



Country Living

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OSU Extension Service Columbia County
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November 2021

Programs for you . . .

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

* Office Hours for November 2021 *

Monday - Friday 8 am - 5 pm, until further notice

Please call ahead to ensure staff availability or to schedule an appointment: 503-397-3462 and use the phone directory to reach a staff member directly. Thank you for your patience!

Spotlights in the [OSU Extension Publications](#) collection - New Releases & Popular FREE Articles!

- From Vision to Reality: Creating a Land Steward Property Management Plan [EM 9335](#)
- Low Tunnels for Season Extension in Oregon: Design, Construction and Costs [EM 9333](#)
- Small-Scale Harvesting for Woodland Owners [EM 9129](#)
- Fall & Winter Gardening in the PNW [PNW 548](#)
- Propagating Shrubs, Vines & Trees from Stem Cuttings [PNW 152](#)

ALSO: Pressure Gauge Testing is **FREE**, at the Extension office. Call ahead for availability.



Oregon State University
Extension Service
Columbia County

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.

In the garden

Demise of the yellow jackets

Fall is not a good time to be a yellow jacket worker. The colony is in transition and will soon collapse, if it hasn't already. A protected class of females ("queens to be") have been fattened up. They alone will carry the colonial genes through the winter into next year.

The "queens to be" emerge from the colony, mate in air with the males (who then die), and seek a protected place to winter over. It isn't uncommon to find these fat queens in stacks of firewood or under boards in an open garage. Next year, they start a new nest by themselves, tending the larval brood until enough workers are present to take over.

Early in the year, they feed the new yellow jacket larvae protein from caterpillar juicy bits and the larvae, in return, make the colony sugary treats. But the queen produces fewer larvae towards the end of summer and the workers turn to sugar-rich fruits outside. The colony is in a death spiral. The workers eventually start departing the nest one by one, never to return. The queen for this year also departs to die alone and untended. The remaining larvae die as the nest is destroyed by rain and wind and sometimes, skunks who relish remaining doomed brood.

We had few yellow jacket calls last summer. Cool, wet days in late April to mid-May slowed them down. Then came scorching heat. Overall, overwintering queens should be down. But there are always enough, if the spring weather suits them, to make themselves noticed next summer.



Choosing landscape trees

Trees improve any landscape. They can make an aesthetic statement, provide wildlife benefits and buffer the house from environmental extremes of heat and wind.

What should you consider when choosing a tree for your property?

Will the tree fit the lot? Think here about mature height and width of the tree. Western Oregon is a temperate rain forest. Trees grow well here. In fact, when you look at descriptions in books or catalogs about ultimate tree height and width, you are safest taking the highest number in the range for planning purposes. Many homeowners purchase trees only to remove them in 15-20 years when they outgrow their space. Don't crowd trees or try to manage them by constrictive pruning.

Will the tree perform well on your site? There are a lot of elements in play here. Is the site in full sun, partial sun or fairly deep shade? Each tree species has an environmental niche that it evolved in and where it will grow best.

What about soil conditions? A lot of new construction sites have rather poorly drained clay soils on which the house is built. The list of trees that do well in those soils is quite limited. Sometimes the drainage in clay can be improved to allow a slightly wider choice of plant material. In St. Helens, many older houses are built on basalt rock. These sites dry out fast in the summer. Topsoil may need to be brought in to create planting "pockets". Tree selection again is important on this tough type of site. Know the soils where you live and choose trees adapted to those soils.



Is the tree cold-hardy? This is what the hardiness zones are all about. In general, most trees sold here are more than hardy enough for our winters. We get into trouble sometimes when we try to stretch the limits and put in zone 9 plants into our zone 8a landscapes. Our rare severe cold events usually thin those plants out. If you live in a “cold pocket”, err on the side of more hardiness.

Is the tree disease or insect prone? Blue spruce gets several insects and diseases that disfigure the tree. Some flowering cherries are hard hit by diseases. Junipers on clay die after 15-20 years (if not sooner). Some, not all, crab apples and dogwoods are disease prone though there are disease resistant varieties. All this is to say that there are choices to be made and the wise consumer will do some research on species and varieties that are more care-free.

