Upcoming Classes

December 12  CORE Pesticide Training. 10am – 3pm. Lunch on your own. Register online at Beav.es/Zmg or call us at OSU Extension (541-572-5263). 4 CORE pesticide recertification credits available. $20.

December 18  Fire Awareness Night with Gorse Action Group. 7pm at Bandon Library. More info on pg 4.

2020  Citizen Science Workshops to help prevent the spread of Sudden Oak Death. Various locations in Curry County. Contact Norma Kline at norma.kline@oregonstate.edu for more information.

Spring 2020  Master Woodland Manager Program. Learn more on page 5. Contact Norma Kline at norma.kline@oregonstate.edu for more information.

Help us improve our programming!
Oregon State University is committed to diversity and to ensuring equal opportunity for those wishing to benefit from our programs and services. We invite you to voluntarily disclose your ethnicity, race, and gender to help us monitor the effectiveness of our civil rights and affirmative action efforts. Neither the information provided, nor the decision not to provide it, will be used to determine eligibility for Extension programs and services or the benefits available through participation. Please consider answering the three quick questions attached to this survey: http://bit.ly/scffdemo
If you’d like to participate via phone or paper copy, call Shawna at 541-572-5263 and she’ll help you out. Thanks!

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Many forest insects are mistaken for tree killers
By Amy Grotta, OSU Forestry & Natural Resources Extension – Columbia, Washington and Yamhill Counties

Insects – they can get a bad rap. Many of our humankind categorically view them as pests – agents of uncleanliness, nuisance, or destruction. Sure, it’s hard to appreciate houseflies, ticks, mosquitos and yellow jackets, but the vast majority of them – nearly 100,000 known insect species in the U.S. alone – are simply going about their business and doing no harm to us. Many are even providing services that we take for granted such as disposing of detritus and cycling nutrients.

The same goes for insects in the forest. We in Extension receive many photos and samples brought to us from people who suspect that insects are killing their trees. However, I’m here to tell you that if you have a dead or dying tree, then chances are that even though it is full of insects and their tunnels, it’s usually a case of correlation, not causation.

Insects feed on all parts of trees – there are foliar feeders, cone and seed bugs, root weevils, and more – but bark beetles are what seem to strike fear in the hearts of tree owners. Bark beetles are problematic because their larvae feed on the cambium, or inner bark, of the tree, creating channels or galleries as they go and eventually girdling the tree. There are only a few species of bark beetles of concern in western Oregon, and they each are associated with a particular host tree. For example, there’s the Douglas-fir beetle for Douglas-fir (obviously), the California five-spined Ips for ponderosa pine, and the fir engraver for true firs. However, bark beetles are attracted to trees that are already under some other stress – whether from water stress, root disease, or mechanical injury. So, aside from the rare local outbreak, accusing a bark beetle of tree murder is like condemning an accessory to the crime while ignoring the ringleader.

Bark beetles are usually quite small and inconspicuous. On the other hand, the samples and photos that come into the Extension office are usually large and/or colorful insects – something more likely to catch the eye. Below is a sampling of what has come my way recently. Some of these I could identify on my own, but for others I needed to turn to an expert entomologist for help.

Note the commonality among these insects – they all inhabit dead or dying trees, meaning that they are secondary pests. They find trees that are already dead or dying and then begin the decomposition process, recycling nutrients, and perhaps becoming a woodpecker’s lunch. Landowners need not worry about these insects “spreading” or “wiping out” a stand of timber. They are the turkey vultures of the insect world, coming in after the kill. