# Country Living

Provided to you by the
**OSU Extension Service Columbia County**
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Office hours: Closed until further notice

**To visit *links to external articles*, please view this newsletter online at our Website:** http://extension.oregonstate.edu/columbia/

## August 2020

# Programs for you . . .

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

**Columbia County Beekeepers Virtual Meeting** August 6th at 6pm, via Zoom video conference. Discussion Topic: American Foulbrood, a powerfully contagious disease. Email for meeting login information: LindaZahl2@gmail.com

**Local Columbia County Farmers Markets:**

- **Clatskanie Farmers Market: Saturdays 10am-2pm**
- **Scappoose Farmers Market: Saturdays 9am-2pm**
- **St. Helens Farmers Market: Saturdays 9am-2pm**
- **Vernonia Open Air Market: Saturdays 10am-2pm**

**Just in time for ripe tomatoes and tuna, the food preservation hotline opens**: As the Oregon State University Extension Service Master Food Preserver program turns 40, its hotline is once again ready to take calls. The toll-free hotline at 800-354-7319 runs from 9 a.m. to 4 p.m., Monday through Friday. When the hotline is closed, callers can leave a message. The hotline is staffed by certified Master Food Preserver volunteers and is available statewide. Calls to the hotline are expected to boom during the pandemic as people discover the satisfaction of growing and preserving their own food. Already this year, food preservation questions to OSU Extension's Ask an Expert online service have more than doubled compared to the first half of last year. You can also reach Jenny Rudolph, our Columbia County food preservation expert at Jenny.Rudolph@oregonstate.edu

**OSU Resources & Publications:** https://catalog.extension.oregonstate.edu/

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 harvest in prime pays

It is easy to tell when some vegetables are past their prime. Four inch wide and two foot long zucchinis are a classic example. They are still useable but not prime eating.

A cabbage head that has split is likely over-mature and may be tough, woody, and dry. Gardeners can sometimes twist the head a quarter turn before harvest to slow maturity. But best is to harvest the head when it is smaller and firm. It will store better as well.

Beets and kohlrabi can get woody once they get past 3 inches in diameter.

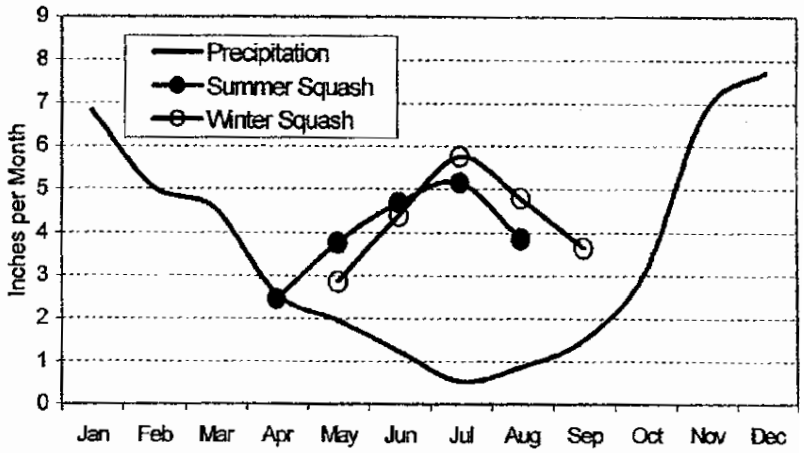
Beans, summer squash, cucumbers, and peppers need to be harvested to continue to flower and produce more for later. Even if the bean is too big to eat, get it off of the vine. Same with the others, except bell peppers. If you want red bell peppers, they need to stay on the plant a lot longer until they turn. The reward is a sweetness, aroma, and eye appeal green peppers can't match. But that will reduce the total number and size of peppers you have to eat.

## Watering vegetables in hot weather

High temperatures common to August give us a lot of opportunity to test our watering skills. If you are seeding vegetables for fall harvest, it is a challenge to keep the soil surface evenly moist to support germination. Light surface mulches help, as do the use of soaker hoses or drip systems turned on frequently. Overhead irrigated seeds on un-mulched clay soils tended to have a hard time pushing through the soil crusts that form. Crusts develop from the physical impact of water droplets combined with sun baking clay in the soil.

