



Country Living

Provided to you by the

OSU Extension Service Columbia County

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To visit [links to external articles](#), please view this newsletter online at our Website: <http://extension.oregonstate.edu/columbia/>

February 2020

Programs for you . . .

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

- Feb. 4.....[Scappoose Bay Watershed Council](#) 7:00 p.m. 57420 Old Portland Road, Warren.
- Feb. 6.....[Master Gardener™ Board Meeting](#) 10:30 a.m. OSU Extension Service, St. Helens.
- Feb. 6.....[Columbia County Beekeepers](#) 6:00 p.m. Columbia River PUD, 64001 Columbia River Hwy
- Feb. 8.....[Beginning Beekeeping Workshop](#) \$40 extension.oregonstate.edu/county/columbia/events
- Feb. 11[Lower Columbia River Watershed Council](#) 7:00 p.m. Clatskanie PUD, 495 Hwy 30.
- Feb. 19[Columbia Soil & Water Conservation District Mtg](#) 7:00 p.m. 35285 Millard Rd. St. Helens.
- Feb. 22[OSU Small Farms Conference](#) Register: blogs.oregonstate.edu/smallfarmsconference/
- Feb. 24[Farm Bureau Meeting](#) 7:30 p.m. OSU Extension Service, St. Helens.
- Feb. 27[Upper Nehalem Watershed Council](#) 5:30 p.m. UNWC Office, 1201 Texas Ave, Vernonia.
- Feb. 27[Master Gardener™ Chapter Meeting](#) 6:30 p.m. Extension Office. Public welcome!

Guest Presentation on houseplants (and for sale) by Judy Alleruzzo from Al's Garden Center.



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 & 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

Vegetable topics

Heat tolerant lettuce: Romaine varieties tend to be the most heat tolerant and bolt resistant of all the lettuce types. With the leaf and heading types, you have to search carefully through catalogs or talk to experienced lettuce growers. *Cherokee* has significant bolt resistant and has fairly thick leaves that stay leafy and don't make heads. *Manoa* is a variety bred in Hawaii for heat tolerance. It is a small mini semi-heading lettuce. Plant early and often. Check [Kitazawa Seed Company](#) (from the Bay area), [Territorial Seed](#), [Johnny's Seeds](#), and [Wild Garden Seeds](#) in Philomath, Oregon for some more interesting choices. Maybe we should do a taste test in our Fairgrounds demonstration garden this year.

Woody beets and kohlrabi: These are vegetables that grew too long before harvest. Kohlrabi is best harvested at 3 inches in size and before it cracks. Beets are best at ~ three inches or less. Beets don't tend to crack. There is one Chinese variety of kohlrabi that stays tender and tasty well past four inches. But it is hard to find and I have forgotten the name. Both these vegetables store well after harvest and should be grown more often.

Planting cycle for sweet corn: Don't calibrate your second or third seeding of sweet corn by days but rather plant the second block when the first block has grown 2 inches tall. Repeat a third time if you got started really early, think we will have a late fall, and have the garden space. For those of you that are new to growing sweet corn, it really appreciates warm soils to

get started. If you can get your bed tilled early or have covered it with a tarp for the winter (see the article linked at the end of the newsletter), place clear plastic over the area to be planted when there is a warming trend in the weather. Then plant the corn, cover it either with the clear plastic for a few days followed with row cover or use row cover right from the beginning. I do know gardeners (and some small farmers) that grow corn transplants in their greenhouses. I call that the "Georgia" treatment in Oregon. It can accelerate your first crop considerably. It is cheap and there is no thinning to do.

"Button heads" of broccoli and cauliflower: Tiny heads can form on both these vegetables if they are stressed after transplanting. Several factors play a role. First, transplants older than 4 weeks are more prone to buttoning. If you grow your own, keep them moving and get them out in time. If you are purchasing transplants, you may not be able to tell how old they are. Buy when the new shipment comes in. Second, keep them warm after transplanting. Cool soil and air



temperatures below 50 degrees F can set off the button trigger. Row covers or plastic cloches can be a big help. Finally, use a transplant fertilizer and keep the soil evenly moist but not water-saturated. That can sometimes be a challenge in western Oregon in the spring

unless you have planted them on raised beds. Premature flowering is like buttoning and triggered generally by cool temperatures. We had quite a bit of both early flowering and buttoning two years ago when June got cool.