Some trees may have poisonous fruit or foliage. Is that a concern for children or livestock where you live? Fence line plantings need to be researched for livestock safety.

There is increasing interest in planting native trees which may be hardier with less water (after establishment) and will support pollinators and other invertebrates, birds, and mammals.

Finally, is the tree invasive? Is it likely to throw root sprouts all over the lawn or spread seeds that will take root and grow? If you have questions in that regard, call the Extension office or look online. The information source is important since there are regional differences in the relative invasive nature of certain plants.

For information on these topics or other tree questions, check out the *Sunset Gardening Book*, call the Extension office or go online to the OSU Horticulture Department Ornamental tree and shrub web site:

<http://landscapeplants.oregonstate.edu/>

Miscellaneous topics

More gardeners are **saving seed**. But seed stored at temperatures over 50°F will lose vigor and germination percentage. The warmer the storage temperature, the faster the loss in these important qualities. Keep them cold.



There are a lot more paper birch trees showing signs of bronze birch borer activity. This can take the tree apart, limb by limb. Insecticide treatments are modestly successful at best. Usually, the trees have to come out. There are attractive alternative birches that are bronze borer resistant. Those with low susceptibility (more resistant) include heritage birch, heritage river birch (*B. nigra* 'Heritage'), river birch and red birch (*B. nigra*).

Here is a link to the PNW Handbook on the subject:

<https://pnwhandbooks.org/insect/hort/landscape/hosts-pests-landscape-plants/birch-betula-bronze-birch-borer>.

You might also want to look at the article in *The Digger* published by the Oregon Association of Nurseries: <http://www.diggermagazine.com/a-tree-with-a-peel/>.

More people are growing sweet potatoes. Yields are quite impressive, about 1 pound of sweet potatoes per square foot! They need to be started from rooted “slips” from an existing sweet potato. The slips can be purchased or created from left over sweet potatoes or you can use organic potatoes from a store. More on this topic next month!

The natural world

Quiet chorus (aka green tree) frogs?

This question was raised by a reader who was quite bothered by the short cycle of tree frog croaking and thought it needed looking into. I am not an amphibian expert but it is a question worth pursuing. Changes in natural patterns can open our eyes to larger factors in play.

To understand what might have happened, it is important to know something about our Northern Pacific tree frog (*Pseudacris regilla*). Our frog is a sub-species of a larger population that extends from British Columbia to southern California. It is the most common frog species in our region and one most of us have seen often. It is small, from $\frac{3}{4}$ of an inch to 2 inches in length. The females are larger than the males. Their overall color can be bright green to a more subtle brown. But here's the trick. They can change color and/or hue intensity to assist their insect hunting or to escape predation. There are rare cream-colored variants. All Pacific tree frogs have a dark brown line that extends from their snout backwards on both sides of their head to where their forelegs start. This is easy to see on green frogs, more obscure on brown ones.

Our tree frogs have little webbing in their feet but extraordinary large round toe pads that act like suction cups and allow them to climb almost anything. At our home, they often climb into hanging fuchsia baskets near an evening light source that attracts night flying insects, their favorite food. Some nights they are quite talkative, others, not so much. Other food includes ants, beetles, mites, small snails, and other more land active creatures.



They need water to breed. That water can be as small as vernal pools (very common in some basalt areas in St. Helens), marshy pastures, edges of ponds, and the like. Mating is generally the only time they take to water. The rest of the year they are on land in a variety of habitats. It is thought that their ability to live mainly out of water makes them less vulnerable to fish or other amphibians that might fancy them. Their major predators are garter snakes (I have seen the snakes swimming in vernal pools eating tadpoles), raccoons, skunks, and herons. Rough-skinned newts eat their eggs as do other amphibians.

