Composted peppermint hay is more suitable for landscape use than freshly cooked hay and has greater long-term value as a soil amendment. It is usually uniformly black in color, and fairly coarse in texture. Mint compost often contains compacted chunks that can make application difficult. For informal situations mint compost is effective mulch, although it decomposes rapidly and does not provide effective long-term weed control.

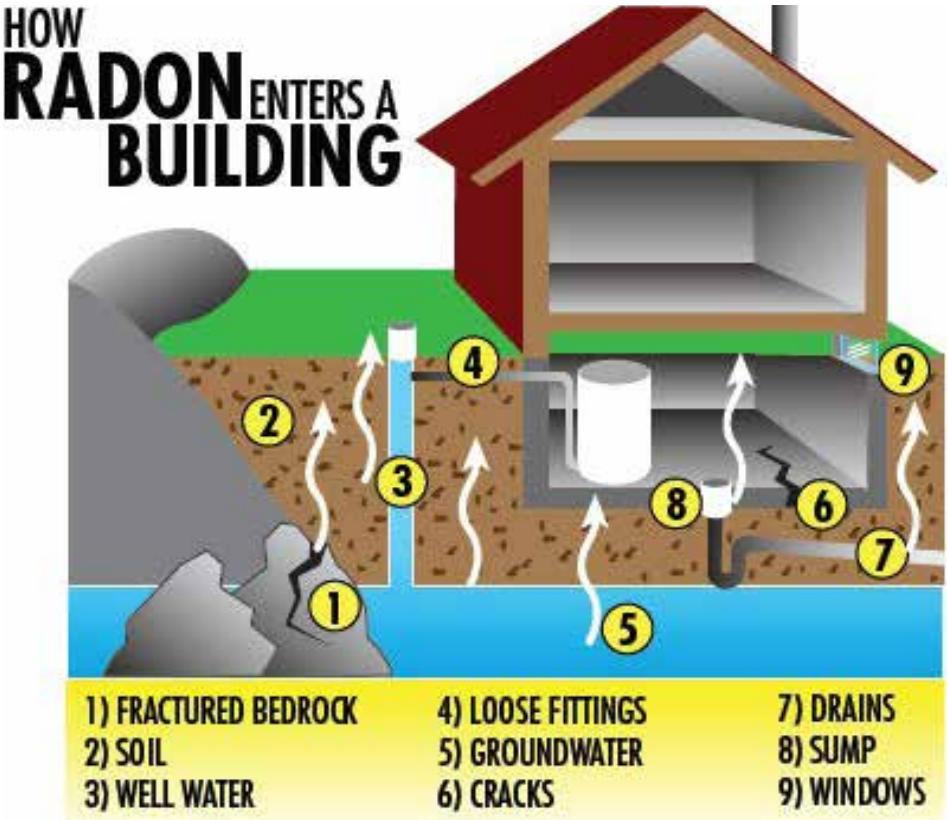
Lastly, Oregon is the leading producer of hazelnuts in North America, and recently the leftover nut shells have been marketed as a groundcover or mulch. Hazelnut shells are produced by cracking the hull of the nut and extracting the kernel, after which the cracked hull is left as a by-product. The cracked shells are usually found in 1.5 to 2.5 cubic foot bags, rather than in bulk. Because of the small size of the bags, this makes them far more expensive than other mulch products. However, the shells do have the advantage of being extremely resistant to decay, and tend to last almost indefinitely if not disturbed. Because they are light, they would not be suitable for slopes or other areas where wind and water could disturb them.



IMAGES FROM EPA.GOV

Radon in well water:

WHAT IS IT, AND WHAT DO YOU DO?



By Chrissy Lucas
OSU Extension Well Water Program

Radon is a colorless, odorless gas produced by the radioactive decay of the element radium, which has itself been formed by the decay of uranium. All rocks contain some uranium, although most contain a very tiny amount. Just as uranium is present in all rocks and soils, so are radium and radon, due to radioactive decay.

HOW IS HEALTH RISK MEASURED?

Currently there is no federally enforced drinking water standard for radon. The EPA is proposing that radon levels in drinking water from public systems be below 300 pCi/L, or alternatively below 4000 pCi/L if a multimedia mitigation plan for indoor air is developed by the state. The U.S. EPA does not regulate residential wells, but private well owners may use the U.S. EPA's proposed radon levels as their personal action levels.

WHAT ARE THE HEALTH EFFECTS OF RADON?

The U.S. EPA estimates that in homes served by wells, groundwater contributes about 5 percent of the radon found in the household air. Exposure can take place when taking a shower, doing laundry, or washing dishes. Compared to radon entering the home through water, radon entering through the soil and house foundations represents a much larger risk — so it is very important to test the level of radon in the air and, if it presents a health risk, to treat it using readily available technologies. Although the U.S. EPA still considers the risk from ingestion of radon through water to be small compared to the risk from breathing indoor air containing radon, it now says drinking water contaminated with radon may add some minor risk of developing stomach or other internal organ cancer.

WHAT TYPES OF TREATMENT SOLUTIONS ARE AVAILABLE?

It is possible to have water tested for radon; however special collection vials are required. Drinking water testing should be done by a certified drinking water testing laboratory.

Because the primary source of radon exposure is from breathing contaminated air in the home, removal should be where water enters a house or building. Point-of-use devices, such as those installed on a tap or under the sink, treat only a small portion of the water in the home and are not as effective in reducing radon; radioactivity also can build up on the filters of these devices and become a hazard. The two most common treatment technologies are granular activated carbon and aeration:

Granular activated carbon: This technology will remove 95 percent of the waterborne radon. It works by adsorbing the radon onto the surface of activated carbon. There the radon continues to decay and give off radiation; however, the treatment equipment is usually not located in the living area of the home. Although the granular activated carbon system has few moving parts and should have a long, useful life, radon build up over long periods of time becomes a low-level radioactive source requiring special disposal. This technology has a lower front-end cost, but there are costs associated with disposal of radioactivity build up after many years.

> Compared to radon entering the home through water, radon entering through the soil and house foundations represents a much larger risk.

