# Extension a Vital Cog in 'Farm to School'

**By Mitch Lies,** GROWING Editor

Oregon's Farm to School and School Garden Program stands out as possibly the most active such program in the U.S., benefiting child nutrition, local farmers, ranchers, fishers, and food processors alike. And a key component behind the success of this thriving program is Oregon State University Extension.

"It is incredibly important for OSU Extension to be involved in Farm to School," said Amy Gilroy, Farm to School Program manager at the Oregon Department of Agriculture. "Their deep roots in communities, including their work in schools and with farmers, has been really important in helping make Farm to School successful."

Oregon Farm to School has penetrated several program areas at OSU Extension, including its Food Innovation Center, which works with farmers to enhance food processing to better meet the needs of schools and other institutional markets; the Master Gardener Program, which works with students and faculty on developing and tending school gardens; Food Hero, a statewide initiative of Oregon SNAP-Ed that works to incorporate healthy recipes and local food into school meals; and the Small Farms Program, which encourages farmer participation in Farm to School



Katie Swanson in a field of garlic at her farm near Klamath Falls has been selling produce to schools as part of the Oregon Farm to School and School Garden program for five years.

in one-on-one and group settings.

Also notably, OSU Extension is the first Extension Service in the nation to dedicate a professor-of-practice position to Farm to School, a milestone OSU achieved in 2022 when it brought on Michelle Markesteyn as its Farm to School Extension Specialist.

#### **Healthy Communities**

Farm to School, which provides schools funding to offset the extra costs of buying locally grown food, today is widely accepted by farmers, who embrace both the sales opportunities it provides and other aspects of the program. Michelle O'Driscoll of Springbank Farm, who sells frozen blueberries into schools from her farm in Lebanon, said she appreciates that the program helps bring good tasting, healthy food to children, in some cases children who might not otherwise have other opportunities to enjoy blueberries.

"I love that Farm to School provides kids of all incomes access to this food that their families might not otherwise buy for them," O'Driscoll said. "And fruit like blueberries are something that kids readily eat."

Kate Crowley of PK Pastures in Sweet Home recently decided to dedicate a half-acre of her pork and poultry farm to vegetable production for schools and food banks with the idea of selling potatoes, squash, broccoli, and other vegetables to schools in the fall months. One of the farm's main incentives, Crowley said, is to provide school children access to healthy food. "Healthy communities start with healthy food," Crowley said. "And upholding community is one of the core values of our farm."

Crowley, who is working with the 4J School District in Lane County, added that she would love to partner with a Linn County school if any are interested in the farm's produce.

### Misconceptions

Markesteyn, who has been involved in Oregon's Farm to School from its inception in 2006 when she was a consultant for the Oregon Department of Education, said the program was not immediately accepted by Oregon's farm community, particularly small farmers.

"One of the challenges we've had to overcome has been the myth that selling into schools doesn't work for small-scale farms, that you have to have a large volume," said Teagan Moran, Small Farms Extension faculty for Benton, Linn and Lane counties. "And that isn't true. There are now these really great partnerships, for example, where a farm can sell to just one school in the district, versus needing to sell to the entire district."

Another misconception that has slowed program acceptance is that schools need processed food. Again, Moran said, that is not always the case. Fresh produce that stores well, such as garlic, onions and potatoes, has a good fit in the program, and in the fall months, when late-season crops are ripe for harvest, fresh produce is

# 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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Two Legacy Scholarships of \$1000 each are available to Linn County high school seniors.

Application available

Application Deadline: June 1, 2024

Application available at: https://beav.es/cYE



# Extension a Vital Cog in 'Farm to School'

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welcomed by schools.

"In the fall, when your farmers' markets are scaling down, schools are buying a lot of volume," Markesteyn said. "It can actually provide an extension of the freshmarket season for farmers.

"The other thing that the program does is it creates a secondary market," Markesteyn said. "If you are a fresh market apple producer, for example, the small apples that size out of other markets are ideal for schools."

Also, Markesteyn said, grants for infrastructure and equipment are available through the Oregon Department of Agriculture for farms looking to increase their food processing capabilities. And Oregon's summer lunch programs are now eligible for Farm to School program funding, providing an in-

season opportunity for some farms.

#### **Remarkable Growth**

While outreach on the part of Extension and other institutions has been a big contributor to the growth of Farm to School in Oregon, it wouldn't be where it is today without widespread community support and funding provided by state legislators, Markesteyn said.

"In 2007, we told legislators that we needed \$22 million for this program, and people were like, 'What are you talking about?'" Markesteyn said. "We haven't reached that goal, but we are at about \$11 million per biennium, and it's now embedded into the Oregon Department of Education's and the Oregon Department of Agriculture's baseline budgets.

And over the years, community partners, state agencies and commodity commissions have worked together to remove barriers and increased opportunities in regulatory and logistical ways."

To give an idea of its growth, a dozen years ago 170 Oregon schools participated in the School Garden Program. Today 750 participate. "So, it's over half the schools in Oregon," Markesteyn said.

"I can't believe how it has grown," Markesteyn said, noting that today, Farm to School is available for every child nutrition program in the state. "I find myself pausing sometimes and reflecting back and thinking, 'Wow, we did it.' And really, no one in the U.S. has been able to do what we've done."

# Family and Community Health

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# **Berry Season is Coming!**

### By Jennie Gilbert

May and June are ripe with lots of berry possibilities. Most varieties of strawberries will be in season mid-May to early June, followed by blueberries, raspberries, and blackberries. All of these berry possibilities bring so many ways to preserve this summer bounty for later while enjoying the fresh fruit in season.

#### Freezing

Spread whole berries on a tray and "flash freeze" them by freezing whole overnight and then packaging them in freezer bags or vacuum sealed bags. Freezing them individually like this will be very convenient for using partial bags for smoothies, desserts, or if you just want a handful of berries. Freezing is a great storage method for saving the berries until you have time to process them into jams and jellies, pie fillings, or dehydrate them as well.



### Dehydrating

If you have a food dehydrator, berries make a delicious dried snack that can be shelf stable for quite a long time if prepared correctly. Slice strawberries about ½ inch think for the dehydrator and spread directly on trays. You will want to either freeze blueberries first or pierce them with a fork before drying as the skins are very thick. You

can blend whole berries and pour onto silicon trays to dry for fruit leathers. There are many recipes using pectin for fruit snacks as well. These snacks don't last long with kids around!

#### Jams & Jellies

There are many ways to make and preserve berry jams and jellies. If you have the room, freezer jam is always a good choice as it keeps the fresh berry taste and doesn't use a ton of sugar. There are many safe recipes for different berry jams and jellies that are steam canned or boiling water bath canned. Both of which will leave your product shelf stable for a long time. Research pectin to make sure you use the one that is right for you. There are low sugar and no sugar types that will tell you what sugar substitutes are safe to use. There are cooked and no cook for freezer jams as well.

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# Why Am I Always Tired? Eating to Energize Your Day



By Sumayah Aryan, OSU dietetic intern

The term "energy" often brings up images of vitality and vigor, yet its central essence lies in the very foods we consume and the activities we engage in daily. Our energy levels are linked to our productivity, mood, and overall wellbeing. Much like cars require fuel to operate, our bodies rely on nourishment to thrive.

Why does consuming large, calorie-dense meals leave us feeling sluggish and fatigued? That meal consists of carbohydrates, proteins, and fats that are broken down and transformed into nutrients. Our bodies then expend energy to utilize and reform these nutrients into usable energy. However, this process isn't always efficient, and we often find ourselves battling fatigue. There are key strategies to maximize our energy levels throughout the day without facing exhaustion. Through mindful food choices, strategic pairings, and thoughtful activity selection, we can discover the full potential of our natural energy stores and embrace each day with renewed strength.

The ways our bodies maximize energy lie in the homeostatic process of metabolism. This mechanism relies on consistency in energy consumption, paired with energy exertion. When we consume a meal high in carbohydrates or sugars, our blood sugar levels rise rapidly. In response, the pancreas releases a hormone called insulin to help transport glucose from the bloodstream into cells to be used for energy. However, if the spike in blood sugar is too rapid or too high, the pancreas may release an excessive amount of insulin, leading to a rapid decrease in blood sugar levels. This rapid decrease in blood sugar can result in fatigue and a feeling of low energy. To help our bodies feel the most energized, utilizing the Plate Method visual tool simplifies the concept of healthy eating by promoting a

The Plate Method is a method recommended for everyone to maximize energy and prevent chronic conditions.

balanced diet.

# Why Am I Always Tired?

Continued from Page 3

This tool demonstrates a plate as 1/2 non-starchy vegetables, 1/4 carbohydrates, and 1/4 protein. This pairing is crucial because each component provides aspects of balance for the body to utilize the nutrients provided. Fiber from the vegetables provides bulk and sources of prebiotics, while it coats the small intestine with a gel-like substance to slow the absorption of carbs into the bloodstream. Carbohydrates provide fuel for our brain, neurons, and blood cells. Protein, a necessary component of our skeletal tissue, contributes to hormone functioning, and acts as a crucial energy source. Nonetheless, pairing these foods can help reduce the spikes we may experience in our blood sugars after eating a high carb meal and give us more energy throughout the day.

Giant meals can often lead to that "food coma" feeling. Therefore, rather than having a giant breakfast, lunch, and dinner; eating small, frequent meals is another tip to assisting the body in regulating metabolism and reducing the impacts of a blood sugar crash. Aiming for a snack such as apples and peanut butter or hummus and carrots between meals is optimal due to its balance in carbs, fiber, fats, and protein.

Another tip to maximize energy is going for 10-minute walks after a meal. Walking is a form of

Benefits of a Post Meal Walk

IMPROVED DIGESTION

RELPS WITH WEIGHT LOSS

LOWERS BLOOD SUGAR LEVELS

HELPS RECULATE BLOOD PRESSURE.

low-impact exercise that can help reduce stress, promote digestion, and improve blood sugars. We often don't think about the ways stress affects our bodies in the long term. However, stress can negatively impact metabolism and energy levels by

increasing cortisol levels, which can disrupt blood sugar regulation and energy metabolism. In addition, by going on walks, we also promote gastrointestinal motility which aids in the efficient absorption and utilization of nutrients from food. The physical act of moving our bodies also improves blood sugars because our muscles become more receptive to insulin.

