



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.
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December 2014

Programs for you . . .

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

- Dec. 2..... Scappoose Bay Watershed Council. 7 p.m., Scappoose Bay Watershed Council's office, Warren
- Dec. 4..... Master Gardener™ Board Meeting. 3:45 p.m., OSU Extension Classroom, St. Helens
- Dec. 6..... 2014 Sheep Symposium. 8 a.m. to 5 p.m. hosted by OSGA and OSU Extension Service during the OSGA Annual Meeting, Eugene, OR, Hilton Hotel. For complete details go to <http://sheeporegon.com/2014-convention/>
- Dec. 9..... Lower Columbia Watershed Council. 7 p.m., SWCD office-35285 Millard Rd., St. Helens
- Dec. 12..... OSU Calving School, Eugene OR.
http://beefcattle.ans.oregonstate.edu/documents/CalvingSchool-2014Agenda_001.pdf
- Dec. 17..... Soil & Water Conservation District. 7:30 p.m., SWCD office-35285 Millard Rd., St. Helens

Dec 25 & Jan 1 - OSU Columbia County Extension Service closed for Holidays.



READING THIS ON PAPER?

You can receive this newsletter (in full color and with working links) and other news by subscribing to our email list. Just send an email to vicki.krenz@oregonstate.edu and request to be on the Country Living email list. Include a physical address and phone number (so we can remove you from our paper mailing list and keep our email list current).

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

5 ways to care for your landscape in a dry spell

Winter is a time to reflect and plan garden improvements. This article by OSU Horticulturalist Neil Bell is an excellent introduction to ornamental landscapes that thrive in dry summers. For Columbia County, this article is most appropriate for gardeners from Rainier to Scappoose but has advice useful in all parts of the county. With the very dry summer of 2014, this article has special significance.

Summer drought is normal in the Willamette Valley, so that will be an issue every year. If there are a greater number of days in which the temperature exceeds 90 degrees, the stress on plants increases. The following advice will help you to tend to your plants and conserve water when the mercury rises for extended periods of time:

Water your landscape strategically. Water early in the morning when temperatures are lower. Water plants infrequently and deeply prior to and during drought. Saturate the area to a depth of 8 to 10 inches. For lawns, add one-half to three-fourths-of-an-inch of water per week, or let lawns go brown during the heat of the summer.

Put the right plant in the right place.

Design your landscape so that your plants won't compete with each other for shade and

water. In other words, group plants with similar requirements for light and water in the same location.

Prepare the soil adequately. Good quality soil helps retain moisture in times of drought. When you dig in, make sure you can break up the soil easily, a sign that water can penetrate into the soil with no trouble. When air and water can't move through the soil easily, plants can experience problems with diseases and root growth. To build good quality soil, add organic matter such as composted yard trimmings, composted manure and leaves from deciduous trees.

Mulch to conserve water. Mulches are like

putting a lid on a pot that's boiling and preventing it from evaporating quite as readily. They're not a substitute for irrigation, but they do help retain water in the soil. Place a 3- to 5-inch thick layer of mulch on the soil. Mulches could include shredded bark, bark chips or grass clippings. As these mulch materials decompose, organic

matter is added to the soil.

Choose plants that don't get thirsty in the summer.

Some plants are so drought-tolerant that they only need winter rains to be happy and no irrigation at all during summer. Cold-tolerant varieties native to the Mediterranean region or native plants of the Pacific Northwest are good choices. For groundcovers, these include Point Reyes ceanothus, also known as *Ceanothus gloriosus*, and carpet broom, also known as *Genista pilosa*. As for shrubs, we recommend the varieties below, which are followed by their scientific names:



- Dwarf Strawberry bush, *Arbutus unedo* Compacta
- Wild lilac, *Ceanothus* Victoria
- Rockrose, *Cistus* x hybridus
- Sunrose, *Helianthemum nummularium*
- Flowering currant, *Ribes sanguineum*
- Lavender, *Lavandula* spp.

