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Extension Pitching in for Pollinator Health

By Mitch Lies, GROWING Editor

Last year, Linn/ Benton County Master Gardener Richard Little taught pollinator health to hundreds of fellow master gardeners across the state. Given that those he teaches will share his instruction again and again, Little surmises that Oregon State University Extension's Master Gardener Program is having a significant effect on pollinator health in Oregon.

"I would say gardeners are planting more of the native bee habitat," Little said. "People are realizing they can make a difference and that they do have an impact on the bee population."

Little's work is one facet of OSU Extension Service's multi-pronged approach to enhancing pollinator health.

Today, the Extension Service, along with the Oregon Department of Agriculture, is leading the Oregon Bee Project, which works to increase awareness of pollinator health. OSU's Pollinator Health Extension Specialist Andony Melathopoulos provides



Participants check out a display in last year's BEEvent, held the first weekend of March each year in Albany. The annual event draws numerous vendors and non-profit groups focused on pollinator health.

education on campus and performs outreach to citizen groups and agricultural organizations. The Linn County Master Gardener Program's BEEvent Pollinator Conference, held the first Saturday in March each year, provides participants hands-on instruction for creating pollinator-friendly landscapes. And citizen-tocitizen communication on pollinator health conducted through the statewide Master Gardener program is flourishing like never before.

"I think there is a lot more interest in this issue and in my classes, because people realize, 'I do have an impact, but I don't always understand what that impact is,'" Little said.

Little, an entomologist by training who retired as a deputy agriculture commissioner from California, said home gardeners don't need an encyclopedic knowledge of bees to enhance pollinator health. Simply by planting a diversity of plants that bloom at different times of year, a home gardener can pitch in to bee health, and improve their garden, along the way.

"I tell people that you need to have blooms from frost to frost," Little said, "and you need to have different sizes of plants, different shapes and cluster them. That is the first step in attracting bees to your yard that will become pollinators for the food and other stuff you grow."

In addition to providing pollen over an extended period of time, an array of plants attracts an array of pollinators, Little said, which can be essential to a garden's success.

"Say you want to grow some tomatoes," Little said. "You may see honeybees in your yard and think you're good to go. Well, that is not going to help your tomatoes. You need bumblebees, because honeybees don't pollinate tomatoes.

"A tomato plant needs buzz pollination, and a honey bee can't deliver that," he said.

"What you need is a variety of different pollinators for your different fruits and vegetables," he said.

"Bees come in all sorts of different shapes and sizes, and their behavior

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Who We Are

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

Office locations and hours

The Benton County office is located at 4077 SW Research Way in Corvallis. Office hours are 8 a.m. until 5 p.m. Monday through Friday. Telephone: 541-766-6750. Fax: 541-766-3549. http://extension.oregonstate.edu/benton.

The Linn County office is located at 33630 McFarland Rd (on the corner of Old Highway 34 and McFarland Road), in Tangent. Office hours are from 8 a.m. to 5 p.m., Monday through Friday. Phone 541-967-3871. Seed Certification phone 541-967-3810. http://extension.oregonstate.edu/linn.

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Pack Her Up and Ship Her Out: Look Who's Retiring.

Join us for Robin Galloway's retirement Open House April 25, 5:30-7 p.m., at the Linn County Fair and Expo Center, 3700 Knox Butte Rd, Albany. Come to wish Robin well as she ships off to her next adventure. There will be lots of entertainment and good times. We hope to see you there!



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Start at Home to Help Fight Foodborne Illness

By Barb Ingham

Note: This research was conducted in Europe, but it certainly applies to US food handling practices. Too often we assume that what we do in our home kitchen is safe and that we would never make our own family sick. It looks like that belief may be wrong.



European Union member countries recently released data on foodborne outbreaks in Europe in 2016. Results showed that 205 of the 521 "strong-evidence" outbreaks, or 39 percent, were caused by the consumption of food in private homes. The number of outbreaks linked to food consumed in homes far exceeded the number of outbreaks linked to food in restaurants, 25 percent. Other communal settings such as lunchrooms in schools, nursing homes, and hospitals were found to be responsible for 87 outbreaks, or 16 percent of the total number.

Outbreak investigations showed that the major sources of disease were meat and meat products, in particular poultry meat, which accounted for 126 outbreaks, or 24 percent. Mixed food and buffet meals were responsible for 85 outbreaks, eggs and egg products for 72 outbreaks, fish and fisheries for 70 outbreaks, and milk and milk products for 45 outbreaks.

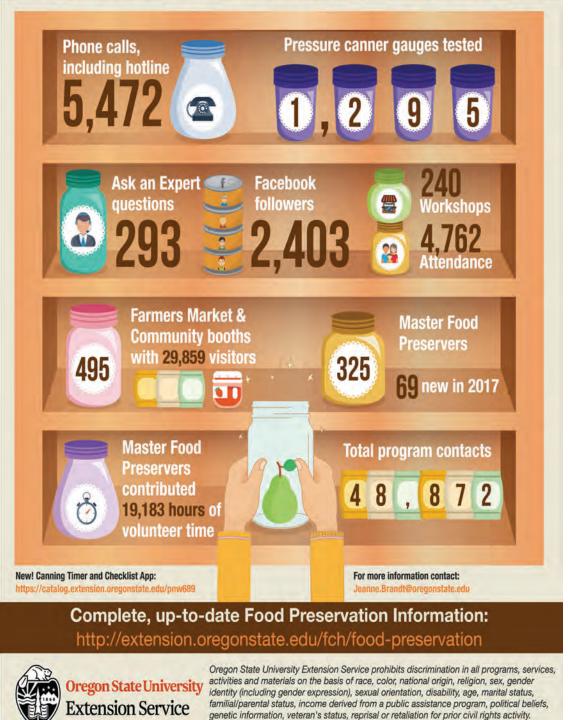
Although vegetables, fruits, cereals, sprouted seeds, herbs and spices and their products made a much less significant contribution to the foodborne illness outbreak situation in Europe, with a total of 34 outbreaks, they should not be ignored. Fresh produce has been increasingly linked to foodborne illness outbreaks in the United States, as well as in Europe.

Overall, Salmonella was the dominant pathogen reported by European Union Member States. Salmonella is also one of the top 5 pathogens in the United States linked to reported foodborne illnesses. With most of the illnesses in the EU report linked to food eaten at home, what can you keep your family safe from Salmonella?

- Avoid eating high-risk foods, including raw or lightly cooked eggs, undercooked ground beef or poultry, and unpasteurized milk
- Keep food properly refrigerated before cooking
- Clean hands with soap and warm water before handling food. Clean surfaces before preparing food on them.
- Separate cooked foods from ready-to-eat foods. Do not use utensils on cooked foods that were previously used on raw foods and do not place cooked foods on plates

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OREGON STATE UNIVERSITY EXTENSION SERVICE 2017 FOOD PRESERVATION PROGRAM



(Not all prohibited bases apply to all programs)

Backyard poultry and your health |

Owning backyard chickens and other poultry can be a great experience. However, live poultry, such as chickens, ducks, geese, and turkeys, often carry germs such as *Salmonella*. Live poultry, including those cute spring chicks, can carry **Salmonella** bacteria while still appearing healthy and clean. In 2017, poultry was responsible for 10 Salmonella outbreaks in the United States, sickening more than 1,100 people across 48 states and killing one.

Here are some steps you can take to stay healthy around live poultry.

- Always wash your hands with soap and water right after touching live poultry or anything in the area where they live and roam.
- Adults should supervise handwashing by young children.
- Use hand sanitizer if soap and water are not readily available.
- Don't let live poultry inside the house, especially in areas where food or drink is prepared, served, or stored.
- Set aside a pair of shoes to wear while taking care of poultry and keep those shoes outside the house.
- Don't let children younger than 5 years, adults older than 65, or people with weakened immune systems from conditions such as cancer treatment, HIV/AIDS, or organ transplants, handle or touch chicks, ducklings, or other live poultry.
- Don't eat or drink in the area where the birds live or roam.
- Avoid kissing your birds or snuggling them, then touching your mouth.
- Stay outdoors when cleaning any equipment or materials used to raise or care for live poultry, such as cages or feed or water
- containers.
 Buy birds from hatcheries that participate in the U.S. Department of Agriculture National Poultry Improvement Plan (USDA-NPIP).



Safe Handling Tips for Eggs from Backyard Poultry

The shell of eggs may become contaminated with *Salmonella* through the laying process, once the eggs are laid, through poultry feed or bedding.

To keep your family healthy, follow the tips below when collecting and handling eggs from a backyard flock:

- Always wash your hands with soap and water after handling eggs, chickens, or anything in their environment.
- Maintain a clean coop. Cleaning the coop, floor, nests and perches on a regular basis will help to keep eggs clean.
- Collect eggs often. Eggs that spend a significant amount of time in the nest can become dirty or break. Cracked eggs should be thrown away.
- Eggs with dirt and debris can be cleaned with fine sandpaper, a brush or cloth. Don't wash eggs, because colder water can pull bacteria into the egg.
- Refrigerate eggs after collection.
- Cook eggs thoroughly. Raw and undercooked eggs contain *Salmonella* bacteria that can make you sick.
- Know the local regulations around sale of eggs. If you sell eggs, it is important to follow local licensing requirements. http://www.oregon.gov/oda/programs/foodsafety/fslicensing/pages/eggs.aspx

Source: https://www.cdc.gov/features/salmonellapoultry/

Unlocking a Healthier You in 2018

By Anne Gaddy, OSU dietetic intern

March is National Nutrition month. The word fat makes most people cringe, but, when eaten correctly, this often-disputed macronutrient has a variety of health properties. Dietary fats are essential to give your body energy and to support cell growth. Fats help protect your organs and help keep your body warm, they help your body absorb various nutrients and produce important hormones. Your body definitely needs fat, however it is crucial that we are aware of the different types of fats, how much of what kinds we should be consuming, and common misconceptions around fats.