Tree frogs mate from late February through June. It is somewhat weather dependent as they need water and a bit of warmth to get active. There are sometimes deafening male choruses which often start after a rain. These are “advertisement calls” to females and probably other males. “So, if he’s got a nice, deep, sexy voice they’ll find him more attractive,” said an Oregon State University scientist. “If he calls more often, they’ll find him more attractive.” She did find that highway noise near a mating area disrupted a lot of communication.

But in good auditory conditions, females can sort through up to eight frogs at once, when they’re looking for a partner.

One year, a person in Warren called me, asking what she could do about the “irritating” croaking of the frogs. She didn’t think it was funny when I said, “love them”. I did wonder why she moved into a rural area. Listen to some of the sounds of the tree frog here:

<http://www.californiaherps.com/frogs/pages/p.regilla.sounds.html>

There are good descriptions of male tree frogs head butting or wrestling other males to control their territory, temporary as that territory may be. When mating, the male climbs on the back of the female. She releases her eggs into the water and the male follows by releasing his sperm on top of the now floating eggs. Tadpoles follow. The tadpoles mainly consume algae and other pond micro-plants.

During dry periods, tree frogs are mainly nocturnal. They avoid predation by blending in and staying still so as not to draw unwanted attention. That said, I have seen great blue herons spearing them, early mornings, in pastures, so they do face challenges.

Back to the first question, why was their croaking subdued if not completely silenced for a time this year? My best bet was that they were late getting ready to mate and then everything dried up fast.

While there are relatives that survive in the intense heat of the San Joaquin valley, I don't think our Columbia County green friends were physiologically prepared for it. Schedules were scrambled. Timing was off and then it was 115°F. It stopped mosquitoes dead in their tracks. Probably other insects as well. Our chorus tree frogs certainly haven't experienced those conditions much in their evolution here.

I couldn't find any information about diseases affecting this population in this area although there is one that is a problem further south in their range. Heat could create more disease pressure. Their long-term response to last summer is yet to be determined. I believe these great little frogs are survivors and will be back

strong. And that is where I have to leave the question, for now.

Frog illustration: Pacific Horticulture.org

The sting of nettle

While not native to North America, stinging nettles are quite comfortable here. They have many medicinal, culinary, and other great qualities but today, it's about the sting.

The "hairs" that populate the stems and both the top and bottom of nettle leaves are technically called trichomes. They are hollow and touchy. Brush against them and their cap breaks off. The trichomes are somehow strong enough sans caps to penetrate skin and deliver a witch's brew of defensive compounds into whatever brushed it. The mix is ugly with histamines to cause swelling, serotonin for high nerve response, and formic acid for pain.



Insects are apparently immune or don't trigger the response. There are important caterpillars that browse the leaves in comfort.

Mammals are not so lucky. Since they can potentially eat many more leaves, the nettle evolved "the sting" to stop them. If a patch of nettles is left uneaten for time, the plant produces far fewer of the stinging hairs. If there has been heavy browsing, it produces many more.

Goats sometimes eat them, deer and elk, perhaps. Cattle and sheep tend to avoid them but horses do consume them at times. If nettles are cut and left to dry, they are very palatable for all livestock, including pigs.

NOVEMBER

Garden hints from your OSU Extension Agent

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.

Planning

- Force spring bulbs for indoor blooms in December.

Maintenance and Clean Up

- All of Oregon: Service lawn mower prior to winter.
- Check potatoes in storage and remove any going bad.
- Place a portable cold frame over rows of winter vegetables.
- Place mulch around berries for winter protection.
- Cover rhubarb and asparagus beds with composted manure and straw.
- Rake and compost leaves that are free of diseases and insects. Use mulches to prevent erosion and compaction from rain.
- Protect built-in sprinkler systems: Drain the system, insulate the valve mechanisms.
- Clean and oil lawnmower, other garden equipment and tools before storing for winter. Drain and store hoses carefully to avoid damage from freezing. Renew mulch around perennial flower beds after removing weeds.
- Protect tender evergreens from drying wind.
- Tie limbs of upright evergreens to prevent breakage by snow or ice.
- Trim chrysanthemums to 4 to 6 inches after they finish blooming.
- Leave ornamental grasses up in winter to provide winter texture in the landscape. Cut them back a few inches above the ground in early spring.
- Last chance to plant cover crops for soil building. You can also use a 3- to 4-inch layer of leaves, spread over the garden plot, to eliminate winter weeds, suppress early spring weeds and prevent soil compaction by rain.
- Watch for wet soil and drainage problems in yard during heavy rains. Tiling, ditching, and French drains are possible solutions. Consider rain gardens and bioswales as a long term solution.
- Take cuttings of rhododendrons and camellias for propagation; propagate begonias from leaf cutting
- Prune roses to "knee-high" to prevent winter wind damage.