Aeration: Radon can be easily removed from water supplies by blowing air up through the water and venting the resulting vapor out through the roof. This is most commonly accomplished with an air diffuser mounted at the bottom of a storage tank filled with water to be treated. As the air bubbles rise through the water, they strip radon and carry it out of the top of the tank and through a vent pipe to above the roof line. A greater level of success—as much as 99 percent removal—can be achieved when selecting a unit that utilizes a mister or nozzle located at the top of the tank to fill the tank along with a bubbler. This technology has a higher front-end cost than granular activated carbon but has no associated disposal costs.

IS MY PRIVATE WELL AT RISK?

Oregon has a statewide Radon map with test results and show you the potential for potential Radon contamination. http://public.health.oregon.gov/HealthyEnvironments/HealthyNeighborhoods/RadonGas/Pages/index.aspx

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To learn more try the National Ground Water Association's free online lesson about radon by visiting www.WellOwner.org.

WELL & SEPTIC CLASSES OFFERED FOR VALLEY RESIDENTS

This class, Rural Living Basics: Living with your water well and septic system is designed for rural residents to learn the basics of your drinking water well and septic systems to protect the health of your family, neighbors and animals, your property investment, and the safety of groundwater resources.

The featured presenter is Chrissy Lucas from the OSU Extension Service. Staff from the Marion Soil and Water Conservation District will also be on site, answering questions and providing information on services the district provides. If you live outside of Marion County they will be able to direct you to your local SWCD contact. The class will focus on basics for rural well water and septic maintenance.

THREE OPPORTUNITIES TO ATTEND ON APRIL 3, 2019

- **9:00am-11:00am**
  Woodburn Library
  Multipurpose Room
  280 Garfield Street,
  Woodburn OR 97071
- **1:00pm-3:00pm**
  ODFW Classroom
  4034 Fairview Industrial Drive,
  Salem, OR 97302
- **6:00pm-8:00pm**
  ODFW Classroom
  4034 Fairview Industrial Drive,
  Salem, OR 97302

FREE NITRATE SCREENING: If you would like your water tested, bring a clean jar of water (before any softeners or treatment).

The same content will be presented at all 3 workshops. In order to for us to better serve you, please RSVP at **eventbrite.com/e/well-and-septic-class-tickets-53614757182** for one of the classes.

Questions or concerns contact Jenny Ammon, jenny.ammon@marionswcd.net 503-391-9927

STEVEN WARD | OREGON STATE UNIVERSITY

4-H Summer Conference held at Oregon State University, which provides an opportunity for youth grades 7-12 to travel to Corvallis, explore campus life, make new friends, learn, and have fun.

4-H is *not* just about showing animals

By Kristi DuBois
4-H Youth Development

When people think of 4-H, they often picture young people proudly showing their farm animals at the county fair. While raising, training and showing livestock at the fair is a huge part of 4-H, there are many other 4-H programs that cater to children and teenagers with other interests.

4-H has a diversity of programs for children and youth from kindergarten to age 19. It offers a wide variety of volunteer-led clubs in interest areas ranging from robotics and other STEM-related subjects to soccer or gardening. It gives young people the opportunity to attend day and overnight camps where they learn new skills, make new friends, and practice being independent from parents. It develops teenagers' leadership skills with training retreats and community service opportunities. 4-H even helps schools by providing research-driven classes for in-school and after-school programs.

Here in Polk County, 4-H currently has about 25 clubs for many interest areas, including small and large animals as well as shooting sports, photography, gardening, leadership, entrepreneurship, and cooking. We have a newly active club called the Outdoor Club, which focuses on natural sciences and outdoor skills such as hiking, camping, snowshoeing, and plant and animal identification. We also offer one-off classes in crafts, baking, natural sciences and gardening to Cloverbuds (children K- 3rd grade) and older youth in our Polk County Extension Office. Any young person is welcome to attend these classes, even if he or she is not a 4-H member.

Polk County 4-H provides teenagers with many leadership opportunities. 4-H teenagers, in particular the Polk County 4-H Ambassadors, do community service, receive leadership training such as camp counselor training, and plan and run events like the Western Oregon Regional Leadership Development Conference (WORLD) held in Salem each winter. Polk County 4-H is always looking for motivated teenagers who can teach and mentor younger 4-Hers at camps, classes, and club meetings.

Polk County 4-H also offers area youth, even non-4-H members, the opportunity to attend day and week-long camps. This summer Polk County 4-H is running nature day camps for children at Gentle Woods Park in Monmouth, Dallas City Park, and most likely, at the Boys and Girls Club in West Salem. Our regional 4-H is again holding the ever-popular Wild West camp at the beautiful Oregon 4-H Center in the hills above West Salem, where kids can have the quintessential camp experience — staying in cabins, eating together in a mess hall, and learning new skills like horseback riding, archery, and low ropes climbing.

Polk County 4-H is also reaching out to schools and community organizations to build partnerships and creative, hands-on learning opportunities for young people. Some exciting future endeavors include using the Independence Inspiration Garden, run by the OSU Master Gardeners, as a natural sciences learning laboratory for local school children and working with Community Services Consortium to provide young people with the opportunity to design, produce, and market their own products, like T-shirts and carved medallions, in the STREAM Lab Makerspace in Independence.

4-H is always looking for new ways to help our young people grow and thrive. We welcome new volunteer leaders to start clubs or teach occasional classes, using their personal interests and skills to inspire young people to learn and try new things. We welcome schools and community organizations to partner with 4-H to provide our youth with meaningful community-learning opportunities. And above all, we welcome all young people, regardless of background or culture, to join us for a class, a camp, or one of our ongoing clubs.

For more information, visit the Polk County 4-H Oregon Facebook page or email Polk County Youth Development Educator Kristi DuBois at kristi.dubois@oregonstate.edu

*We offer camp and retreat scholarships for those who need financial assistance.

