



Country Living

Provided to you by the
OSU Extension Service Columbia County
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February 2015

Programs for you . . .

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

- Feb. 3.....Scappoose Bay Watershed Council. 7 p.m., Scappoose Bay Watershed Council's office, Warren, 503-397-7904, www.scappoosebay-wc.org
- Feb. 5.....Demonstration Garden/MG Extension Projects Planning. 10 a.m., OSU Extension Classroom, St. Helens and Master Gardener™ Board Meeting. 10:30 a.m., OSU Extension Classroom, St. Helens
- Feb. 7.....Oregon Pork Producers Annual Meeting & Educational Workshops. 8 am to 4 pm, Corvallis OR. \$30 for adults, \$5 for youth. Pre-registration is requested, contact Matt Kennedy at 541-737-1906 or matthew.kennedy@oregonstate.edu
- Feb. 10.....Lower Columbia Watershed Council. 7 p.m., SWCD office-35285 Millard Rd., St. Helens, 503-728-2945, Magruder@clatskanie.com
- Feb. 14.....Grafting Workshop. 9 a.m. to Noon, OSU Extension Classroom; \$15 fee, call for reservations, 503-397-3462. Space is limited.
- Feb. 18.....Soil & Water Conservation District. 7:30 p.m., SWCD office-35285 Millard Rd., St. Helens
- Feb. 21.....Grafting Workshop-Clatskanie. 9 a.m., Johnson Family Feed, Clatskanie, \$15 fee, call them for reservations at 503-728-3140
- Feb. 26.....Master Gardener™ Chapter Meeting. 6:30 p.m. Speaker will be Chad Harris "Beyond the Bloom", OSU Extension Classroom, St. Helens. **The public is invited. Free.**
- Feb. 26.....Upper Nehalem Watershed Council. 7 p.m., Vernonia Grange, <http://nehalem.org/> 503-429-0869
- Feb. 27-Mar. 1..Yard, Garden and Patio Show. Sponsored by Dennis' Seven Dees Nursery. It will be held at the Oregon Convention Center in Portland. There are many great speakers, exhibits, display gardens and lots of other events of interest to the new or experienced gardener. There is a modest entry cost that gets you in to all the seminars and other special events. For complete information and speaker schedules, visit their website at <http://www.ygpshow.com>
- Feb. 28.....Oregon Small Farms Conference. OSU, Corvallis. <http://smallfarms.oregonstate.edu/sfc>
- Mar. 14.....Tree Sale - Columbia County Small Woodlands Association. 8:30 a.m., Lawrence Oil, St. Helens - Arrive early for best selections!



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

Produce in winter

There is a lot of interest to growing produce in the summer that can be eaten over a long winter. Our own OSU Extension agent Jenny Rudolph has given a number of classes in Columbia County on food preservation (canning, drying, freezing, smoking, etc.) that are always well-attended. If you are interested in the subject, try to make some of her classes this next year. She knows her subject well and is a great speaker.

I have a lot of requests for information on root cellars. These are very popular in some of the colder parts of the country but never really caught on west of the Cascades. Mostly, I think it was due to drainage problems in the rainy winter. It is hard to dig a structure into the ground and keep it dry. Houses with conventional cellars were relatively uncommon in early Oregon communities.

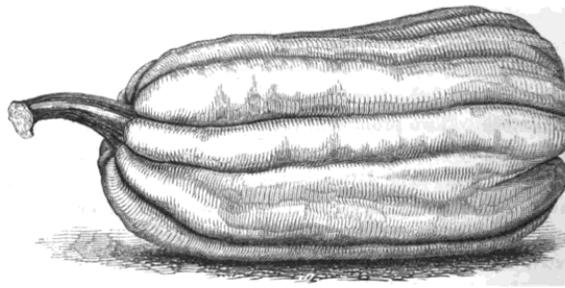
But what did our predecessors do to store fruits and vegetables without drying or canning them? Here is what I found out. Many built insulated (with about a foot of sawdust, usually) spaces in unheated barns, house cellars if they had them, sheds, or even on porches. Since western Oregon winters couldn't reliably provide big blocks of ice to harvest from frozen lakes, they had to depend on other ways to chill the stored produce. They created venting systems that could be opened and closed as needed, pointed in the general direction of prevailing cold winter winds.

