Extension Internships Benefit Faculty, Students Alike

By Mitch Lies, GROWING Editor

With an interest in plants and in helping farmers solve crop problems, Sprout Mahoney hopes one day to be an agricultural Extension agent or work in a related field. Mahoney’s experience over the past few months has been invaluable in helping achieve the goal.

Starting in April, Mahoney worked under Oregon State University Extension field crops agronomist Christy Tanner in the OSU Extension Internship Program. The program, now in its fourth year, connects students with on-the-job training and meaningful learning experiences.

“The biggest thing I got out of it is practical experience,” said Mahoney, who helped with research projects over the spring and summer, including working with drones and spatial imaging mapping in analyzing vole damage in grass seed fields.

“It’s been like, ‘Okay, here’s the problem. How can we help solve it?’” Mahoney said.

Mahoney was one of 36 students to participate in the Internship Program this past summer, a program that has grown rapidly from when it started in 2020. Just 11 participated that year. The program had 92 applicants in 2023 and is now utilized in all six Extension regions across the state.

“We couldn’t be more pleased with how the program is shaping up,” said Wiley Thompson, director of OSU Extension’s Coastal Region, who started the program after realizing OSU was one the few Extension Services that did not have a formal statewide internship program.

Under the program, interns are paid $15 an hour and hold either a part-time or a full-time position with a maximum workload of 40 hours a week. Internships typically are summer positions but are available year-round. Positions can run up to 10 weeks, and often participants will turn their positions into part-time work during the school year or extend internships into the school year, Thompson said.

The OSU Extension Internship Program is not only open to OSU students, said KJ Joseph, an instructor in the College of Agricultural Sciences, and students from all over the county apply.

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“We’ve had students from East Coast schools that have applied,” Joseph said. “We’ve had students from liberal arts schools, Ivy League schools, community colleges, even high school seniors who are about to go into college. And we have a lot of diversity as far as the type of students that apply. We’ve had nursing students, social science students, prelaw students, even students that are studying computer science and engineering.”

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Who We Are

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

Office locations and hours

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

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

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Extension Internships Benefit Faculty, Students Alike

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program is that interns are encouraged to blog about their experiences and to develop a project on their own, such as putting on a workshop within their knowledge area.

“That type of internship project is highly expected so that they are not just in this role of thinking of themselves as a student worker,” Joseph said. “They’re actually thinking of themselves as a contributor to the office and to the program.”

“The intent of the program is that interns are encouraged to blog about their experiences and to develop a project on their own, such as putting on a workshop within their knowledge area.”

“That type of internship project is highly expected so that they are not just in this role of thinking of themselves as a student worker,” Joseph said. “They’re actually thinking of themselves as a contributor to the office and to the program.”

“The young people bring in new perspectives, new ideas and a certain energy.”

Tanner, who has had three interns work under her to date, said she has benefited greatly from the program.

“It’s a great way to find students that are interested in Extension and want to work on projects that I’m working on,” said Tanner, who has Extension field crop responsibilities in Linn, Benton and Lane counties. “Sprout has really taken a lot of initiative in figuring out how to do things new ways and has helped

Continued on Page 14
New OSU Publication about Nitrate in Drinking Water

The OSU Extension Service has released EM 9400 Nitrate in Drinking Water. The concept for this publication started with our education and outreach program within the Southern Willamette Valley Groundwater Management Area. Written for domestic well users, this publication contains brand new visuals and graphic elements and covers what nitrate is, where it may come from, what levels are concerning, and appropriate treatment options. We are so excited to share this peer reviewed and pilot tested resource with all of you. You can find the publication at https://extension.oregonstate.edu/catalog/pub/em-9400-nitrate-your-drinking-water in both pdf and html formats. We recommend the pdf version if you are sharing with others. A Spanish version is also available, along with sister publications Arsenic in Drinking Water and Lead in Drinking Water.

Call for committee members

By Grace Goldrich-Middaugh,
SWV GWMA COORDINATOR, DEQ

Are you, or someone you know, interested in protecting groundwater and working with stakeholders to reduce groundwater contamination in the Groundwater Management Area? DEQ is looking for interested stakeholders to serve on the Southern Willamette Valley Groundwater Management Area Committee. The committee represents a balance of interests in the affected area and includes attendance at annual meetings and providing advice and assistance regarding ongoing implementation of the Groundwater Management Area Action Plan. Current vacancies include OSU Extension Service, local watershed councils, and the real estate industry. Additional interests or sectors may also be considered. Contact Grace Goldrich-Middaugh at 541-972-5520 or Grace.GOLDRICH-MIDDAUGH@deq.oregon.gov

Living with Your Water Well and Septic Systems Winter Webinars

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

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

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

Registration for the webinar is required to receive the zoom link ahead of time. Register at https://beav.es/qiT (case sensitive)

For additional questions you can email Chrissy.Lucas@oregonstate.edu or leave a message at 541-713-5009
Go Underground with Bulbs for Colorful Spring Bloom

By Kym Pokorny

When it comes to plants, bulbs are about as easy as it gets, and now’s the time to get them in the ground.

“You plant spring-flowering bulbs in fall, they grow over winter, flourish in spring and go dormant in summer,” said Heather Stoven, a horticulturist with the Oregon State University Extension Service. “Once they’re in the ground, they do quite well over multiple years with little maintenance.”

On top of that, bulbs are drought tolerant. “That’s one of the great things about them,” Stoven said. “Since they go dormant in summer, they don’t need to be watered.”

If you plan to intermingle bulbs with perennials or place them near shrubs, pair with plants that don’t need much irrigation, she said. Or, if the area gets regular water, make sure the soil drains well.

Bulbs such as daffodils, tulips, crocus and hyacinth are planted in fall because they need some time to get their roots going before pushing up to put on a spring show. Although October and November are ideal for planting, bulbs can go into the ground until mid-December.

When purchasing bulbs, choose large ones. The bigger the bulb, the bigger the bloom, Stoven said. Also, avoid those with mold or soft spots, which signal rot. Plant as soon as possible, but if something comes up to delay you, store bulbs in a cool, dim place such as an unlit garage.

Make a plan before heading to the garden center. Decide on color combinations. Do a little research so that you can choose early, mid- and late-blooming varieties for a longer display. Think about what to plant together - a mix of different types of bulbs is an attractive option. A big swath of the same type and color bulbs will make a statement, too.

As you get ready to plant, dig holes to fit multiple bulbs rather than planting one at a time. The effect is more natural.

“Groupings are really nice,” Stoven said. “You’ll get a mass of color.”

When digging the hole, it’s best to follow directions on the package for planting depth, but a general rule of thumb is three times as deep as the bulb is wide. Add some organic material -
November-December Gardening Calendar for Western Oregon

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

Oregon State University Extension Service encourages sustainable gardening practices.

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

**NOVEMBER**

**Planning**
- Force spring bulbs for indoor blooms in December.

**Maintenance and clean up**
- Service lawn mower.
- Check potatoes in storage and remove any going bad.
- Place a portable cold frame over rows of winter vegetables.
- Place mulch around berries for winter protection.
- Cover rhubarb and asparagus beds with composted manure and straw.
- Rake and compost leaves that are free of diseases and insects. Use mulch to prevent erosion and compaction from rain.
- To protect built-in sprinkler systems, drain the system and insulate the valve mechanisms.
- Clean and oil your lawn mower and other garden equipment and tools before storing them for winter. Drain and store hoses carefully to avoid damage from freezing. Renew mulch around perennial flower beds after removing weeds.
- Protect tender evergreens from drying wind.
- Tie limbs of upright evergreens to prevent breakage by snow or ice.
- Trim chrysanthemums to 4 to 6 inches after they finish blooming.
- Leave ornamental grasses up in winter to provide texture in the landscape. Cut them back a few inches above the ground in early spring.
- Western Oregon: Last chance to plant cover crops for soil building. You can also use a 3- to 4-inch layer of leaves, spread over the garden plot, to eliminate winter weeds, suppress early spring weeds and prevent soil compaction by rain.
- Western Oregon: Watch for wet soil and drainage problems in yard during heavy rains. Tilling, ditching and French drains are possible solutions. Consider rain gardens and bioswales as a long-term solution.
- Western Oregon: Take cuttings of rhododendrons and camellias for propagation; propagate begonias from leaf cuttings.
- Western Oregon: Prune roses (tea and floribunda, but NOT climbers and ramblers) to around 3 feet in height to prevent winter damage.