In the vegetable garden, many crops are in crucial production stages. All vegetables that produce bulbs, flowers, fruit, or seed as the edible part (i.e. beans, squash, tomatoes, peppers, corn, broccoli, onions etc.) experience their highest demand as that edible portion is maturing. Even and ample water is a must.

The evapotranspiration rate of a crop is the amount of soil moisture evaporating through plant leaves (which is most of the water as the crop canopy matures) and directly from the soil. Normal evapotranspiration <u>averages</u> for vegetables in July/August are about 1.50 inches per week (or about .22"/day). But we had some days where the transpiration rates exceeded .30"/day or about 2.25 inches per week. The chart below shows the water demand for winter squash (butternuts, acorns, Hubbard, etc.) and summer squash (zucchini, patty pans, etc.) Note the different planting dates projected. The difference between the rainfall received and the crop demand at any point in time is what you have to provide.




Typical precipitation and squash evapotranspiration (ET) in the Willamette Valley. Tabulated values of ET are provided on the back of this sheet.

We are entering the final growth of our crops with a water-year (October –September) rain deficit of about 9 inches. This will affect some plants we might not normally water like well-established fruit trees.

## Late blight of tomatoes and potatoes

As I write this, there are some good weather forecasts. But there are also some hints of a day or several that could drizzle. For those of us growing tomatoes, this is not what we need to hear. If drizzle persists more than a day (or two at most), our tomatoes and potatoes are at risk for late blight infections. Peppers are less affected.

A full-blown infection can cause the plants to look like they have been blow-torched and all the fruit is ruined. Potatoes developing in the ground can also be infected. So if that drizzle or rain forecast looks like it would come to pass, consider spraying your plants with a copper fungicide (most are considered "organic") **before** a persistent rain pattern sets in.

## Voles abundant

Voles, also known as meadow or field mice, are irritating Columbia County gardeners. We clearly are on the upside of a population boom. Voles create their own tunnels or gladly use those made by moles. They like some bulbs (tulips and others) but not daffodils. They will feed on the new bark and near surface roots of some trees and shrubs. Rose family plants (apple, pear, cherry, rose, etc.) are quite desirable. Our most common species is the long–tailed vole though we have others.

Vole holes can be the size of a golf ball up to about 2.5 inches across, depending on species. The grass will usually be nibbled down in front of the hole.

Voles breed early and often, with females capable of producing up to 7-9 litters of 5-6 young ones a year. Luckily, lots of animals and birds like to eat voles. Keeping grass areas short makes them nervous and aids vole predators (hawks, owls, cats, coyotes, and some dogs. This is especially important around young fruit trees. Voles will love your carrots, potatoes, beets, and a few other garden vegetables. I caught one this year nipping off spinach transplants. Trapping helps. So does collapsing mole tunnels with a rototiller or spading fork. Most poison baits aren't labeled for use very far away from the footprint of the home so encourage predation, destroy tunnels where possible, and do some trapping.

Eventually, the vole population will decline of its own accord.

## Boron in the garden

Most soils in western Oregon are deficient in boron (B). Several crops (cabbage, broccoli, cauliflower, turnips, beets, radishes, carrots, caneberries, strawberries, grapes, walnuts, and plums) can benefit from an application of boron. Cabbage, broccoli, and cauliflower may show hollow, corky stems. Cabbages may be small and yellowish and cauliflower heads can turn brownish due to a lack of boron. Grapes don't set fruit as well if they are short of boron.

If the soil test for boron is less than 1 ppm (which it generally is in Columbia County), apply household or agricultural grade borax (11 percent B) at the rate of 1 tablespoon per 100 square feet where boron-requiring plants will be grown. Apply the borax evenly and mix thoroughly with the soil. It may be easier to dissolve 1 tablespoon of borax in 1 gallon of water and apply the solution evenly with a sprinkling can or a sprayer not used for herbicides. Apply 1 fluid ounce of solution per plant. You can find borax in the cleaning supplies section of most grocery stores. One application should be sufficient for up to 3 years.

**But be careful!** Excessive quantities of boron are highly toxic to plants, especially young bean plants. It is sometimes been used as a soil herbicide to control all vegetation.

