



GROWING

Extending Knowledge and Changing Lives in Linn and Benton Counties

Hemp Finding a Home in Oregon

By Mitch Lies,
GROWING Editor

In 2015, one year after the U.S. Farm Bill allowed states to institute pilot programs for growing hemp, 13 Oregon growers produced the crop on 105 acres. By 2018, Oregon production had grown to 11,514 acres.

As substantial as that three-year growth appears, it pales in comparison to what happened next.

Last year, after the 2018 Farm Bill legalized hemp on the federal level, 1,900 growers were producing hemp on nearly 64,000 acres in Oregon. When the 2019 crop figures come out, many expect hemp to top \$1 billion in farmgate value, making it the number one crop in Oregon.

“You can’t make this stuff up. I don’t know what is going to happen next year,” said Sunny Summers, the cannabis policy coordinator with the Oregon Department of Agriculture, which regulates hemp production in Oregon. “I’m not even guessing anymore.”

With its amenable climate, good soils and experienced farmers, Oregon has become one of the top hemp-producing states in the United States. Chasing returns upwards of \$50,000 an acre – two, three and four times more than the highest-value crops produced in Oregon, most of which are contracted on small acreages – Oregon growers have

taken to the crop in a way rarely seen in the boom and bust cycles of agriculture.

Hemp, grown extensively in Oregon in the late 1800s and early 1900s (primarily for its fiber and forage), has a formidable history in the state. According to Jay Noller, who is heading Oregon State University’s Global Hemp Innovation Institute, in the late 1880s, OSU housed the leading hemp research institute in the U.S. With the emergence of grass seed and other crops, hemp gradually disappeared from Oregon’s landscape and after the Marijuana Tax Act of 1937 criminalized marijuana, hemp essentially dropped off the map.

Hemp’s resurgence in Oregon dates to 2009 when the state Legislature legalized its production on a statewide level. Noller, who has a Ph.D. in soil science, was among the first to grasp just what the crop could mean for Oregon agriculture.

In his research, which dates to 2015, Noller found that hemp production flourished in Serbia, which, like Oregon, is located on the 45th parallel, and has similar climate to Oregon. After crossing the Atlantic Ocean several times to study its production there, he came to believe the crop could thrive here, offering farmers an alternative crop with a high upside.

“What excites me about this crop is its potential to create better opportunities for livelihood for Oregonians,” Noller said.



PHOTO COURTESY/IVERSON FAMILY FARMS

Oregon farmer Ken Iverson, who was featured in a panel discussion on hemp at the Oregon Ryegrass Growers Association’s annual meeting in Albany in January, said U.S. hemp production far exceeds the current market demand.

In January of last year, Noller announced that he was leaving his position as head of OSU’s Department of Crop and Soil Science to lead the then soon-to-be-formed Global Hemp Innovation Institute – an institute launched last June that includes scientists of multiple disciplines looking into different aspects of producing hemp.

The institute is conducting typical crop production research, Noller said, such as analyzing planting timing, planting depth, pest-control options and harvest

techniques to help growers produce hemp in an economically and environmentally friendly fashion.

In the meantime, growers have largely learned on the go. And, much as Noller suspected, they are finding the crop highly adaptable to Oregon’s climate. Producing hemp in Oregon, according to Ken Iverson, who grows hemp near Woodburn, is a lot like producing other crops that thrive here, only easier.

“It makes everybody look like a good farmer,” Iverson said.

The crop grows fast, out competes weeds and has few pest problems, Iverson said. Bringing the crop to harvest, however, is only one step in the process, noted Iverson’s sister, Barb Iverson.

“You’ve got to have a place to go with it after production,” she said.

This past year, many growers struggled to find warehouse space to dry the crop. And, with a glut of hemp hitting the market this past fall, selling the crop has proven difficult. Many growers are sitting on large supplies of hemp waiting for markets to open up, according to several sources.

Still, with shuttered hop dryers and seed warehouses converting to hemp drying facilities; with companies like Oregon CBD of Monmouth investing heavily in hemp, including donating \$1 million to OSU for hemp research; and with experienced agriculturists, including private breeders and agronomists, launching businesses supporting hemp production, it appears that hemp, in some form or another, is here to stay.

“I see this, like grass seed, as a major crop for Oregon,” Noller said. “We are in a new era, and hemp is at the center of it.”

In Oregon, hemp production is all about the oil that is extracted from the plant and sold as a treatment for everything from pain, inflammation and

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INSIDE: See upcoming events on the calendar, page 20.

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: 541-766-6750. Fax: 541-766-3549. <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. Seed Certification phone 541-967-3810. <http://extension.oregonstate.edu/linn>.

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* Multi-county assignment

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Oregon State University
Extension Service

Thirty Years In, and Still Enjoying Extension

By **Mitch Lies**,
GROWING Editor

Things are far more automated than when she started at Oregon State University 30 years ago. There are fewer paper copies and mailings and much more social media and email correspondence.

But some things, said Laurie Gibson, who celebrates 30 years with Oregon State University in March, including 25 with the Linn County Extension Service, haven't changed.

"There has always been a lot of variety in this job," Gibson said.

Gibson, who started with OSU on March 1 of 1990 as an office assistant in the College of Liberal Arts Dean's Office, joined Linn County Extension in 1995 as an office specialist. Her main duties back then were to serve as support staff for the county Master Gardener Program and for long-time Linn County field crops Extension agent Mark Mellbye, who retired in 2008.

Since Mellbye's retirement, the Linn County field crops Extension position has been filled for less than five of the subsequent 12 years, and Gibson's duties have changed. For one thing, she has found herself immersed in helping put on the Oregon Ryegrass Growers Association's annual meeting, something Mellbye did before her.

"That is big part of my winter months now, where I take notes



in night meetings, get the service award plaque and in general help organize the annual meeting," Gibson said. "And I enjoy it very much. I enjoy working with the growers and fieldmen."

One task she has done less of in recent years is seed-certification support. In the past, she did all the seedling applications and field-crop sign ups, helped print tags when samplers got too busy and even went and sampled seed a few times.

Today, she said, much of the sign-ups and other forms are completed online by growers, and seed samplers handle their own tag printing.

"I can still print tags in a pinch," she said. "If a company contacts us with an emergency, saying, 'I have to have tags right now,' I can do that. But at this point, I primarily take care of whatever behind-the-scenes seed certification paperwork we still do

in the office."

One constant in her duties for the past 25 years has been working on Linn County Extension newsletters. For many years, the county put out the monthly publication Update. In 2016, the Linn and Benton County Extension offices joined forces to publish the bimonthly publication Growing. The publication helps inform residents of the services provided by Extension and delivers useful information to help improve lives.

But, while her responsibilities with the publication has largely stayed the same over the years – she solicits stories from Extension personnel, gathers the stories, proofs them and does other prep work – the way she goes about her duties has changed considerably.

"Today it is more automated and simpler than when I started," Gibson said. "It is nothing like it used to be where we had to type in people's articles that were written in pencil on a legal pad. But there are still several steps that go into making it happen every two months."

With 30 years into her job, Gibson is eligible to retire with full benefits at any time. But that apparently isn't in the mix right now.

"I have no plans for retirement at this point," Gibson said. "There is so much variety in this job that it kind of keeps you sticking around to see what is going to happen next."

Welcome Diana

Welcome to Diana Camacho-Figueroa as she begins her position as the Expanded Food and Nutrition Education Program and LatinX Program Assistant for OSU Extension Benton and Linn Counties!

In addition to conducting programming for EFNEP, which has statewide focus areas in food systems, physical activity, and health leadership, Diana will also be working collaboratively with faculty from other program areas

including Family and Community Health, Master Gardeners, 4-H, and Forestry and Natural Resources to deliver educational programming based upon community needs assessments for outreach to the LatinX communities in Benton and Linn Counties.

Diana, who is bilingual, bi-literate, and bi-cultural, brings knowledge and experience doing community program outreach with Spanish speaking audiences.





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Community Horticulture

Interested in receiving our monthly gardening newsletter?
Sign up here: <https://beav.es/4oc>

Annual Benton County Master Gardener Plant Sale Set for May 2

The Benton County Master Gardener Association Annual Plant Sale is Saturday, May 2, at the Benton County Fairgrounds, 110 SW 53rd St, Corvallis. The sale is under cover at the Solar Barn so don't let a little rain keep you away. Hours are 9 a.m. to 3 p.m. You'll find more than 10,000 plants at great prices. Come early for the best selection. Payment can be made by cash, check, credit or debit card.

Ornamental plants include sun and shade perennials, groundcovers, shrubs, vines, and trees. The collection includes native, deer resistant, and drought tolerant plants.

Vegetable and herbs grown from seed include tomatoes, peppers, eggplants, tomatillos, and many others selected after showing good results in local gardens. Perennial edibles include rhubarb, berries, grapes, and hops.

Benton County Master Gardeners are on hand to help customers find plants suited



to their own growing needs and answer your gardening questions. Getting the right plant for the right place improves gardening success, which is what the BCMGA is all about.

Proceeds from the sale support educational programs in our schools and community. Master Gardeners answer hundreds of questions at farmer's markets, local plant clinics, and through the

Extension Office hotline. Seed to Supper classes teach novice gardeners to grow their own food. Other programs include lectures and demonstration gardens. These programs and more are self-supporting through efforts like the plant sale.

For more information contact Elizabeth Records, elizabeth.records@oregonstate.edu, or call 541-713-5012.

March-April Gardening Calendar for Western Oregon

The Oregon State University Extension Service encourages sustainable gardening practices.

Preventive pest management is emphasized over reactive pest control. Identify and monitor problems before acting and opt for the least toxic approach that will remedy the problem. The conservation of biological control agents (predators, parasitoids) should be favored over chemical controls.

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

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

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.

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Make Your Garden Buzz-Worthy

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Before Reaching for Pesticides, Get to Know the Good Guys

Did you know there is an alternative to controlling pests in your garden by using a pesticide? Attracting beneficial insects, like lady beetles, green lacewings, praying mantis and dragonflies can help control insects that feed on your plants. Beneficials don't just help control pests. Some beneficials are also important pollinators!