By eating small frequent meals, pairing the right foods together, and going on walks after eating a meal, we can improve our insulin sensitivity and reduce the impact of the blood sugar crash. These small adjustments not only optimize our metabolism and blood sugar regulation but also manage the negative effects of stress on our bodies. By taking proactive steps to nourish and energize ourselves, we empower our bodies to function at their best and embrace each day with vitality and resilience.

References upon request.

# The Truth about Inflammatory Diets

**By, Sumayah Aryan,** OSU Dietetic Intern

In recent years, inflammation has emerged as a significant topic of interest due to its impact on overall health. Navigating through the abundance of available information can be challenging and often contradictory, leaving the consumer confused when making decisions about diet and health. In this article, we aim to address the complexities surrounding inflammation, identify common triggers, and explore dietary strategies to alleviate its symptoms.

"Inflammatory diets" typically encompass eating patterns that have the potential to induce an inflammatory process within the body. Înflammation itself is a natural response of the body's immune system to injury, infection, or irritation, serving as a protective mechanism. Several factors can contribute to chronic inflammation, including dietary choices characterized by a lack of variety in fiber, antioxidants, macronutrients, and micronutrients, as well as an imbalance of healthy fats.

These diets often feature foods high in refined carbohydrates, unhealthy fats, and processed ingredients, while lacking essential nutrients derived from fruits and vegetables, fiber, and healthy fats. It's important to recognize that while diet plays a significant role in inflammation, other factors such as stress, autoimmune disorders, sedentary lifestyles, and chronic infections also contribute to its development.

Elaborating on the various foods that can play a role in the inflammatory process, identifying the distinctions between food groups is where the key sources of inflammation begin. With fats, there is a notable contrast between saturated fats and unsaturated fats and their effects on long term health. Saturated fats, commonly found in processed foods and animal products, have long been associated with

inflammation and cardiovascular



risks. In addition, high sources of omega-6 fatty acids are often found in these foods. While omega-6 fatty acids are essential for various bodily functions, including immune response and cell signaling, excessive consumption relative to omega-3s can promote inflammation. Unsaturated fats, particularly omega-3 fatty acids found in fatty fish, nuts, and seeds, possess anti-inflammatory properties. Nonetheless, the ratio of omega-6 to omega-3 fatty acids in the diet plays a significant role in modulating inflammation and the goal in proportion is around 4:1.

Carbohydrates play a complex role in inflammation, with their impact largely dependent on the type and quality of carbohydrates consumed, as well as individual factors such as metabolism and overall dietary patterns. While some carbohydrates can contribute to inflammation, others possess anti-inflammatory properties. Refined carbohydrates, such as white bread, sugary snacks, and processed foods, are high on the glycemic index, meaning they cause rapid spikes in blood sugar levels. This spike triggers the release of insulin, a hormone that can promote inflammation when present in excess. Chronic consumption of refined carbohydrates has been linked to increased levels of inflammatory markers in the body, which may contribute to the development of inflammatory conditions such as obesity, type 2 diabetes, and cardiovascular disease.

Conversely, complex carbohydrates, particularly those high in fiber and nutrients, have been shown to have anti-inflammatory effects. For example, whole grains, fruits, vegetables, legumes, and unprocessed starchy foods contain fiber, vitamins, minerals, and phytonutrients that help regulate blood sugar levels, support gut health, and reduce inflammation. Fiber, in particular, acts as a prebiotic, nourishing beneficial gut bacteria that produce short-chain fatty acids with anti-inflammatory properties.

Along with macronutrients, it is crucial to understand antiinflammatory agents, specific components within food shown to be anti-inflammatory and key tips for lifestyle behaviors that can contribute to this goal of reduced inflammation. Antioxidants play a crucial role in combating inflammation by neutralizing free radicals, harmful molecules that can damage cells and contribute to inflammation in the body. By reducing oxidative stress and inflammation, antioxidants are supporting overall health and well-being. Some examples of antioxidant-rich foods include berries, leafy greens, nuts, seeds, colorful fruits, and spices like turmeric (contains curcumin, an anti-inflammatory) and ginger. By incorporating these foods into daily meals, individuals can enhance their antioxidant intake and potentially reduce inflammation.

In addition to dietary factors, lifestyle habits such as stress, lack of sleep, and sedentary behavior can also contribute to inflammation. Chronic stress triggers the release of cortisol, a hormone that promotes inflammation, while inadequate sleep disrupts immune function and increases inflammation markers in the body. Sedentary behavior is associated with heightened inflammation and a greater risk of chronic diseases. To mitigate these factors, strategies for managing stress, prioritizing quality sleep, and incorporating regular physical activity into daily routines are essential.

References upon request

# Food Hero for Older Adults: Added Sugars

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.

Sugars and syrups that are added to foods and beverages during processing, at restaurants and at home, are called added sugars. Though we may like their sweet taste, they provide extra calories and few nutrients. Be aware of added sugars in:

- Drinks: sodas and soft drinks, fruit-flavored drinks, sweetened coffee and tea, flavored milk
- Sweets: candy, jelly, jam, honey, molasses, syrups
- Breakfast or snack: hot

and cold cereals, granola bars, smoothies, ice cream, flavored vogurt

 Baked goods: cakes, cookies, sweet breads, pastries

#### Eating less added sugar makes it easier to:

- have a healthy eating pattern without eating or drinking too many calories.
- reduce the risk for diabetes, heart disease and tooth decay.
- manage diabetes and high blood pressure and have a healthy weight.

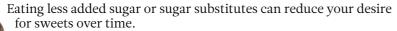
Nutrition Facts labels show the grams of sugar in one serving of a food. There may be more than one serving per



container/package.
For example, if you
consume this entire juice
drink (4 servings), you
consume a total of 112 grams
of added sugar/28 teaspoons.

- Total Sugars includes natural sugars that are part of some ingredients, such as fruit, along with added sugar ingredients, such as corn syrup.
- Added Sugars includes only the amount of sugar ingredients added during processing.

# **Reducing Desire for Sweets**



Sugar substitutes (such as stevia, sucralose, aspartame, acesulfame-K) are used to sweeten many foods and beverages labeled with "no added sugars," "sugar free," or "zero sugar." They are considered safe to eat, but moderation is recommended by most health professionals.

# Berry Season is Coming!

Continued from Page 3

Whichever pectin you decide to use, make sure you follow the directions carefully as jams and jellies can be finicky.

#### Strawberry Freezer Jam

(No Cook) – Ball Bluebook Guide to Preserving

- 5 cups crushed strawberries
- · 2 cups sugar
- 6 Tablespoons Ball Realfruit Instant Pectin

Wash, drain, remove stems from strawberries. Crush berries with a potato masher. Measure 5 cups crushed.

Combine sugar and pectin in separate bowl until well mixed.

Combine dry sugar/pectin mix with crushed strawberries and stir for 3 minutes until well blended. Let jam stand 30 minutes and ladle into containers. Refrigerate for up to three weeks or freeze.

# More Information & Recipes

For more information and safe recipes for preserving fresh or frozen berries, check out the OSU Extension Catalog at catalog.extension. oregonstate.edu under food preservation.

More recipes can also be found at ballmasonjars.com

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Agriculture
Livestock and Forages

# Linn County Livestock Association



LCLA Spring Meeting May 1, 2024
Brownsville Baptist Church
27910 Seven Mile Lane
Brownsville, OR
6-8 pm; doors open at 4:30
Everyone Welcome! Come mingle and visit.

#### **Agenda**

- Welcome and Introductions
- Dinner at 6:00 Chili dinner free with membership; others a \$10.00 donation would be appreciated
- Predator Control update Trapper Spencer and Brian Thomas
- Concerns and options –Linn Co Sheriff Michelle Duncan
- Farm Services Update Heather Tritt
- Linn County Weed Advisory Board update members
- Forestry issues Bug Kill Doug Fir ODF Spencer Mitchell and Chelsey Peters
- Earthfort soil testing and soil building products Matthew Slaughter and Robyn Brooks
- Soil and Pasture improvement updates Don Wirth
- Wool what to do with all that wool, especially pelleting Reed Anderson
- Oregon Cattleman's update Larry Brown

Membership is \$20.00 and includes a sign; additional signs available for purchase Please RSVP if you can so we can get a dinner count, or if you have questions. Lynden Brown (lynden12brown@gmail.com) or 541-258-8263 – leave a message Mike Cowdry 541-979-3703

Tom Nichols 541-990-2878

# **Community Horticulture**

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



# North Canyon Master Gardener is a Volunteer Superstar

**By Alex Paul,** Linn County Reporter

Diane Hyde was born to be a gardener and a teacher.

She vividly remembers helping in her grandmother's garden on the family property near Coos Bay when she was just five years old.

She knew she liked growing things even then.

Now, almost 77, Hyde's devotion to growing her own food — and especially sharing her bounty with others — has only grown stronger. She is well known and respected in the North Canyon.

She lives in Lyons and



for 17 years, was the Lyons postmaster, so she knows everyone, and everyone knows her.

When it comes to talking about Diane Hyde's role with the OSU Extension Master Gardener program it might be easier to list things that she hasn't done with the program over more than 40 years.

"OSU Extension has been important to my personal and community life since I was a child in 4-H more than 65 years ago," Hyde said. "I take every opportunity to introduce the wonderful OSU Extension resources to others so their lives will also be enhanced. The Linn County Extension staff has always been supportive of those efforts."

A 1969 Oregon State University graduate who taught in secondary public schools for 15 years — everything from home economics to computer science to industrial arts.

She was a small business owner for many years, growing StoneCrop Gardens — a succulent nursery — from serving four stores to 72 stores. A back injury forced her to change careers.