For more information on this topic, see <https://academic.oup.com/aobpla/article/doi/10.1093/aobpla/plv050/201398>

Green beans: It is quite easy to transplant green beans. When soil temperatures are cool, green beans will often rot before they emerge. Planting in individual large plugs or pots and transplanting them will provide you with an early start to the season. See the discussion about soil warming and in the corn section above. One odd tidbit: black seed green beans appear more vigorous in adverse conditions than white seeded varieties.

Old seed: Vegetable seeds lose their vigor faster than their germination rate. Percent germination is not a good indicator of seed success, especially if planted into somewhat adverse conditions. Buy new seed. You won't regret it. (Kohlrabi picture from Ford/Wikipedia.)

Slug topics

Daylily foliage is emerging and, already, slugs have found the leaves. The weather for them is perfect with high humidity, often approaching 100% lately and temperatures above 38 degree F. Do they communicate their collective joy over an emerging succulent plant? Are all 10,000 of their micro-teeth wiggling in happiness? Are they starting to breed? The OSU slug orgy guidance says, yes!

In the spirit of communication, I have begun to bait, both daylilies and emerging garlic shoots for which they have also developed a sophisticated appetite. The baits are generally effective but there is now evidence that if a slug consumes a bait but doesn't die from eating it (though it probably made them very uncomfortable for a time) they can and will avoid that bait in the future. It has been clear that the metaldehyde-based baits paralyze a slug for about 48 hours and, usually, it will dry out and die. But 100% humidity isn't likely to dry



them out so after two days, they motor on. They are, at that point, probably bait shy.

The best estimate of slug bait success in commercial farm settings is roughly 70% control. This often requires at least a second application to get the crop past serious damage. The iron-based baits (iron phosphate and iron-chelate) are also effective.

Gardeners do have options. The first step is to stay ahead of slugs. They are full of themselves now. You want to disrupt their party early and often. Second, pay close attention to seedlings. That is when slugs can have the largest impact on your young vegetables. Three, monitor for slugs by placing boards around. Slugs will crawl underneath them. Check the boards daily and then chop them like a sushi chef. They cannot become resistant to a hoe! Finally, if using baits around edible crops or if there are pets or children around, use the iron-based ones.

Can you add too much compost to a garden or raised bed?

A recent study by an OSU student indicated that organic matter in beds and/or soils well past 8% may have an adverse impact on crops. The link to the news item is below. I agree with the comments but also think there is something else at play. Often, "compost" that isn't fully composted is sold to be used as a major constituent of new raised beds. Immediately, it restarts the composting process, in the process tying up most of the free nitrogen in the bed. Young plants can't access enough N to thrive. There even can be some salt issues in the immature compost. Taken together, I firmly believe the study's conclusion, that it is possible to have too much compost in a soil.

News item:

<https://today.oregonstate.edu/news/study-shows-some-urban-gardens-contain-too-much-organic-matter>

~ FEBRUARY ~

Garden hints from your OSU Extension Agent

OSU 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. Recommendations in this calendar are not necessarily applicable to all areas of Oregon. For more information, contact [your local OSU Extension Service office](#).

Planning

- Tune up lawn mower and garden equipment before the busy season begins.
- Have soil test performed on garden plot to determine nutrient needs. View a list of testing laboratories: [EM 8677](#)
- Select and store healthy scion wood for grafting fruit and nut trees. Wrap in damp cloth or peat moss and place in plastic bag. Store in cool place.
- Plan an herb bed, for cooking and for interest in the landscape. Among the choices are parsley, sage, chives, lavender. Choose a sunny spot for the herb bed, and plant seeds or transplants after danger of frost has passed (late April-early May in the Willamette Valley and Central Coast; June-July in Eastern and Central Oregon).
- Plan to add herbaceous perennial flowers to your flowering landscape this spring. Examples include candytuft, peony, penstemon, coneflower

Maintenance and Clean Up

- Repair winter damage to trees and shrubs.
- Make a cold frame or hotbed to start early vegetables or flowers.
- Fertilize rhubarb with manure or a complete fertilizer.
- Incorporate cover crops or other organic matter into soil.
- Prune and train grapes; make cuttings.
- Prune fruit trees and blueberries.
- Prune deciduous summer-blooming shrubs and trees; wait until April in high elevations of East/Central Oregon
- Prune and train trailing blackberries (if not done prior late August); prune black raspberries
- Prune fall-bearing raspberries (late in Feb. or early March)
- Prune clematis, Virginia creeper, and other vining ornamentals.

