



Country Living

Provided to you by the
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December 2023

Programs for you . . .

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

December 7th Columbia County Beekeepers Monthly meeting. The program will be a question and answer session on honey and then a honey tasting. Thursday, December 7th, at 7pm meeting at the Saint Helens /OSU Extension Office or by Zoom. Please email for the zoom link. All are welcome.
Columbiacountyoregonbeekeepers@gmail.com



Oregon State University
Extension Service
Columbia County

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Agricultural Sciences & Natural Resources, Family and Community Health, 4-H Youth, Forestry, 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

We are getting warmer: here is the new cold hardiness map.

Cold hardiness maps show lowest winter temperature averaged over 30 years. Numbers start at “1” (very cold) and go up to 13 (sub-tropical). They are revised periodically and the new map is out.

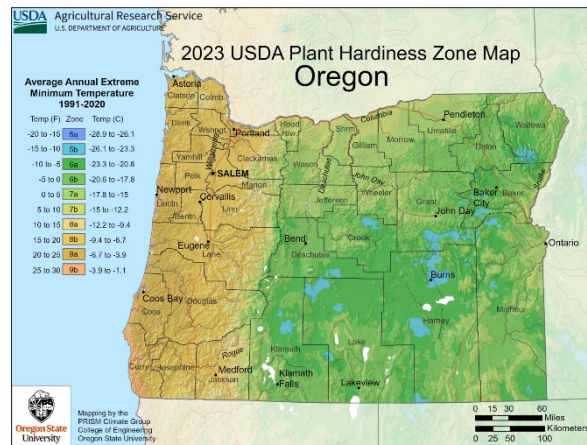
I grew up in the Willamette valley and, for years, it was classified as Zones 7a uplands) and 7b (valley floor). Same for Columbia County when I got here in 1978. Then it started getting warmer. The last major adjustment pegged Columbia County as Zone 7b in the higher elevations like Vernonia and 8a near the river. Now, we have been moved to 8a (coast range and foothills) and 8b (near the river).

What amazed me about the new map, which you can access from the link below, is its local accuracy. Start with your zip code and keep clicking the “+” tab at the upper left of the map as you move the map to get close to your place of interest. The very last “punch” available gets you to the street map “close-up”. I looked where the zone went from 8b (warmer) to 8a (cooler) on the road I live on and it was exactly right – just where the snow is generally less on the east side and more on the west of this east-west road.

https://planthardiness.ars.usda.gov/?utm_medium=email&utm_source=govdelivery

The change is significant for plants that over-winter as something more than a seed. This includes woody and herbaceous perennials,

winter annual weeds, and biennial plants (weeds and others). It may allow you to plant a wider variety of woody perennial trees and shrubs. But you need to keep in mind that the zone change isn’t a guarantee, rather a “best estimate” of the odds of a certain low temperature.



In South County (Columbia City to Scappoose) the last time we had temperatures below 10 degrees F were in 1989 and 1990.

Since vegetable gardens are planted from seed every year, it isn’t directly relevant. But you might be able to put seedlings you grew in a cold frame or

greenhouse out earlier, maybe. Watch local weather forecasts and be prepared to protect them as needed.

Speaking of the ghost in the room

While the cold hardiness zone changes may be good for local gardeners and farmers, increased summer temperatures probably are not. Up to this point, there are not “Hot hardiness” zone maps out there. The Heat Dome of a few years ago was a warning that we need to understand how our plants, both native and ornamentals will survive a warmer and drier summers and potentially extreme heat events. But there may be soon.

There is a lot of data collection starting up on native trees and shrubs and landscape ornamentals. The “hot hardiness” is complicated by two facts: first they aren’t dormant like cold hardiness information on plants generally are; second, with high temperatures and active growth, water availability becomes a big plant

survival factor. This makes useful data harder to collect and analyze.

But there is a project at the North Willamette Research and Extension Center in Aurora that is engaged in testing cultivars of a variety of woody and some herbaceous ornamental landscape plants under various heat and soil moisture conditions.

It is a really neat project that is being done with several other universities. The article link below makes for a good read.