Hyde completed her initial Master Gardener and Master Food Preserver training in 1981, then audited the training again in 1990 and 2018.

The program has remained important to her all these decades later.

In 2002, she was appointed Lyons Postmaster and her six-







# May-June Gardening Calendar for Western Oregon

Produced by OSU Extension, each month provides reminders of key garden chores, such as fertilizing, pest control, planting and maintenance.

Recommendations in this calendar are not necessarily applicable to all areas of Oregon. For more information, contact your local Extension office.

#### MAY

#### **Planning**

- Prepare and prime irrigation system for summer.
- Use a soil thermometer to help you know when to plant vegetables. Wait until the soil is consistently above 70 degrees to plant tomatoes, squash, melons, peppers and eggplant.
- Place pheromone traps in apple trees to detect presence of codling moth. Plan a control program of sprays, baits or predators when moths are found.

#### Maintenance and clean up

- If needed, fertilize rhododendrons and azaleas with acid-type fertilizer. If established and healthy, their nutrient needs should be minimal. Remove spent blossoms.
- When selecting new roses, choose plants labeled for resistance to diseases. Fertilize roses and control rose diseases such as mildew with a registered fungicide, either organic or synthetic.

#### Planting and propagation

- Plant dahlias, gladioli and tuberous begonias in mid-May.
- Plant chrysanthemums for fall color.
- Plant these vegetables (dates vary locally; check with local Master Gardeners): Western valleys, Portland, Roseburg, Medford: Snap and lima beans, Brussels sprouts, cantaloupes, slicing and pickling cucumbers, dill, eggplant, kale, peppers, pumpkins, summer and winter squash, onions, potatoes, tomatoes and watermelon.

#### Pest monitoring and management

The Oregon State University Extension Service encourages sustainable gardening practices. Preventive pest management is emphasized over reactive pest control. If an unknown plant problem occurs, contact your local Master Gardener hotline or plant clinic for identification and future management options.

- 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.
- Trap moles and gophers as new mounds appear.
- Leafrolling worms may affect apples and blueberries.
   Prune off and destroy affected leaves.
- Monitor aphids on strawberries and ornamentals. If
  present, control options include washing off with
  water, hand removal, or using registered insecticides
  labeled for the problem plant. Read and follow all
  label directions prior to using insecticides. Promoting
  natural enemies (predators and parasitoids that eat or
  kill insects) is a longer-term solution for insect control
  in gardens.
- Spittle bugs may appear on ornamental plants as foam on stems. In most cases, they don't require management. If desired, wash off with water or use

insecticidal soap as a contact spray. Read and follow label directions when using insecticides, including insecticidal soap.

- Control cabbage worms in cabbage and cauliflower, 12-spotted cucumber beetles in beans and lettuce, and maggots in radishes. Control can involve hand removal, placing barrier screen over newly planted rows, or spraying or dusting with registered pesticides, labeled for use on the problem plant. Read and follow label directions when using insecticides.
- Tiny holes in foliage and shiny, black beetles on tomato, beets, radishes and potato indicate flea beetle attack.
   Treat with Neem, Bt or use nematodes for larvae. Read and follow label directions when using insecticides.
- Prevent root maggots when planting cole crops (cabbage, broccoli, collards and kale) by covering with row covers or screens, or by applying appropriate insecticides.
- Monitor rhododendrons, azaleas, primroses and other broadleaf ornamentals for adult root weevils. Look for fresh evidence of feeding (notching at leaf edges). Try sticky trap products on plant trunks to trap adult weevils. Protect against damaging the bark by applying the sticky material on a 4-inch wide band of poly sheeting or burlap wrapped around the trunk. Mark plants now and manage with beneficial nematodes when soil temperatures are above 55 degrees. If root weevils are a consistent problem, consider removing plants and choosing resistant varieties.
- Control slugs with bait or traps and by removing or mowing vegetation near garden plots.
- Monitor blueberry, raspberry, strawberry and other plants that produce soft fruits and berries for spotted wing drosophila (SWD). Learn how to monitor for SWD flies and larval infestations in fruit.

### JUNE

#### Planning

 Construct trellises for tomatoes, cucumbers, pole beans and vines.

#### Maintenance and clean up

- Prune lilacs, forsythia, rhododendrons and azaleas after bloom.
- Fertilize vegetable garden one month after plants emerge by applying a side dressing alongside rows.
- Harvest thinnings from new plantings of lettuce, onion and chard.
- Pick ripe strawberries regularly to avoid fruit-rotting diseases.
- Use organic mulches to conserve soil moisture in ornamental beds. An inch or two of sawdust, bark dust or composted leaves will minimize loss of water through evaporation.
- After normal fruit drop of apples, pears and peaches in June, consider thinning the remainder to produce a crop of larger fruit.
- Make sure raised beds receive enough water for plants to avoid drought stress.
- Mid-June: If green lawns are being maintained through the summer, apply 1 pound nitrogen per 1,000 square feet to lawns.
- If you want a green lawn, water frequently during periods of heat and drought stress. Irrigate 0.25 inches

four to six times per week from June through August. Measure your water use by placing an empty tuna can where your irrigation water lands.

#### **Planting and Propagation**

Plant dahlias and gladioli.

#### Pest monitoring and management

- First week: Spray cherry trees for cherry fruit fly, as necessary, if fruit is ripening.
- First week: Spray for codling moth in apple and pear trees, as necessary. Continue use of pheromone traps for insect pest detection.
- Learn to identify beneficial insects and plant some insectary plants, such as alyssum, Phacelia, coriander, candytuft, sunflower, yarrow and dill to attract them to your garden. Check with local nurseries for best selections. For more information, see Encouraging Beneficial Insects in Your Garden.
- Blossoms on squash and cucumbers begin to drop; this is nothing to worry about. Cherries may also drop fruit; this is not a major concern.
- Monitor azaleas, primroses and other broadleaf ornamentals for adult root weevils. Look for fresh evidence of feeding (notching at leaf edges). Try sticky trap products on plant trunks to trap adult weevils. Protect against damaging the bark by applying the sticky material on a 4-inch wide band of poly sheeting or burlap wrapped around the trunk. Mark plants now and manage root weevils with beneficial nematodes when soil temperatures are above 55 degrees Fahrenheit. If root weevils are a consistent problem, consider removing plants and choosing resistant varieties.
- Control garden weeds by pulling, hoeing or mulching.
- Control aphids on vegetables as needed by hosing off with water or by using insecticidal soap or a registered insecticide.
- Watch for 12-spotted beetles on beans, cucumbers and squash and cabbage worms or flea beetles in cole crops (cabbage, broccoli, Brussels sprouts). Remove the pests by hand or treat with registered pesticides.
- Birch trees dripping a sticky fluid from their leaves means that aphids are present. Control as needed.
- Use yellow sticky traps to monitor for cherry fruit fly. About 1 week after the first fly is caught, spray cherries at appropriate intervals.
- Last week: Second spray for codling moth in apple and pear trees, as necessary.
- Continue monitoring blueberry, strawberry, cherry and other plants that produce soft fruits and berries for spotted wing drosophila. If these pests are present, use an integrated and least toxic approach to manage the pests. To learn how to monitor and manage spotted wing drosophila.

#### **Indoor Gardening**

• Move houseplants outdoors for cleaning, grooming, repotting and summer growth.

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.

# Through the Garden Gate Garden Tour

Saturday, June 15, 2024







Don't miss this year's Through the Garden Gate tour. Now in it's 23rd year, the Linn County Master Gardeners have located seven beautiful and varied gardens in the Albany area for you to enjoy. The tour is on Saturday, June 15th from 10 a.m. to 4 p.m. During the self-guided tour, you'll be able to explore gardens overflowing with lush plantings and dozens of inspiring ideas and talk with Master Gardeners and homeowners about the gardens.

Sharing their gardens is a labor of love for these gracious homeowners. Each garden is a unique expression of the gardeners' personalities and gardening styles. Some of our gardens are well established and some are newly planted, but all have much to offer from deer fenced vegetable and fruit gardens, beautiful ornamental beds in full sun and in shade, and even an assortment of charming and beautifully

decorated garden retreat sheds. Bring your idea notebooks and your camera. Garden owners and Master Gardener volunteers are eager to greet you and answer your questions.

Tickets are \$15 and will be on sale starting in mid-May at the Albany Visitors Association, Urban Ag Supply, and Peaceful Valley Farm and Garden Supply. You can also purchase your tickets online through the LinnMasterGardeners. com website. For your convenience, we will be selling tickets on the day of the tour in Albany at Peaceful Valley Farm and Garden Supply, 350 NW Hickory St. You will find information about each garden and driving directions in the ticket brochure. Proceeds from the tour support the outreach and education work of the Linn County Master Gardeners Association and our continued educational collaboration with the Oregon State University Extension Service.

### **JUMPING WORM PHOTOS WANTED**

Have you found a jumping worm in your garden? Save it!

- Please report it to the Oregon Invasive Species Hotline
  - o report online: https://oregoninvasiveshotline.org/
  - o call: 1-866-468-2337 (1-866-INVADER)
- Please share your photos with OSU Solve Pest Problems team
  - Email Signe Danler at signe.danler@oregonstate.edu with high quality photos



### North Canyon Master Gardener is a Volunteer Superstar

Continued from Page 6

day-a-week work schedule wouldn't allow her to actively participate in Master Gardener projects, but Hyde said she continued to pay her dues and keep informed through the program's newsletter.

"As Postmaster in a small community, I had constant opportunities to discuss gardening with customers and frequently was asked to identify plants, diseases or insects at the Post Office," Hyde said. "I continued to make gardening and food preservation my hobbies."

Hyde retired from the Post Office in 2018, and as she notes, "Just in time to complete the Oregon Food Bank training and then teach the Seed to Supper course at the North Santiam Gleaners in Scio" where she is an active member.

She is proud to have taught the Seed to Supper class — and other timely workshops — every year since 2018 in Lyons. In addition to working with 20 or more adults at a time, Hyde is also proud of working with 47 children — about 20 percent of the school enrollment — through an afterschool program at Mari-Linn Elementary School for the 4-H Junior Master Gardener program in 2019.