How can you attract beneficials to your garden? One way is to purchase them at a local garden center and release them into your garden. You can also attract them to your garden by growing plants to provide an enticing habitat for them. If you are able to dedicate some space to growing these habitat plants, the rest of your garden can reap the rewards.

Following are some recommendations from the Penn State Extension Service:

- **Carrot Family (*Apiaceae*)** Plants in the carrot family are especially attractive to small parasitic wasps and flies. Interplant them in your vegetable garden and flower beds. Plants in this family include: caraway



Ladybug (*Coccinella septempunctata*) on an Common Yarrow's umbel (*Achillea millefolium*).

- **Aster Family (*Asteraceae*)** Attractive to larger predators such as lady beetles and soldier beetles. Incorporate into the vegetable garden and flower beds. Plants in this family include: blanketflower (*Gaillardia* spp.); coneflower (*Echinacea* spp.); coreopsis (*Coreopsis* spp.); cosmos (*Cosmos* spp.); golden marguerite (*Anthemis tinctoria*); goldenrod (*Solidago* spp.); signet marigold (*Tagetes tenuifolia*); sunflower (*Helianthus* spp.); tansy (*Tanacetum vulgare*); and yarrow (*Achillea* spp.).
- **Legumes (*Fabaceae*)** Generally grown as cover crops and attractive to many beneficials. Plants in this family include: alfalfa (*Medicago sativa*); fava bean (*Vicia faba*); hairy

vetch (*Vicia villosa*); and sweet clover (*Melilotus* spp.).

- **Mustard Family (*Brassicaceae*)** Attractive to beneficials that are parasites and predators of the insect pests of the mustard family (broccoli, Brussels sprouts, cabbage, cauliflower, kohlrabi, mustard greens). Be sure to plant these away from the garden rather than in the garden since these plants attract pests as well as beneficials. Some are common weeds, such as yellow rocket and wild mustard. Plants in this family include: basket-of-gold alyssum (*Aurinia saxatilis*); mustards (*Brassica* spp.); sweet alyssum (*Lobularia maritima*); yellow rocket (*Barbarea vulgaris*); and wild mustard (*Brassica kaber*).
- **Verbena Family (*Verbenaceae*)** Attractive to a variety of beneficial insects. Many plants in this family are favorite garden flowers. They include: lantana (*Lantana camera*); Buenos Aires verbena (*Verbena bonariensis*);

hybrid verbena (*Verbena x hybrida*); and lilac vervain (*Verbena rigida*).

Beneficial insects also need a source of water. Shallow containers such as ceramic pot saucers with pebbles for the beneficials to rest on are best.

Suggested OSU Extension publications found at <https://catalog.extension.oregonstate.edu/>

- *Encouraging Beneficials in Your Garden* PNW 550

For kids:

- *The Wildlife Garden: Dragonfly* EC 1601
- *The Wildlife Garden: Lady Beetle* EC 1604
- *The Wildlife Garden: Praying Mantis* EC 1605

Suggested websites:

- National Pesticide Information Center, Beneficial Insects. <http://npic.orst.edu/envir/beneficial/index.html>
- Penn State Extension, Attracting Beneficial Insects <https://extension.psu.edu/attracting-beneficial-insects>

SAVE THE DATE: 21st Annual Through the Garden Gate Tour

Saturday, June 20

The OSU Extension Linn County Master Gardeners' 20th Annual Garden Tour - Through the Garden Gate - is the best gardening event to get inspiration for your own garden oasis. Tour beautiful private gardens around Albany and Linn County. You may start at any garden and tour them in any order.

This year the tour features all new gardens, including:

- Shabby chic-style gardens with

charming 'she sheds'.

- Lawn-free landscapes with curving pathways.
- Gardens with a beautiful balance of natural and manicured space.

The garden owner and Master Gardeners will be at each garden to answer questions. All funds raised directly support gardening education for adults and youth in Linn County.

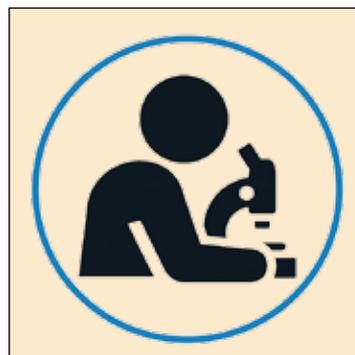
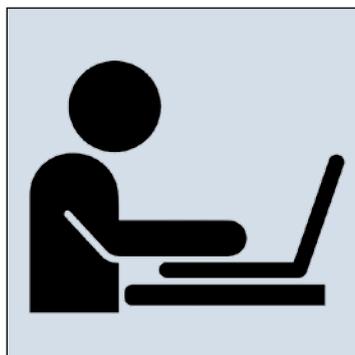
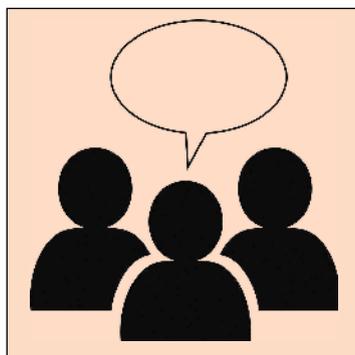
Tickets will be available in late spring: <https://www.linnmastergardeners.com>



To Get the Best Garden Answers, Share Samples

With garden season starting to bloom, more and more gardeners have questions. OSU Master Gardener volunteers are here to help you find solutions to tough garden challenges!

Help us to help you by sharing the samples and information we need to provide the most useful response to your question.



What's wrong with my plant?

What to bring: For best identification, please submit a plant sample to the Extension office. Try to bring in both healthy and affected plants, and include all parts of the plant (or for a tree, a good-sized branch). Place in a plastic bag, if possible. High resolution, in-focus photos can also be emailed to us.

What plant just popped up in my garden?

What to bring: Please bring in a branch or stem with leaves and flowers/fruit. Place in a plastic bag, if possible. High resolution, in-focus photos can also be submitted. Please note that plant id to a specific cultivar or variety is not always possible.

What is the pH of my soil?

What to bring: Please dig

down 6 inches below the soil surface to collect about 1 cup of soil free of organic matter (roots, bark chips, etc.). Master Gardeners can measure approximate soil pH and suggest amendments to meet your gardening goals. We can provide a list of labs which offer other types of soil testing.

Is this insect harmful or helpful?

What to bring: For the most accurate identification, please capture and bring the live insect to the Extension office. To preserve identifying features, place

the insect in a sealed crushproof container. High resolution, in-focus photos can also be submitted.

A few things outside our expertise: The OSU Extension Master Gardener Plant Clinic is not able to identify mushrooms, answer marijuana/hemp questions, provide medical or veterinary advice, such as edibility or medicinal use of wild plants, or diagnosis of insect bites for people or domestic animals.

Plant Clinics near you!

Find us at your local office most weekdays from 9-12

and 1-4. Email or leave a phone message anytime.

- **Benton County Extension**, 4077 SW Research Way, Corvallis, OR 97333
Call with your question: (541) 713-5000
Email your question and any photos to: bentonmg@oregonstate.edu
- **Linn County Extension**, 33630 McFarland Road, Tangent, OR 97389
Call with your question: 541-967-3871
Email your question & any photos to: linn.mg@oregonstate.edu
- **Find a Pop-Up Plant**

Clinic at a garden center, farmers market, or community event near you. See our calendar for locations and schedule coming soon: <https://extension.oregonstate.edu/mg/benton/take-gardening-class>

- Find us on Ask an Expert: <https://ask.extension.org/> Ask a question anytime, from anywhere with internet access.

Did you know: Master Gardeners are community members who have taken fundamental horticulture classes and volunteer to respond to the community's gardening questions. They use OSU Extension and other research-based sources to thoroughly investigate your question, and may provide a range of possible solutions. Master Gardener volunteers work with a team of OSU staff and faculty. The Plant Clinic also serves as a training opportunity for new Master Gardener volunteers.

Interested in becoming a Master Gardener volunteer? Sign up for our monthly newsletter to be notified when the annual training class is accepting applicants. <https://beav.es/Zjt>



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Registration Opens April 1st



Food Preservation

2020 Hands-On Classes

- **Fruits, jams & pie fillings**
June 9, July 8 or August 6
 - **Canning & dehydrating vegetables and meats**
June 16, July 15 or August 13
 - **Preserving tomatoes & "The Laws of Salsa"**
June 23, July 22 or August 20
 - **Pickling: Fermented and quick pickles**
June 30, July 29 or August 27
- or
WEDNESDAYS IN JULY
or
THURSDAYS IN AUGUST
6 to 9 p.m.
- Held at:**
Linn County Extension
33630 McFarland Road
Tangent, OR 97389
541-967-3871
- Cost: \$18 or \$60 for the series of all 4 classes**
- Pre-registration is required at <https://beav.es/Ztu>**



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Food Hero Pick of the Month - Cherries!

Visit FoodHero.org where healthy food is fun, fast, tasty and fits your budget!

Cherry Scones

Ingredients:

- 1 cup whole wheat flour
- 3/4 cup all-purpose flour
- 1/3 cup sugar
- 1 teaspoon baking powder
- 1/2 teaspoon baking soda
- 1/4 teaspoon salt
- 1 cup dried cherries, or
- chopped fresh, canned, or frozen and thawed cherries. Drain canned or frozen cherries well.
- 1/4 cup butter, melted
- 2/3 cup buttermilk
- 1 teaspoon vanilla

Directions:

1. Preheat oven to 400 degrees F.
2. Combine the whole wheat flour, all-purpose flour, sugar, baking powder, baking soda, and salt in a medium bowl. Mix well
3. Add the cherries and mix lightly
4. In a small bowl, combine the melted butter, buttermilk, and vanilla. Add to the dry ingredients and mix gently.
5. Spoon the dough into 10 equal mounds on a greased baking sheet. Bake until well browned, 18 to 20 minutes.
6. Serve hot or at room temperature. Store leftovers in an airtight container at room temperature for 2 or 3 days.