For more information about mulching and gardening during a drought, view the following OSU Extension guides:

- [Conserving Water in the Garden: Designing and Installing a New Landscape](#) (pdf)
- [Conserving Water in the Garden: Landscape and Lawn Care](#) (pdf)
- [Mulching Woody Ornamentals with Organic Materials](#) (pdf)

The value of a vegetable garden

I have taught a lot of vegetable gardening classes over the last 30+ years in Extension. I found that the most important motivations for gardeners are food freshness and quality, the ability to grow types of vegetables that you can't find in a store, the desire to grow food for friends, family, and food banks, and a pure love of gardening. When I ask them if they can save money by growing their own, they will usually respond in one of several ways, i.e. yes, lots; no way, it costs a lot to garden; or yes, once I learned what I was doing.

I think the last answer is telling. It takes time to learn how to do anything of value well. Once that learning is in place, mistakes decrease and productivity rises fairly dramatically. That is when you can best take the measure of gardening and what it can offer, economically and otherwise.



An economist would view gardening through several lenses. The first question she would ask is “what would it cost to replace from the grocery store what you use from your garden?” This calculation is reasonably straightforward. For example, if you harvested 100 pounds of onions from the garden and were able to consume 90 pounds before some rotted in storage you could compute a grocery store value: 90 x \$.80/# = \$72.00 worth of onions.

But it doesn't stop there. To get that \$72, you had to work and when you got paid, at the end of the day, you are probably taking home about 70 cents for every dollar earned after taxes, workman's comp, social security, etc. So to spend a dollar at the grocery, you have to earn about \$1.42. So to spend \$72 on onions you had to earn \$72 x \$1.42 = \$102.

After the costs of sets, fertilizer, etc. which could total roughly \$20 (water bills are a big variable), the difference between cost and avoided grocery expense is your return to your own labor and skills. It effectively adds to the household income, it isn't taxable, it is a lot more fun and cost effective than watching television, and it is healthier to boot. What a deal!

The second economic test would look at the amount and value of produce you actually eat per square foot planted. If your goal was to replace some of what you buy and if space, time, and/or water were limiting, you would concentrate your efforts on growing those vegetables that have a combination of reasonably high yield/square foot, fairly fast growth cycle, easier to grow, perhaps fewer insect pests, and have fairly high grocery store replacement costs. Some of the best vegetables in this test include:

- ✓ greens like collards, chard, kale, lettuce, arugula, etc.
- ✓ green onions
- ✓ radishes
- ✓ garlic and onions
- ✓ specialty potatoes
- ✓ tomatoes, especially cherry and smaller types
- ✓ all the annual herbs like basil, cilantro, and parsley
- ✓ woody perennial herbs like thyme, bay, rosemary, etc. as part of your permanent landscape
- ✓ zucchini
- ✓ possibly pole beans
- ✓ Winter squash like butternut would make the list for many gardeners because they are easy to grow, they can be stored for winter use, and don't take huge amounts of water if you drip irrigate. They do take a lot of space but if you have it, they make some sense.

A final look might combine nutrition with some of the cost replacement ideas. Cornell University Extension released a “nutrition garden” 20+ years ago. And no surprise, it looks a lot like the list above. If you want a copy of their [10' x 10' \(now well-aged\) plan](#), go to the online version of this newsletter.



Pacific tree frogs

A great benefit of this job is the wonderful range of people I get to know. We have such an observant and curious population. There is rarely a week that I don't get a question that leaves me completely stumped. Recently, some friends called asking whether the little Pacific tree frog could come in shades other than green and brown. A friend of theirs had found a blue one!

After some research, it turns out that this frog can have an amazing range of colors, including red and the very rare blue form. Moreover, it can change between the common green and brown colors and become more deeply colored or more lightly colored. Those color changes are triggered by changes in the light intensity (usually seasonal) and may take several weeks for the full change to be complete.



The blue form turns out to have defective yellow “chromatophores” which are stacked with blue ones to make the green color. When they don't work, you see blue.

