



Country Living

Provided to you by the

OSU Extension Service Columbia County

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Office hours: Monday-Friday, 8 a.m. to 5 p.m.

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

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

January 2014

Programs for you . . .

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

Jan. 2 **Demonstration Garden and other MG Extension Projects Planning Meeting.** 3:00 p.m., OSU Extension Classroom, St. Helens

Jan. 2 **Master Gardener™ Board Meeting.** 3:30 p.m., OSU Extension Classroom, St. Helens

Jan. 7 **Scappoose Bay Watershed Council.** 7 p.m., Scappoose Bay Watershed Council's office, Warren

Jan. 14 **Lower Columbia Watershed Council.** 7 p.m., SWCD office-35285 Millard Rd., St. Helens

Jan. 14-16 **North Willamette Horticultural Society Grower meetings.** This program is aimed a commercial growers. January 14th is Organic Grower day; January 15th is Vegetable day; and January 16th is Small Fruit (Berry) day. The all-day programs will be held at the Clackamas County Fairgrounds in Canby. There will be agricultural suppliers manning vendor booths at lunch and during the breaks. For more information about the program agenda, event cost, and to register, go to <http://nwHORTSoc.com/>

Jan. 22 **Soil & Water Conservation District.** 7:30 p.m., SWCD office-35285 Millard Rd., St. Helens

Jan. 23 **Master Gardener™ Chapter Meeting.** 6:30 p.m. Graduation, Guest Speaker Heather Havens, Concentrates Inc., Natural Fertilization and Soil Management, She will explain how to implement natural and organic soil management practices. OSU Extension Classroom, St. Helens. **The public is invited. Free.**

Jan. 23 **Upper Nehalem Watershed Council.** 7 p.m., Vernonia Grange, <http://nehalem.org/> 503-429-0869

Jan. 28-30 **Northwest Ag Show.** This major event showcases new equipment and technologies at the trade show and is done in conjunction with grower association (berry, nursery, nut growers, etc.) educational meetings. The trade show is at the Expo Center in Portland as are some of the educational opportunities. For a complete list of classes and costs go to <http://www.nwagshow.com/show-info/meetings-seminars/>

Feb. 8 **Grafting Workshop.** 9 am-Noon, OSU Extension Classroom; \$15 fee, call for reservations, 503-397-3462. Space is limited



Chip Bubl

Chip Bubl, OSU Extension Faculty, Agriculture

Agriculture, Family and Community Development, 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.

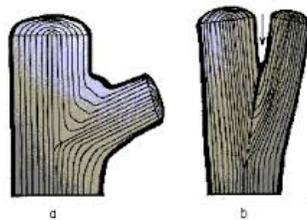
In the garden

Trees and ice storms

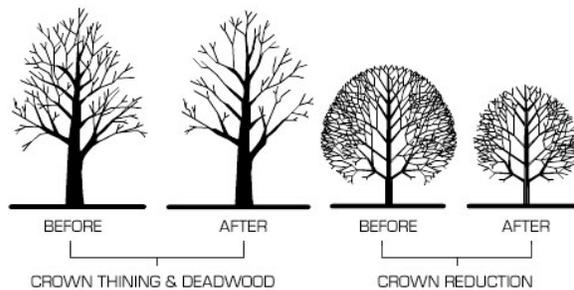
It has been some time since Columbia County has had a rip-roaring ice storm, one big enough to rip limbs off some trees and topple others. For that, we are thankful. But the odds of another one blowing through are pretty good. So what preparations can be made to reduce the damage when the event arrives?

It comes down to choice of tree, the location of the tree and how that affects its shape, and pruning done to reduce ice-load potential.

Trees in the same family can show very different growth patterns. A *Bradford* ornamental pear may branch at acute angles to the trunk, creating bark inclusions that greatly weaken the limb attachment to the trunk (see picture) whereas the *Aristocrat* ornamental pear will not. If possible, remove branches with this kind of weak attachment to reduce later problems.



Tree shape can also lead to heavier or lighter ice (or wet snow) loads. The natural form of the tree, especially those with broad crowns, will play a role in branch loss and overall tree stability under a heavy load. As the surface area of the lateral branches increases, so does the weight of an ice load. Selective branch thinning can lower the ice gathering potential.