Planting/Propagation

- Plant windowsill container gardens of carrots, lettuce, or parsley.
- Plan to add herbaceous perennials to your flowering landscape this spring: astilbe, candytuft, peony, anemone.
- Good time to plant fruit trees and deciduous shrubs. Replace varieties of ornamental plants that are susceptible to disease with resistant cultivars.
- Plant asparagus if the ground is warm enough.
- Plant seed flats of cole crops (cabbage, cauliflower, broccoli, Brussels sprouts), indoors or in greenhouse.
- Where soil is dry enough and workable, plant garden peas and sweet peas. Suggested varieties of garden peas include: Corvallis, Dark Green Perfection, Green Arrow, Oregon Sugar Pod, Snappy, Knight, Sugar Snap, Oregon Trail, Oregon Sugar Pod II.
- Good time to plant new roses.

Pest Monitoring and Management

- Monitor landscape plants for problems. Don't treat unless a problem is identified.
- Use delayed-dormant sprays of lime sulfur for fruit and deciduous trees and shrubs.
- Remove cankered limbs from fruit and nut trees for control of diseases such as apple anthracnose, bacterial canker of stone fruit and eastern filbert blight. Sterilize tools before each new cut.
- Control moles and gophers with traps.
- Elm leaf beetles and box-elder bugs are emerging from hibernation and may be seen indoors. They are not harmful, but can be a nuisance. Remove them with a vacuum or broom and dustpan.
- Monitor for European crane fly and treat lawns if damage has been verified.

Houseplants and Indoor Gardening

- Pasteurize soil for starting seedlings in pots or flats, or use clean, sterile commercial mixes.

Plant communication

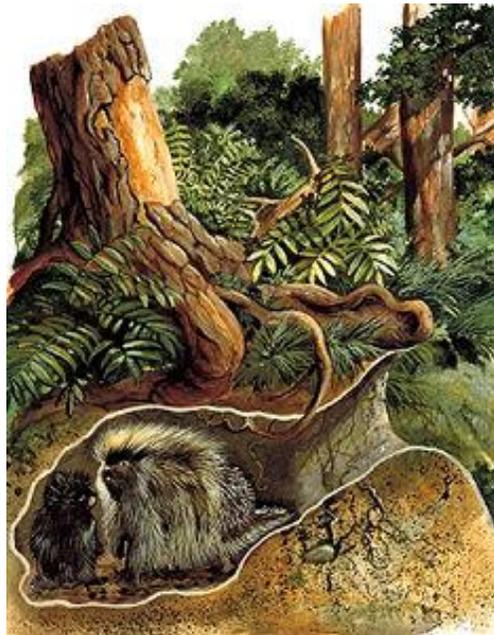
We have known for some time that trees and other plants can produce allelochemicals that damage “foreign” roots that grow into a plant’s root zone. Walnuts exude juglone for that purpose. These compounds can directly kill the intruder, weaken it, or even change its rooting pattern. We also have known that plants, through their leaves, can produce compounds that defend against leaf diseases, draw predators to insects eating their leaves, or signal moisture stress in ways that appear to influence the behavior of plants (usually their own species) to conserve moisture for the group.

Some years ago, I learned that forest mycorrhizal fungi were often connected to more than one plant. These fungi (often ones that give us great mushrooms like chanterelles) are symbiotic partners with their tree hosts. The plants provide carbohydrates they photosynthesize to the fungi that need them. The fungal mycelium radiates far beyond the roots of the “home” plant and gathers water and some minerals, especially phosphorus, for the tree. What was

surprising, some 20+ years ago, was the discovery that the host tree could be connected to an entirely different species of plant via a common fungal network. They could exchange nutrients and, it turns out, much, much more.

A lot of work has been done on Douglas fir forests. There is good evidence that fungal bridges are quickly built between established trees and new seedlings. The established trees send carbohydrates to the seedlings to increase above and below ground growth, prime trees to

resist drought conditions, and communicate to stimulate defensive compounds in the face of disease or insect attacks. The evolving view is that the trees recognize and support diverse woodland communities. Cascade Douglas fir appear to grow faster in sections where they are linked through mycorrhizal fungi to Ponderosa pine trees growing among them. A similar relationship has been seen between Douglas fir and paper birches. To complicate the picture more, when a Douglas fir is being defoliated by an insect, the fungus starts transferring carbon along with defensive signaling to the adjoining pine, looking to preserve the tree that is most likely to keep it supplied with carbohydrates.



