



Country Living

Provided to you by the

OSU Extension Service Columbia County

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The office will be closed Fridays from Noon to 1 p.m.

Website: <http://extension.oregonstate.edu/columbia/>

May 2016

Programs for you . . .

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

- May 3 Scappoose Bay Watershed Council. 7 p.m., SWCD office, 35285 Millard Rd., Warren
- May 5 Demonstration Garden and other MG Extension Projects Planning Meeting. 10 a.m., OSU Extension Classroom, St. Helens
- May 5 Master Gardener™ Board Meeting. 10:30 a.m., OSU Extension Classroom, St. Helens
- May 7 2015 Vernonia Garden Fair & Plant Sale. 9 am-3 pm, Vernonia Schools Commons area. See back page.
- May 10 Lower Columbia Watershed Council. 7 p.m., SWCD office-35285 Millard Rd., St. Helens
- May 17 Veggies in Vernonia. 6:30-8 p.m., Warm Weather Vegetables in a Cool Place and Common Problems, Vernonia Public Library, Chip Bubl, Speaker. **The public is invited. Free.**
- May 18 Soil & Water Conservation District. 7:30 p.m., SWCD office-35285 Millard Rd., St. Helens
- May 26 Master Gardener™ Chapter Meeting. 6:30 p.m. Speaker will be Sue Randel, "Hardy Fuchsia's," OSU Extension Classroom, St. Helens. **The public is invited. Free.**
- May 26 Upper Nehalem Watershed Council. 7 p.m., Vernonia Grange, <http://nehalem.org/> 503-429-0869
- May 30 Memorial Day. OSU Extension Service closed

Joy Creek Nursery Seminars

We are fortunate to have such an exceptional nursery like Joy Creek in our county. They have an outstanding series of seminars twice a month (Sundays) throughout the summer. You can visit their website www.joycreek.com for a complete list and description. The seminars (which begin at 1:00 pm and are free unless otherwise indicated) are as follows: **May 8** - *Troughs the Easy Way* - with Christine Ebrahimi - The fee for this class is \$20 which includes materials. Registration opens on April 1. To register please call us at 503-543-7474; **May 22** - *The Principals of Color, Texture and Form: A Practicum for Creative Plant Selection*, Lucy Hardiman - this is a two-part workshop with a 15 minute break. The fee for the class is \$25. Registration opens on April 1. To register please call us at 503-543-7474.

Chip Bubl

Chip Bubl, OSU Extension Faculty, Agriculture

**Memorial
Day**



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

Information needed for new version of the Local Food Guide

Our Extension office is gathering information for a new version of the local food guide. We need your help to locate farmers that are either selling food direct to consumers from the farm, farmers' markets,



and/or through a CSA. Food can be u-picked or already picked. We are also interested in anyone selling local meat, fish, or cheese. Finally, we would like to list people that raise transplants of vegetables that they sell directly to consumers at any of the venues listed above. You can call or email Jenny Rudolph (jenny.rudolph@oregonstate.edu) or myself (chip.bubl@oregonstate.edu) or call the office directly (503 397-3462) with your information.

Apple talk

Apple scab fungi make little progress in dry weather. The mix of a bit of rain and then several sunny days should reduce scab potential. Spraying for it is optional. But if a persistent rain pattern emerges, consider spraying. Lime sulfur products will limit the disease if applied soon. Make sure you use the "summer" dilution, not the dormant one. Lime sulfur can cause "russeting" on *Delicious* varieties.

Apple fruit set appears excellent in most of the county. Fruit should be thinned for larger fruit. If you prefer smaller but more apples, thin a bit more lightly or not at all. A large fruit load can break limbs of young to

medium aged trees so thinning (and sometimes limb support) is especially important for those trees.

