Listen to the Gardening Spot on KOHI (1600 am) radio - Every Saturday, 8:05 to 8:15 a.m.

**Free COVID-19 Testing Clinic Opens This Week**

St. Helens High School
2375 Gable Rd
St. Helens, OR 97051

10:00 am - 2:00 pm Wednesdays
December 2, 9, 16, & 30 (no testing 12/23)

Register and select your appointment time at: www.doineedacovid19test.com

- One person per appointment - each person must register individually
- Registration assistance available at the event, for those without internet access
- Drive-thru • Everyone Welcome • No Insurance Required
- Quick & pain-free self-administered nasal swab

Chip Bubl, OSU Extension Faculty, Agriculture

Agricultural Sciences & Natural Resources, Family and Community Health, 4-H Youth, Forestry & Natural Resources, and Extension Sea Grant programs. Oregon State University, United States Department of Agriculture, and Columbia County cooperating. The Extension Service offers its programs and materials equally to all people.
Unique Holiday Gifting Ideas for Country Living Readers

Shopping for holiday gift-giving may look very different this year, but you can still find unique gifts online, and many of these suggestions support small or local businesses!

Contributed by Sonia Reagan (and yes, this may be MY wish list!)

- Have someone on your gift list who is interested in craft brewing? Check out this new book by Kenneth I. Helphand “Hops: Historic Photographs of the Oregon Hopscape,” available from OSU.

- Give the gift of unique notecards, postcards, coloring books and more, by local artist Bonny Wagoner.

- Know a beginning (or experienced) homesteader? Give a year-long gift with a subscription to Backwoods Home, the original homesteading magazine, published in Oregon for over 30 years!

- Here are some ideas for old-fashioned quality tools for home, camp and garden: hori-hori knives, harvest gathering bags, pulaskis, cast iron kettles… even reusable straws! Check out the unique gifts from Bare Bones Living in Utah.

- Of course, anything from the Made in Oregon store makes a welcome gift, and this year they are featuring some pretty neat ready-to-give basket collections!

- Give the gift of a journal, or any unique handmade items from glassware to cutting boards from Oregon-based LyonCraft Engraving Company.

- If traveling locally is on your friend’s holiday wish list, gift a new Oregon Guidebook.

- One gardening tool that I love so much, it’s been suggested that I can’t live without, and is guaranteed for life… is the Meadow Creature broad fork, made on Vashon Island up in Washington.

- For putting up the harvest, a gift recipient may be in need of the latest Ball Blue Book, the ultimate home canning and freezing guide.

- Chocolate and mint, what could be better? Columbia County is home to the renowned Seely Mint Company.

- Reserve a Farm to Plate box or family-style dinner for a special event in 2021 from Topaz Farm on Sauvie Island.

- Give the gift of unique education. Check out Portland’s Wild Craft Studio for classes on traditional craft, textiles, Native American arts, foraging, and herbal medicine or give a gift certificate.

- Did you know that Oregon produces Olive Oil? That’s right! Give a truly unique and local gift of a special bottle or gift card from the Durant Olive Mill.

- Any gardener on your list would truly appreciate a gift certificate to fuel their never-ending plant addiction, such as to Means Nursery or Joy Creek.

- Especially needed this season, “Help Take A Bite Out Of Hunger” by making a donation in a friend or loved one’s name to our local Columbia-Pacific Food Bank.
In the garden

Stormy weather?

We inhabit a very turbulent landscape. Between the Arctic region, ocean currents, changing ocean temperatures, mountains, and the Gorge funneling down cold (or hot) air that otherwise would have missed us, it is a wonder meteorologists do as well as they do.

A La Niña oceanic temperature pattern seems strongly entrenched. This generally leads to warmer and wetter winters. There is a consensus that, if there is going to be snowfall, it is most likely to be in January and February.

Kelley Bayern, the KOIN 6 meteorologist put together a nice review (https://www.koin.com/weather/pacific-northwest-2020-2021-winter-forecast/) of the potential weather patterns as we go into this winter season. She also showed a very interesting graph of the snowfall in Portland by decade.