In 2020 and 2021, Hyde presented Master Gardener webinars on Tuesday mornings "to an enthusiastic" group at the Santiam Senior Center in Stayton.

2021 also was a banner year because the volunteers developed a much-needed community garden on Hyde's property in Lyons.

"Having served as Postmaster of Lyons for 17 years, and currently on the Lyons City Council, I became

aware that the community needed an affordable source of fresh produce, and residents were seeking reliable information that OSU Extension could provide," Hyde said. "I sold property in Albany and purchased an old vacant fixer-upper house adjacent to the garden. We have been repairing and remodeling the house for three years to serve as a classroom and community kitchen, as well as a monthly Canyon Garden Club meeting place."

Hyde said nonprofit Santiam Community Garden members trade jams, jellies and pie fillings for cash or canning jar donations at the Art Mart in Mill City, the first Saturday of each month. All products are prepared in a certified kitchen to Department of Agriculture standards.

The garden boasts as many as 100 varieties of tomatoes, 25 raised beds, two greenhouses and a berry field. and two years ago, volunteers planted 100 donated dahlias.

She has no problem staying busy in retirement.

Gardening classes, "Grow Your Own Food" are held on the second Saturday of each month. Currently, there are 17 students.

Third Saturdays Linn County Extension outreach clinics are held from 9 a.m. to 3 p.m. at the Garden House for drop-in Q & A, garden or food problem-solving, or visiting over a beverage. On a recent Saturday, nine local residents viewed OSU Master Gardener videos on topics like pruning and planning their gardens.

Also, on third Saturdays, the local Grange has a flea market one block north of the garden and the local food bank distributes boxes at the school one block south. Residents stop by to contribute food or take food from our the "free little pantry" in the Garden House.

On Fourth Saturday
Garden members help to
preserve surplus food from
Gleaners, food bank, the
garden or donations. We
share OSU Extension Master
Gardener, Master Food
Preserver and Food Hero
videos and recipes in our
Community Garden kitchen.
The Garden House is open
Friday through Monday.

"We have finished pruning our fruit trees. We'll be starting seeds under lights on all those days to prepare for planting," Hyde said. "On sunny days we plan to work in our 100' x 80' berry field. All of our local garden activities are fun and easy with many participants ranging from nine years young to 92 years mature."

And if all of that isn't enough — there is much more in fact — Hyde is mentoring Rosemary McBrayer, a new Master Gardener trainee, who serves on the Santiam Community Garden Board and is vicepresident of the Canyon Garden Club.

And did we mention that for four years, Hyde wrote a weekly garden column in the Canyon Weekly newspaper?

"It is fulfilling to share food," Hyde said. "I have the resources, the education. I like doing something constructive. It keeps me alive and I enjoy the social interaction. I haven't had time to watch TV in years, this gives me a reason to get up every day."

Hyde said if she had a motto, it would surely be, "No food wasted."



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

# Groundwater Protection Education



Staff will be on hand to test well water samples for nitrates

# It's Time for Your Nitrate Screening!

The OSU Extension Service will be offering free nitrate screenings in selected locations across the Willamette Valley. A water quality educator will be on site at all the clinics. Find the clinic closest to you at https://wellwater. oregonstate.edu/. New dates, times, and locations will be added throughout the summer and fall. If you are interested in hosting a screening in your neighborhood, please send the request to Chrissy. Lucas@oregonstate.edu Additionally, the OSU Extension Service offices in Linn, Benton, Lane, Lincoln, Marion, and Polk Counties have the ability to screen samples during their normal business hours. A portion of the Southern Willamette Valley has been designated as a

Groundwater Management Area by the Department of Environmental Quality due to elevated nitrate in well water. While it is especially important for households with pregnant women or newborns to test for nitrate because of a rare type of bluebaby syndrome, all homes with private wells should be aware of their nitrate level.

For your free nitrate screening, bring about 1/2 cup of untreated well water in a clean, water-tight container. You may either wait for your results (the test takes 5 to 10 minutes if the well water clinic is not busy) or drop off your container with your contact information and we will mail your results and recycle your container.

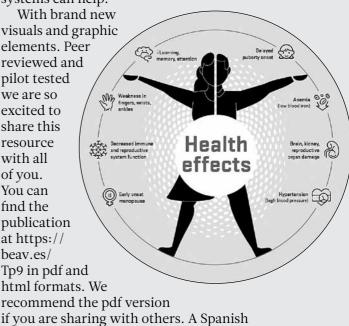


# Action steps Use treated or bottled water for: Drinking Cooking food Washing fruits and veggies Mixing juices, coffee, etc. Infant formula

# New OSU Publication about Lead in Drinking Water

· Brushing teeth

Lead in drinking water can cause serious health conditions in kids and adults alike. A new guide from OSU Extension shows people who use well water what to do if tests show lead contamination. (For starters, use bottled water for drinking and cooking.) Treatment systems can help.



version is also available, along with sister publications

Arsenic in Drinking Water and Nitrate in Drinking

Water.

# **Benton County 4-H Youth Development**

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Grad student joined local 4-H Faculty to present at State 4-H Conference

# **OSU Graduate Program with Extension Focus**

The Oregon State University Agricultural Education master's program now offers a non-licensure track, providing individuals with a unique pathway to delve into agricultural education without being restricted to teaching roles. This program emphasizes leadership development, experiential learning, and classroom instruction to instill the importance of agriculture, food, and natural resources. Graduates can explore diverse career opportunities beyond teaching, including roles as lobbyists, industry communication directors, or in Extension work. The accelerated one-year master's degree equips students with a comprehensive understanding of agricultural education, preparing them for various industry or classroom roles. Open to individuals with a passion for agriculture, natural resources, and environmental sciences, the program welcomes students from diverse academic backgrounds and experiences.

Jessica Barnett, an intern at the Benton County 4-H Extension office, embodies the spirit of dedication to 4-H and agricultural education. With an undergraduate degree in agricultural sciences, Jessica's passion for 4-H drives her to give back to the community through higher education. Through her internship at the Benton County 4-H Extension office, Jessica has gained invaluable real-life experiences and opportunities, enriching her resume and preparing her for future career endeavors in the field. Her commitment to 4-H and agricultural education shines through her desire to pursue Oregon State University's Agricultural Education Masters program, where she seeks to further her knowledge and impact within the 4-H community and beyond.

# 4-H Members Reaching for Greater Heights

One of the goals for 4-H is that youth dive into opportunities for personal growth and career readiness. There are stepping stones at the county level that are offered in order to build 4-H members up to the outstanding state, national, and even international events and roles.

At the county level, Benton County 4-H members can take on roles such as a club officer, 4-H County Ambassador, Junior or Teen Leader, or Fairboard Liaison. They can earn County Medals, which helps them to be eligible for college scholarships and more.

Many of the state and national opportunities require that 4-H members have demonstrated skills at the county and state level. Youth can start by building themselves up at the county level. From there, they can also participate at state events such as the 4-H Summer Conference, State Fair, Youth Voices in Action, and

more. Many of these state events have opportunities for youth to take on leadership roles. They can also earn state awards in leadership, communication, citizenship, and team community service. With these roles and honors under their belt, thev'll be prime candidates for greater opportunities such as the Oregon State 4-H Ambassadors.

For those interested in continuing beyond the state level, the options are plentiful. National events and roles generally require a competitive application or nomination process. However, those who have a record of involvement and success at the state level, the chances are high that they will be considered. Some of these events include National 4-H Congress, National 4-H Conference, Citizenship Washington Focus, and Ignite by 4-H. They can also be honored at the national level for the Youth in Action awards.

For those interested in international programming, inbound and outbound exchange programs are available for those that would like to apply. Inbound programs allow families to host a youth from another country, primarily Japan. Outbound programs are for youth who would like to stay abroad for 1-2 months in one of the partner countries.

Climbing this ladder of opportunities takes time and dedication. However, the rewards are well worth the effort. For those who are just starting and want to be eligible for such chances down the road, the main ways to start include completing your 4-H record book, pushing yourself outside of your comfort zone to grow, and asking for ways to be involved. If you have questions about any of the events, roles, or opportunities available to 4-H members, please contact the Benton County Extension Office.

### **OSU Summer Conference**

All 7-12th graders are invited to attend the OSU 2024 4-H Summer Conference. Leadership Odyssey from Wednesday-Saturday, June 26-29. At Summer Conference. participants will listen to amazing speakers, choose

from workshops covering everything from civic leadership to handtying flies, and participate in activities like swimming, star gazing, and rock climbing! The cost is \$275. All enrolled

Benton County 4-H members

who request it will receive a 50 percent scholarship to attend.

Contact the Extension Office for more information.

> There will be a new option this year: focus tracks! Two tracks will be available: Vocational (with a partnership from ROTC), and

Engineering, which will include a Wave Lab and College of Engineering tour. Whether you choose a track or not, you'll have an opportunity to tour the nuclear reactor on OSU's campus (if you register

early enough) or the College of Veterinary Sciences.

Registration will open online May 1 at 8 a.m. and be open until May 15. Make a note in your calendar to register as early as possible!

For over 100 years, Oregon State University has hosted the State 4-H Summer Conference for youth completing grades 7-12. Conference participants come from all parts of Oregon.

While at the conference, youth have the opportunity to explore OSU, learn independence in a safe setting, examine career possibilities, make friends, learn new skills, and have fun.

# 4-H Food Contests

There are two main foodsfocused contests held in Benton County 4-H early in the year. The first is the 4-H Favorite Foods Contest. This is an introductory contest where youth prepare a dish in advance, bring it along with a table setting, and interview with a friendly judge. This contest is open to all youth in Benton County ages 5-19. Another portion of the 4-H Favorite Foods Contest is the Measuring Contest where youth demonstrate their skills measuring both solid and liquid ingredients. It may sound simple, but many in the community don't know the intricacies of measuring flour without compacting it or where to gage the liquid measurements. These are practiced skills the 4-H members learn in order to master the foods project.

On Saturday, January 27th, thirty-nine youth came to the Benton County Extension Office to participate in the 4-H Favorite Foods Contest. They kept the judges busy all day with tasty dishes and made it very difficult for



the judges to determine top awards. This contest will help the participants prepare for the next 4-H foods contest happening in April.

The second contest is the 4-H Food Preparation Contest. In this contest, youth bring ingredients and equipment they'll need to prepare a recipe to a kitchen station where they prepare their dish in front of the judge. Much like the 4-H Favorite Foods Contest, participants have a decorative table setting and interview with the judge after they've finished preparing the dish.

As in previous years, Benton and Linn County are teaming up to have a combined county contest held at the Linn County Extension Office on April 19th and 20th. This contest is a qualifying event for the state level competition as well.

These contests teach applicable life skills beyond simply learning to cook. Participants learn to be organized and come with the ingredients needed for their dish, keep on task for the timed portions of the events, and communicate effectively with a judge.

# **Get Outdoors Day 2024**

The Oregon State University Research Forests, OSU
Extension Service of Benton and Linn Counties, and the Benton County Health Department will host the annual National Get Outdoors Day event at Peavy Arboretum, north of Corvallis. This event will take place on Saturday, June 1, from 10 a.m.-3 p.m. as part of National Get Outdoors Day, an annual event encouraging healthy, active outdoor fun. Participating

partners from throughout the local community will offer a variety of activities designed to engage visitors and connect youth with the great outdoors. Bilingual (Spanish and English) community volunteers will be on hand at the event.

This event is free to the public and will offer a variety of hands-on family activities, including fishing for youth (13 years old and under) and interactive demonstrations of

camping, hiking, and other outdoor skills and activities. Food will be available for purchase on site, and people are welcome to bring picnic lunches. Shuttle service will provide transportation from Crescent Valley High School to Peavy Arboretum. On-site parking will not be available. More details available online: https://cf.forestry.oregonstate.edu/outreach-education/go-day

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.

# Benton County 4-H Tack Sale - Saturday, May 4

Come check out our large selection of Show Apparel, Clothing, Boots, Accessories, English, Western, Saddle Seat, Reining, Gaming, Packing Jumping Equipment/Saddles &

more! You're sure to find something you will love! The Tack Sale will be held from 10 a.m.-4:30 p.m. at The Equine Exchange located at: 845 NE Circle Blvd, Corvallis, OR 97330. \$1 entry fee per person.



Interested in consigning? Consignments need to be delivered Friday, May 3 from

2-6 p.m. OR Saturday, May 4, from 7-9:30 a.m. Consignment fee is 20 percent of any sales. All proceeds will go to support the Benton County 4-H Horse Program. Donated items are tax deductible. To register for a consignor number contact 4-H volunteer - Elaine Schrock: ashlanes@aol.com

# Benton County Fair Country Vibes & Carnival Rides

This year, the Benton County Fair will be held Wednesday-Saturday, July 31-August 3. Participating at the county fair

to showcase the projects that they have been working on all year long.

4-Her's will be exhibiting projects including animal science, family and consumer science, expressive

arts, natural science, and more. Stay tuned for more detailed information in the next issue of *GROWING*.

# **OSU Pet Day**

During the first weekend of May, Benton County residents will gather at the OSU campus for a popular annual event called OSU Pet Day. This event is organized by the students in the Carlson College of Veterinary Medicine at OSU and offers attendees a multitude of activities such as a petting zoo, teddy bear surgery, information booths for animal care, products, and more. There are also fun activities scheduled throughout the day including a pet costume contest, a 5K fun run, and the results posting of the cat photo contest.

Benton County 4-H regularly has a presence at this event with a booth for attendees to visit. We hope that you'll make it to the OSU campus on Saturday, May 4th for this fun community event. If you'd like to learn more about OSU Pet Day, please visit the event website at: https://vetmed.oregonstate.edu/pet-day

# Linn County 4-H Youth Development

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# Adulting 101 Teaches Life Skills

#### By Cassi Hyde

I had the opportunity to teach a workshop series that focused on helping high school students prepare for the crazy transition into adulthood. We covered an assortment of topics from resume building to basic car and house maintenance. Each class focused on a new topic that isn't traditionally taught in high school and will be a useful skill as students transition into adulthood. Other topics covered included basic budgeting, nutrition and food safety, mental health/wellness, and we ended the series with mock job interviews. Some of my favorite classes were the CPR/First Aid and Self Defense classes!

It was amazing to partner with community members to help teach some of these classes. We couldn't have done it without their help and are so appreciative of their willingness to help the kids learn these important life skills. Our volunteers included other OSU Extension staff, volunteer teachers from local schools, and a couple firefighters.

My absolute favorite part of running this workshop series was seeing each of the students find their confidence and come out with new skills that they may not have had the opportunity to learn before being thrown into adulthood! It was also so great that this series was open to all students, not just Linn County 4-H members! I am excited to see how I can grow this workshop series and make it even better for next time.

Cassi Hyde is a 4-H student worker here at the Linn County OSU Extension Office. Cassi grew up participating in 4-H, which led to her passion for teaching and helping others find their best selves.



Adulting 101 Youth learn some basic car maintenance and repair skills on a rainy day in March.



Adulting 101 Cassi works with youth to learn about useful tools around the house and how to use them to do basic repairs and upkeep.

# Dedication to Static Club Nearing 50 Years for 4-H Leader

**By Jody Hill,** Linn County 4-H

4-H clubs come in all flavors, but few people know about the hard work that goes on behind the finished projects in the "Static" area of fair. Static exhibits are all the projects that don't have a living animal as the focus. Barbara Kreilich is the long-time leader of the static club, Mt. Pleasant, which teaches sewing skills, crocheting, knitting, horticulture, and designing spaces. She has dedicated her time and knowledge to foster confidence and ability in her students for almost 50 years.

Barbara started her 4-H career when her oldest daughter got off the school bus and announced that some of her classmates were going to learn to sew. When she checked into the group the leader said her daughter could join if Barbara would help. With that simple beginning, she has since maintained her own club, become a superintendent for the Clothing and Textiles, Home Environment, and Child Development areas at county fair, and been a State Fair chair in Clothing, Knitting, and Crocheting. She has also given her time to lead workshops, trainings, and chaired the Fashion Revue.

When asked what makes her so passionate about 4-H year after year, she



Barbara Kreilich shows a 4-H the finer points of crocheting

says she enjoys working with the kids. "I like to see them better themselves. I enjoy seeing someone who is proud of what they can accomplish." When a child completes a project, the look on their face is all the reward she needs. Barbara also enjoys providing skills that can last a lifetime. Some of her students have gone on to make their own prom dresses or even their own wedding dress.

Barbara is proud to see her 4-H members succeed in both 4-H and after they were out of the program. She has had several of her students win top honors at state fair and the coveted prize of a sewing machine. One member went to 4-H National Congress in Fashion Revue and came home with a \$5,000 college scholarship.

Some of the impacts that Barbara has made on her students are less showy but have lasting results. She says she once had a student who had difficulty with her eyesight and found it hard to run a sewing machine. So, she "rigged up different tools" so the girl could carry out her dreams. She has given club members the courage to believe in themselves and to take pride in their achievements. When kids get nervous before their judging interviews, she calms their nerves. After they talk with the judge, she gets a good feeling when they leave with a big smile on their face.

There have been struggles in more recent years to keep the program going. With so many kids involved in sports or other activities, it is hard to schedule meetings with the families. Barbara points out that the cost to participate in clothing projects has risen as well. "It used to be that you could make something for cheaper than what it would cost you to buy it in the store, but not anymore."

Barbara says the volunteers need to be willing to experience the ups and downs of the kids. Not all kids are able to master all areas. "They have many big ideas but can struggle to actually achieve their goals." However, she says that if you have time, patience, and like to work with children, she recommends becoming a 4-H leader.

# Super Static Saturday

One Saturday morning this spring 4-H members gathered at the Extension office to gain some new skills in art, sewing, photography, and baking. During this event, youth had the opportunity to learn about loom knitting and sewing on buttons. At the photography station the youth sorted out pictures to decide what categories each picture fit into and then they practiced matting the pictures correctly. Everyone got to take home a jar of brownie ingredients that they learned how to measure out. The art station was a lesson about how to upcycle an item into something else. They took class canning jars, glued flat marbles on to them and made it into a lantern for tea lights. Overall, it was a fun event with lots of learning involved.



4-H members glued glass stones to jars to make colorful vases and cups.



Button sewing and loom knitting were two skills presented.



Melissa Williams teaches measuring skills using a "Brownie in a Jar" recipe.



4-H members show off their finished static projects.



Four rivers camp 2023 camp counselors

# Four Rivers 4-H Camp

Four Rivers 4-H Camp is coming June 19-23. This year's camp theme is "Folklore and Fairytales" so come prepared to have a magical time at camp! Every day is filled with new adventures, new experiences, and a whole

lot of fun! We have spots for youth that are finishing 4th through 8th grade. Four Rivers Camp is held at the 4-H Center in West Salem.

For more information and to register visit https://extension.oregonstate.edu/4h/linn/camps.



There is a lot of fun to be had at camp

# Linn County Youth Livestock Auction

We are coming in to 2024 fair season and we couldn't be more excited for the future of Linn County's youth exhibitors.

We have more enrollments than ever! Last year's auction was huge, and we are making plans as a committee to accommodate more animals in less time (fingers crossed). We have secured our spot in the Calapooia arena where we can stay spread out. We are hoping animal prices will hold steady, but we just don't know what the economic climate will be come July. We hope that we can count on your support when the time comes.

As in years past, all sale lots received an additional add-on from the Ag Boosters program to their checks. While we would love to see the prices remain high, we are going to continue to raise funds through the Ag Boosters program to supplement prices



Help our local 4-H and FFA youth by supporting the Linn County Youth Livestock Auction this July.

and sales as needed for 2024.

