



Country Living

Provided to you by the

OSU Extension Service Columbia County

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April 2023

Programs for you . . .

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

- April 6th **Columbia County Beekeepers Monthly meeting.** Thursday, April 6th at 7pm. Topic: Swarming and Catching Swarms. They will meet in person at the Columbia County Extension Office in St. Helens and by Zoom. Contact columbiacountyoregonbeekeepers@gmail.com for Zoom info.
- April 8th **Scappoose Bay Watershed Council's Native Plant Sale.** Join the Watershed Council at their Spring Native Plant Sale Saturday, April 8th from 9am to 2pm at the SBWC nursery, located at Scappoose High School. Look for signs – go east on SE High School Way and turn into the parking lot between the high school and the school ball field areas. This is their semi-annual event to get you ready for spring and summer planting. They have many new plants at great prices – all native to our area. Staff and volunteers are available to help choose plants, suggest gardening ideas, and provide information on establishing and maintaining native vegetation. For more information see <https://www.scappoosebay-wc.org/native-plant-nursery/>.
- April 18th **Chat with Chip.** A roughly one-and-a-half-hour interactive Zoom program on garden and related topics with Chip Bubl. Tuesday, April 18th from 6:30 – 8pm. You are invited to attend! Reserve a place: <https://beav.es/STR>
- April 27th **Growing the Good Stuff: from sweet potatoes to bitter melons. Columbia County Master Gardener Chapter meeting.** Program, which is first, is open to the public. OSU Extension office, Thursday, April 27th at 6:30pm.
- April 29th **The Columbia County Master Gardeners™ Spring Fair** will be Saturday, April 29th from 9am-3pm. There will be 3,000 tomato plants, 700 peppers, and garden related items by other vendors. It will be at the Columbia County Fairgrounds this year.



Oregon State University
Extension Service
Columbia County

Chip Bubl

Chip Bubl, OSU Extension Faculty, Agriculture

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

Frost, moonlight, and vegetables

It is spring and for the first time in several years, it actually feels like it. South County gardeners are planting cold hardy seeds, bulbs, and transplants like onions, peas, cabbage family, and others. An important marker for gardeners is the average last frost date. For the St. Helens/Scappoose area, it is about April 18th. If you are in a low, frost-prone area or at elevations of 500 feet (for our readers in Vernonia or upper Deer Island) or more, it would be later for you. Remember, this is an average date. That means 50% of the time by April 18th the last frost has already happened. But you need to know that going forward, there is still a 50% chance that the last frost hasn't yet occurred. Still, two weeks after 4/18, there is less than a 15% chance that there will still be a frost.

I was recently asked about planting by the phases of the moon. It is clear that the gravitational pull caused by the alignments of the new and full moons with the sun affect tides. It is not totally improbable that moon phases might affect early crop performance. Except that there is no experimental evidence that they do. I came to the conclusion a long time ago that anything that persists with the strength that this belief does must have some real value.

And here is what I decided it did: If the almanac lunar table tells you to go out and plant beans or onions or anything else, you do it. In life, doing something versus doing nothing is almost always a better choice. For a gardener, an almanac that said "turn off the television for the month of May" would probably produce maximum positive impact.

However, there is one piece of lunar lore that does have an impact on gardening. When the moon is full, considerable heat is reflected by

the moon from the sun to the earth's surface. At night, this heat can evaporate a haze or light cloud cover that may have been keeping the earth's surface warmer at night. The cleared skies increase the potential for a frost around full moon times. Fruit tree blooms (in April) and young vegetable plants are especially vulnerable. Have protection for the vegetables ready if needed. Here are full moon dates for the next two months: April 5th and May 5th.

Other garden topics

Don't plant more garden than you can take care of. A 1,000 square foot garden after initial tillage and planting will require about two hours of care of each week. Early weeding is especially important. This does not count harvesting and replanting. Start small and grow as your skills grow.



