O S U Extension Service of Douglas County

UMPQUA VALLEY

Hort News

Horticultural Newsletter for The Umpqua Valley October/November 2018

Oregon State University Extension Service Douglas County

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

Steve Renquist
Horticultural
Extension Agent

Inside This Issue

Layout, Design, & Distribution
Mary Hoffmann

2018 Calendar of Coming Events

Oct 1-30 **Master Gardener Program Interviews for the 2019 Class.** This class filled to capacity on September 7 and interviews for all new applicants to the Master Gardener program are being held this month. After the interview and payment of class fee, applicants will receive their class textbook and information for first day of class.

Oct 31 **Advanced Diagnostics Class for Master Gardeners.** This is the final outdoor diagnostics class for 2018. These classes are for MG's who volunteer in the plant clinic doing diagnostics for the public to help resolves their gardening issues. The class will be held at the Diane Smith residence 10am-noon. Directions to the class site will be sent to our class the week before by email.

Nov 1 **Orchard Integrated Pest Management Seminar**. This is our annual IPM seminar for anyone seeking ODA Pesticide Recertification credits. The class has five OSU faculty presenters coming from Corvallis and Medford to discuss issues with Eastern Filbert Blight resistant varieties, Intelligent Spray Systems, Flathead borer control for young filbert trees, new understandings with Spotted Wing Drosophila, bio-controls for Brown Marmorated Stink Bugs and the use of predator insects, details about the Pesticide Stewardship Partnership with growers. (See page 4 for more information.)

Nov 3 **Winter Dreams Summer Gardens Seminar in Medford.** This annual gardening seminar for the public held in downtown Medford from 9am-4:30pm at the Higher Education Center SOU/RCC. Dozens of great gardening classes are offered. The seminar costs $45 and that includes a lunch. I will be discussing Managing Diseases and Pests in the Home Orchard. (https://jacksoncountymga.org/winter-dreams-summer-gardens-symposium/)

Dec 12 **Statewide Pesticide Safety Education Program: Oregon Statewide CORE Video-Conference Course (Anticipating 4 CORE ODA credits total).** Register online to participate in a Statewide CORE Video-Conference that you can conveniently view in your local Extension Service office. Cost: $15.00 (Check or Credit Card only. No cash accepted.) Pre-registration with payment required. Deadline: December 7, 2018, Friday. Information and online registration available on Douglas County OSU Extension web site at https://extension.oregonstate.edu/douglas. Then scroll down to News & Announcements; find this date. Registration forms also available on event's web site.

This publication will be made available in accessible formats upon request. Please call 541-672-4461 for information. If you have a physical disability that requires special considerations in order for you to attend an event, please notify the office at 541-672-4461 no later than 2 weeks prior to event date.

Reusable Black Tarps Suppress Weeds and Make Organic Reduced Tillage More Viable

Recent research from Cornell University looking at ways to help organic vegetable growers reduce weed competition evaluated the use of black plastic tarps placed on the soil surface prior to planting. The team evaluated whether the tarps could reduce weed pressure, aid crop residue decomposition, and keep soil ready to plant in good condition.

The black tarps being used in the research were 100 feet long by 24 feet wide. The thickness of the tarps was not mention but comments were made that the thinner plastic tarps were easier to move and still effective. The tarps were secured in the field with sandbags or stones and it was not necessary to seal the edges with soil. Tarps were applied at various times leading up to planting so fields would be ready to plant when the tarps came off. Tarps were spread over field plots that were tilled in the fall with residues incorporated, lightly tilled, not tilled with crop residues, and over mowed cover crops or weeds. The minimum length of time the tarps remained on a field plot before planting was three weeks, while other plots had 6 weeks, and 24 weeks in the field.

Tarp application was not a problem no matter the weather since they did not require tractors to apply. Tarps used in this manner conserved fuel, labor, and soil compaction from machinery. Soil that was covered with plastic conserved moisture, organic matter was also retained, and compaction was lessened. Water logging and leaching from winter rains was also reduced.

The no till or no mow cover crops under black plastic during the longest intervals through winter did not decompose but looked mostly unchanged. Plots that were finely chopped did show signs of decomposition. It was speculated that the finely chopped residue broke down more significantly due to greater microbial activity.