Tree form can also be affected by light reaching the tree. If one side of a tree is

shaded, growth will be unbalanced and the risk of the tree doing poorly in ice-storm conditions is amplified. Sometimes removal of competitive trees makes the most sense but it must be done early before the most “save” tree has its growth distorted. It is very hard to prune an unbalanced semi-mature tree back into form.

Tree that have “excurrent” conical (semi - Christmas tree shape) branching patterns with strong limb attachments and modest lateral growth are more resistant to ice and snow loads. Sometimes, there are varieties with a conical growth pattern where the species itself may be strongly crown-forming.

A good arborist can help you through these decisions and can suggest how he or she could prune mature trees to reduce their risk of falling or dropping limbs in an ice storm.

Here are some trees that have good ice storm resistance and some that are generally quite poor in those conditions:

Good: Carolina Blue beech, ginkgo, oaks (white, swamp, and Garry), true firs (*Abies*), Douglas fir, western red cedar, spruces, hemlocks, littleleaf linden, and red maple.

Poor: Birches, Bradford pear, Siberian elm, silver maple, poplars and cottonwoods, magnolia, willows, and American linden (Basswood).

So this is the start of the pruning season. Get out there with an eye towards tree health, proper shape and tree resistance to storm damage.

For more information, see

<https://utextension.tennessee.edu/publications/Documents/sp575.pdf>

More from the garden

Growing early cabbages

Believe it or not, it is time to think about choosing and planting cabbage starts from seed. Cabbage transplants can usually be planted outdoors from February through April in Columbia County.

More nutritious than lettuce and rich in vitamin C and fiber, cabbage makes an excellent, long keeping salad and main dish ingredient.



Hundreds of varieties of cabbage seed are available from garden stores and seed catalogs around the country. The most common cabbages seen in grocery stores are the green cabbages, including Danish, domestic and pointed varieties. Other types of cabbage include Savoy, Bok Choy, Napa, and red varieties.

Savoy cabbage is milder tasting, has a looser head than most green cabbages and has wrinkly leaves with ruffled edges. Bok Choy is an open Chinese cabbage with white celery-like stalks and dark green leaves. Napa, also open, is pale green, with mild flavored delicately crinkled leaves.

Some cabbage varieties are termed "early," meaning they are fast-growing, earlier maturing and smaller in size. "Mid-season" cabbages are larger, later to mature and must be well established before summer heat sets in.

Early varieties are best suited for late winter to spring planting. Start transplants six weeks before planting outside or plant seeds directly outdoors after all danger of frost is past or soil temperature exceeds 50 degrees

F. Transplants can also be purchased from your local nursery or garden store. Set transplants outside during the day for a week before transplanting to harden them.

Cabbage thrives in a sunny, well-drained, loam soil heavily amended with organic matter. Keep soil pH above 6.8 to avoid club root, a damaging fungal disease. Space plants about 24 inches apart for optimal growth. Hot caps or row covers help early cabbages thrive.

Here are some OSU recommended varieties:

Early: *Parel, Primax, Farao, Tendersweet, Gonzales, Surprise.*

Main season: *Golden Acre, Bravo, Charmant, Cambria, Invento.*

Late fall, winter: *Danish Ballhead, Storage Hybrid #4, Blue Thunder.*

Red: *Ruby Perfection, Red Acre.*

Savoy: *Melissa, Savoy Express, Savoy Ace, Perfection, Famosa.*

Chinese cabbage:

Michihili, Monument, China Express.

Pac choi: Mei Qing Choy, Joi Choy

Tetanus: A Gardening Risk

The tetanus bacterium is a normal inhabitant of the intestines of animals. It is common in garden soil. However, if the bacterium enters your body through a puncture wound, there can be serious and sometimes fatal consequences.

One elderly woman contracted tetanus from a rose thorn puncture while gardening. The disease has a death rate ranging from 30-90%, depending on age, length of incubation and therapy. Get a booster every ten years or when you get a deep wound if you have not been immunized within the last five years.

The natural world

Fungi unbound

All organisms have very complex genomes that code for an equally complex variety of compounds. Genes are turned on and off in sequence during growth and development, flowering, or a thousand and one other predictable elements in an organism's life. But life isn't always predictable. And for a particular fungus to survive for millions of years, it faced a myriad of adverse conditions (too hot, too cold, too dry, too much acid, too salty, competitors, predators, viruses, etc.), conditions which threatened its very survival as a life form. In every circumstance (since it is still with us), something in its genetic code was switched on that allowed it to survive and reproduce. As the stressor disappeared in the fungal environment, the gene(s) went dormant. But they were still there, primed to respond when that stress appeared again.

