



# UMPQUA VALLEY Hort News

Horticultural Newsletter for The Umpqua Valley

January & February 2009

**Oregon State**  
UNIVERSITY

Extension  
Service  
Douglas County

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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
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**Jan 6-Mar 17 Master Gardener Winter Training.** This is our eleven week winter training course that meets every Tuesday from 9am until 4pm. The program is currently full with 46 students enrolled. However, you may put your name on our waiting list at the Extension office. If someone drops you can be notified.

**January 14-16 Western Orchard Pest and Disease Mgt Conference.** This annual gathering of researchers and producers from the orchard industry will meet in Portland at the Downtown Hilton Hotel. This conference is an excellent place to learn the latest sustainable pest management systems being used around the PNW. For more information visit: <http://entomology.tfrec.wsu.edu/wopdmc/>

**Jan 21-Mar 11 Growing Farms—Successful Whole Farm Management.** This eight week course will be held every Wednesday from 4pm-8:30pm at the Extension office in Grants Pass. The evening includes the classes and dinner for \$175. See the article below for more details.

**January 27-29 Oregon Hort Society Annual Meeting, and the Northwest Ag Show.** The Oregon Hort Society meetings include seminars on berry crops, tree fruit, grapes, and vegetable crops. The Northwest Ag Show is the local agriculture industry farm equipment show. For more info visit: <http://www.oregonhorticulturalsociety.org/>

**February 3-4 Integrated Pest Management Short Course.** This annual IPM conference in Eugene will be held at Lane Community College Bldg 19 Center for Meeting and Learning. The two day seminar will run from 8am-5pm on Feb 3, and from 8am-noon on Feb 4. The course anticipates 12 pesticide credit hours, and will cost \$90 which includes Tuesday lunch. To register call Julie at 541-463-4615 at LCC.

**Febr 10-12 Sustainable Ag Conference.** This conference will be held at the Shilo Inn in Richland, Washington. Farmers, ranchers, businessmen from rural communities, researchers, a government workers will be attending this meeting to review, and create action plans for the future. Graduates of the WSU Kellogg Foundation Integrated Farming Systems Management Project will be leading the program. For more information call 509-525-3389

**Febr 23-24-25 Oregon Wine Industry Symposium.** The wine industries annual symposium will be held over three days at the Eugene Hilton Hotel. To register or get more information visit: <http://symposium.oregonwine.org/?gclid=CLGA7tWtJcCFQxLbQodQFxBsw>

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## OSU Small Farms Program Presents: Growing Farms: Successful Whole Farm Management

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Are you in your first to fifth year of farming? Do you need a better base in farm management? This course is for you!

OSU Small Farms Program has designed this series to provide beginning farmers with the tools and knowledge to manage both the biological and financial risks of farming. A mix of faculty, experienced farmers, and professionals will present curriculum and resources vital to a sustainable small specialty crop farm.

A resource binder will be provided and participants will walk away with a whole farm plan. In addition, participants will become acquainted with their regional farm community over dinner.

### 1. Dream It: Strategic Planning

This session will focus on participants defining their values and assets so that they can build a strong farm plan. Information on grants, financing, and business structure will be provided.

### 2. & 3. Do It: Farm Operations

A successful production system is essential for a sustainable farm business. These sessions will think through production options, creating efficiency, labor, equipment, and the importance of renewable energy.

### 4. Manage It: Farm Finances

Financial planning is essential to a successful small farm business. Cash flow, gaining credit, and tax liability will be covered.

### 5. Sell It: Marketing Strategies

This session will integrate marketing into participant's whole farm plan. Participants will come away with an understanding of wholesale and direct marketing channels, as well as the connection between crop production decisions and marketing channel decisions.

### 6. & 7. Grow It: Production

Participants will learn the strategies to prevent biological problems on their farm. Even with these measures in place diseases and pests are inevitable. Participants will learn how to recognize at what point action needs to be taken and what resources provide solutions.

### 8. Keeping It: Managing Liability

Now that you have a small farm plan— how do you sustain it? This session will integrate various risk management tools. We will discuss insurance options, decision making, and agricultural entrepreneurship.