TYPES OF FATS:

- **Saturated fats** are found in the greatest amounts in coconut and palm kernel oils, in butter and beef fats, and in palm oil. They are also found in other animal fats, such as pork and beef. Usually solid at room temperature.
- **Trans fats** are found primarily in prepackaged snack items such as cakes, chips, and cookies (listed on nutrition label as "partially hydrogenated oil"). Considered a "solid fat"



even though it may or may not actually be solid at room temperature.

- Polyunsaturated fats are found in greatest amounts in sunflower, corn, soybean, and cottonseed oils, walnuts, pine nuts, sesame seeds, sunflower seeds, pumpkin seeds, and flax seeds. Omega-3 fatty acids are a type of polyunsaturated fat that's found in seafood, such as salmon, trout, herring, tuna, and mackerel, and in flax seeds and walnuts. Usually liquid at room temperature.
- Monounsaturated fats are found in greatest amounts in olive, canola, peanut, sunflower, and safflower oils, and in avocados, peanut butter, and most nuts. Monounsaturated fats also are part of some animal fats such as those found in wild game. Usually liquid at room temperature.

RECOMMENDATIONS CURRENTLY INCLUDE:

- Less than 10 percent of daily calories from saturated fats (200 calories in a 2000 calorie/ day diet)
- Approximately 30 percent of daily calories from fats (660 calories in a 2000 calorie/day diet)

Eating foods containing fat is absolutely part of a healthy diet. Remember to choose foods that provide good fats (monounsaturated and polyunsaturated fats) and balance the amount of calories you eat with the amount of calories you burn. A word of caution – don't go overboard, even on healthy fats. All fats, including the healthy ones, are high in calories, so consume monounsaturated and polyunsaturated fats instead of other types of fat, NOT in addition to them.

Coconut oil:

There has been much controversy regarding the consumption of coconut oil for potential health benefits. These supposed health benefits range from skin health to digestive health to increased healing. Unfortunately, none of these claims have been conclusively found in scientific research. At this point in time, it is still recommended to treat coconut oil as the saturated fat that it is (like butter), and to only use sparingly.

Caring for Your Home

Whew! Made it through winter. Now it's time for some spring cleaning and checkups for your home. If you cannot remember the last time you completed any of these small tasks, then it is already past time.

To help you remember when you completed these tasks, write on the filters or frames or place a piece of tape on the appliance or inside a nearby cabinet door and write the date there.

HOUSEHOLD SPRING CLEANING AND CHECK-UP CHECKLIST:

- Smoke detectors and Co2 Detectors: Dust, check batteries and test alarms
- Heating system: Change filters, clean vents and duct work you can easily reach with a vacuum.
- Roof and gutters: No need to climb a ladder. Use a cell phone on a selfie stick, then view on your computer.
 Look for signs of leaks, loose shingles, moss growth, accumulated debris. Check the underside of the roof for any signs of leaks or mold.
- Crawlspace under house: check for water, mold, rodents and insect infestations. The cell phone camera on a selfie stick works for this view, too. Use the flash to see into dark corners.
- Landscape and trees: Trim back any limbs that have contact with your house before leaves grow.
- Drainage around your house: Channel water away from the house from any downspouts or low spots so that there is no standing water near the house.
- Refrigerator: Interior: Remove all the food, wash the interior of the refrigerator with a baking soda/water solution, rinse and dry all surfaces. Carefully wipe the door gaskets with a damp cloth. Check for cracks or tears in the gasket.

Check the age of all the food in your refrigerator. Write the date on the label of all condiments so the next time you clean you will know how long that product has been open.

Exterior: Unplug the refrigerator. Remove the grill at the base of the refrigerator and scrub with warm soapy water. Check for a drip pan. If there is one, carefully remove and empty it then clean it with warm soapy water.

- Locate the refrigerator coils. Keeping these free of dust and debris will help your refrigerator run more efficiently and extend the life of the motor. They may be behind or under the refrigerator. *Make sure refrigerator is unplugged*. Vacuum these gently with the crevice or brush attachment on your vacuum. If the fan is accessible, vacuum or wipe that as well.
- Dishwasher: Remove racks. Use a scrub brush and warm, soapy water to remove any debris in drains or holes in spinning arms. Wipe edges of door, hinges, and door seal with warm soapy water.
 Toaster: Removing crumbs
 - regularly will reduce likelihood of a fire and keep insects and mice away. Unplug toaster. Hold over the sink or garbage can. Remove crumb tray, empty and wash the tray with warm, soapy water, dry before replacing in toaster. Gently roll the toaster so that any crumbs trapped inside will fall out, do not shake the toaster. A soft brush may help remove any crumbs stuck to the interior of the toaster. Be careful not to damage the exposed heating wires inside the toaster.
 - Garbage disposal: The film that builds up on the inside of the disposal is teeming with bacteria. Make sure the disposal is off and cannot be turned on during this procedure. Use a longhandled angled brush and a chlorinated cleansing powder to scrub the inside walls of the disposal and the underside



of the rubber splash guard. Allow the cleanser to remain in place (don't rinse) until the next time the disposal is used. This gives the chlorinated disinfectant time to kill the bacteria. This should be done at least once a month.

- Bathroom and kitchen fans: Make sure power is off, remove the cover or screen. Vacuum dust or lint collected in fan frame. Wipe fan with damp, soapy cloth. You may need to use a toothbrush to get debris out of corners. Dry before replacing cover.
- **Dryer**: Lint build-up in dryers causes thousands of house fires each year. Start by finding the manual for your drver. Look online for a copy if you do not have one. The manual will include specific instructions for opening the dryer to access the interior and cleaning the vent tube. It may require opening the top or front panel. Empty the lint filter each time you dry a load of laundry. Clean inside and around the vent cover where it emerges from your house. Be sure there is steady airflow from the vent when the drver is operating, indicating that there are no blockages. Clean around behind the dryer. That is where it pulls in air for drying and can also pull in dust and debris.
- Washing machine: Check hoses to make sure they are tightly attached and are not cracked or kinked. Wash all accessible parts with warm soapy water. It may take a toothbrush to get into some corners. Rinse and dry. Make sure your working fire

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Make sure your working fir extinguisher is in a handy place.

Become a Master Food Preserver Volunteer

There is no prior experience or knowledge necessary. Participants in the Master Food Preserver training program learn all aspects of food preservation, then spend time sharing that newfound knowledge with others at farmers markets and in community classes. They learn alongside friendly people with the same interests, so it's a great way to make connections with others interested in preserving our local harvests, reducing food waste, preparing for emergencies, and being creative.

The 8-week training will be held from 9 a.m. to 4 p.m. on Tuesdays, starting April 3. Cost will be \$125 to cover supplies used in class. Classes are held at the Linn County Extension Office in Tangent

For more information about the program and to receive an application, contact Jeanne at 541-730-3544 or email jeanne.brandt@oregonstate.edu.

For community members who want to learn more about food preservation but do not wish to volunteer, a variety of hands-on classes will be offered during the summer and fall. Watch future editions of GROWING for a schedule and registration information.

Extension Programs at Lebanon Senior Center

Free Extension programs at the Lebanon Senior Center are open to all community members. Please let us know you plan to attend so enough materials and samples can be prepared. Call 541- 967-3871 to register.

THE PROGRAMS INCLUDE:

March 29 Tomatoes. Tips for successful tomato gardening and preserving your tomato harvest. Review of varieties of tomatoes to choose from as you plan your garden and ideas for using and preserving even the green ones that you grow.

April 26 Growing Herbs and Flavored Vinegars. Easy to grow in pots or gardens, herbs provide healthy flavor to your everyday meals. Flavored vinegars are a popular way to use herbs to infuse flavor into dishes you prepare.

Classes are held from 10 a.m.* to noon at Lebanon Senior Center, 80 Tangent St, Lebanon, OR 97355.

*(note the time change from previous programs)

Foodborn Illness continued from Page 3

where raw foods once were unless it has been cleaned thoroughly.

- Cook foods to a safe internal temperature. Use a meat thermometer to make sure foods are cooked to a safe temperature.
- Chill foods promptly after serving and when transporting from one place to another.
- Wash your hands after contact with animals, their food or treats, or their living environment

For more information on preventing food poisoning linked to Salmonella, visit FoodSafety.gov.



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Community Horticulture

BCMGA Needs Help Finding and Funding a Greenhouse

The Benton County Master Gardeners Association (BCMGA) is searching for a new greenhouse.

Almost all of the thousands of vegetables we sell during our annual Plant Sale in May are raised in a greenhouse, and for the past several years Philomath High School has been good enough to share their greenhouse with us. Now the high school's plans have changed and after this year, we'll need to find a new location entirely.

In the short term, to carry us over for the next two or three years, we hope to find an existing, unused greenhouse we can use for little or no cost while we raise money and search for a location to buy and build. So, if you have, or know of an existing greenhouse we can use, please notify Pat Wray at patwray@comcast.net.

For the longer term, we need help identifying potential permanent locations. The preferred location will be within six miles of Corvallis, be easily accessible by car, have enough

— MARCH-APRIL 2018



space for the greenhouse, parking, and supplementary buildings (1-2 acres) and access to electricity and water.

We presently have a little more than \$34,000 in our greenhouse account and intend to initiate a fundraising effort to get us into the \$50,000 range necessary to be eligible for major grant funding. Total cost of \$200,000 is probably required to purchase land and build a greenhouse, unless we can find a good-hearted person who recognizes the immense benefit Benton County residents derive from OSU Extension Master Gardener activities and wants to donate the land for a wonderful cause.

If you are that person (or know him or her) please put us in touch. If you'd like to get in on the ground floor with contributions please send your check or money order to BCMGA, 5060 SW Philomath Blvd. #197, Corvallis, OR 97333. Please specify that your donation is targeted for the BCMGA Greenhouse Fund. Your donations are fully tax deductible and you'll receive the necessary Non-profit 501 (c) (3) supporting paperwork.

COMMUNITY COLLEGE

March-April Gardening Calendar for Western Oregon

Planning

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

Maintenance and clean up

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

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Agricultural Business Management • Agricultural Sciences Animal Science • Animal Technology Animal Technology: Horse Management Crop Production • Equine Science Horticulture • Profitable Small Farms Veterinary Assistant linnbenton.edu/programs

http://extension.oregonstate.edu/benton

Mason Bees Go to Work Early in the Season

By Kim Pokorny

For mason bees, the wait for their first meal is a long one, nine months if it's a day.