There are three levels of partnership to choose from: Gold for \$1,000, Silver for \$500, and Bronze for \$250. In addition to supporting the youth in our area, please remember that your donation also provides a multitude of benefits including signage at the auction, recognition in the sale catalog, your name on the Ag Boosters banner (on display year-round at the fairgrounds), name posted on the LCYLA website, and any other advertising opportunities that we can find.

We would like to thank every business and individual from our 2023 Ag Boosters. A complete listing of those members can be found at https://www.lcyla.com/2023-buyers-and-supporters. If there are other businesses or individuals that you know would be interested in joining our growing group, please pass along our information.

LCYLA is an all-volunteer, non-profit organization making your donation tax deductible (ID #26-3929297). If you have any questions, please feel free to reach out to any of the committee members. Visit https://www.lcyla.com/to learn more.

Thank you for supporting the 4-H and FFA youth in Linn County!

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



# **Linn County Families Receive Local Food through Unique Extension Partnership**

The timing was just right in January for families to pick up boxes of locally grown food at the Oregon State University Extension office in Linn County.

The sleet and freezing rain that blanketed the Willamette Valley in a sheet of ice had caused many businesses to close for several days, creating lost income for employees. But the ice had thawed by the day that 40 families arrived to receive food procured through a first-of-its kind Extension initiative funded by Linn County Public Health.

Many of the people who showed up weren't able to work the previous week or go to a grocery store, making the food boxes even more helpful than planned, according to Teagan Moran, OSU Extension Small Farms Program coordinator.

The day was more than picking up food, however. When they arrived at the Extension office just off Highway 34 near Interstate 5, the families were greeted and welcomed inside by Diana Camacho-Figueroa, a nutrition educator who serves Benton and Linn counties in Extension's Family and Community Health Program.

Once inside, they experienced the savory aromas of Food Hero dishes being prepared in the office's demonstration kitchen. Food Hero is a statewide initiative of the Oregon Supplemental Nutrition Assistance Program Education (SNAP-Ed) program and was developed by the OSU Extension in English and Spanish.

"The recipes were a neat way to show them how they could use what was in their box," Camacho-Figueroa said.

All of the vegetables, beans, meat and iars of honey and jam were laid out on tables so the families could see what they would be receiving. One woman expressed surprise when she saw purple sweet potatoes. She hadn't seen purple sweet potatoes in a long time, not since she was in Mexico. She didn't know they were grown here.

"It was social," Moran said. "Diana spent a lot of time chatting with each family, and the families connected with one another. The food was beautifully laid out on tables. There was smell and taste."

'Amazing opportunity' The project started in early December, when Extension was awarded a \$5,000 local food procurement grant from Linn County Public Health. The microgrants are made to communitybased organizations and institutional partners for purchasing and providing local food for free to individuals in Linn County experiencing food insecurity.

"What was unique about this grant opportunity and excited us was that it's a food system equity-minded approach to food security,"



OSU Extension nutrition educators Itzel Arizmendi (left) and Iris Carrera prepare produce for Food Hero recipes in the Linn County office's demonstration kitchen with winter vegetables procured from local farmers.

Moran said. "Diana and I are members of a Linn County food systems working group. When we heard about the grant, we thought this would be an amazing opportunity for the Small Farms and Family and Community Health programs to partner on."

To find local farmers who had food for purchase, Extension's Crystal Kelso contacted vendors at Corvallis-Albany Farmers Markets who also sell at the Corvallis Indoor Winter Market. Kelso is an education program assistant to the Small Farms and Forestry and Natural Resources programs in Benton and Linn counties.

Some of the farmers Kelso contacted had never connected with the Extension's Small Farms Program before and didn't know that Extension had a Family and Community



Teagan Moran, Oregon State University Extension Service Small Farms Program coordinator, holds a food box behind a display table that shows off the abundance of storage crops families came to pick up.

Health Program.

"A couple of the farmers shared with me that this food would have gone to compost, due to slower winter season sales," Kelso said. "I also had another farmer say that they were glad drop off the storage crops at the Extension office, because their storage options were not as protected from the freezing temperatures that were predicted."

Kelso was able to purchase from 10 farms – seven in Linn County and three in neighboring counties.

In all, over 1,000 pounds of storage vegetables were used to fill the boxes: beets, purple sweet and white potatoes, onions, garlic and three kinds of squash - Avote negro, blue kuri and butternut. There were 90 pounds of dried beans and 320 pounds of frozen meat - both chicken and beef. One farmer even

donated 40 pounds of beef

That's not all. The bounty included 80 jars of local honey and jam and 40 bags of freeze-dried vegetables and fruit. Each box included a food thermometer, an oven mitt, a list of participating farms and how to purchase from them, Food Hero recipes and information on SNAP benefits. All of the written materials were in Spanish.

"We helped to increase farmers' sales that they might not have had due to the winter season, and it helped make up for the cancellation of the Jan. 13 Indoor Winter Market in Corvallis," Kelso said.

Kelso also worked with a couple farmers on how to accept credit and debit cards and set-up PayPal, all of which can help them increase their sales.

While Kelso worked on procuring the food, Camacho-Figueroa spread the word about the program with assistance from the health department. The amount of food boxes was capped at 40 and that number was easily reached, so Camacho-Figueroa had to create a waiting list.

Camacho-Figueroa wasn't surprised by the demand. Spanish-speaking families whom she works with have said in surveys that they place a high priority on fresh food.

"It was nice to engage with some of the families I've worked with – over half the families that got a box have participated in my programming," Camacho-Figueroa said. "They were really excited about getting a box that had food that they will most likely use. Everything was fresh and local and that's something these families really value."

Nearly all of the Extension programs in Linn County worked on the project up to and including pickup day. Iris Carrera, a nutrition educator, and Itzel Arizemendi, an OSU student who works in Linn County's Supplemental Nutrition Assistance Program Education (SNAP-Ed) unit, prepped and cooked the Food Hero dishes. Jody Hill with 4-H Youth Development helped Kelso separate and bag the beans and fold boxes. Laurie Gibson, an office specialist for agriculture and home horticulture, designed and printed labels for the bags of beans.

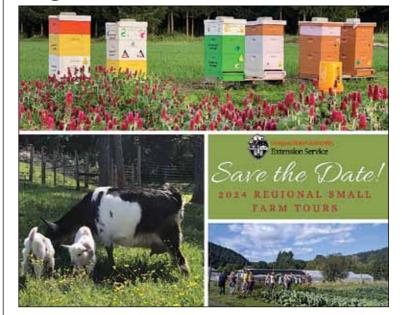
Moran said the core project team will evaluate

the program through followup surveys and phone calls with the families and farmers. Based on those results, Extension might apply again to the local food procurement grant program, especially during a different harvest season.

"I can't stress enough the benefits of providing local food to local families and providing income to local farmers," Moran said, "and the benefits of our partnership with the health department."



# Regional Small Farm Tour Series



We are happy to announce our 2024 Regional Small Farm Tour Series! Local farmers have graciously opened their farms, to share what they are growing or raising, to connect with other farmers and ranchers to build community, and to share resources and experiences. We have a variety of farms and would love to have you join us! If you are currently farming/ranching or hoping to, then these tours are for you. Check out each event for more details.

#### Red Prairie Farm - Tuesday June 11th, 3:30-5:30 p.m. (Polk)

 Organic small grains (Wheat, Barley, Rye), sustainable & responsible operations, starting from scratch, NRCS & SCD conservation contracts Register Here: https://beav. es/cna

Bee Charmed Farm - Friday

#### June 14th 10 a.m.-Noon (Linn)

• Bees, veggies, making on-farm compost, worm castings, broilers and eggs, on-farm processing Register Here: https://beav. es/cnR

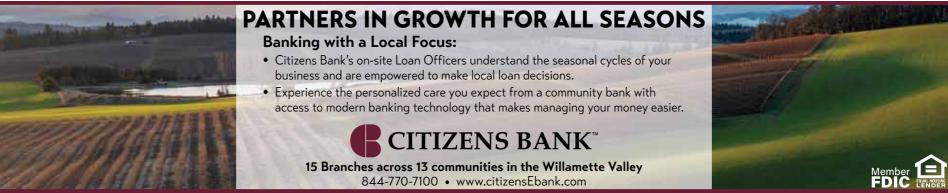
# Willamette Community Lamb - Wednesday June 19th 5:30-7:30 p.m. (Linn)

 "Starting a low cost sheep operation on 10 acres, year 3" Register Here: https://beav. es/cnK

# 4 Wands Farm - Friday July 26th 5-7 p.m. (Benton)

 Diversity & sustainability, meat rabbits, herbs, veggies, eggs, greenhouses Register Here: https://beav. es/cnV

We hope to see you out in the field!



# **Commercial Agriculture** Tree and Small Fruit

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# **Fertilizing Blueberries**

Spring is the time to start fertilizing blueberries. It is important to fertilize plants at the time when the crop will need it most, which is usually around the time blueberry plants begin to flower. Blueberries take up less than 2 percent of nitrogen before late April and less than 10 percent after mid-July, so anything applied early spring or late summer will likely be wasted. The total amount of nitrogen needed should be split into thirds and applied late April through mid-June. When using a granular inorganic fertilizer, divide the total Nitrogen needed for the year into thirds, applying one-third in each of late April, mid-May, and mid-June. Organic fertilizers take longer to release the nitrogen, so they need to be applied earlier. If using a granular organic fertilizer, apply it in two equal portions, applying half in mid- to late March and the other in mid-May. Do not apply any additional nitrogen fertilizer after harvest, it may spur the plant to send out new growth that is sensitive to frost damage in the fall and winter months.