### **Join us in Southern Oregon**

January 21st to March 11th  
Wednesdays 4 to 8:30 pm, including dinner  
Josephine County OSU Extension Office  
215 Ringuette Street  
Grants Pass, OR 97527  
contact: Tracy Harding  
541-776-7371 ext. 208  
[tracy.harding@oregonstate.edu](mailto:tracy.harding@oregonstate.edu)

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## Cold Injury to Grapevines and Pruning

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With the current cold snap moving into Oregon, I thought WSU professor Dr. Markus Keller's work on pruning cold damaged grapevines would be timely to review.

Dr. Keller set up a series of pruning experiments in a freeze damaged vineyard following the Halloween freezes of 2002 and 2003. The vineyard experienced lows of 11 degrees in 2002 and 16 degrees in 2003. The vineyard had extensive trunk damage and frozen canes. The plots were set up to see what level of pruning would elicit the best response from the vines. The vines were spur-pruned in the spring of 2003 and 2004 following the fall freezes. Vines were pruned leaving from 0 to 200 buds. Some plots were spur-pruned before bud break in March, and some were spur-pruned after bud break in mid-May. Other plots were pruned in March and touched up again in May. Some plots were not pruned at all, and some plots were disbudded but not pruned.

Dr. Keller expected to see a whole variety of recovery levels and rates of recovery. However, all the vines recovered, and there appeared to be only small differences in growth between the vines. The vines that were pruned latest did have the lowest yields.

Most people in the past have encouraged growers to prune back freeze damaged vines to encourage healthy new growth. Dr Keller found that the unpruned vines yielded the most fruit and were able to be spur-pruned in the second winter following the serious freeze. His study suggests that pruning time and bud numbers may not influence vine survival and recovery following cold injury to the phloem, at least as long as there are some latent buds surviving. The factor that Dr. Keller did find very important to the recovery of the damaged vines was the soil moisture level in the spring following the freeze. If the vines were drought stressed in the spring following a freeze the vines did not recover well. If moisture was provided to the vines in spring, vine recovery was rapid with repair to the phloem occurring in most cases.

Dr. Keller now recommends that growers avoid pruning or do minimal pruning after cold injury. He also points out that growers will save money on labor costs by not pruning and still have more crop than if they pruned more heavily, if the vines have plenty of moisture come spring time.

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## Subsurface Drip Irrigation Injecting Air to Increase Yields

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Vegetable growers in California have been working with researchers at Fresno State to develop air injectors that work with subsurface irrigation systems. The air injectors are a venturi type that bubbles air into the water from the head of the irrigation line. The system being developed by Mazzei AirJection has proven to be relatively inexpensive and can provide users a positive return in the first year.

Commercial plots grown with the air injector system were set up side by side with plots not having the air injection system. The yields on the air injector system plots ranged from 10% to 20% higher depending on the crop. Crops increasing their yields have been sweet corn, broccoli, peppers, tomatoes, strawberries, and melons. The air injectors add a cost of about \$100-\$150 per acre if you put your subsurface drip system in together. Adding the air injectors to an existing system is considered to be impractical. Yields on test plots in commercial fields led to revenue increases from \$260-\$350 per acre using prices at the time of the research.

Why does the system work to increase yields? Farmers and researchers have known for many decades that increasing the oxygen content of the root zone not only reduces plant stress, but it also provides a better environment for root respiration, microbial activity, improved nitrogen use efficiency in the soil, and a better place for earthworms and other soil life. This air injector system working with the subsurface drip irrigation line is the best way yet to get more oxygen into the root zone of vegetable plants.

Tests were also conducted using this system for growing grapevines. The system worked well for table grape production when water was not withheld during the summer. However, the subsurface irrigation lines were invaded by roots when used for wine grape production needing deficit irrigation regimes that turned water off for weeks at a time.

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*UMPQUA VALLEY*  
**Hort News**

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To find local Extension information & news . . . Douglas County/OSU Extension Web Site:  
<http://extension.oregonstate.edu/douglas/>

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