As storable crops were harvested, they were brought into the insulated rooms. The spaces

were cooled by opening the vents on cold, dry nights to bring the air in and closing them up before temperatures started to rise outside. In this manner, they could slowly cool the contents of the room and keep them cool in all but the mildest of winters.

Much produce was packed into boxes or barrels in layers covered by layers of sand or sawdust. That served two purposes: first, it separated the produce so that the one rotten apple couldn't spoil the bin. Second, the sand or sawdust could absorb some of a gas (ethylene) given off naturally by ripening fruit. Exposure to ethylene causes neighboring fruits to ripen and soften faster. Often vegetables and fruit had separated storage spaces.

But it is interesting what fresh produce they stored. Root crops were mainstays with turnips, rutabagas, parsnips, celeriac, salsify, horseradish, radishes, carrots, onions, garlic, and potatoes important parts of the winter diet. Non-root crops included cabbages, Brussel sprouts on the stem, winter squash of many types, and leeks. Some of the root crops could be left in the garden if the field mice were controlled.



CUSTARD SQUASH.

One aspect that I think has been lost is the degree to which there were strong farmer preferences for varieties that would store the longest. Apples and pears popular 100 years ago were often ones that could reliably hold for 5-6 months after October harvest. Onions that wouldn't sprout and winter squash that wouldn't rot in storage were very desirable varieties to plant.

With modern refrigeration, we have lost track of some of those varieties. But with a renewed interest in living a less energy intensive life, it might be worth the effort to reclaim this part of our horticultural heritage.

LED lighting for plants

LED lights came on the market some 15 years ago. Early applications were for spaces in which it was hard to change fixtures. As the cost began to drop significantly, growers started trialing them in commercial nursery and greenhouse crop production.

But the best sources of information were largely hidden from the conventional farmers. The medical and illegal growers of marijuana had been innovators in lighting technology. Since much of the crop was grown indoors, they paid a lot of attention to the cost and quality of lighting.

But with the marijuana industry coming outside, prospective greenhouse tomato and cucumber growers in low winter light intensity locations like western Oregon are exploring whether LED technology can finally make growing these crops inside in the winter profitable. Most of the cost savings reside in the much lower energy costs (75% less than other greenhouse light systems) and their longevity. It also brings indoor winter tomatoes into the possibilities for a home gardener. It also should make it easier to set up indoor vegetable transplant growing systems.

World record giant pumpkin

The new record holder is a Swiss gardener, Beni Meiers, who grew a 2,323 pound pumpkin. How this competition has changed. The world record about 20 years ago was roughly 1,100 pounds. It's mainly genetics and attention to detail. No secret sauce.



Tillage radishes

There is a lot of interest in farming and gardening around the soil improving characteristics of cover crops. For years, the most common winter cover crop in western Oregon was a winter grain (oats, wheat, rye) combined with a legume (clover, vetch, etc.).

Farmers in the Midwest and Eastern corn/soybean crop regions have been experimenting with daikon-type radishes as a fall cover crop. They are seeded as soon as the corn or bean crop is harvested. Radishes germinate quickly and soon cover the surface. Roots of these daikon radish types can grow 2 feet or more down.

The important fact is that these radishes will be killed by the cold winters. As they decay, they leave large openings in the soil. Drainage in the spring is improved but so is deep water-holding capacity in the summer. Weeds are suppressed. This farming practice is now so popular that Oregon is growing an estimated 10,000+ acres of radish seed to meet the eastern demand.

Will this work in western Oregon? First, the radishes will not reliably winterkill west of the Cascades. When they don't winter kill,

they can become a reservoir for some serious cabbage family diseases and also for the cabbage root maggot, a most impertinent insect. They can be tilled in before planting but their soil aeration value is not nearly so valuable. The jury is out still but my current recommendation is to stick with some of our

older cover crop mixes.