Codling moth adults have emerged. If you don't want their larvae in your apples (the "worm") you need to start control measures now. *Surround* is a kaolin clay (considered "organic") that when sprayed on fruit and leaves



puts a film on that the moths don't seem to like, so they go somewhere else. This needs to be re-applied periodically. It is partially effective but the product is very hard to find. Another biological control is CYD-X, a virus that affects the codling moth larvae. It is also considered organic but is also hard to find. *Spinosad* is an insecticide derived from a micro-organism. It is also considered organic and is quite effective is used every two weeks or so. It is also active on the **apple maggot**, which emerges at the end of June most years. There are conventional insecticides labeled for home orchards like malathion that will also give control if applied routinely.

Please read and follow all label directions when using any of these products.

Managing Bambi

The tree or shrub or vegetable we plant will only thrive if Bambi or her brethren don't covet it. So what are our options? First, you can plant trees and shrubs deer don't like. The Sunset Garden book has a list or you can go to our web page (<http://extension.oregonstate.edu/columbia/>) and get a list there. There are few edible plants on that list but lots of nice ornamental

species. Or you can fence deer out, usually the best solution. More on that next month.

Repellents that can be used **only on plants not producing food in the season you use a repellent.** The most effective products



seem to be ones that have something rotten in them. Deer-Away™ has “putrescent egg solids” as the active ingredient, otherwise known as rotten eggs.

Another product that has a good reputation currently (and did the best in a test in the Olympic Rain Forest on a forest replant site) is a product called Plantskydd™. While the ingredients are proprietary, they seem to be based on rotten things from Sweden formula (perhaps fermented blood meal). Less effective are mixtures that rely on garlic or hot pepper extracts. Mint oil repels east coast deer but there has been little testing here. There are a lot of new products on the market so this is still a work in progress.

Repellents should be applied now and re-applied several times, especially after rain.

A homemade deer repellent: Beat one egg with ½ cup milk (past its use by date and slightly smelly is better). Add 1 tablespoon of cooking oil and one tablespoon of liquid dish detergent. Add mixture (using a sieve to remove any clumps) to a gallon of water and stir or shake well. Spray mixture on non-edible plants every one to two weeks. If you try it, let me know if it works for you.

Erineum mite on grapes

Erineum mites are microscopic, wormlike, and white-yellow in color. It overwinters between outer bud scales and bud tissue and feeds on grape leaves during spring and summer. The upper leaf surface exhibits reddish blisters. The lower leaf surface of

the blister appears hairy, felt-like, and white, almost resembling fungal growth. The lower leaf surface blister turns from a white color early in the season to yellow or brown later in the season. It looks quite awful, but it isn't.

The colonies of mites live in blisters (erinea) formed by their feeding on lower leaf surfaces. The blisters are comprised of masses of enlarged leaf hairs.

These blisters protect mites from natural enemies and



direct contact of pesticide sprays. As the population increases, some move to new areas or other leaves and form new erinea. From mid-August until leaf drop, there is a movement from the erinea back to overwintering sites beneath the bud scales. Damage symptoms vary from year to year and between varieties.

Predatory mites and beetles are important biological control agents of these mites. Dormant oils will help control this mite. Also, sulfur applications for grape powdery mildew in the early-mid-summer will also help keep mite populations under control. Wettable sulfur is more effective than flowable sulfur formulations. Controls specifically for erineum mite usually are not necessary. It looks strange, but the impact is low. Most vineyards in Oregon do not spray specifically for erineum mites unless the vines are young and leaf surface area infestations equal 25% or more.



That's the Way it Grows

Year of the Unimpressive Garden

The tomato plants I bought last year were entirely unimpressive. I did not get them from the Master Gardener Spring Fair. I should have known better. I have gotten my tomatoes from the Spring Fair for the last 20 years or so, ever since it started. I've always had wonderful results. But not last year.

My entire vegetable garden was unimpressive last year, thanks in part to the deer who enjoyed my pole beans, peppers, greens and strawberries. I will need to work harder to keep pests out of the vegetable garden this year, especially my chickens. They will *love* my seedlings. Some sort of barrier is in order.