The greatest impact of the tarp trials was the ability of the black tarp to suppress weeds prior to planting without tillage. No weeds were present in any plot when the black plastic was removed. Ten days after the tarp removal there was still 96% less weed growth in tarped plots than the untarped plots. By the end of the growing season there was about the same amount of weed growth in the tarped plots versus the untarped plots. However, since the tarped plots allowed better early season growth of crops, yields of the test beet crop were 43-82% higher with the shallow till plots, and 7-26% higher in the rototilled plots. The yield advantage was either from the early season head start on the weeds or from increased nitrogen availability in the tarped soil plots that had less leaching. At the completion of the study the authors suggested that the short 3 week interval for tarping plots would make the most sense for producers interested in using plastic for weed suppression. During winter under the black plastic the soil temperature will rise a few degrees allowing an increase in weed seed germination and degradation and increased microbial activity.

Another interesting side effect of tarping is the increase of soil nitrates. The three week interval plots under the plastic had four times more nitrate than the plots that were untarped, and the six week interval plots under plastic had five times more nitrate than the untarped plots. Interestingly the amount of ammonium in the soil did not increase under the tarps. The probable reason from the increase in nitrate is the lack of leaching under the tarps and the fact that dry soils are not subject to water logging which can lead to denitrification in anaerobic environments.

The Impact on your Landscape after Five Months of Drought

If you have stopped watering areas of your landscape or have gone to just an occasional watering, here are a few possible short term and long term impacts. Areas of your lawn that were pretty healthy and deep rooted should comeback after the first few rains once the daytime high temperatures get back into the 60's and 70's. If your lawn was not deep rooted you will have some patchy dieback and the dead areas will be invaded by weeds. Early October is still a great times to reseed a lawn so loosen the soil and spread some seed over those dieback spots. Frequent light watering is best to help germinate grass seed. It usually takes 7-10 days in fall for seed to germinate. Fertilize your lawn once the rains return to encourage strong growth to crowd out the weeds. Most turf grass will do well with a lawn fertilizer containing just nitrogen and potassium. Look for a product that contains 25-32% nitrogen and less than 7% potassium. In the fall turf grass that is mowed tends to grow more horizontally helping to fill in dieback areas. This is somewhat dependent on the species of grass. Bentgrass and fescues tend to tiller more and have more rhizome like growth patterns. Perennial ryegrass does not

tend to travel as much. Add lime to your lawn now too depending on the pH of your soil. Most native soils in Douglas County will have a pH below 6, which means lime will help get the soil pH back closer to the desired 6.5 for turf.

If you reduced the frequency of watering to your shrubs this summer and you saw leaf scorching or needle browning, your plants suffered a little. Look a little closer at the branches and stems. Check how well new buds were made. Scratch the new wood to see if it has a nice green color under the bark. If branches and twigs had dieback, you may need to do some corrective pruning in the dormant season. Well mulched shrubs can have dieback in the upper plant and still recover nicely. If conifer shrubs are losing some needles in the inside of the plant but the branch tips are ok, the shrub will recover and continue to grow fine.

Native trees like white oak, incense cedar and Madrone are used to going all summer without water, but even these hardy plants are probably dropping leaves or needles and looking pretty stressed by now. Don't be too concerned about the native trees unless you see limb dieback. Introduced species like red oak, red maple, and Norway maple are not as hardy and will often have significant limb loss if left dry. It is important for these trees to get a good soak before they go dormant to help store carbohydrates in the roots for winter. If the weather stays dry into October, I would suggest giving your trees a good soak now.

Tree Fruit Spray Programs for the Fall Season

Fall applied dormant sprays are extremely helpful to control overwintering insect pests, and tree fruit diseases. What they may not realize is that if you have a dormant spray program you make your summer pest control job about 80% easier. Reducing the amount of overwintering disease inoculum, or insect eggs and pupae heading into spring truly makes a sustainable low input summer pest control program possible.

Dormant sprays with orchard crops are generally applied from about 50% leaf fall in November to bud break in late February depending on the type of fruit trees you are raising. In the dormant season when plants have lost many or all of their leaves, protective sprays can do a much better job of hitting and covering all of the tree surfaces where pests are overwintering. It is also very important to use horticultural oil or spreader stickers with all tank mixes when making dormant sprays to help products stay on the target areas during our wet winter. To minimize spray runoff or wash off, make sure to check the weather forecast before you spray. Don't spray anything if the tree surface is wet or if rain is forecast to fall before the products have a chance to dry on the tree surface. The efficacy of dormant sprays depends on having time to work which is usually a day or two. Research has shown that just one rain event with a half inch or more rain, a day after making the spray, can reduce the effectiveness of the spray material by as much as 40 percent, even when a spray sticker is used. So look for at least 2-3 days when the trees are dry and no precipitation is forecast to make your sprays.