Seasonal total snowfall over the last eight decades has dropped from about 9 inches per year in the 1940’s to average about 4 inches a year in the decade just finished. And generally, La Niña years have less snowfall.

That said, with just the right mix of rain and an arctic air mass that colliding over Columbia County, you could get the 24 inches plus of snow that we had in December 2008. Also the 11+ inches of mid-January misery in 2017. Both were La Niña years. So nothing is sure. Stock up for the weather or the virus or both, but stock up!

Some other weather sources I use routinely:

National Weather Service Forecast for this area, updated by region twice a day: https://www.wrh.noaa.gov/pqr/forecasts.php
Click on “ZFP” to get individualized regional forecasts for the Columbia River region east to Hood River and south to Oregon areas west of the Cascades as far as Eugene. To geek out more on weather, click on “AFD” for the forecast discussion that reveals more about the confidence the NOAA meteorologists have in unraveling the weather pattern in the coming several weeks.

Local weather radar: I tend to use KGW 8 or KOIN 6 radar. If you click it on “future” you can get a 6 to 8 hour picture of what is most likely to happen next. I have found that they are not very able to predict fine mist that is barely rain but can get you quite wet. But otherwise they can help you plan your walk or outdoor work options: https://www.kgw.com/radar https://www.koin.com/weather/interactive-radar/

For travelling along possibly icy roads, I use Trip Check from Oregon ODOT to get temperatures and/or conditions at certain higher elevations on our prospective route. Note that not all cameras have temperature readings and some only collect temperatures at specific times (like the Wilson River Summit on Highway 6). https://tripcheck.com/ Zoom in and then click on the live cameras.

Another source for long-term weather forecasts is the Oregon Department of Agriculture Weather page, produced by meteorologist Pete Parsons. He does three month forecasts and then grades himself on how well he did and why, if he was off, what happened. Here is the link: State of Oregon: Natural Resources - Weather
Finally, Rufus La Lone is an outstanding and recently retired entomologist who served the berry industry in the Pacific Northwest well for many years. He also has a long-term obsession with weather forecasting. His skills in that area have been recognized by the Council of the American Meteorological Society when he was offered membership. He can be found at the “Weather Café” on one of the excellent commercial agriculture websites serving the nursery, berry, and specialty horticulture industry, OVS. Rufus looks further out in his forecasts, but recognizes that uncertainty increases exponentially the further out you get. [https://ovs.com/wx-cafe](https://ovs.com/wx-cafe). His forecasts are updated Monday and Friday morning.

Spiders

*Kill a spider, bad luck yours will be
Until of flies you’ve swatted fifty-three*

*Or another:
If you wish to live and thrive
Let a spider run alive*

- Collected in England

*With what voice,
And what song would you sing, spider,
In this autumn breeze*

-Basho

*In a corner of an old wall,*
*Motionless,*
*The pregnant spider*

-Shiki

Both translated from Japanese by R. H. Blyth

This was a spider autumn, especially for orb weavers. They were scattered anywhere they could find a place to design and install their webs. At our house, we admire spiders. We relocate, never squash, them, at least intentionally. Orb weavers take down their webs in the late afternoon or early evening and rebuild them every night. They are most active at night. This feeding cycle may confuse predators that want to eat them. In addition, a renewed strong web can better trap their meals.

August and September termite flights were muted by smoke followed by cooler than normal weather. That is usually a spider banquet. Even yellow jackets were in short supply (orb weavers do successfully capture them). But a lot of other insects were around to cover their minimum nutritional requirements. Egg sacs are abundant. All is well.

Here is an interesting detail I came across. Male orb weavers often become meals after their job is done. But if the male is mating with a sibling female, they mate fairly briefly and he doesn’t get eaten. He can then mate again. If he mates with a non-sib female, they mate much longer, presumably to ensure his genetics get passed on. This reduces inbreeding, a genetic box canyon that no species wants. However, his life is much shorter since, after a long breeding, he is eaten.

Finally, I recently learned about a “slingshot” spider in the tropics (not an orb spider). It builds a web and runs a single line from the web to a supporting stick. The spider lurks on that line waiting for prey. When a target is in range, it gathers the line hard back, stretching the line and web like a slingshot. Then it releases the line and catapults the web and itself onto the target. Scientists have determined the spider and web are exposed to a force of 9Gs. They survive, but often enough, the prey does not.
Oregon State University Extension Service encourages sustainable gardening practices. Always identify and monitor problems before acting. First, consider cultural controls; then physical, biological, and chemical controls (which include insecticidal soaps, horticultural oils, botanical insecticides, organic and synthetic pesticides). Always consider the least toxic approach first. All recommendations in this calendar are not necessarily applicable to all areas of Oregon. For more information, contact your local office of the OSU Extension Service.

**Maintenance and Clean Up**

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

**Planting/Propagation**

- Good time of year to plant trees, landscape shrubs.

**Pest Monitoring and Management**

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

**Houseplants and Indoor Gardening**

- Protect poinsettias from cold, place in sunlight, don't let leaves touch cold windows; fertilize with houseplant fertilizer to maintain leaf color.
- Monitor houseplants for adequate water and fertilizer. Water and fertilizer requirements generally are less in winter.
Can you grow garlic in one-gallon containers?

I recently received several questions about growing garlic in small containers. Here are my answers to this question:

1) I am planning on using 1 gallon plastic containers (6 inch diameter, 7 inches high). Is this reasonable? Can I plant more than one clove in a container?

It is reasonable. You could probably plant two or even possibly three cloves in the size pot you describe, if, when they emerge and need sun, the pots are separated by perhaps a foot in all directions. That way, all the plants would get enough sunlight. Garlic needs good sun once the shoots emerge. The pot in the picture is probably overplanted.

But group them tightly together in the winter for cold protection (see below) before shoots emerge. They will require attentive watering in the spring than they would if there was only one plant. Same with fertilizer – perhaps applied slightly more often. The pots also need to be well-drained with no continuous standing water. Use regular potting mix that has some perlite for drainage.

2) Do I have to worry about freezing? How low a temperature will the containers be good to?

Yes, this is a concern. Garlic can freeze in containers (or even narrow raised beds) if there is no snow cover (snow can act as insulation) and temperatures drop into the mid-20s or less. A big sheet of row cover or even just a plain sheet placed over the plants at night will help if very cold weather is predicted. As noted above, you can keep the pots tight together until the garlic starts to get beyond four inches tall. The leaves usually emerge in mid-January although it sometimes happens sooner. At the four inch stage, the coldest weather is usually past. But we did have temps of about 10 degrees F in early February about 30 years ago. So no guarantees. Be prepared to cover.

3) Do I need to use new dirt every year or can I replant next year using the old dirt?

For garlic, which can have asymptomatic clove-borne fungal diseases that suddenly explode, I would recommend new potting mix every year. You could use the old potting mix for a non-allium family crop.

4) Is it too late to plant garlic?

It is getting late but it should still be successful. Fertilize in early February, again in early April, and once again in late May. Don’t let the pots dry out in the late spring to early summer. Remove floral stalks (scapes) as they emerge from hard neck garlics in starting in mid-May. Start planning for harvest in early-mid July. Some people are growing garlic to harvest leaves to use in cooking throughout the spring and early summer. They don’t expect much of a bulb at the end and they won’t get much. It takes a lot of leaf area over time to capture sunlight that creates the carbohydrates that make up the bulb.
Oregon white truffle twins

Two mushrooms worth pursuing are the Oregon white truffles, *Tuber oreognense* and *Tuber gibbosum*. Both these small subterranean fungi are found in young (8 to possibly 65 year old) Douglas fir stands, particularly “youngish” stands that are densely planted. *T. gibbosum* fruits from January to June. *T. oreognense* fruits from October to March. They are mycorrhizal fungi. This means that the fungi cohabit in and on the roots of Douglas fir. They support the tree by extending its reach for moisture and selectively capturing minerals like phosphorus. They also produce some plant growth regulators. The truffle fungi move all this through fir roots they colonize. In return, the tree provides the fungi with carbohydrates and a complex mix of other compounds through the same vascular system.