There's no TV, no smartphone, not even a book to while away the time as these solitary bees hang out in their tight cocoons waiting for the cool temperatures of early spring to break them out of lethargy, to convene at the floral banquet waiting for them among the branches of fruit trees.

And because honeybees and other pollinators haven't made an appearance yet, there's more sweetness for the native mason bees.

"Mason bees fill a spot in the season when other pollinators like honeybees are not out," said Brooke Edmunds, a horticulturist with Oregon State University Extension Service. "They're really important for fruit trees, especially in cool, wet areas."

After emerging in March, the small, bluish bees start foraging for food for the next generation and combing for suitable nesting sites.

"They're solitary, non-aggressive bees, so they're very different from honeybees; they don't form hives," said Edmunds, author of the OSU Extension publication Nurturing Mason Bees in Your Backyard in Western Oregon.

Instead, mason bees, most commonly the native blue orchard mason bee (Osmia lignaria), look for cracks and crevices that fit their need for small spaces where they crawl in and lay eggs. They might find the appropriate spots in wood bored by other insects, siding on buildings or nesting blocks filled with tubes containing cocoons.

As a way of introducing new mason bee populations to their yards, gardeners can purchase tubes of



Attract mason bees to your garden with a few additions.

cocoons containing adult bees – and should do so soon. Keep them in the refrigerator until late February or early March. Then insert cocoons in homemade or purchased nesting houses and hang out in the yard, preferably in morning sun under an eave so that it's sheltered from rain and wind.

You can get elaborate and remove the cocoons each fall, clean them of frass and mites, store them in the refrigerator over winter. Or choose the easy way; hang empty tubes and wait for the bees to find them and lay their eggs. Or you can buy new cocoons each year. Instructions for each method are included in Edmunds' guide.

By far the mason bee's preferred food comes from early-blooming fruit trees like apples, pears, plums and cherries. So, plant one or two to attract them to your garden to pollinate other plants. If you've got a small lot, choose columnar or dwarf cultivars.

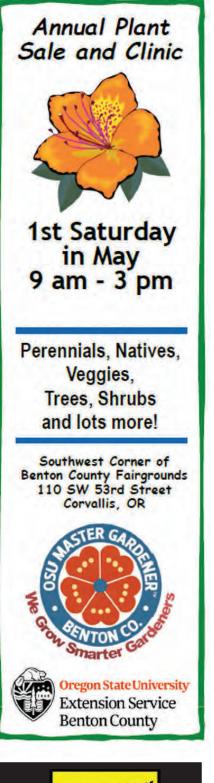
Though not as dear to the bee's palate, other plants qualify to attract them. Look to crabapples, flowering currant, elderberry, huckleberry, forsythia, Pieris and Oregon grape. They'll head straight for dandelion, Edmunds said, which are in good supply in spring.

Since mason bees travel only short distances, about 200-300 feet, their favorite plants need to be planted near nesting spots or away they'll go. You'll also need to provide small patches of clay mud, something in abundance in the Willamette Valley. But if you've covered your soil with mulch, it's a good idea to push away a little bit to create a mud pool for them. If the soil dries out, give it a misting. Alternately, put a tray out and fill it with moist clay soil.

The female mason bees use the clay soil to wall up their eggs, which are deposited in the tubes or crevices with nectar and pollen they've rolled into little balls, Edmunds explained. They'll continue to alternate wall, food, egg and wall until they come to the end of the tube or crevice and then wall it up for the next nine months. The eggs develop into small larva that spin cocoons where the adults form. Come spring when temperatures rise to 50 to 60 degrees, the adults break through the cocoon, chew through the clay and fly out to start the process all over again.

In their short three-month life, these single-minded bees do an important job for gardeners. Most significantly they efficiently pollinate prized fruit trees, giving a markedly increased yield. But consider a more altruistic reason, Edmunds said. Mason bees, like other beneficial insects, help diversify the garden, leading to a healthier backyard ecosystem, healthier humans and a healthier planet.

Source: Brooke Edmunds





Amazing Alsea Riverfront Acreage

22.6 acres w/ legal building site and manufactured home ready for replacement. Previously used for agricultural crop w/ lots of future possibilities. Deluxe 48x48x16 shop w/ oversized doors included on site w/ adjacent power. WVMLS# 722901

\$325,000





Register for a *free* six week beginning vegetable gardening course

Seed to Supper is a free six-session beginning gardening course **designed for adults living on a low-income.** Classes are taught by Master Gardeners; topics include: garden site & soil development, planning your garden, planting your garden, garden maintenance, and harvesting.

Harrisburg HART Center: Mondays & Thursdays from 6:30pm-8:30pm April 2 te April 19 Albany Immanuel Church Thursdays from 6:30pm-8:30pm March 8 te April 12

For location details, schedules and registration information visit: extension.oregonstate.edu/linn/ seed-supper or call 541-967-3871

A big thank you to Benton County Master Gardener, Alan Taylor for leading a group in a Grape Pruning Workshop at Lewis Brown Farm in February. Our Master Gardener volunteers provide valuable skills to extend the reach of the Home Horticulture programs in Linn and Benton Counties. We couldn't reach the number of folks that we do without their help - kudos!



Calendar continued from Page 6

- Prune spring-flowering shrubs after blossoms fade.
- Fertilize caneberries using band fertilizer, broadcast fertilizer or a complete fertilizer or manure.
- Allow foliage of spring-flowering bulbs to brown and die down before removing.
- Apply commercial fertilizers, manure, or compost to cane, bush (gooseberries, currants, and blueberries), and trailing berries.
- Cut back ornamental grasses to a few inches above the ground, in early spring.
- Cover transplants to protect against late spring frosts.
- April Optimum time to fertilize lawns. Apply 1 pound of nitrogen per 1,000 square feet of lawn. Reduce risks of run-off into local waterways by not fertilizing just prior to rain, and not over-irrigating so that water runs off of lawn and onto sidewalk or street. Optimum time of year to dethatch and renovate lawns. If moss was a problem, scratch surface prior to seeding with perennial ryegrass.
- April Prune and shape or thin spring-blooming shrubs and trees after blossoms fade.

Planting/propagation

- Divide Hosta, daylilies and mums.
- Use stored scion wood to graft fruit and ornamental trees.
- Plant insectary plants (e.g. Alyssum, Phacelia, coriander, candytuft, sunflower, yarrow, and dill) to attract beneficial insects to the garden. For more information, see Encouraging Beneficial Insects in Your Garden (PNW550).
- If soil is dry enough, prepare vegetable garden and plant early cool-season crops (carrots, beets, broccoli, leeks, parsley, chives, rhubarb, peas, and radishes). Plant onions outdoors as soon as the soil is dry enough to work.
- Plant berry crops (strawberries, raspberries, blueberries, blackberries, currants, gooseberries, and other berry-producing crop plants).
- April Plant gladioli, hardy transplants of alyssum, phlox, and marigolds, if weather and soil conditions permit.
- April is an ideal time to start a vegetable garden. Among the vegetables you can plant, consider: Broccoli, Brussels sprouts, cabbage, carrots, cauliflower, chard, chives, endive, leeks, lettuce, peas, radishes, rhubarb, rutabagas, spinach, and turnips.

Pest monitoring and management

- Spray trees and shrubs for webworms and leafrollers, if present.
- Protect new plant growth from slugs. Least toxic management options include barriers and traps.
- Learn to identify the predatory insects that can help keep aphids and other pests under control.

Continued on Page 17

Groundwater Protection Education



Just as you check your furnace or smoke detector batteries seasonally, spring is a good season to have an annual water well checkup before the peak water use season begins, according to the National Ground Water Association (NGWA).

Chrissy Lucas 541-766-3556

chrissy.lucas@ oregonstate.edu

WHY IS IT A GOOD IDEA TO HAVE MY WATER WELL CHECKED ANNUALLY?

An annual checkup by a qualified water well contractor is the best way to ensure problem-free service and quality, safe to drink water.

Also, preventative maintenance usually is less costly than emergency maintenance, and good well maintenance — like good car maintenance — can prolong the life of your well and related equipment. NGWA further recommends you test your water whenever there is a change in taste, odor, or appearance, or when the system is serviced.

The OSU Extension Service also recommends having a well test for coliform bacteria and nitrate every one to three years, or after a major weather event, such as flooding. Coliform bacteria tests have to be done at a private lab, and your local office has a list of certified labs serving the area. Free nitrate screening is available at the OSU Polk, Benton, and Linn County Extension offices Monday through Friday 8 a.m. to 5 p.m. Bring in 1/2 cup of untreated well water in a clean container; be prepared to leave the sample (and sample container) if staff is away from the office.

SCHEDULE YOUR ANNUAL WATER WELL CHECKUP

Wells can provide highquality drinking water, and about half the U.S. population receives its drinking water from wells. But with well ownership comes the responsibility of keeping the water well in good working order. A check of your well by a qualified water well contractor may include:

- A flow test to determine system output, along with a check of the water level before and during pumping (if possible), pump motor performance (check amp load, grounding, and line voltage), pressure tank and pressure switch contact, and general water quality (odor, cloudiness, etc.).
- A well equipment inspection to assure it is sanitary and meets local code.
- A test of your water for coliform bacteria and nitrates, and anything else of local concern. Other typical additional tests are those for iron,

manganese, water hardness, sulfides, and other water constituents that cause problems with plumbing, staining, water appearance, and odor.

As a reminder, we also recommend that well owners:

- Keep hazardous chemicals, such as paint, fertilizer, pesticides, and motor oil far away from your well, and maintain a "clean" zone of at least 50 feet between your well and any kennels and livestock operations.
- Maintain proper separation between your well and buildings, waste systems, and chemical storage areas.
- Periodically check the well cover or well cap on top of the casing (well) to ensure it is in good repair and securely attached. Its seal should keep out insects and rodents.
- Keep your well records in a safe place. These include the construction report, and annual water well system maintenance and water testing results.