I may have inadvertently caused the Year of the Unimpressive Garden myself, by emptying my compost bin too early. For the last few years, I've been leaving the compost alone to do its thing, then emptying the bin and spreading it in the spring before I work the soil. I have a theory that my compost wasn't quite composted last year, and that it stole nutrients from the soil, especially Nitrogen, to complete the composting process, making those nutrients unavailable to my plants.

My current compost pile is pretty "hot" due to the chicken manure. I have been turning it some, but it's nowhere near ready. By next spring, it will be gold.

Since I haven't added any fertilizer to my garden in the last few years, I will be adding some organic fertilizer before I plant. Bone meal is a good source of phosphorus, and kelp meal provides trace minerals. Blood meal provides Nitrogen, but a little goes a long way.

To make life easier, balanced organic fertilizers are a good choice. The N-P-K ratios may look low on organic fertilizers and amendments, but since nutrients in organic fertilizers are naturally slow-release, the numbers are misleading.

The year before last, I purchased my tomato starts from the Master Gardeners' Spring Fair. They have 80 varieties this year. I don't know how in the world to choose from all those. I can only plant six, and that is still way too many for our family.

I was pretty impressed with the San Marzano paste tomato I planted two years ago. The plant was absolutely loaded with fruit all summer. They lasted on the vine without going soft until I felt like picking. They are quite big, with thick walls, and have excellent flavor. They are perfect for sauces because they are so easy to peel and have few seeds. I don't put them through a food mill at all, just blanch and peel, seed, then chop them in the food processor. San Marzanos are considered by chefs and aficionados as the best tasting paste tomatoes. I agree.

I always plant a beefsteak tomato (or two) because it's just not summer without a thick slab of tomato with fresh mozzarella and basil. My favorite is still the heirloom Brandywine. It produces huge, meaty and flavorful fruit. The vines are indeterminate and sprawl unless staked. They will grow 6-10 feet tall. Since the plants set relatively few fruit, I prune off some of the excess growth for airflow and sunlight.

I'm attacking the garden with a renewed vigor this year. I'm not going down without a fight!



—Lisa M. Long

Columbia County Master Gardener™

Free gardening ebooks at:

Smashwords.com/profile/view/LisaMarieLong

MAY

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

- Use a soil thermometer to help you know when to plant vegetables. Wait until the soil is consistently above 70°F to plant tomatoes, squash, melons, peppers and eggplant.
- Place pheromone traps in apple trees to detect presence of codling moth. Plan a control program of sprays, baits, or predators when moths are found.

Maintenance and Clean Up

- If needed, fertilize rhododendrons and azaleas with acid-type fertilizer. If established and healthy, their nutrient needs should be minimal. Remove spent blossoms.
- When selecting new roses, choose plants labeled for resistance to diseases. Fertilize roses and control rose diseases such as mildew with a registered fungicide.

Planting/Propagation

- Plant dahlias, gladioli, and tuberous begonias in mid-May.
- Plant chrysanthemums for fall color.
- Plant these vegetables (dates vary locally; check with local gardeners):
 - Mid-May, transplant tomato and pepper seedlings.
 - Snap and lima beans, Brussels sprouts, cantaloupes, slicing and pickling cucumbers, dill, eggplant, kale, peppers, pumpkins, summer and winter squash, onions, potatoes, tomatoes, watermelon.