We have tree frogs active in some of our planters on the deck and/or in surrounding landscape plant material. They were quite vocal this year. Their enthusiasm for life seems to reach its apogee during the annual flight of the termites in August and September. It is quite fun to watch them catch the termites, mostly as termites wander on a wall or other surfaces. They also position themselves under outdoor lights or near windows that are facing night lit rooms waiting for the stray moth. They seem to give spider webs a wide berth, perhaps out of professional courtesy.

DECEMBER

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.

Maintenance and Clean Up

- Spread wood ashes evenly on vegetable garden. Use no more than 1.5 lb/100 sq ft/year. Don't use if the soil pH is greater than 7.0 or if potassium levels are excessive.
- Protect new landscape plants from wind. Use stakes, guy wires and/or windbreaks as needed.
- Yard sanitation: rake leaves, cut and remove withered stalks of perennial flowers, mulch flowerbeds, hoe or pull winter weeds.
- Turn the compost pile and protect from heavy rains, if necessary.
- During heavy rains, watch for drainage problems in the yard. Tilling, ditching, and French drains are possible short-term solutions. Consider rain gardens and bioswales as a longer-term solution.
- Check stored flower bulbs, fresh vegetables, fruits for rot and fungus problems. Discard any showing signs of rot.
- Tie limbs of columnar evergreens to prevent snow or ice breakage.
- Do not walk on lawns until frost has melted.
- Make sure that landscape plants in protected sites receive water regularly during the winter.

Planting/Propagation

- Good time of year to plant trees, landscape shrubs.

Pest Monitoring and Management

- Monitor landscape plants for problems. Don't treat unless a problem is identified.
- Check for rodent damage around bases of trees and large shrubs. Remove weeds to prevent rodents from using them as hiding places. Use traps and approved baits as necessary.
- Avoid mounding mulching materials around the bases of trees and shrubs. The mulch might provide cover for rodents.
- Monitor spruce trees for spruce aphids. Treat if present in large numbers. Read and follow pesticide label directions.

Houseplants and Indoor Gardening

- Protect poinsettias from cold, place in sunlight, don't let leaves touch cold windows; fertilize with houseplant fertilizer to maintain leaf color.
- Monitor houseplants for adequate water and fertilizer. Water and fertilizer requirements generally are less in winter.





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



December 2014

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

Greetings – Well, this will be my last article as president. We recently held our chapter elections and Wes Bevans will be our president next year.

Our lawn started looking a bit ragged this summer, so this Fall I over seeded some thin areas and applied fall and winter fertilizer. Next we had about 3 weeks of rain and mild weather and the grass grew - and grew - and grew. Next week is Thanksgiving and I'm still mowing.

Why is it that we water and water during the summer and the grass still gets brown and yet two days of rain and everything immediately gets green. I think Mother Nature is better at this than I am.

We have really enjoyed our cider this year. More of my new trees are starting to produce and the mix of different varieties gives a more complex taste. I can't wait for some of the newer trees to start producing!

My wife is very happy with the raised beds. She got over 100 lbs. of sweet potatoes from two 4 x 8 beds. The largest was 4.2 pounds. I'm very happy cause they make great fries and pies - hard to tell the pies from pumpkin. (I'll do more research at Thanksgiving).

Have a happy holiday season and happy gardening!

--Dennis Snyder

Volunteer Payback

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 or PDF.

December Notes from your Treasurer

This is the last note you will get from me as treasurer. Please welcome Peggy Crisp as your 2015 Treasurer. You all know Peggy; she's the gal who makes those delicious cakes for our

Calendar: At-A-Glance

Dec. 4.. Board Meeting, 3:45 p.m. Extension office

Note:

- ✓ ..No Demonstration Garden and other MG Extension Projects Planning meetings until March 2015
- ✓ ..No Chapter meetings until January 2015

graduations. Check the 2014 Roster for Peggy's address, phone & email. I'll let Peggy decide where she wants CCMGA email sent, but will leave the current address active for a while.