If you are raising stone fruit crops (apricot, peach, plum, prune, nectarine, cherry) you will want to start your dormant spray schedule with an application of fixed copper in fall when trees have dropped about half of their leaves. Fixed copper materials have many different brand names so just read the label closely on the product to make sure it is registered for fruit or ornamental trees. Fixed copper is used to control diseases like shot hole fungus, peach leaf curl or Anthracnose cankers. Bravo and Captan also work well for shot hole fungus. The stone fruit trees will also require a dormant oil spray in January or February before bud break to help control overwintering insects and insect eggs, and the final dormant spray for stone fruit trees can be sulfur or Ziram at delayed dormant when the buds of the trees are still closed. Don't wait until the buds have swelled or are open since many fungi can enter the buds in late winter and infect the tiny new leaves. This late spray timing is critical to control peach leaf curl.

If you are raising pome fruit (apple, pear), or nut crops (hazelnut, walnut) you should inspect your trees for Anthracnose and other cankers in late fall and prune out any infected wood. After pruning out cankers, start your dormant spray schedule with an application of fixed copper to control Anthracnose canker spore release. In January or February apply a dormant oil spray to control pear psylla, scale, mite eggs, and aphids. Pear, apple, and nut trees will benefit from a delayed dormant,

late winter lime sulfur spray to control fungal disease, moss, and lichen for commercial growers and plain sulfur if you are a homeowner. Remember to always follow the labels of all your spray products closely.

During the late fall and winter it is very helpful to your overall pest control program to encourage the decomposition of old fruit and leaves still in the orchard by destructive mowing of debris. A light nitrogen fertilizer application before mowing is also good to accelerate microbial breakdown of leaves. This will limit disease spore dispersal in the coming season.

OSU Extension has a helpful publication called, "Managing Disease and Insects in Home Orchards" (EC 631). Access the publication online at http://extension.oregonstate.edu/catalog/. Click on Gardening, then Tree Fruit and Nuts. Then enter EC 631 in the search box. The publication has spray schedules for apple, pear, stone fruit, hazelnut and walnut trees.

Oregon State University

November 1, 2018 Orchard IPM Seminar

The seminar that is scheduled for Thursday, November 1 from 9am-1pm is going to be a very timely program with several new speakers who will be providing great insights into important pest management topics that will impact our area for many years ahead. The program is packing a lot into the four hour training. I have five presenters scheduled so each speaker will have about 45 minutes along with a couple breaks. The program is expected to give 4 ODA pesticide recertification credits. The program will be held in the auditorium of the OSU Extension office in Roseburg.

The program will include Dr. Jay Pscheidt from OSU talking about Eastern Filbert Blight resistance with new cultivars. He will also discuss the Intelligent Spray System (ISS) and how effective it is for powdery mildew control in wine grapes. Dr. Nik Wiman tree fruit specialist from OSU will discuss flathead borer control with Hazelnut trees during the first few years in the orchard. Dr. Vaughn Walton from OSU will be discussing new information on the Spotted Wing Drosophila about population dynamics and how to use this information to make controls more effective. Dr. David Lowenstein a Post Doctorate at OSU located at the North Willamette Experiment Station will discuss Brown Marmorated Stink Bug management using bio-controls including predators like the Samurai wasp and how these methods complement a pesticide program. Gordon Jones an OSU Extension agent from SOREC in Medford will discuss a program he implemented in Jackson County called the Pesticide Stewardship Partnership, and how the program strengthened IPM application on local farms.

Pre-registration with payment required. Online registration and additional information available on Douglas County OSU Extension web site at: https://extension.oregonstate.edu/douglas. Then scroll down to Upcoming Events; then Nov 1.

Registration deadline
Tuesday, October 30, 2018.

Horticulture:

- **Steve Renquist**
  Horticulture Agent
  541-236-3047
  steve.renquist@oregonstate.edu