Makes 10 scones • Prep time: 20 minutes • Cook time: 20 minutes

Master Food Preserver Volunteers Sought

OSU Extension Service is accepting applications from community members interested in becoming a trained Volunteer Master Food Preserver for Linn and Benton Counties. Training will be held for eight Thursdays, from 9 a.m.-4 p.m. each day, starting April 16. Training will be held at the Linn County Extension Office in Tangent. Volunteers are asked to return 48 hours of volunteer time during the food preservation season. Volunteer duties include assisting with canning classes and staffing information tables at farmers markets and community events. This is a great way

to meet other community members with shared interest.

Extensive food preservation experience is not required. Participants should learn all aspects of food safety and preservation during the training, so it is appropriate for beginners as well as experienced food preservers who wish to update their knowledge and share with others. A desire to interact with the public in a cheerful and positive way is important. There is a \$150 fee for class supplies. Representatives from community service organizations are invited to participate to take information

back to their groups.

For more information about the program and an application, see <https://extension.oregonstate.edu/linn/events/master-food-preserver-training> or contact the Extension office in Linn County at 541-967-3871, in Benton County at 541-713-5000.

For community members who want to learn more about food preservation but do not wish to volunteer, see the flyer on this page for our summer series of food preservation classes.

Stages of Change: How to Set Goals for the Next Step

By Brandon O'Toole,
OSU Dietetic Intern

A model used to show the stages of changing behavior is the Transtheoretical model. This model may help you make decisions based on your current stage in the process of choosing healthier behaviors. Each stage has strategies to evaluate the pros and cons of each stage and help you make the change. The model consists of six stages that show a person's ability to make a change. The six stages include:

- **Precontemplation**- The stage where no change is wanted or even known about. People are more than six months away from taking action.
- **Contemplation**- Here, the person is aware of the need for change and plans to

take action within the next six months.

- **Preparation**- People are within 30 days of taking action for change during this stage. They will have already started smaller steps toward the behavior.
- **Action**- The desired behavior has begun to change. The person is moving forward with more positive changes.
- **Maintenance**- The behavior at this stage has been changed for at least six months. The person plans to avoid relapsing into negative choices.
- **Termination**- The final stage is where the person has moved far enough away from the old behavior that they are in no danger of relapse.

Understanding the stages of

change and your place in them may help to promote good eating and wellness behaviors. Many people underestimate the issue of unhealthy eating. People also try to move to the next stage of change too quickly. For instance, a person in the action stage could view themselves as part of the maintenance stage, failing to realize next steps for long term changes of a behavior.

This model has certain weaknesses that limit the ability for all audiences to use it. For instance, the model does not address the social-economic burden some may face when attempting to make certain changes. Also, the model provides little guidance on the way to progress. There is no concrete goal or

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What's in Your Refrigerator, Freezer, Cupboards?

With spring in sight, it's time to inventory and make plans for the food you have on hand, before the new garden and harvest season gets started.

Here are some tips and encouragement for inventory and evaluation of the foods you have.

Keep track. Find a notebook to use or download a kitchen pantry or freezer inventory form from one of many websites to keep track of which areas you have sorted and what items are in each area space. You could do this on your computer or phone, but that might be more difficult to share with others in the household.

Determine what you have. Before each grocery shopping trip, make time to sort and inventory one space, this might even be one shelf at a time. Breaking any job down into smaller increments keeps it from becoming overwhelming.

Check packaging. Well-sealed packages prolong the quality of food and prevent insect or rodent infestations. Make sure all the packages you have food in will prevent any air or moisture exchange with the room, freezer, or refrigerator. If you purchase or harvest large quantities of food, always package it in single use size packages before putting them into storage. Label the packages with the amount of food and date. Remember that the dates printed on commercially packaged foods are an indication of best quality, and do not indicate the safety of the food. If foods are packaged well and stored carefully, they can safely be consumed long after the package date.

Organize as you go. As you sort food packages, group like items together. Pack all

One-a-Day Spring Health and Safety Task Checklist

(One item a day for one month)

- Replace batteries in your smoke detector and Co2 Detector
- Clean behind and beside your stove and refrigerator
- Rotate or flip your mattress
- Clean window and sliding door tracks
- Change furnace or HVAC filter
- Change water filter in refrigerator or ice maker
- Replace or clean vacuum filters. Use HEPA filters to trap small particles
- Wash or change your shower curtain
- Scrub out microwave oven
- Scrub garbage can
- Clean dryer vent
- Clean out sink and shower drains
- Clean the stove hood and filter
- Clean the oven
- Shampoo carpets or have them cleaned
- Dust, vacuum, shake out or wash window treatments
- Scrub baseboards throughout house
- Clear debris from all vents throughout house
- Disinfect doorknobs and switch plates
- Schedule chimney inspection and cleaning
- Sanitize the remote control and computer mouse
- Dust books and book cases
- Vacuum under furniture, in between and under all cushions
- Dust or wipe all light fixtures, replace lightbulbs as necessary
- Dust electronics and screens
- Dust frames and clean glass of photos and art
- Wash or replace pillows
- Shake out or scrub door mat
- Clean and disinfect the garbage disposal
- Wipe down table and chair legs

the frozen meat on one side of the freezer, all the canned vegetables on one shelf in the pantry.

Make a plan for the food you have. Reduce waste and save money by using up food you have before it gets stale or unsafe. Consider what you have on hand and purchase ingredients you need to go along with it for a complete dish or meal.

Add new additions to your inventory list when you add them to your food storage.

Wash the shelves, cupboards, and drawers while you are conducting inventory. You don't have to clean the entire refrigerator or cabinet

at once, one shelf at a time will eventually get it done.

Evaluate the food you have in storage. Decide which products your family likes and which items you don't seem to serve, regardless of how healthy or economical they are. Note the items not to preserve or purchase next time.

If you have a question about the safety of meat, poultry or eggs you come across while you are conducting inventory, call the free USDA Meat and Poultry Hotline at 1-888-674-6854. It's open Monday-Friday, or email your question to MPH hotline.fsis@usda.gov.

Garden Calendar continued from Page 3

- 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.
- Prune spring-flowering shrubs after blossoms fade. 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.
- 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.
- Plant berry crops (strawberries, raspberries, blueberries, blackberries, currants, gooseberries and other berry-producing crop plants).

Pest Monitoring and Management

- 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.
- Start rose blackspot control tactics at budbreak. Control rose diseases such as black spot. Remove infected leaves. Spray as necessary with a registered fungicide.
- 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

- Trim or shear heather when bloom period is finished.
- Start tuberous begonias indoors.
- 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.

Continued on Page 15



Conservation vs. Regulation

By Kevin Seifert, Linn Soil and Water Conservation District

As we head into spring and summer, as combines and tractors move from field to field harvesting our best laid plans, I think we should remember all the things farmers do for others in terms of their role as stewards of the land. I would like to give kudos to the other farmers and landowners that are involved in a program or implementing conservation on their property.

This is a time of great challenge as we face the realities of the impacts of our daily lives on the health of our watersheds, the quality of our waters, and the future of our salmon runs. At the same time, in these tough economic times, we are all acutely aware of the importance of maintaining a working landscape so that our timber and agricultural sectors of the economy can participate in the state's economic recovery. Oregon is a natural resource State that was built on harvesting and managing those resources.

I believe that one of the things that makes Oregon special is that we have found a way to enlist landowners and citizens around the state to participate in finding and implementing solutions to our environmental problems. We have recognized that we will not save our salmon runs or clean our waters by simply imposing an even greater burden of regulation

on the landowners of this state. To the contrary, our environmental future depends on maintaining our investment in voluntary, citizen-sponsored initiatives.

You've heard it before, and it certainly has a loud ring of truth to it – farmers and ranchers are the original environmentalists. Agricultural producers would not be able to sustain their operation without taking care of the land and water that takes care of them. While there is always room for improvement, a growing number of producers are going above and beyond any requirement to protect the natural resources of the state. They are making significant investments of time, energy, and money to do the right thing with regards to the environment. A cynic could say that the threat of legal action for those who don't comply with environmental laws is the necessary catalyst for landowner projects and practices that improve Oregon's natural resource base. However, there are too many examples to count of farmers and ranchers voluntarily improving local land and water conditions – not because some judge or government agency has ordered them to do it, but because they care about where they live and want to leave things better for the next generation.

These people are leaders of the agriculture industry. At a time when making a buck is not easy, they are making

expenditures to benefit all of Oregon. With some much needed help from technology, on-the-ground technicians, and government funded programs, these leaders are building up an impressive portfolio of accomplishments. It often is a well-kept secret, unnoticed by the urban population.

Farmers and ranchers are traditionally very modest about their operations, I have seen some remarkable work put in by agricultural producers when it comes to environmental stewardship. The problem is nobody seems to be telling the story. Oregonians need to know what Ag is doing. Ag needs to be proud of its effort. We all need to document the success of improving our natural resources. These impressive achievements serve as a reminder that agricultural operators are interested in protecting natural resources. All they need is technical assistance and some funding

One CREP (Conservation Reserve Enhancement Program) participant has told me it offers financial incentives for something that is a good idea to do anyway because it is simply good conservation. Beyond the financial incentives, I've spoken to many CREP participants who are proud of what they have done for water quality and wildlife. They also feel more secure about how they comply with state and federal water quality laws.

The significance of CREP, and other federal cost-sharing



Voluntary riparian improvement by limiting access of livestock to stream, showing good stewardship with SWCD guidance.

programs, is certainly realized by ODA, which administers Senate Bill 1010, creating area-wide water quality management plans and rules for agriculture. Landowners need the tools.

Through CREP, landowners have received the cost-share and technical assistance to protect riparian areas in the short term, and they also receive the annual payments to encourage them to protect the area for a longer period of time, up to 10 to 15 years. ODA has taken a greater role in statewide CREP coordination, in part, because we believe CREP can help landowners meet and exceed their local SB 1010 requirements and receive financial incentives to do it.

At a time when farmers and ranchers are generally struggling financially, it's good to know there is a way to improve Oregon's riparian areas without compromising a landowner's bottom line.

It doesn't take a lot of

effort to find examples of agricultural operators doing good things for the environment. Those stories can be found in all 36 Oregon counties. Whether the projects are in partnership with ODA, the local soil and water conservation district, OWEB or other state and federal agencies, or watershed councils they are increasing in number and growing in success.

