Jessie Leaves South Valley Position

By Mitch Lies, GROWING Editor

Will Jessie, who started as the South Willamette Valley field crops Extension agent in May of 2018, has left to take a position with Corteva Agriscience in Indiana.

Alan Sams, dean of Oregon State University College of Agricultural Sciences and director of the Oregon Agricultural Experiment Station, said he is sorry to see Jessie go and that he is proposing to fill the position at the earliest possible opportunity.

“I’ve already sent this in as an expedited, out-of-cycle, highest priority hire,” Sams said in an interview Dec. 8.

“The partnerships between OSU and stakeholders is very important and those county or regional Extension personnel are really important in that relationship,” Sams said.

Jessie said he enjoyed his time in Oregon. “I have thoroughly enjoyed my work and life in the Willamette Valley,” he said.

“I cannot state enough how appreciative I am of the time and energy everyone put into me and my program.”

Jessie’s last day was December 20.

In It for the Long Haul

By Mitch Lies, GROWING Editor

From a ridge overlooking tree-lined foothills of the Willamette Valley, Tim and Kathy Otis talk about the complexities of managing their family forestlands.

Surrounded by stumps of recently harvested trees and Douglas-fir seedlings barely visible among the tall grasses that dominate the ridge’s landscape, Tim noted that the couple likes to take a hands-off approach.

The Douglas-fir seedlings, for example, are struggling more than if they were planted with tubing to protect them from deer, a practice common in a commercial operation. But the extra years it will take for the seedlings to overtake the brush and weeds is a delay the Otises are comfortable with.

“We manage on a longer time table than a commercial timber operation,” Tim said. “A commercial timber operation may have 45 years to get a tree up to harvest, where we may have 90 years. If you lose three years on a 90-year scale, it is not that big of an issue. And I have a feeling the trees do better with the deer munching on them and with a slower start. I don’t know that, but deer and Douglas-fir trees have been around together for a long time.”

The Otises, Linn County Tree Farmers of the Year and one of six family forest land owners honored in November for sustainable forestry management by the Oregon Tree Farm System, noted that there are times when it becomes necessary to inject their will into their forest holdings.

“There are things like Himalayan Blackberries that will absolutely dominate a site, and nothing else will grow,” Tim said. “So, you can’t just say, I am going to let the Himalayans do what they are going to do, because you won’t have anything but Himalayan blackberries.”

Also, the Otises manage their stands as a source of revenue, harvesting trees every five years or so in a patchwork pattern to provide income for the many family members who own the land. “If we were independently wealthy, that would change our management plan,” Tim said.

Kathy and Tim Otis, on a ridge overlooking foothills of the Willamette Valley, are one of six Oregon family forest landowners honored in November for sustainable forest management.

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At this year’s Extension Annual Conference, several Linn and Benton staff, faculty, and volunteers were recognized for their outstanding work. Congratulations to all of our award winners.

- **Director’s Coin – Liz McGovern**, Benton County Office Manager - recognized for her efforts to share regional best practices regarding budget management, outreach efforts, and professional development opportunities.
- **Director’s Coin – Elizabeth Records**, Educational Program Assistant - recognized for her efforts to create efficiencies for risk management reporting for the county’s Master Gardener program which can now be used across all Extension volunteer programs.
- **Elli Korthuis, Oscar Hagg**, Communications Award (photo top left) - recognized for her efforts using “Tucker the 4-H Dog” marketing program to reach new 4-H audiences.
- **Director’s Coin – Tri-County Search Committee for Linn, Marion and Polk Counties** for their efforts to recruit 3 positions with one search (photo bottom right).

**Committee members:**
- **Carolyn Ashton**, Benton County 4-H
- **Andrea Leao**, Linn County 4-H
- **Melanie McCabe**, Marion County 4-H
- **Susie Busler**, Polk County 4-H
- **Alisha Atha, Search Advocate**, Polk County
- **Roberta Lundeberg**, State 4-H
- **Diane Ostrom**, Polk County Community Member
- **Becka Jenkins**, Marion County Community Member
- **Sarah Neuschwander**, Linn County Community Member
- **Steve Mote**, Linn County Community Member
- **Search for Excellence – Oregon Season Tracker Citizen Science Program** – tracking phenology (seasonal changes in plants) and precipitation (photo bottom left). OST Team Members: Brad Withrow-Robinson, Jody Einerson, Maggie Livesay, Glenn Ahrens, Amy Grotta, Mark Schulze, Sherri Johnson, and Chris Daly.

- **Rich Little**, 2019 OSU Extension Cooperator Award – for exemplary dedication to OSU Extension programming. Although he has been a pivotal volunteer in Linn County, serving both the Master Gardener and 4-H programs, his activities have had statewide impact, particularly around the topic of pollinator health.

- **Michele Webster**, Office Manager and County Liaison in Linn County – OSUEA Professional Administrative Faculty Award (photo top right). Michele was recognized for her tireless work in finance and human resources, her positive personality in building relationships in the county, and for being the “cheerleader” in the Linn County Extension office.
Master Food Preserver Volunteers Registration Open

2020 is the 40th anniversary of the Master Food Preserver program. Linn and Benton counties were 2 of the 4 original counties. MFPs Diane Hyde and Belinda Barnes show off a display in the MFP booth at the Mother Earth News Fair.

Become a trained Master Food Preserver and share food preservation and food safety information with community members throughout the summer and fall. Training will be held for 8 Thursdays, starting April 16. Classes will be held at the Linn County Extension Office in Tangent. Class hours are 9 a.m.-4 p.m., each Thursday. Volunteers are asked to return 48 hours of volunteer time during the food preservation season. Volunteer duties include assisting with canning classes and staffing information tables at farmers markets and community events. This is a great way to meet other community members with shared interests.

Extensive food preservation experience is not required! Participants should learn all aspects of food safety and preservation during the training, so it is appropriate for beginners as well as experienced food preservers who wish to update their knowledge and share with others. A desire to interact with the public in a cheerful and positive way is important. There is a $150 fee for class supplies; some scholarship funds are available. Representatives from community service organizations are invited to participate to take information back to their groups. For more information about the program and to receive an application, contact the Extension office in Linn or Benton County.

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.

The Color of Meat and Poultry

Color is important when meat and poultry are purchased, stored, and cooked. Often an attractive, bright color is a consideration for the purchase. So, why are there differences in the color and what do they mean? Listed below are some questions and answers from the U.S. Department of Agriculture’s Meat and Poultry Hotline to help you understand the color differences.

Does a change in color indicate spoilage?

Change in color alone does not mean the product is spoiled. Color changes are normal for fresh product. With spoilage there can be a change in color—often a fading or darkening. In addition to the color change, the meat or poultry will have an off odor, be sticky or tacky to the touch, or it may be slimy. If meat has developed these characteristics, it should not be used.

What are the white dried patches on frozen meat and poultry?

The white dried patches indicate freezer burn. When meat and poultry have been frozen for an extended period of time or have not been wrapped and sealed properly, this will occur. The product remains safe to eat, but the areas with freezer burn will be dried out and tasteless and can be trimmed away if desired.

When displayed at the grocery store, why is some meat bright red and other meat very dark in color?

Optimum surface color of fresh meat (i.e., cherry-red for beef; dark cherry-red for lamb; grayish-pink for pork; and pale pink for veal) is highly unstable and short-lived. When meat is fresh and protected from contact with air (such as in vacuum packages), it has the purple-red color that comes from myoglobin, one of the two key pigments responsible for the color of meat. When exposed to air, myoglobin forms the pigment, oxymyoglobin, which gives meat a pleasingly cherry-red color. The use of a plastic wrap that allows oxygen to pass through it helps ensure that the cut meats will retain this bright red color. However, exposure to store lighting as well as the continued contact of myoglobin and oxymyoglobin with oxygen leads to the formation of metmyoglobin, a pigment that turns meat brownish-red. This color change alone does not mean the product is spoiled.

What causes iridescent colors on meats?