FOR MORE INFORMATION, CALL:

Chrissy Lucas, Groundwater Protection Education Program Assistant, 541-766-3556 or Chrissy.Lucas@ oregonstate.edu

Check it out



Rural Living Basics Class: Living with Your Well and Septic System

To learn more about your drinking water well and septic system to protect family and animal health, your property investments and the safety of the groundwater resource, plan to attend one of the upcoming Rural Living Basics classes

Each class is free and open to all. However, pre-registration is appreciated due to classroom space constraints. To register, call Chrissy at 541-766-3556 or send e-mail to Chrissy.Lucas@ oregonstate.edu

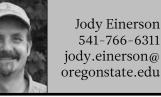
- Tuesday, March 6, 6 8:15 p.m. at the Silverton Grange Hall, 201 Division St NE in Silverton
- Tuesday, March 13, 6 8:15 p.m. at the Polk County Extension Service Auditorium, 289 E Ellendale Ave Suite 301 in Dallas
- Wednesday, April 11, 5:45 8 p.m. at the Polk County Extension Service Auditorium, 289 E Ellendale Ave Suite 301 in Dallas
- Monday, April 16, 6:15 8:30 p.m. at the Corvallis-Benton County Library Main Meeting Room, 645 NW Monroe Ave in Corvallis

Participants in either the class or a community clinic may have their water screened for nitrate by bringing about 1/2 cup untreated well water to class in a clean, water-tight container. Nitrate has been associated with a type of blue-baby syndrome, and there are emerging concerns about additional health problems associated with nitrate in drinking water. The areas at greatest risk for high nitrate in the Willamette Valley are those with well-drained soils on the valley floor. All homes with private wells should be actively monitored for nitrate levels.

For additional information on well water and septic systems, other free Rural Living Basics classes, and nitrate screening events visit the OSU Well Water website at http://wellwater. oregonstate.edu or for more information call 541-766-3556.

Forestry and Natural Resources

Brad Withrow-Robinson 541-766-6750 brad.w-r@ oregonstate.edu





Taking Care of Your Woods: Opportunities to learn

By Brad Withrow-

Robinson, Forestry & Natural Resources Extension Agent, Benton, Linn and Polk Counties

OSU Extension and its partners offer local landowners a variety of ways to learn about your woods. We have a halfdozen events within a short drive this spring.

The Basic Woodland Management Short Course is ideal for anyone who is just starting out taking care of a woodland property, providing a broad introduction to woodland ownership. It is offered in four evening sessions with a Saturday fieldtrip. Topics covered include:

- Getting Started Assessing your property and your site
- What's Going on in Your Woods? - Understanding tree biology and forest ecology

- Taking Care of Your Woods - Tree planting, care for an established forest, weed control
- Getting it Done Safety, timber sale logistics, and laws and regulations.

Oregon Season Tracker (OST) is a citizen science program that gathers information about local weather and seasonal changes. The data collected by OST volunteers helps scientists here in Oregon and elsewhere fill gaps in data and expand the scope of their research, while contributing to the understanding of forest ecology and accuracy of weather forecasting.

Woodland Information Night is offered each year by the Small Woodlands Association. This year's session in Corvallis will feature three speakers talking about "Managing for wildlife



The Basic Woodlands Short course gives practical information about tending a woodland property.

and diversity". For those wondering what forestry will look like in 30-40 years, the 2018 Starker Lecture Series will explore this and ask some of our current leading thinkers to consider what the economic, political, technological and ecological future might look like.

Folks with a young stand of trees between 5 and 15 years old likely are, or should be,



Schoolyard citizen Scientist Melody with rain gauge.

wondering if the trees have room to grow with vigor and resiliency until they reach the size for a thinning harvest, typically around age 25 to 30. We are holding a Thinning Young Stands Field Workshop across the river in Marion County. The workshop features Douglas-fir stands showing results of earlier thinning along with younger plantings needing attention in a low-elevation Willamette Valley tree farm.



A nice stand growing along the edge of the Willamette Valley.

You will learn how to assess the current spacing and condition of your trees and likely outcomes - with and without thinning - to help you weigh the options, depending on your goals.

For details on these events, see below. More is on the way, so be sure to check my website http://extension.oregonstate. edu/benton/forestry/events for information about other events in the area.

Learning in the Woods - Upcoming Events

Woodland Information Night: Managing for wildlife and diversity

Date: Wednesday, March 7

Time: 6:30 -8:30 p.m.

Location: Benton County Library, hosted by the Benton Chapter of OSWA and OSU Extension. Topics and Speakers:

- "Optimizing wildlife habitat in small Woodlands" – Fran Cafferata Coe, Cafferata Consulting
- "Native pollinators in managed forests" Jim Rivers, OSU College of Forestry
- "Growing a diverse forest on your property"-Brad Withrow-Robinson, OSU Forestry & Natural Resources Extension

Oregon Season Tracker citizen science training.

Oregon Season Tracker is a Hybrid class, meaning participants take an on-line training at home, and then attend a local classroom session for skillbuilding and Q&A.

OST Online Spring Training: opens March 1, 2018 (2-3 hr. work on your own schedule). Local OST skills building session: Date: March 15 Location: Dallas Time: 6-8 p.m. Cost: \$40 per individual or family sharing materials. Includes program-approved rain gauge. To register or find trainings in other parts of the state (Lincoln, Washington and Lane Counties) visit the OST website (http://oregonseasontracker. forestry.oregonstate.edu/)

Starker Lecture Series 2018

Forestry in the Age of Artificial Intelligence, presented by Zack Parisa, President and co-founder Silvia Terra Date: Wednesday, March 14 Time: 3:30 p.m. Location: La Sells Stewart Center-C&E Hall Or, watch the lecture on a live video stream here http://live.oregonstate.edu.

Basic woodland management

Extension will be offering the ever-popular Basic Woodland Management Short course this April in two locations, Tangent and Dallas. **Tangent Dates:** Wednesday nights, April 4, 11, 18 and 25

Time: 6:00 to 8:30

Location: OSU Extension office Field Trip Saturday, April 28. OR Dallas Dates: Thursday, April 5, 12, 19, and 26. Time: 6:00 to 8:30 Location: OSU Extension office Field Trip Saturday, April 28. Cost is \$50 for an individual, \$60 for two from the same family sharing class materials. **Registration**

Continued on Page 13



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

Commerical Agriculture Livestock and Forages

Benefits of Belonging to Agriculture and Forestry Associations

By Shelby Filley

Several agricultural and forestry associations are available for producers to join. I think it's extremely important for producers to get connected with at least one association so they do not get left out of anything critical to the business or pleasure of farming and ranching. Too many times someone gets left out of the loop. Don't let it be you.

The benefits of belonging to an association depend on the group, so you might want to join more than one. Also, the groups have many members in common and that helps with communication in the industries. Some family farms have one person belong to one group, while another family member belongs to a different group. That way information can be shared at family business meetings and the whole unit can reap the benefits of several associations.

Benefits that are common among the groups include: business networking and marketing, cooperative working relationships, advocacy for special interests and problems, educational programs, and more. Many groups have mailing lists and monthly meetings, as well as social gatherings, such as summer picnics and fall banquets.

One group that covers many different commodities is the Farm Bureau. Their



There are a great many benefits to belonging to commodity associations, not the least of which is the valuable information and camaraderie.

meetings always have excellent discussions on farming issues, including governmental policy and leadership and production management. I find this group to be the most legislatively informed association out of all the ones that I am familiar with. Plus, the FB has specific programs, such as Young Farmers and Ranchers, which give people many opportunities to get involved. They usually have guest speakers that further enrich the experience.

Other groups are more specific in the commodity type they serve. For example, the Linn County Livestock Association deals with issues surrounding production and management of several species of livestock including cattle, sheep, goats, and others. They also have business meetings and annual banquets for members and guests, and work closely with OSU Extension Service in providing educational programs, tours, and other events. See the information on Linn County Livestock Association activities on this page. Other livestock groups focus on a single species. Some of these include the Oregon Sheep Growers' Association, Oregon Cattlemen's Association, Oregon Meat Goat Association, Willamette Alpaca Breeders Association, and more. There are also national organizations for a broader scope of activities and interests.

There is a Linn Small Woodlands Association that is made up of producers of small forested acreage that operates much like the livestock groups, except they focus on wood production. And, OSU has a Master Woodland Managers' program that benefits the participants and those they assist.

For field crops there are the Oregon Wheat Growers League, the Oregon Ryegrass Growers Association, Oregon Essential Oil Growers Association, Oregon Seed Growers League, and more. These groups have annual meetings, tours and newsletters to keep you informed and get you involved.

Linn County Soil and Water Conservation District, plus other government agencies and Watershed Councils, also are out there to serve you.

Of course, the Oregon State University Extension Service can keep you informed and connected to all these groups. And, we have other programs for you to join if the commodity groups don't fit your situation. Please contact the OSU Extension Service in your local county for more information. Linn County Livestock Association (LCLA) Annual Meeting and Dinner

Benton County producers welcome, too!

Wednesday, March 21

Registration at the door 5:45 p.m./ Meeting ends at 8 p.m.

First Baptist Church, 27910 Seven Mile Ln., Brownsville

Dinner is \$10 for adults (ask about the family discount)

RSVP to Susan Ruckert at 541- 967-7171

> Membership is \$10 per ranch

Theme: Out with the old, in with the New

Join us for dinner, a little music and socializing, and some business as we officially switch out LCLA leadership, discuss upcoming educational programs, and get a predator control update.

See you there!

Commercial Agriculture Small Farms

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

Amy Garrett 541-766-6750 amy.garrett@ oregonstate.edu



Apple Orchard Diversity: Every Weather Event Selects for Resilience

By Jeannie Berg, **Oueener Farm**

The last four seasons on the Queener Farm, with more than 100 apple varieties, have helped us determine which apples thrive or struggle under organic care. Which ones need less fungicide. Which ones are attractive to the coddling moth. Which ones drop early when it's too hot and dry. Which ones pollinate well when it's cold and which ones don't. Every month of each apple season whittles down the list of those that are resilient in all the conditions we encounter. Of course, none will make it through every possible weather challenge, but having lots of diversity means there are almost always some that do well.