PHOTO BY SVEN SCHEUERMEIER ON UNSPLASH

CELEBRATING HEALTHY, LOCAL AND CULTURALLY RELEVANT FOOD WITHIN THE WEST VALLEY

Mək Mək Mania held in the Tribal gym. The event is a celebration of local food, farmers, hunting and gathering. The event was organized by Grand Ronde's Food Access and Community Team and sponsored by Marion-Polk County Food Share and the Tribe. Several information booths were at the event including Oregon State University Extension Service Master Gardeners and Master Food Preservers, McMinnville Gleaners, Grand Sheramina Food Pantry and Grand Ronde's Food Bank.

By Carly Kristofik
SNAP-Ed Coordinator

Over the last few years, the Oregon State University (OSU) Extension Service Supplemental Nutrition Assistance Program Education (SNAP-Ed) nutrition education team has had the honor of participating in exciting, community-driven efforts towards greater access to healthy, local and culturally relevant foods within the Grand Ronde community. Grand Ronde is part of the West Valley and has a population of about 1,660 people. It is home to members of the Confederated Tribes of Grand Ronde (CTGR), as well as non-tribal members. Access to healthy, affordable food can be challenging for community members, whose nearest full-service grocery store is more than 20 miles away in either McMinnville or Dallas.

Since 2014, the CTGR and Marion-Polk Food Share (MPFS) have been working closely together to improve the health of their community through increased access to healthy food, education and community awareness. In 2014, MPFS hired Francene Ambrose as the manager of the Iskam Mək Mək-Haws Food Pantry, which operates out of Grande Ronde. Francene shared her vision for the pantry, which is to provide a community hub for both tribal and non-tribal members where they can access healthy, nutritious and culturally appropriate food. She envisions "a place where people feel comfortable, respected and connected to community resources including jobs, education, social services and cultural food activities." For those that have met Francene, they know that she is always working on something new to support her community, and over the years, she has worked with various partners to bring in additional resources and education. Some of these include building a lending library where the community can share free books and collaborating with OSU Extension Service to host monthly healthy recipe tastings at food distribution as well as cooking and food preservation classes. She has also worked with MPFS to host garden education classes and plan community-wide organizing events to learn about needs and desires from the broader community.

The first of these community-organizing events followed the FEAST (Food, Education, Agriculture, Solutions, Together) model created by Oregon Food Bank. It was planned by Lexi Stickel at Marion-Polk Food Share in partnership with the Confederated Tribes of Grand Ronde, and took place in February 2015. From FEAST, the West Valley community identified priority areas to focus on and formed a coalition group, the Food Access Community Team (FACT). Facilitated initially by Lexi Stickel and now Taylor West from Marion-Polk Food Share, this group consists of five to ten committed community members from across the West Valley, including Francene. Meeting monthly, this group has continued to help drive improved access to and education about healthy, local and culturally relevant foods within their community. Over the years, between the initial FEAST event and the FACT group, a local Food Resource Guide has been developed, two annual celebratory local food events (First Foods Celebration and Mək Mək Mania) have begun, and two additional community-wide conversations have been hosted to identify next steps in this process.

The 3rd Annual Mək Mək Mania will occur on Saturday, March 16th from 10am-1pm at the Grand Ronde Recreation Center. Mək Mək Mania is, as Lexi Stickel put it, a "local food celebration with a flair towards [food] access." This year, Mək Mək Mania will serve as a kick-off for upcoming summer classes and events hosted within the West Valley. At this free, family-friendly event, there will be hands-on activities for kids and adults and educational resource tables that focus on local and culturally relevant food, gardening, food preservation, physical activity and nutrition. In addition, a delicious lunch will be provided. Come join us—everyone is welcome!

Life begins at retirement...

A Tradition of 'Staying' at Extension

By Mitch Lies
Cultivating Editor

Forty-plus years ago, Pam Scharf, who retired last fall after nearly 40 years with Polk County Extension, tried working in Salem.

"I hated the traffic," she said. "And I knew I wanted to stay in something that was tied to agriculture."

When Scharf learned the Polk County Extension Service's 4-H secretary, Bea Hiebenthal-Totten, was to retire, she applied to replace her. The rest, as they say, is history.

Other than two brief stints away from Extension, once due to budget cuts and once to work on the family farm, Scharf stayed on as 4-H secretary from the day she started, March 1 of 1978, to Nov. 30 of last year.


Scharf

"There is a tradition there of people staying," Scharf said. "Livestock agent Gene Pirelli (who also retired Nov. 30) was there 40 years. Dorothy Jurgenson was there something like 42 years and Marita Broadus was there almost 50 years."

She added that Hiebenthal-Totten was there 32 years before she replaced her.

Scharf said secretarial work changed immensely during her time at Extension. "When I came in, we had to know shorthand. We worked off the Dictaphones part of the time. We had typewriters, one of those old mimeograph machines that we did all of our bulk newsletters on, and we had push button phones with line one, line two and line three.

"Now, of course, you have computers, email, faxes and cell phones. Extension has changed so much and the way they get the job done has changed so much," she said.

Looking back, Scharf said her favorite part of the job was getting close to the people she worked with.

"The people I worked with, they are like a second family," she said. "It is a very tight, close group. I think that was the best part of the job."

FOR GENE PIRELLI, NARY A DAY HE DIDN'T RELISH WORK

By Mitch Lies
Cultivating Editor

There were the on-farm research projects, the workshops, the many changes in Oregon's livestock industry that he worked through, but what retired Polk County Extension agent Gene Pirelli remembers most from his more than 40 years with Oregon State University is the people.

"I was fortunate enough to work with a lot of good people over the years," he said. "If I had to pare it down to one thing that I remember most, it is the people I worked with, the producers, the clientele, and the people at Extension."


Pirelli

"Not many people can say this," he added, "but over 40 years, I never had a day I didn't want to go to work."

Pirelli, who retired on Nov. 30 of last year, reflected back recently on a career that included more than 39 years as an Extension livestock agent, a lengthy stint as statewide Extension Swine Specialist and a stint as Polk County Extension Chair.

Born in Woodburn and raised on a farm outside of Hubbard, Pirelli started at OSU in 1978, fresh out of the university with a degree in animal science. By the following year he was the Polk County Extension livestock agent, stationed at the Extension Office in Dallas, where he would stay throughout his career.

Through the years, Pirelli also served as Extension livestock agent for Marion, Yamhill, Linn, Benton, Lane, Washington, Multnomah, Clackamas and Lincoln counties. And from the mid-1980s until his retirement, Pirelli served as the statewide Extension Swine Specialist. He served as staff chair for Polk County Extension from 1989 to 1996.

Western Oregon's livestock industry has changed tremendously from when Pirelli first started with Extension, he said, going from what was then a fairly significant commercial industry to more of a niche market.

"When I started, for example, Yamhill County was full of sheep and cattle. Now, the wine industry, which is a more high-value industry, moved into those areas," he said. "There are still a few large livestock operations around Western Oregon, but not many. Now it is more small operations and niche marketing, all the way through beef, pork and lamb."

Despite the changeover, Pirelli said he didn't alter his approach to working with livestock producers.

"I had the philosophy that anybody that called or walked through the door, I didn't ask them how many animals they had," he said. "I treated them all the same. Obviously, the needs of the large commercial producers required a little more time and resources for some of their issues, but I tried to make myself available to anybody who had animals and needed help."

Early in his career, Pirelli came to believe the key to economic livestock production lie in the management of forage (pasture and hay for livestock), rather than just the science of ruminant nutrition.

"With the mentoring of several Extension agents and specialists, I came to the conclusion years ago that the best impact you can make on a ranch operation is forage management, because that is where you've got your cheapest feed resource, and yet feed is the highest cost," he said. "So, I spent an enormous amount of time working on forage resources for beef and sheep operations."

Pirelli's research still is available for producers to access in Extension publications. Also, Pirelli started back with Extension Jan. 1 in a part-time role in hopes of concluding some research he has started and to publish some additional papers.

After 40 years, it seems, the work still isn't done.

Extending Oregon's Strawberry Season

By Mitch Lies
Cultivating Editor

DAVE KING | OREGON STATE UNIVERSITY

Strawberries, as any frequenter of farmers' markets knows, are abundant in the Willamette Valley in June and early July. At times, market vendors show up with day-neutral varieties into August and even September.

But November?

This past fall, Javier Fernandez-Salvador, Oregon State University Small Farms Extension agent for Polk and Marion counties and Berry Extension agent at North Willamette Research and Extension Center, was harvesting strawberries the Tuesday before Thanksgiving.

And, he said, they were good.

The development is the result of a project begun in early 2018 to create alternate production systems for extending the season of fresh market strawberries in Oregon.

Among the most promising systems studied to date involves growing berries under low tunnels. The practice is common on the East Coast of the U.S., where rains in summer can lead to fruit rot if strawberries are unprotected, and in other regions of the world, such as Argentina, Spain and Mexico, where large acreages of strawberries are grown under tunnels, also for climatic reasons.

"For our weather conditions, I am trying to adapt an already researched system so we can hit the early and late-season markets in Oregon with locally produced berries," Fernandez-Salvador said.

To date, those markets are largely filled by fruit from California, and, to a lesser extent by berries from Mexico and South America. With some initial investment and some market development, Fernandez-Salvador believes Oregon growers could gain access to those markets, ultimately encouraging an increase in strawberry production and supplying what Oregon wants most: local fruit.

Fernandez-Salvador is also researching producing strawberries under plastic covered raised beds with fertigation, a more traditional system that involves applying fertilizer to strawberries through irrigation systems and installing plastic over the top of raised rows; he is working on vertical, soilless production of strawberries, which involves growing berries in a greenhouse environment to maximize production and facilitate harvest; he is surveying organic and conventional growers to determine research needs within the strawberry industry; and he plans to work with growers on analyzing fertility demands of strawberry plants.

Funding for the research comes primarily from the Oregon Legislature, which in 2017 provided a special two-year allocation to strawberry and caneberry research, an allocation set to expire on June 30. Obtaining additional funding is critical to achieving his long-term goals, Fernandez-Salvador said, including a revitalization of the Oregon strawberry industry.

> "For our weather conditions, I am trying to adapt an already researched system so we can hit the early and late-season markets in Oregon with locally produced berries."
>
> JAVIER FERNANDEZ-SALVADOR
> OSU Small Farms Extension agent

Strawberry production in Oregon has gone through a precipitous decline since its heyday, dropping from an annual production of around 100 million pounds a year in the 1950s and 1960s to approximately 20 million pounds a year today, according to the Oregon Strawberry Commission.

Fernandez-Salvador identified several reasons for the decline, including difficulties attracting farm labor to harvest the crop and Oregon's tradition of producing strawberries for processed markets, a tradition that has historically led to low margins.

"When you produce for the frozen, or processed, market, your price is much lower (than when growing fresh strawberries), but your costs are similar," he said.

Oregon's emphasis on the processed markets dates back to the early years of the state's industry, Fernandez-Salvador said. "For example, our breeding program has traditionally been focused on breeding strawberries with superior flavor and aroma for the processing market," he said.

California, on the other hand, which grows more than 85 percent of the U.S. supply of strawberries, focuses on the fresh markets.

Strawberry cultivars popular in Oregon, such as Hoods and Totems, may taste better than many fresh market cultivars, but they don't have the shelf life of day-neutral strawberries produced for fresh consumption. "The Hoods and Totems are great for making processed strawberry products, but they fall apart within a few days of purchase," Fernandez-Salvador said. "Fresh-market cultivars are not as flavorful as the berries bred for our processors, but they are firmer and have much longer shelf life."

Oregon may never get back to its heyday of strawberry production, but Fernandez-Salvador believes the state's production can increase substantially if growers are willing to adopt nontraditional production systems and produce varieties for fresh markets.

"It is a perfect storm of things that needs to happen for the fresh market to work," he said. "Growers are going to have to say, 'Okay, I am going to invest in and try a system that I may not be used to.' Then something needs to change so growers have reliable labor availability. And then they have to work with local buyers to create a market for those locally grown strawberries. But I personally think that with the right support, it could be done, and the strawberry industry can make a comeback in Oregon."