That's the Way it Grows

Health Benefits of Gardening

I, for one, can't wait for winter to be over. I am so ready to go outside and start playing in the dirt again.

I just can't wait to start rearranging and planting and wandering among the garden beds and sniffing the flowers, feeling the leaves and foliage. I miss the relaxing effects of just being outdoors and enjoying my little piece of nature.

Gardening has proven health benefits. Time spent appreciating nature lowers blood



pressure and stress hormones. Gardening keeps your body moving and invigorates your mind. And we eat more fruits and

vegetables when we grow them, obviously.

Gardening is a huge stress-buster for me. The TV and electronic stuff that we live with these days really gets on my nerves sometimes and I just have to go outside and get away from all the noise and over-stimulation. From about May until August, I spend every evening outside until dark.

Walking around my yard, the stress rolls away and I can stop thinking about everything else and just be in my garden. I can just...be.

Deadheading is such a mundane task, but because it is repetitive and doesn't take much active thought, I find it calming.

Deadheading my annuals gets me moving around the yard, looking at and smelling all the flowers.

Watering is another task I enjoy during the summer. Lugging my green plastic watering can around to each clump of annuals, and watching the water disappear into the soil, is soothing. I get to see all the small changes that happen in my garden, and get to pluck all the baby weeds before they become too big.

Getting outside and moving around, using

my muscles feels great. I tend to overdo the exercise some nights, but it's much more fun to exercise when you're actually doing something, not just "working out."

One of the biggest reasons I garden is that I love to eat food I've grown myself. Every year, we have flats of fruit and tomatoes, containers of berries, and piles of vegetables around the kitchen and dining room. I know my family gets a little sick of green beans at dinner, but there is nothing quite like home-grown beans just picked and thrown in boiling water. I wait for that first picking every year with growing excitement. All that produce means we have a healthier diet.



Aside from gardening, I truly enjoy sitting outside and watching things grow, listening to the birds and feeling the breeze go by. I've created my own little oasis of green where I can escape and let the stress roll away with the breeze.

In the evenings, my husband and I enjoy sitting on the patio together near the peach tree, watching the little peaches fatten and turn gold. I highly recommend an outdoor seating area, where family members can enjoy conversation without distractions.

Having a garden improves our lives in so many ways. Even just tending a few plants can benefit your mental health greatly.

I am so ready for some warm, sunny weather so I can go outside enjoy my garden again.

—Lisa M. Long
Columbia County Master Gardener™
[Smashwords.com/profile/view/LisaMarieLong](https://smashwords.com/profile/view/LisaMarieLong)

FEBRUARY

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

- Tune up lawn mower and garden equipment before the busy season begins.
- Have soil test performed on garden plot to determine nutrient needs. Contact your local Extension office for a list of testing laboratories or view EM 8677 online: <http://bit.ly/ngufWK>.
- Select and store healthy scion wood for grafting fruit and nut trees. Wrap in damp cloth or peat moss and place in plastic bag. Store in cool place.
- Plan an herb bed, for cooking and for interest in the landscape. Among the choices are parsley, sage, chives, lavender. Choose a sunny spot for the herb bed, and plant seeds or transplants after danger of frost has passed
- Plan to add herbaceous perennial flowers to your flowering landscape this spring. Examples include candytuft, peony, penstemon, coneflower

Maintenance and Clean Up

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

Planting/Propagation

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

Pest Monitoring and Management

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

Houseplants and Indoor Gardening

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



Extension Service
Columbia County



The Grapevine
 News for Columbia County Master Gardeners™
www.columbiacountymastergardeners.org
February 2015



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

President's Corner

Happy New Year! 2015 Started without me since I was snoring my butt off by 10 PM on New Year's Eve.

But we were blessed here on the hill with clear skies and 20 degree nights. The chickens were happily tucked in their house with a heat lamp to keep them warm, and needed their ice replaced by water each morning. Percy the Peacock was also tucked under his heat lamp on the perch at our back door. The wild birds have not learned to share that space with him yet but they love being fed.