I feel there is a momentum out there for good stewardship of our natural resources; I also know that farmers and ranchers take great pride in sustaining those resources through their good efforts.

Linn Soil and Water Conservation District can be reached for help in implementing programs or conservation techniques on your property at 541-926-2483, or email Kevin.Seifert@or.nacdnet.net



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Arsenic: What You Need to Know

By Chrissy Lucas

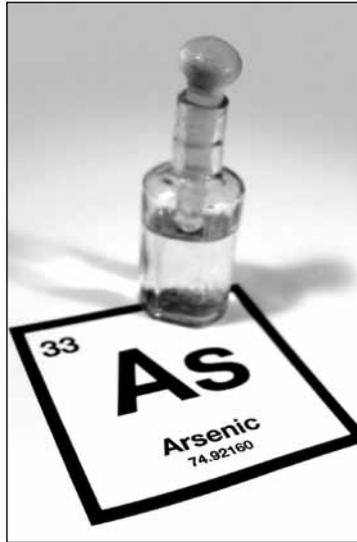
The use of arsenic as a poison is widely documented. As a result, many people are alarmed when they hear that their drinking water, either from a public or private water system, may contain an arsenic. What do you do if your water contains arsenic, and can it be removed? This Q&A addresses those questions and more.

What is arsenic?

Arsenic is a semi-metallic element with the chemical symbol "As." It occurs naturally in rocks, soils, and waters that come in contact with these rocks and soils. Arsenic is odorless and tasteless.

Arsenic can combine with other elements to form inorganic and organic arsenicals. In general, inorganic derivatives are regarded as more toxic than the organic forms. While food can contain both inorganic and organic arsenicals, primarily inorganic forms are present in water.

Exposure to arsenic at high levels poses potential serious health effects as it is a known human carcinogen, or cancer-causing agent. It also has been reported to affect the vascular system in humans and has been associated with the development of diabetes.



Arsenic enters the human body principally through the mouth, according to the Centers for Disease Control and Prevention (CDC), and inhaled arsenic also is absorbed through the lungs into the bloodstream. "Small amounts of arsenic may enter the body through the skin, but this is not usually an important consideration," reads the CDC's Public Health Statement on arsenic.

Is my private well at risk?

Exposure to arsenic in drinking water has been identified as a health concern in regions of the United States where bedrock contains unusually high levels of arsenic. There are many pockets of Oregon where arsenic has been found in private domestic wells

Private well water

should be tested annually for bacteria, nitrate, and anything else of concern to the well owner, such as arsenic. Testing should be conducted by a certified drinking water laboratory. Visit <https://lams.nelac-institute.org/search> to find your list of certified labs, or call the Private Well Owner Hotline at 855-420-9355.

If you do have an arsenic level in your water that is higher than you would like, there are water treatment technologies available to address the problem.

What types of treatment solutions are available to private well owners?

NSF International is a not-for-profit organization that develops standards, product testing procedures, and certification services for products including water treatment devices. NSF has certified point-of-use reverse osmosis and distillation devices for the reduction of arsenic in drinking water. Pretreating water through chlorination or oxidation may be necessary to make reverse osmosis devices effective for arsenic removal. For more information or a list of NSF-certified devices, contact the organization at 800-673-8010, or visit www.nsf.org.

Some of the treatment technologies may not be amenable to point-of-entry, or whole-house, treatments.

In these cases, point-of-use units, which treat water at the tap, may be the best option.

Following installation of a treatment device, water quality should again be tested to verify the operation of the device. After that, water should be tested at least annually to confirm treatment effectiveness. Again, since water quality varies greatly, be sure to have your water tested and consult a local water professional for advice before purchasing a water treatment system.

How does arsenic enter a private water system?

A primary source of arsenic to drinking water wells is from water flowing through arsenic-rich rocks and soil. It can be further released into the environment through natural activities such as volcanic action and forest fires, as well as through human actions. Arsenic is used in paints, dyes, metals, drugs, soaps, and semiconductors. Agricultural applications, mining, and smelting also contribute to arsenic releases in the environment. These can enter the groundwater system by gradually moving with the flow of groundwater from rains, melting of snow, etc.

Testing water for arsenic in areas where arsenic is

a concern is an important strategy for private water well owners to safeguard the health and well-being of their family. Working with a water professional to monitor and maintain the quality of the well and water supply is an important responsibility of the private water system owner. Your groundwater contractor is your central source of information about caring for your system.

What is the measurement of arsenic?

The U.S. EPA established the current maximum contaminant level (MCL) for arsenic, 10 micrograms per liter (or parts per billion). The EPA does not regulate private water wells, but its drinking water rules provide a good standard by which to measure your water quality.

What are the symptoms of overexposure to arsenic?

Observable symptoms of arsenic poisoning are thickening and discoloration of the skin, stomach pain, nausea, vomiting, diarrhea, numbness in hands and feet, partial paralysis, and blindness.

The only way to know if you have arsenic in your well water is to test. A test costing around \$40 is worth the extra peace of mind.

Commerical Agriculture Livestock and Forages

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Hemp Finding a Home in Oregon

Continued from Page 1

anxiety to cancer. Sold principally as CBD oil, it can be found in multiple formulations, including lotions, tinctures and balms.

Eventually, according to Noller, growers could produce hemp for other uses, including for forage, fiber and seed. For now, however, sources say the state doesn't have the infrastructure to accommodate those other uses. And with land values in the Willamette Valley as high as they are, in some cases hitting \$20,000 an acre, Oregon growers typically shoot for the highest return they can get on a crop. For hemp, that is its oil.

When growing hemp, growers want feminized seed, which produces oil at a much higher rate than a male plant, and they need plants containing THC levels below 0.3 percent, the USDA standard that delineates hemp from marijuana, which is illegal on a federal level.

A crop that tests above 0.3 percent THC, the psychoactive ingredient in cannabis, must be destroyed under the watch of the Oregon Department of Agriculture.

"This is unlike anything else growers are working with," said ODA's Summers. "If you have a crop failure in another crop, maybe you can get something out of it. That is not the case with hemp."

Growers harvest hemp both mechanically and by hand. Processors then dry the crop and put it through extractors that pull oil from its flowers and leaves. Hemp oil is then infused into the balms, tinctures and lotions that enter the marketplace.

Ken Iverson, who was part of a panel discussion in January at the Oregon Ryegrass Growers Association's annual meeting at the Linn County Fairgrounds in Albany, said U.S. production in 2019 far exceeds its current market. "As we sit here today, this whole industry is a 20,000- to 25,000-acre industry in the United States," he said, adding that the crop was produced last year "on somewhere north of 500,000 acres."

Still, many, including Noller, believe the growth potential for hemp products hasn't begun to be realized. And many Oregon growers and companies are betting that is the case.

One thing is for certain, ODA's Summers said: Hemp production will not increase at the rate it has the past three years.

"At some point, it has to flatten out," Summers said.

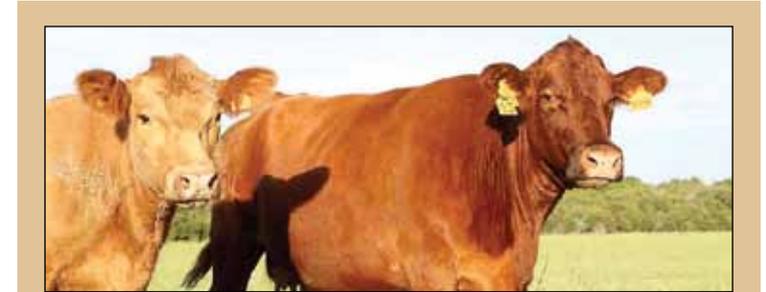
Just when that occurs, however, remains to be seen.

Assuring Quality Beef

It is vitally important to have a safe and sustainable supply of food in the United States and elsewhere. This includes high quality beef that is humanely raised in an environmentally sound manner. The U.S. Department of Agriculture has rules and laws that govern how this is done. However, beef producers take it a step further because they have a vested interest and sincere desire to make sure their cattle, land, and products are treated with the utmost regard. This extra step includes a national program called Beef Quality Assurance (BQA) where individual beef producers take the training and receive certification.

The BQA program started in the early 1980s when producers wanted to ensure practices were safe and would pass the scrutiny of consumers. The USDA audited the cattle feeding segment of the industry to look at various practices and how they impacted meat quality. Since the start of the program, National Beef Quality Audits have been done every five years and include all segments of the beef production system (Cow-calf, Stocker, Finishing, and Packer). Each year top issues are identified, and improvements to the system are sought.

The BQA Mission is "To maximize consumer confidence



Study Shows Premium in Cattle from BQA Certified Producers

A recent study from Colorado State University measured the monetary value of having BQA certification on beef operations. Research was conducted to determine how a BQA Certification listing affected the sale price of beef calves and feeder cattle marketed through video auctions. The study resulted in a premium of \$16.80 per head or an estimated \$2.71/cwt.

and acceptance of beef by focusing the producers' attention to daily production practices that influences the safety, wholesomeness, and quality of beef and beef products."

Beef producers participate in BQA because it's the right thing to do, it protects the beef industry from additional regulation, improves sale value of marketed beef cattle, demonstrates commitment to food safety and quality, safeguards the public image of the beef industry, upholds consumer confidence in valuable beef products, and enhances herd profitability through better management. The BQA guidelines focus on what is fed, records for

animal health, and husbandry practices for the animals.

Wholesome feeding practices, veterinary-guided health care, low-stress livestock handling, and care for the aging animals in the herd are some of the topics addressed in the BQA program. Additionally, ranchers are kept up to date on animal genetics for breeding excellent beef cattle. All these topics relate to the quality of beef produced.

For more information on the BQA program, visit <http://bqa.org>.

Oregon State University Extension Service is offering BQA training this spring in Tangent and Eugene. Watch for details coming soon.

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Commercial Agriculture Small Farms

'I own land with EFU status. How do I maintain the deferral?'

By **Victoria Binning**, OSU Extension Small Farms Program

I often get the question from new landowners, those who have never owned land before and now find themselves with a few acres to play with, "What can I grow that doesn't require a lot of work but I can make money off of?" After a little digging, I find that many of these question-askers are driven by a desire to live a rural lifestyle and they are looking for ways to maintain their Exclusive Farm Use (EFU) tax deferral to keep expenses down.