For blueberries, soil pH should be tested every few years to ensure that the pH is within the optimal range of 4.5 to 5.5 to maximize production. If the pH is too high or too low, plant



Blueberry plant

growth may be stunted or show signs of a nutrient deficiency. A common symptom of a high pH is chlorosis, in which the leaf veins are dark green, but the leaf tissue turns yellow. When the pH is too high, the blueberry plant can't take up and use iron, resulting in a lack of chlorophyll production. To correct this deficiency, sulfur should be applied to lower the pH to within the optimal range for blueberries. Plant tissue analysis should be used to monitor nutrient levels. For blueberries, leaf samples should be collected between late July and mid-August

when nutrients are most concentrated and stable in the leaves.

There are many formulations of solid and liquid inorganic and organic fertilizers available. The main nutrient needed by blueberries is nitrogen, specifically the ammonium-N (NH4) form. This is similar for any acidloving plant such as azaleas and rhododendrons. Many all-purpose fertilizers, such as 16–16–16, contain the nitrate (NO3) form of nitrogen and are not suitable since blueberry plants cannot take up or use nitrate, so be sure to use an ammonium-N fertilizer.

Ammonium sulfate (21-0-0) and urea (46-0-0) are suitable options, though ammonium sulfate should not be used if the soil pH is below 5 as it may have too much of an acidifying effect. If the soil pH is below 5, use urea or urea with a small amount of ammonium sulfate to reduce changes in pH. Do not use ammonium nitrate or calcium nitrate fertilizers, fertilizers that only contain nitrate may injure or stunt the plants. For organic growers, cottonseed meal (6-7-2) and feather meal (12-0-0) are good options for a nitrogen fertilizer. Do not

use fresh horse since the pH is often too high for blueberries.

The amount of nitrogen fertilizer to apply varies by age of the plant. A newly planted northern highbush blueberry only needs about 0.4 to 0.6 ounces of nitrogen per plant in year 1, whereas a mature 8-yearold northern highbush blueberry bush will need about 1.5 to 2 ounces of nitrogen per plant per year. To convert to pounds per acre, multiply the ounces per plant by the number of plants per acre (lb. N/acre = (oz/plant x plant/acre). To calculate how much Nitrogen to apply, divide the amount of nitrogen needed by the percentage of nitrogen in your fertilizer (ex. if using ammonium sulfate (21-0-0) on an 8-vear-old bush, then 2 oz  $\div 0.21 = 9.5$  oz fertilizer).

For more on blueberry nutrient management, refer to the OSU Extension publication EM8918, Nutrient Management for Blueberries in Oregon (https://extension. oregonstate.edu/ catalog/pub/em-8918nutrient-managementblueberries-oregon). For home gardeners, refer to EC 1304, Growing Blueberries in Your Home Garden (https://extension. oregonstate.edu/catalog/ pub/ec-1304-growingblueberries-your-homegarden).



Close up of interveinal chlorosis due to iron deficiency (John Hartman, University of Kentucky, Bugwood.org, CC BY-NC 3.0 US Deed)

Blackened leaf edges are signs of salt stress, caused by applying too much fertilizer (Bernadine Strik, Oregon State University)



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# Commerical Agriculture Field Crops

# Willamette Valley Rotation Crops

Crop rotation or growing a sequence of different crop species in an area over several years, is a practice that farmers have been using for centuries to increase the productivity and sustainability of their farms. Crop rotation leads to healthier, more productive crops in several ways. Many pests and diseases only attack a narrow range of crops, and their numbers decline when no host crop is present. This leads to decreases in pest and disease pressure. Research suggests that crop rotation improves soil health and helps support a diverse soil microbial community. Science has not teased out all of the reasons why crop rotation is so beneficial, but farmers know that it works.

Many farmers would like to use longer, more diverse crop rotations on their farms, but it is not always easy to do so. Most farmers have a limited number of crops that they can feasibly grow. Crops have to be adapted to the soils and climatic conditions on their farm. Many crops require specialized harvest equipment and facilities to process and package them for market. Growers develop expertise about how to best manage the crops that they grow, and there is often a steep learning curve associated with growing a new crop. Growers also need to have a market for their crop, and most growers will have contracts with a buyer for their crop before they plant. Rotation crops that meet these requirements are a valuable part of farming operations in the Willamette Valley and beyond.

Here are a few of the rotation crops you might see in the Willamette Valley:

#### Meadowfoam

Appearance – Low growing plant that produces a solid carpet of creamy white flowers. Flowers are about 1 inch across with five petals. Before flowering, leaves are a bright lime-green. The crop turns a light brown as it matures.

Use – Seed is harvested and oil is extracted. Meadowfoam seed oil is very stable and it is used in cosmetics and hair care products.

Cultivation –
Meadowfoam is
planted in the fall
and harvested in early
summer. It grows well
in poorly drained clay
soils that are common in the
southern Willamette Valley.
Colonies of honey bees are
brought in during bloom for
pollination.

#### **White Clover**

Appearance – Low growing crop with darker green foliage than meadowfoam. The leaves are groups of three leaflets and flowers heads are actually clumps of many tiny flowers that bloom from the bottom up. Unlike meadowfoam the flowers are not abundant enough to turn the whole field white.

Use – Seed is harvested and used to plant pastures for livestock forage.

Cultivation – White clover is a perennial crop that is usually grown for 3-4 years before rotation to another crop. White clover is tolerant of poorly drained soils and is an important rotation crop for areas that grow annual ryegrass.

#### Radish

Appearance – leaves are 5-10 inches long and form a rosette at the base of the plant. Flowers are formed on a tall branching stem, 3/8" across, with four petals and white to light purple in color. In full bloom the field can appear greenish white from a distance, but the

plants are taller than meadowfoam.

Use – Seed is

harvested and used to plant cover crops

Radish is planted in the spring and harvested in the summer. Some growers have experimented with planting radish and perennial grasses at the same time. The radish is harvested that summer, and the grass will be harvested for the first time

#### **Turnips**

the following year.

Appearance – turnips look similar to radishes, but they have yellow flowers.

Fields that are in full bloom are solid yellow. Other crops such as cabbage, kale and mustard are grown on small acreages and look similar to turnips.

Use – Seed is harvested and used to grow forages for livestock feed and cover crops.

**Cultivation** – Turnips are planted in the fall and harvested the following summer.

# South Valley Field Crop Notes for May-June

#### **General Management**

- Seed certification: Submit paperwork for spring plantings, over seeding, and modified land history within 60 days of planting. Remember to use the on-line sample certificates.
- Look for a notice on the timing of above-ground use of zinc phosphide for 2024, which is usually at the start of May.

#### Grass

- Control broadleaf weeds in spring-planted grasses when weeds are small. E.g. treat sharppoint fluevellin when "dime-sized" or herbicide control will be reduced (including Callisto, Huskie and tank mixes with these compounds).
- Complete plant growth regulator applications on grasses. Avoid high rates and later timing on stressed fields.
- Finish rust control sprays on grass seed crops. Be sure to check Pre-Harvest Intervals and feeding restrictions of fungicides before last use.
- Apply final Bravo application on orchard grass before flowering. Spraying after this period is not cost-effective.
- Measure seed moisture 3-5 days ahead of expected cutting date to predict when to swath grass seed crops. See OSU Extension publication EM 9012 Using Seed Moisture as a Harvest Management Tool for more information.

#### Wheat

- Control septoria on winter wheat at flag leaf emergence (Feeks GS8). Make use of SDHI chemistry at this timing to combat septoria fungicide resistance but be aware SDHIs are not an effective rust control.
- Use mixed modes of action (triazole + strobilurin, such as Quilt) to control stripe rust on winter wheat. Triazoles will kill the stripe rust and strobes will provide longer protection.
- Most years there is no economic advantage to fungicide applications once heading is reached.
- Keep an eye out for sharp eyespot typical symptoms include lodging and eyespot legions on the lower stem, with whiteheads developing in June. If found during scouting please be in touch with Chris Mundt.
- Scout wheat fields for cereal leaf beetle larvae and apply insecticides only if the threshold level is reached (average of 1 larvae per flag leaf).
- Finish weed control in spring-planted small grains. Pay particular attention to herbicide labels with respect to small grain growth stages.

#### Min

- N uptake of peppermint peaks in May to early June. Supply 175 lbs N/ac by mid-May, with a total of 200-250 lbs N/ac over spring and summer.
- Scout mint fields for insect pests such as loopers and

# Forestry and Natural Resources

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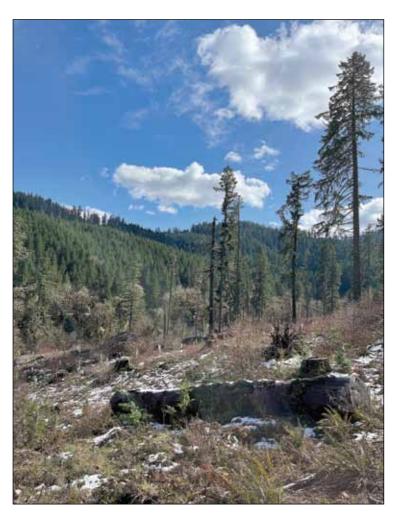


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# Early Seral Forest Management Tour

Join the Oregon State University College of Forestry and Forestry & Natural Resources Extension Team on Saturday, May 25th from 9 a.m. to 1 p.m., for a tour of early seral forests. Participants will learn how to recognize elements of early seral forests and identify management approaches for promoting these habitat elements. We will discuss trade-offs and constraints to management for early seral biodiversity on your small woodland while visiting several examples throughout the McDonald-Dunn Research Forest. We will meet and load up into two 12-passenger vans at the Historic Peavy Lodge at Peavy Arboretum. There will be stops at multiple locations within OSU's McDonald-Dunn Research Forest. We will provide light snacks, coffee and water.

Space is limited to 20 participants for this free tour, so registration is required. Visit https://beav.es/chk for more information and to register.