*Slightly edited from* ***Fertilizing Your Garden:*** https://catalog.extension.oregonstate.edu/ec1503

## Now, something you have always wondered: Which fruit can't further ripen after picking?

Ripening is a complex process in fruit. During ripening, starches convert to sugars, aromatic flavor compounds increase, and the fruit itself softens. C**limacteric** fruits will ripen after harvest, assuming they reached a certain critical growth stage before harvest. These fruits can respond to a natural gaseous plant hormone called ethylene gas after harvest to speed ripening. **Non-climacteric** fruits must ripen on the tree or plant and will not improve in quality after harvest. They do not respond to external ethylene. So here is the list:

Can ripen after harvest: apples, pears (they are complicated and most, except Bartlett and Seckel, need a cold temperature exposure after harvest to ripen), peaches, plums, quince, persimmons, blueberries, figs, avocado (must be harvested before it can start to ripen), and tomatoes. Cantaloupes will soften but not improve in sugars or aroma after harvest.

Will not ripen after harvest: Cherries, caneberries, strawberries, grapes, cucumbers, peppers, eggplant, summer squash, and watermelon.

All of the fruits can decay and soften after harvest but that isn't what we are looking for.

# Small Grants Program

*2020 - 2021*

**The State of Oregon has a competitive Small Grants Program available to the residents of Columbia County.** Landowners work in partnership with the Scappoose Bay Watershed Council, and other local resources, to apply for eligible grants. The grants can cover 75% of the project costs, up to $15,000, for on-the-ground restoration projects on private land in our area.

*Weed control* *Riparian planting* *Pollinator habitat* *Oak habitat*

**Eligible projects can include:**

- Stream bank planting or wildlife habitat improvements.
- Invasive weed control.
- Native plantings.
- Erosion control.
- Wetland restoration.
- Pollinator habitat creation or enhancements.
- Oak habitat improvements.

The first step is to contact us to discuss your project and schedule a site visit. Together, we can determine the best options for your situation. Depending on the options, a small grant may work for you. If not, we can offer other ideas to help.

## Application Deadlines *(2020 & 2021)*:

March 2 – 16, 2020
May 2 – 16, 2020
Aug 2 – 16, 2020
Oct 2 – 16, 2020
Dec 2 – 16, 2020
Feb 2 – 16, 2021
April 2 – 16, 2021

## More Information:

To get started on your project, contact Dana at 503-397-7904 or email: dana@scappoosebay-wc.org.

# ~ AUGUST ~

## 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**

- Dampwood termites begin flying late this month. Make sure your home is free of wet wood or places where wood and soil are in contact.
- All of Oregon: Optimal time for establishing a new lawn is August through Mid-September.

**Maintenance and Clean Up**

- Make compost of lawn clippings and garden plants that are ready to be recycled. Don't use clippings if lawn has been treated with herbicide, including "weed-and-feed" products. Don't compost diseased plants unless you are using the "hot compost" method (120° to 150°F).
- Fertilize cucumbers, summer squash, and broccoli to maintain production while you continue harvesting.
- Clean and fertilize strawberry beds.
- Use mulch to protect ornamentals and garden plants from hot weather damage. If needed, provide temporary shade, especially for recent plantings.
- Camellias need deep watering to develop flower buds for next spring.
- Prune raspberries, boysenberries, and other caneberries after harvest. Check raspberries for holes made by crown borers, near the soil line, at base of plant. Remove infested wood before adults emerge (approx. mid-August).
- Monitor garden irrigation closely so crops and ornamentals don't dry out.
- If a green lawn is desired, make sure lawn areas are receiving adequate water (approximately 0.5 to 1.5 inches per week from June through August). Deep watering less often is more effective than frequent shallow watering.
- Prune out dead fruiting canes in trailing blackberry and train new primocanes prior to end of month