Meat contains iron, fat, and other compounds. When light hits a slice of meat, it splits into colors like a rainbow. There are various pigments in meat compounds that can give it an iridescent or greenish cast when exposed to heat and processing. Wrapping the meat in airtight packages and storing it away from light will help prevent this situation. Iridescence does not represent decreased quality or safety of the meat.

What is the usual color of raw poultry?

Raw poultry can vary from a bluish-white to yellow. All of these colors are normal and are a direct result of breed, exercise, age, and/or diet. Younger poultry has less fat under the skin, which can cause the bluish cast, and the yellow skin could be a result of marigolds in the feed.

What causes dark bones in cooked poultry?

Darkening of bones and meat around the bones occurs primarily in young (6-8 weeks) broiler-fryer chickens. Since the bones have not calcified or hardened completely, pigment from the bone marrow seeps through the bones and into the surrounding area. Freezing can also contribute to this darkening. This is an aesthetic issue and not a safety one. The meat is safe to eat when all parts have reached a safe minimum internal temperature of 165 °F as measured with a food thermometer.

http://extension.oregonstate.edu/linn
The Best Way to Lose Weight

By Brandon O’Toole, OSU dietetic intern

There can be a lot of confusion around the topic of weight loss. There are so many diets today all promising the same results. How is a consumer going to know what to try? There is good news; often diets will work! However, there are a few details about the diet you should consider before trying.

The main issue holding people back from their weight loss goal is patience. Studies show that when people adhere to a diet long-term, despite diet type, they can lose significant weight. There are a few things to watch out for when picking a diet.

Three practical things you should look out for:

- Does the diet cut out entire food groups/nutrients?
- Does the diet require special products?
- Can you afford the foods long-term?

Numerous studies have shown that a balanced diet consisting of whole grains, fruits and vegetables is key to health and weight loss. Many diets available today focus around this point but some diets like the Atkins diet and the Ketogenic diet focus on eliminating carbohydrates. This makes it hard to eat enough whole grains, fruits and vegetables. One easy way to spot a bad diet is if it claims that only their products can get the weight off. This doesn’t mean that all diet products are deceitful or bad. However, a genuine diet will promote calorie restriction and whole food options that are available to anyone. Some diets may suggest buying certain products, which can be okay, but if a diet says a special product is the key to losing weight, you know it’s a scam.

One final point to make is the ability to afford the food that diets will recommend. Many people find it expensive to buy healthier foods to begin with, shopping for specialty diet foods can add even more difficulty to this process. One diet that comes to mind is the Paleo diet. It is completely possible to be healthy on this diet. However, one of the primary complaints from people who try it is the amount of money spent on food. To find out if a diet you are interested in is too expensive make sure you do your research. Look at common food plans associated with the diet and create a sample shopping list for those foods. You’ll know if you can afford it once you compare the sample list to your shopping budget.

To sum it up find a diet that focuses on balance, whole foods and calorie restriction. Good diets will give you progress over time, so be patient! When you consider a diet make sure you consider the above three questions. I personally recommend diets like the Volumetric diet, DASH diet, and the Mediterranean diet. These diets provide well researched principles and are able to fit anyone’s lifestyle and budget.

References

A Hands-Off Approach to Forest Management

Continued from Page 1

said. “But there is a financial element to our management plan.”

The Otises also thin stands on a regular basis, both to generate some extra income, improve wildlife habitat and enhance stand health and diversity. “We like to leave some maple and we leave some oak,” Kathy said. “We don’t want strictly Douglas-fir.”

“Deer and elk, woodpeckers and other wildlife like a variety of habitat,” Tim said. “They like edge habitat, older forests and younger forests, and they like places where there is transition from one species to another. So, as you manage, you create those opportunities for them.”

For the most part, however, the Otises prefer to leave stands alone.

“It just seems like to me all the battles that we fight against the natural world may not be worth it,” Tim said. “I’m not sure if there is really that big of an advantage in trying to beat back nature from what it does automatically.”

Oregon State University Forestry Extension Agent Brad Withrow-Robinson lauded the Otises’ management strategy and described the couple as very conscientious landowners who are well deserving of their recent awards.

The Otises, on the other hand, consider themselves newbies in forest management and said they are surprised and humbled by their recent awards, especially considering that 22 years ago, when they started managing their extended family’s forestlands, they knew next to nothing about forest management.

“It’s kind of embarrassing,” Kathy said. “There are all these other people who do so much and do so well.”

The couple’s crash course in forest management started after Kathy’s father, Charles Wheeler, died of a heart attack while planting trees on his family’s forest.

“Even though we had worked quite a bit on the properties, we had made zero decisions when we started,” said Tim, who holds a master’s degree in forest engineering from Oregon State University. “And there was a bunch of things that needed to be done.”

Tim immersed himself in forest management studies, including taking the OSU Extension’s Master Woodland Manager training, a high-level course for experienced landowners interested in improving their forest management and contributing to the woodland-owner community. He has stayed active ever since. He and Kathy have hosted tours on their lands and have also participated in multiple forestry tours hosted by the Oregon Small Woodlands Association and Extension on other properties over the past two decades.

“We have gone to a lot of small woodland tours of other people’s properties, and that has been very helpful,” Kathy said. “We learned that there is not a specific way to do things. It kind of depends on what your goals are, and you can have a whole lot of different goals.”

The Otises also certified their tracts in the American Tree Farm System, an internationally recognized forest certification system that works to sustain forests, watersheds and wildlife habitat. The certification, which involves creating a management plan and sticking to it, “helps you stay on course,” Kathy said. “And developing the plan forces you to decide what your goals are,” Tim said.

One of the first improvements they made on their forest holdings, the ownership of which is split among the Otises siblings and cousins, was on the roads.

“We discovered early on that it is very difficult to do any management without a good road system,” Tim said, “so one of the things we’ve done is to try and provide these good rock roads, so we can get in year-round and manage the properties.”

The Otises also founds improvements immediately after a harvest, when funds are more readily available. “When we have a harvest, we try to do things that cost money, whether it is building fence, or adding some road or surfacing,” Tim said.

Essentially, Tim said, the Otises manage their land with one eye on the past as a way to preserve the family’s heritage, which dates back to 1855 when William H. Ingram, the great grandfather to Kathy’s mother, Roberta Wheeler, homesteaded on their family’s forests, and one eye the future, all the while facing restraints in the form of time and money.

“We are like pretty much all small woodland owners in that we all have other jobs, so it tends to be this part-time thing where you do some things on weekends and vacations,” Tim said. “And the rest of the time, you wish you could do those things.”

Ultimately, Tim said, the Otises hope that when their management days are over, their lands will be in better shape than when they started.

“We are just stewards of the land,” Tim said, “and when we make management decisions, we kind of have to take in consideration where this has been and look toward the future about what may be good for our kids and our grandkids.”

“We are here for just a little while,” Tim said. “The trees outlive all of us. Part of our job is to recognize our place and do our part to make it a little better than when we got here.”
**Messinger Carril received her 2017 PROSE Award. Olivia Backyard, winner of the co-author of Bees in Your Backyard, is the featured keynote speaker.**

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**Save the Date!** Coming March 7, Linn County Master Gardeners presents **The 6th Annual BEEEvent**

Registration opens January 1st at linnmastergardeners.com

**Featured keynote speaker**

Olivia Messinger Carril, co-author of Bees in Your Backyard, winner of the 2017 PROSE Award. Olivia Messinger Carril received her Ph.D. in plant biology from Southern Illinois University and has been studying bees and the flowers they visit for nearly twenty years.

**Join us for sessions on**

- Planting a home garden to attract bees
- How to read a pesticide label to understand implications for pollinators
- The Oregon Bee Atlas - new updates
- Pollinating flies and blue orchard mason bees

**Insights Into Gardening**

*Saturday, February 8, 8 a.m. to 4 p.m.*

**LaSells Stewart Center, 875 SW 26th Street, Corvallis, OR**

Insights Into Gardening is a day-long series of seminars for gardeners of all abilities and levels of experience. Participants choose from 16 classes offered in four concurrent sessions taught by local experts. In addition to classes, there will be exhibitors offering items for sale, a bookstore, and a raffle for some great prizes. Parking is free.