When a fungus was brought into a lab, it produced compounds appropriate to survival in that environment. But there was always the thought that there may be a lot more potential in that genome. Bio-prospectors have gone looking in the four corners of the earth in locations of extreme environments to find organisms (especially fungi and bacteria) responding to those stresses in novel chemical ways. The hope has been to find compounds that could become new antibiotics, organic insecticides, ways to manage various cancers, or other useful biochemical tools. There have been some successes with these approaches but they are expensive and complex.

But recently, a scientific team at OSU has done something truly amazing, at least in my

view. They discovered in a "lab rat" plant pathogenic *Fusarium* fungus the master gene that manages what the fungus is producing chemically at any point in time. By silencing that gene, all of the sudden, the fungus could produce an amazing array of compounds, many of which have never been seen before. It is like that fungus' toolbox to life had been opened. What makes this so exciting is



that this particular gene not only works in this fungus but appears to be important in many life forms in the same way. Millions of years of evolution

have driven the development of very complicated biochemical processes. There is hope that just seeing what is possible will lead to significant advances in medicine, biofuel processing and many other areas where we don't even know the questions to ask. But to do it from a lab bench is very exciting. Read more at <http://oregonstate.edu/ua/ncs/archives/2013/oct/%E2%80%9Cflipping-switch%E2%80%9D-reveals-new-compounds-antibiotic-potential>

Plants, time and climate change

Biologically, it is clear now that invasive plants enforce their disruptive power by a genetic plasticity that allows them to compete in novel environments and with new (to them) plant, animal, insect, and/or microbiological species. Recent research done all over N. America and reported from British Columbia indicates that invasive species can adjust their flowering times forward to take advantage of the warmer climate much easier than can native species. Timing, as always, is everything. For more info go to

http://www.zoology.ubc.ca/~wolkovich/pdfs/Wolkovich_etal_2013AJB.pdf



That's the Way it Grows

Grow Something New

Already the days are lengthening, seed catalogs are heading for mailboxes, and I'm thinking about what to plant in the vegetable garden.

I really love growing my own food. I enjoy checking my garden every day to see what seeds are up, how fast the beans are growing, or which tomatoes are reddening. Even when I am tired of eating asparagus or picking beans or processing tomatoes, I still love it.

Every year, I try to grow something that I've never grown before. I pore over newly arrived seed catalogs and look for unusual varieties or interesting vegetables that I've never grown. Big, small, purple, prolific, heirloom, early, warty, easy-pick—anything different catches my eye. Trying something new can put some excitement into the vegetable garden, instead of the same old crops year after year.

Try Something New

I also love experimenting and tinkering with plants. I hybridize my irises, save seeds and propagate perennials. Each is easy to do, and I feel a little bit like a mad scientist. Propagating is as easy as sticking strawberry runners in the soil, or covering trailing branches with soil until they root and then cutting them to transplant.

I read that most nursery plants are not grown from seed, but rather from cuttings or grafting. I thought I'd give this a whirl myself, and tucked several cuttings of my boxwood and euonymus shrubs into pots. It worked tremendously! They both will root after a month or two, as long as the soil is kept moist. You take a small cutting, about two inches high, and tear off the bottom leaves. This is where roots will start growing, so bury the leaf junction. Coating the leaf junction in rooting hormone powder will help ensure success.

I'm currently growing basil hydroponically on my windowsill. I started this completely by accident. I had cut too many sprigs of basil one evening, and stuck one in water. It ended up rooting within a week or so. I started feeding it with the weak fertilizer I use for orchids, and voila, I'm growing hydroponic basil. I planted that first one in soil, and placed a cutting from it in water, which has now rooted. I'm interested to see just how long I can keep the same plant growing.

I tried a couple of new techniques in the vegetable garden last year, too.

Alliums grow very well from seed, so this year; I

started white and red onions and shallots from seed. They did very well and I didn't have to worry about bolting, which I always have problems with when planting from sets. Harvesting the first year of growth instead of the blooming year is much better, in terms of onion size and storage quality.