**Planting and propagation**
- Plant a window garden of lettuce, chives and parsley.
- It’s a good time to plant trees and shrubs. Consider varieties that supply food and shelter to birds, such as sumac, elderberry, flowering currant and mock orange.
- Western Oregon: Still time to plant spring-blooming bulbs, such as tulips, daffodils, hyacinths and crocuses. Don’t delay.
- Western Oregon: Good time to plant garlic for harvest next summer, and to transplant landscape trees and shrubs.

**Pest monitoring and management**
*Use chemical controls only when necessary and only after thoroughly reading the pesticide label. First consider cultural, then physical and biological controls. Choose the least-toxic options, and use them judiciously. Some examples include insecticidal soaps, horticultural oils, botanical insecticides, and organic and synthetic pesticides.*
- Rake and destroy leaves from fruit trees that were diseased this year. Remove and discard mummified fruit.
- Check firewood for insect infestations. Burn affected wood first and don’t store inside.
- Treat peaches four weeks after leaf fall spray for peach leaf curl and shothole diseases.
- Western Oregon: Moss appearing in lawn may mean too much shade or poor drainage. Correct site conditions if moss is bothersome.
- Western Oregon: Bait garden for slugs during rainy periods. Use traps or phosphate baits, which are pet-safe.
- Monitor landscape plants for problems. Don’t treat unless a problem is identified.

**Houseplants and indoor gardening**
- Reduce fertilizer applications.

**DECEMBER**

**Maintenance and clean up**
- Western Oregon: Do not walk on lawns until frost has melted.
- Spread wood ashes evenly on your vegetable garden. Use no more than 1.5 pounds per 100 square feet per year. Don’t use if the soil pH is greater than 7.0 or if potassium levels are excessive.
- Protect new landscape plants from wind. Use stakes, guy wires or windbreaks as needed.
- Yard sanitation: rake leaves, cut and remove withered stalks of perennial flowers, mulch flowerbeds, and hoe or pull winter weeds.
- Turn the compost pile and protect from heavy rains, if necessary.
- During heavy rains, watch for drainage problems in the yard. Tilling, ditching, and French drains are possible short-term solutions. Consider rain gardens and bioswales as a longer-term solution.
- Check stored flower bulbs, fresh vegetables, and fruits for rot and fungus problems. Discard any showing signs of rot.
- Tie limbs of columnar evergreens to prevent snow or ice breakage.
- Western Oregon: Make sure that landscape plants in protected sites receive water regularly during the winter.

**Planting and Propagation**
- Western Oregon: This is a good time to plant trees and landscape shrubs.

**Pest monitoring and management**
- Monitor landscape plants for problems. Don’t treat unless a problem is identified.
- Check for rodent damage around bases of trees and large shrubs. Remove weeds to prevent rodents from using them as hiding places. Use traps and approved baits as necessary.
- Avoid mounding mulching materials around the bases of trees and shrubs. The mulch might provide cover for rodents.
- Monitor spruce trees for spruce aphids. Treat if present in large numbers. Read and follow pesticide label directions.

**Houseplants and Indoor Gardening**
- Protect poinsettias from cold. Place them in sunlight; don’t let the leaves touch cold windows. Fertilize with houseplant fertilizer to maintain leaf color.
- Monitor houseplants for adequate water and fertilizer. Water and fertilizer requirements generally are less in winter.

Go Underground with Bulbs for Colorful Spring Bloom

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...for bulbs, Stoven said. There’s no need to dig bulbs up after flowering, but letting the foliage turn brown and die back is a good idea so that the nutrients contained in the leaves return to the bulb and it can start the cycle once again.

Here are Stoven’s recommendations for uncommon spring-blooming bulbs:
- Fawn lily (Erythronium oreonum) – An Oregon native wildflower with dainty, nodding white or yellowish flowers and brown-stained leaves. Doesn’t mind shade and looks inviting in a woodland setting.
- Grecian windflower (Anemone blanda) – Delicate, star-like flowers come in blue, white and pink on frilly foliage that melts away soon after bloom is over. Best used in a mass. “Blue is especially nice to have as a contrast to yellow daffodils,” Stoven said.

Allium – Part of the garlic

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

Choose options from each food group to make meals and snacks

- **Protein.** Focus on protein. Protein Foods include all foods made from seafood; meat, poultry, and eggs; beans, peas, and lentils; and nuts, seeds, and soy products. Eat a variety of protein foods to get more of the nutrients your body needs.

- **Dairy.** Move to low-fat or fat-free dairy milk or yogurt (or lactose-free dairy or fortified soy versions). The Dairy Group does not include foods made from milk that have little calcium and a high fat content. Examples of this are cream cheese, sour cream, cream, and butter.

- **Vegetables.** Eat a variety of colorful vegetables, dark green; red and orange; beans, peas, and lentils; starchy; and other vegetables. Vegetables may be raw or cooked and can be fresh, frozen, canned, or dried.

- **Fruits.** Focus on whole fruits. Fruits may be fresh, frozen, canned, or dried/dehydrated, or 100 percent fruit juice. Fruits can be eaten whole, cut up, pureed (mashed), or cooked.

- **Grains.** Bread, pasta, breakfast cereals, grits, and tortillas are examples of grain products. Make half your grains whole grains. Eating whole grains promotes healthy blood pressure, cholesterol, digestion, blood sugar and weight control.

- No broccoli? Try other vegetables, such as asparagus, cauliflower or green beans.
- Try adding cooked or canned chicken for more protein.

**Pair Physical Activity with Your Healthy Plate**

Regular physical activity can help you stay strong and independent. Find ways to be active that work for you.

- Aim for at least 150 minutes of moderate intensity activity each week. Any activity that gets your heart beating faster counts.

- Aim to do muscle-strengthening activities at least 2 days each week. These are activities that make your muscles work harder than normal.

- Include balance and flexibility exercises each week, like stretching and standing on one foot, to help reduce your risk of falling.
Food Safety - Turkey Dinner

By Jennie Gilbert

It's time again to start planning your holiday meals. Many families include turkey dinner during this time of the year. There are many things to consider when handling and preparing your turkey as both the raw turkey and the juices can be contaminated with germs that may make you and your family sick.

Poultry such as turkey and chicken can carry bacteria including Salmonella, Clostridium perfringens, and Campylobacter. All of these can cause mild to severe symptoms of food poisoning and lead to more serious diseases that require hospitalization and medications.

Following some simple tips will make sure your bird is safely prepared. These tips are safe for chicken as well.

- Turkey should be kept in the freezer until you are ready to thaw it for use.
- Thaw your turkey in the original package in the refrigerator with a tray or container under it to catch any raw juices as it thaws. Do this 1-2 days before cooking to make sure it completely thaws. Never thaw your turkey on the countertop or at room temperature. You may thaw your turkey in cold water, changing the water every 30 minutes to keep it cold.
- Cook immediately upon thawing.
- Do not wash your turkey. This practice can spread raw turkey juices all over your kitchen surfaces, splash on your skin and make you and your family sick.
- It is not recommended to cook stuffing inside your raw turkey, however if you choose to do so, put a thermometer in the stuffing to make sure the center reaches 165 degrees.
- Use a meat thermometer in the thickest part of the breast avoiding bone. Internal temp should reach 165 degrees. Do not rely on pop up timers that come with the turkey.
- Cooking Temperatures: Minimum for oven – 325 degrees. If using a smoker, or gas/charcoal grill – maintain 225-300 degrees. If using a deep fryer – 350 degrees (oil). Do not stuff turkey or chicken that is cooked on a smoker or grill.
- Cooking time will depend on the size of the bird, typically 15-20 minutes per pound depending on temperature and method. Be sure and follow cooking instructions on the package.
- Use a shallow pan with sides to catch drippings.
- If you make gravy from drippings, boil before adding flavoring and thickener. Cook giblets and neck thoroughly if using for flavoring.
- Leftover turkey is great for additional dinners and sandwiches. You can also freeze the cooked turkey meat for later use in soups and casseroles. To make the most of your leftover turkey, refrigerate leftover meat within two hours of cooking.
- Make sure your refrigerator is always 40 degrees or lower for best cold storage.
- Reheat leftovers to 165 degrees.
- Finish or freeze your refrigerated leftovers within 3-4 days. Toss after 4 days.