**Planting/Propagation**

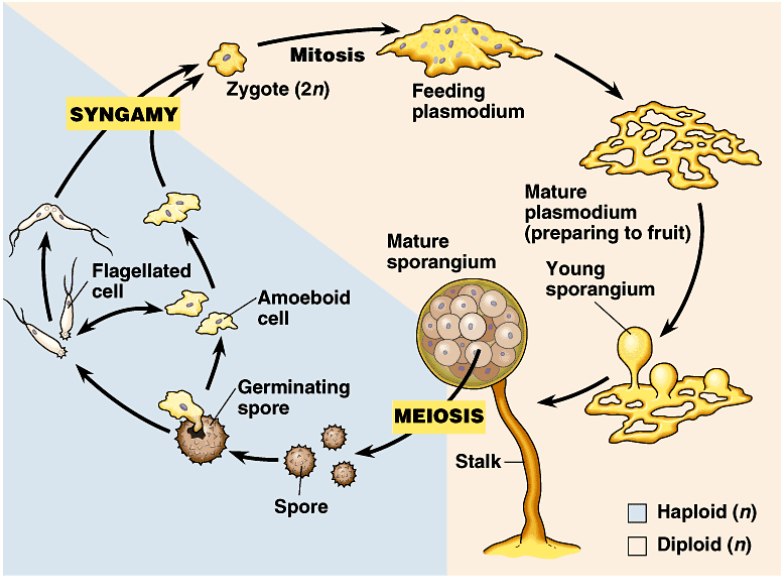
- Plant winter cover crops in vacant space in the vegetable garden.
- Plant winter kale, Brussels sprouts, turnips, parsnips, parsley, and Chinese cabbage.
- Mid-summer planting of peas; use enation-virus-resistant varieties, plant fall crops of cabbage, cauliflower, and broccoli.
- Plant cauliflower, broccoli, Brussels sprouts, spinach, turnips, and parsnips.

**Pest Monitoring and Management**

- Continue monitoring peaches, plums, prunes, figs, fall-bearing raspberries and strawberries, and other plants that produce soft fruits and berries for Spotted Wing Drosophila (SWD.
- Check apple maggot traps; spray tree if needed.
- Control yellowjackets and wasps with traps and lures as necessary. Keep in mind they are beneficial insects and help control pest insects in the home garden.
- First week: if necessary second spray for peach tree borer and/or peach twig borer.
- First week: if necessary, spray for walnut husk fly.
- First week: if necessary, second spray of filbert trees for filbertworm.
- Check for root weevils in ornamental shrubs and flowers; codling moth and spider mite in apple trees; scale insects in camellias, holly, maples. Treat as necessary.
- Watch for corn earworm on early corn--treat as needed.
- Control caterpillars on leafy vegetables, as needed, with *Bt-k,* or by hand picking and removal.
- For mite control on ornamentals and most vegetables, hose off foliage, spray with approved miticide if necessary.
- Remove cankered limbs from fruit and nut trees for control of diseases such as apple anthracnose and bacterial canker of stone fruit. Sterilize tools before each new cut.
- Corn may need protection from earworm. Spray new silks with appropriate pesticides if necessary.
- Spray potatoes and tomatoes for early and late blight.

## Strange stuff on lawns and bark dust

I had several calls recently about stuff that was alternately called "weird, looking like vomit" or "brightly colored throw up". The patches were from several inches to about a foot wide and ranged in color from chrome yellow to browns, tans, and cream colors. They were rather amorphous in shape but generally somewhat round, slimy, and knobbly. They grew on grass blades or bark chunks and the thickness varied from a quarter of an inch to more than an inch. The structure could be six or more inches in diameter. If you are of an experimental bent, you could take your hand and move the stuff of the substrate. There you would see the grass or other material completely unaffected.



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So what were these things and did they need to be controlled? These organisms are the reproductive structures of slime molds. These "molds" are not fungi, despite their name, but are rather free-living "protists" (basically amoeba) that feed on fungi, bacteria and organic bits.

I first ran into slime molds in some biology classes in the early 1970's. Science was very interested in how organisms communicated and a great biologist, J.T. Bonner had done ground-breaking work on slime mold communication. His work led ultimately to useful approaches to insect management (pheromone traps) and other scientific discoveries.

These very ancient organisms have evolved a rather complicated reproductive cycle. When they wish to reproduce, often as the food supply dries up, they chemically signal each other (amoeba by amoeba) to aggregate in an area where the wind will carry their spores. So thousands of individuals join together to create this large amorphous structure that was seen in the landscape. They can move as a group and ultimately form group fruiting structures.

These organisms entranced a Japanese scientist in the early 20th century who collected them and studied them. He hated the slugs that devoured his subjects and woke up every two hours at night to dispatch the slugs. Then he trained cats to do the job.

Slime molds do no harm and disappear usually in a couple of days. For an old but still available interesting article visit: http://www.nytimes.com/2011/10/04/science/04slime.html?pagewanted=all

## Weed and crop of the month: Chicory (*Cichorium intybus)*

Chicory is sometimes described as a weed but, as we will see, it has many virtues. It is an herbaceous perennial native to Europe. Chicory is very noticeable this time of year due to its pure blue blooms. It is commonly found along roadsides and in medium to heavy soils. Chicory generally does not invade undisturbed areas but prefers human manipulated sites.