Sponsored by the Benton County Master Gardener Association. Proceeds from this event help fund scholarships and educational outreach. Please visit our website at bentonmg.org/iig for more information and online registration.

**January-February Gardening Calendar for Western Oregon**

The Oregon State University Extension Service encourages sustainable gardening practices.

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

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

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

**Planning**

- Plan to replace varieties of ornamental plants that are susceptible to disease with resistant cultivars in February.
- Take hardwood cuttings of deciduous ornamental shrubs and trees for propagation.
- Order a soil test to determine your garden’s nutrient needs. View Analytical Laboratories Serving Oregon. https://catalog.extension.oregonstate.edu/em8677
- Begin planning this year’s vegetable garden. Check with local retail garden or nursery stores for seeds and seed catalogs.
- Keep a garden journal. Consult your journal in the winter, so you can better plan for the growing season.

**Maintenance and Clean Up**

- Place windbreaks to protect sensitive landscape evergreens against cold, drying winds.
- Reapply or redistribute mulch that has blown or washed away during winter.

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http://extension.oregonstate.edu/benton
Putting Down Roots in the Brownsville Community

Q&A with Melissa Selby, Master Gardener volunteer

Melissa Selby joined the OSU Extension Master Gardeners of Linn County in 2016. She lives in rural Linn County and is settling in as a small farmer, gardener, and part-time daylily hybridizer. Melissa shares tips for success with houseplants and sweet stories of growing up in a ‘gardening wonderland’. She shared her story in Fall 2019.

What is your hometown?

My hometown is Brownsville, Oregon. My family and I have just purchased our own little farm in between Brownsville and Sweet Home and today was our last day of moving out of our rental, which was in town. It has been a crazy few months and most of my personal effects are plants! Although I am not originally from Brownsville, it is certainly where my heart is and am content in forgetting that I have ever lived anywhere else!

Describe your early gardening experiences.

My mom always maintained a large vegetable garden when I was young. We spent weekends and after school hours there, watering and eating. We would just take a knife, potato peeler and the salt and pepper out with us and eat and work. The chickens would be let out to scratch around, too. My brother and I would entertain ourselves climbing a giant Oleander at the front of the garden, which was also right by the street so we could quietly spy on any unsuspecting neighbors who may be walking by. We were also in 4-H and had a large barn of rabbits next to the garden, providing much much we had to shovel!

One of our favorite things to do in the afternoons when we went to tend the rabbits was eat the pulp out of the cherry tomatoes and throw the skins at each other, boy would my mom be upset when we came in with all of those stains on our school clothes! My mom was also no stranger to landscaping our yard, providing me with a wonderland to play in with My Little Ponies and my imaginary friend (who treated me nicer than my big brother!). I owe my early love of gardens to my mom and all her hard work, now we share many fun conversations but these days I usually know what plant she’s talking about!

What is your current garden like?

At our home that we sold when we moved to Brownsville, I had been gardening for five years. When we moved, I spent months beforehand potting up precious things I wanted to take with me. It took a whole vehicle and trailer combo to bring my loot (not including houseplants). A large amount of it stayed in the pots where I have struggled to keep it alive through three summers. More tender things were planted at the rental and I took splits from them to bring to my new place. I have beautified many a rental house in my life using this method! Even though it was hard work, it makes me happy to know that I have spread many flower friends around Earth this way.

I can’t wait to get started on my (hopefully) last garden and get these friends into the ground.

I would consider my 60+ houseplants as part of my current garden. Those I usually struggle to keep happy all winter until I take them outside for the summer, where they flourish. Right when they are at their finest, I have to drag them in (hopefully) before a frost and then they slowly decline until I can get them outside again. I used to find myself saying that I wasn’t good with houseplants, until a few years ago I realized that I have a few that are roughly 25 years old, so I guess I’m not that bad.

Describe one plant that you grow which reminds you of home.

In my garden wonderland of a childhood front yard there was a silk tree (Albizia julibrissin). When I was very young, it lived in a location where my mom did not want it. She attempted to dig it out, but when the shovel proved unsuccessful, my dad hooked up the truck and chain and dragged it out to the burn pile. A few months later, there was the stump, sprouting in the burn pile. My gardening mom, who (like most of us gardeners) has a soft spot for all things growing, decided that if it wanted to live so bad, she would put it in the front yard. It was small while I was small, I even broke a branch trying to climb it too soon and was too afraid to tell my mom, but that die-hard healed up and lived there until I was in my 20’s. It was massive, so massive in fact that it overshadowed much of the street and the solar panels on the opposite side of the roof. That’s when my dad, who is more of a ‘cement it and paint it green’ kinda gardener, chopped it down for good. Nevertheless, a few years ago, I was at my dad’s and potted something up with his native soil and wouldn’t you know, up sprouted a silk tree from a dormant seed in that soil. As I have inherited a soft spot for all things growing, I now have a potted silk tree that I just may find a spot for on my new farm.

What’s a favorite garden memory—a sound, sensation, smell or taste associated with a favorite garden in your life?

The other thing that I plan on planting in my new garden that reminds me of that front yard wonderland is Lantana. I spent countless hours catching butterflies from those plants and now as soon as I smell their distinct aroma, it takes me

Continued on Page 8
In November, Master Gardeners gathered to celebrate graduates and continuing volunteers in the Master Gardener Program. We also recognized Master Gardeners of the Year and Master Gardeners Behind the Scenes.

OSU Extension Master Gardener Program wishes to thank our supporters at Benton County Master Gardener Association, The Philomath Scout Lodge and Linn County Master Gardener Association. It was truly a celebration to remember.

Part of the class is pictured here, celebrating their achievements. Volunteer trainees completed at least 66 hours of service to the community, solving garden problems, growing demonstration gardens, hosting educational events for gardeners, holding a huge plant sale, and more.

The newly certified volunteers are looking forward to identifying your mystery insects, solving your plant problems, and helping you grow the knowledge you need for a sustainable garden. Find Master Gardeners at community plant clinics next spring, or at your local Extension office.

Right back. What’s funny to me about that yard is, as I got bigger, it got smaller. My dad eventually removed everything living and filled it with rock, and the actual square footage is probably no more than 70, but my mom sure knew what to do with a small space to make it infinite for me.

What does being a Master Gardener volunteer mean to you?
Being a Master Gardener means that not only do I get to help others have a more enjoyable and successful garden, but the learning opportunities are endless. I also get to surround myself with other fellow gardeners, which is great fun. I enjoy giving to my community and Master Gardening allows me to do that and do it in a way that I love.

What’s one thing people might be surprised to know about you and your garden?
Fall of 2018 I purchased around 1000 daylily seedlings from someone who was hybridizing but giving it up to move out of the country. This summer about one third of them bloomed and my husband and I tried our hand at pollinating them, resulting in a large amount of new seeds to start and I am excited to see what we came up with. It’s hard to be patient though, since it can be multiple seasons before you see results!

Each year, the Oregon State University Extension Association honors individuals and businesses who have made significant contributions to Extension programs. It is through these cooperators that Extension is able to accomplish so much. This year’s award winner is Rich Little. Rich has demonstrated exemplary dedication to OSU Extension programming. Although he has been a pivotal volunteer in Linn County, serving both the Master Gardener and 4-H programs, his activities have had statewide impact, particularly around the topic of pollinator health.