<https://extension.oregonstate.edu/news/osu-extension-research-group-searches-plants-weather-climate-change>



Go Beavs!

The value of a vegetable garden

I have taught a lot of vegetable gardening classes over the last 40+ years in Extension. I found that the most important motivations for gardeners are food freshness and quality, the ability to grow types of vegetables that you can't find in a store, the desire to grow food for friends, family, and food banks, and a pure love of gardening. When I ask them if they can save money by growing their own, they will usually respond in one of several ways, i.e. yes, lots; no way, it costs a lot to garden; or yes, once I learned what I was doing.

I think the last answer is telling. It takes time to learn how to do anything of value well. Once that learning is in place, mistakes decrease and productivity rises fairly dramatically. That is when you can best take the

measure of gardening and what it can offer, economically and otherwise.



An economist would view gardening through several lenses. The first question she would ask is “what would it cost to replace from the grocery store what you use from your garden?” This calculation is reasonably straightforward. For example, if you harvested 100

pounds of onions from the garden and were able to consume 90 pounds before some rotted in storage you could compute a grocery store value: $90 \times \$0.80/\# = \72.00 worth of onions.

But it doesn't stop there. To get that \$72, you had to work and when you got paid, at the end of the day, you are probably taking home about 70 cents for every dollar earned after taxes, workman's comp, social security, etc. So to spend a dollar at the grocery, you have to earn about \$1.42. So to spend \$72 on onions you had to earn $\$72 \times \$1.42 = \$102$.



After the costs of sets, fertilizer, etc. which could total roughly \$20 (water bills are a big variable), the difference between cost and avoided grocery expense is your return to your own labor and skills. It effectively adds to the household income, it isn't taxable, it is a lot more fun and cost effective than watching television, and it is healthier to boot. What a deal!

The second economic test would look at the amount and value of produce you actually eat per square foot planted. If your goal was to replace some of what you buy and if space, time, and/or water were limiting, you would concentrate your efforts on growing those vegetables that have a combination of reasonably high yield/square foot, fairly fast growth cycle, easier to grow, perhaps fewer insect pests, and have fairly high grocery store replacement costs. Some of the best vegetables in this test include:



- greens like collards, chard, kale, lettuce, arugula, etc.
- green onions
- radishes
- garlic and onions
- specialty potatoes
- tomatoes, esp cherry and smaller types
- all the annual herbs like basil, cilantro, and parsley
- woody perennial herbs like thyme, bay, rosemary, etc. as part of your permanent landscape
- zucchini
- pole beans

Winter squash like butternut would make the list for many gardeners because they are easy to grow, they can be stored for winter use, and don't take huge amounts of water if you drip irrigate. They do take a lot of space but if you have it, they make some sense.

A final look might combine nutrition with some of the cost replacement ideas. Cornell University Extension released a "nutrition garden" 30+ years ago. And no surprise, it looks a lot like the list above.

A gardener holiday wish list

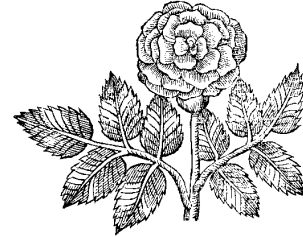
- Nice **gardening gloves**, especially those flexible kinds that rose thorns don't penetrate or nice-fitting leather gloves.
- **Knee pads** or knee benches for gardeners to make close work less of a pain.
- A well-made **spading fork or shovel**.
- **Cast aluminum hand tools** or specially designed "**ergonomic**" tools for less muscle strain. This is increasingly important as one gets older.
- High quality **loppers or hand pruners**. **Felco** makes outstanding hand pruners that, with care, will last a very long time but there are other quite good brands.
- **Gift certificates to garden centers**
- A **soil thermometer** is always useful to know when to plant seeds. So are **moisture meters with ~12-inch probes** that you poke into the soil or media to know which plants (in containers or in-the-ground plants) need water.
- **Q Knot reusable cable ties** are handy for staking tomatoes or trellises. Get them from a local hardware store.
- **Manual or electric water timer**. This device can be attached to any faucet, and automatically shuts off water after a set amount of time. Get a single or dual model from a hardware store.
- **Corona Quick Tool Sharpener**. A pocket-sized tool for sharpening pruners, shears, blades.