There are several resources you can check out while preparing your turkey or chicken that have specific advice on handling and cooking instructions.

USDA Meat & Poultry Hotline: 1-888-674-6854
Fsis.usda.gov


These tips and guidelines are recommended by many safe resources including the CDC, USDA, and OSU Extension Service.

With some care and planning, your holiday meals will be safe and delicious!

Stretch Your Food Dollars: Decrease Food Waste through Meal Planning

By Hannah Bowen, OSU Dietetic Intern

Food costs are rising, making sticking to a food budget challenging for many people. In July 2023, food prices were nearly 5 percent higher than they were in July 2022. With this increase, meal planning and preparation strategies can make a difference.

Another aspect to consider is food waste. Measuring food waste at an individual household level is nearly impossible. From the data that has been collected, U.S. consumers waste about 25 percent of ALL purchased food. At a state level, the average person in Oregon throws out about 300 pounds of food each year, not including composting.

To address food cost inflation and reduce food waste, let’s dive deeper into menu planning for meals and snacks and reviewing what’s on hand at home as you make your shopping list/plan.

- Decide how many meals you want to plan ahead of time based on your schedule for the week. A great place to start is by visiting the No Food Left Behind Corvallis website, https://nofoodleftbehindcorvallis.org/ which has Smart Prep resources including a “Meal Planner” handout.
- Next, pick the meals you want to make based on your food preferences. You can also get inspiration from existing ingredients in your pantry and fridge. Need recipe ideas? Check Food Hero at www.foodhero.org. If you have kids, there is a section of “kid approved” recipes.
- Consider selecting ingredients that can be used for multiple recipes. For example, you could make “Kid approved” Chicken Tortilla Soup on Monday and Chicken Creole on Thursday. Both of these recipes use chicken and diced tomatoes.
- Using the “Meal Planner” handout, write the ingredients you already have on hand and the ingredients that you need to purchase. You can use the handout as your shopping list/make the list on a separate sheet of paper https://foodhero.org/sites/foodhero-prod/files/resources/osu-grocery-pad-2020-editable.pdf, or even type the list into the “notes” on your phone so it is easily accessible.
- When you are at the grocery store, stick to the list! Avoid impulse buying items that are not part of the meal plan.
- Post the meal planner on your refrigerator or in another central location where you can easily be reminded of which meal preparation each night.

Meal planning takes time up front to save time at the store and in the kitchen. It may not be feasible every single week. Two strategies that can be used alongside meal planning are “pantry challenge” and “recipe recreation.”

Pantry challenge is when you cook a meal with what you already have on hand and do not buy any new ingredients. This involves a little creativity and could require adapting an existing recipe. A great example is fried rice because it uses rice, vegetables, and almost any protein you have available. You can use fresh, frozen, canned, or even leftover vegetables. For example, the Food Hero Pork Fried Rice recipe could use any other protein available: chicken, tofu, or even tuna fish. Most recipes can be made with different vegetables and protein substitutions.

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Go Underground with Bulbs for Colorful Spring Bloom

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family, this deer-resistant bulb puts up a stem with one ball-shaped flower, usually in shades of purple, pink and blue, more infrequently white. Sizes vary widely from the 10-inch flowers of ‘Globemaster’ to the tiny pops of 1-inch drumstick alliums.

Fritillaria – Another group of bulbs with wide variation. On crown imperial fritillaria (F. imperialis), bell-shaped flowers in orange or yellow hang in clusters from single stems up to 5 feet tall. The much-smaller native checkers lily (F. affinis) has dark purple flowers spotted irregularly with yellow.

Species tulips – Just like their big siblings, but shorter, hardier and longer lasting. They come in many colors and often the flowers open wider than regular tulips. These bulbs will seed themselves, so they’ll naturalize and give years of enjoyment.

Source: Heather Stoven

Stretch Your Food Dollars: Decrease Food Waste through Meal Planning

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Recipe recreation can help repurpose ingredients or leftovers that were originally part of another meal. For example, last night’s dinner was chicken, corn, and mashed potatoes. There is so much leftover corn and you don’t think anyone will want to eat corn for a second day in a row. Recreate the corn as Food Hero Corn Pancakes. Serve the pancakes as a side dish with another protein and vegetable for dinner or serve them for a savory breakfast with eggs and fruit.

Here are some more quick tips for stretching your food dollar:

• If you have a larger family, try to buy certain foods in bulk. Some common bulk ingredients include; oats, rice, dried beans, cereal, lentils, nuts, pasta, frozen fruits, and frozen vegetables.

• If you enjoy leftovers, plan one night of the week to be leftover night. Everyone may eat a different meal, but it helps use up what you already have before cooking again.

• If you do not enjoy leftovers, plan recipes that make the right amount of servings for the number of people eating. Sometimes this means cutting the recipe in half.

Rest Well: How Does Magnesium Help with Sleep?

By Hannah Bowen, OSU Dietetic Intern

It’s no surprise that the majority of us struggle with restful sleep. Factors impacting this struggle include blue light exposure from excessive screen time, reliance on caffeine, and poor work life balance. In 2020 – the most recent available federal data – only 32 percent of Americans said they got “very good” sleep, and 14.5 percent of U.S. adults had trouble falling asleep most days or every day in the past month. Of those adults who were able to fall asleep, 17.8 percent reported having trouble staying asleep. People may seek out supplements or other sleep aids to remedy poor sleep. With so many products on the market, it can be challenging to assess their legitimacy.

Recently, magnesium has been trending as a “cure all” for many health concerns including poor sleep. It is ambitious to claim that one supplement alone is the answer to better sleep, but let’s look at the science. What is magnesium? Magnesium is a mineral and an electrolyte. Electrolytes are specialized minerals that play a role in our bodily functions. Magnesium helps control blood sugar and blood pressure, and regulate nerves, muscles, and the cardiovascular system. What is the connection between magnesium and sleep? Magnesium helps relax the nervous system which can help the body wind down and be more ready for sleep. It is believed melatonin supplements can help you fall asleep faster and more easily, but researchers need more data before confirming that they do actually help. Similarly, more studies need to be done to confirm the effectiveness of magnesium. Based on the information available, it is promising that magnesium has potential to help keep the body asleep through the night.

How much magnesium do our bodies need?

The recommended dietary allowance for magnesium is 310–320 mg for women and 400–420 mg for men. Before introducing a magnesium supplement, try to increase magnesium rich foods in your diet. Below is a short list of foods with their amounts of magnesium:

• Pumpkin seeds: Serving Size 1 oz (about 2 tablespoons), 168 mg
• Spinach, cooked: Serving Size ½ cup, 78 mg
• Black beans, cooked: Serving Size ½ cup, 60 mg
• Peanut butter, smooth: Serving Size 2 tablespoons, 49 mg
• Small potato, baked with skin: Serving Size 3.5 oz, 43 mg
• Banana: Serving Size 1 medium, 32 mg

Unless you are deficient in magnesium, it is likely you can reach the recommendation through diet alone. If you think you may be deficient in magnesium, it is important to talk to a doctor before starting a magnesium supplement, especially if you are already taking other medications. For individuals that struggle with sleep, try the following before you resort to sleep aid products or supplements:

Increase physical activity, eliminate all screens 1–2 hours before bedtime, keep a consistent bedtime and wake up time, and eat a balanced diet with adequate magnesium.