As a member of Oregon’s Legislative Task Force on Pollinator Health he emphasized the key role of Extension, resulting in the Legislature creating a new Extension program at OSU. He developed ambitious programming around mason bee culture for the Linn County Master Gardeners, resulting in the largest annual pollinator conference for gardeners in the Pacific Northwest (BEEvent), as well as routine training around mason bee culture and fundraising through the sale of mason bee cocoons. Rich also contributed to the OSU’s Extension publication on mason bee culture. His contributions to the Oregon Bee Atlas and 4-H also demonstrate his dedication to pollinator health Extension. Thank you, Rich!
What Not to Flush

By Chrissy Lucas

One of the most popular parts of my Living With Your Well & Septic System class is discussing what should and should not be flushed down the toilet. Toilets are NOT trashcans. Whether you flush it down the toilet, grind it in the garbage disposal, or pour it down the sink, shower, or bath, everything that goes down your drains ends up in your septic system. What goes down the drain affects how well your septic system works. Keep in mind that these items should not be flushed even if you have paid sewer services, your city’s sewer maintenance folks would appreciate it. Just remember before you are tempted to flush anything, these items contribute to your sludge layers because they do not break down. Most of these items are better thrown in the trash can, unless they have special handling requirements.

- **Medications:** Any medication both prescription and non-prescription should not be flushed. If you have any medications that you need to get rid of, please reach out to your local health department or pharmacy to find the best place to drop those items off.
- **Animal Waste/Cat Litter:** Animal waste from our pets can have different microorganisms that are not appropriate to go into a septic system. The systems were designed with human waste only in mind. Bag up your animal wastes and toss in the trash can. There is no such thing as flushable cat litter. While some brands say they are flushable, just because you can flush something does not mean you should! Cat litter is primarily composed of items that are not biodegradable (basically just going directly into your sludge layer that has to be pumped out).
- **Wet Wipes (baby, medicated, make-up):** These are not designed to break down after flushing. They also can get tangled in pipes and cause clogging.
- **Paper towels/Tissues:** Just like wet wipes above, paper towels and tissues are not designed to break down easily. A better option is to add them to a compost pile where they have the time to break apart.
- **Cigarette Butts:** The tightly woven filters do not break down and decay. Cigarette butts float too and can cause clogging in your pipes and septic.
- **Cooking Grease:** Cooking grease can cause clogs, but also has an antimicrobial effect in your septic tank.
- **Food:** Use that garbage disposal sparingly. Any excess food material requires your tank microbes to work harder to break down undigested food scraps.
- **Dental Floss:** Floss is not biodegradable and can cause serious clogs and damage.
- **Q-tips/Cotton Balls:** You might think that cotton will break down, since some toilet paper is made from cotton linen, but they don’t! They will clump together, causing stoppages at bends in the pipes.
- **Diapers:** Just because there is human waste inside does not mean that they are OK to flush. Diapers are made to expand in water. In the unlikely case you actually get the diaper to flush, it will likely get caught in the bends of the pipe.
- **Condoms:** Flushed condoms do NOT break down in septic tanks because of the materials they are made from. In addition, they can clog your plumbing, which can be expensive to fix. Just throw them away in the trash can.
- **Feminine Products:** Tampons and other feminine hygiene products are designed to not break down easily in water. As noted on the packaging they are not supposed to be flushed down the toilet.
- **Additives:** There are many products out there that claim that they reduce sludge, maximize performance, add in additional bacteria, add in enzymes, and many more claims that do NOT have any research to support their effectiveness. Your bodily wastes (specifically your poo) are all the bacterial additive you need to keep your septic tank working perfectly.

Remember that your septic tank is not a trash can. There are even some toilet papers that do not break down easily. While labelled septic safe, that may not mean that it will not cause clogs or readily degrade. Do an experiment with your toilet paper. Grab a big bowl, fill it with cold water, add the amount of toilet paper you would use at one bathroom event. Let the paper sit in the water for 20 minutes. If the paper isn’t broken down and easily swished into a paper water slurry – it might be time to look for a new brand. In addition, just in case you were wondering dead fish, paint, band-aids, and toys are also not recommended to be flushed. For additional information about septic systems visit http://wellwater.oregonstate.edu
A local nonprofit, Ten Rivers Food Web, recognized that there was a need for access by small farms (1/10th of an acre up to 10 acres) to a broader range of organic soil amendments and growing supplies in our community. Farmers and market gardeners operating at this scale need more options than are offered by garden centers, but are too small to have wholesale accounts with agricultural suppliers. In response they organized an annual soil amendment sale to leverage collective purchasing to offer wholesale prices to small-scale growers. As a result, they are able to nurture a community scale of organic production that is not well served by existing businesses.

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Accessing Organic Soil Amendments - A Local Option

By Jeffery Gray and Teagan Moran

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For the Love of Productivity, Profit, and the Environment - Nutrient Management

By Teagan Moran, OSU Extension Services Small Farms Program

There is beauty and horror in the fact that a farmer’s production choices can have a ripple effect – on their crops, their business, and the environment. Farmers can make hundreds of decisions in just one day. So, when a decision can have a multitude of positive impacts, I like to shout it from the rooftops! On farm nutrient management results in greater profits, productivity, and health for our environment.

Nutrient management is where a farmer balances soil nutrient inputs with crop requirements. The application is done efficiently, improving productivity while protecting the environment. By analyzing soils, farmers are able to determine timing, type, placement, application rate, and application intervals of nutrients to maintain short- and long-term productivity (SARE, 2018). Teresa Matteson from Benton Soil and Water Conservation District states “Most business people, such as growers, listen when you share information that impacts their bottom line. Fertilizers cost money and require labor to apply; both costs and labor are reflected in the bottom line. Therefore, it makes good business sense to understand amendments’ role in production and how to track nutrient use. When growers optimize nutrient use, they maximize their production potential with the added benefit of natural resource protection. Managed nutrient inputs support soil health and protect water quality.”

An inefficient use of nutrients, such as Nitrogen (N), with excess applications, has led to large losses to the environment with impacts on air and water quality, biodiversity and human health. (Goulding, Jarvis, Whitmore 2007) The excess (what the crops cannot absorb) leaches into waterways and contaminates drinking water for people and livestock. Contamination results in the death of aquatic plants and animals. When water and soils are contaminated, people who rely on those resources for their livelihoods face economic consequences.

Why are farmers over applying nutrients? Sometimes the actual amount needed for an individual crop is unknown. It takes expertise, time, and money to put together a nutrient management plan and to implement it. Sometimes people have a surplus of organic matter (manure or leaves for example) and apply it all because they have it, not knowing that organic materials can have negative impact. Farmer’s see a significant increase in yields when adding nutrients to their crops; this encourages an over-application when one thinks “a little more for good measure, what is the harm?” It is essential that nutrients removed from land in plants and animals are replaced and, in some nutrient-poor soils, increased, but not at the expense of environmental pollution. (Goulding, Jarvis, Whitmore, 2007). To address this, farmers can put together a nutrient management plan. Implementation of the plan benefits the farmer by improving crop yields, reducing costs, and will keep nutrients on the fields where they are needed, not in the streams and groundwater where they are harmful.

Are you interested in learning more? On February 8, from 9 a.m. to noon, you can attend a workshop on Nutrient Management for Diversified Vegetable Growers. Presented by Benton Soil and Water Conservation District, OSU Extension Services, and USDA NRCS. The workshop is an opportunity to learn all about nutrient management needs on your farm, how to develop and implement a nutrient management plan, and NRCS funding opportunities for high tunnels and transitioning to Organic production. Participants will leave with a resource packet. For more information and to register (cost to attend is $5) visit: https://extension.oregonstate.edu/program/all/smallfarms/events

For those unable to attend the workshop, you can contact our USDA NRCS District Conservationist (Linn and Benton Counties) - Amy Kaiser 541-801-2671, amy.kaiser@usda.gov. She can help provide resources and guidance for the creation of a Nutrient Management Plan.

For some additional reading see:
- Oregon State University Fertilizer Guides, you can find Nutrient Management Guides specific to Diverse Vegetable Production, Blueberries, Pasture, Corn, etc. https://catalog.extension.oregonstate.edu/topic/agriculture/fertilizer-guides

References:
- Sauter, Ralf. 2019. Soil Health Case Study USDA NRCS

Garden Calendar continued from Page 6

- Clean pruners and other small garden tools with rubbing alcohol.
- Water landscape plants underneath wide eaves and in other sites shielded from rain.
- Do not walk on lawns until frost has melted.