- **Floating row covers** are lightweight blankets to put over vegetables that help capture warmth and protect plants in the spring. Heavier gauge ones can even protect against extreme heat or cold.
- A **Hori Hori Knife** is a transplant knife from Japan, that's part trowel and part knife. Also, good for dispatching slugs. It is a great tool.
- **Folding pruning saws** are necessary for pruning also handy for camping or backpacking. Fiskers, Barnel, Stihl, or Corona are good brands.
- **LED headlamp** is handy tool for gardening, locating slugs (if you are so inclined), or just looking around in your garden at night. If you have close neighbors, warn them of your new hobby. Also good for looking for carpenter ant evidence under your house.
- The market has lots of **lithium battery-powered chain saws, pole pruners, and weed whackers**. Their quality and durability have definitely improved and should work well for most homeowners.
- A good **Insect, Mushroom, or Weed identification book**.
- **Support for our Food Bank and local efforts to help those in need.**

Rose talk

I realize that we are a long way from the rose-infused days of June. Yet winter is a good time to reflect on gardening practices. There is a buzz in the rose world about pruning techniques and I think you will find it interesting.

Rose growers have been taught to approach a bush carefully, removing all crossing and dead branches first. The rose is then lowered to the desired height, selecting the strongest canes and removing the rest. Cuts were supposed to be slanted and 1/4" above an outward facing bud.



Well, some curious Englishmen decided to look at what impact simply shearing the rose to the desired height (usually 12-18") would have on future performance. No attention was paid to removing dead wood, saving the strongest canes, or where the cut was in relation to the eye. Miracle of miracles, the sheared roses consistently out-performed the "classically" pruned roses.

The study has been repeated in quite a few locations, always with the same result. As this news swirled around the rose community, the explanation for the results seems to center around removing less material, thus leaving more buds leading to more leaves, leading to more effective capturing of sunlight.

It must be emphasized that roses do need to be pruned. No pruning is the worst decision you can make.

In a related matter, it is now not necessary to "deadhead" your rose blossoms down to the first set of five leaflets. Modern technique suggests cutting them off at the neck and leaving all the leaves. As before, this provides the rose with the means to gather in sunshine and turn it into new growth.

Send me (chip.bubl@oregonstate.edu) your garden resolutions for 2024. I will put the most interesting ones in next month's newsletter.

December garden hints from OSU Extension



Oregon State University Extension Service encourages sustainable gardening practices. Preventative 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.

First consider cultural, and then physical controls. The conservation of biological control agents (predators, parasitoids) should be favored over the purchase and release of biological controls. Use chemical controls only when necessary, only after identifying a pest problem, and only after thoroughly reading the pesticide label. Least-toxic choices include insecticidal soaps, horticultural oils, botanical insecticides, organic and synthetic pesticides when used judiciously.

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 bio-swales 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 up against 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.

Native plant of the month: Beaked hazelnut (*Corylus cornuta var californica*)

California hazelnut is a very common deciduous shrub or small tree found in much of Columbia County, especially at lower elevations. It is multi-stemmed and typically grows from 3-15 feet tall. It is found as an understory plant with vine maple, Oregon grape, salal, sword ferns and mature Douglas fir. Because it throws lots of suckers from its roots, you can end up with quite a hazelnut thicket especially on dry, sunnier sites where it is found with oceanspray, snowberry, and Garry oak. California hazelnut does not like wet feet but can grow on the upland edges of wetlands.

C. cornuta leaves are alternate, oval and saw-toothed. They look a bit like red alder leaves. But they are hairy (alder leaves are not) and often leathery. They turn yellow in the fall. *C. cornuta* twigs are hairy when they first emerge but lose their hairiness as they grow older. The shoots branch extensively as they mature.

California hazelnuts are monoecious, which means they have separated male and female flowers on the same plant. The male flowers are catkins which shed pollen. The female flowers are tiny urn-like structures that sit on the ends of tiny shoots. They are the first flowers of the year. The catkins are formed but not shedding yet. The female flowers are swelling and about to produce flame red stigmas that would make them very showy if the flowers weren't so tiny.