This year, we learned a lesson about fall rains and apple splitting when 4.5



inches fell in two days in mid-October. The huge influx of rain caused many apples to split. A few wonderful apples did not and, as the Willamette Valley is no stranger to abundant fall rain, we're taking another look at these apples.

One apple really stood out after the rain - the Hauer Pippin. On an abundant season, like last year, the one Hauer Pippin tree was hardly noticed. It sits there, covered in apples that come so late in the season they're almost a footnote. We've always seen

them as an important part of biological diversity efforts because, as an apple out of Santa Clara, California, they fill an important niche of not needing many chill hours. They're also tasty, they've made it onto the slow food ark of taste, and are reasonably disease resistant. It seemed smart to propagate these and so, in 2015, we added 5 more. This year however, left us feeling like maybe we should add many more.



We call extreme weather events like this rain "selection events." That's sometimes an

extreme example of looking for the bright side of the loss of lots of apples at once. Wading into parts of the orchard in rubber boots on the Monday after that rain was a heartbreaking experience. So many of the apples we were depending on for the late part of the season had split. Some with just tiny slits near the stem and some nearly exploding on the trees, but all of them ruined for fresh sales. Among the wreckage a few apples stood out. The Baldwins, a full-flavored East Coast favorite, did well. And the Hauer Pippin, a California native, emerged as our climate change insurance apple. I had seen the Hauer Pippin as mostly a genetic oddity that we would save for the time, hopefully many vears away, when our winters would become much warmer. Discovering its other gift - handling massive rain -

makes me want to add more now to deal with our wetter winters.

Climate change will throw many weather curve balls at farmers in the next several vears. Selection events will likely be happening all the time. We won't learn what we need from them unless we have the biodiversity on our farms to observe the range of reactions to them. If I had a typical orchard with just a handful of varieties, I could have simply assumed that the Willamette Valley was becoming the wrong place to raise any late season apples, simply too much risk of splitting rains.

Our diverse orchard brings us a pile of challenges but it also gives us a five month long apple season, an almost unimaginable range of apple flavors and regular lessons in resilience.

Getting the Best out of Pasture and Hay Ground - Assessment and Management Series

Pasture and hay-ground inputs and management are costly activities. Strategic methods can help you get the most out of your inputs. This program covers the basics of assessing pasture and hay ground, as well as advanced concepts in management to fit your goals. Participants will be guided through custom assessments of their own land. Sign up for one or more of these classes for information on agronomiceconomic approaches to your forage production and harvest management.

Presenters: Shelby Filley and Melissa Fery, OSU Extension

Service

Location: Lane Community College: 4000 E. 30th Avenue, Eugene. Building 17, Room 309

Times/Dates: 6 to 8 pm on Tuesdays, March 13, March 27, April 10, April 24 & May 8

Cost per Ranch: \$15.00 per session (Multi-session discount @ \$60 for all five sessions)

Visit http://smallfarms. oregonstate.edu/southernwillamette-valley-program/ pasture-hay-groundmanagement-series for more information, and to register.

Class Session Descriptions: March 13, Session 1 Forage

Productivity

- 1. Soil Texture and Structure 2. Soil maps - soil type and potential productivity
- 3. Current production having and grazing
- 4. Strategies for management and inputs

March 27, Session 2 Prescription Fertilizing for Pastures and Hay Ground

- 1. Plant fertility requirements
- 2. Soil sampling techniques
- 3. Fertilizers and lime materials
 - 4. Review soil test results (old test results now or by appointment for new test results later)

April 10 Session 3 Weed ID and Control

- 1. Weed Biology
- 2. Weed Calendars and Mapping
- 3. Weed ID Lab Session
- 4. Matching Herbicides to Weeds

April 24 Session 4 Renovating Pasture and Hay Ground

- 1. Determining need for renovation
- 2. Matching forages with soil conditions
- 3. Planting techniques

May 8 Session 5 Having and **Grazing Management** 1. How grass grows



covered in the Pasture and Hay Ground Management series.

- 2. Rotational grazing
- 3. Ranch Resources water, fencing, etc.
- 4. Planning for hay harvest
- 5. Haymaking on the West Side

Several Keys to Preventing Rural Crime

By Mitch Lies, GROWING Editor

Preventing rural crime is far easier than dealing with it after the fact, according to Linn County Sheriff Bruce Riley.

"Once that horse is out of the barn, then we have to figure out where the property is at, make arrests and that sort of thing," he said.

And when it comes to prevention, the trick often involves simply making it difficult for thieves and vandals.

"The bottom line is thieves are opportunistic and lazy, so when you talk about crime prevention, you want to make their job difficult," Riley said.

Riley provided several tips for farms to minimize losses from metal theft, fuel theft, vehicle theft and vandalism, crimes that are most common on farms.

First off, he said, always report crimes, no matter how insignificant they may seem.

"I know that takes a little bit of time on your part, and you maybe think you don't want to bother the sheriff's office with something like a seventy-dollar gas theft. But that is what we do," he said.

"I want to know about crime," he said. "I want to



know when it is happening and where. Am I going to solve every one of them for you? No, obviously not. But I definitely can't solve it if you don't report it.

"It may seem like a minor report, but it may just be the piece of the puzzle we are looking for," he said.

It also is important to talk to neighbors if you see an uptick of fuel theft or other crime on your farm, and to share that information with employees, he said.

"Share that with folks that are around you that can help provide you with extra eyes and ears," he said.

Building a relationship with local law enforcement also helps, Riley said. "The more they understand what you do, what belongs in an area and what doesn't, the better they are going to be able to help you," he said.

Other advice included removing keys from

equipment at the end of the day, securing equipment in a locked yard that can be easily seen by employees or neighbors, and installing good outdoor lighting around shops and buildings. Also, he said, it is important to post No Trespassing signs and report when violations occur.

Riley added that his office has seen an uptick in the theft of batteries from heavy equipment of late and suggested farmers take extra measures to try and prevent such crimes.

To prevent employee theft, Riley said it is important to instigate internal controls, such as separating employee duties.

"It is not uncommon that we work some pretty major thefts with money because of a lack of internal control," he said.

Also, he said, when hiring workers, conduct criminal history checks, drivers' license checks and reference checks.

"If you hire the best people you can, and educate them of what you stand for and what your expectations are, that goes a long way in dealing with employees and employee issues," Riley said.

In summation, Riley said: "Crime prevention starts with you and your commitment to it."

New Part-Time Small Farms Assistant

We are pleased to introduce Teagan, the new parttime Education Program Assistant with OSU Extension



Service Small Farms Program. Teagan joins the team with a background in education, project management, and organic farming. She attended Portland State University where she earned a M.S. in Community Based Education. She was a participant from 2014-2016 in the Rogue Farm Corps' advanced training program in the Southern Willamette Valley. In addition to her new role with Small Farms, she helps to manage Leaping Lamb Farm in Alsea,

Oregon. Her interests include building a vibrant local food economy, supporting young and beginning farmers, connecting the public to farms, and ecological farming practices.

Learning inthe Woods continued from Page 10

required by March 27. Call Benton County Extension 541-766-6750 or email Jody. Include name, phone, email, and number attending

Thompson Timber Co. Tree Farm Tour

Date: Saturday, April 7 Time: 8:30 to noon Location: Meet in Blodgett to carpool to site. RSVP required by Monday, April 2. For more information or to register Call Benton County Extension 541-766-6750 or email Jody. Include name, phone, email, and number attending.

Thinning Young Stands Field Workshop

Date: Saturday, April 21 Time: 9 to noon Location: North of Salem Registration required by April 16. Space is limited. There is no fee. Detailed directions will be provided to registered participants.

To register or get more information, call 503-655-8631 or email jean.bremer@oregonstate.edu



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SoilWeb Earth: Soil Survey Add-In for Google Earth

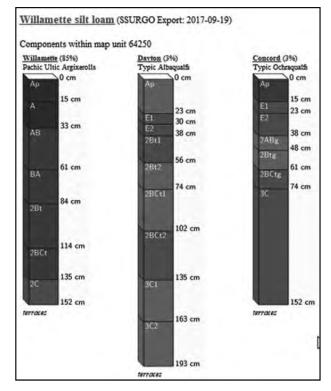
By Jeff Choate

What's the difference between soil texture and soil structure? In practical terms, one can be changed, and one cannot. Did you know that one acre of soil only one millimeter deep can weigh over five tons? Soil texture refers to the amount of sand, silt, and clay in a soil, and generally it is not practical to alter a soil's texture on a large scale. Structure, on the other hand, characterizes how individual soil particles bind together into aggregates, and it is practical to change a soil's structure-for better or worse. Organic matter in just about any form tends to have a beneficial effect on a soil's structure, but the extent of that effect will always be limited by the soil's texture. In other words, you aren't likely to turn a poorly drained soil into a well-drained soil simply by adding organic matter.

Most perennial crops, including berries, tree fruits, and nuts, perform best on well-drained soils. All too often, we get questions at Extension from folks wanting to plant such crops on their land, and our first question generally is, "Where is your property located?" I can't speak for everyone in Extension, but if I'm talking to you on the phone and asking that question, I'm simultaneously opening Google Earth so I can either type in your address or otherwise navigate to your property. Sure, the aerial photos on Google Earth are helpful, but there's something else even more helpful: SoilWeb Earth. SoilWeb Earth is an "add in" for Google Earth that allows you to view Soil Survey information. For example, here is a screen shot showing the Linn County Extension Office and surrounding area:



Just in case you're wondering what good a bunch of random lines and numbers are, click anywhere within those random lines and you're on your way to much more information. For example, clicking within the boundary of the area labeled "102" immediately surrounding the Extension Office (circled in red) yields the following image:



It's definitely not critical to know what "Pachic Ultic Argixerolls" are, but if you click on the blue "Willamette" hyperlink (circled in red), you will reach the final destination in this soil adventure:

There is a lot of great information in the screenshot above, with even more available via the numerous blue hyperlinks, but what we're really interested in is the words, "Well drained." The possible drainage classes include:

- Excessively drained
- · Somewhat excessively drained
- Well drained

- Moderately well drained
- Somewhat poorly drained
- Poorly drained
- · Very poorly drained

Either extreme presents challenges for managing perennial crops, and the closer to "Well drained" a soil is, the better.

