



UMPQUA VALLEY Hort News

Horticultural Newsletter for The Umpqua Valley

September & October 2009

Oregon State
UNIVERSITY

**Extension
Service
Douglas County**

1134 SE Douglas Ave.
P. O. Box 1165
Roseburg, OR
97470
(541) 672-4461
1-800-883-7568

**Steve Renquist
Horticultural
Extension Agent**

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*Layout, Design,
& Distribution*
Mary Hoffmann

Agriculture, 4-H Youth, Family & Community Development, Forestry, and Extension Sea Grant Programs. Oregon State University, United States Department of Agriculture, and Douglas county cooperating. The Extension Service offers its programs and materials equally to all people.

Please note: The contents of this newsletter are provided for educational purposes, and are not intended to be taken as strict recommendations for treatment of any orchard pest or condition. ALWAYS READ THE MATERIAL LABEL PRIOR TO APPLICATION.

2009

Calendar of Coming Events

2009

Sept. 9

Nursery Extension and Research Field Day at the North Willamette Experiment Station. Join the research staff at NWREC near Canby from 8am-12pm as they discuss fertilization practices in container grown trees, peat versus pumice, shade tree soil fertility, trends in retail nurseries, soil borne pathogens in nursery production, and insect control programs in nurseries. There will be a barbeque lunch after the presentations. After lunch several field tours and demonstrations will go until 2:30pm. Contact NWREC for registration at 503-678-1264 Ext 110

Sept. 12-13

Umpqua Valley Wine Art and Music Festival Come support Southern Oregon Wine Institute at UCC by attending the festival held at UCC campus on Saturday from 11am-10pm, and Sunday from 11am-6pm. There will be music, Umpqua Valley wine tasting, food and other beverages throughout the weekend. This festival is being supported by the city of Oakland, the Umpqua Valley Wine Growers, and UCC. <http://www.uvwineartandmusic.com/>

Sept. 15

Stormwater Management One Backyard or Property at a Time. This will be a video streaming seminar from WSU and the EPA in Washington. The class will be held at the OSU Extension office in Roseburg from 9am-11:30am. The class is being offered to Master Gardeners, Conservation Districts, City or County stormwater management staff, engineers, landscapers, and interested individuals. Discussions will include a review of successful projects around the PNW, how to handle runoff from your property or onto your property, how to build a rain garden, what plants work best in rain gardens, green roofs etc. Call the Extension office to register 672-4461. No charge.

Pesticide Use Reporting System Suspended (a second reminder)

July 8, 2009... As directed by the State Legislature, the Oregon Department of Agriculture has suspended its Pesticide Use Reporting System (PURS) until January 2013 at the earliest. Those required to report their pesticide use online will no longer need to file reports until further notice. The electronic reporting system will no longer allow reports to be filed. State budget constraints forced PURS to be suspended for the current biennium and beyond.

Honey Bees and Colony Collapse Disorder



During the past few months researchers at Penn State University, the University of Illinois, and the ARS Bee Research lab in Beltsville Maryland have made some significant headway at identifying what is happening in bee colonies affected by Colony Collapse Disorder (CCD).

CCD colonies earlier this summer were found to have a higher total load of pathogens, like viruses, bacteria, fungi, and mites than non CCD colonies. No one single pathogen consistently appeared in the analysis of all the infected hives, nor did one pathogen when present, show the highest infection rate. However a much larger percent of CCD infected colonies had three or more pathogens in them versus non CCD.

Scientists in Illinois recently discovered a large amount of abnormal ribosomal RNA fragments in the guts of honey bees in CCD colonies. Fragmented RNA means the protein construction

system of those bees has been compromised. So colonies with these problems have a reduced ability to produce new proteins. If bee ribosomes are compromised, they can't overcome exposure to pesticides, fungal infections, bacteria or inadequate nutrition as easily as healthy bees.

These two studies support each other when you realize that honey bees with compromised protein producing systems are not able to fight off pests and pathogens as effectively as healthy bees. This would eventually lead to colonies with much higher pathogen loads, and for many, eventual bee death.

Researchers were still not quite ready to name the causal agent or agents for compromised ribosomal RNA yet. They looked at the bee pesticide response system and the bee pathogen immune response system individually. CCD colonies did not show significantly active pesticide response genes but did show a high level of picorna-like viruses present which can attack ribosomes. Researchers said they will be monitoring hives closely in the year ahead to identify an early alert system for bees with compromised ribosomal RNA.

Scouting for Plant Disease



Scouting for plant disease on your farm is a critical process to the success of your crop. Why? In most cases plant disease must be prevented to be controlled effectively. If you wait until you see the disease spreading in your field you will often be too late to keep crop losses below your economic threshold.

Here are a few steps to take to set up a successful scouting program.