After wind-assisted pollination, nuts begin to form as singles, doubles, or sometimes four in a cluster. The nut kernels are covered by a brown shell which in turn is covered by a green, tubular, and leathery calyx which sort of flares at the end. The nuts mature in September-October. They are tasty fresh or roasted. But you will have to compete with Scrub and Stellar's jays, crows, chipmunks, voles, and Douglas' squirrels for them. Chipmunks cache the nuts underground and are



thought to play a role in natural propagation from seed. Native populations coveted the nuts fresh or roasted. They would burn *C. cornuta* stands once every eight years or so to renew the stand and if done in the fall, also roast the nuts and get rid of the shell. The nuts were stored for the winter and some ground into flour. They were also traded to other tribes.

C. cornuta is often found on newly logged or sites that have been burned in a forest fire. The roots survive burning and existing shrubs survive cutting to the ground. They sucker from their root systems creating an instant thicket. Cached nuts also sprout after a disturbance.

Young hazel shoots and leaves are browsed by elk and to a lesser extent, deer. Goats will eat leaves and shoots readily (personal experience) but sheep and cattle aren't fond of them.

Well-dried hazel logs (usually about three inches thick) make excellent, if small, firewood since there are oils in the logs that make them burn quite hot. Gardeners use straight, 1-3 inch hazel shoots for bean and pea poles, support stakes for peppers, dahlias and many other plants, and exotic wattle-style fencing. Native populations made a blue dye from the inner bark, and fish traps, baskets, baby carriers, and rope from the shoots.

Native medicinal uses are not clear but there are some indications the plants were used as a wormer and an emetic.

In a woodland garden, *C. cornuta* can be quite attractive with some thoughtful pruning and thinning. The national champion *C. cornuta var. californica* is from Oregon. It stands 27 feet tall, with a canopy 21 feet wide, and a trunk 21 inches thick.

Photo credit: PCC Environmental Studies Program

Farm and livestock notes

Returns to fruit and vegetable farmers challenging

Some years ago, I presented some “crop return” data to a group of Portland area larger-scale vegetable growers. Many were third or fourth generation farmers. The data clearly showed that in the fresh market vegetable world, they were getting increasingly lower percentage of the income relative to what the products sold for. One farmer noted that data they had collected in the 1950s and 60s showed the farmer getting 45-55% of the gross sales value. At the time of the talk, it was down to 30-35%. Now it is 22-25%. The squeeze is really on.



It’s hard to pinpoint all the causes. With a great consolidation of buyers, there is a lack of competitiveness that doesn’t lead to a healthy market for farmers.

The grocery sellers are battling each other to keep the customer business and they think low prices are the ticket to improve their overall grocery store sales. Again, the farmer pays a price.

There are other issues in the way consumers actually get their fresh fruit and vegetables. Many get a significant portion when they eat out. The people that prepare the food get, as they should, a cut of the income. But it often seems to come out of what the farmer could have received. Same with wanting packaged vegetables and fruit. That step often comes out of the farmers’ pockets as well.

It is complicated but ultimately we could lose that farming community if things don’t turn around a bit. Then, as a country, we become less self-reliant.

Working safely with livestock

There are more injuries each year from farm animals than there are from tractors or machinery. Poor judgment and lack of understanding of animal behavior are the main causes of accidents. Livestock have unique vision characteristics, sensitivity to noise and strong territorial instincts that need to be understood before handling them. In addition to injuries from accidents, farm animals can also transmit diseases to humans such as leptospirosis, rabies, brucellosis, salmonellosis, and ringworm.

Here are some tips on working safely around livestock:

Animals respond to routine; be calm and deliberate, avoid sudden movements.

Avoid the animal’s “blind spot”. Approach from the front or side.

Animals are very sensitive to noises. Avoid loud noises and do not yell.

Many animals are colorblind, have poor depth perception, and are extremely sensitive to contrasts. Assess your lighting situation and avoid rapid changes from light to dark.

Many injuries are caused by a startled animal pinning the handler against some surface. When working around livestock, always leave yourself a way out, especially when working in close quarters.