The State of Oregon has some pretty strict rules around the use of agricultural lands because the people of Oregon value their rich agricultural soils and their farmers so highly. Unlike other states, Oregon has a special zoning status for rural properties – called Exclusive Farm Use, or EFU – that prohibits activities other than farming from happening on prime agricultural soils. For this reason, it is difficult to divide properties into parcels smaller than 80 acres and to build houses or structures not necessary for the farm business.

Given those considerations for the preservation of our fertile

soils, what can you do with your parcel of paradise?

Exclusive Farm Use (EFU) zoning requires that you honestly try to make a profit from a farm business on your property in order to receive the tax deferral, which is really an incentive to keep those lands productive. There is no minimum income requirement, but you must be farming with the intent to make a profit. Farming includes vegetable, fruit, pasture, livestock, and nursery operations, as well as boarding and breeding, among many other farm enterprises. You can find more clarity on what qualifies in "Assessment of Farmland in Exclusive Farm-Use Zone" https://www.oregon.gov/DOR/forms/FormsPubs/assessment-farmland-zone_303-644.pdf from the Department of Revenue.

If you are hoping that events like weddings, corn mazes, or glamping experiences might be the way to make an income, make sure this is not your primary source of income. Events such as these first require that you have a farm business producing crops or livestock to sell. It is called "Exclusive FARM Use" after all, and your

farm business comes first! It is important to note here that each county has different rules around EFU land and it behooves you to get familiar with your county's code. Decisions around land use and the zoning code are determined by county planners and you should contact them while you are building out the vision of your farm property, not after you've started the actual building!

Deciding on which crops to grow or livestock animals to raise is a matter of choice. How much time do you want to spend tending your crops or animals? What sorts of activities do you enjoy doing? Feeding chickens and collecting eggs may bring you more joy than pruning trees, or vice versa, and that's okay! In fact, it's important to recognize what forms of work will be sustainable for your lifestyle and keep you invested.

Further narrowing down your options are the resources available on your property. Do you have water rights? What is the quality of your soil, or your soil classification? Little or no water will limit you to more drought resistant crops like wine grapes, Christmas trees, garlic, hay, asparagus, and rhubarb.

Similarly, poor soils will require amendments for crop production or are often used for pasture. To determine if your property has water rights, check out the Oregon Water Resources Department database <https://www.oregon.gov/OWRD/programs/WaterRights/WRIS/Pages/default.aspx>.

To determine what types of soil you have, check out the Web Soil Survey <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. If you have questions about what it all means, don't hesitate to reach out to OSU Extension Small Farms Program.

For a more in-depth guide through considering what to

produce on your farm property, as well as a guide for other questions you will want to answer as you start your farm, read "What Can I Do With My Small Farm?" <https://catalog.extension.oregonstate.edu/ec1529>.

If thinking of all the work needed to successfully raise a crop or maintain livestock makes your head spin, you might consider leasing your land to someone who is ready to actively farm. You can lease EFU land so long as they are farming and you are receiving an income from them. In order to lease your land, you draw up

Continued on Page 12



RURAL LIVING DAY

Saturday March 7th, 2020

9:00am - 3:00pm, Junction City High School

If you live in the country or are considering a move, you won't want to miss this event. Workshops throughout the day offer something for everyone, including a dedicated youth track. Workshops on compost, water rights, wild mushrooming, small engine maintenance, wildlife management and habitat, sausage making, gardening, and more!

Cost: \$20 per adult. Youth attend for free.

For event details, including full list of sessions, descriptions, and to register visit: <https://extension.oregonstate.edu/smallfarms/events/rural-living-day-2020>
Advanced Registration Required - Spots are Limited

Questions? Contact Teagan 541-713-5011 Teagan.moran@oregonstate.edu



OSU EXTENSION SERVICE PROHIBITS DISCRIMINATION IN ALL ITS PROGRAMS, SERVICES, ACTIVITIES, AND MATERIALS. ACCOMMODATIONS ARE AVAILABLE. CONTACT TEAGAN 541-713-5011 TEAGAN.MORAN@OREGONSTATE.EDU

THINGS TO CONSIDER

Vegetable Crops

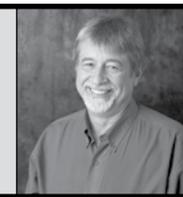
- Annual plantings
- Requires irrigation water
- Harvesting by hand takes longer, but harvesting by machine requires \$
- Requires well drained soils

Berries and Orchard Crops

- May take several years to turn a profit
- Typically requires irrigation
- Annual maintenance lessens after first 2-3 years
- Annual pruning requirements
- Important to research disease resistant varieties
- Requires well drained soils

Livestock

- Require 24/7 care
- Budget for veterinary needs
- Fencing!
- Make a plan for deceased animals
- Livestock will damage soils during wet season without management
- Larger animals can be challenging to handle
- Need hay or other feed for the winter
- Can raise livestock on marginal lands



Avoiding Herbicide Carryover in Vegetable Crop Rotations

By Ed Peachy,
Commercial Veg Crops

This is a good time of year to recall and review the herbicide history on your farm to avoid crop injury from carryover. Herbicide carryover occurs more often than it should. Reasons for this include poor record keeping, incorrect rates of application, unanticipated changes in the crop rotation, poor communication, and of course, forgetfulness. Producers manage many crops, and keeping track of everything that is applied to a field can be a challenge, particularly when the land is rented. The intent here is to highlight common herbicides used in vegetable crops that can cause problems later in the rotation.

Four common herbicides used in vegetable crops that can damage future crops are Raptor, Reflex, Sandea, and Command (see summary table below or the expanded table online). Clomazone is the herbicide in Command, and is also in the premix Strategy and will damage corn up to one year later. Reflex may injure some crops up to 18 months after application (see photo of typical damage). Raptor and Sandea have the longest rotation intervals, up to 26 months for



Reflex carryover damage to Chinese cabbage five months after Reflex application.

some crops. Half-lives of these herbicides range from 3 to 12 months depending on soil temperatures and moisture levels. Dry soils in cold and low rainfall areas slow herbicide degradation the most.

Crop rotation intervals printed on pesticide labels are designed to minimize the chance of crop injury and the chance that illegal residues are found in following crops. Occasionally, it is possible that an herbicide will not injure the following crop, yet that same crop may pick up herbicide residues that exceed the federal tolerance (limit) for that herbicide and that crop. For

this reason, it is important to follow labels carefully.

Cover crops are a special case when it comes to herbicide carryover and plant-back limits. Cover crops that will not be harvested can be planted after any herbicide program, but the grower assumes the risk of crop failure. The cover crop cannot be harvested for forage or seed, however, unless the label allows for that option.

Herbicide persistence or carryover is a particular issue if attempting to interseed cover crops. Most of the preemergence herbicides labeled in crops like corn will damage interseeded cover crops, including Dual Magnum, Outlook, and atrazine. An exception is Eptam preplant incorporated in snap beans. Eptam dissipates very quickly and typically does not injure cover crops after 6 weeks.

The good news is that there are now several herbicides of Group 28 that have been labeled in sweet corn over the last decade that have short rotation intervals and that make interseeding possible. The herbicides are Impact, Laudis, and the most recent addition, Shieldex (2018). Most cereals are tolerant to these herbicides, but we have noted damage to small seeded legumes when the herbicide was applied at the

Crop	Herbicide and Rotation Intervals (months)			
	Raptor (imazamox, applied to snap beans)	Reflex (fomesafen, applied to summer or winter squash, beans)	Sandea (halosulfuron, applied to cucurbits and beans)	Command/ Strategy (clomazone, applied to cucurbits mainly)
Goosefoot family (Chenopodiaceae)				
Beets (table)	26	18	24-36	9
Spinach	26 NL*	18	24	12 NL
Swiss chard	26 NL	18	36 NL	12 NL
Mustard family (Brassicaceae)				
Broccoli, cauliflower & cabbage	18	18 NL	15-18	9
Collard	26 NL	18 NL	36 NL	12/16 NL
Turnip	26 NL	18 NL	36 NL	12/16 NL
Canola	26	18 NL	15	12/16 NL
Nightshade family (Solanaceae)				
Eggplant	18	18 NL	12	12/16 NL
Pepper	18	12	10	0
Potato	18	0	9	9
Tomato	18	10	8	9/12
Parsley family (Apiaceae)				
Carrot	18	18 NL	15	12/16 NL
Lily family (Liliaceae)				
Onions & leeks	9	18 NL	18	12/16 NL
Sunflower family (Asteraceae)				
Lettuce	9	18 NL	18	12/16 NL
Cucumber family (Cucurbitaceae)				
Cantaloupe	9	12	36 NL	9/0
Cucumbers	18	12	9	9/0
Pumpkins & Squash	9	4/0 for squash	9	9/0
Grass family (Poaceae)				
Corn (sweet)	8.5	10	1-3	9
Bentgrass	NL	12	36 NL	12 NL
Pea or legume family (Fabaceae)				
Beans (snap)	0	0	9	9/NL
Edamame	0	0	36 NL	9/NL
Pea	0	4	9	9/NL

*NL: crop not listed on the label and therefore falls under the category of 'all other crops'.

same time as the cover crop was drilled between corn rows. Vigorous cover crops such as cereals (eg. triticale and winter wheat) should be seeded when corn is V6 (6 collar corn); the best time to apply these Group 28 herbicides for weed control

is at V4 or before. This window between herbicide application and seeding (V4 to V6, or typically 10 to 14 days) is usually sufficient to prevent injury to leguminous cover crops.

To view the full table visit <https://beav.es/4wm>

I Own Land with EFU Status continued from Page 11

a contract with an interested party, outlining the duration of the contract, who is responsible for what, and what to do if/when things go wrong. Lease agreements are not only a good idea to protect you, but you may need to provide the county assessor's office with a copy as proof of income. Our Small Farms agent, Melissa Fery, wrote a great article called "Exploring

Leased Land" <https://extension.oregonstate.edu/exploring-leased-land> that is well worth a read!