Magnesium Supplements

If necessary, you can increase your magnesium intake with capsules, powders, or gummies. Magnesium is available in multiple forms including magnesium oxide, citrate, and chloride. Magnesium citrate is one of the most popular forms because it is less expensive and easily absorbed in the body. Some studies have found that magnesium citrate and chloride are more easily absorbed and more bioavailable than magnesium oxide. In general, a form of magnesium that can be dissolved in liquid is more completely absorbed in the gut than other forms.

Currently, magnesium glycinate is in the news and media for its ability to help improve multiple health issues, including poor sleep. Magnesium glycinate is popular because it’s a capsule form that is very bioavailable, which means a larger amount of the mineral can be used by the body.

Not all forms of magnesium are safe sources of dietary magnesium. Some forms to avoid include magnesium sulfate, glutaminate, and aspartate. It is important to be aware of the magnesium dosage as excessive magnesium intake can cause diarrhea, nausea, and abdominal cramping.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Magnesium Content (mg)</th>
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<tbody>
<tr>
<td>Spinach</td>
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<td>Peanut butter</td>
<td>49 mg</td>
</tr>
<tr>
<td>Small potato</td>
<td>43 mg</td>
</tr>
<tr>
<td>Banana</td>
<td>32 mg</td>
</tr>
</tbody>
</table>
Preparing Your Farm for Winter

By Erica Chernoh

With fall harvest behind us, now is the time to winterize your farm in preparation for the cold months ahead. This quieter time of year is also a good time to plan and prepare for the next growing season.

To winterize your farm, start by flushing and emptying out any sprayers so that water doesn’t freeze and cause cracking. Triple wash the tank to remove any pesticide residues before storing the equipment for winter. Remove and clean nozzles with soapy water and a soft bristled brush, then dry and store them in a safe place.

This is a good time to clean farm machinery, such as tractors, mowers and implements, to remove any dust and debris. After cleaning, use a light oil to lubricate the machinery (follow operator manual). Use the winter months to fix any damaged or broken parts and replace any worn out or leaky hoses or plugs. This is also a good time to change oil and fluids.

Prepare your irrigation system for winter so that you don’t get any cracks or leaks created by freezing temperatures. Underground sprinklers or drip irrigation systems should be drained and turned off for the winter, and hoses should be removed, drained, and stored in a covered location. You should also insulate any valve mechanisms, such as your main shut-off valve, and any above ground pipes with foam tubes or other insulating materials. Once the system is drained, you can shut the water off for winter and turn off any timers or controllers.

Winter is also a good time to take inventory of fertilizers, pesticides, and other chemicals you may have on the farm. Make sure pesticides are stored properly, with dry pesticides stored above liquid pesticides. Check the labels and expiration dates to see if any chemicals need to be disposed of.

Make sure to collect any tools or equipment that were left outside, including stakes or t-posts. Cleaning and storing equipment in a dry place for winter, will significantly extend the life of the equipment.

There are also some field tasks that can be done this time of year. Fall and early winter are considered the best time to plant new trees, but they can be planted any time up until early spring. You should protect any newly planted trees, especially fruit trees, from sun scald or cracking due to fluctuating temperatures by painting the lower trunk of the tree with a mixture of 1-part water-based white latex paint to 1-part water. And finally, fall is a good time to perform a soil test. If you need to lime the soil to adjust the pH, then the liming materials will have plenty of time over winter to react in the soil. Other winter tasks include pruning and general orchard cleanup. With these tasks completed, you can be assured that you will be ready for the next growing season.
Thinking of Adding Livestock to Your Farm? Here’s Where to Start.

Livestock animals can be a rewarding and sometimes profitable addition to a farm or rural property. To ensure a smooth and beneficial experience for you and the livestock, I recommend clear goals, research, and preparing for basics before you look for livestock.

What are your goals?
Setting clear goals before bringing animals to your property will help you navigate decisions when planning for livestock. A combination of goals and motivation is likely, and a passion for animal husbandry is necessary.
- Do you want to have livestock as pets?
- Do you want to raise your own food while having a hobby for your family?
- Do you want to cover your costs or make a profit?

There are many possible scenarios and different reasons for having livestock. Example: You enjoy goats and have invasive blackberries and other weeds on your property that you would like the goats to manage for you.

What will the goats require in terms of resources and your time? Calculating those costs and comparing them to the cost of managing the weeds without the goats (labor, fuel, herbicide, etc.) will give you an idea ahead of time on budgeting. Raising livestock for enjoyment is rewarding, but clear goals and realistic expectations on what they need upfront will lead to less disappointment.

How can you prepare?
When animals do not have the adequate nutrition, environment, and medicine they need, there can be fatal consequences. Key places to start in your research process should include:

Location
Plan for a designated area for your livestock based on the space requirements for your species and size of group. Fencing must be secure for your particular animals, and many will require shelter from rain and wind. If you use pasture, familiarize yourself with proper pasture management and create an overwinter area to prevent overgrazing and damage to the soil. Don’t forget about manure! Animals produce manure, and by removing it and creating a covered compost area, you will reduce parasites, foul odors, and animal health problems.

Nutrition
Nutritional needs vary widely between species and sizes but also between sexes, life stages, and time of year. For example, a lactating sow may require more than three times more calories per day and different protein levels than a pregnant sow. Know the specific requirements for your animals and that it will change during the year to account for the animal’s physiological stage, plant stage if using pasture, and the environment. Energy (calories), protein, minerals, vitamins, and water requirements should be included in a nutrition program and plan for the cost to make sure it aligns with your budget.

Animal Health
We have all heard the phrase; “An ounce of prevention is worth a pound of cure.” This is true with animal health. Investing upfront by reducing exposure and providing preventative care will lead to less health problems. Research the vaccination recommendations for your animals and common health problems that may occur so you can recognize any symptoms. Organize an animal first aid kit to have supplies ready for emergencies. Problems like bloat, pink eye, scratch wounds, and more will happen and having supplies on hand and monitoring tools like a stethoscope and thermometer will be helpful. Lastly, having a client relationship with a livestock veterinarian before you have an emergency is essential. Livestock vets can be hard to find, and if you have a client relationship set up beforehand, you can get help when you need it.

A timely tip for people raising livestock for meat is to reach out to processors before you get livestock. There is a nationwide shortage of small, custom meat processors, and scheduling might be over a year out. Plan ahead and find a processor who can take on a new client.

Do your research!
With all of the information on the internet, it is necessary to find research-based and non-biased sources. I recommend searching for publications connected to the Extension Service and universities. There are also hands-on opportunities and education available locally. The OSU Extension Service, Soil & Water Conservation Districts, Natural Resource Conservation Service, and livestock associations like the Oregon Sheep Growers Association often have resources and events to share. With the right resources and preparation, your livestock will be healthy and happy, and you can meet your goals.
OSU Extension Answers the Call to Serve Veterans Interested in Farming

Jacob Mogler grew up in Iowa farm country and worked farms as a kid, but after high school he wrote off farming to join the U.S. Marine Corps.

Mogler served four years and then graduated from Oregon State University. He returned to agriculture when he moved to the Willamette Valley in 2016 and fell in love with sheep farming. In 2019, he started raising sheep on 14 acres near Corvallis that he and his wife, Carli, named Willamette Community Lamb.

Mogler soon learned about the Military Veterans Farmer Network, a program of Oregon State University Extension Service meant to connect military veterans engaged in or interested in farming. Vets receive information about funding opportunities via an online listserv where they also exchange ideas and ask questions of one another, go on farm tours and, most of all, build community.

“If you go on a farm tour or go to other events, there’s commonality that you know you share,” said Mogler. “It’s a bridge to kindred spirits. If you don’t have that shared commonality of serving, you start out at square one finding people to share experiences and knowledge with. The veterans farmer network is an easier starting point for connecting with others.”