Oregon white truffle spores are dispersed in the droppings of the animals that eat the fungus. The set of aromas they have developed to attract their spore-dispersing animals is quite astounding. Evidence of deer trails and other wildlife tends to bode well for finding these fungi. It may also mean that they got there first when you go hunting truffles.

You will need a stout, steel tined potato rake to search for these elusive truffles in the soil right below the duff layer. Rake gently and watch for the brown to buff-colored irregularly shaped one to three inch rounded tubers. The tubers get darker on the outside as they get older. Inside the spongy truffle, the color will change from white to reddish brown to brown with white marbled veins as they mature. Older truffles will have a very pronounced smell, but that is their attraction for humans, pigs, dogs, squirrels, and voles. When you are done raking in an area, smooth out your raked-up piles.

An Oregon white truffle is considered to be the equal of some of the great European truffles.

Be respectful of other peoples’ land. Make sure to ask permission on any non-public land before you go truffling or looking for other fungi. You may have to pay a fee. Here is a link from NNRG (a good group for small woodland owners to get to know) about looking for truffles with dogs: [https://www.nnrg.org/a-truffle-in-the-hand-is-worth-eight-underground/](https://www.nnrg.org/a-truffle-in-the-hand-is-worth-eight-underground/)

Tree School classes online and free!

Here are some upcoming online only classes you could attend from home. They are very well put together and will be worth your time.

- **Dec 1**: Replanting Your Forest After Timber Harvest or Wildfire 3:00 pm - 4:30 pm
- **Dec 8**: Making Maps for Management Planning 3:00 pm - 4:30 pm
- **Dec 15**: Managing Your Forest with Fire in Mind 3:00 pm - 4:30 pm
- **Jan 5**: Forests as Habitat for Wildlife: Priority Actions for Habitat Management 3:00 - 4:30 pm

Here is the general link to OSU Tree School: [https://extension.oregonstate.edu/tree-school](https://extension.oregonstate.edu/tree-school)
Farm and livestock notes

Slug feast

No, this is not about eating slugs as “survival” food, though that was what they were called in a Royal Canadian Mounted Police guide. The suggested cooking method was to split and roast them on stick skewers over a fire. So now you know. We will never go hungry here!

This piece is about how our non-native pest slugs may end up being a feast for a tiny nematode and thus, prevent slugs from feasting on our crops. The nematode has been known in England for a long time and has been cultured and used, effectively, for slug control there. But there are too many barriers to import the nematodes from Europe.

Oregon farmers lose upwards of $60 million to the gray field slug every year and control methods are at best 70% effective and often far less. They need better tools and so do gardeners.

So OSU slug specialist, Dr. Rory McDonnell went looking for them here. Perhaps when our damaging slugs (the small gray field slug and the larger orange-brown ones) crossed the Atlantic with early European settlers, they might have brought the nematode with them. Or perhaps it was already here, but not in significant quantity to cut down the slug populations. Anyway, the good news is that some of these nematodes had been found in California and Dr. McDonnell and his team were able to find them in Oregon. They used DNA sequencing to confirm the species. An article about the research describes the infection process:

*The nematodes invade the slug through a hole at the back of its mantle – the saddle-shaped part at the front of the slug. Once inside, the nematode kills and feeds on the slug and reproduces at a fast rate – one nematode can produce thousands of offspring in a matter of one to two weeks.*

*When a slug is infested with nematodes, it liquefies. You end up with a swarming pile of worms. It’s pretty gruesome.*

Gruesome, but necessary. Work is underway to get this nematode registered for farm and later, home garden, use. It will have to be proven that the nematode won’t affect native slugs or snails.

For another angle to this work, here is an article about how the nematode affects slug behavior to favor the nematode:


Why do we care about pasture weeds?