Pest Monitoring and Management
- Scout cherry trees for signs and symptoms of bacterial canker. Remove infected branches with a clean pruner or saw. Sterilize tools before each new cut. Burn or send the branches to a landfill before bloom. See Managing Diseases and Insects in Home Orchards.
- Watch for field mice damage on lower trunks of trees and shrubs. Eliminate hiding places by removing weeds. Use traps and approved baits as necessary.
- Use dormant sprays of lime sulfur or copper fungicide on roses for general disease control, or plan to replace susceptible varieties with resistant cultivars in February.
- Moss in lawn may mean too much shade or poor drainage. Modify site conditions if moss is bothersome.
- Spray peach trees with approved fungicides to combat peach leaf curl and shothole. Or plant curl-resistant cultivars such as “Frost”, “Q1-8” or “Creswell”.
- Monitor landscape plants for problems. Don’t treat unless a problem is identified.

Houseplants and indoor gardening
- Monitor houseplants for correct water and fertilizer; guard against insect infestations; clean dust from leaves.
- Protect sensitive plants such as weeping figs from cold drafts in the house.
- Propagate split-leaf philodendrons and other leggy indoor plants by air-layering or vegetative cuttings.
- Plant dwarf annual flowers such as coleus, impatiens and seedling geraniums inside as houseplants.
- Gather branches of quince, forsythia and flowering cherries and bring them indoors to force an early bloom.

Planning
- Tune up lawn mower and garden equipment before the busy season begins.
- Have soil tested to determine its nutrient needs. View Analytical Laboratories Serving Oregon. https://catalog.extension.oregonstate.edu/em8677
- Select and store healthy scion wood for grafting fruit and nut trees. Wrap in damp cloth or peat moss and place in plastic bag. Store in cool place.
- Plan an herb bed for cooking and creating an interesting landscape. For example, choose parsley, sage, chives, and lavender. Choose a sunny spot and plant seeds or transplants once the danger of frost has passed (late April or early-May in the Willamette Valley and central Coast; June or July in eastern and central Oregon).

Continued on Page 20
Commercial Agriculture
Field Crops

Upcoming Meetings

January
7 & 8  Winter OSU Extension Seed Crop and Cereal Production Meetings in Albany, West Salem, and Forest Grove. No pre-registration required.
9 & 10  Oregon Mint Growers Annual Meeting at Salishan Lodge in Gleneden Beach.
15  Oregon Ryegrass Growers Association Annual conference at the Linn County Fair and Expo Center in Albany. Pre-registration is recommended. Contact the Linn County Extension Office for more information 541-248-1088.

February
5  Oregon Clover Growers Annual Meeting at the Holiday Inn Conference Center in Wilsonville. For more information, call 503-364-2944.

Preparing for Spring

By Will Jessie

As I write this, we’re reminding yourself that the accumulation of growing degree-days (GDD) has been a valuable tool for predicting crop development. Their growth is strongly influenced by ambient temperature, and each species will have a development threshold under which little to no growth occurs. By tracking the amount of daily warmth that accumulates, we’re able to estimate the current growth stage of plants and insects to plan management activities. We can predict when growing plants will be in need of nitrogen or when insects have had enough warmth to emerge in spring.

Seed Crop and Cereal Production Meetings

Tuesday, January 7
- 8:30 a.m. - noon – Roth’s Hospitality Center, West Salem
- 1:30 p.m. - 5 p.m. – Linn County Fair and Expo Center, Albany

Wednesday, January 8
- 8:30 a.m. - noon – Forest Grove Elks Lodge,
Winter: A Great Time to Prune Fruit Trees

Pruning can be done any time of the year, but pruning in the winter when the tree is dormant is considered the best time. Dormancy begins in November, when leaves fall from the tree, and continues until bud break in March. Pruning is important for several reasons, but the main goal of pruning should be to create a strong tree structure that can support a heavy crop.

Before you start pruning, it is important that you understand where flowers will form so that you don’t remove all of the wood that will produce fruit. Apples and pears bloom on 2-year-old wood, and cherries bloom on both 1- and 2-year-old wood. Persimmons bear fruit on new shoots that grow from 1-year-old wood.

General tips for pruning:
- When winter pruning, try to avoid pruning when extremely cold or wet weather is in the forecast. February is considered the best month since most major freezes have passed.
- Always use clean, sharpened tools, and sterilize your equipment between each tree. Sterilize your tools by soaking them in rubbing alcohol for about 1 minute, and then wiping them off with a clean rag.
- Remember the three D’s and remove dead, diseased, or damaged wood.
- And finally, never remove more than 30 percent of the total tree at any one time. Anything more than that will result in rampant new growth that can negatively impact fruit set and development.

For more information on pruning fruit trees, you can download a free copy of Training and Pruning Your Home Orchard (PNW 400) from the OSU Extension Catalog at https://catalog.extension.oregonstate.edu/pnw400

Training and Pruning Young Hazelnut Trees

Approximately 15,000 acres of hazelnuts are now planted in Linn and Benton counties. With all the new trees going in the ground, I want to take a moment to talk about how to properly train and prune a young hazelnut tree. Commercial growers may know that there are a lot of different opinions about how to prune a hazelnut tree, but it is generally agreed that establishing a strong open structure is best. Hazelnut trees should be headed at about waist height at planting (about 30–36 inches). Be careful not to head them too high, or you may end up with a top-heavy tree that can topple over.

During the first dormant season, select 3–5 branches to serve as the main scaffolds of the tree, and remove all other limbs. You want the scaffold branches to be fairly evenly spaced around the tree, and with vertical space between them. If you select two branches that are protruding from the same height this can weaken the branches. Make heading cuts to any of the main scaffolds that grew more than 24 inches, but didn’t produce lateral shoots. Once the tree is trained and established, pruning will be minimal and can focus on maintaining an open structure, thinning or shortening low laterals to make harvesting easier, and removing suckers and dead or diseased wood.

One other note about pruning hazelnut trees; if you have trees with Bacterial blight (Xanthomonas arboricola pv. corylina) in your orchard, then you must take extra precautions when pruning. Bacterial blight can spread via rain splash and potentially through pruning equipment. Look at the forecast and prune in dry weather, and sterilize your pruning equipment between trees (use the two-pruner method).

For more information on pruning hazelnut trees, see the OSU Extension publication on training and pruning hazelnut trees (EM9078) https://catalog.extension.oregonstate.edu/em9078 or contact me at erica.chernoh@oregonstate.edu.

Upcoming Event

The Nut Growers Society Winter Meeting will be held on Thursday, January 16, at Oregon State University in Corvallis. The tradeshow will be at the CH2M Hill Alumni Center, with breakout sessions next door at the LaSells Stewart Center. Registration opens at 7 a.m.
Benton County 4-H Youth Development

4-H Wildlife Stewards Teacher Professional Development Workshop

February 29 • Finley Wildlife Refuge • Cost $25

Hands-on lessons to do with youth/students, time to explore the refuge and learn about the refuges new bi-lingual curriculum.

Junior Leadership Opportunities

Youth grades 7th-12th have numerous opportunities to sharpen their skills in leadership, communication and more! The focus for 4-H Junior Leaders is to build skills and gain confidence while helping clubs succeed. Junior Leaders work with adult leaders to plan, organize, teach, and lead activities within their club environment and beyond.

Junior Leader training is open to all youth in 7th-12th grades who want to expand their skills. Junior Leader training is open to all youth in 7th-12th grades who want to expand their skills. The training will be held on Saturday, February 15, from 10 a.m. to noon at the Benton County Extension Office. Registration is required, but there is no cost to attend. Youth do not need to attend this training more than once in their 4-H career, unless they would like a refresher or more ideas to sharpen their skills. One adult leader must accompany and attend training with the registered member. Contact the Benton Extension office to register.

Record Keeping: An Essential 4-H Life Skill

An essential life skill that we teach in the 4-H program is record keeping. You’ll often hear 4-H’ers refer to the “record books” that they’ve been keeping since they began their 4-H career. Learning how to keep records is both an art and a science. While there are foundational pieces of information that need to be kept in 4-H records, there is also room for 4-H’ers to personalize their 4-H stories.