Teagan Moran, OSU Extension Small Farms coordinator in the Willamette Valley, had that goal in mind when she started the program. At the 2019 OSU Extension Small Farms Conference, there was a meeting for military veterans who were interested in farming, and it became clear they needed support.

“We were always aware that there are veterans who were engaging with our Small Farms program, but we didn’t know if we were meeting their needs,” Moran said. “It became obvious there was a desire to connect with one another.”

Moran’s first plan of action was to create a listserv she continues to use to send out information about resources vets in the program may not know about, like grants or agencies that work with veterans. She also uses the email tool to let participants know about events and networking opportunities and encourages those on the list to use the communication channel to connect directly with each other. Farm tours at veteran-owned farms are one of the most popular activities.

“Veterans for a long time have been touted as ideal candidates to enter farming,” Moran said. “They have compatible skills, and we recognize that working with their hands has therapeutic benefits. It’s win–win.”

Work that keeps hands busy

In southern Oregon, Maud Powell, Extension Small Farms faculty in Jackson County, expanded Extension’s 19-year-old beginning farmer training to include a program specific to military veterans. Funded by the U.S. Department of Agriculture, Growing Veteran Agripreneurs has served vets in the Rogue Valley for four years. Now managed by Diane Choplin, Extension Small Farms

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Recertification Credit Reminders for Licensed Pesticide Applicators

With the end of the year approaching, it is a good idea for licensed pesticide applicators to check whether they have accumulated enough recertification credits. Pesticide applicators must be certified every five years. You must pass knowledge tests to become certified initially. Once certified, you can avoid having to re-take the tests by attending educational programs that have been approved for credits by the Oregon Department of Agriculture. Accumulating the required number of credits lets you become recertified for the next five-year period.

To check your credit hours, go to https://beav.es/qwt and enter your license number. This will show how many credits you need, when your certification period ends, and a list of the accredited courses you have attended so far.

The required number and types of credits needed depend on what type of license you have. For example, private applicators need four CORE credits, which cover specific topics including laws and safety. If you end up with more CORE credits than you need, they will count as regular credits. There are limits on the number of credits you can accumulate in a single year, so it is important to plan ahead and earn credits over multiple years.

License Type  | Total Credits | CORE Credits (included in total) | Maximum credits per year
--- | --- | --- | ---
Private Applicator  | 16  | 4  | 8  
Public Applicator, Commercial Applicator, or Pesticide Consultant  | 40  | 0  | 15  
Pesticide Apprentice*  | 8 (annually)  | 4 (annually)  |  

* A pesticide apprentice is not considered a certified applicator and must be supervised while making pesticide applications. This license is renewed annually and requires either 8 (including 4 CORE) recertification credits each year, or re-testing.

If you are in need of credits, you can search for recertification courses on the Oregon Department of Agriculture website. You can find the course search feature at https://beav.es/UYN. Many online courses and webinars are available through the Pesticide Safety Education Program (PSEP) at OSU. You can learn more at https://agsci.oregonstate.edu/psep.

South Valley Field Crop Notes for November-December

General Management
- Seed certification: remember to sign up new plantings within 60 days for seedling inspections or crop history.
- Slug bait timing is critical—begin as soon as weather conditions are favorable. Baiting is most effective in the evening, with night temperatures above 45°F, wind speed less than 5 mph, and in the absence of heavy rains.
- Monitor field edges for winter cutworm damage such as notched leaves or plants cut through the stem at soil level.

Grass
- In established grass seed fields complete sequential pre-emergence herbicide applications by late November for maximum effectiveness on grass weeds and to ensure crop safety.
- Fall/winter herbicide application in established grass seed fields can help manage tough-to-control bluegrass species, especially roughstalk bluegrass. The best combination seems to be following the earlier pre-emergence applications with Outlook, Dual, or Fierce.
- If established grass weeds are present, glufosinate can also be added to Nov/Dec pre-emergence applications.
- Consider controlling broadleaf weeds in newly established grasses if weed pressure is high. There are numerous broadleaf herbicides that can be used at this timing.

Wheat
- Increase seeding rates to 33 seeds/ft² (100–150 lbs/ac depending on seed size) for winter wheat plantings after Nov 1st. Complete winter wheat plantings by late Nov if possible.
- If planting wheat in Nov/Dec pick varieties that are suitable for later plantings (e.g. LCS ArtDeco, LCS Biancor, LCS Drive, Goetze, SY Assure).
- In winter wheat, use Axiom, Zidua, or Anthem Flex for control of grass and broadleaf weeds. Read labels carefully as each product has slightly different application timings for use in wheat. Ensure wheat is seeded 1-1.5” deep to ensure crop safety.
- Reduce Axiom rate to 8 oz/ac if planting winter wheat late in Nov/Dec.

Mint
- Control grass weed patches in mint with clethodim or sethoxydim before heavy frosts set in. Watch for weed escapes and spot spray. Prepare for dormant timing herbicide applications.
Upcoming Field Crops Meetings

Field Crops Coffee Hours are back
Join us on Zoom at 8:00 a.m.
- November 14 – Lauren Breza, USDA ARS
  Tile drainage and soil carbon
- December 19 – Fletcher Halliday, OSU Plant Pathologist
  Diseases of cool season grasses
- Visit https://beav.es/qi3 to register

Willamette Valley Ag Expo
November 14-16, at the Linn County Fair and Expo Center. Pesticide recertification courses on Tuesday and Thursday, 4 CORE credits available. Admission is $4. Visit wvaexpo.com for more information.

Oregon Seed League Annual Meeting and Trade Show
December 4-5, at the Salem Convention Center. Pesticide recertification courses both days, 2 credits each day. Visit seedleague.org for more information.

2024 Winter Seed and Cereal Crop Production Meetings
- Roth’s Hospitality Center – 1130 Wallace Rd, West Salem Tuesday, January 9, 8:30 a.m. – Noon
- Linn County Fair and Expo – 3700 Knox Butte Rd, Albany Tuesday, January 9, 1:30 p.m. – 5:00 p.m.
- Forest Grove Elks Lodge – 2810 Pacific Ave, Forest Grove Wednesday, January 10, 8:30 a.m. – Noon

Oregon Ryegrass Growers Association 61st Annual Meeting
Wednesday, January 17, 2024, 8 a.m.-3 p.m.
Linn County Fair and Expo Center, 3700 Knox Butte Rd, Albany

OSU Extension Answers the Call to Serve Veterans Interested in Farming

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education program assistant to Powell, the program is designed for veterans interested in pursuing careers in small-scale agriculture and combines farm tours with season-long farm training.

The veterans meet at the Southern Oregon Research and Extension Center in Central Point once a week for four hours to work alongside mentors to develop practical farm skills and knowledge. Through the hands-on work, vets learn about and practice planting, transplanting, irrigation, crop planning and rotation, integrated pest management, cover cropping and drought-mitigation techniques.

“I was amazed last summer when it was 104 degrees and we still had seven people show up,” Choplin said. “You don’t come to work outside when it’s 104 unless you enjoy what you’re doing. I see people hanging out. There’s a feeling of reunion when folks get back together. There’s joy and excitement when they get together.”

James Miller served four years in the Marines as an aircraft rescue fire fighter and emergency medical technician. When he moved to Oregon, Miller spent a year selling insurance and decided he didn’t want a desk job, so he went back to school to become a paramedic. He found the fast-paced work took him away from his children. In 2019, he and his wife, Kate, bought five acres in Elmira outside of Eugene, named it Sunwave Farms and decided to grow ingredients for salsa to sell at a small café they owned.

The learning curve was high. Miller’s first two seasons failed, but he didn’t give up.

“More and more I’m enjoying the lifestyle,” Miller said. “This is my life now and how I want to live. Other jobs drain you, pull your joy. Now I have coffee in the morning, go out to the greenhouse and work and go back to play with the kids. I make my own schedule and that’s what I want. How do I raise my kids and tell them to follow their dreams, if I’m not doing it?”