Those freezing nights have been a bit of a challenge when it comes to reading my rain gauge and getting the ice out of it. I ended up bringing it in most mornings to thaw since the cap was also frozen on. While doing my recording I have noticed that there are fewer folks reporting lately; must be the weather.

Since we don't garden year round nothing is growing or flowering now, but we do have some good produce from last year we can pull from the freezer as needed.

The nurseries are piquing our interest by sending us their catalogs, some I didn't immediately toss were, Swan Island Dahlias, R.H. Shumway's, Territorial, and Gardens Alive. There are some old standards found in those books and some new and interesting plants I just had to order so I could try them out.

Enjoy your gardening down time and catalog browsing. Maybe you will want to consider a little extra to grow for the food bank or folks you know who need a little help putting food on the table. We will see you out and about, no doubt.

I am attaching a photo Zig took of a curious frost formation on a small tree down by our creek. I think our foggy days and freezing nights must have collaborated to create this artistic display.



Calendar: At-A-Glance

- Feb. 5 .. Demonstration Garden and other MG Extension Projects Planning meeting, 10 a.m., Extension office
- Feb. 5 .. Board Meeting, 10:30 a.m. Extension office
- Feb. 26. Chapter Meeting, 6:30 p.m., Speaker: Chad Harris, OSU Extension Classroom, St. Helens
 Many of the different Iris that can be grown in the PNW and the texture that they give to the garden.

"A weed is a plant that has mastered every survival skill except for learning how to grow in rows." Doug Larson

--Wes Bevens

Dues – Due!

Make your \$10 check payable to CCMGA, return them to me or turn them in at the Chapter meeting or drop them off at the Extension office.

Let me know if any changes in your contact information for the 2015 roster.

You must pay your dues by March 31, 2015 if you want to be included in the 2015 roster.

--Peggy Crisp, Treasurer

Mason Bees with Ron Spendal - Rescheduled

March 11, 6 p.m. at the Extension Office

Ron Spendal has just finished cleaning over 11,000 mason bee cocoons, his bee harvest for the year, and due to the arrival of other solitary nesting bees and wasps, his interests in pollinators is expanding. Ron will begin his presentation with Mason Bees and conclude by presenting some of the highlights from his research the last couple of years. He will have plenty of time to answer questions so this is your chance to get them answered. Bring interested family and friends

Wednesday, March 11 at 6 p.m. at the Extension Office.

--Deb Brimacombe

Farm and livestock notes

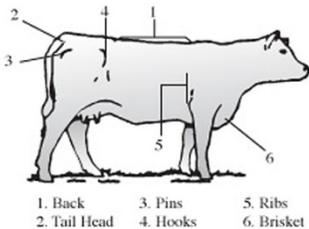
Body condition scores for cows

Beef operators routinely look at their cattle to assess their condition. They listen for coughs, watch how they move for any signs of lameness, look at their affect (how “with it” they seem to be), see if there is any sign of diarrhea, and generally assess their body condition (thin, normal, fat, etc.). Some years ago, university beef researchers decided to quantify the body condition and then look to see what difference it made in the productivity of individual cows and the herd as a whole.

They found out that body fat cover could be reliably estimated by looking at various points along a cow’s back. Moreover, it could be done quickly and without a lot of training.

They devised a scale as shown in the table. They found a strong link between cows in BCS ranges 5-6 and their overall fertility, calf health and vigor at birth, ease of calving, and ability to breed back after calving.

BCS	% Body Fat
1	3.77
2	7.54
3	11.30
4	15.07
5	18.89
6	22.61
7	26.38
8	30.15
9	33.91



To move a cow up one notch on range, say from BCS 4 to BCS 6 requires that the cow gain about 75-80 pounds for each step up. That amounts to 150 to 180 pounds of gain that she gets to keep beyond what she puts into her gestating calf. If only a few cows in the herd are low, it might be hard to get them into form unless there is a way to feed them separately. If the whole herd is low, then your feeding program and amount of feed

bunk space may need to be changed (or some cows sold). It is generally easier to feed cattle into good condition after they have calved and particularly after weaning. But failure to remedy low BCS scores before calving could be very costly. For more information, go to <https://beef.unl.edu/learning/condition1a.shtml>

Snow loads

The current long-term weather forecast doesn’t indicate any significant snow. But this is western Oregon. It doesn’t take much deflection of a wet front into a pool of Arctic air to cause us no end of trouble. Worse, we generally have quite wet snow in comparison to the dry powder found in colder parts of the country. In fact, it takes one inch of water to produce 10 inches of wet snow or 20 inches of dry snow. Look at the table below on the relative weights of wet and dry snow and then think back to December of 2008 when we got 24 inches of fairly wet snow (with an inch of ice sandwiched in at about the 10 inch level).

Snow depth	Dry snow	Mix snow	Wet snow
1 foot	3 #/sq ft	12#/sq ft	21 #/sq ft
2 feet	6.5 “	24 “	42 “
3 feet	9.5 “	36 “	62 “

Snow removal can be quite dangerous and should only be done by people who know how to remove it safely. Some things you don’t want to do are to remove the snow from roofs unevenly, work from the top down, or pile the snow against the exterior barn walls. If you hear moaning or creaking sounds in the barn, see bowing in timbers or trusses, or anything else that indicates the structure is at risk, get what you value out of there as quickly. It may be possible to put in temporary support posts inside a structure like a greenhouse or a smaller barn to redistribute the weight on the roof. Greenhouses snow is best removed early and persistently.

GMO crops in Oregon

There is a reason that Oregon doesn't grow many genetically modified crops. First, some of our biggest crops like soft white wheat and frozen/processed vegetables are exported to international markets like Japan and Europe that won't take GMO crops.

Second, it is very difficult to separate out GMO grain from non-GMO grain once it is in market channels. And if there is even modest mingling of GMO wheat with non-GMO wheat anytime in the handling and shipping process, the whole load will be rejected by many of our end foreign consumers.

Recently, Cargill, a major international grain and oilseed trader, sued Syngenta over the release of a GMO feed corn variety that hadn't yet received approval from China. It resulted in boatloads of corn getting turned back because it was widely sold, planted, and harvested throughout the Southern and Midwest corn growing regions. Another major grain trader, ADM is considering similar legal action.

Third, it takes millions of dollars to develop and take a GMO crop variety through the registration process. It is worthwhile if it can be planted on hundreds of thousands of acres. But our high value horticultural crops like the berries, tree fruits, and vegetables use a lot of niche varieties on relatively few acres so it isn't profitable to take them through the GMO development and regulatory process.

This isn't likely to change for a long time. The current issues around separating GMO and non-GMO cropping areas are focused around our specialty seed industry, which produces and sells a lot of high-value seed to foreign countries that won't accept GMO pollen cross-contamination, and our organic industry which also has a prohibition against GMO genes showing up in their crops.



More on chicken diseases

Since the last newsletter where I focused on avian influenza, there have been more cases found in Oregon, Idaho, and Washington. None were from commercial poultry farms. They did include wild birds and some home poultry flocks. If you raise backyard chickens, you should review the disease symptoms again.

That said, chickens can die of a number of problems and without an autopsy, many of the diseases exhibit similar symptoms.

California did an extensive review of chicken disease incidence in urban and suburban backyard flocks. Digestive problems from a variety of sources such as various bacterial infections, coccidiosis and other internal parasites, and other miscellaneous causes constituted fully a third of the mortality total. Blood borne diseases were the next largest problem followed closely by respiratory disease and reproductive problems.

California has made a major effort to encourage good management practices and improved bio-sanitary procedures in backyard flocks. They encourage poultry houses and yards that are designed to minimize contact with wild birds. Some localities are now requiring backyard flocks to register with the city or town. If there were a major public health crisis from avian influenza, the facilities and birds would be inspected.