Record keeping teaches 4-H members about accounting, reporting, and written communication. Furthermore, members who keep record books are eligible for 4-H scholarships, travel opportunities, leadership positions, and awards at the county, state, and national levels. Record books also provide an invaluable personal history and memory book to look back on for years into the future.

Record keeping is a fundamental part of a member’s 4-H experience, and we encourage all 4-H members to attend our annual Records Workshop, which will be held on Saturday, February 15, from 1-3:30 p.m., at the Benton County Extension Office. New and returning youth will learn new and helpful tools to complete records more efficiently. Contact the Benton Extension office to register. There is no cost to attend!

Presentations Contest Slated in February

A presentation is a method used to communicate an idea by showing and/or telling. It is a way to present information to others, to teach and share what you know or have learned in a structured way.

Giving presentations is an important part of the 4-H experience. No matter what project area you are in, you can give a presentation. Every 4-H member is encouraged to give at least one presentation every year.

Why should you give a Presentation?

All through your life, you will need to speak in front of others. Whether it is at school, at work, or at home, you will need to know how to ask for things, how to explain things, or how to speak persuasively enough to win the support of others. Speaking skills will help you in job interviews and allow you to give effective presentations to your peers.

Horse project members can also earn points for the all-around award given at the end of the year by participating.

The Benton County Presentations Contest will be held on Monday-Tuesday, February 24-25, and is open to 4-H members aged 5-19. This contest is the state qualifying event for Intermediate and Senior members. Please call the Benton Extension office to register and visit our website for all the details and contest rules.

4-H members present to a judge, using one of the following categories:

- Demonstration (show how to do something – great for new presenters)
- Illustrated Talk (use visuals/equipment)
- Speech (no visuals or equipment – challenging for experienced presenters)
- Impromptu (on-the-spot presentation-topic provided by judge)
- Cloverbud non-competitive opportunity (ages 5-8); Show & Tell, Recite Pledge, Other topic of choice.

Benton County Annual Fund Campaign

We welcome your support of the Benton County 4-H program through our annual Benton County 4-H Fund Campaign! This yearly event provides support for the many educational activities offered to local youth through the 4-H program. Donations are now accepted online and in office! Please visit www.bentoncounty4h.com/donate

Any contribution is greatly appreciated. If you have donated in the past, we greatly appreciate your support. Your contribution helps our program focus on positive youth development for Benton County youth.

Regional Small Animal Clinic

Small animal 4-H project members will have the opportunity to learn more about their projects at the 2020 Critter Campus, held on Friday, January 10 at the Polk County fairgrounds. This year, the clinic will cover rabbits, cavies (guinea pigs), poultry, turkeys, and more. Youth can bring their rabbits or cavies to the event, although they are not required to do so. Participants will have the chance to work with experienced judges with or without their animals.

4-H members can register for this FREE event and have animals health-checked at the door. More information can be found by contacting Polk County Extension at 503-623-8395.
4-H Camp Counselors Wanted for Overnight Camp

We are looking for youth who are in 9th–12th grade to apply to be a Camp Counselor at our overnight 2020 Four Rivers 4-H camp in Salem, Oregon. Volunteer Camp counselors gain valuable job experience, learn about leadership and responsibility, and become wonderful role models for the 4th–8th grade campers. 4-H Camp will be held June 20–June 24, (Saturday - Wednesday), with counselors arriving on Thursday, June 18. Both 4-H and non-4-H youth are encouraged to apply.

New interested youth can go to the Benton County website and find the link to apply on-line https://extension.oregonstate.edu/4h/benton. The link will be live by mid-January. Applications need to be submitted on the website by Monday, February 17. We are also recruiting applicants for Junior Volunteer staff (college age students or older who do much of the behind the scenes work at camp plus support counselors).

All applicants will need to attend the 4-H Counselor Selection Day on Saturday, March 7, at the BENTON County Extension Office. The selected counselors and alternates must also participate in counselor trainings. The first training is on Saturday, May 2, at the Benton Extension Office. The second training is two days, and will be held immediately prior to camp on Thursday, June 18 and Friday, June 19 at Oregon 4-H Center in Salem. There is no cost for trainings.

Spring Break Camp at the Oregon 4-H Center!
Camp White Oak, an outdoor adventure camp

March 23-26, 2020
- Open to youth in grades 5th-8th
- Cost: Early bird registration by February 14 is $160/youth. Regular registration February 15-March 3 is $190/youth.
- Location: Camp is a four day, three night stay in cottages at the 4-H Center near Salem, Oregon
- Transportation available

Clovebuds Do Crafts!

Children ages 5-8 can participate in a fun, hands-on, non-competitive, introductory 4-H program called Cloverbuds. Cloverbuds introduce youth to cooperative learning, and the wide variety of things they can do in 4-H. Once they reach 9 years of age, they can become a 4-Her and choose from over 100 different projects.

Cloverbud members recently had the opportunity to learn new craft skills at the second annual holiday craft workshop held at the Benton County Extension office. With the help of several volunteers, the seventeen participating youth did five craft rotations, made holiday-themed snacks, and played festive games while many of their parents watched. Cloverbud members were very enthusiastic about creating gifts for family and friends.

There was an addition to the workshop this year: Cloverbud members were able to make one craft for charity. Directly following the workshop was an art auction for family members and guests. Proceeds were evenly split between supporting the Cloverbud program and a local charity that the attending Cloverbuds voted on that evening. This year, the Cloverbuds chose Heartland Humane Society. The Cloverbuds will be visiting Heartland shortly to deliver their check. This is one of many opportunities where the Cloverbuds get to experience giving back while having fun and learning.

Health for Better Living
Seasonal Affective Disorder - Information for Parents

At first, Pat’s parents thought Pat was slacking off. After the Thanksgiving break, Pat couldn’t concentrate in class, and after school all Pat wanted to do was sleep. Pat’s grades began to drop and Pat rarely felt like socializing anymore. They were upset with Pat, but figured it was just a phase – especially because Pat’s energy finally seemed fine in the spring.

But when the same thing happened the next fall, and Pat’s mood and grades plummeted again, they took Pat to the doctor.

Continued on Page 17
Hello Linn county and surrounding community members! My name is Paul Smith, and I am the new youth program coordinator for Linn County 4-H. I am very excited to work alongside Andrea Leao, some great 4-H members, volunteers and youth as we strive to improve heads, hearts, hands and health in the community. Since I am new to the position, I would like to introduce myself and briefly explain why I am excited to be a part of 4-H.

Most would consider the question, “Where are you from,” to be a simple question, but for years, I have struggled with that question. I was born in Texas, but I spent most of my early childhood in Peru, South America. I spent my 8th-12th grade years in Corvallis, but shortly after graduating from Crescent Valley, I was off to the Army to become an airborne infantryman. I bounced around the U.S. and the world some more during my time in the military. My travels did not stop after leaving the service. Initially I moved back to Oregon, then on to sunny and warm weather in Florida, and later Bolivia, South America. I moved back to Oregon in 2012 and have lived in Albany since then. By now, I have to consider myself mostly Oregonian. I am an Oregon State graduate, and for the last eight months, I have worked for OSU Extension Service doing nutrition education and outreach as well as obesity prevention for SNAP-Ed. My hobbies include playing soccer, camping during warmer weather, watching Oregon State football and spending time with family and friends.

I am excited about being the new youth program coordinator because I enjoy working with youth and I want to help make my community, and the world, a better place. I believe that 4-H is an important organization that helps young adults learn and improve upon skills that they will need throughout life. Changing the world for the better is a lofty goal, and the more people involved in working toward that goal, the better. It is easy to wish for positive change, but it takes some Hs to make it happen. Having HEART means having passion, resiliency and a love for the world and people around you. Having a good HEAD means having knowledge and curiosity about the world. Having good HEALTH vastly improves a person’s quality of life, and having helpful HANDS allows a person to put their skills and abilities to work. Combined, the four Hs give a person the essential tools to not only succeed at life, but to also help others succeed in life as well.