Last year his organic farm produced gallons of tomatoes that the family turned into salsa. This year, he put in more tomatoes, cucumbers, peppers and sunflowers to sell to local restaurants.

“The program reaches vets that normally like solitude,” Miller said. “For whatever reason they feel excluded, not part of society, but growing things is worthy of their time. The suicide rate is astronomically high for vets. Getting them involved in the dirt and the hope of another season – there’s something in that, I think.”

Mogler, who is currently raising 35 sheep, said he enjoys the work because it makes him sweat and keeps his hands busy. That’s a common theme from the vets in the program, Moran said. Other shared skills like discipline, hard work and a sense of service, make them good candidates for farming, she said. Having support from other vets serves to increase self-confidence and gives them an additional tool for learning. The network, Mogler said, creates a safe place where the vets see themselves, a community of learning and sharing.

“Overall, the veterans seem to benefit from being in a cohort comprised primarily of other vets,” Powell said. “I believe that the sense of overlapping or related past experiences strengthens the camaraderie and community-building aspects of the cohort model. As a result, we see greater levels of engagement and lower rates of attrition over the course of the season, which translates into better-trained beginning farmers who have the built-in support of a peer group.”
OSU Extension trains new B-Team to assess the status of Oregon’s wild bees

By Kym Pokorny, Public Service Communications Specialist

In every corner of Oregon, land managers worry about restrictions they may face if native bee species are listed under the federal Endangered Species Act. Knowing the status of Oregon’s 780 bee species has become a hot topic.

Oregon State University Extension Service is working to ensure federal agencies have an accurate picture of the status of the state’s bees. Starting in 2024 volunteers trained by Extension will roam the state searching out wild bees and the plants that support them. The results will provide a snapshot of the current range of each species to better assess their status prior to federal evaluations.

The new project, led by Andony Melathopoulos, OSU Extension pollinator specialist, will train and then send volunteers into the field. They call themselves the B-Team.

“The B-Team is based on the TV show, ‘The A-Team,’” said Melathopoulos. “They would solve any problem if you could find them because they had so many skills. The B-Team is easy to find. It’s a crack group of highly trained volunteers who can be deployed across the West to do a hardcore survey of bees. The team is designed to get the data.”

The project might be based on a TV show, but the actors are on a serious mission to document the native bees of Oregon and beyond. Their work will fill in gaps in knowledge about where bees live and the plants they depend on for nutrition and to lay their eggs, Melathopoulos said.

Data for decision-making

Accurate data will be a key factor when it comes to the decision of whether or not the U.S. Fish and Wildlife Service lists a bee under the Endangered Species Act. That’s where the B-Team comes in.

Those who complete the intense training will reach journey level as a Master Melittologist, a one-of-a-kind group of community scientists trained by Melathopoulos to collect and curate specimens of native bees for the Oregon Bee Project, a cooperative effort to document the state’s bees. The Master Melittologist program has created one of the largest data sets on native bees and their preferred plants in the world and led to countless new discoveries in the Pacific Northwest.

“We’re working toward a more data-driven land-use policy that conserves the state’s bees but assures working lands remain productive,” Melathopoulos said. “And we’re making investments in the right place, putting the money where we need it most. Tools like this will be really helpful for legislators, conservationists, policy makers and others.”

The Endangered Species Act requires landowners and managers to work the land in ways that preserve endangered species. In order to comply, they need to know if a bee species actually warrants listing and, if so, how to best aid in its recovery, Melathopoulos said.

“The key questions when considering whether to designate a bee species as endangered revolve around three questions: ‘Where are the bees? How are they doing? What habitat are they in?’” Melathopoulos said. “Without precise answers to these questions, species could be listed that are, in fact, neither threatened or endangered, and working lands could be subject to restrictions that might not help the species recover.”

The U.S. Fish and Wildlife Service is charged with accepting species for the Endangered Species Act list and must evaluate whether an animal is endangered or threatened. If it is, the habitat occupied by the species might be designated as critical, resulting in restrictions on the activities permitted on private and public land. Yet the data needed to accomplish this is in short supply for Oregon’s bees. What little there is is buried in entomology museum collections.

“Say a beekeeper wants to move colonies onto federal land for them to catch fireweed bloom, which makes wonderful honey,” Melathopoulos said. “They may face restrictions because of competition with a threatened or endangered bee. Or a farmer who wants to apply a certified pesticide can’t do it because their activities are within an area designated as critical habitat. Everyone is impacted. It’s important to ensure before any such restrictions are imposed, we have a clear, science-based basis for doing so.”

Knowing where the bees are

A grant from the U.S. Department of Agriculture’s National Institute of Food and Agriculture grant that funded the project will fund the training that will put the Master Melittologists on the B-Team in critical parts of the West to do surveys where there are data gaps. In addition, the project involves building a tool that tells the federal and state agencies which bees are there, what plants they visit and, most importantly, where are the “hot spots” on their lands that are expected to have exceptionally high bee diversity.

If land managers knew where the bees are, they could employ enough resources to keep bees healthy and off the threatened or endangered lists of the Endangered Species Act, Melathopoulos said. Many species of native bees – close to 800 is the latest estimate – live in Oregon and some are very rare. Data would be helpful in a number of ways. If there’s a hot spot, land managers may need to exercise caution, turning their attention, instead, to areas where rare bees are not located.

“The Endangered Species Act is the law,” Melathopoulos said. “Listing species under the law has been a divisive issue, but we feel with more data and tools we can create a win-win for bees and working lands. Oregon already has one bee listed – the Franklin bumble bee. We’re expecting more. This work ensures we’re prepared.”

Extension Internships Benefit Faculty, Students Alike

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Stephenson said. “I was in charge of teaching ‘living basics classes,’” one of which I taught in partnership with Chrissy and one all by myself. I was able to work on my teaching skills, putting together slideshows and working a lot with different Microsoft publications. I also worked with the Small Farms Conference and that was interesting because COVID was going on and so we did it all online. I got a ton of experience not only with the Microsoft publications like Word and Excel and Publisher, but I also learned how to put on a conference and be a mediator.”

“It was a lot of professional experience that can translate to any sort of job,” Stephenson said.

Mahoney, meanwhile, exited the internship with a better understanding of how drone technology and digital imaging can facilitate crop research.

“Getting to work on that drone project gave me experience in using drones, drone technology and image analysis. And I got some mentorship from Christy and even got my own drone license,” Mahoney said. “So that was a practical benefit I got out of it.”

Mahoney is continuing as a part time student worker under Tanner.
New Extension Forester Hits the Ground Running

By Mitch Lies, GROWING Editor

If you are a small woodland owner in Linn, Benton, or Polk counties, you may have already seen her around.

In her first three months as Oregon State University’s Extension Forester for the three counties, Lorelle Sherman has been a regular at woodland meetings.

“T’ve gone to all of the Oregon Small Woodlands Association chapter events in my counties and introduced myself to as many landowners as possible,” Sherman said. “My strategy is to meet as many people as I can in the beginning while I still have the time to do that.”

Sherman, who holds a master’s degree in Forest Ecosystems and Society from Oregon State University (2019), spent most of the past four years working with the U.S. Forest Service on a landscape-scale thinning and fuels-reduction study in the Pringle Falls Experimental Forest in Deschutes County. While there, she realized that she wanted to work more with communities and small woodland owners.

“I’m a people person,” Sherman said. “I like building connections, and I think that is why I am into helping people with their woodlands at a local scale.

“My passion is working with private landowners and bridging that gap between university research and private landowners so they can utilize the science on their land,” Sherman said.

She said that her goal when she started with Extension on September 18 was to hit the ground running, and in addition to attending Oregon Small Woodlands Association chapter events, Sherman has visited individual woodlots, talked one-on-one with woodland managers and participated in forestry tours.