Access to farmland is one of the biggest challenges facing young and beginning farmers, so if you have land to farm but are not interested in doing the work yourself, connecting with these folks is a win-win situation. You can find interested parties on

places like OregonFarmLink.org, Craigslist.com, the Small Ag Press, and Facebook groups like "Willamette Valley Farming and Homesteading Classifieds."

In farming, there is no silver bullet product that is easy to produce and makes a lot of money. If there was, everyone would be producing it. Farming requires hard work and dedication. Many of

your farming decisions will be dependent on your available resources, both those from the land and those from your farming team or family. Finding an enterprise that is manageable and fulfilling is a matter of reflecting on your own goals and preferences and aligning those with what your land and the local markets will support. Start small and grow sustainably.

For questions about what you can do on your EFU land, contact your County Planning Division.

For additional farm deferral questions, contact your County Assessor's office.

For farming questions and support, contact Teagan Moran with the Small Farms program at 541-713-5011 or email teagan.moran@oregonstate.edu.



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Commercial Agriculture Tree and Small Fruit

Monitoring for Insect Pests in Orchard Crops

By Erica Chernoh, Assistant Professor of Practice Commercial and Community Horticulture

There are several insect pests of orchard crops that begin to emerge in the spring as temperatures begin to rise. Monitoring your orchard is essential during this period in order to understand when the pest will first emerge, the pest population pressure, and to properly time pesticide applications.

Codling moth (*Cydia pomonella*) is one of the most prevalent pests of apples and pears in the Pacific Northwest. In the south Willamette Valley, the Codling Moth completes 2 to 3 generations per year. The first generation will typically emerge in May with first major flight in early June, followed by a second generation in June. Pheromone traps are useful for identifying and monitoring the presence of adult moths, and timing pesticide applications. To be effective, pheromone traps should be placed in the upper one-third of the tree canopy by mid-May, and inspected weekly. When two or more moths are caught in one or more trap for two consecutive weeks, then make the first spray. Timing of subsequent spray applications will depend on the longevity of products used, but should be made when the first product has broken down or at least two moths per trap are captured in one or more of the traps. Degree day models have also proven quite effective for timing pesticide applications to the life stage of the pest that is most exposed (i.e. between egg hatch and when the larva

start tunneling into the fruit).

Filbertworm (*Cydia latiferreana*) is considered the number one insect pest of hazelnuts. Historically, the adults began to emerge in mid-June, but flight has been starting earlier in recent years. Pheromone mating disruption has proven to be effective in managing this pest and reducing insecticide applications. Pheromone traps should be placed in the upper one-third of the tree canopy by mid-May (four traps for 10 acres). Action should be taken when 2-3 moths per trap or 5 moths are found in any one trap.

The filbert aphid (*Myzocallis coryli*) and hazelnut aphid (*Corylobium avellanae*) begin to emerge in early April. To monitor for aphids, inspect the leaves and young buds for aphids. There is a parasitoid wasp (*Trioxys pallidus*) that usually keeps the aphid populations in check, so only spray if you had serious aphid issues the previous season, or if you are above the threshold levels (20 aphids per leaf in April, 30 per leaf in May, or 40 per leaf in June or July).

The Brown Marmorated Stink Bug (BMSB) (*Halyomorpha halys*) has become an important pest in the Willamette Valley for several commercial crops, including hazelnuts. Pest pressure will peak in the late summer or early fall, but the damage to the crop may have been done earlier in the season. Early season feeding by BMSB can cause damage to the kernels, including blanks, shrivel, or corking. Several methods can be used to monitor for BMSB, including pheromone traps, beat sheets, and visual observation.

Another pest of hazelnuts, the

Pacific flatheaded borer (*Chrysobothris mali*), will begin to emerge in May. The larvae of the flatheaded borer tunnel into the cambium of the trunk, feeding as it goes, and preventing water and nutrients from moving from the roots to the shoots. Young and stressed trees are particularly susceptible. If you have young hazelnut trees in the ground, it is important to monitor them for borer damage, particularly those that show signs of stress, such as wilting, yellowing or stunted leaves in the canopy of the tree. Inspect the trunk of the tree for signs of boring, cracks or dark colored depressions in the bark, and look for sawdust frass on the ground around the base of the tree.

For more information on the pests mentioned in this article and control options, see the Pacific Northwest Pest Management Handbook: <https://pnwhandbooks.org/>, or the following OSU Extension Publications (<https://catalog.extension.oregonstate.edu/>):

- 2018 Apple Pest Management Guide for the Willamette Valley (EM 8418)
- 2019 Hazelnut Pest Management Guide for the Willamette Valley (EM 8328)
- Growing Hazelnuts in the Pacific Northwest: Integrated Pest Management (EM 9081)
- How to Monitor for Brown Marmorated Stink Bug in Specialty Crops (EM 9138)
- How to Recognize Brown Marmorated Stink Bug Damage in Commercial Hazelnuts (EM 9102)
- Filbertworm control by Mating Disruption (EM 9198)

*How to Set Goals
continued from Page 6*

achievement to signal someone to move from one stage to the next. The model also provides no time limit or suggestion to remain in each stage.

Despite some of the limitations in using this model, there is benefit to understanding it. Using this model works best by setting goals for yourself and being responsible to a trusted partner. Small goals improve the odds of success and will create a sense of momentum for making other behavior changes. A small goal could be replacing sugary drinks with calorie free drinks. Notice how much more realistic and detailed this goal is opposed to “lose the weight.” Having an unbiased person for motivation and accountability will help you be successful. They can realize the end of a stage and when it is best to move to the next. These tactics will help you move through the stages on to a healthy goal.

References:

sphweb.bumc.bu.edu/otlt/MPH-Modules/SB/BehavioralChangeTheories/BehavioralChangeTheories6.html



Amazing 43+ acres w/ home far ahead of its time in energy efficiency: solar panels, geothermal hot water baseboards/Carrier heat pump. Private 6066 sq. ft quality home w/ LVT flooring/views/tranquility/space to roam in & out. 5 bedrooms w/more possible/one on main level, 3.5 bathrooms, office, mud room. EFU acres perfect for small intensive organic farming/mushroom cultivation/livestock. Many outbldgs such as: shop, 100'x20' machine shed, 170'x30' lambing shed also ideal for car buffs or other XL projects!

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Benton County 4-H Youth Development

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4-H Summer Conference

4-H Summer Conference is June 24-27, (Wed-Sat) on the OSU campus! Summer Conference is an opportunity for youth in grades 7-12, to explore campus life, make new friends, sleep in a dorm, learn and have lots of fun.

While there, participants attend workshops on a wide variety of subjects. More than 80 classes are offered including dog agility, a logging site tour, animal anatomy, fly-fishing, origami, and etiquette. Youth will also participate in a community service project and enjoy a pool party and dance!

Cost is \$250 per person. The first 10 Benton county registrants will receive a partial scholarship (*amount to be determined*). Current County/State Ambassadors and National Congress applicants will receive partial scholarships (*amount to be determined*). Registration and instructions can be found on our website. Registration opens on May 15.

For more information go to: <https://extension.oregonstate.edu/4h/4-h-summer-conference>.

Celebration of Student Learning

On Thursday, May 7, at Jefferson Elementary in Corvallis, more than 200 students will gather to share their year long project work. The 4-H Wildlife Stewards Youth Summit is a one-day natural science education event for student teams from 4-H Wildlife Stewards Teachers and Member Schools in Benton County.

Students who participate in this event prepare an educational display and give an oral presentation or give a performance presentation related to a project they have researched or conducted in their schoolyard habitat or nearby natural area. In addition to their presentation, students participate in a series of hands-on natural science activities provided by agencies and organizations in our community, take a habitat tour of the host site, meet students from other member schools, and have fun!

Please join us from 2:45-4 p.m. for the community viewing of student projects.

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.

Vaping and e-cigarettes - Things Teens and Parents Should Know

What are e-cigarettes?

Electronic cigarettes, or e-cigarettes, include “vapes,” hookah pens, or JUULs. They are battery-powered devices that heat an e-liquid sometimes called “e-juice” that often contains nicotine. E-cigarettes are inhaled like regular cigarettes and produce an aerosol cloud of nicotine or other substances. They are not proven to be a safer alternative to cigarettes.

Is there a difference between using e-cigarettes and JUULing? No. JUULs may look different, but they’re actually a type of e-cigarette. Every JUUL pod contains highly addictive nicotine. JUUL does not make any nicotine free pods. Some JUUL pods claim to have roughly as much nicotine as an entire pack of cigarettes.

The aerosol cloud produced by a JUUL might not look as thick as other e-cigarettes’ or regular cigarette smoke, but it still contains many of the same chemicals and has the same health risks.

Aren’t e-cigarettes less harmful than tobacco? Isn’t it just water vapor? The aerosol produced by e-cigarettes isn’t water vapor and it isn’t harmless. The aerosol inhaled from these products is often a mixture of harmful chemicals like nicotine, formaldehyde and acrolein.

Virtually all e-cigarettes contain nicotine – even the ones labeled “nicotine free.” This is because there are no rules about how e-cigarettes or “e-juice” are made. There is no way to know exactly

what is in an e-cigarette.

“E-juice” and JUUL pods flavored like fruit or other treats carry the same health risks as the unflavored products. Also, the flavorings used are typically not safe to be inhaled into the lungs.

What are the health risks of e-cigarettes? E-cigarettes contain chemicals that can cause irreversible lung damage and alter teen brains. E-cigarettes contain harmful chemicals such as formaldehyde, which is known to cause cancer, and acrolein, which is used as a weed killer and can cause irreversible lung damage.

Nicotine is highly addictive and exposure during adolescence can harm the developing brain.

Youth who use e-cigarettes are more likely to go on to use traditional cigarettes.

In the short term, e-cigarette aerosol can irritate your lungs, throat and eyes. It can also make it more likely that you’ll catch colds or get the flu.

Is it legal for people to sell e-cigarettes to youth or for youth to buy or use them?

In the majority of states, the minimum age of sale for e-cigarettes is 18; in three states the minimum age is 19, and in six states and DC the minimum age is 21.

In many states, it is illegal for retailers to sell youth e-cigarettes, and in some states it is also illegal for youth to possess e-cigarettes.