I love beefsteak tomatoes. I grow at least two plants, because they don't put on the fruit like a salad tom does. But the indeterminate plants get huge, and even with pruning, are difficult to pick from. Last year, I planted the beefsteak toms as I usually do, with a heavy-duty tomato cage. They outgrew the cages as the season went on. I had some green bean A-frames I wasn't using, so I placed them over each tomato cage and gently placed the long stems in the rungs. As the plants grew, I wove the top growth in the upper rungs, and the toms eventually grew over seven feet tall before I pruned them back to encourage the last fruit to ripen. Benefits included improved air circulation and better sunlight to the interior of the plants, as well as being able to pick much easier. Next year, I will start with the frames over the cages when I plant.

Plant Somewhere New

One of the most fortunate accidents in my yard had been the pear tree I planted in my perennial border. I planted it a few years back as a small bare root tree, thinking it was a flowering crabapple, as the tag had read. After a couple of years of growth, and paying it not a lot of attention, I found a pear beneath it one summer. Surprise! There were more hanging from the branches. This year, I picked about 80 pears from that tiny tree.

I highly recommend fitting a dwarf fruit tree or some low-growing blueberry bushes in your landscape. They add interest, and you can't beat home grown fruit. I've heard of folks growing artichokes in their borders. They get huge and have deeply-lobed, long leaves, which look really cool among other plants.

My resolution for this gardening year is, as always, to plant, try and do something new. Happy New Gardening Year!

—Lisa M. Long
Columbia County Master Gardener™
Compost, rock and bark dust delivered;
397-2989

JANUARY 2014

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

- Keep a garden journal. Consult your journal in the winter, so that you can better plan for the growing season.
- Check with local retail garden or nursery stores for seeds and seed catalogs, and begin planning this year's vegetable garden.
- Have soil test performed on garden plot to determine nutrient needs. Contact your local Extension office: extension.oregonstate.edu/find-us or for a list of laboratories view EM 8677 online: <http://bit.ly/ngufWK>.
- Take hardwood cuttings of deciduous ornamental shrubs and trees for propagation.
- Plan to replace varieties of ornamental plants that are susceptible to disease with resistant cultivars in February.

Maintenance and Clean Up

- Clean pruners and other small garden tools with rubbing alcohol.
- Reapply or redistribute mulches that have blown or washed away during winter.
- Place windbreaks to protect sensitive landscape evergreens against cold, drying winds.
- Do not walk on lawns until frost has melted.
- Water landscape plants underneath wide eaves and in other sites shielded from rain.



Pest Monitoring and Management

- Monitor landscape plants for problems. Don't treat unless a problem is identified.
- Scout cherry trees for signs and symptoms of bacterial canker. Remove infected branches with a clean pruner or saw. Sterilize tools before each new cut. Burn or send to landfill before bloom. See EC 631, Controlling Diseases and Insects in Home Orchards.
- Watch for field mice damage on lower trunks of trees and shrubs. Eliminate hiding places by removing weeds. Use traps and approved baits as necessary.
- Use dormant sprays of lime sulfur or copper fungicide on roses for general disease control, or, plan to replace susceptible varieties with resistant cultivars in February.
- Moss in lawn may mean too much shade or poor drainage. Modify site conditions if moss is bothersome.
- Spray peach trees with approved fungicides to combat peach leaf curl and shothole. Or plant curl-resistant cultivars such as Frost, Q1-8 or Creswell.

Houseplants and Indoor Gardening

- Monitor houseplants for correct water and fertilizer; guard against insect infestations; clean dust from leaves.
- Protect sensitive plants such as weeping figs from cold drafts in the house.
- Propagate split-leaf philodendrons and other leggy indoor plants by air-layering or vegetative cuttings.
- Plant dwarf annual flowers inside for houseplants: coleus, impatiens, seedling geraniums.
- Gather branches of quince, forsythia, and flowering cherries; bring indoors to force early bloom.



The Grapevine
 News for Columbia County Master Gardeners™
www.columbiacountymastergardeners.org



January 2014

Deadline for THE GRAPEVINE - All materials will need to be into the OSU Extension office no later than the 20th of each month.

Volunteer Payback

2013 Payback hours are due by January 14th

LOG YOUR HOURS, and turn them into Extension office. Hours worked by veteran as well as new Master Gardeners™ accumulate to justify continuance of our program through OSU.