Once she gets more settled in her position, Sherman said she plans to host forestry educational events and work closely with the OSU Master Woodland Manager program, in addition to continuing to meet one-on-one with woodlot owners. She is also planning to lead forest foraging workshops and mushroom forays.

“I’ve been doing that for the past ten years, so I’m trying to bring that knowledge into my job and help people get the most out of their land,” she said.

As for her first impressions of the small woodland community in her tri-county area, Sherman said it has been outstanding.

“Everyone has been incredibly welcoming and enthusiastic and I’m excited to collaborate with them and with Extension folks,” she said.
Benton County 4-H Community Events

The 4-H year begins October 1st, and every year we organize some promotional activities to teach our county communities about how to participate as a member or volunteer with Benton County 4-H.

Our County Ambassadors (older youth leadership group) hosted an information table at the Corvallis Farmer’s Market on September 30. They interacted with hundreds of youth and adults about their involvement with 4-H. Some special animal “ambassadors” were on hand to greet the public as well.

Benton County 4-H held an Open House on Thursday, October 5th that drew 210 participants, learning about all of the different opportunities 4-H has to offer from current 4-H members and leaders.
What is 4-H?

4-H is America’s largest youth development organization - empowering six million young people with the skills to lead for a lifetime. 4-H is delivered by Cooperative Extension - a community of more than 100 public universities across the nation that provides experiences where young people learn by doing. Oregon State University is the land grant institution that is home to Extension and the Oregon 4-H Program. For more than 100 years, 4-H has welcomed young people of all beliefs and backgrounds, giving kids a voice to express who they are and how they make their lives and communities better.

In 4-H, we believe in:
- all young people’s potential,
- developing young people who are empowered, confident, hard-working, determined, responsible and compassionate—seeing a world beyond themselves so that they have the life-long skills to succeed in college and career,
- ensuring access and equity for all,
- the power of America’s leading public universities,
- the practice of positive youth development (PYD)

by creating positive learning experiences,
- caring and trusted adult mentors who cultivate positive relationships with youth,
- creating safe, diverse, and inclusive environments, and
- meeting young people wherever they are.

4 H Grows True Leaders
4 H empowers young people to be true leaders. True leaders are young people who have confidence; know how to work well with others; can endure through challenges; and will stick with a job until it gets done. In 4 H, we believe true leaders aren’t born – they’re grown. 4 H programs hands-on approach gives young people guidance, tools and encouragement, and then puts them in the driver’s seat to make great things happen. Independent research proves the unparalleled impact of the 4-H experience.

Types of 4 H Programs
Our programs in science, healthy living and civic engagement are backed by a network of 100 public universities and a robust community of 4 H volunteers and professionals. Through hands-on learning, kids build not only confidence, creativity and curiosity, but also life skills such as leadership and resiliency to help them thrive today and tomorrow. 4 H programs and resources are available AT HOME or through local in-person and virtual 4 H clubs, 4 H camps, in-school and after-school programs.

With the support of adult mentors, youth select from a menu of hands-on project ideas to complete. 4 H programs are available for kids and teens ages 8-19. 4 H Cloverbud programs are available for kids ages 5-8.

4 H Programming
4 H programs are grounded in the belief that kids learn best by doing. Kids and teens complete hands-on projects in areas like science, health, agriculture, and civic engagement, in a positive environment where they receive guidance from adult mentors and are encouraged to take on proactive leadership roles. Kids can concentrate on one focus area or they can try a variety of programs throughout their 4 H experience. Regardless of the project area, all 4 H programs include mentoring and career readiness as core elements.

Benton County 4-H Scholarships

There are 10 Benton County 4-H scholarships totaling $15,000 available to current 12th grade 4-H members. All enrolled graduating seniors are eligible to apply. Applications are due by January 16th to the Benton Extension office (except the Horse Leaders Scholarship, which is due April 15th). For more information, visit our website: https://extension.oregonstate.edu/4h/benton/awards-

Scholarship Donors
- Moos Family
- Decker Family
- Hitchcock Family
- Bateman Family
- Benton County 4-H Horse Project Leaders Committee

4-H members submit an application that is primarily focused on their 4-H records. 4-H record books were judged in October by a committee of 4-H volunteers. Record books were returned to the youth with comments and scores for how to improve them, which can be fixed before the scholarship application deadline.

Ready, Set, Enroll!

Oregon 4-H enrolls youth based upon their age as of September 1, 2023:
- 5-8 year olds are Cloverbuds
- 9-11 year olds are Juniors
- 12-14 year olds are Intermediates
- 15-19 year olds are Seniors

Membership Fees: early bird – $45 per member by January 15, 2024 for the first two family members (additional family members will be $15 each)

On or after January 16, 2024 fees will increase (amount to be determined)

If a youth is interested in joining Benton County 4-H, please visit our Benton County 4-H website and complete a 4-H interest form. We work to place youth with clubs that are accepting members. Please contact the Extension office at 541-713-5000 if you have any questions.

Adult Volunteers Wanted

The Benton County 4-H Program is actively looking for adults who want to share their time and talents with youth, ages 5-19.

Are you interested in making a positive impact on youth? Do you have an expertise that you want to share? Do you want to learn new skills? Volunteers will receive training, support from OSU faculty and staff, and from other 4-H volunteer leaders, as well as access to project and resource books and materials.

We are trying to grow the Benton County 4-H program and that is only possible with new volunteers joining and starting clubs. If you are interested in volunteering with the Benton County 4-H Program, please contact our office for more information. Upcoming trainings will be held on December 12th and February 29th at the Benton County Extension Office from 6-9 p.m. Please call 541-713-5000 to register.

Members with Disabilities

All youth are welcome in 4-H! Clubs are encouraged to invite youth with disabilities into their groups, enriching the lives of all the youth involved. If you have members in your 4-H club with disabilities or special needs who need special accommodations for participation in 4-H activities, please contact the OSU Extension Service at 541-713-5000 well in advance of any activity. Our goal is to reach all youth who wish to participate in 4-H.

National 4-H Clover Resource

Explore fun, educational activities and learning experiences for kids and teens to do at home or in a 4-H club meeting. Whether you’re a 4-H member, a 4-H club leader, a homeschooler, or just looking for some quick and fun activities to take your interests to the next level, the 4-H Clover app has something for everyone. Lessons are clearly laid out with subjects such as STEM, career readiness, emotional wellness, creative arts, animal science, and more. This is a FREE resource available on the web or as a phone app. You can explore all of the resources that are available at https://4-h.org/clover/. There are more than 200 activities currently available and more being added regularly.
Ambassadors Start New 4-H Year Off with Team Building

In an engaging gathering, the Linn County 4-H Ambassadors held their first meeting for the year this past October. The event, attended by a diverse group of young leaders, proved to be an exciting and educational experience for all involved. The meeting featured a wide range of activities aimed at enhancing team-building, communication, and leadership skills.

The Linn County 4-H Ambassador program welcomes 4-H members in grades 7 to 12, provided they have at least one year of 4-H experience under their belt. This approach ensures that the Ambassadors are a vibrant and diverse group, comprising youth who have already demonstrated their commitment to the values and principles upheld by 4-H. With this foundation in place, the Ambassadors program allows these budding leaders to further develop their skills and give back to their community.

The Linn County 4-H Ambassadors typically meet on the second Sunday of each month, and the October meeting set the stage for a year of exciting opportunities. The Ambassadors learned valuable lessons in teamwork, communication, and leadership through various interactive activities. As the year progresses, these young leaders will continue to engage in projects and initiatives that not only enrich their personal growth but also contribute positively to the community they serve. With their first meeting successfully completed, the Linn County 4-H Ambassadors are set to inspire, learn, and lead throughout the year ahead.

Recognizing Our Volunteers and Member Accomplishments at the Celebrate 4-H Dinner

The annual Celebrate 4-H dinner, which took place on October 5th, was a poignant occasion dedicated to the recognition of volunteers and members within the 4-H program. This event, characterized by a strong sense of community, served as a platform to express gratitude to the devoted volunteers whose unwavering commitment has been instrumental in the program’s accomplishments. It also offered an opportunity to commend the accomplishments and personal growth of 4-H members, highlighting the exceptional talents and leadership skills they have cultivated throughout their involvement. The event was facilitated by our Linn County 4-H Ambassador team.