In the meantime, OSU Extension's season-extension research already is adding value to some production systems.

"Our research will always be useful to medium-size and small growers," Fernandez-Salvador said. "There are quite a few growers who already are trying these systems on small acreages, mainly because of their specialized locavore, organic, high-premium markets.

"Now, will it save the industry?" he asked. "That is a question of support, change and scale."

JAVIER FERNANDEZ-SALVADOR | OSU EXTENSION

Low tunnel structures over strawberry beds at the North Willamette Research and Extension Center in Aurora.

LOW TUNNELS FOR SEASON EXTENSION OF DAY-NEUTRAL STRAWBERRIES

By Erica Chernoh
Faculty Research Assistant
Javier Fernandez Salvador
OSU Extension Small Farms

Low tunnels are miniature greenhouses that use long sheets of plastic laid over hoops to cover a single bed. Unlike high tunnels, low tunnels can be easily picked up and moved; and since the plastic can be raised, the humidity levels and temperature can be managed to be lower underneath tunnels compared to high tunnel structures. Low tunnels provide many benefits for day-neutral strawberry production, including:

- Season extension due to increased air and soil temperatures underneath the tunnels which promote flower development later into the season with day neutral cultivars. Low tunnels also allow containerized strawberries to be planted and go into production earlier than traditionally grown plants. Increased temperatures under the tunnel during the cool spring months, promoting earlier flower and fruit production.
- Protect fruit from damage that may be caused by rain, frost, hail and strong winds, and have been reported to reduce sunburn.
- Reduce disease incidence (e.g. fruit rot, Botrytis, and anthracnose) by protecting the fruit from the impact of raindrops and eliminating standing water on the plastic mulch.
- Increase total yields and fruit size of day-neutral strawberries. Total yields are increased under low tunnels due to late season production and an increase in marketable yield due to less fruit damage.

The OSU Extension Berry Initiative is researching season extension for day-neutral strawberries grown for fresh market. Proposals have been submitted to evaluate performance of different plastics and tunnel structures, and evaluate cultivar performance.

For more information, please contact Javier Fernandez-Salvador (Javier.F-S@oregonstate.edu). Research has been possible with the support of the Oregon Legislature support for the Extension Berry Initiative.

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Mining Bee (Halictus ligatus).

Pollinator Garden on OSU campus.

Keep Oregon Pollinated

A PLUG FOR NATIVE POLLINATORS

By Betsey Miller
OSU Entomology Instructor

In recent years, there has been a lot of buzz in the media about the decline of pollinators. When we hear the popular slogan "save the bees," most of us think of that well-known workhorse, the western honey bee. What you may not realize is that the honey bee is just one of 20,000 different species of bees worldwide, and is not native to North America. It was brought here by European settlers and arrived on the West Coast only a few years before Oregon became a state! Experts estimate that Oregon hosts roughly 500 species of native bees. Add to that the other native insect pollinators, such as wasps, ants, flies, beetles, and moths, and conservationists have a lot more to consider than just honey bees.

Native pollinators are some of our most precious resources because they are well-adapted to pollinate the native plants that keep our local ecosystems healthy. Nearly 90 percent of plant species depend on animals (especially insects) for pollination, and the animals, in turn, depend on those plants for food, shelter, and erosion control to keep waterways clear and clean. Humans also depend on pollinators for our food, to a significant degree. Some 75 percent of food, fiber, and pharmaceutical crops require (or benefit from) pollination. The contribution of pollinators to our economy has been valued at nearly $30 billion annually!

Research suggests that native species are more efficient pollinators than honey bees because they tend to prefer pollen over nectar. Native pollinators also require less management than honey bees, and are better adapted to our climate. Bumblebees, for example, will forage in colder temperatures and lower light conditions than honey bees, making them quite an asset during our blustery springtime weather.

PHOTOS BY ANDONY MELATHOPOULOS

Yellow-faced Bumblebee (Bombus vosnesenskii).

The diversity of our native pollinator complex creates a natural resilience against environmental pressures like climate change. Each species plays a unique role in the function of the group; it is therefore important that we do all we can to keep populations of native pollinators healthy. Dr. Andony Melathopoulos, an Oregon State University entomologist and member of the Oregon Bee Project, is leading the charge in a state-wide effort to evaluate and protect the health of Oregon's native pollinators. He shared these ten tips for gardeners and restoration managers wanting to improve habitat for wild bees:

1. Use plants with a diversity of flower shapes and colors — it will help to attract a diversity of pollinators. In fact, research suggests that flower shape (rather than color) has a greater influence on how pollinators show preference for certain plants.

2. Make sure the blooms of different plant species overlap — this will ensure a continuous food source through the seasons. Some of our bees (like mason bees) forage as early as February while others (like sweat bees) forage as late as October. There is a need for blooms throughout this entire period.

3. Include native plants — they provide better odds of attracting native bees. There are some great exotic plants for bees (lavender is one), but if you aren't sure, a native plant is more likely to attract native pollinators.

4. Avoid double petal flowers — the second set of petals often come from modified stamens (think roses, carnations, marigolds). They look pretty, but have fewer resources for pollinators.

5. Don't forget about trees that bloom — they pack a lot of flowers into a small space. Maple, willow and fruit trees are great for pollinators.

6. Grow large patches of flowering plants — pollinators like big box stores and one-stop shopping.

7. Dead head to extend the bloom ¬– though not practical for land managers, this is a good tip for home gardeners.

8. Provide above ground nesting area for bees — many bee species are cavity nesters. Rock walls, twigs and hollow stems and logs make good nesting sites.

9. Leave some bare ground — don't over-mulch. Some species of bees dig tiny holes in the soil where they raise their young. Unlike yellow-jackets, these bees are non-aggressive.

10. Don't spray pesticides when bee-attracting plants are in bloom — this will put pollinators at greater risk of exposure to toxic chemicals.

About the Author: Betsey Miller teaches entomology at Oregon State University and conducts research on strategies for reducing pesticide use in agricultural production.