To get a form off the web:

<http://extension.oregonstate.edu/columbia/master-gardener-volunteer-program> choose Master Gardener™ Volunteer Log Sheet – word document

Notes from your Treasurer



Thanks to those who have paid their membership dues. As of this writing we have a few paid members. For those of you who have not yet sent your \$10 checks, please make them payable to CCMGA, mail to me at 265 S.13th St., St. Helens, 97051, or turn them in at chapter meetings, or drop them off at the Extension Office. Remember to let me know of any changes in your contact information for the Roster that will be published in early April. **You must pay your dues by March 31 to be included in the 2014 Roster.**

--Gail Martyn, Treasurer
 CCMGA.Treasurer@comcast.net
 503-397-5537

Graduation Program

The graduation speaker will be *Heather Havens*, Concentrates Inc., Natural Fertilization and Soil Management; she will explain how to implement natural and organic soil management practices

- **January 23, 2014 – 6:30 p.m.**
- **OSU Extension Service class room**
- **Open to the public!**



Calendar: At-A-Glance

- || Jan. 2... Demonstration Garden and other MG Extension Projects Planning meeting, 3:00 p.m., Extension office
- || Jan. 2... Board Meeting, 3:30 p.m. Extension office
- || Jan. 23. Graduation & Chapter Meeting, 6:30 p.m., Speaker: Heather Havens. The Master Gardener Graduation and meeting will follow the presentation after a short break.

President's Corner

Greetings! Well, another year in the books and getting ready for 2014. As a gardener, I always look back at what went really well in the garden and what didn't. This is done while going through my seed box and preparing my seed order.

The weather we experienced (cold, cold, cold) was a real test for our landscape. We will see what plants are truly hardy and what plants will provide us new gardening opportunities.

As the year ends, I want to recognize board members who completed their jobs and also the new members. Thanks to Debbie Broberg (outgoing secretary), Zelda Anderson (outgoing historian), Andy Thayer (outgoing OMGA rep.) and Chuck Petersen (outgoing vice president).

Joining the board this year will be Wes Bevans, Vice President; Larry Byrum, OMGA Alternate Rep.; Kit Gardes, Historian; Kathy Johnson, OMGA Rep.; and Kim Tupper, Secretary.

It is extremely important to any organization to be successful to have members that will step up and perform the jobs that make it run smoothly.

I also want to give a BIG thank you to Vicki Krenz for all the help she provides us - all of the photo copying, e-mails, and record keeping just to name a few of the many things she does to support us, (as well as help keep me on track!)
 Happy Holidays and Happy Gardening!
 --Dennis Snyder

Good Natured Competition

More than once, when someone asked me how my summer was going last year, I'd tell them I was helping with the Scappoose garden. *It's huge; you should stop by and see it.* And then one day they would and their first words were always, *I had no idea.* (Nothing like December to make a gardener wax nostalgic. Ah, to be out scuffing up the ground around the Butter Crunch lettuce with my hoe.)

But that's only the introduction. I hope you also saw the St. Helen's garden. *Wow!* was all I had for words to describe it. If ever there was a group of volunteers to be proud, these people should be. The garden was not only productive, but also beautiful.



Between the two gardens, over 3000 pounds of fresh produce were donated to local Food Banks and Community Meals. And there were also gardens in Rainier and Clatskanie last

year. St. Helens set a personal goal of 2000 pounds and was just 100 pounds shy of accomplishing their goal. The Scappoose garden volunteers didn't know what was possible, but we hope we can beat St. Helens' goal by another 500 pounds at least.

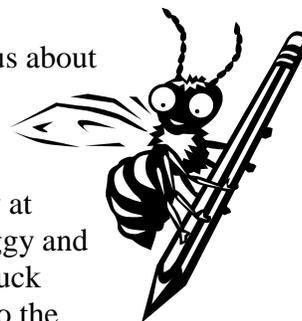
Next year, we're looking forward to posting our gardens' production as we harvest. Scappoose and St. Helens gardens will be competing directly with each other to see who can be most productive. We can't promise team t-shirts but now's the time to pick your team, read up on the best growing techniques, and be ready this spring to flex your muscles on behalf of your home

gardening team. Hopefully, the Rainier and Clatskanie gardens will return next season and enter our good natured competition, too.
 --Deb Brimacombe, Scappoose & Scott Bauska, St. Helens