So how exactly do I plan to help youth develop those tools? Mainly, I want to encourage them and provide opportunities for them to learn, grow, and become the best version of themselves possible. I want to help them discover their passions in life so that they feel a sense of purpose. I want to surround them with people who will have a positive impact on their life. So, if you are a young adult, or an adult that is interested in participating or volunteering in 4-H, please consider joining me. Together we can work toward making our community and the world a better place for all.

HEAD- A combination of formal and informal education. Your head is how you make sense of the world around you and how you put that knowledge to use.

HEART- A strong heart means love, resiliency, courage and hope.

HANDS- Using your skills and abilities to be productive in this world.

HEALTH- Overall physical, mental and spiritual well-being.
Linn County 4-H clubs and members were excited to bring some Christmas cheer to the residents of the Lebanon Veteran’s Home. The 4-H clubs throughout our county donated money toward purchasing specific items that were requested for the Veteran’s Home. The Lucky Livestock club cut out and sewed all the stockings for the project this year. Members and parents came together to stuff the stockings and write Christmas Cards to each resident of the Veteran’s Home. On December 18th, the Reining Riders and Ranchers 4-H club brought their special horse friends to the Veteran’s home to bring extra holiday cheer to the residents.

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who diagnosed Pat with a type of depression called seasonal affective disorder (SAD).

About Seasonal Affective Disorder
A form of depression that follows a seasonal pattern, SAD appears and disappears at the same times each year. People with SAD usually have symptoms of depression as winter approaches and daylight hours become shorter. When spring returns and the days become longer again, they experience relief from the symptoms and a return to a normal mood and energy level.

Signs and Symptoms
Like other forms of depression, the symptoms of SAD can be mild, severe, or anywhere in between. Milder symptoms minimally interfere with someone’s ability to participate in everyday activities, while more severe symptoms can interfere much more.

The symptoms of SAD are the same as those of depression, but occur during a specific time of year. It’s the seasonal pattern of SAD—the fact that symptoms occur only for a few months each winter (for at least 2 years in a row), but not during other seasons—that distinguishes it from other forms of depression.

Symptoms of SAD may include:
- **Changes in mood**: sadness, irritability, and/or feelings of hopelessness or worthlessness most of the time for at least 2 weeks; tendency to be more self-critical and more sensitive than usual to criticism; crying or getting upset more often or more easily
- **Lack of enjoyment**: loss of interest in things that are normally enjoyable; feeling like tasks can’t be accomplished as well as before; feelings of dissatisfaction or guilt
- **Low energy**: unusual tiredness or unexplained fatigue
- **Changes in sleep**: sleeping much more than usual (which can make it difficult for kids with SAD to get up and get ready for school in the morning)
- **Changes in eating**: craving simple carbohydrates (i.e., comfort foods and sugary foods); tendency to overeat (which could result in weight gain during the winter months)
- **Difficulty concentrating**: more trouble than usual completing assignments on time; lack of usual motivation (which can affect school performance and grades)
- **Less time socializing**: spending less time with friends in social or extracurricular activities

The problems caused by SAD—such as lower-than-usual grades or less energy for socializing with friends—can affect self-esteem and leave people feeling disappointed, isolated, and lonely, especially if they don’t realize what’s causing the changes in energy, mood, and motivation.

What causes SAD?
Although the exact cause is unknown, researchers believe that changes in the amount of daily sunlight cause changes in the body’s internal biological clock, known as our circadian rhythm, and in turn, mood altering brain chemicals.

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FORESTRY AND NATURAL RESOURCES

Seedling Sale and Local Woods Fair

The 25th Linn County Seedling Sale will be held on Saturday, February 1, from 8 a.m. to noon, at the Linn County Fair and Expo Center, along with the Local Woods Fair. Both events are sponsored by the Linn County Chapter of Oregon Small Woodlands Association. Proceeds from the Seedling Sale are used to help fund educational programs for youth in Linn County, including 4-H and college scholarships.

The Local Woods Fair is a mixed craft and educational event, featuring artisans working with locally-produced woods, and groups providing information and services relevant to our local woodlands.

Seedlings will be available while supplies last and pre-orders are encouraged. All pre-orders need to be submitted by January 18. The plant list/information sheet and seedling order form are available electronically at the website http://linncountyswa.com/ under the “LCSWA Activities” tab or on request from Extension jody.einerson@oregonstate.edu. For questions or additional information, please contact Bonnie Marshall at bonnieym@wvi.com or 503-769-6510. For questions about the Goods from the woods, contact Mary at brendle@wildblue.net or 541-367-2845.

OSU Extension Builds Partnerships with New Fire Program

By Kym Pokorny, OSU Extension and Experiment Station Communications

In a time of increasing wildfire activity, Oregon State University Extension Service has implemented a new statewide fire program to help facilitate forest and range management plans, as well as create a healthy respect of fire through education and outreach efforts.

The program, led by the OSU Forestry & Natural Resources Extension Program and the College of Forestry, focuses on creating opportunities for landowners by building partnerships.

“You can think of the fire program team as ‘boundary spanners,’” said Carrie Berger, associate program leader for the Forestry & Natural Resources Extension Program. “The team will work to build those important partnerships that are so crucial to mitigating Oregon’s risk of catastrophic wildfire.”

With funding allocated by the Oregon Legislature, the fire program will hire a director, a state fire specialist, and six regional fire specialists. The specialists will be strategically placed in areas of greatest risk and need as the growing program expands the impact of current efforts and builds on existing partnerships.

“Over the last year, advances in the fire program have assisted landscape-scale progress in Lake and Klamath counties, where OSU Extension is working with partners to create consistent land management plans for private landowners and creating an economy of scale to make a positive difference on the ground,” Berger said. “As a result, 60,000 to 70,000 acres on both private and public lands have been treated to lessen fire risk by reducing fuel loads, improving forest health and restoring wildlife habitat. Other efforts have focused on defensible space treatments across ownership boundaries. Benefits are being realized for ecosystems, communities and economies.”

“If we can prioritize where need is the greatest in the state and come up with a diagnosis of what needs to be done, we can come up with a prescription of management treatments. That’s where we’re headed,” said Daniel Leavell, OSU’s Extension forester who has over 40 years of fire experience. “While Oregon didn’t see much fire in 2019, in 2018 Oregon’s cost to fight wildfires hit a record high of $514 million with over 800,000 acres burned. Fuels in forests, woodlands and ranges have built up in the last 100 years due to fire suppression, Leavell noted. Fires start sooner and burn hotter with drier weather. More homes are located on the edges and middle of forests and woodlands that used to be remote areas. Homes are built in greater numbers and higher densities than ever before. These boxes of fuel are filled with synthetic materials that also burn hotter.

“We used to have 30 minutes to respond to a house fire,” Leavell said. “Now with synthetics, laminates and artificial composites throughout homes, we have three. We need to be prepared for that.”

“In addition to partnership building, education is essential to prepare landowners, land managers, emergency responders, policy makers, educators and the public to work together to plan for wildfire as the threat continues to climb,” Leavell said. “We’re trying to shift attitudes to be more proactive than reactive.

Expect to see more here about this important new part of the Forestry & Natural Resources Extension program and how it will look in our area as things develop in the future.
An Easy New Year’s Resolution: Subscribe to the Woodland Compass

Are you interested in seeing more information about how to take care of your woodland property? Do you want to find out about upcoming events? Then you should subscribe to the Woodland Compass and Needle, the FREE electronic news and announcement bulletins from Benton, Linn and Polk Counties Forestry & Natural Resources Extension.

The Compass is released electronically six times yearly with information about the art and science of taking care of your woodland property for the benefit of you and the creatures that live there. As an on-line publication it comes in full color with active links to other stories and resources. The Needle has timely electronic announcements, and is the best way to find out about upcoming woodland events and happenings offered by Extension and its partners in the mid-Valley.

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Circadian rhythm is a 24-hour cycle that affects our eating and sleeping patterns, brain wave activity, hormone production, and other biological activities. In susceptible people, less daily sunlight and the seasonal changes in circadian rhythm can bring on depression and negative thinking.