Soil Taxono	my			
Order:	Mollisols			
Suborder:	Xerolls [Map of Suborders]			
Greatgroup:	Argixerolls			
Subgroup:	Pachic Ultic Argixeroll	s		
Family:	Fine-slity, mixed, mesic Pachic Ultic Argixerolis			
Soil Series:	Willamette (Link to	OSD) (Soil Series Explorer)	
Data:	[Lab Data]			
Raw Data	Component All Horizons			
Land Classif	lication			
Storie Index			NOT RATED	
Land Capability Class [non-irrigated]			1-	
Land Capability Class [irrigated]			1-	
Ecological Site Description			n/a	
Forage Suitability Group			n/a	
Soil Suitabili		N		
Waste Related Urban/Recreational		3	Engineering	
			Irrigation	
	Wildlife		Runoff	
	d Erosion Ratings			
Wind Erodibility Group			6	
Wind Erodibility Index		48		
T Erosion Factor			5	
Runoff				
Drainage			Well drained	
Hydric Rating / Hydrologic Group			No [Group B]	
Parent Material:		silty alluvium derived from mixed materials		
Total Diant Available Water (cm):		20.4		

So, how do you get your hands on this FREE technology? First, if you don't already have Google Earth, go here to download it: https:// www.google.com/earth/download/gep/agree. html

Next, go here to download SoilWeb Earth: https://casoilresource.lawr.ucdavis.edu/ soilweb-apps/

The SoilWeb Earth file will open in Google Earth, then the next time you close Google Earth you will be prompted to save changes. Agree to save the changes, then SoilWeb will always be available when you open Google Earth. You can turn SoilWeb on and off via a check box in the "Places" sidebar on the left side of Google Earth. Happy surfing!

Weed Specialist Outlines Keys to Avoiding Herbicide Drift

By Mitch Lies, GROWING Editor

Oregon State University Extension Weed Management Specialist Andy Hulting provided participants in an Extension meeting in West Salem some keys to avoiding nontarget crop damage from herbicides.

The talk was inspired in part by the escalation of complaints in recent months of crop damage in the Midwest from dicamba herbicide allegedly drifting from dicamba-tolerant soybeans to neighboring crops. The issue is not new to Oregon, as well, where wine grape growers have filed several complaints with the Oregon Department of Agriculture in recent years regarding herbicide drift damaging grapes.

In the Midwest, farmers have sued Monsanta, the developer of the dicambatolerant soybeans. And the dicamba issue is expected to have ramifications throughout the U.S. in the form of label changes, Hulting said.

"What you are going to be seeing on pesticide labels is this range of (spray droplet) diameter size that is a good compromise between weedcontrol efficacy and minimizing potential for physical spray drift," Hulting said. "And that is going to be mandated on the labels with specific language about nozzle selection."

In general, to avoid herbicide drift, it is important to use common sense when applying pesticides, Hulting said, know what is being grown on adjoining farms, and try to spray at a time of year when sensitive crops are less likely to be harmed. Also, he said, it is important to communicate with neighbors. That alone, can go a long way to avoiding problems with drift and volatilization, he said.

Knowing how drift occurs



Andy Hulting, OSU Weed Management Specialist, says that in general, to avoid herbicide drift, it is important to use common sense when applying pesticides, know what is being grown on adjoining farms, and try to spray at a time of year when sensitive crops are less likely to be harmed. Also, it is important to communicate with neighbors. That alone, can go a long way to avoiding problems with drift and volatilization.

also can help.

Physical spray drift is influenced by droplet size, the number of droplets exiting a spray boom, wind speed and spray boom height, Hulting said.

"The conundrum is that efficacy tends to increase as we decrease droplet size, but that also increases your potential for physical drift," Hulting said.

In the case of systemic herbicides, growers may not need a lot of droplets to obtain good weed control, he said. "Obviously, that is different if you are spraying a contact herbicide, where coverage is absolutely key," he said. "But if you are spraying systemic herbicides, you don't need all of those fine droplets to get good efficacy.

"You will still get material into the plant, and you will get good weed control," he said.

In the case of vapor drift, which is where spray droplets vaporize, lift off plants or soil and move in a vapor form, the key is to avoid certain formulations, such as ester formulations of 2,4-D, if at all possible, Hulting said.

"A lot of people comment that the amine formulations don't work as well," Hulting said. "There may be some truth to that. The ester form is probably better on older, hardened off weeds. And it is probably less easily washed off than amine formulations. But if you are making timely applications on small weeds, I think the amine formulations work just as well as the ester formulations. And there is much less vapor-drift potential for these amine formulations than the old ester formulations."

Several broadleaf-weed control herbicides are available that are less volatile and less likely to drift than the older ester formulations of 2,4-D and dicamba, Hulting said, including Callisto, Huskie, Quelex, Sharpen, Aim and Latigo.

Use of these products "is not a get-out-of-jail card," Hulting said. "You can't be out there spraying in poor conditions. But these products will help.

"Just realize that there are different strengths and weaknesses of these various products," he said. "Huskie is going to be good on your Composite (Compositaceae) family, so prickly lettuce, mayweed, groundsel, those sorts of things. But it doesn't have any soil activity.

"Callisto is going to be less effective on those weeds, but if you are at the four- to sixounce rate, you are going to get some good soil activity out of Callisto.

"So, pick and choose what you need for your given situation, and just realize that you have a lot of these nonvolatile tools available so you don't get yourself in a pesticide-drift situation," he said.



Featured Ask an Expert Question-Chicken Coop Poop Ready or Not?

Q: When I clean my chicken coop, I put the manure in a compost bin of its own, add some straw and grass and let it pile up. I started in March and will stop mid-November. When will it be "ready" to add to my raised vegetable beds?

- Benton County, Oregon

A: Chicken manure is an excellent soil supplement. From your description of your compost pile, you

are using the cold method of composting. With this method, it takes much longer for composting to occur. If you are continually piling more and more on top of your pile, the composting function will be even slower.



Without knowing more about your method of composting and how you manage it, the "ready"

date would be a really bad guess on my part.

The hot composting method involves having approximately 1 cubic yard of material, wetting and stirring the mixture of chicken manure and straw in a one-to-one ratio, letting it heat up to approximately 130 to 160 degrees for three days, and then letting it cool. When the mixture is cool, stir it again to reheat, and follow the pattern of heating and cooling for 3 cycles. Using this method, it will take about 45 days to create usable compost for your garden. You can add grass to the mixture, but grass adds nitrogen, not carbon, which is what the chicken manure needs. Straw or leaves provide carbon to the mix.

Lastly, if you look at your composted material and cannot make out what it was (that is, can't see manure or straw) and it appears to be a mass of black soil-like material, it is done.

> Donald Lauer Master Gardener Volunteer OSU Extension Benton County

Linn Soil and Water Conservation District

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



Conserving Resources for Gains

By Kevin Seifert,

Linn County Soil and Water Conservation District

Winter is still here, mornings are crisp, but with the sudden warm weather my thoughts turn to irrigation for those that might need it or have it. I was recently contemplating irrigation upgrades and talking with farmers about efficient usage of the resources we have.

Irrigation is all about getting water to thirsty crops. Soil based nutrients can't move into roots if there isn't water to move those nutrients from soil. To accomplish this as efficiently as possible farmers have been changing application methods throughout the years. Gone are the flooded clover fields that fed dairy cows. Seldom do vou see fields of hand pack pipe. With efficiency comes multiple benefits to growers. We see increased production, improved quality, less water removed from streams or aquifers and less wasted power to move water.

Low elevation precision application (LEPA) and low elevation sprinkler application (LESA) are two of the most recent irrigation methods being promoted in the Pacific Northwest.

The LEPA and LESA irrigation methods have been used in the Great Plains for the past 20 years and are gaining popularity in the Pacific Northwest. They both allow the soil to absorb water

at a better rate. eliminating evaporation losses and run-off issues. Unlike hand lines, wheel lines, and hard hose reel guns where water is sprayed high into the air, the LEPA and LESA systems use a much closer-to-the-ground approach. LEPA features tubes hanging down from a pivot or linear system with the nozzles being 12 to 18 inches off the ground releasing a stream of water. LESA uses a similar drop system but the nozzles spray less than 12 inches off the ground.

These two systems provide 96 to 97 percent efficiency, compared to a reel guns 60 percent efficiency rating. There is minimal wind drift and evaporation of water in the LESA and LEPA systems. The cost of upgrading the systems is usually paid for through increased yields and reduced energy usages. Growers find these systems pay for themselves in 4-5 years of use. Many electrical co-ops have incentives to making these changes to current irrigation systems by helping with monetary issues of a system installation.

These systems, when combined with advanced soil moisture monitoring, leads to great leaps in conserving resources.

Internet of Things (IoT) technology has arrived on the farm in the form of



LEPA Nozzle



Linear installed in Linn County using LEPA delivery systems.

sophisticated soil sensors. Farmers are placing specialized moisture readers throughout their fields to measure and share moisture data. This helpful, real-time information is then sent to a central hub where it can be collected and analyzed. Ultimately, this provides farmers with a map showing precisely where water levels are low, optimal, or too high.

In the latest irrigation systems, these sensors are even helping deliver certain levels of automation. After rainfall, they can suggest revising scheduled irrigation—by either holding off, or reducing the amount of water applied to the field. This valuable data enables farmers to use only what is needed, and not a drop more.

One of the most exciting possibilities of this IoT technology, is the scale at which it can be applied. According to one analysis, prices for IoT sensor hardware have fallen over the last decade. Coupled with lowering prices for bandwidth and processing power, the core technology of these soil sensor networks could have global applications. As cost is reduced, smallholder farmers in developing nations will gain more access to this powerful technology.

For modern agriculture, innovation is not always size and scale—it can also be small and smart. The industry is continuously focusing on efficiency whenever waste can be reduced, and a natural resource be optimized that's good for the planet and the industry. Moving forward, the central focus is finding more ways to use fewer natural resources including freshwater.