The New Bug Crew Presents

Chuck Peterson in Bees, Bees and More Bees: An informative Honey Bee and Beekeeping Video

If you're interested in beekeeping or just curious about honey bees we have a new video available for you to borrow from the Master Gardener Library at the Extension office. Peggy and Joe Crisp videotaped Chuck Peterson's presentation to the New Bug Crew at our November meeting. Chuck covers everything from introductions and history to keeping bees healthy. You'll see some of Chuck's equipment and benefit from questions asked after the presentation.
 --The New Bug Crew



Master Gardeners Contacts Officers for 2014

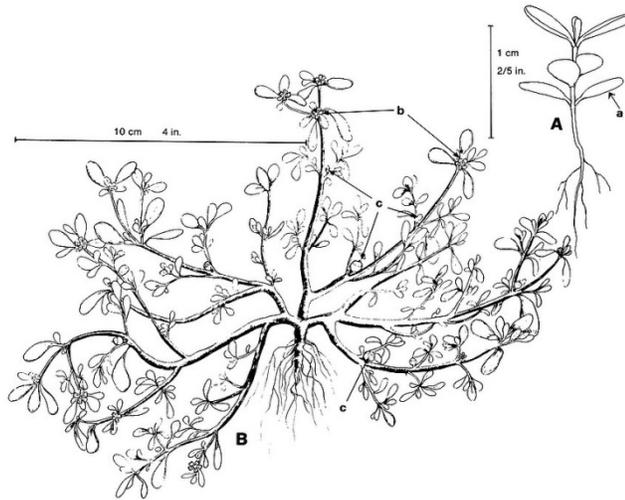
Title	Name
President	Dennis Snyder
Vice President....	Wes Bevans
Past President.....	LeRoy Schmidt
Secretary	Kim Tupper
Treasurer	Gail Martyn
Historian	Kit Gardes
OMGA Rep.....	Kathy Johnson
OMGA Alt. Rep.	Larry Byrum
Demo Garden.....	Dennis Snyder
Spring Fair	Kathy Johnson
CCMG website:	www.columbiacountymastergardeners.org
Webmaster	Larry Byrum
OSU Extension Service:	
Extension Faculty	Chip Bubl
Secretary	Vicki Krenz
Guide to Plant Disease Control:	
OSU	http://plant-disease.ipcc.orst.edu

Weed of the month: Purslane (*Portulaca oleracea*)

Purslane is not actually a weed of this month. In fact, this summer annual needs soil temperatures of 60+ degrees to stimulate seed germination. But if you have soil-banked a bunch of purslane seed by indifferent weeding in the past and the seeds are close to the surface, they will sprout in continuous waves throughout the summer. This tide of purslane seedlings will smother your small flower or vegetable seedlings without mercy, unless you intervene. Learn to identify it. Then you must get your nose to the ground and carefully pluck the tiny purslane sprouts away from your vegetable seeds. Once you have cleared the close-in weeds from around your seedlings, you can hoe between rows. Purslane can re-root after weeding, especially as it gets a bit bigger. So collect the weeds and compost them or do your weeding on very hot and dry days.

Purslane is ground-hugging, mat-forming plant. Its stems are reddish and quite succulent. Its shiny emerald oval leaves are also quite succulent and attach flat (without stalks) to the stems. I have described it to classes as looking like a flattened miniature jade plant. There is usually a murmur of recognition. The mat can reach 25 inches tall in especially favorable conditions but this is uncommon – 4-10 inches is more the norm. Purslane is comfortable in fairly compacted soils. It has an aggressive taproot and can survive periods of drought. It does need bare soil to germinate.

Purslane will flower when it reaches a certain size and there is adequate soil moisture. It has small, attractive yellow



flowers. It is my understanding that the flowers are visited by a lot of pollinators and parasitoids (tiny insects that attack a number of garden insect pests). I will come back to the plant's

virtues in a minute. The flowers produce a small pod with a top that pops off, allowing the seed to carpet the ground. A purslane plant is capable of producing 240,000 tiny seeds. These seeds, in ideal conditions, can live for up to 40 years.