1. Plan ahead. Analyze your farm fields. Do you have certain fields that are better drained than others? Use them for crops that might have root rot problems. Match acid loving plants to low pH soils, and alkaline tolerant crops to higher pH soils.
2. Set up a crop rotation for annuals that moves between different plant families. Most plant diseases are specific to host or host family.
3. Learn to identify plant diseases on your farm (crop plants and weeds) and choose resistant varieties to grow when selecting your seed.
4. When growing perennial crops it is very important to know what diseases might be in the area, or what potential diseases might be imported into the area with plant material. You want to use a preventive program to restrict an introduction of disease.
5. Once your crop is planted you need to visit your site every few days and walk a zig-zag pattern through the field stopping to observe details. If you have a trellis system you can choose every few rows to walk.
6. Catching a disease early is critical to your success since most fungicide are preventative and not cures for fungal disease. Typically about 75% of biotic diseases diagnosed in crop fields are fungal diseases.
7. Look for patterns in fields. Know what the healthy crop looks like. Knowing the shade of green that is healthy is critical to spotting chlorotic areas in the field that may be suffering from drought, root rot, or poor fertilization.
8. Biotic plant disease is often spotty in a field, and soil borne disease is often circular or elliptical in the way it infects and moves within the field.
9. Abiotic plant disease (frost, sunscald, and drought) will often be wide spread, uniformly affecting large parts of fields, and hitting more than one species.
10. When touring fields have a clip board with paper to record details. This will allow you to compare visual records from trip to trip to know if problems are spreading.
11. Bring along bags for sampling and a lens to check details of possible infections.
12. Contact the Extension office if you have questions or would like to send a sample to the OSU plant clinic in Corvallis for verification.

Farmscaping for Enhanced Biocontrol

Farmscaping is an approach to crop production that focuses on enhancing the activity of beneficial organisms. This approach to crop production is often referred to as bio-intensive pest management. Interest in bio-intensive farming comes from research showing that it is often better to attract and maintain populations of beneficial insects than to go through cycles of high pest outbreak followed by pesticide applications that kill both the pest and the beneficial insects.

Where should a farm begin if they have an interest in attracting and conserving natural insect enemies? Number one is to determine the most important pests of your current crops. Then decide if those insect pests have any effective predators and parasites in this area. Once you have a list of potential pests and predators you will need to learn a little about their life cycle, food sources, habitat, and other ecological requirements for both. By compiling this type of informa-

tion you are better able to decide if a farmscaping approach to crop production makes sense for you.

When you start to learn more about pests and their predators you become more in tune with critical timing. When you know at what crop stage the pest arrives, you will be prepared each year to do critical scouting. When you know when predators arrive you may decide to be patient with chemical controls, or use softer pesticides. When you know what other food sources predators need to overwinter or persist in your area, you can plant them or allow more unsprayed habitat to exist in fence rows. When you understand a pest better you will be able to eliminate overwintering habitat, plant trap crops, or mow alternate rows in an orchard or vineyard to keep from pushing pests into the crop canopy. As you analyze your specific crops, potential pests, and predators and would like to find more resource material, give me a call at the Extension office. I will point you in the right direction for websites, and articles.



Recycle Agricultural Plastic

I recently attended a presentation by Allen Jongsma, vice president of Agri-Plas Inc at the Far West Show in Portland. The company recycles agricultural plastics and is located in Brooks, Oregon. Their website is www.agriplasinc.com. Allen was speaking at the Far West seminars to stimulate an interest by nurserymen to do more recycling of their plastic waste. Allen shared with us that currently Agri-Plas is recycling about 25% of all plastic pesticide containers used in Oregon. Allen shared with us that the EPA would like to make plastic pesticide container recycling mandatory but currently there isn't the infrastructure to handle all geographic areas. Allen offered the following thoughts for people not living in the North Willamette Valley. If you work with your pesticide suppliers to take back rinsed containers, Agri-Plas will send vehicles to the supplier to make pick ups

if they have full loads. Please contact your suppliers and discuss this option. Agri-Plas can be reached at 503-390-2381.

Allen Jongsma also advised growers to do a good job of rinsing containers back into sprayers. They can not recycle containers that are still contaminated. Containers that are stained but clean with no residues are fine for recycling. He also asked to have labels removed and caps off. Caps can be recycled separately. When pesticide containers are recycled at Agri-Plas they are chipped into small pieces and the chipped product is then reused for industrial plastic use, not consumer plastics. Allen also shared that Agri-Plas is receiving other types of agricultural plastic. They can take greenhouse poly, wrap plastic that holds materials on pallets, baling twine, old irrigation drip tape, pots, buckets, and strapping. He did say they do not take pvc pipe because it contains too much acid and would contaminate their other chipped products. Go on line to their site for more details.



OSU Extension Service of Douglas County

1134 SE Douglas Ave

Roseburg, Oregon 97470

Webpage: <http://extension.oregonstate.edu/douglas>

Ph: 541-672-4461

Office Hours: 8:00 am to 5:00 pm; Monday thru Friday

Horticulture Webpage: <http://extension.oregonstate.edu/douglas/horticulture>

Steve Renquist email: steve.renquist@oregonstate.edu

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Hort News

Presented by Steve Renquist, Horticultural Agent
Email: steve.renquist@oregonstate.edu

To find local Extension information & news . . . Douglas County/OSU Extension Web Site:
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Extension Service
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P. O. Box 1165
Roseburg, OR 97470
PH: 672-4461