# **EAB Preventative Treatments -** Getting ready for June emergence of EAB

# Emerald Ash Borer (EAB) Insecticide Treatments

The emerald ash borer (EAB) is a destructive, invasive beetle that infests and kills ash trees (Fraxinus spp.). EAB adults lay their eggs on ash trees, and after hatching, the larvae burrow under the bark to feed on the tree, eventually cutting off its supply of water and nutrients. EAB has spread to many U.S. states since

it was first detected in Michigan in 2002, killing nearly all ash trees in its path. Unfortunately, EAB cannot be eradicated; once it arrives in an area, it doesn't go away. EAB was confirmed in Forest Grove, Oregon in June 2022, the first known case on the West Coast. Because ash trees are common in parks, streets, yards, wetlands, and along

waterways, their loss will have wide-reaching effects on health, environment, and economy. Properly treating individual ash trees with insecticides is the only way to protect them from an EAB infestation.

Treatment ensures that an established ash tree can

Continued on Page 19

### Table 1: Common Insecticides Used to Control Emerald Ash Borer (EAB)

Application Method	Active Ingredient	Application Frequency/ Timing	Effectiveness	Nontarget Species Impact	Pesticide Applicator License Required?
Injection benzoa  Azadira	Emamectin benzoate	Once every 2-3 years in spring*	Excellent, most effective treatment option	Low, if properly applied	Yes
	Azadirachtin	Once every 1-2 years in spring	Very good, varies by pest pressure	Low, if properly applied	No
	Imidacloprid (N)	Once every 1-2 years in spring	Inconsistent	Low, if properly applied	Yes
Trunk Spray	Dinotefuran (N)	Once per year in spring <sup>1</sup> °	Very good	Low to moderate if properly applied	No
Drench	Dinotefuran (N)	Once per year in spring1*	Inconsistent	Moderate to high	No
	Imidacloprid (N)	Once per year in spring <sup>1</sup> °	Inconsistent	Moderate to high	Yes
Cover Spray	Bifenthrin, Spinosad, Cyfluthrin	Two applications 4 weeks apart in late spring*	Fair	Moderate to high	Yes - Bifenthrin and Spinosad No - Cyfluthrin

(N) - Neonicotonoid | + Applied after trees have leafed out | \* Spinosad takes only one application per year Full list of approved EAB treatments in OR: oregon\_gov/oda/shared/Documents/Publications/IPPM/Pesticides-EABList.pdf

### **EAB Preventative Treatments**

#### Continued from Page 18

continue to provide benefits for many years to come, such as shade, air and stormwater filtration, wildlife habitat, and value to a property or neighborhood. It is best to treat ash trees before they become infested with EAB. However, treatment during early stages of an EAB infestation can also be effective if a tree hasn't lost more than 30 percent of its canopy. Healthy and large ash trees (≥6" diameter) are the best candidates for treatment because they have the highest chance of survival and because they provide benefits that cannot be readily replaced by a newly planted tree. Given current technology, an ash tree must be treated for the rest of its life to keep it protected from EAB, because EAB remains in the landscape indefinitely.

Treatment is the least expensive option in responding to EAB, at least in the near term. Costs vary by product and application method, but generally a tree

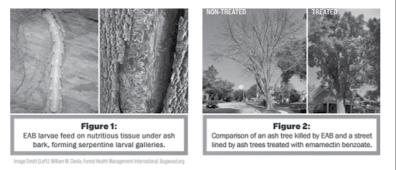
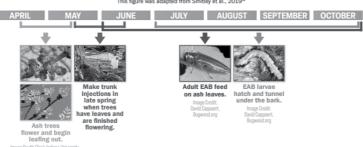


Figure 5: Timing for Systemic Trunk Injections Relative to Seasonal Ash Tree & EAB Cycles

This figure was adapted from Smitler et al., 2019<sup>14</sup>



can be treated for about 20 years before the financial cost is equal to that of removing and replacing a healthy tree. A certified arborist can help assess whether an ash tree is a good candidate for treatment. The most effective treatment option for protecting ash trees from EAB

is systemic trunk injection of emamectin benzoate (see page 2 and Table 1). This, along with many other EAB treatment options, may only be administered by a licensed pesticide applicator (see Table 1). Check your local laws and regulations when selecting a treatment method.

#### **EAB Insecticide Treatments fact sheet**

chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.oregon.gov/odf/forestbenefits/Documents/eab-treatment-fact-sheet 2024.pdf

#### **ODA Insect Pest Quarantine Alert**

chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.oregon.gov/oda/programs/IPPM/SurveyTreatment/SiteAssets/Pages/EmeraldAshBorer/Permanent%20%20EAB%20Quarantine%20Flyer.pdf

#### **EAB** in Oregon: Management Action Dashboard

https://www.arcgis.com/apps/dashboards/e6ff6b60f63b4c489cdee61315a85535



Join OSWA & OTFS to celebrate family forests at the 2024 Family Forest Convention on Thursday, June 13, noon through Saturday, June 15, 3 p.m., at Boulder Falls Inn, 605 Mullins Dr, Lebanon, OR 97355

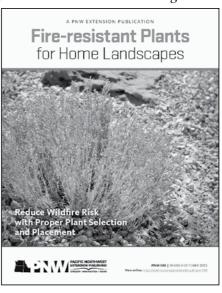
The focus is Keeping Family Forests Healthy - Tours, talks, socializing with woodland family and friends. Tree Farmer of the Year Tour at Oak Basin Tree Farm on Saturday.

Visit owsa.org for more information and to register.

# Protecting Family, Home and Community

Fires are a natural part of the Pacific Northwest's everchanging ecosystem. As people continue to live and build in fire-prone landscapes, they must take steps to protect their lives, homes, properties, and communities. These safeguards

are needed in rural, suburban, and urban environments, which are all prone to wildfire devastation. One way to lower fire risk is to create a defensible space around your home. The Home Ignition Zone, or HIZ, is defined as the home itself and everything around it out to 100 feet (out to 200 feet on steeper slopes). Reduce potential fuel materials within the HIZ to create gaps and slow the spread of any potential wildfires toward your home.



Fire-resistant Plants for Home Landscapes - Reduce Wildfire Risk with Proper Plant Selection and Placement PNW 590, is a publication by Amy Jo Detweiler, Stephen Fitzgerald, Ariel Cowan, Neil Bell and Thomas Stokely, that will help you design your landscape with HIZ in mind. The publication offers suggestions for fire-resistant plants and other resources to give you good defensible space and the best chance to save your home in a wild fire.

https://extension.oregonstate.edu/catalog/pub/pnw-590-fire-resistant-plants-home-landscapes

# South Valley Field Crop Notes

Continued from Page 17

#### cutworms **Clover**

- Sweep white clover fields for the clover seed weevil. Treatment is recommended if you find 2 or more weevils per straight line sweep. In the pre-bloom stage, treat with a Malathion product. This can be followed by a Vantacor treatment at full bloom. The economic threshold for Vantacor treatment is 3 larvae per 30 inflorescences, extracted with a berlase funnel. Bifenthrin products are not recommended due to insecticide resistance.
- Optimal plant growth regulator timing for red clover is at stem elongation, at 8-10 inches of regrowth.

#### Meadowfoam

• Move beehives into meadowfoam fields when 5-10 percent of plants begin to bloom. Pollination period is typically 2-4 weeks.

# **Linn Soil and Water Conservation District**

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



# Preventing Water Pollution in our Waterways

**By Kevin Seifert,** Linn SWCD

The Oregon Water Quality Management Act was passed in 1993 with the input and support of the agricultural industry and the Oregon Department of Agriculture (ODA). This moved the power set forth from the Clean Water Act of 1972 from the Department of Environmental Quality (DEQ) into the Department of Ag in the State of Oregon.

Working in partnership with 45 Soil and Water Conservation Districts, ODA identified 38 watershed-based Management Areas in the State. The one that affects most of Linn County is the South Santiam Ag Water Quality Management Plan. This program is designed to help anyone engaged in agricultural activities to prevent water pollution.

Through research and evaluation of Total Maximum Daily Loads (TMDL), we look at things that could affect water quality. The highest level of concern usually pertains to salmonoid species, which are affected by excessive sediments, nutrients, stream temperature, and bacteria. Most of these concerns are harmful to fish and humans.

Examples of pollutants would be:



A field of no-till wheat to reduce erosion



Streamside fencing to reduce erosion from cattle

- Sediment from eroding croplands
- Run off from farm roads
- Misapplied pesticides
- Nutrient run off from animal wastes and fertilizers
- Bacteria from animal manure
- Warmer stream temperatures from inadequate streamside vegetation

It is up to each landowner to ensure that his or her operation does not pollute Oregon's waters. Most agricultural operations are already in compliance. However, ODA investigates complaints or ODA identified concerns associated with pollution from agricultural activities.

The Area rules have been

reviewed by agricultural producers and most of the violations can be easily worked through with some guidance from the Department of Agriculture or Technical providers such as your local Soil and Water Conservation District and/or our federal partners at the U.S. Department of Agriculture.

Farmers and ranchers in Linn County are doing good things to help protect water quality.

- Livestock operations use rotational grazing to limit sedimentation run off.
- Storing manure in manure storage facilities to limit run off.
- Nurseries monitoring water inputs and fertilizer inputs in

- their can yards.
- Row Crop operators rotating crops and using cover crops to reduce erosion.
- Dryland farmers using no-till or reduced tillage to minimize soil erosion.

Streamside vegetation activities probably have the most benefit to water temperature, which is a concern on some of the streams in Linn County. Agricultural activities must allow for establishment and development of the vegetation expected to grow along a stream naturally given the soil type, elevation, and climate.

Healthy streamside vegetation provides shade, stabilizes banks, and filters nutrients and sedimentation. This also provides fish and wildlife habitat. These area needs some improvement throughout Linn County. Removing grazing in these areas till late in the season can help dramatically improve establishment of vegetation, and also limiting wildfire fuel loads late in the season.

Technical Assistance to help you meet the goals of the State and needs of your property are available at no charge through many entities including OSU Extension, USDA, Oregon Department of Agriculture, Watershed Councils and local Soil and Water Conservation Districts.

We're Here to Help You

Live a Flavorful Life

Vegetable & Herb Starts | Fruit Trees & Berry Plants PNW Native Plants | Water Plants | Houseplants Pottery | Organic Soil & Fertilizer | Beekeeping Supplies