What is healthy soil?

By Sue Reams
NRCS Soil Scientist

"Soil" is made up of minerals, water, air and organic matter. The mineral part of soil is sand, silt, and clay. We cannot change this part of the soil. The organic matter content of soil can be changed by the land manager. Organic matter has an overwhelming effect on the other parts of soil. "Health" is defined as the physical condition of something. Organic matter improves the physical condition of the soil, resulting in healthy soil. This concept applies to crop land, grazing land, and forest land.

I recall three examples of healthy soil several times over the years. One farmer told me that the highest yields came where crops were planted following blackberry clearing. In another instance, I visited a field on a side slope that had just been cleared of blackberries and planted to grass seed. The following winter I saw that same field, and it had not eroded. The soil was holding so much water, that in places it looked like pudding, but I saw no erosion. Last year I read in the Wallowa County Chieftain newspaper about a producer who said he noticed the wheat yield was higher as he ran his combine across an old fence line. He wondered why, and began changing how he managed this field. In these examples, the increase in organic matter reduced erosion and increased yield.

There are three types of organic matter: living, dead, and very dead.

1. Living organic matter consists of microbes such as bacteria, fungi, protozoa, algae roots, insects and earthworms. These organisms eat residue, manure, and each other! They release nutrients and substance that bind soil particles together, and create holes for air and water.

2. Dead organic matter are recently deceased microbes, insects and earthworms. As they decompose, like the living they release nutrients and substances that bind soil particles together. But they also increase the water holding capacity of the soil like the three instances mentioned earlier.

3. Very dead organic matter is called humus, and is very old. Like the two other types of organic matter, humus releases nutrients slowly and increases water holding capacity. Most importantly, humus helps form major soil characteristics like internal drainage.

I encourage producers to examine your existing production system for opportunities to improve. Look for gaps of time to grow a short cover crop. Look for time gaps in forage, to experiment with a new short-term forage mix. Look for compacted areas that are bare or ponded, and plan to rehabilitate these areas back into production with a planting. Include conservation practices into your systems, to increase organic matter and to improve the health of your soil. In the long term, there will be a positive benefit overall.

Watch this video about 3 farmers sharing their experiences experimenting with cover crops: www.farmers.gov/media/blog/2019/02/27/farmer-scientists-five-trials-managing-soil-health

FOUR CONCEPTS TO IMPROVE SOIL HEALTH

- Always keep soil covered with residue or a growing crop,
- Minimize tillage,
- Ensure a living root is always present in the top soil, and
- Diversify the plants growing in the soil to feed the diverse microbes in the soil.

PRACTICES TO IMPROVE SOIL HEALTH IN CROPLAND

- Crop Rotation,
- Minimum Till or No-Till,
- Cover Cropping (some mixes only need 6 weeks growth to make a difference),
- Strips of permanent vegetation between rows of hazelnuts, grapes, berries or hops,
- Buffers such as Field Borders , Tree and Shrub Plantings, or Hedgerows add to the health of the soil along the edges of agricultural fields.

PRACTICES TO IMPROVE SOIL HEALTH IN GRAZING LAND

- Rotate grazing,
- Keep forage taller than 3",
- Forage mixes should be diverse and include a legume,
- Clip and drag pastures to spread manure evenly.

PRACTICES TO IMPROVE SOIL HEALTH IN FOREST LAND

- To reduce compaction, do not run forest machinery on wet soils,
- To increase nutrient cycling, keep small slash on the soil surface (does not apply to pine).

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THE WESTERN OREGON AND WASHINGTON *PASTURE CALENDAR*

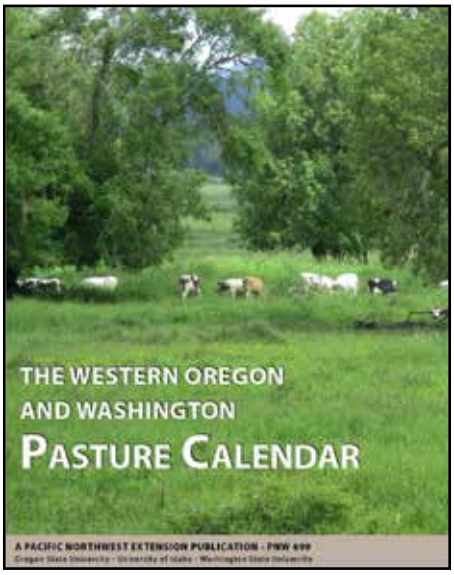
Reference Offers 'One Stop Shop' for Pasture Management

By Jackson Morgan
Associate Farm Specialist
Polk Soil and Water Conservation District

It might have taken until the middle of February, but we are finally starting to see what many would refer to as "typical Oregon winter weather." While many of us who raise, or help manage livestock operations, were beginning to think that we would be able to turn our stock out from their winter confinement areas early, these last weeks of snow and rain have helped to saturate the ground as it normally would've been, dashing our, and our livestock's, aspirations for early grazing.

Proper pasture and forage management, particularly in the winter months, is an art form that may end up requiring lots of time, energy and money to truly implement and understand. That being said, there are a multitude of tools and resources that are available to help you get on track to better manage, or simply improve upon, your pastures and forage production.

While still a relatively new document, The Western Oregon and Washington Pasture Calendar, a Pacific Northwest extension publication written in collaboration with pasture and forage experts from Oregon State University, Washington State University, and the University of Idaho is a 50-page "one stop shop" for all of your management questions. From the anatomy of grass, factors controlling growth, and



SCOTT ROBBINS
Cover of the Pasture Calendar Publication.

what management practices should be occurring during which part of the month, depending on your location within the western part of the state, The Western Oregon and Washington Pasture Calendar is an invaluable tool and resource available free of charge as a PDF download via the OSU Extension Publication library (PNW 699). While the calendar itself may at first seem intimidating or confusing, it really is an incredibly easy document to read, reference and understand.

As an example, at the time of this publication we will either be in the second half of February or the first half of March, coupled with that, most anyone receiving this newspaper is living in the Willamette Valley, and while there may be some argument as to where exactly the dividing line is drawn, most of us reside within the Bottomland portion of the valley—which might be why we see so much ponding and flooding!