Where lodgepole pine stands have been devastated by the mountain pine beetle, the fungal webs have been lost and tree seedlings struggle to grow.

There are very complex relations with tree roots, fungi, and soil moisture stress. Maples bring up deeper moisture to the surface root zones to both maintain their own surface roots and apparently to support some of their fungal-linked “allies.”

There is a lot to learn. On a recent visit to a farm in Yankton, I was shown a Douglas fir stump resulting from a tree thinning many years ago. The surface of the stump had healed over and was, to all appearance, still alive. Apparently, this does happen.

Fungal bridges and knitted roots between trees can provide life-support to keep that part of the forest tree bridge (roots and stump) intact and functional, below ground. Cut the wrong tree (sometimes called “hub” tree) and the whole network can be disrupted beyond repair.

Farm and livestock notes

Buffer strips

Rural landowners have a moral and legal responsibility to keep dirt, debris and manure out of our roadside ditches, creeks, streams, and rivers.

Barnyards can easily become a muddy quagmire in our western Oregon winters. Livestock owners with muddy barnyards need to pay special attention to where barnyard water flows. The first step is to divert rain captured by roofs away from livestock activity with gutters and then pipe discharge water away from livestock areas. The water leaving the roof is basically clean and if it moves without becoming contaminated, you have done an excellent job. Gutters reduce mud around feeding areas and improve the health of your animals. I realize that gutters can sometimes fail in a heavy snow load but if they are correctly installed with heavy, wet snow loads in mind, they should last for years.

If you are not barn feeding exclusively, there are good arguments for creating “hardened” winter feeding areas. These are generally constructed with large rock laid on top of geotextile fabric. The fabric “floats” on the soil and the rock doesn’t sink in. The large rock is then covered with a topcoat of sand, small (1/2-5/8 inch) crushed rock, or wood chips. Periodic manure removal (easier with horses than cattle) will keep the pad functioning longer.

Buffer strips are also an important tool to keep water leaving your farm as clean as possible. They can intercept contaminated surface water and keep the manure or dirt from moving off site. A buffer strip can be a simple grassed area

that isn’t grazed much. It can be high-mowed or even grazed briefly during the summer.

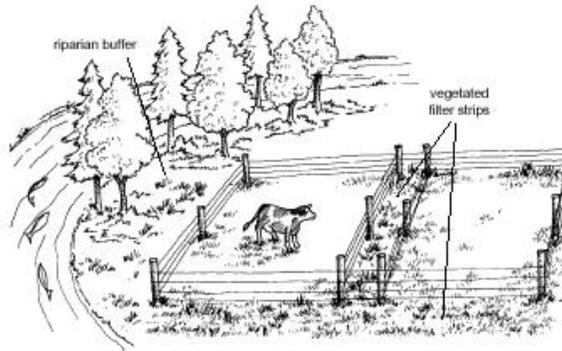
Electrically charged poly-wire or tape can be used to create and maintain a buffer area. A fairly wide strip of 30 feet or more could include trees, native shrubs, and other plants that could also support pollinators while it was protecting the water. Even a strip that is 15 feet

wide will intercept a lot of surface contamination.

More permanent fencing for buffer strips can be a further investment in good management. Please call if you have any questions.

There may be funds to help pay for a multi-functional buffer along a stream. To inquire about that, call the

NRCS office in St. Helens at 503 397-4555. Ask to speak with Don Mehlhoff.



Caring for wet, cold pregnant cows

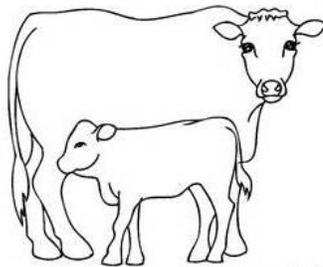
Cows are in their last trimester of pregnancy. So, for that matter, are sheep and goats. This is a pivotal time in their life. The weather is terrible, mud is accumulating on most barnyards, and their unborn calf or lamb is getting an increasing share of the protein and energy from the available feed or from the protein and energy reserves in their mother’s body.