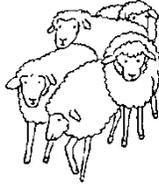
Purslane does most of its damage when it competes with crop seedlings. Farmers have selective herbicides to control purslane prior to emergence. Gardeners need to hoe and pull. Transplants compete well with germinating purslane and give you a little extra time to weed. Mulch spread around transplants or between rows will reduce seed germination.

This is one of the garden weeds I eat when it is young and tender. I like it raw and have put it in salads and sandwiches. There are cultivated forms of purslane, especially golden varieties. It is a nutritional powerhouse with lots of omega three fatty acids and other minerals and vitamins. There is some oxalic acid so if you are prone to kidney stones, you might avoid this plant. It is widely eaten in Europe and Asia (where it is native), and in Mexico through South America (called verdolaga in Spanish) where it has naturalized.

Farm and livestock notes

Winter feeding news

This is the season when livestock management gets tough. Rain has turned all but the best feeding areas to mud. Cold, damp days stress your animals. If you feed well and give all stock enough room to access feed, you minimize disease problems. But twenty minutes a day spent looking at your herd can pay great dividends in early detection of problems.



Cattle and ewes consume feed at a rate, based on relative digestibility of the feed, of up to about 2.7% of their body weight per day on a dry weight of feed basis. Livestock can eat more good hay than poor hay:

<u>Feed</u>	<u>Avg. Daily Consumption</u>	
	<u>Dry wt.</u>	<u>As-fed</u>
Excellent hay	27#s	30#s
Very good hay	23	25
Medium hay	18	20
Poor hay	13.5	15

Note: As-fed is based on hay at 10% moisture and both columns on a 1000# or cow or ewes. For larger cows or smaller ewes, increase or decrease the numbers proportionately. Add 10-15% for hay waste.

The scary notion embedded in these numbers is that you can't feed more poor hay to make up for the lack of protein or energy available in better hays. Digestibility really matters! So, poor hay that is low in digestibility is also low in protein and low in available net energy. Since sheep or cattle can't digest poor hay as well (thus the lower daily consumption), they can be given all the hay they can eat and still starve to death. But all is not lost. Supplement with extra energy and protein and you can use average hay.

Careful supplementation, especially during the last third of pregnancy and crucially during early lactation can make a big difference. The best choices are grain mixes that include natural protein sources (soybean or cottonseed meal) fed at the rate of 4-5 pounds per head per day (along with all the poor hay they can eat) or medium grade alfalfa fed at a one-third alfalfa to two-thirds poor hay ration. If they are already in poor condition, the amount of either supplement may need to be increased to get them back on track. Get your hay tested to know how your feeding program matches their needs. Since calves and lambs are worth a fair amount now, it is worth keeping your cows and ewes in good condition.

Internal and external parasites

Here are some issues to think about:

Coccidia and lice (see lousy story below) problems flare in the winter during confined situations. Watch for signs. Call your vet for options.

Use all dewormers wisely, in the right dosages and given correctly. A lot of resistance is developing with these tools so don't overuse them. Don't rotate wormers in a given grazing season but use combinations. Manage pasture grazing to reduce problems. There isn't much evidence of value in "organic" wormers yet. Use worm resistance as part of your herd selection strategy Individual fecal counts may be needed.

Do you have lousy animals?

As we enter the colder, darker, damper time of year, we will be again encounter lice. An annual problem, lice can affect animal health and farm profitability.

Species Specificity: Lice are generally quite species specific. This means poultry lice won't spread to cattle or people and vice versa. Sheep and goats can share some lice species, however. Particular lice prefer certain places

on their host but when lice numbers are very high, they may be found anywhere on the body.

Life Cycle: The entire life cycle of most lice species takes about a month and occurs on the host. Adults and nymphs that fall off the host do not survive past a few days. Adults feed for about a month, then lay eggs (“nits”) and die. Nits are attached tightly to hair shafts. Eggs hatch in 1-3 weeks and the resultant nymphs metamorphose into adults. Adult biting lice and nymphs eat dead skin cells, hair and other debris found on skin; adult sucking lice and nymphs penetrate skin and consume blood.

Signs of Infestation: Most experienced livestock owners are well acquainted with the signs of lice infestation: rough coat, hair loss, scratching, irritated skin, secondary skin wounds and infections, weight loss, general restlessness and sometimes hairballs from licking themselves excessively and ingesting hair. Heavy infestations of sucking lice can result in clinical anemia and even death, especially in young animals. They can also take animals down enough to predispose them to secondary problems such as pneumonia.