Using these two pieces of information we can reference the calendar and see that we are in what has been defined as period 5. Simply looking at the calendar, this period is defined as "increasing growth" and is briefly described

> Proper pasture and forage management, particularly in the winter months, is an art form that may end up requiring lots of time, energy and money to truly implement and understand.

as the growth period in which the plant uses its reserves to increase growth. While that might be enough for some of us, referencing page 12 of the document gets us a more in depth explanation of "What the grass is doing," "Environmental factors," "Management needed," and "Things to avoid" which after reading should leave few, if any questions unanswered.

While not a set of hard and fast rules, as everyone's property is different, the calendar is a tool definitely worth utilizing if you're looking to make positive changes in your current forage management system. Lastly, I want to thank Steve Fransen, Gene Pirelli, Marty Chaney, Larry Brewer, and Scott Robbins for taking the time to come up with and write this publication; I have personally used it to help improve my management, and I hope you will too!

Pasture Calendar—Western Oregon

	Siskiyou Mountains and Valleys	Willamette Valley		Coast Range	North Coast	South Coast and Redwood Belt	Your Farm
		Upland	Bottomland				
MLRA or CRA:*	5.1, 5.7, 5.24, 5.25, 5.28	2.1, 2.2, 2.3, 2.4, 3.1	2.1, 2.2 2.3, 2.4 3.1	1.1, 1.2, 1.6, 1.7	4A.1, 4A.2, 4A.3	4A.2, 4B.2	
Forage management zone (Figure 5):	5	2	2	1	4A	4A, 4B	
Month	Growth period (see descriptions on page 8)						
September *(1st half)***	10	1	1	2a	2a	2a	
September *(2nd half)***	1	1	1	2a	2a	2a	
October *(1st half)*	2a	2a	2a	2b	2a	2a	
October *(2nd half)*	2a	2b	2b	2b	2b	2b	
November *(1st half)*	2b	2b	2b	3	2b	2b	
November *(2nd half)*	3	3	3	3	2b	2b	
December *(1st half)*	3	3	3	4	3	3	
December *(2nd half)*	3	4	4	4	3	3	
January *(1st half)*	4	4	4	4	4	5	
January *(2nd half)*	5	4	4	4	5	5	
February *(1st half)*	5	5	5	4	5	5	
February *(2nd half)*	5	5	5	4	5	6a	
March *(1st half)*	6a	6a	5	5	6a	6a	
March *(2nd half)*	6a	6a	6a	5	6a	6a	
April *(1st half)*	6b	6a	6a	6a	6a	6b	
April *(2nd half)*	6b	6b	6b	6a	6b	6b	
May *(1st half)*	7	6b	6b	6b	6b	6b	
May *(2nd half)*	8	6b	6b	6b	6b	6b	
June *(1st half)*	9	7	7	6b	6b	7	
June *(2nd half)*	10	7 8	7 8	7	7	7	
July *(1st half)*	10	9	8	7	7	8	
July *(2nd half)***	10	10	9	8	8	8	
August *(1st half)***	10	10	10	8	8	8	
August *(2nd half)***	10	10	10	9	8	8	

STEVE FRANSEN, GENE PIRELLI, MARTY CHANEY, LARRY BREWER, AND SCOTT ROBBINS

*MLRA = Major Land Resource Area. MLRAs are geographically associated land resource units (LRUs), based on physiography, geology, climate, water, soils, biological resources, and land use.

CRA = Common Resource Area. CRAs are created by subdividing MLRAs by resource concerns, soil groups, hydrologic units, resource use, topography, other landscape features, and human considerations affecting use and treatment needs.

For more information, see https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/geo/?cid=nrcs142p2_053625

**Depends on soil moisture and precipitation. Water will maintain growth or break dormancy.

Preventing Soil Erosion in Hazelnut Orchards with Cover Crops.

RECAPPING 2019

Local Working Group Meeting

LOCAL NATURAL RESOURCE CONCERNS DISCUSSED IN POLK SWCD & NRCS MEETING

By Karin Stutzman
District Manager
Polk Soil and Water Conservation District

Every year the District works with the Natural Resource Conservation Service (NRCS) to host a meeting addressing local natural resource concerns. Let me give you some background on how this group got started. The Soil Conservation Service was initiated nationally by the Soil Conservation Act of 1935 in response to the "Dust Bowls" of the 1930s and the obvious need to conserve natural resources. The need for local leadership was recognized thereafter to coordinate efforts in conservation and tie assistance programs to local conditions and priorities.

In 1939 Oregon passed the Soil Conservation District Law that enabled the formation of soil and water conservation districts, the local leaders in conservation. Once an SWCD was created, a district could invite NRCS into the county to provide added technical expertise, resources, and programming. From this relationship was born the annual local working group meeting. These yearly meetings ensure that conservation practices are developed using community stakeholder input and to identify program funding needs at the local level.

At the January 25th meeting we recapped the past two years progress for the top five natural resource concerns. These included: forest health, oak ecology and the wildlife tax deferral, erosion in perennial crops, invasive weeds, and water quantity and quality.

To recap, District Conservationist Evelyn Conrad explained accomplishments born out of the NRCS Diverse Forest Conservation Implementation Strategy (CIS). This CIS from 2017 addresses forest health across the county and the need for maintaining healthy forest stands, including oak habitat. Then District Manager Karin Stutzman provided information regarding the dormant Oregon Department of Fish and Wildlife (ODFW) Wildlife Tax Deferral, available in some counties, including Polk. She let the

NATURAL RESOURCES CONSERVATION SERVICE OREGON | USDA

group know that discussions amongst larger SWCD's in the north Willamette Valley and ODFW have begun. This tax deferral could potentially be used by landowners with a management plan for wildlife, including oak woodland and elk habitat, but is dormant due to lack of ODFW funding to keep up on monitoring the plans. We hope to make further progress during 2019 to revive the deferral as it is complementary for landowners wishing to create and maintain wildlife habitat.