Technologies such as these have cost shares available through the USDA (US Department of Agriculture). Any questions regarding these innovations or cost shares? Feel free to contact your local SWCD.

Extension Pitching in for Pollinator Health

Continued from Page 1

around flowers varies," Melathopoulos said. "To get good pollination, it is helpful to have a few different species of bees visit your garden, and to attract these species, it helps to plant a diversity of bee-attractive flowers."

Melathopoulos added that not all plants are equal when it comes to attracting pollinators, and, surprisingly, it is the showy plants that in some cases are the least beneficial.

"People often think the showy flower ought to be good for pollinators," he said. "But, a lot of roses or peonies that really look good, have absolutely no value for pollinators."

"Some of the hybrids, double blossoms, and some of the exotic non-native plants have no food value at all to bees," Little said.

In addition to food sources, Little notes that bees also need shelter. Providing this can be as easy as leaving some parts of a garden undisturbed.

"Keep some messy parts in your garden where bees and other insects can use as shelters," he said. "Take flowers and cut them off, head them and take those bundles of stems and sticks and bundle them up and stick them off somewhere in the yard."

Putting up artificial boxes can help attract mason bees, leafcutter bees and other species, he said. And bare ground can provide nesting habitat.

"Some people think, 'Okay, mulch is great,' which it is. But if you cover everything in mulch, the 70 percent of the bees that nest



Putting out artificial boxes, such as this bee nesting box, can attract bees, leafcutters and other pollinator species to your home garden.

in the ground can't get to the ground, so they have no place to nest," Little said.

"Bees sleep in a lot of different places," Little said. "If you don't have these kinds of places or you are creating a yard that destroys these places, you may not have the bees there, even if you have the plants."

If using pesticides, Little said, homeowners should think first before spraying.

"Depending on the kind of pesticides that you use, it may have significant impact to very little impact on the bees, but, with some exceptions, most all pesticides will have some impact," he said.

In general, he said, systemic pesticides, which are taken up by the plant, are more harmful to bees than contact pesticides.

"I'm not saying don't use a pesticide," he said. "But understand why you are using it, what is your intent, and see if there are other ways to achieve that without spraying.

"There are a lot of different tools you have in that toolbox," Little said. "Just don't automatically reach for that pesticide. And, when you do, look for ones that are less toxic to you, your yard, to the bee and to the plant."

With their small yards and gardens, homeowners may have a tendency to think they can do little to enhance pollinator health, but, according to Master Gardener Statewide Coordinator Gail Langellotto, they would be wrong.

"Especially because the world is becoming increasingly urbanized and we have more people living in urban areas than ever before, I do believe home gardeners can have a significant impact on the bee population," Langellotto said.

"There have actually been studies in Chicago that have shown that you have a higher abundance of bees, a great diversity of bees, and you get more pollination services in more densely populated urban areas," she said. "That is because where you have more people, you have more gardens. And where you have more gardens, you have more flowers, and the bees love the flowers.

"Gardens, especially home gardens, can be like an oasis in an otherwise inhospitable landscape for a variety of pollinators," she said.

Calendar continued from Page 8

- Spray to control leaf and twig fungus diseases in dogwood, sycamore, hawthorn, and willow trees.
- Prune ornamentals for air circulation and to help prevent fungus diseases.
- Start rose blackspot control tactics at budbreak. Control rose diseases such as black spot. Remove infected leaves. Spray as necessary with registered fungicide.
- Monitor for European crane fly and treat lawns if damage has been verified.
- 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.
- Clean up hiding places for slugs, sowbugs and millipedes. Least toxic management options for slugs include barriers and traps. Baits are also available for slug control; use caution around pets.
- Monitor strawberries for spittlebugs and aphids; if present, wash off with water or use insecticidal soap as a contact spray. Follow label directions.
- If necessary, spray apples and pears when buds appear for scab. See Managing Diseases and Insects in Home Orchards (PDF - EC 631).
- Use floating row covers to keep insects such as beet leaf miners, cabbage maggot adult flies, and carrot rust flies away from susceptible crops.
- Help prevent damping off of seedlings by providing adequate ventilation.



Insights into Gardening hosted by BCMGA had another stellar year bringing more than 300 horticulture enthusiasts together to learn from each other!

Benton County 4–H Youth Development

Carolyn Ashton 541-766-3555 carolyn.ashton@ oregonstate.edu



Maggie Livesay 541-766-3550 maggie.livesay@ oregonstate.edu



4-H Summer Conference

4-H Summer Conference is June

27-30 (Wed–Sat) on the OSU campus. Summer Conference is an opportunity for youth in grades 7-12 to explore campus life, make new

friends, stay in a dorm, learn and have lots of fun. While there, participants attend workshops on a wide variety of subjects. More than 80 classes are offered including dog agility, a logging site tour, animal anatomy, fly fishing, origami, and etiquette. Youth will also participate in a community service project, and enjoy a pool party and dance! Cost is \$200 per person. The first 10 Benton county registrants will get a \$50 scholarship towards their \$200 fee. Current County/State Ambassadors and National Congress applicants will receive partial scholarships (amount to be determined). Registration and instructions can be found on our website. Registration opens on Tuesday, May 15, at 6 a.m.

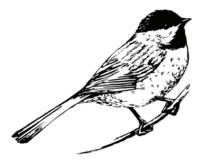
4-H Fashion Revue

Come cheer on 4-H members as they walk the runway and showcase their clothing and sewing projects. 4-H Fashion Revue will take place on Saturday, April 21, at 7:30 p.m. in Milam Auditorium (2520 SW Campus Way) on the OSU Campus. 4-H members will have been judged earlier in the day on their projects, and then will take to the stage for a free public viewing.

More information about the event can be found on our website.



4-H youth pose in their outfits before walking the runway.



Visit our 4-H Natural Science Activity at this free event:

Winter Wildlife Field Day

Saturday, March 10, 11:00 a.m.-3:00 p.m.

William L. Finley National Wildlife Refuge

26208 Finley Refuge Road, 9 miles south of Corvallis off Hwy 99W



Plant a Garden for Pollinators

Your success is our number one priority!

Pollinator Plants | Seed Starting Supplies | Beekeeping Classes & Consulting | Landscape Design

6600 SW Philomath Blvd, Corvallis 541-929-3524 | www.shonnards.com Mon-Fri: 9 a.m. - 6 p.m. | Sat: 9 a.m. - 5:30 p.m. | Sun: 10 a.m. - 5 p.m.



Students Set Goals for Nutrition, Activities

By Lindsay Walker

News year's resolutions may have fizzled or haven't been set, but it's never too late to set a goal. Many of the 6th-8th graders at Linus Pauling Middle School and Calapooia Middle School are participating in the 4-H Latino Outreach Programming where they are setting metas (goals). The programming focuses on nutrition and physical activity via experiential learning during the weekly sessions.

During the first few weeks, the youth are setting goals to lay the foundation for the following 16 weeks, so join us! Think of one goal you can make for yourself this year to improve your nutrition. Remember to think of SMART Goals (Specific, Measurable,



Achievable, Relevant, Timely) Some say 'if it doesn't challenge you, it won't change you'.

Students will also be filling out weekly food and physical activity journal entries to assess and track their current routines. By the end of the program in June, we hope the youth will be equipped with the knowledge and skills to set and achieve goals for healthier living. For more information about our Linn-Benton 4-H Latino Outreach programs, please email lindsay.walker@ oregonstate.edu.



Youth engaged in the afterschool 4-H Food + Fun Club at Linus Pauling Middle School.



A H Summer Camp Four Rivers 4-H Camp will be June 23-27 at the 4-H Center in Salem. For more information please see the Linn County 4-H page in this edition.

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.

Linn County 4-H Youth Development

Linn County Youth Livestock Auction Ag Boosters

By Andrea Leao

The Linn County Youth Livestock Auction (LCYLA) is an outlet for the 4-H and FFA youth of Linn County to sell their market animals to the public at the Linn County Fair. One way LCYLA hopes to help our community members and businesses become involved in helping the 4-H and FFA youth that participate in the auction, is through the development of a new program called LCYLA Ag Boosters. The Ag Booster program is being implemented to allow those interested in helping the youth, but may not be fully understanding of how the auction process or market animal projects work. Ag Boosters will collaborate with fellow boosters and current auction supporters to better understand the process and the importance of youth agriculture in developing hardworking, honest and upstanding citizens. The Ag Booster program also allows for support of 4-H and FFA market animal projects, without the full dollar commitment of purchasing a project at the auction.

We are asking for your willingness to help get this program up and running and help us generate the money needed to make the 2018 and all future auctions a fun and profitable venture for the young people raising these animals. We are asking all those willing to join and help this great cause to donate \$250 annually to become a member of the Ag Boosters. Along with the support of the auction, all Boosters will be recognized in our sale catalog and with signs around the sale area. We will also be hosting a dinner for all Ag Booster members in the fall, to thank you and to allow for the collaboration with other members and businesses who have joined you in the support of this program.

Because we are a non-profit organization, all donations are considered a charitable contribution.

Any donation amount is gladly accepted. If you have any questions, you can reach out to our committee president via email at rob.damon@alyrica.net.

Donation checks can be made to LCYLA, and mailed to 33630 McFarland Rd. Tangent, OR 97389.

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.

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Professional Development -Is It Only for Professionals?

By Andrea Leao, Linn County 4-H faculty

According to businessdictionary. 44EBRATE com, professional development is the process of improving and increasing EXCELLENCE capabilities of staff through access to education and training opportunities in the workplace, through outside organization, or through watching others perform the job. Professional development helps build and maintain morale of staff members, and is thought to attract higher quality staff to an organization.

So, how does this professional development fit

within the 4-H organization and its volunteers? As faculty, we are always looking for ways to give our volunteers support and help them develop their skills. Many LES times. there aren't specific classes that will help volunteers in their project area, but there are things that will help them specifically working with youth or developing relationships within the community.