Pest Monitoring and Management

- Monitor blueberry, raspberry, strawberry and other plants that produce soft fruits and berries for Spotted Wing Drosophila (SWD). To learn how to monitor for SWD flies and larval infestations in fruit, visit <http://swd.hort.oregonstate.edu/gardeners>.
- If an unknown plant problem occurs, contact your local Master Gardener or plant clinic for identification and future management options.
- 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.
- Trap moles and gophers as new mounds appear.
- Leaf-rolling worms may affect apples and blueberries. Prune off and destroy affected leaves.
- Monitor aphids on strawberries and ornamentals. If present, control options include washing off with water, hand removal, or using registered insecticides labeled for the problem plant. Read and follow all label directions prior to or using insecticides. Promoting natural enemies (predators and parasitoids that eat or kill insects) is a longer-term solution for insect control in gardens.
- Spittle bugs may appear on ornamental plants as foam on stems. In most cases, they don't require management. If desired, wash off with water or use insecticidal soap as a contact spray. Read and follow label directions when using insecticides, including insecticidal soap.
- Control cabbage worms in cabbage and cauliflower, 12-spotted cucumber beetle in beans and lettuce, maggot in radishes. Control can involve hand removal, placing barrier screen over newly planted rows, or spraying or dusting with registered pesticides, labeled for use on the problem plant. Read and follow label directions when using insecticides.
- Tiny holes in foliage and shiny, black beetles on tomato, beets, radishes, and potato indicate flea beetle attack. Treat with Neem, *Bt-s*, or use nematodes for larvae. Read and follow label directions when using insecticides.
- Prevent root maggots when planting cabbage family, onions, and carrots, by covering with row covers or screens, or by applying appropriate insecticides.
- Monitor rhododendrons, azaleas, primroses and other broadleaf ornamentals for adult root weevils. Look for fresh evidence of feeding (notching at leaf edges). Try sticky trap products on plant trunks to trap adult weevils. Protect against damaging the bark by applying the sticky material on a 4-inch wide band of poly sheeting or burlap wrapped around the trunk. Mark plants now and manage with beneficial nematodes when soil temperatures are above 55°F. If root weevils are a consistent problem, consider removing plants and choosing resistant varieties (See <http://bit.ly/oDOScK> for a list of rhododendrons exhibiting resistance to adult root weevil feeding.)
- Control slugs with bait or traps and by removing or mowing vegetation near garden plots.



The natural world

Bushy tailed woodrats

The bushy tailed woodrat creates much consternation the first time it is encountered. It is shaped somewhat like a rat with a body that is 5-10 inches long and a tail of about equal length with its body. But that tail- it is covered in hair! The hair is shorter than a squirrel's fur less dense, and somewhat more flattened. General coloration tends to gray, tan, and brown.

These woodrats are surprisingly common in the coast range. They forage at night and make nests in trees on limbs or in hollow logs where those are available.

Nests built on limbs can be anywhere from 12 to 50 feet above ground. They prefer older conifer stands and will gather dead limbs material as well as freshly cut twigs from fir, alder, elderberry, and other suitable material to make their nests.

The nest is a cup-like mass of sticks and other assorted material like moss but not neatly constructed. Nests built in buildings can range from the neat cup to a jumbled mass of sticks and other debris. The nests can range in size from 1.5 to almost 3 feet in diameter.

Bushy tailed woodrats are mainly vegetarians but may eat some insects and meat if available. They appear to get enough moisture from their food that they don't need to look for water. Favored foods include young conifer shoots and leaves of alder, trailing and Himalayan blackberry, red elderberry, waterleaf, and probably others. Their night foraging is accompanied by quite a bit of noise.

Often the nests will have a trove of material picked up while foraging. If around human

habitation, this can be anything shiny (bits of tin foil, coins, earrings, screws, etc.), edible (dried fruit, seeds and nuts, old chicken bones, etc.), or odd things like pieces of soap. **This is why they are also called pack rats.** There are a number of stories about the diversity materials that have been found in nests in structures.

Their reproduction cycle is not well understood (they aren't all that easy to study). They are thought to generally have one litter with an average of 2-4 young, per year.



They appear to be quite gentle creatures and I have known at least one kept as a pet for a considerable period of time (not legal and not recommended).

Woodrats are also fairly clean.

They grasp their fecal pellet with their front teeth and fling it from their nest. One biologist reports that this can be done while asleep (the woodrat, not the alert biologist).

Predators include bobcats, spotted owls, barred owls, larger owls, coyotes, weasels, and domestic dogs and cats.

It is not clear whether they can damage electrical wires inside houses like Norway and roof rats and mice. It is also not clear if they return to their nest if live trapped and moved a decent distance away. I once snap-trapped a wood rat (not knowing that was what was making the noise) and have regretted it since.