To address invasive weeds, the District was awarded a grant in 2018 to control Water Primrose Ludwigia peploides at Baskett Slough. We have since applied for a second round of control. We also provided information for reporting invasive weed problems to the Oregon Department of Agriculture (ODA) and to the Western Invasives Network, and we wrote a letter from our board to entities in the county asking for more roadside control of Poison Hemlock Conium maculatum and Tansy Ragwort Jacobaea vulgaris.

In regard to water quantity, the 2016 Secretary of State Audit Report for the Oregon Water Resources Department was presented, highlighting the lack of resources necessary to properly quantify water allocation throughout the state, a major challenge for the entity to resolve before they can meet the growing demand for more permits. We ended with a brief discussion regarding flooding concerns in Salt Creek and how a collaborative has been formed as a pilot group to help landowners in the area address increased flooding and what avenues are available to resolve the problem on larger levels.

Small groups discussed the concerns and provided feedback to help guide us moving forward. The next two Conservation Implementation Strategies in development, which will roll out October 2019, are Soil Erosion Control in Orchards with a focus on new hazelnut orchards, and an expansion of the current elk meadow/oak habitat in uplands titled Woodland Management for Elk.

The next LWG meeting will be held that last Friday in January 2020. A copy of the 2019 minutes can be obtained by calling the District office at 503-623-9680 x110.

Polk Extension Agent Wins Service Award

Oregon State University Field Crops Extension agent Nicole Anderson has received the 2019 Oregon Ryegrass Growers Association's Service Award.

Anderson, who serves Polk, Yamhill and Washington counties and leads seed crop research across the Willamette Valley, received the award at the association's annual meeting, Jan. 18 in Albany. She has been with OSU Extension since 2009.

Anderson

"It is certainly an honor to receive this important industry award," Anderson said. "I especially appreciate the recognition from a grower group as they are the audience that I strive to help with my seed crop research and extension work.

"I owe a big thanks to everyone in the grass seed industry who has helped me develop a successful career in Oregon," Anderson added. "Growers, fieldmen, industry groups and seed companies have supported me from the very beginning, and that has made my job a lot easier. I look forward to working together to advance the Oregon seed industry."

Protecting Nesting Birds and Managing Invasive Species

ROSS MICHAELS | NESTWATCH.ORG

Red Wing Blackbird Building a Nest

By Marc Bell
Senior Resource Conservationist
Polk Soil and Water Conservation District

There is an enormous number of bird species that utilize the Willamette valley for habitat. Most enter their nesting periods between late winter and early spring, lasting through mid-summer. This is also a period of time when most landowners begin identifying and taking action to prevent new growth of invasive weed plants like blackberry, scotch broom, and other major nuisance species. There is a number of steps landowners can take to minimize disturbing native bird species raising their young while still performing necessary management objectives.

The best way to avoid disturbing birds is to plan your actions outside of the nesting season, there's no one definitive date range for all native species of concern, and not all nesting sites will be active the whole nesting season but, overall, we've identified two nesting seasons. The early nesting season is defined from Feb. 1 through April 15. Raptors (owls, falcons and hawks), herons, and humming birds are all considered early nesters. The primary nesting season follows from April 15 until July 31. The majority of species, especially ground nesting species and songbirds, are most active in the primary season, and some species may need until late august before fledglings become full adults. You should watch for hawk and other large bird nests in trees, but many species nest within shrubs, on the ground, or within cavities of trees and man-made structures, which are harder to identify.

Blackberry and other weeds, with few exceptions, can be treated effectively outside of the nesting season. Aug. 1 through Jan. 31 is the best time to accomplish land management goals while minimizing disturbances to critical nesting seasons. Tree removal, snag creation and logging operations are generally suited in the fall as well, making the decision to leave nesting birds alone an easy one in many cases. If you do have to work within these windows, especially the primary nesting season, it's best to identify which species could be in your project areas and determine if you can avoid disturbing nests.

Blackberry, the most iconic invasive species of the Willamette Valley, is unfortunately, one of the most used by native bird species for nesting, shelter and winter cover. Willow flycatchers, a sensitive species in decline, in particular, nests in blackberry patches. Any mowing or chemical treatment of blackberry done in spring should be carefully scouted for Willow flycatcher through song or observation to ensure this species is given as great of a chance of recovery as possible. Blackberry can be very effectively treated outside of the primary nesting season; if possible, plan to treat blackberry either from Feb. to April 15 or plan for fall when they can be mowed or safely and sprayed as the canes draw chemical treatments down to their roots.

Hawthorn is another common target for removal along with holly and laurel, but watch for Cedar waxwings and robins who build open cup nests in these trees. From Aug. 1 through Jan. 31 removal of hawthorn trees will generally have no impact on bird species (unless you have already found Willow flycatchers nearby).

In open fields, Knapweed, Tansy and Thistle are species that bloom and are most effectively treated during the early and primary nesting seasons. Landowners should spot spray or manually remove these weeds from the soil during spring as it is not effective to treat them outside of the nesting season. Watch for Killdeer, Goldfinches and other native birds, who nest on the ground in small clutches or in nearby brush and high grasses. If Killdeer nearby the adults will likely flush and make loud calls if you're too close to the nest, tread carefully and avoid disturbing those spots as much as possible.

Closer to waterways and wetlands Reed Canarygrass and Yellow Flag Iris are used by duck species, Red-wing blackbirds and others. These species growth and management seasons coincide with nesting birds but mowing can be accomplished in the early spring or fall, impacts to these species can be minimized.

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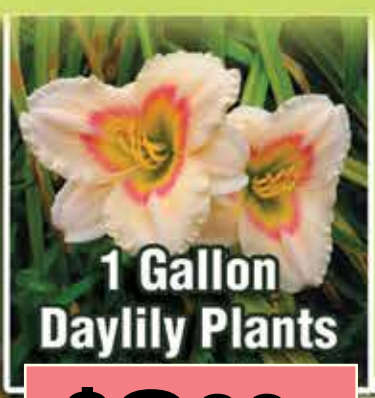

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