As a professional, I spent a week attending a conference with colleagues from around the Western Region of the United States. The idea of the conference was to provide professional development to 4-H agents who are in their first five vears of their career. There was a great amount of information shared and tools given out, but what will be the most helpful in the end is the relationships that were formed. Knowing that we can call on each other for guidance or even just a sounding board is reassuring. All these resources will make me a more efficient 4-H agent and help me serve the 4-H program in a better way.

I encourage all volunteers to take the opportunity to attend workshops or events that are presented for you or that your 4-H Faculty invites you to. It might not be the exact technical skill you are looking for, but I am positive you will come out with at least one new resource and most likely a new "friend" that can be a great asset down the road.

Youth Mental Health First Aid

March 9, Linn County Extension Office, Tangent

A young person you know could be experiencing a mental health challenge right now. In fact, you are more likely to encounter a friend, family member, student, neighbor, or member of the community in an emotional or mental crisis than someone having a heart attack. Youth Mental

Health First Aid teaches a 5-step action plan to offer initial help to young people showing signs of mental distress and connect them with the appropriate professional, peer, social worker, or self-help care. Youth Mental Health First Aid is designed for adults who work with young people, ages 12-18.

Cost is \$25 per person and scholarships are available for current volunteers in Linn or Benton counties. To register, please e-mail jolynn.ohearn@oregonstate. edu with name, phone and address. Please call 541-967-3871 with questions.



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



New 4-H Faculty in Benton and Linn Counties!

worked with diverse groups

of people including her time

as a Peace Corps Volunteer

Lindsay Walker has been hired as the Benton-Linn CYFAR (Children Youth and Families At Risk) Latin@ Outreach Coordinator. She is located in the Linn Extension office.

Lindsay is developing and managing educational programming in Benton and Linn Counties, which engages and provides access to Latino and/



or limited resource and underserved youth, adults and families. The programs meet the requirements of the CYFAR grant and the overall goals of quality 4-H youth development activities.

Lindsay is familiar with the 4-H Youth Development program as she recently served as the 4-H Agent for 2.5 years in Crook County, running both traditional and non-traditional programming. She has

f the in Ecuador. Her academic rall background is in Public h Health and Exercise Science and she is excited about ar utilizing those skills with the CYFAR Grant programming. In her personal time, Lindsay loves to travel, explore local or culture, and hike with her Ecuadorian dog, Dude. Welcome, Lindsay!

> **Elli Vanderzanden** is the new 4-H Youth Development Educator in Benton County.

She is located in the Benton Extension office.

This new 4-H position was made possible through the passing of the Benton County Service District. Elli assists in providing leadership for 4-H

Club programming efforts, working with the more than 250 volunteers who help to lead these clubs in Benton County, as well as assisting with major programs such as County Fair and 4-H Camp. She is a former

Benton 4-H member and attended OSU, earning a Master's in Agricultural Education. For more than a year, Elli worked as a student worker in the Benton 4-H office before

starting as the Wasco County 4-H Program Coordinator in 2016. In her free time, Elli enjoys crafts, hiking, and playing with her dog, Tucker. Welcome Elli!

OREGON STATE UNIVERSITY EXTENSION SERVICE RIVERS & The AND SATURDAY-WEDNESD

OPEN TO ALL YOUTH 4TH-8TH GRADE

CAMP COST: \$245 Contact your local extension office for scholarship information.

OREGON 4-H CENTER 5390 FOUR H RD NW SALEM, OR 97304

OSU Extension Service prohibits discrimination in all its programs, services, activities, and materials.

Campers will enjoy activities such as, swimming, archery, adventure swing, canoeing, crafts, skits, theme-based activities (*Jungle*) and more! **Registration opens March 2018.** Visit our website for all the details. *Formerly known as LBLT 4-H Camp*.

JUNE 23-27, 201

REGISTER ONLINE

Register online and pay with a debit/credit card http://extension.oregonstate.edu/benton/4h/camp

> Oregon State University Extension Service



4-H agent Robin Galloway isn't a fishing expert, but she still helps teach fishing to youth. The Oregon Department of Fish & Wildlife offers a Master Angler course for volunteers to be qualified to teach fishing at events like outdoor schools.

Outdoor Schools Tie in with 4-H & Extension

By Robin Galloway

This is an exciting time for Oregon and its 5th and 6th grade students as OSU Extension works in collaboration with schools, partners, and communities to launch the statewide Outdoor School program, building on a legacy that began in 1966.

The Extension Service engages the people of Oregon with research-based knowledge and education that strengthens communities and economies, sustains natural resources, and promotes healthy families and individuals. The Extension Service has a presence in each of the Oregon's 36 counties.

The Outdoor School (ODS) Program resides within the OSU Extension Service and advances the Extension Service's vision, mission, and goals through the statewide engagement of School Districts and Educational Service Districts in Outdoor School. The ODS Program helps Oregon's youth learn better; develop leadership, critical thinking and social skills; and exposes them to the role of scientific inquiry and applied learning. The long-term goal of this ODS Program is to integrate placed-based programs into the Oregon school system that build upon youth's skills in hands-on science and their abilities to be effective stewards and leaders in their community. The OES Outdoor School Program Leader has leadership and administrative responsibility for the OSU Outdoor School Program.

Continued on Page 23

OSU Extension Service | Outdoor School

YEAR ONE: OUTDOOR SCHOOL BY THE NUMBERS

- **\$8.8 million** in approved funding
- ▶ 121 school districts funded
- Number of students who will attend: 36,404
 - That's **75%** of eligible students
- Total number of days students will get outside: 136,465
- ► Funding awarded to districts in all **36** counties
- ▶ 82 new schools attending Outdoor School for the first time

That's 7,137 new students





Cloverbud Skills Day



Open to all Cloverbud 4-H Members!

Come and spend the morning learning more about different project areas that you can participate in.

Each 25-minute class will be hands on, small group learning. + +

Saturday, March 10 9-11am | Linn County Extension Office

Register today! \$5.00 per person to pay for materials. Register is required by March 7th.

Name_____ County____

Mail Registrations and Money to: OSU Extension Linn County C/O 4-H Cloverbud Skills Day 33630 McFarland Dr. Tangent, OR 97389

Make checks payable to: Linn County 4-H Any_questions please call the office al_541-967-3871

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Accommodations for disabilities may be made by contacting 541-967-3871 or andrea.leao@oregonstate.ed.



Outdoor Schools in continued from Page 22

These big pictures set the background for the relationship with 4-H in Linn and Benton Counties. Our 4-H programs are designed to meet the same life skills and concepts as outlined in the ODS mission. We teach natural resource topics at 4-H camps, field days, school gardens, and in conjunction with community programs such as Linn-Benton Salmon Watch. Our 4-H faculty are instructors at these events. Most of the instructors are adult volunteers with experience and education in the topics they teach. Especially with ODS being a state mandate now, it's essential to have qualified instructors, who like to share their knowledge with youth.

If you have an interest in helping share the magic of the natural world with young minds, please consider becoming a volunteer teacher. Becoming a Linn or Benton County 4-H resource leader is one way to get involved.

For more information see the OSU Outdoor School Program website: http://extension. oregonstate.edu/outdoor-school.

Calendar of Events for Linn & Benton Counties

March 2018

Linn and Benton Master Gardener Training, Thursdays, January 25 - March 22, Tangent, preregistration required

*

- Linn and Benton Master Food Preserver Volunteer Training, Tuesdays 9:00am-4:00pm April 3 - May 22, pre-registration required.
- BEEvent Pollinator Conference, Saturday, March 3,Albany Expo Center, registration required.
- 3 4-H Wildlife Stewards Education Workshop, Learn Outdoors Using Native Plants, registration required.
- 13 Pasture and Hay Ground Management Series, Lane Community College, registration required.
- 19 Benton County Master Gardener Association Membership Meeting, 6-8pm, Sunset room, Benton County Extension Office. Topic: TBA. Open to the public!
- 27 Pasture and Hay Ground Management Series, Lane Community College, registration required.

April 2018

- Linn and Benton Master Food Preserver Volunteer
 Training, Tuesdays 9:00am-4:00pm April 3 May
 22, pre-registration required.
- * Woodland Management, Basic Forestry Shortcourse, Tuesdays in April, 6:00pm-8:30pm, Tangent, pre-registration required.
- 10 *Pasture and Hay Ground Management Series*, Lane Community College, registration required.
- Benton County Master Gardener AssociationMembership Meeting, 6-8pm, Sunset room, BentonCounty Extension Office. Topic: TBA. Open to thepublic!
- 24 Pasture and Hay Ground Management Series, Lane Community College, registration required.















Set on 275 scenic acres with lakes, meadows, oak groves, and views of the Cascade Mountains, Mennonite Village is an inclusive community of amazing people.

Quail Run at Mennonite Village is Albany's only not-for-profit assisted living facility. The building is specially designed to accommodate the changing needs of its residents over time. Spacious studio and one-bedroom suites with kitchenettes combine convenience and comfort with 24-hour availability of personal assistance and support. Mennonite Village and its employees foster the respect, care, dignity, and worth of every resident by providing freedom of choice and opportunities for physical, intellectual, emotional, and spiritual growth.

Each apartment offers generous amenities and services:

- Three farm-fresh meals served daily, from 7 AM to 6 PM
- Private dining rooms available for family dining
- Weekly housekeeping and linen service
- Utilities, including cable television and air conditioning
- Pull-cord call system and other optional call systems
- Ample closet and storage space
- A variety of daily wellness and social activities, both on and off campus
- Scheduled bus service within Albany city limits
- Laundry room for personal use
- Whirlpool bathing options
- Full-service salon and nail care options

Mennonite Village is an "open campus" that welcomes new residents to all areas of our Village. You do not need to start in independent living. Should a need arise for additional health services, they're available on campus, and you'll pay only for the services you use.

Mennonite Village is proud to be a smoke-free, tobacco-free community.

Mennonite Village is subject to the federal Fair Housing Act, which prohibits any preference, limitation, or discrimination because of race, color, religion, sex, handicap, familial status, or national origin, or intention to make such a preference, limitation, or discrimination.



Mennonite Village Assisted Living 2525 47th Ave. S.E., Albany, OR 541-928-1122 www.mennonitevillage.org www.facebook.com/mennonitevillage