CHICORY
*Cichorium intybus L.*
CHICORY FAMILY

Chicory stands between one and five feet tall with modest branching terminated by 1-2.5 inch light to deep blue (and rarely white or pink) flowers. Each flower opens for only one day. Bloom time can be from spring until fall. Mowing or grazing Chicory delays flowering. An average plant can produce about 3000 seeds. Chicory spreads solely by seed.

Basal leaves are strap shaped and can be up to ten inches long. Stem leaves are smaller and decease in number up the stem. The lower stem is hairy but the upper portion of the stem is hairless.

Chicory has a very deep and large taproot. All portions of the stem and root produce a milky, bitter sap.

By and large, there is no need to control chicory except where it is an esthetic concern, like in a lawn. Sheep, goats, and cattle will readily graze chicory and find it quite palatable. Improved pasture varieties are being sold for modern "mixed species" pasture management. There is increasing evidence that chicory can be helpful with organic or conventional management of internal parasites ("worms"). Dairy farmers feel it improves milk flow and herd longevity.

Europeans have long valued chicory in cooking for its bitter edge. Wild chicory is often boiled first and then sautéed to reduce the bitterness and followed by use in a variety of dishes.

Radicchio is a cultivated form of chicory that is widely sold in Europe and North America as a salad plant and as an addition to other dishes. Belgian endive is also a cultivated (selected) chicory that is grown from roots planted in the dark to get white, blanched leaves.

For many years, chicory roots have been roasted and ground to make a coffee substitute or additive. New Orleans chicory-laced coffee is well-known but it can also be found in certain parts of Europe and India as well. And if it is good for coffee, it must be good for beer. And so, we find "witlofbier" in Belgium. Chicory makes significant amounts of the carbohydrate inulin in the root. It is thought to have strong probiotic qualities.

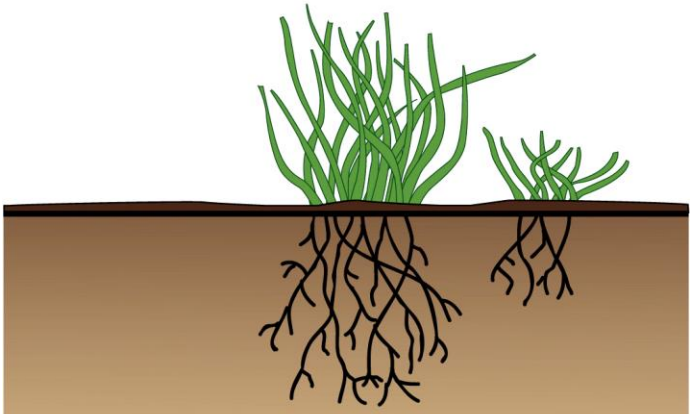
Chicory has a long history in medicine as a vermifuge (for internal human parasites), as a general tonic, for gastro-enteritis and other ailments. It was a common ingredient in the medicinal liqueurs and "digestives" so widely made throughout all the European countries.

It is no surprise that chicory came to North America, not as a weedy contaminant, but as a highly prized plant that was part of European colonists' medicine cabinet and their food gardens. I sense a rebirth in chicory use in farming, food, and drink.

# Farm and livestock notes

## Gathering light, growing roots

The hay season is almost over and some nice hay has been put up. In looking over various fields, the cutting height has been about right, 3-6 inches, to give the grass enough solar panels (green leaves) to recover quickly. When grass is cut or grazed too low, stored sugars have to be moved out of the crown and root to build new leaves. That shorts root growth and reduces the number of viable tillers the grass can make. Some grasses (meadow fescue and to a lesser extent, tall fescue) can be grazed a little tighter but still will require decent recovery time.



| Percent leaf volume removed | Percent root growth stopped |
|---|---|
| 10% | 0% |
| 20% | 0% |
| 30% | 0% |
| 40% | 0% |
| 50% | 2-4% |
| 60% | 50% |
| 70% | 78% |
| 80% | 100% |
| 90% | 100% |

Grazing that follows the "take half, leave half" rule will result in a long-lasting pasture. The picture and data tell the story.