If you have authorized expenses you would like reimbursed, get them to me before December 31.

After January 1, 2015, mail your \$10.00 dues checks, made payable to CCMGA, to Peggy, or turn them in at chapter meetings, or drop them off at the Extension Office.

Remember to let Peggy know of any changes in your contact information for the 2015 Roster that will be published in early April. You must pay your dues by March 31 to be included in the 2015 Roster.

--Gail Martyn, 2014 Treasurer,

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

Master Gardeners Contacts

Officers for 2015

<u>Title</u>	<u>Name</u>
President	Wes Bevans
Vice President.....	Joe Crisp
Past President.....	Dennis Snyder
Secretary	Susan Snyder
Treasurer.....	Peg Crisp
Historian	Lavina Patterson
OMGA Rep	Chuck Petersen
OMGA Alt. Rep.	Deb Broberg
Demo Garden.....	Linda Bainbridge
.....	Kit & Chip Gardes
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.ippc.orst.edu

Farm and livestock notes

Working with livestock safely

There are more injuries each year from farm animals than there are from tractors or machinery. Poor judgment and lack of understanding of animal behavior are the main causes of accidents. Livestock have unique vision characteristics, sensitivity to noise and strong territorial instincts that need to be understood before handling them. In addition to injuries from accidents, farm animals can also transmit diseases to humans such as leptospirosis, rabies, brucellosis, salmonellosis, and ringworm.

Here are some tips on working safely around livestock:

Animals respond to routine; be calm and deliberate, avoid sudden movements.

Avoid the animal's "blind spot". Approach from the front or side.

Animals are very sensitive to noises. Avoid loud noises and do not yell.

Many animals are colorblind, have poor depth perception, and are extremely sensitive to contrasts. Assess your lighting situation and avoid rapid changes from light to dark.

Many injuries are caused by a startled animal pinning the handler against some surface. When working around livestock, always leave yourself a way out, especially when working in close quarters.

While bulls account for only two percent of the cattle population, they are responsible for more than half of the fatalities. Always use extreme caution around all male farm animals.

To help avoid territorial behavior, distribute feed in large, unpredictable patches. Have sufficient feed bunk space for all with some extra room.

Plan ahead. Always wear the proper personal protective equipment for the job.

Maintain equipment and facilities in good repair and keep things clean and in order.

E. coli and the livestock industry

E. coli O157:H7 and other related strains became a huge problem for the livestock industry in the 1990s. Contaminated meat, vegetables, and fruit led to a number of deaths and a significant number of cases of irreversible kidney damage. Major companies were brought to the edge of bankruptcy. The cattle industry was hard hit because most of the contamination was either directly in consumed beef (especially hamburger meat) or could be traced indirectly from beef feedlots or farms to contaminated fresh vegetables or fruit.

The initial research response led to guidelines about cooking ground beef past pink before serving and repeated random checking at all stages of food preparation in these facilities. That change was quickly adopted by the fast food industry so shook up by the Jack in the Box outbreak.

But the beef industry knew that their market was on the line. So research began on the development and movement of E. coli in the production and processing stages of beef. It quickly became apparent that contamination of the carcass occurred as the hide was removed. It was clear that bits of fecal material adhering to the hide were being transferred to the meat. This insight has led to some strong decontamination methods of the animal before hide removal, greatly improved cutting techniques to minimize contamination, quick chilling and decontamination of the meat as it moves into the cooler, and a profound

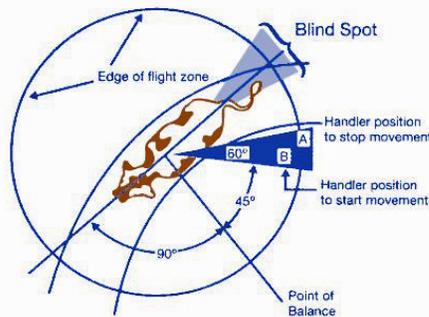


Diagram courtesy of Dr. Temple Grandin

cleanliness in all stages of the production cycle and all parts of the facility.