Chard is a beautiful and very productive garden vegetable. The "Rainbow" chard seed mix will give you stems of yellow, orange, red, and green to complement the deep green of the foliage. Chard is very tasty as well. Leaf miners are chard's worst problem. Manage with row covers to exclude the insect or the organic insecticide "spinosad" (read and follow all label instructions of any pesticide).

Tomato and pepper seeds can still be started indoors for transplanting 6-8 weeks later. Of course, you could by starts at the OSU Columbia County Master Gardener™ Spring Fair scheduled on April 29th at the Fairgrounds from 9 until 3pm.

Paint the trunks of young trees with white latex paint to protect them from sunburn in the

summer and freeze injury in the winter. Both problems often show up on the southwest side of the trees but paint the whole trunk. Keep vegetation mowed tight around new trees to reduce the damage from field mice (more properly called “voles”). Vole numbers have been very high throughout the Willamette Valley and Columbia County the last 5-6 years. Your cat can only eat so many.

Slugs will be showing up in droves soon. (FYI: a group of snails is called a “rout”, nothing for slugs, yet. Here is your chance. Name suggestions welcome. The obvious is a “slime” of slugs but there have to be others) Treat the emerging slugs with baits or a steely eye and a hoe. Iron phosphate baits like “Sluggo” and others are safest around pets.

Keep the hummingbird feeders full.

Enjoy the visual, aural, and olfactory anarchy of spring.

Growing hops in the garden

With craft beer and home brewing becoming more popular, interest is fermenting among gardeners in backyard hops.

Oregon State University's hops breeder, Shaun Townsend advises planting hops in well-drained soils and full sun exposure for optimum growth. You need at least a 10-foot trellis or pole system to train these **vigorous** climbers.

One or two plants are plenty for backyard cultivation, he said. One vigorous plant can yield about 5 to 6 pounds of fresh cones, the part of the plant that's used in beer. Wrap the bines, or elongated stems, in a clockwise direction around the climbing support to train the plant. Use string, paper twine, coir (made from the fiber of coconut husk) or anything that the bines can grip well.



Hops produce different flavors of beer depending on the variety, and there are two types of hop: bitter or aromatic. Townsend recommended the aromatic Cascade variety, developed through the U.S. Department of Agriculture's breeding program at OSU in 1955. It can withstand climates anywhere from central Oregon to the Willamette Valley. "It's pretty much foolproof," Townsend said. Other varieties are Centennial, Newport, Sterling or Nugget.

You can order whole plants or the rhizome, an underground stem that produces buds, from online sources and some garden centers. You can also dig up a rhizome or make a stem cutting from a friend's established plant.

January and February are the months for digging up rhizomes for replanting. Cut about a 3- to 4-inch section of rhizome, making sure that a pinkish-white bud is present. Then grow it in a greenhouse with extra lighting. Rhizomes can also be planted in deep containers outside after January. In May, transplant the rhizome to your garden plot.

When deciding where to place your plant, keep in mind that it grows robustly and prefers full sun. Don't plant it near shade-intolerant plants that hops could crowd out.

Apply nitrogen-rich fertilizer about once every other week from late-April or May into June. After that, the plant doesn't need extra nitrogen. Be careful not to over-fertilize, as lots of nitrogen can propagate a lush, dense plant that could attract pests and diseases.

Water the plant every one to three days. Harvest your hops between the third week of August and early September.

Depending on the variety, hops typically fully mature by the third season. During the first

and second season, gardeners can still harvest enough hops even though the plant is not producing at full capacity. By fall, you'll get to taste the fruits of your labor in your very own homegrown homebrew. For more information, see the great publication *Growing Hops in the Home Garden* at <https://catalog.extension.oregonstate.edu/em9115> – Denise Ruttan, OSU media

Notes from the insect world

Earwigs as beneficial predators: Earwigs have been considered a pest in cherry orchards (they chew small holes in the leaves and fruit of stone fruits, especially cherries). But in pear orchards, they are mighty warriors against aphids, pear psyllids, mites, and the eggs of codling moth and other insects. Research is going forward on how to encourage or even grow and release earwigs in commercial pear orchards where they were rare. This requires insecticides that both protect the crop from serious insect damage but won't hurt earwigs.

Pine tree fragrance alerts predators of damaging insects: This type of defense is well-known in many broadleaf trees but there hasn't been good data with conifers. In a study of pines in Finland, scientists were able to demonstrate that, with at least one pine species, there is clear evidence that pine saplings attacked by pine weevils could turn up production of compounds that both discouraged the insect and alerted un-infested trees to the threat. Those alerted trees then amped up the production of the same compounds.

They took the study further, asking what happens to pines exposed to higher levels of ozone, a condition common to more car-populated areas. That condition damped the response but didn't eliminate it.

What will happen to insects that depend on ash tree leaves for food as Emerald Ash Borers (EAB) spread? This is a discouraging piece of research. Scientists were interested in the fate of butterflies and moths whose caterpillars feed mostly on ash trees. With the total elimination of ash trees from certain areas of the upper mid-west, this question is significant. It could also be important here if EABs spread from their locations in Washington County into larger areas of western Oregon as they are likely to do.

They studied the feeding behaviors on several non-native trees and woody shrubs that the butterfly and moth caterpillars might use for sustenance once the ash trees were gone. The results were all over the board. One species did ok on lilacs but another species in the same genus starved to death.

Generally, the non-native alternatives were problematic. Feeding on privet (a non-native plant) produced normal caterpillars but the metamorphosis from pupae to adults went very badly with poorly developed wing buds and other deformities, leading to the death of the emerging moths and butterflies. In fact, the concern is so high after this research, that scientists view privet as a death trap for these butterflies and are suggesting that privets (widely used for hedges in the east coast) be removed from EAB infested areas! For more information and a link to the research, see <https://entomologytoday.org/2023/02/07/ash-trees-insects-alternative-host-plants/>

The impact of the Emerald Ash Borer will be increasingly in the news if the infestation spreads. We can provide some alternate trees and shrubs for some of their waterlogged areas but the species that depended on ash leaves for food will be in deep trouble.

April 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.

Planning

- Write in your garden journal throughout the growing season.
- Prepare garden soil for spring planting. Incorporate generous amounts of organic materials and other amendments, using the results of a soil analysis as a guide.
- Prepare raised beds in areas where cold soils and poor drainage are a continuing problem. Incorporate generous amounts (at least 2") of organic materials.
- Use a soil thermometer to help you know when to plant vegetables. When the soil is consistently above 60°F, some warm season vegetables (beans, sweet corn) can be planted.

Maintenance and Clean Up

- Allow foliage of spring-flowering bulbs to brown and die down before removing.
- Apply commercial fertilizers, manure, or compost to cane, bush (gooseberries, currants, and blueberries), and trailing berries.
- Place compost or well decomposed manure around perennial vegetables, such as asparagus and rhubarb.
- Cut back ornamental grasses to a few inches above the ground, in early spring.
- Cover transplants to protect against late spring frosts.
- Optimum time to fertilize lawns. Apply 1 lb. nitrogen per 1,000 sq.ft. of lawn. Reduce risks of run-off into local waterways by not fertilizing just prior to rain, and not over-irrigating

so that water runs off of lawn and onto sidewalk or street.

- Optimum time of year to dethatch and renovate lawns. If moss was a problem, scratch surface prior to seeding with perennial ryegrass.
- Prune and shape or thin spring-blooming shrubs and trees after blossoms fade.

Planting/Propagation

- Plant gladioli, hardy transplants of alyssum, phlox, and marigolds, if weather and soil conditions permit.
- It's a great time to start a vegetable garden. Among the vegetables you can plant, consider: Broccoli, Brussels sprouts, cabbage, carrots, cauliflower, chard, chives, endive, leeks, lettuce, peas, radishes, rhubarb, rutabagas, spinach, turnips.

Pest Monitoring and Management

- Clean up hiding places for slugs, sowbugs, and millipedes. Bait for slugs; iron phosphate baits are safe to use around pets.
- Monitor strawberries for spittlebugs and aphids; if present; wash off with water or use insecticidal soap as a contact spray. Follow label directions.
- Cut and remove weeds near the garden to remove potential sources of plant disease.
- Use floating row covers to keep insects such as beet leaf miners, cabbage maggot adult flies, and carrot rust flies away from susceptible crops.
- Help prevent damping off of seedlings by providing adequate ventilation.
- Manage weeds while they are small and actively growing with light cultivation or herbicides. Once the weed has gone to bud, herbicides are less effective.

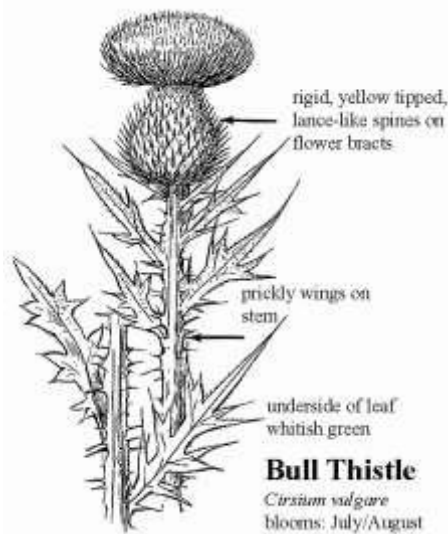
Weed of the month: Bull thistle (*Cirsium vulgare*)

Bull thistle is a very common weed. It is easily found in pastures, gardens, logging clear-cuts, and along roadways. It needs somewhat disturbed ground to grow but cannot tolerate yearly fall/spring tillage.

Bull thistle is a biennial, which means that it starts to grow in one year, overwinters as a visible rosette, and flowers the following summer. The rosettes are very obvious now. They are flattened to the ground, hairy, green/grey in color, and quite spiny. Bull thistle cannot spread by root pieces like Canada thistle, only seed.

As temperatures warm in the spring, these thistles start to develop with a vengeance. A bull thistle taproot can grow three feet deep in fertile soil. The floral stalks can easily reach 5 feet tall. The large flowers are 1-2 inches across and usually deep purple though pink shades are not uncommon. The floral bases are covered in spines. There is an abundance of rich nectar in the flowers. Not surprisingly, there are many pollinators including a variety of bees, butterflies, flies, and possibly, ants. Cross pollination is required.

About 4000 seeds are produced by each plant. They come equipped with a “pappus” which allows them to float away in the wind. A good portion of the seeds end up within 3-5 feet of the plant but others are moved by wind, vehicles, livestock and other animals, ants, birds (the goldfinches love them), equipment, and, especially, hay contaminated with seed. The seed has little dormancy and most of them are



capable of germinating as soon as autumn rain starts. Bull thistle seed is short-lived (3-4 years in most situations). Once the seeds have flown, the plant dies. In rare cases, a cut bull thistle may revert to a rosette and come back the following year.

In many pastures, bull thistles are only an occasional problem with one here and one there widely dispersed. However, more closely grazed pastures allow opportunity for more bull thistles. A less vigorous grass stand is not a good competitor and many weeds, including thistle, can capture ground. Once a thistle germinates, livestock leave it alone.

The spines on the leaves are quite a grazing deterrent. All livestock will eat the floral heads, very carefully, to get at that sweet nectar. Goats have made an art form out of grazing bull thistle heads, carefully bending their heads to the side to remove the flower and avoid the spines. It is entertaining.

Management starts (and ends) with prevention. Since bull thistle is a biennial, improving the vigor of your pasture will dramatically reduce their number. Good rotation grazing in the spring and careful or no grazing in the winter will help. So will fertilizing in both the fall and springtime to stimulate the grass.