Planting/Propagation

- Plant window garden of lettuce, chives, parsley.
- Good time to plant trees and shrubs. Consider planting shrubs and trees that supply food and shelter to birds; e.g., sumac, elderberry, flowering currant, and mock orange.
- Still time to plant spring-flowering bulbs, such as tulips, daffodils, hyacinths, crocuses. Don't delay.
- Good time to plant garlic for harvest next summer, and to transplant landscape trees and shrubs.

Pest Monitoring and Management

- Monitor landscape plants for problems. Don't treat unless a problem is identified.
- Rake and destroy leaves from fruit trees that were diseased this year. Remove and discard mummified fruit.
- Check firewood for insect infestations. Burn affected wood first and don't store inside.
- Treat peaches 4 weeks after leaf fall spray for peach leaf curl and shothole diseases.
- Moss appearing in lawn may mean too much shade or poor drainage. Correct site conditions if moss is bothersome.
- Bait garden, flower beds for slugs during rainy periods. Use traps or new phosphate baits, which are pet-safe.

Houseplants and Indoor Gardening

- Reduce fertilizer applications to houseplants.

Farm and livestock notes

An outstanding livestock and forage resource: *OSU Livestock & Forages Western Oregon Newsletter* - This newsletter comes only in electronic form for special delivery of added material. It is written by OSU Extension faculty to bring you agricultural production information, important news and notices, and announcements on upcoming programs. You can access monthly issues on your own through the [newsletter home page](#) or automatically receive them through email subscription.



Email Livestock.Forages@oregonstate.edu with the subject line "Subscribe." Please provide your name, county of residence, and phone number. Include information on what livestock you raise, any hay or pasture you sell or rent, and farm services you offer. This information is for us to know our readers better. We never share your private information with anyone without your permission. Thank-you!

Vaccinating farm animals

Livestock owners use vaccines to prevent illness and support healthy herds. Some diseases are endemic with specific pathways of infection like black leg, a soil borne disease that enters through wounds. Others may not be common. Visit with your large animal vet to work up a vaccination schedule that fits your operation and the disease challenges you are most likely to encounter. Timing of vaccinations is critical for some diseases.

It is so important to read product labels and handle vaccines and vaccinations properly. Store them at the right temperature prior to use. Many need refrigeration. Check expiration dates and discard expired products. Vaccinate clean and dry animals in a place that is safe for you

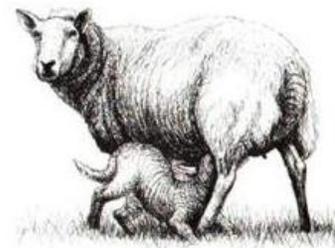
and reasonably comfortable for the animals. Inject with clean needles and injecting with the correct method. And, most importantly, **only vaccinate healthy animals so that the immune system best utilizes the vaccine *and* vaccinate at least two weeks prior to a stressful event such as weaning, transporting, or castrating.** It takes a minimum of 10 days for the vaccine to be effective. *Illustration from an old, but still valued, edition of the SID Sheep Production Handbook*

Spreaders and sub-clinical disease

If COVID-19 has taught us nothing else, it has taught that spreaders may be asymptomatic, i.e. they can spread the disease without any signs or knowledge that they are doing so. Barriers to disease spread need to be in place.