Working backward, research indicated that *E. coli* O157 shed in manure increased in the feedlot but could be lowered by feeding a high fiber ration in the week or two before slaughter. Many feedlots have adopted feeding programs prior to slaughter that reduce the background presence of the bad *E. coli*.

In addition, it was found that some animals harbored and shed the bad *E. coli* more than others. Heavy shedders in a feedlot are generally thought to be 2-5% of the group at any one time. This has been a more complex problem to work on. The genetics of both the bacteria and cattle have been extensively studied for why this might be and whether there could be either breeding selection protocols to get beef that were less likely to acquire and shed the bad *E. coli*. Alternatively, there has been some research into the development of vaccines that might amplify the steer's natural resistance to the bacteria.

The final aspect of this problem is contamination of vegetables and fruits with *E. coli* O157. In almost all cases, beef were implicated either directly (the Lane County Fairgrounds incident in the 1990s) or indirectly in the more complicated spinach, strawberry, and unpasteurized apple juice incidents of roughly 3-15 years ago. In these cases, cattle were thought to be the initial *E. coli* sources but in the spinach event the bacteria was carried by feral hogs into the spinach field. In the strawberry and apple juice cases, it was carried by deer droppings.

The good news is that incidents of hemorrhagic *E. coli* peaked in the early 2000s and have been dropping dramatically since then. This is a tribute both to the industry which funded basic research necessary to understand the bacteria and to the scientists and farmers who developed

workable systems to help manage this problem. There is more innovation coming.

Better hay next year

It's a gamble to make hay. The best quality hay is generally cut from mid-May until mid-June when it is still leafy. Sadly, our weather often doesn't fully cooperate. A forecast of four good hay-making days can vanish in a blink of the eye. So in May, be prepared to cut smaller areas and turn the hay more frequently to speed drying. Four acres of great hay is worth a lot.

It is also worth knowing how much hay you are actually getting off your fields. People talk about "bales" but you need to calculate actual weight. So weigh ten bales and take the average for your bale weight and then calculate tons per acre from the

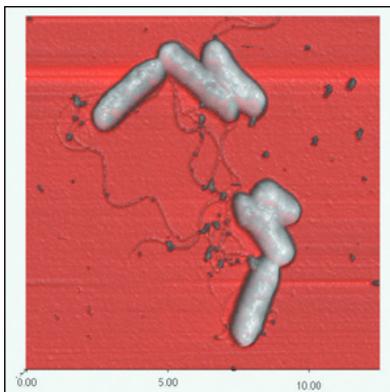
number of bales you harvested per so many acres. You can calculate the size of a field by using the NRCS Soil Survey web site described in the August 2014 newsletter.

My experience is that most non-irrigated Columbia County hill-land fields produce about 1.5-2.0 tons per acre if fertilized with nitrogen in early April and with all grazing ended by late April. Avoid grazing from November to March. Consider taking a soil test if you haven't done so in a while. You can borrow a soil probe to take samples for a soil test from our office. Cost of a soil sample is about \$40 from any one of several labs.

Something to chew on

Here are the facts:

- Beef cow numbers are the lowest they have been in about 60 years.
- That means fewer calves
- Corn prices are down which means it costs less to finish cattle in the feedlot
- Feeder calves are selling in excess of \$2.00 for 5-600 # calves

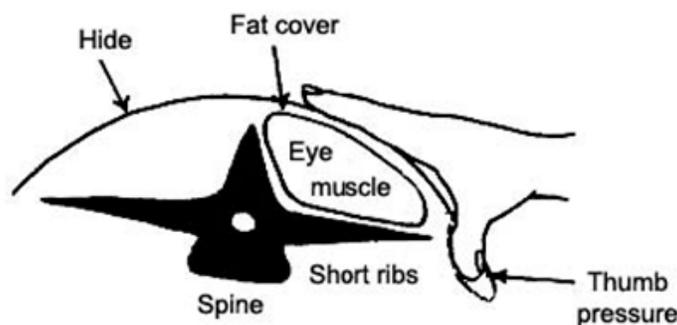


- Fewer cows are being culled because getting one more valuable calf seems worth the gamble