Here are the most important things you can do at this time:

1. Look at your livestock carefully every day.
2. Provide them dry shelter to feed and bed down in as much as possible.
3. Give them the best feed you can get. Their protein and energy needs are going up fast. They need extra protein to improve rumen efficiency. Alfalfa hay is an excellent supplement. A 1200# cow should get 12 pounds of alfalfa hay and 25 pounds of local

hay during this time. Otherwise, they may not be able to eat enough (even if it is in front of them all the time) to sustain themselves and their unborn offspring. The extra protein will also increase their offspring's immunity to disease.

4. Vaccinate your livestock about three weeks before they are due to give birth. Talk with your veterinarian but usually it would be for Clostridial diseases and possible for the disease that can cause calf scours. A mother in good physical condition will deliver a stronger immunity response to the unborn animal.
5. Get calving/lambing areas ready.
6. Keep young calves warm and dry the first month. They start to lose more heat than they can deliver through the food metabolism when temperatures drop below about 50 degrees F. When they are a month old, they are good down to 32 degrees if they are nursing well.
7. Keep looking at them daily.



weeds or a fall-planted cover crop, the tarp needs to be in place at least 4-6 weeks before the projected planting date.

Both early season direct-seed onions, cabbage family, and lettuce have been tried successfully. So have snap beans and later crops.

Soil, at least worm, life, seems to thrive under the tarps. Tilt was excellent and far less extensive tillage prior to planting was needed. Not all weeds will be controlled but the farms seem to agree that it is an interesting new tool to experiment with. Quackgrass is especially vulnerable to winter tarping and, if left on until early June, can set back Canada thistle.

The tarps used are either hay tarps or pit silage tarps. They can cover up to a half an acre.

For people wishing to grow crops without any summer irrigation, this might be worth looking at. Soil moisture didn't seem to be much different between tarped and uncovered adjacent plots. But there is still a lot to learn.

... Continued from back page

Using tarps to manage weeds on intensive vegetable farms

Competitive weeds are the bane of small-scale organic vegetable farmers. Weeds can destroy a direct-seeded crop if not attended to early and often and can demand attention throughout the growing season.

For a few years now, some farmers in Oregon and on the east coast have been experimenting with plots covered with tarps prior to planting spring or summer crops. In some cases the tarps were installed in the fall, others just several months before seeding. Sometimes they were applied over cover crops to kill them prior to planting. Generally, to kill existing winter

- *To Remember **Amy Grotta** in online giving:* Please visit the [OSU Foundation's Giving page](#). To ensure that the donation is tracked correctly you will need to **1)** choose the 'College of Forestry' on the "Direct my gift to a specific OSU College or Campus" and **2)** put "In memory of Amy Grotta" in the comment box.

- *To Remember **Amy Grotta** by gifting via mail:* Please include [this form](#) with your donation and indicate it is "**In Memory of Amy Grotta**" and for the College of Forestry. Alternately, write on the memo line of your check "**College of Forestry, in memory of Amy Grotta**" and they will be able to direct it appropriately that way. Mail to: OSU Foundation, 4238 SW Research Way, Corvallis, OR 97333. * Our staff will also gladly forward sympathy cards and similar mail to Amy's family.



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In Memoriam: Amy Grotta



Amy Grotta, our OSU Extension Forestry faculty member, passed away early in the morning of December 24th. Amy was based in our office for almost 10 years. She provided Forestry Extension education in Columbia, Washington and Yamhill counties. In addition, she worked statewide on a variety of projects of regional significance. She had great relationships with Columbia County's small woodland owners, state foresters, and our industrial timber landowners. Amy's intelligence, warmth, superior education skills, drive to learn, and ability to communicate complex topics will be hard to replace. We could not have had a better or more inspiring colleague than Amy. She lived her values in everything she did.

Four years ago, Amy was diagnosed with a very rare cancer. We, along with all her family, friends, colleagues, and clientele kept hoping scientific advances in cancer therapy might outrun the course of her disease and allow us much more time with this amazing woman. But sadly, that did not happen and we are all the worse for that.

This information has been provided by her husband, Dave Dreher: "If you wish to donate in memory of Amy, you can do so through the OSU Foundation. The plan is to use donations to support the research, outreach and education activities of the OSU College of Forestry that are aligned with her values and life's work. For details to give by mail or online, see page 7." There will be a public event to remember Amy early this summer; we will inform readers when we know more.

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