- Many schools have added e-cigarettes to their tobacco-free

school policies and the consequences for using them on school grounds are often the same as smoking traditional cigarettes.

In Oregon, Governor Kate Brown’s Executive Order 19-09 was issued October 3, 2019, to address the vaping public health crisis and outbreak of vaping-associated lung injury. As directed by the Governor, Oregon Health Authority (OHA) adopted a rule banning the sale of flavored nicotine vaping products, but the Oregon Court of Appeals stayed enforcement of the rule. Because of the court ruling, on January 16, 2020, the Oregon Health Authority suspended the temporary rule banning sales of flavored nicotine vaping products. OHA continues to urge all Oregonians who use vaping products to stop vaping immediately and take advantage of cessation resources.

Can e-cigarettes help someone quit? No, e-cigarettes have not been found to be safe and effective to help people quit smoking.

- If you know someone who wants to quit smoking, they can call 1-800-LUNGUSA (1-800-586-4872) or visit www.lung.org to learn about quitting safely.

Sources

AMERICAN LUNG ASSOCIATION – www.lung.org; Oregon Health Authority

4-H Cloverbuds are Learning and Giving Back

The Benton County 4-H Cloverbud program recently held their annual day camp on Martin Luther King Jr. Day. This year, the day camp had a farm animal theme with twenty-two 5-8 year old youth learning about how to milk dairy cows, check for and candle chicken eggs, make animal masks, shake their own ice cream in a jar, and more. Older 4-H youth presented their own animals to give Cloverbuds an opportunity to learn about different animal species they could show as 4-H projects when they got older. They heard about rabbits, chickens, goats, and dogs. The Cloverbuds also went on a walking tour around the Benton County Fairgrounds where they learned where the animals are kept during county fair.

Along with the day camp, the 4-H Cloverbuds also recently had the chance to tour Heartland Humane Society while they delivered a donation check from their December fundraiser. During the fundraiser, the Cloverbuds created an art piece that was auctioned off to the public. Half of the proceeds went to further support Cloverbud programming, while the other half went to a local charity of the attending Cloverbuds'



Cloverbud Members participate at a day camp and tour.

choosing. They voted on Heartland Humane Society. Heartland hosted the tour to show what the Cloverbud donation would be going

towards.

These types of activities help build the Cloverbuds' interest in serving the community.

4-H Favorite Foods Recap

Thirty-two youth, ages 5-19, participated in the 2020 4-H Favorite Foods Contest on Saturday, January 25. In this contest, participants prepare their favorite food in advance and bring the food/dish, a menu, and a table setting to the Benton Extension office to be critiqued by a volunteer

judge. While waiting, youth were also able to test their measuring technique in a measuring contest with various wet and dry ingredients.

The 4-H Favorite Foods Contest prepares participants for the 4-H Food Preparation Contest (in March) which is the

competitive qualifying contest for the Oregon State Fair.



4-H Fashion Revue

Come cheer on 4-H members as they walk the runway and showcase their clothing and sewing projects. 4-H Fashion Revue will take place on Saturday, April 25, at 6:30 p.m. in Milam Auditorium (2520 SW Campus Way) on OSU Campus. 4-H members are judged earlier in the day on their projects and then take to the stage for a free public viewing. More information about the event can be found on the Benton County website: <https://extension.oregonstate.edu/4h/benton>



4-H member poses at the fashion revue public showcase.



Garden Calendar continued from Page 7

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.
- De-thatch and renovate lawns. If moss has been a problem, scratch the surface before seeding with perennial ryegrass.
- Prune and shape or thin spring-blooming shrubs and trees

Linn County 4-H Youth Development

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High Desert Leadership Retreat A Success

In January, over the Martin Luther King Jr weekend, 16 Linn County 4-H members travelled to Eagle Crest Resort in Redmond for a weekend at High Desert Leadership Retreat. During the weekend youth got the opportunity to practice many life skills including grocery shopping and cooking for themselves. Along the way new friends were made, new skills were learned, and lots of fun was had.

Youth also participated in numerous classes that they chose along with group activities that all attendees

participated in. One of the classes that all the attendees participated in was “Zombie Apocalypse.” This was an interactive class for youth to learn how prepared they would be in the case of a natural disaster, such as a large earthquake. Youth worked in teams, and as facts were shared, they determined how many of them had the skills needed to continue. This was a great opportunity for youth to think about what they can offer and also what they can do to prepare for a disaster. Our own Linn County member Elizabeth Beck

was crowned the “Zombie Apocalypse Zar” out of the 120 youth that attended the conference.

In 4-H we focus on positive youth development and try to provide youth with skills that will help them throughout life. High Desert Leadership is just one of the many opportunities that provide 4-H members with those skills. In Linn county we are very appreciative of special donors who provide scholarships to our members to travel and have these experiences.

Military Kids' Club

By Paul Smith, Linn County 4-H Program Coordinator

Growing up as a military kid is not always the easiest thing in the world. There are a lot of factors that can make life more difficult for a family in the military. They are often required to move every two to three years, which requires leaving a home, friends and familiar places behind, and

then having to adjust to a whole new environment, build new friendships and start a new home. Deployments are another reality that military kids often deal with. When a parent is deployed, they can be gone for many months at a time. Not only is the parent absent, but sometimes they are required to serve in a hazardous part of the world, which adds even more stress!

Oregon currently has an estimated 1,700 National Guard service members deployed overseas, and many more will continue to deploy in the years to come.

With the hardship and stress that can come with being a military family member, it is important that resources

Cloverbud Day Camp

While some kids took a day off from learning this Presidents' Day, others remained actively engaged in learning and skill-building. Some of those 'others' were the participants of the latest Linn County 4-H Cloverbud Day Camp. Those who attended the event took part in a variety of fun activities that they enjoyed and will remember in the months to come.

The kids started the camp off by making their very own button name-tags and playing a game of Simon says. Next up, was the task of building a riding lawn-mower out of Legos. Participants were provided a lego kit and carefully followed the step-by-step directions until they had built their very own mower. All that work built up quite an appetite, so the kids moved to the kitchen in order to whip up a snack. On the menu was a peach and carrot smoothie, and homemade macaroni and cheese. Blending up the smoothies was quite the workout, because the eco-friendly blender was not electric, but a kid-powered blender-bike. After getting to enjoy the fruits of their labor, it was on to messy business. The day-campers made their very own 'turf-buddies'. A nylon sock is filled with grass seed and dirt, then placed in a decorated planter. In time, grass, or 'hair', begins to grow out of the turf-buddy. To end the day, kids were able to draw a picture of something that they had learned that day. Some learned that a stationary bike can be used to blend up smoothies. Others discovered a new way to prepare macaroni and cheese, and many found a fun, new way to plant grass.

This February's day camp was a success, because the participants all got to experience something new and have fun. Linn County 4-H looks forward to continuing to help youth thrive. Interested in learning more about 4-H in Linn County? Please visit our website, <https://extension.oregonstate.edu/4h/linn> or drop by our office for a visit.

Continued on Page 19

Hunter Education Classes for Youth

Linn County Extension Office

Tuesday and Thursday evenings, April 7-21

\$10 Registration through ODFW

This class gives a thorough introduction to the skills hunters need, covering topics like: firearms safety, hunter ethics, wildlife identification, hunt preparation and techniques, and outdoor survival. All youth students are required to participate in a live-fire exercise. Hosted by Lacombe Livestock Hunting Skills 4-H Club from Linn County. For more information, contact Amber Beck ambernob@centurytel.net, or visit <https://extension.oregonstate.edu/4h/linn/events/hunter-education-classes-youth>



Intern Tai sees 4-H program from the other side

Hello, my name is Tai Rogers. I am an intern at the OSU Linn County Extension Office in the 4-H program. I am pursuing a Masters' degree in Agricultural Education with an emphasis in Extension. My career goal is to be employed as an Extension agent in one of Oregon's great counties. Currently my focus is 4-H, but I also have animal science experience.

My history in 4-H goes back to when I was 9 years old in the meat goat project area. 4-H gave me communication skills, leadership opportunities, confidence, and a network to start the long journey towards a career in Extension. Being a member in the 4-H program educated me about animal husbandry, compassion towards others, and how teamwork is better than doing everything by yourself. This

internship has taught me about the inner workings of a countywide 4-H program, and some statewide 4-H programs as well.

There is a lot that goes into supporting a county's youth. Youth in the 4-H program can design and create their own pathway through the program. This means the program has many moving parts at any given time. This concept was evident to me while chaperoning at the High Desert Leadership Retreat. Along with chaperoning the youth I also taught two workshops and helped the planning committee with day to day tasks. This can be stressful, but I am learning the value of taking it one day at a time.

This internship has also given me some understanding of the guidelines and policies that 4-H and other Extension programs must follow

in order to manage their programs. I have also learned the importance of different types of communication, and how important it is to learn what volunteers are most comfortable with. Working in the 4-H program means that people are a part of everything that we do and communication skills are key to working with whoever your audience might be, whether it is youth, adult volunteers, peers, or administrators.

All these experiences have helped me to understand the job of an Extension agent in the 4-H program. Before the internship I only had the participant view of the program and now I understand so much more. This experience makes my drive to be a 4-H Extension agent even greater. I am very excited about my future possibilities.

Calling All Explorers

By Paul Smith, Linn County 4-H Program Coordinator

Oregon is known for its beauty and for being a great place to do outdoor activities, especially during the drier and warmer months. There is a beautiful coastline and dunes to explore, plenty of rivers and lakes to navigate, mountains to climb and slide down, and thousands of miles of trails to explore. It is an explorer's great playground full of adventure! With all that Oregon has to offer, it would be a shame not to take full advantage, which is why Linn County 4-H proposes an explorers' club!

What exactly are we looking for? We are looking for youth and adult volunteers who are not afraid to explore the great outdoors in a variety of ways. Adult volunteers with extensive outdoor experience and/or experience in teaching survival, first-aid/CPR and other specialized types of training are highly encouraged to volunteer. Youth who enjoy exploring the great outdoors and who like to challenge themselves are encouraged to join. Those who do not consider themselves to be an outdoor type of person, but who wish to challenge themselves are also encouraged to join the club.