While bulls account for only two percent of the cattle population, they are responsible for more than half of the fatalities. Always use extreme caution around all male farm animals.

To help avoid territorial behavior, distribute feed in large, unpredictable patches. Have sufficient feed bunk space for all with some extra room.

Plan ahead. Always wear the proper personal protective equipment for the job.

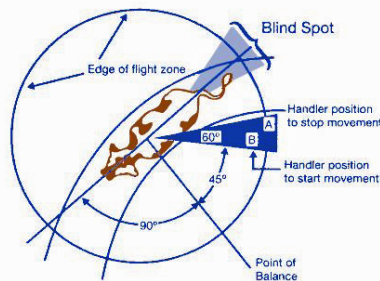


Diagram courtesy of Dr. Temple Grandin

Maintain equipment and facilities in good repair and keep things clean and in order.

Better hay next year

It's a gamble to make hay here. The best quality hay is generally cut from mid-May until mid-June when it is still leafy. Sadly, our weather often doesn't fully cooperate. A forecast of four good hay-making days can vanish in a blink of the eye. So in May, be prepared to cut smaller areas and turn the hay more frequently to speed drying. Four acres of great hay is worth a lot. This year, the problem was that the spring was just too dry. While quality was ok, quantity tanked. Most people reported a 50% loss compared to normal hay harvests.

It is also worth knowing how much hay you are actually getting off your fields. Weigh ten bales and take the average for your bale weight and then calculate tons per acre from the number of bales you harvested per so many acres.

My experience is that most non-irrigated Columbia County hill-land fields produce about 1.5-2.0 tons per acre if fertilized with 40-50 pounds of "actual" nitrogen in early April and with all grazing ended by late April. Avoid grazing the hay field at all from November to March.

Why pastures have weeds

Weeds reduce the value of pastures by reducing the quantity and quality of forage, and in some situations the weeds may be poisonous. When weeds invade pastures, too many people look for the quick fix and simply apply a herbicide to kill the offending weeds.

A more effective approach is to identify factors that allow the weeds to become established, and adjust management practices to create a less favorable environment for the weeds. A paper in *Weed Research* (Suter et al. 2007) described a survey conducted in Switzerland to determine factors that favored the establishment of tansy ragwort (*Senecio jacobaea*).

The researchers identified 31 pairs of pastures, one infested with tansy ragwort and one not, and then looked for differences between the sites that might be responsible for the absence/presence of tansy ragwort. The distance between the two pastures did not exceed 1000 ft.

The primary finding was that good management greatly reduced the establishment of tansy ragwort.

Pastures that were fertilized with nitrogen were 5 times less likely to have tansy ragwort than unfertilized pastures.

Pastures continuously grazed were 11 times more likely to be infested than pastures that were either mowed or rotationally grazed. Continuous grazing resulted in uneven use of the forage. Areas that were overgrazed created openings in the canopy that favor establishment of tansy.

Tansy ragwort also was more likely to be found on steep slopes due to open areas created by mechanical damage to the sod from cattle or tractors.

Tansy ragwort was occasionally found in well-managed pastures. In these situations the pastures were adjacent to areas with high infestations of tansy. Movement of tansy seed from adjacent areas created large seedbanks that increased the likelihood of tansy seedlings surviving in spite of strong competition from a healthy sod.

This research reinforces the importance of cultural practices in reducing weed problems. A healthy sod created by sound cultural practices is able to prevent the establishment of most weeds and greatly reduce the need for the use of herbicides. In addition, management of weeds in adjacent areas (roadsides, waterways, etc.) will reduce the encroachment of weeds into pastures and other managed areas. *Summarized by Bob Hartzler, Extension weed specialist, Iowa State University*

There is a theme this month: water issues in home landscapes:

Mulching Woody Ornamentals with Organic Materials: <https://extension.oregonstate.edu/catalog/pub/ec-1629-mulching-woody-ornamentals-organic-materials>

Conserving Water in Your Yard and Garden: <https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/em9125.pdf>

Fire Resistant Plants for Home Landscapes
<https://extension.oregonstate.edu/catalog/pub/pnw-590-fire-resistant-plants-home-landscapes>

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