While woodrats do not appear to be in danger, their habitat is decreasing in Columbia County as forests are managed on increasingly short rotations and with a minimum of plant diversity. This may be of consequence for the wood rat and many other species (animal, bird, plant, fungal, and insect) that have traditionally been found here in relative abundance.

The Cheapest Way to Control Pasture Weeds

A healthy, vigorous pasture grass will deter out most weeds. Typically weeds develop a stronghold in weak areas of pastures such as feeding zones, around water troughs, high traffic areas, and loafing areas around shade. Once weeds establish, even in small areas, they start spreading and building a seed bank waiting for an opportunity to compete with forage grasses. There is a low cost method that can be used to control weeds early on before they spread called “spot treatment.”



Spot treatment of weeds can be as simple as using a broadcast sprayer that is turned on and off to only spray the parts of pastures with weed issues and not over clean areas. More commonly spot treatment refers to individual plant control. Depending on the weeds to be controlled and their stage of maturity, costs for a total pasture broadcast herbicide treatment can range from \$5-24 per acre for the chemical alone. However, if you jump on a problem area early, individual plants can be controlled and the cost of herbicide will be significantly reduced because you only apply the chemical on the targeted weeds.

In general, spot treatment will require considerably more labor than a broadcast treatment. There is a trade-off, as a manager you have to decide which resources are more

precious, your time or your money. It really depends on the level of infestation as to which method is most efficient. If you jump on a weed problem early enough, spot treatment will be less expensive and not too overwhelming. Seldom does a single broadcast treatment remove weeds completely, so spot treatment can be used as a follow up treatment to prevent infestations from reoccurring.

There are some key things to know before you get started with spot treatment. Just as with broadcast treatments, the first step is to identify the most problematic weeds to be controlled. Weed identification can be challenging, especially since people use different common names for the same weeds. Weed identification is important and is something your **Columbia County Extension Agent** can assist with. Once you know the specific weeds you want to focus your control efforts on, you can select an effective herbicide.

Most herbicide labels have very clear explanations for their use as broadcast treatments. Typically they even provide lists of common weeds and a recommended rate to apply per acre. Spot treatment recommendations on specific product labels vary considerably. If you are not treating acres at a time, the simplest method to use is a spray solution on a percentage basis. The mixing chart below provides a basic summary of how much herbicide and surfactant should be added per volume of water.

One technique that can be very helpful is instead of working with fractions of ounces, tablespoons, or teaspoons is to convert the recommended herbicide concentrate into cubic centimeters (CC). This is especially true for mixing small quantities of spray solution, because you can use plastic disposable syringes to get the precise amount of herbicide concentrate needed.

There are a number of options for the type of equipment to use for single plant or spot treatment. Certainly, one to two gallon pump-up sprayers are the cheapest options. The constant need to stop and pump, the limited capacity, and carrying the free swinging weight, however, gets old fast. A better option is a backpack sprayer, because they are much easier to carry and can be pumped as you walk to keep the pressure fairly stable. Three gallon backpack sprayers are ideal for most people, but larger units are available. Just remember that a five gallon sprayer completely filled will weigh more than 50 pounds and will be heavy and awkward to carry around pastures. Padded straps are also very important feature for these types of sprayers.

A more convenient option is a 10-25 gallon electric sprayer that can be connected to the electrical system of a pickup truck, tractor, 4-wheeler, golf cart, or off-road utility vehicle. If you already own an agricultural sprayer for your tractor, the cheapest option may be to simply purchase a sprayer wand attachment made for your specific unit.

Whichever type of equipment you choose, beware of bargain sprayers. The plastic spray wands break and the seals on the tanks go bad over time. Instead, choose brands that offer replacement parts. Sprayer wands made of brass or metal cost more, but will hold up longer with regular use. Farm supply stores carry a wide range of sprayers for spot treatment, and even carry the replacement parts if you don't have a

sprayer equipment dealer nearby. Like other farm equipment, you generally get what you pay for.