While herbicides are the key to managing the perennial Canada thistle, herbicides are at best a temporary solution to bull thistle. High quality pasture management is your first job. That said, there are a number of products available that are effective on the rosette stage, either in the fall or spring. Read and follow all label instructions when using any of these products.

There are few medicinal or culinary uses for this poor tasting plant.

Farm and livestock notes

Dry vegetable farming or gardening

Vegetable production without much irrigation isn't easy. We average about an inch of rain per month in July and August and most vegetable crops take 6 inches or more. Some crops, like onions, are probably not suited for non-irrigated farming since the bulb stops growing if it gets short of water at all. Lettuce and greens would also be a challenge.



Amy Garrett at OSU has devoted several years to exploring which crops might do well with these techniques in Oregon. There is precedent for her work. Some farmers in California have been doing this for over 40 years. Their tomatoes and other produce command premium prices for their perceived intense flavor.

Garrett focused on tomatoes, summer and winter squash, potatoes, and melons. Trials took place in Corvallis, Aurora, and Medford. Some results so far indicate that

- Fruit (melons, squash, and tomatoes) were more intensely flavored, denser, but often smaller.
- Total yield was usually, but not always, lower (sometimes a lot) due both to smaller fruit and a planting pattern that kept plants further apart (and thus fewer plants per acre) so that they wouldn't compete for moisture.

- Fruit tended to mature earlier.
- Deep soil (four feet or more of clay-loam topsoil) gave best results. Soils of this type are often important agricultural areas and usually had good water rights. But in some cases, they were "junior" river rights and could be cut off in dry summers.

- High soil organic content is also helpful. It can be increased by additions of organic matter and/or thoughtful cover cropping.
- Early planting and crop protection (season extension) with row covers help root systems develop.
- No weeds!! They take moisture. Planned weed

control tillage is very important to the success of this system throughout the growth of the crop. Weed barriers between rows can be useful. Continuous dust mulch made by light hand or mechanical tillage around transplants to conserve moisture.

- Some star performers: Stella Blue winter squash, Early Girl and Big Beef tomato, and Dark Star zucchini.

More work is planned with other varieties and different cultural techniques. Plant spacing will probably have to be determined for each crop variety and location. Rainfall during winter will inform planting decisions. Plant breeding can improve the capacity of varieties to root deeply. And plant rootstock grafting that is being done with tomatoes and squash could revolutionize crops growth in a dry farming environment.

For more information, see the dry farming publication: <https://catalog.extension.oregon-state.edu/em9229>

Produce Safety Grower Training

The Oregon Department of Agriculture is offering the Produce Safety Alliance (PSA) Grower Training remotely. They have added two additional courses this spring.

Each class consists of two-half day interactive trainings with materials provided. *Through participation in this class, ODA is also able to offer 3 core pesticide recertification credits for participants if they are a licensed pesticide applicator in the state of Oregon.*

Each class is offered on a first-come, first-serve basis. If you are interested in attending a course, please register soon. Here are the class dates: [April 26-27, 2023](#) [May 17-18, 2023](#). Click on preferred date to register. If a class becomes full, join the wait list to be notified of openings or future course offerings.

- Participants must have a computer or mobile device with two-way video and audio capabilities (a webcam).
- Access to strong internet connectivity - at least receiving 2.5 and sending 3.0 Mbps. Internet speeds can be tested at [SpeedTest](#).

Participant attendance and engagement will be monitored regularly by instructors. In order to successfully complete the training, which is required by the FSMA Produce Safety Rule, participants must be actively engaged and in attendance for all modules.

Who should attend? Produce growers, buyers, and anyone interested in learning about:

- Best food safety practices for growing, harvesting, handling, and packing produce
- Key requirements of the Food Safety Modernization Act (FSMA) Produce Safety Rule
- Foundations of Good Agricultural Practices (GAPs)

- Co-management of natural resources and food safety

Even if your farm or operation isn't covered by the rule (use our online tool to check [here](#)) this low-cost, up-to-the-minute training is a great opportunity for anyone growing, harvesting, handling or packing covered produce.