Experts also believe that reduced sunlight during fall and winter leads to lower production levels of the “feel good” chemical serotonin in the brain. When you are “a quart low in serotonin,” you can feel tired, depressed, and crave carbohydrates. (Jane Riffe, WVU Extension)

Who Gets It?

About 6 in every 100 people (6 percent) experience SAD. Although it can affect kids and young teens, it’s most common in older teens and young adults, usually starting in the early twenties. Like other forms of depression, males are about four times more likely than females to develop SAD, as are people with relatives who have had depression. Individual biology, brain chemistry, family history, environment, and life experiences also might make certain people more prone to SAD and other forms of depression.

The prevalence of SAD varies from region to region, and it’s far more abundant among people who live in higher latitudes. For instance, one study found the rates of SAD were seven times higher among people in New Hampshire than in Florida, suggesting that life farther from the equator is a risk factor for SAD.

However, most people don’t experience seasonal depression, even if they live in areas where days are much shorter during winter months. Those who do might be more sensitive to the variations in light, and undergo more dramatic shifts in hormone production depending on their exposure to light.

What Parents Can Do

Talk to your doctor if you suspect your child has SAD. Doctors and mental health professionals make a diagnosis of SAD after a careful evaluation and a checkup to ensure that symptoms aren’t due to a medical condition that needs treatment. Tiredness, fatigue, changes in appetite and sleep, and low energy can be signs of other medical problems, such as hypothyroidism, hypoglycemia, or mononucleosis.

When symptoms of SAD first develop, parents might attribute low motivation, energy, and interest to an intentional poor attitude. Learning about SAD can help them understand another possible reason for the changes, easing feelings of blame or impatience with their child or teen.

Parents sometimes are unsure about how to discuss their concerns and observations. The best approach is usually one that’s supportive and not judgmental. Try opening the discussion with something like, “You haven’t seemed yourself lately – you’ve been so sad and grouchy and tired, and you don’t seem to be having much fun or getting enough sleep. So, I’ve made an appointment for you to get a checkup. I want to help you to feel better and get back to doing your best and enjoying yourself again.”

Here are a few things you can do if your child or teen has been diagnosed with SAD:

- **Participate in your child’s treatment.** Ask the doctor how you can best help your child.
- **Help your child understand SAD.** Learn about the disorder and provide simple explanations. Remember, concentration might be difficult, so it’s unlikely your child will want to read or study much about SAD – if so, just recap the main points.
- **Encourage your child to get plenty of exercise and to spend time outdoors.** Take a daily walk together.
- **Find quality time.** Spend a little extra time with your child — nothing special, just something low-key that doesn’t require much energy. Bring home a movie you might enjoy or share a snack together.
- **Establish a sleep routine.** Encourage your child to stick to a regular bedtime every day to reap the mental health benefits of daytime light.
- **Take it seriously.** Don’t put off evaluation if you suspect your child has SAD. If diagnosed, your child should learn about the seasonal pattern of the depression. Talk often about what’s happening, and offer reassurance that things will get better, even though that may seem impossible right now.

**Disclaimer:** This article is intended to be informative only. It is advised that you check with your own physician/mental health provider before implementing any changes.

**Sources:** Nemours non-profit Pediatric Health System and West Virginia Extension Service, Family and Human Development

http://extension.oregonstate.edu/linn

If you are interested in receiving the Compass and Needle, please email Jody Einerson jody.einerson@oregonstate.edu, or call the Benton County Extension Office 541-713-5000, and give us your name, email, and physical mailing address & phone (to help keep email lists current). There is something for nearly every interest, so put your whole family on the list. It is FREE!
Calendar of Events for Linn & Benton Counties

**JANUARY**

- **Gearing Up For Gardening Series, Tuesdays, Noon-1 p.m., January 7 - February 26, Corvallis, Benton County Public Library, free, drop-in**
- **Linn and Benton County Extension Offices closed New Year’s Day**
- **Winter OSU Extension Seed Crop and Cereal Production Meetings, West Salem, Albany, and Forest Grove. See crops page for full details**
- **Western Region 4-H Livestock Education Day, 9 a.m.-2:30 p.m., Polk County Fairgrounds, Rickreall, registration required**
- **Oregon Ryegrass Growers Association 59th annual meeting, 8 a.m.-3 p.m., Linn County Fair and Expo Center**
- **PNW Gardening Evening Talks, Growing and Using Winter Herbs, 6:30-7:30 p.m., Albany Public Library, 2450 14th Ave SE, Albany**
- **Snowshoe Special, 4-H Small Animal Show, registration begins 8 a.m., Benton County Fairgrounds Auditorium, Corvallis**
- **Linn and Benton County Extension Offices closed for Martin Luther King Jr. Day**
- **Benton County 4-H Cloverbud Day, 9 a.m.-noon, Benton County Fairgrounds auditorium, registration required**
- **Benton County Master Gardener Association Membership Meeting, 6-8 p.m., Sunset room of the Benton County Extension Office. Topic: TBA. Open to the public!**
- **Benton County 4-H Favorite Foods Contest, 10 a.m.-2 p.m., Benton County Extension Office, registration required**
- **How Now Backyard Cow (Goat and Sheep)! A 4-part workshop series on very small-scale backyard dairy management, Tuesdays, 5:30-8:30 pm, Linn County Extension, Tangent, fee and registration required**
- **PNW Gardening Evening Talks, Good Bug, Bad Bug, 6:30-7:30 p.m., Albany Public Library, 2450 14th Ave SE, Albany**
- **How Now Backyard Cow (Goat and Sheep)! A 4-part workshop series on very small-scale backyard dairy management, Tuesdays, 5:30-8:30 pm, Linn County Extension, Tangent, fee and registration required**

**FEBRUARY**

- **Gearing Up For Gardening Series, Tuesdays, Noon-1 p.m., January 9 - February 27, Corvallis, Benton County Public Library, free, drop-in**
- **Local Woods Product Fair & Oregon Small Woodlands Association Seedling Sale, 8 a.m.-noon, Linn County Expo Center, Albany. Free and open to the public**
- **How Now Backyard Cow (Goat and Sheep)! A 4-part workshop series on very small-scale backyard dairy management, Tuesdays, 5:30-8:30 pm, Linn County Extension, Tangent, fee and registration required**
- **Insights Into Gardening, 8 a.m.-4 p.m., LaSells Stewart Center, Corvallis, registration required**
- **Benton County 4-H New Leader Training, 6-8:30 p.m., Benton County Extension Office, registration required**
- **Benton County 4-H Junior Leader Training, 10 a.m.-noon, and Records Workshop, 1-3:30 p.m., Benton County Extension Office**
- **Benton County Master Gardener Association Membership Meeting, 6-8 p.m., Sunset room of the Benton County Extension Office. Topic: TBA. Open to the public!**
- **How Now Backyard Cow (Goat and Sheep)! A 4-part workshop series on very small-scale backyard dairy management, Tuesdays, 5:30-8:30 pm, Linn County Extension, Tangent, fee and registration required**
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- **Benton County 4-H Presentations Contest 3-9 p.m., Benton County Fairgrounds, registration required**

**MARCH**

- **BEEEvent, visit https://extension.oregonstate.edu/events/beevent-2020 for more details.**

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March. Tall fescue seems to run a little earlier, with forage-type starting at about 160 and turf-type at 180 GDD. Plan to wrap up spring N applications for these crops by the first week in April, at which point adding N is unlikely to increase seed yield. The target for annual ryegrass is a little later, from mid-March to mid-April. These dates change every year depending on how mild our winters are, so keeping an eye on the degree-day accumulations (https://agsci.oregonstate.edu/hyslop-weather-station) lets you target spring N applications effectively. Keep in mind that more nitrogen also means more soil acidification and more vegetative growth which doesn’t always equate to more seed yield. You can find detailed nutrient management guides and a link to the Hyslop Weather Station at the Willamette Valley Field Crops webpage (valleyfieldcrops.oregonstate.edu).