Once you have your equipment there are a few other things to keep in mind. Spray individual plants until they are wet and stop. Hosing plants down can actually reduce weed control. At high rates the active ingredients can burn the leaves to the point that it actually reduces herbicide uptake. The goal is to evenly cover the leaves with a light, fine spray or mist and move on. If you are spraying large brush or small trees, make sure you spray the entire

canopy of the plant. Otherwise you may not get a complete kill.

Surfactants are just as important for spot treatment as with broadcast spraying. Dishwashing detergent, diesel fuel, alcohol or some other cocktail will not work like a commercial surfactant. Surfactants are made specifically to mix well with herbicides in the tank and help spray droplets dry in place on the leaf of the weeds. If the chemical rolls off the leaves onto the ground before it dries, it won't be effective. Read the herbicide label and follow the instructions provided for that particular product. Most pasture herbicides recommend a 0.25% solution of a non-ionic surfactant.

Individual plant treatments are challenging, because weeds tend to be scattered and clumped in pastures. It is not efficient to walk or drive in straight lines, so you jump from plant to plant or clump to clump. Adding a blue, orange, or purple dye to your spray mix can really help to know where

you have already sprayed. Even with the dye you are going to miss some plants, so be prepared for a follow up treatment a few weeks later to hit the weeds you missed. Don't judge the results of your treatment too quickly. It is pretty likely that there will be surviving plants that were either completely missed or inadequately sprayed on the first attempt.

Another common mistake is mixing too much spray solution. Start off conservatively until you figure out how long it takes to spray three, five, or ten gallons, before mixing up a full tank. Most herbicides degrade over time in water. Start with a clean tank, spray out the mix completely, and clean the tank out again before storage. The sprayer seals and pumps will last a lot longer if they are stored clean and dry. Develop a routine to only mix what you need, and then clean out the tank when you are done.

Just as with any type of chemical application, you need to follow the safety instructions on the product label. With a spray wand you are much more likely to be exposed to spray drift.

Most herbicide labels call for a minimum of long pants, long sleeves, and chemical resistant gloves. Hats and eye protection are always a good idea as well. Take steps to reduce exposure, and then wash up and put on clean clothes as soon after application as possible.

Like most every other operation on a farm or ranch, spot treatments take some practice to develop the system that fits your schedule and equipment. Investing in the right equipment will make this job easier. The ultimate goal of

using the spot treatment approach is to prevent major weed infestations before they rob water and nutrients from forages in your pastures, and of course do it with as low a cost as possible. Finally, **READ AND FOLLOW ALL LABEL DIRECTIONS!**

Slightly edited from an excellent article by Doug Mayo and Jay Ferrell, UF/IFAS Extension which appeared in the Drovers online newsletter.

Pasture weeds to focus on this month:

- Tansy ragwort (hurry)
- Canada thistle
- Bull thistle
- Oxeye daisy
- Scotch broom
- Bracken fern
- Buttercup
- Tussock rush
- Blackberry (Crossbow type products only now – Roundup type products work better September – October on blackberries).

Call our office for specific control recommendations.

Mixing Guide for Spot Herbicide Treatments

Total Spray Volume	1/2 % Herbicide	1% Herbicide	2% Herbicide	.25% Surfactant
1 Gallon	2/3 oz 20 cc	1 1/3 oz 40 cc	2 2/3 oz 80 cc	1/3 oz 10 cc
3 Gallons	2 oz 60 cc	4 oz 120 cc	8 oz 240 cc	1 oz 30 cc
10 Gallons	6.5 oz 195 cc	13 oz 390 cc	26 oz 780 cc	3 1/3 oz 100 cc
15 Gallons	10 oz 300 cc	20 oz 600 cc	40 oz 1200 cc	5 oz 150 cc

1 fluid ounce (oz) = 2 tablespoons (tbs) = 6 teaspoons (tsp) = 30 cubic centimeters (cc)



VEGGIES IN VERNONIA:

Warm Weather Vegetables in a Cool Place and Common Problems

Tuesday, May 17, 6:30 – 8 p.m.

Vernonia Public Library

Free Presentation by Chip Bubl

OSU Extension Service Faculty and Master Gardener



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