That can be true in the livestock world as well. Mastitis of cattle, goats, and sheep clearly has a genetic component. The bacteria is spread by contaminated bedding, milking, and/or "rogue" suckling. Signs are an udder that turns hard and hot, usually in one section, with little to no milk production. Standard treatment is an anti-biotic therapy. Often the animals appear recovered, but are they?

Often, they are not! A very wise veterinarian once told me that the udder has an internal structure and physiology that is so complicated, it is almost impossible to completely eliminate mastitis. With a decent immune response, they may continue to be productive animals and never show a hard udder again. But she felt the odds are good that they are spreaders. Her advice, cull them if possible.



Foot rot is just as complicated but with a stronger genetic resistance option. The first thing to know about hoof or foot rot is that it has to get to your farm. If your animals don't have it, don't bring it in with a new animal. If you do

get new animals, trim their hooves and treat them with one of the standard hoof-rot baths (formaldehyde or zinc solutions) that they need to stand in for a period of time after trimming. Managing your herd in winter to reduce time in barnyard mud and really wet pastures is important. If foot rot is already present, trim and treat and cull the most challenging infected animals. You can build a foot rot resistant herd with the right genetics and breeds and good management.

My final example is a developing success story from the sheep and goat world. This is ovine progressive pneumonia (OPP). This viral disease is transmissible in utero (most common) and through inhaled respiratory tract infections and infected fecal material, most commonly in tight winter quarters. It is systemic and impossible to treat. Infested animals don't gain well, may be lethargic, and can pass it to their offspring and to the rest of the herd. Modern genetic tools allow producers to draw blood samples that can be tested for OPP. Positive tests generally lead to culling those animals. Sheep and goat producers have made substantial progress in reducing the disease.

Risk reduction for processed meat

We have known for a long time that consumption of processed meats increase the risk of colorectal cancers. The primary cause of the increased risk is the sodium nitrite preservative that keeps the meat free of bacterial growth (rancid meat) and maintains its normal color. Research teams have been looking for ways to lower the risk of bacon, ham, and other "deli" meats without any loss of flavor, texture, or microbiological safety.

Experiments with a number of botanical compounds have found several that may be useful. They include extracts of sage, rosemary, green tea, and resveratrol. The first three are widely consumed.

Resveratrol has an interesting history. The "French red wine" positive effect on longevity and health may be due to the resveratrol in the wine. The compound is now available as a pill in with vitamins and other products.

What the research processed meat studies showed was that all the compounds not only reduced the cancer risk by significantly lowering or eliminating the amount of nitrite needed for preservation. But they had an additional independent effect on lowering cancer development itself.

But here is the kicker. Resveratrol extracts come from one of the most invasive weed groups we have in Columbia County, the knot weed complex. All are non-native introductions. This plant is destructive to rivers and streams by aggressive competition with native plants, altering bank stability and reducing the potential food sources for salmon and other species. Control is going to continue.

But here is the good news: the extracts are coming from Asia, where it is native. And they might just save our bacon. For more information see:

<https://www.sciencedaily.com/releases/2021/09/210921081002.htm>

Speaking of meat consumption:

The livestock industry does a periodic survey of U.S. consumers and their meat consumption views. About 70% of those surveyed were meat eaters (with meat a significant part of an everyday diet); ~20 were flexitarians (ate meat with some meals, generally in smaller quantities, and ate more plant proteins like beans and other legumes); 6% were vegans (totally plant based diet) or vegetarians (plants plus milk products); and 4% were pescatarians (plant based but with fish).

Flexitarians were the fastest growing group. Their cooking tended to focus on using meat somewhat sparingly and as a flavor amidst other flavors. The culinary roots are more Meso-American, Mediterranean, and/or Asian and less from English food culture with meat as the centerpiece of a meal.

Those diets are generally considered to be healthier for us. And their choices (and comparative prices) have already changed the livestock world, emphasizing chicken over the once dominant “red” meats.