At this point, there isn't an extensive spread of avian influenza in the Pacific Northwest. But there is enough concern that some foreign importers of processed chickens will no longer take American birds. Migratory birds, especially waterfowl, seem to be the major vectors of the disease at this point. Stay tuned and review the article in last month's newsletter if you have chickens.

The natural world

Molecular learning in tree clones

Some inquisitive Canadian scientists took cuttings from genetically identical trees that had been grown in two climatically different places. They then planted these cuttings side by side in growth chambers where the light intensity, temperature, and moisture could be precisely controlled. One growth chamber simulated drought conditions; the other provided a normal moisture pattern.

Even though the cuttings had exactly the same genes, they responded differently to drought depending on where they had come from.

With modern research tools, scientists could see which genes each used to respond to the drought and it turned out they used different arrays of genes depending on where they had first grown. Clearly, their ability to turn genes on and off in response to drought stress had “imprinted” differently in the two growing zones. The genes didn’t change but the switching pattern (controlled by proteins on genes) did and the tree remembered. You have now entered the world of proteogenomics, a most interesting development in molecular genetics.

Caffeine and bees

In case you missed it, a number of plants lure bees to their flowers not just with fragrance, nectar, and enticing UV petal landing patterns but with caffeine! It turns out that some plants have toxic concentrations of caffeine in their leaves to ward off predators but also very dilute amounts in their nectar.

The lead scientist started learning experiments to see if they could influence the memory of bees to associate a test odor with a reward. A scientist decided to look

into memory formation in relation to caffeine and bee foraging. The rewards she used were either sugar water alone or sugar water laced with a little caffeine. After 24 hours of foraging, three times as many bees learned the connection between the odor and the reward if the reward had sugar water plus caffeine. How it improved the memory is not clear. But from a plant’s perspective, the more dedicated the local bees are to that plant’s flowers, the better pollination it will have and the more seeds will be produced to further propagate the species.

Beaver believers, beaver deceivers

Europeans have been hard on beavers. They pretty much exterminated them on their own continent and then came to North America



to do the same thing. It was a huge mistake but it has taken years for us to recognize beavers’ value in the landscape. They easily engineer complex structures to hold water. This is

especially important in dry summer landscapes west of the Rockies. The continued flow through the summer that the dam systems provide produce a more vigorous riparian vegetation pattern that is more resistant to winter bank erosion. The ponds were once thought to be fish passage barriers but now, that is known not to be true. The deep pools behind the dams provide cool water pockets on hot summer days and help to cool the stream. Fish do well in these systems.

Beaver don’t always play well with us. They dam our road culverts and gnaw down our prize trees. They do what they have always done: if there is a leak, plug it; if there is a nice tree, build with it or eat it. Next issue, I will review options for living with beavers including the famous “beaver deceiver”

Grafting Workshops

We will have our annual grafting workshop Saturday, **February 14th** from 9 am – 12 at the Extension office in **St. Helens**. Space is limited. Call for reservations (503 397-3462). Cost will be \$15 and will include five dwarf apple rootstocks. If you have a favorite apple tree that you want to make “copies” of, take some 12” cuttings from last season’s growth (about pencil thickness), using the middle third of the shoots. Bundle and label the cuttings and place them in plastic bag and store them in the refrigerator until the workshop. Free cuttings will be available of several varieties.***NOTE**: a grafting workshop will also be held in **Clatskanie** on Saturday, **February 21** from 9 to Noon at the Johnson Family Feed store in Clatskanie. Space is limited, so please call the feed store at 503-728-3140 to register.



OSU Small Farms Conference



The OSU Small Farms Conference is an annual event held in Corvallis, this year on Saturday, **February 28th**. The event will be useful to almost anyone looking to diversify crop and/or marketing options. The small Farms team goes to great lengths to put together “meaty” topics of use to the serious farmer. A number of people from Columbia County have gone in the past and have felt it was worth their time. For complete information on the conference including offerings and cost, go to <http://smallfarms.oregonstate.edu/sfc>

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