## Livestock condition for winter

It seems a little odd to be talking about livestock health in winter now with the mid-eighties weather. But our livestock need to be managed to come into the cold, rainy season in as good a body condition as you can give them. So far, we have had fair pastures. The late rains in May developed some good grass and grass/clover pastures. It is important to let the grass grow for a period of time to develop deep roots and vigorous crowns.

The exceptions to the generally nice pastures are those that had been heavily grazed throughout the winter and spring. They couldn't respond as well to the decent April/May weather. Now they are drying down fast with their more modest root systems unable to get deeper soil moisture. In this situation, it is important to look at your animals and note their current condition (search Google for information on "body condition scoring").

Feed your thin animals a supplement to the pasture (good hay and some grain) and sell those that aren't performing well for you. Keep an eagle eye on the condition of the rest of your herd. If we have a good fall pasture season with nice rains and warm weather, it will help improve livestock condition just before the cold, wet weather.

## Plan to spray young tansy ragwort plants this fall

There is more tansy ragwort than there should be. The plants that will flower next year are in the rosette stage now. Our best tansy spraying weather comes in early to mid-October after a good rain but before it is raining all the time. Have your herbicides on hand and your equipment ready to go. On a related note, the cinnabar moths emerged late this year because of the cool April and May but caterpillars are active on many sites.

## Food safety for commercial greenhouse fresh market produce

There is increasing use of greenhouses and hoop houses for direct food production in western Oregon. Historically, the structures have been used for starting transplants but now are also being used to do full "grows" to extend the harvest season. Our local Columbia Soil and Water Conservation Service has financially assisted a number of farmers to install hoop houses.

When a grower moves into "protected" food production, the farm culture has to change to keep up with the food safety risks inherent in the system.

The warm and somewhat more humid environment in these facilities will both improve plant growth but will support more bacteria as well. The risks can basically be broken down into several major categories:

- Worker health and sanitation: Attention to handwashing is a must during picking. If using gloves, make sure they are disposable and replaced as needed or are ones that can be sanitized for repeated use. Consider footbaths for boots entering the facility once harvesting has started. If anything, COVID-19 has amped up grower and worker attention to health and sanitation.

- Water quality: This can be a big issue. Have your irrigation and produce wash water tested for bacterial contamination. Test all water sources repeatedly for several years to get good baseline data. New FSMA rules specify water testing protocols. If you are using City, Warren, or McNulty water exclusively, there is no need to test since those entities do the necessary routine testing themselves. Water treatment is expensive and complicated and, with any luck, won't be something you have to do.

- Animals and birds: Keep them away from your produce as well as you can. Greenhouses are protectable spaces but producers have seen domestic animals, rodents, deer, raccoons, and birds in them. All can contaminate your crop. Do everything you can to deter them.

- If using on-farm composted livestock and/or poultry manure in a greenhouse, follow all guidelines about compost times needed prior to incorporation into your growing beds.

- Equipment, tools, and packing lines: Keep all equipment in both the production/growing spaces or the post-harvest packing and cleaning space as clean as possible. All food contact surfaces and equipment should be easy to clean (and should be cleaned often).

Contact me (Chip Bubl) or Sonia Reagan in our office if you have questions.

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

## August 29th 2020 from 8 a.m. - 2 p.m. Free Columbia County Household Hazardous Waste Collection at the Transfer Station at 1601 Railroad Avenue in St. Helens.

Due to COVID19, several Waste Collection events were canceled so please check the Columbia County website for further updates http://www.co.columbia.or.us/HazardousWaste. Extra safety measures will be in place. Please be patient as unloading may take a few extra minutes. They ask that you have all your household hazardous waste in the truck bed or trunk or hatchback of your car, rather than in the passenger compartment and to please remain in your vehicle.

Bring products in original containers. Items must be in containers of less than five gallons and should be secured safely during transport. Trained household hazardous waste technicians will unload materials from vehicles. Below is a list of items that can be brought to the event:

Ammunition, fireworks, flares, gas, diesel, antifreeze, motor oil, lawn & garden chemicals, herbicides & pesticides, pool & spa chemicals, light ballasts (remove from fixture), fluorescent tubes, art & hobby chemicals, solvents & thinners, items containing mercury, propane cylinders, compressed gas cylinders, batteries: vehicle, rechargeable, button (no alkaline), cleaners & detergents, poisons, paint, cooking oil, medical sharps (in sealed, self-closing, puncture-proof OSHA approved container).

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