Spotting the sick animal

You alone are responsible for the health of your livestock. Feeding program, housing conditions, vaccinations, genetics, and other health management efforts all affect disease control. But sooner or later you will have a sick animal. Often the first signs of disease are slight and can go undetected. That can lead to far worse illness and ultimate fate of the animal. Winter is a particular challenge when it is dark when you leave and dark when you get back from work. It is hard to take the time to really look at your animals. But you must do so. And with a little study you will be much more equipped to spot a sick animal.

If you think an animal is sick, take its temperature. Normal temperatures are listed below. Body temperatures will show some variation based on physical activity, outside temperatures and conditions, and stage of pregnancy. Lack of an abnormal temperature does not confirm that an animal is ok. Your instincts are probably pretty good if you know your herd.

Determine respiration rates by counting breaths per minute. At the same time, look for nasal

discharges, foul odors, coughing, sneezing, or wheezing.

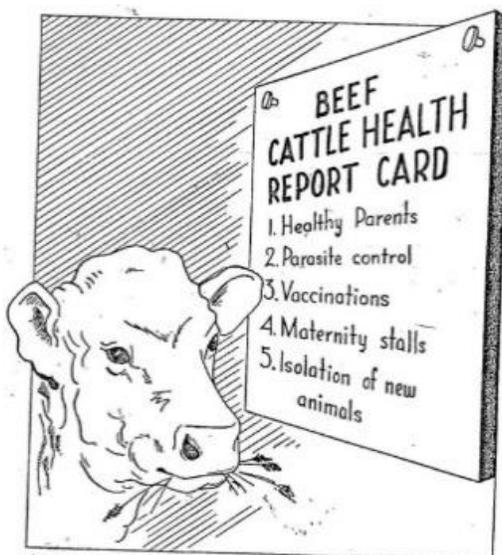
Check for body condition. Is she thin? If so, is there a reason for this (calf only recently weaned) or not? Are all the animals eating and drinking? Any behavior changes like anxiety, aggression, sluggishness, or licking and chewing? Look at a potentially sick animal for signs of swellings, lumps, injuries, or other external signs.

The earlier you detect a problem, the faster it can be cured. Skin problems or mild

lameness are generally not of the same level of immediate concern as a fevered animal, one that is bloated, or one experiencing a difficult birth. Veterinarians, who have years of specialized training and experience are there to help. Their greatest ally in a successful outcome is time and only you can decide how much to give them.

The best way to handle disease is to have a well thought out feed and

management program, safe facilities, and a good vaccination schedule. Isolation of new stock can also be very important. So is the relationship that you develop with your veterinarian. Get to know them before you need them and have working facilities that maximize their ability to get to work healing your livestock. Here are the vital signs:



<u>Animal</u>	<u>Temperature</u>	<u>Breaths/minute</u>
Horse	99.5-101.5	12
Cattle	100.5-102.5	30
Sheep	102-104	19
Goats	101-103	20
Swine	101-103	18
Rabbits	101.5-103.5	39

Adapted from an article by Gary Fredricks, WSU Extension Agent, Cowlitz County



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Return Service Requested

To receive this newsletter by email
Contact: Sonia.Reagan@oregonstate.edu
or call 503-397-3462. Thank you!

Making plans for an OSU Master Gardener class next spring



Local Master Gardeners maintain an educational and demonstration garden at the fairgrounds.

We are planning for an in-person OSU Master Gardener Volunteer Training Class series starting next February. The class would most likely be held in St. Helens on Monday, during the day, for about ten weeks. If you think you might be interested, please let us know.

Please call Sonia Reagan or Chip Bubl at 503-397-3462 to indicate your interest. Your statement of interest doesn't commit you to anything but will give us some idea if people are ready to return to in-person classes. If COVID protocol changes, plans may change.

To learn more about becoming a trained Master Gardener Volunteer, please read through [THIS GUIDE](#) which outlines the training and volunteer responsibilities of people who go through this OSU Extension program. To pursue a Certificate of Home Horticulture without the volunteer training component, and still receive the same science-based training that the Master Gardener trainees receive, please check out this online 12-week course [HERE](#).

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