Module topics:

- Introduction to produce safety
- Worker health, hygiene, and training
- Soil amendments
- Wildlife, domesticated animals, and land use
- Agricultural water testing and analysis
- Post-harvest handling and sanitation
- Develop a farm food safety plan

In addition to the certificate of completion (\$35 value) and the Grower Training Manual (\$50 value), individuals who participate in a certified PSA Grower Training course are expected to gain a basic understanding of:

- Microorganisms relevant to produce safety and where they may be found on the farm
- How to identify microbial risks, practices that reduce risks, and how to implement produce safety practices on the farm
- Components of a farm food safety plan and how to write one
- Requirements in the FSMA Produce Safety Rule and how to align your operation with them

For more information, contact producesafety@oda.oregon.gov .

Why is there so much false dandelion in the pasture?

Pastures are complex mixture of plants. Most Columbia County pastures contain native grasses (bentgrass, in particular) and grass species that were brought in for planting (tall fescue, perennial and annual ryegrass, orchard grass) or by accident from Europe. The latter category includes a mix of brome grasses, sweet vernal, velvet grass, and reed canary grass.

Broadleaf species include planted legumes like subterranean clover, red clover, Dutch white clover, Ladino clover, and lotus major and minor (sometimes called trefoil).

In addition, there are a number of other non-native broadleaf species that populate our pastures. Some are palatable to livestock and some are less so. A few are poisonous (tansy ragwort affects cattle and horses but not sheep or goats). Some of the more common species include the two thistles (Bull and Canada), false and true dandelion, plantains, and the dock family.

To a fair extent, the plants you have are affected by your management practices. However, some of our most palatable grasses (like ryegrass) do not have strong stand persistence even under the best of management and need to be replanted often. Since few farms in Columbia County have the equipment to till and replant, ryegrass is not the perfect grass for those farms.

So how do you make the best with what you have? Walk your pastures now and inventory what plants you have and how tall the grass is. If the grass is starting to respond vigorously to the warm weather and you have relatively few false dandelions (the flattened one



with the hairy leaves), you can look forward to good livestock performance this spring. Most likely, you have not overstocked and did your best to reduce winter grazing as much as possible.

To me, false dandelions are an indicator plant. They lay flattened to the ground and are unpalatable to livestock, so they aren't grazed heavily. Their seeds germinate abundantly in areas of thin grass. And they don't give up their space easily.

They are perennial. You could spray out the false dandelion (there are some good herbicide choices for spring use) but that will still leave openings for more unless the grass density and desirable broadleaf mix is improved.



How can you do that? Rotation grazing this time of year can be helpful to both encourage grass recovery and to force livestock to eat some plants they may not like but won't actually hurt them. Sheep are great for this but even cattle and horses can be taught how to eat less palatable plants. By grazing a small area hard for about 3 to 4 days and then getting off that grazing cell for 25 days can, by itself, make the pastures better. Movable internal electric fences and portable water systems make this grazing system possible.

When animals are "set-stocked" and are free to roam and to eat only what they like, soon what they like is gone due to constant nibbling. Then the weeds win and you get to make lots of trips to the feed store for more hay and concentrates.

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Publications of interest:

Shrubs and Trees for Bees

EM 9391

By Scott Mitchell, Sandra J. DeBano and Andony Melathopoulos

Habitat loss is a factor in the decline of native bees. Planting key plants in yards and gardens may be one way to improve habitat and help these species recover. Learn how to increase the number and diversity of flowering plants that support bees with a look at this list of native trees and shrubs. See <https://extension.oregonstate.edu/pub/em-9391> for more details. This is one great publication!!



Getting to Know Oregon's Bats:

An introduction to the native bats of Oregon with good links to dig deeper into these important species. See <https://extension.oregonstate.edu/pub/em-9384>