Pastures are mixtures of grass and broadleaf plants. Some were intentionally planted, others started from the soil seed bank or blew in from who knows where. We prefer palatable grasses and legumes (clover and lotus/trefoil). What we often have in addition (or in the worst case, substituting for the “good” grass and legumes) are false dandelion (the one with the hairy leaves), dock, tansy ragwort, tussock if the ground is wet, bracken fern, buttercup, Canada and bull thistle, and some very coarse grasses.
What all these weeds have in common is that livestock generally don’t like to eat them. So they survive and prosper while the more desirable plants are grazed harder and harder until they can’t really compete with the weeds. This results in a progressively lower quality pasture stand. It takes more bites and more grazing time to meet your livestock’s needs. You need more acres to produce the pounds of beef, lamb, kid, or poultry than you used to. In some cases, poisonous weeds may be consumed when there is not much else there.

This is true of tansy ragwort (poisonous only to cattle and horses), buttercup (a digestive concern in the fresh state, not hay), bracken fern (especially hard on horses but can affect other classes of livestock), and false dandelion (can cause “stringhalt” in genetically susceptible horses).

If there is enough palatable grass still growing in the pasture, good pasture management can significantly improve the stand. Weeds can be managed by the right herbicides applied at the right time combined with grazing practices that encourage the grass at the expense of the weeds. Re-seeding is expensive and often the last resort. And, fairly often, re-seeding fails.

**Meadowfoam research leads to more biodegradable engine oil sources**

Meadowfoam is a native plant with a high oil content seed found in western Oregon and northern California. Some years ago, Willamette valley grass seed growers were looking for a new rotation crop. One of the new crops suggested was meadowfoam. With grower financial and technical support, OSU research led to higher yielding strains of meadowfoam. The crop was slowly adopted by growers.

Willamette valley fields of white flowers you see in the late spring into early summer are likely meadowfoam (unless it is radish grown for seed). Harvest starts late June.

Why is this interesting? First, meadowfoam oil is a lubricant that stands up to very high temperatures. This has led to its use in jet engines. Second, the high-end cosmetic world uses the oil in some of its most expensive products.

But the real reason it is interesting is the complex composition of the oil itself. It is rich in estolides, a specific set of fatty acids, which provide the performance characteristics of meadowfoam. It also turns out that estolides can be found in canola, safflower, sunflower, and high oleic soybean oils in variable quantities. Breeding for all of these crops could increase their estolide content.

Estolide-based lubricants have gone through testing that showed them to perform much better than petroleum based oil lubricants in both high temperature, low temperature, and extended use applications. There is a good chance that they might replace a significant amount of petroleum oil lubricants where longevity and performance is important. When the estolide-rich oil is changed, it can be biologically degraded into non-toxic organic compounds.

One final note: meadowfoam honey is quite tasty.

[https://plantbreeding.oregonstate.edu/plantbreeding/research/meadowfoam-breeding-program](https://plantbreeding.oregonstate.edu/plantbreeding/research/meadowfoam-breeding-program)
Learn to Safely Preserve Foods Online with Preserve @ Home

Interested in safely preserving food for you and your family? It is time to think about gifting yourself or a loved one with an online, hybrid course, Preserve @ Home. OSU Extension Service invites you to enroll in Preserve @ Home, a national award-winning, online food safety and preservation course to teach individuals how to safely preserve a variety of food products. Participants learn how to produce high quality, preserved foods and the science behind food preservation and food safety in this self-paced 6-week course. The first class opens on-line on January 14, 2021. Each lesson includes online text (that can be downloaded and printed), online forum to facilitate participant discussion, and a live weekly chat session through Zoom to interact with classmates and instructors. The topics are released weekly:

- Foodborne Illness – causes and prevention
- Spoilage and Canning Basics; Freezing and Drying.
- Canning High Acid Foods and Specialty High Acid Foods – pickles, salsa, jams, jellies, etc.
- Canning Low Acid Foods
- New this year: materials on planting varieties for food preservation, cold storage and root cellaring!

Cost of the course is $45 plus the cost of required supplemental materials. Many of the supplemental materials are available free, online. Class size is limited. This course is offered cooperatively with the University of Idaho Extension Service. The registration deadline is January 11, 2021: https://extension.oregonstate.edu/deschutes/preserve-home-oregon