Transmission: If lice don’t live off the host very well and they aren’t a problem in summer, why are they a problem every winter? Some “carrier” animals may harbor small lice populations year-round. In winter, animals are usually in close contact to stay warm, making it easy for lice to move between animals. So closely inspect any new animals brought into a herd; consider lice treatment as something to add to your quarantine procedure.

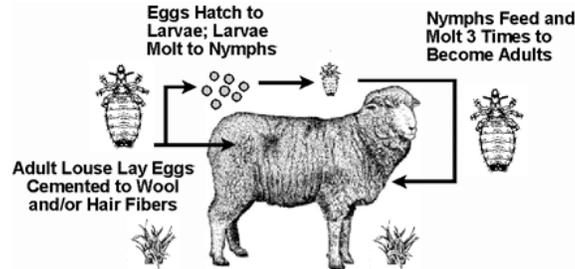
Diagnosis: Examine livestock for lice regularly starting in early fall. To find the more common but less pathogenic biting lice, part the animal’s hair on its neck and back and look for very small moving grayish or

brownish insects. The actual louse; it is very small (~2-3 mm) but still visible to the naked eye. A magnifying glass or zoom lens (macro function) on a digital camera makes diagnosis even easier. Sucking lice are generally larger and darker than biting lice. Depending on the host and lice species, they may also be found on an animal’s muzzle, feet, legs, udder and groin areas. When in doubt, use sticky tape to nab a specimen to take to

your veterinarian for identification.

Treatment and Control: There are two important things to keep in mind regarding treatment: First, all livestock on an affected premise should be treated at the same time. Secondly, most de-licensing treatments do not kill lice eggs. Lice treatments come in many forms including sprays, pour-ons, dust bags, back rubbers, drenches, dipping vats and even injections for some lice species. For product information see <http://pnwhandbooks.org/insect/livestock> . Then talk to your veterinarian about treatment options that best fit your operation. **With all lice management products, read and follow all label instructions.**

Theoretically, treating all livestock at the same time and re-treating two to three weeks later and moving to a clean environment should break the lice cycle. However, an infestation can persist if dusting powder is used and lice on an animal’s underbelly escape treatment or if nits on shed hair are transported to a new site via clothing, wind, equipment etc. An early or mid-winter series of two treatments should be conducted when routine monitoring reveals three or more lice per square inch of skin. Lice populations will naturally decline when environmental temperatures are consistently over 60°F. Excellent nutritional programs have been shown to make livestock more resilient to lice infestations. *Slightly edited from an excellent article by Dr. Susan Kerr, DVM, WSU Extension Service.*

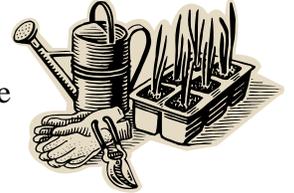


Cover Oregon Update

Even though the December 4 deadline has passed, individuals and families are still able to sign up for health insurance through Cover Oregon until March 31. Call Columbia County Public Health at 503-397-4651, extension 2005 to speak with an application assister. Or, go to the Cover Oregon website www.coveroregon.com or call the statewide assistance number 1-855-268-3767 for more information.

2014 OSU/Columbia Master Gardener™ Class Will Be Held in Vernonia

After twenty-one years of having the Master Gardener classes in St. Helens, Vernonia hosted the class in 2010. It was a wonderful class. After discussion with a number of people, we have decided to come back to Vernonia for the 2014 class. The classes will be held in Vernonia each Thursday from about 9:30 am – 3 p.m. starting March 6th 2014; there will be about 10 class days on successive weeks. Classes will start in March to avoid the worst weather and will go through early May. Cost of the class series will still be \$75. Gardeners from all parts of the county are welcome.



The classes will cover vegetable and fruit gardening, soils and fertilizers, insect and disease identification and management, weed identification and management, and lots of other topics of interest to gardeners.

Payback projects (an obligation for all Master Gardeners™) will be focused in the Vernonia area and nearby communities. If you are interested in the Vernonia OSU Master Gardener program, please call the Extension office 503 397-3462 to get more information and to get on the mailing/email list.

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