- Outstanding Leader Award: Kathy Growcock
- Outstanding Newer Leader Award: Jessica Davis
- Friends of 4-H Award: No Dinx

4-H Leader Recognition

50+ Years
- Fay Sallee, Clever Clovers - 53 years
- Jake Fallesen, Lucky Livestock - 52 years

40+ Years
- Debra Christensen, Curious Clovers - 47 years
- Janice Ferguson, Santiam Wranglers - 43 years
- Susan Kalina, Resource Leader - 42 years

30+ Years
- Kathy Growcock, Lacomb

Livestock - 38 years
- Judy Grove, Resource Leader - 37 years
- Barbara Krueilich, Mt. Pleasant - 37 years
- Richard Kreilich, Mt. Pleasant - 37 years

25+ Years
- Heather Loveall, Carousel Crusaders - 26 years
- Andrea Foley, Paw Posse - 25 years

20+ Years
- Tammi Paul, Goat Lovers & Friends - 24 years
- Stephanie Booren, Resource Leader - 23 years
- Karolina Christensen-Lee, Clever Clovers - 22 years
- Donna Brown, Mt. Pleasant - 21 years
- Harmony Morris, Raindrops - 21 years
- Kari Holt, Lacombe Livestock - 21 years
- Terralyn Vendetta, Clever Clovers - 21 years
- Cindy Stephenson, Santiam Wranglers - 20 years
- Kimberly Calvery, Clever Clovers - 20 years

15+ Years
- Jan Privratsky, Goat Lovers & Friends - 19 years
- Melissa Williams, Creative Clovers - 19 years
- Carrie Jackson-Corrado, Greenback 4-H - 18 years
- Karen Lejeune, Mt. Pleasant - 18 years
- Myles Ralston, Lucky Livestock - 18 years
- Linda Holly, Sweet Home Aggies - 17 years
- Melinda Olinger, Fleece N Fur - 17 years
- Amber Tinney, Diamondback Clovers - 16 years
- Dee Kinkade, Clever Clovers - 15 years

10+ Years
- Ginger Ferguson, Shamrock Shenanigans - 14 years
- Amber Parker, Lucky Livestock - 13 years

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An Empty Vessel Can’t Fill an Empty Vessel

By Andrea Leao

Recently I attended our National Professional Development Conference in Pittsburgh, PA. Often when I attend these conferences, I come back with lots of great ideas, enthusiasm, and some stress, because how am I going to get to all these new things?! This year I attended a workshop that really resonated with me and has been on my mind since. Most people know that the 4-H program thrives because of our volunteers and most times our volunteers are very busy people that have more than just 4-H going on in their lives. If we don’t take some time to take care of ourselves, we can’t be giving our best to the youth in our program.

There are many ways to take care of yourself, and to have the best results you need a healthy balance of Positive Mental Health, Healthy Emotions, and Healthy Living/Physical Health. Mental Health is a hot topic lately and there is lots of discussion about how stress affects the body. Did you know that as we think and imagine we are changing the structure and function of our brain? This is why positive thoughts have such a huge effect on our whole body. Also, an individual’s mindset toward stress determines if they will suffer health consequences or if it will have an enhancing effect. This helps us understand how different people react to the same circumstances. Often people that volunteer are givers by nature, and they are always willing to say yes – even when it takes away from their personal time. We are all encouraged to practice Self-Compassion. Self-Compassion includes Self-Kindness, Common Humanity and Mindfulness. Self-Kindness is being supportive and understanding when we are having a hard time, rather than being self-critical. Common Humanity is remembering that everyone makes mistakes and experiences difficulties at times. Mindfulness is recognizing when we’re stressed or struggling without being judgmental or overreacting.

Mental Health is how we process data, but emotional health is the feelings that are provoked by the data that we are processing. It is important to express your feelings, especially the negative ones. Expressing our feelings in an appropriate manner is the goal that we try to teach the youth that we work with and remind ourselves to model. Your Emotional health is also affected by relationships and if you are investing in others, do you have a sense of purpose for your life and are you willing to learn new things?

The last part of making ourselves the best we can is taking care of our physical health. Current CDC guidelines say that adults need 150–300 minutes of moderate intensity aerobic activity like brisk walking each week. While you’re out walking the benefits aren’t just for your physical body but also helping to decrease your anxiety and stress. Eating healthy, fresh foods will also increase your physical health and boost your brain.

It is hard for many people to make time in their busy schedules to focus solely on themselves, but if we don’t take care of ourselves how can we give others our best self? My goal after participating in this workshop is to take time every day to think about my mental health, emotional health, and my physical health. Remember that if we don’t fill our vessel, we can’t help to fill others!
Linn County 4-H is excited to offer a variety of workshops this year! From record books, to sewing, to cupcake wars, there is something for everyone! Registration is required for each of these workshops, and they are available to all Linn County 4-H members. Questions, please reach out to Abby Johnson at abby.johnson@oregonstate.edu

Recognizing Our Volunteers and Member Accomplishments at the Celebrate 4-H Dinner

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6 years
- Amber Beck, Shamrock Shenanigans - 6 years
- Benjamin Lalonde, Lacombl Livestock - 6 years
- DeAnna Cormany, ARPC - 6 years
- Eric Pineda, Ridgeline Ranchers - 6 years
- Kellie Strawn, Shimmering Shamrocks - 6 years
- Natalie Harrington, Denim & Diamonds - 6 years
- Stacey Lyle, Lacombl Livestock - 6 years
- Abby Suing, Sodaville Springs - 5 years
- David Weinberg, Valley Wranglers - 5 years
- Joseph Jorgensen, Blue Jeans & Boots - 5 years
- Karen Bose, Clever Clovers - 5 years
- Kathleen Bjornstedt, Goat Lovers - 5 years
- Katie Forrest, Muddy Creek Livestock - 5 years
- Kelsy Pimm, Muddy Creek Livestock - 5 years
- Kristy Pepple, Barrels N Buckles - 5 years
- Liz Jorgensen, Blue Jeans & Boots - 5 years
- Paul Lulay, Shamrock Shenanigans - 5 years
- Ryan Glaser, Greenback 4-H - 5 years
- Samantha Hadley, Raindrops - 5 years
- Sarah Damon, JR Farms - 5 years

1-5 Years
- Alissa Curry
- David Imel
- Deanna Emig
- Emilie Peterson
- Erin Steinke
- Jennifer Reid
- Jessica Davis
- Jonathan Gould
- Michael Stipp
- Shayla Silacci
- Shelby Bishop
- Amy Olsen
- Brandon Lehr
- Brenda Kuchenbecker
- Charyse Hill
- Crystal Patterson
- Laura Parrish
- LR Burns
- Madison Curry
- Stephanie Lehr
- Aurora Bausch
- Cera Hrtness
- Christy Pitts
- Darcy Southard
- Delani Herb
- Hadassah Webb
- Ian Calticott
- Jenna Northern
- Jessica Smith
- Monica Macedo
- Rebecca Franklin
- Rebecca Pineda
- Sarah Culver
- Sarah Kinzer
- Timothy Austin
- Aaron Miller
- Alexis Muniz
- Amanda Spees
- Anna Sassalos
- Anne Nichols
- Carrie Johnson
- Cordelia Wells
- Donald Fleckenstein
- Gordon Neilson
- Heather Peters-Fleckenstein
- Janelle Arthur
- Jennie Luke
- Jeremy Luke
- Jillaine Poverud
- Katie Zielinski
- Kira Brock
- Kristy Hacker
- Lindsey Smith
- Martha Richardson
- Michelle Bristow
- Morgan Zehner
- Ross Geomans
- Stacy Maver
- Tanya Miller
- Tiffany Geomans
- Pippi Somatis