The Linn County Explorers Club would provide youth with a wide range of fun, challenging, and educational experiences. Trail hikes combined with land navigation, camping while learning valuable survival skills, and canoeing/kayaking combined with first-aid and CPR training are just some of the activities that would take place in the Explorers' club. Members could also explore the world of flying by being involved in basic aviation training or by flying drones. Participants would also give back to the community by providing community service and by teaching what they have learned to others in a workshop setting.

Due to the nature of most activities, the club would be directed more toward intermediate and senior level members of 4-H, but younger participants would also be involved in some of the activities. Cloverbuds could participate in less strenuous activities and in fun workshops hosted by older members of the club.

Those pleasant months for exploring the outdoors will soon be here, and the opportunity for adventure will be plentiful. If being involved in something like the Explorers' club sounds intriguing to you, please consider joining. If you would like more information, have comments, or have any questions, please contact Paul Smith at paul.smith@oregonstate.edu or call 541-730-3469, or come visit me at the OSU Linn County Extension office. I look forward to hearing from you!

Upcoming events

Fashion Revue

March 28, 9 a.m., at Linn County Extension Office.

This contest is open to all 4-H members, cloverbud through seniors in Linn County. Five different categories are included in the event:

- Member Sewn – article of clothing made by member.
- My Favorite Outfit – a favorite outfit you already own.
- Ready to Wear – new clothing purchased for \$25 or less and paired with some that you already own.
- Fashion Revue Challenge – 2020 Challenge is garment or outfit inspired by your favorite book, short story, poem or other prose.
- Country of Celebration – The African Nation of Uganda, design an outfit that represents the country.

Continued on Page 19

Forestry and Natural Resources

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Keep Up with Weeds This Spring

Spring is the key time to tackle many non-woody weeds. These non-woody (also called “herbaceous”) plants include grasses and many common flowering plants including clovers, thistles, oxeye daisy, tansy ragwort, and groundsel. There are many native and also non-native herbaceous plants in the fields and forests of Oregon.

Taking care of unwanted plants/weeds is often an important part of taking care of your land. Herbaceous weed control is often part of these common objectives:

- Successfully planting tree and shrub seedlings;
- Reducing fine fuels defending against wildfire;
- Enhancing forest diversity/improving wildlife habitat;
- Easy access and enjoyment of your property.

NOW is good time to get out on your property, take a look and assess the situation: What needs to be done to accomplish what, by when? You might start by considering any of the items in the list above.

- If you have newly planted seedlings, you KNOW you will need to reduce competition in the first two years if they are to survive.

- Fire prevention strategies like Defensible Space focus on reducing fire fuels in different zones around the home. This often includes mowing strategic areas to prevent accumulation of dry grass and other fine fuels that could carry the fire to the home. To be effective, fields must be mown early and often to allow material to rot away. June is often too late to be very effective!
- Our forests are home to a wide variety of native plants. Invasive plants such as false brome, or shining geranium can crowd out many native woodland plants, reduce the diversity and lessen the habitat value of your woodland. Keeping invasives in check to favor native plants is often a key strategy in a conservation plan.
- How can we play in our woods with all these blackberry vines? Take control of favorite areas, pathways.

Although you may find you have a clear motivation for managing invasive weeds or other unwanted vegetation, what to do may be less clear. Different woodland conditions,



Learning how to calibrate and use a backpack sprayer correctly is important if using herbicides to control weeds.



Shining Geranium and other invasive species can crowd out many desirable native plants.

situations and landowner objectives will justify using different approaches to vegetation control. These include: manual and mechanical methods such as mowing, grubbing or pulling; cultural methods such as grazing; or use of chemical herbicides. How appropriate each is depends somewhat on the weeds in question, the purpose of the action (to remove or to kill), and season of use (which has a strong impact on effectiveness).

A good resource to explore those many options is the TNC Weed Control Methods Handbook: Tools and

Techniques for Use in Natural Areas. It is available at this site <https://www.invasive.org/gist/handbook.html>.

Often, the size of the task leads many people to decide to use some herbicides to meet their objectives. There are a variety of allowable products and methods to choose from. It is important to be informed about materials and rules involved. The use of chemicals in forestry is more regulated than in most other rural or urban lands. Remember that Oregon forest practice rules require Notification to the Oregon Department of Forestry ahead of use.

Also, responsible use of herbicides means careful selection of appropriate materials and correct application methods. The PNW Weed Management Handbook <https://pnwhandbooks.org/weed> is a vital source of information on safety, selection, and use of herbicides.

Other information, including a refresher on backpack use and calibration, can be found at the Tree Topics Blog <http://blogs.oregonstate.edu/treetopics/>, by clicking on “Weeds” in the Tags box on the right side.



Oregon Season Tracker wins recognition

The locally based Oregon Season Tracker (OST) program received an Extension Statewide “Search for Excellence” award last winter. OST is a community science program that recruits

and trains community volunteers to gather scientific data on precipitation and plant phenology at their home, woodland, farm, ranch or school. These data are shared with local and

national research partners to help understand the interaction of weather, climate and local ecosystems, to the benefit of participants’ knowledge and understanding.

Congratulations to the

OST Coordinator Jody Einerson for her excellent work on this project! If you want to become an OST observer, give Jody a call at 541-713-5000 or Jody.Einerson@oregonstate.edu .

Valley Pine Group Needs Your Help Mapping Stands

By **Mike Barsotti**, Executive Director WVPPCA

The Willamette Valley Ponderosa Pine Conservation Association (WVPPCA) is working to quantify how many acres, the ages, and the locations of ponderosa pine plantations in the Willamette Valley.

This information is valuable for two reasons; it will help answer the questions: 1. What is the future log supply? and, 2. Growth and yield tables need

to be developed for ponderosa pine in the Willamette Valley, and the locations of stands of various ages on different soil types need to be measured to establish growth tables.

This information will complement the work of an Oregon State University grad student who used imagery and GIS technology to locate and quantify pine plantations in the Willamette Valley.

If you have or know of pine plantations in the Willamette Valley, it would be very helpful



PHOTO BY BRAD WITHROW-ROBINSON

Ponderosa pine is now a common tree around the Willamette Valley.

if you would send information on the location, acres, and approximate age of the pine stand to barsotti@wvi.com. Thank you for your help.

Military Kids Club continued from Page 16

are made available to those military family members. One of the resources available in Oregon is the Oregon National Guard Child & Youth Program.

The Oregon National Guard Child & Youth Program is currently developing regional programs throughout the state where military youth in various areas will have a chance to connect, grow, and have fun. At this point, there is a pilot program called Military Kids' Club running in Salem at the Boys and Girls Club of Marion & Polk Counties. The meetings take place once a month for 2.5 hours and each month there is a new chance for the group to grow closer together. The youth, grades 2 through High School, help

support each other with whatever extra stress they may be experiencing being military connected and just being a kid. Each meeting so far has about 8-10 total youth participating. Activities at each meeting include fun icebreakers, arts and crafts, group fitness games, goal setting, and reflecting on the positive in their lives'.

Kids' Club has now partnered with Marion County 4-H to continue to develop the program in Salem. There are plans to expand the same program to different areas throughout the state, including Linn County. The same partnership would continue working with 4-H and the Boys and Girls Club in the

local communities to support military youth in that area. In order to grow, there will need to be additional volunteers and staff available to help work with youth. All military youth who participate in the Kids' Club receive a free membership at their local Boys and Girls Club to continue to return and participate in the programs they provide. This is part of a national initiative called, Mission Youth Outreach.

If you would like more information about the Oregon National Guard Child & Youth Program and Military Kids' Club, or you know any additional volunteers, contact Hank Bauer and Alissa Chase at: ng.or.orarng.lists.cyp@mail.mil or call 503-584-2346.

Upcoming Events continued from Page 17

Food Prep Contest

April 10-11, Brownsville Christian Church

This contest is open to all 4-H members, cloverbud through seniors in Linn County. There are six different categories included in the event:

- After School Snacks
- Pre-Packaged Foods
- Breakfast Quick Breads
- Mini Meal

- Quick Fix Meals
- Measuring Contest

Communications Contest

April 21, 4 p.m., at Linn County Extension Office

This contest is open to all 4-H members, cloverbud through seniors in Linn County. Participants may select from the following categories:

- Reciting Pledge for Cloverbuds

- Public Speaking
- Illustrated Talk
- Demonstration
- Team Presentation
- Impromptu

For more information or to register for any of the events listed above, visit the OSU Linn County Extension 4-H web page, <https://extension.oregonstate.edu/program/4h/linn/events>

OSU Extension Forestry and Natural Resources

Taking Care of Your Woodlands

...a basic forestry shortcourse

OFFERED IN 2 LOCATIONS

Tangent: Wednesday evenings, 6:00-8:30 pm

Dates: March 25, April 1, 8 & 15, 2020

Sat. field session April 18th (9am-3 pm)

Location: Linn County Extension
33630 McFarland Rd, Tangent, OR

OR

Dallas: Thursday evenings, 6:00-8:30 pm

Dates: March 26, April 2, 9 & 16, 2020

Sat. field session April 18th (9am-3 pm)

Location: Polk County Extension,
289 E Ellendale, Suite 301, Dallas, OR

Cost: \$50 individual/\$60 two from the same family sharing materials

Instructor: Brad Withrow-Robinson
OSU Extension, Forestry & Natural Resources
Benton, Linn & Polk Counties

Register deadline March 18th

Register Online at:

<http://bit.ly/BentonForestry>

For more information contact:
Benton County Extension office 541-713-5000
or jody.einerson@oregonstate.edu



This five session course is ideal for anyone who is just starting out taking care of a woodland property. Topics covered:

- **Getting Started:** assessing your property and site
- **What's Going on in Your Woods?:** understanding tree biology and forest ecology
- **Taking Care of Your Woods:** tree planting, care for an established forest, weed control
- **Getting it Done:** safety, timber sale logistics, laws and regulations



Oregon State University
Extension Service

OSU Extension Service prohibits discrimination in all its programs, services, activities, and materials. Accommodation requests related to a disability should be made by March 28 to jody.einerson@oregonstate.edu or 541-713-5000

Garden Calendar continued from Page 15

after blossoms fade.

Planting/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:
- 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.
- 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.
- 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.