Fed cattle are now selling for roughly 70% more than they were in 2006. How is this translating into the wholesale prices of steaks and ground beef? Ribeye steaks are selling for about 28% more than they were in 2006 but ground beef went up an astounding 128%. Why? Consumers love their ground beef at home, at burger joints, or almost anywhere. Even with the improving economy, the higher priced cuts couldn't sustain rises proportional to those of ground beef. In a real sense, they are a bargain today.

Within fresh meat, beef, pork and chicken take up 94 percent of the linear feet in the meat case. Since 2004, beef's share of that space has held steady at 42 percent although ground beef is gaining within that category. Chicken has gained a point to 27 percent and pork lost a point to 20 percent. Turkey has 6 percent of the space while lamb has 3 percent and veal 2 percent.

The study found that store brands have tripled in the meat case since 2004, on-package nutrition and country of origin labeling are increasing and products with a "natural" claim on the label increased 10 percent since 2004 and now appear on 32 percent of meat labels. Organic labels increased and now appear on 0.9 percent of all packages, 2 percent of all chicken is labeled organic and 1.1 percent of ground beef. There is also a noticeable increase in the number of bilingual labels. Beef and chicken saw an increase in "value" or "family packs."



Feeding pregnant heifers

By rule of thumb, a heifer should calve at 85 percent of her mature body weight. Most herds target 1,300-pound mature cows. That mature weight is based on 5- to 8-year old cow at BCS 5 on a sale of 1 to 9. That means a goal of 1,200 pounds at calving for heifers-1,100 pounds of body mass plus 100 pounds of condition.

Growing heifers need more and better feed than mature cows. They should be fed separately from the cows.

Body condition scores are measured in 100-pound increments. Scoring estimates fat on the cow's body. If she is flat across the back with

no backbone or ribs showing, she scores BCS 6 or better, a desired condition for calving. However, if her backbone "splits a raindrop," she needs feed to add body fat before calving.

During July and August, when no grass grew, heifers mined condition off their back. Now heifers must not only be fed to support normal body and calf growth during winter, but also to replace lost fat.

Lost fat is a big concern. That energy source affects vigor of the calf at birth. Also, adequate body fat adds quality and quantity to milk the heifer provides her newborn calf.

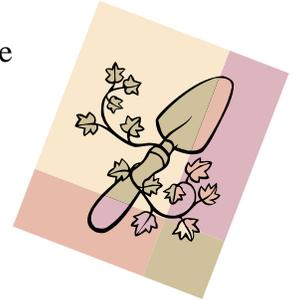
Nutrition in that first 24 hours determines if a calf thrives. Spring-born calves come into a cold world. They need the rich energy and antibodies provided by colostrum, the first milk, to survive.

--Justin Sexten, University of Missouri, Beef Nutrition

2015 Master Gardener™ classes to be offered in St. Helens



The OSU Master Gardener™ class will be offered in St. Helens starting on Monday, January 5th and meeting every Monday through mid-March. The classes will meet from 9:00 am until 4:00 p.m. with an hour break for lunch. The programs will be held **St. Helens Public Library** in St. Helens. Topics to be covered will include vegetable gardening, insect identification, botany for gardeners, plant problem diagnosis, growing fruits and berries, lawn management, weed identification and management, pesticides safety, and plant propagation. Cost of the series will be \$75.00. Students completing the class will be expected to pay back about 60 hours on community horticultural projects. For more information or to register, contact the OSU Extension Office in St. Helens at 503 397-3462 or email either Chip Bubl (chip.bubl@oregonstate.edu) or Vicki Krenz at (vicki.krenz@oregonstate.edu). [Application and information letter](#) on line.



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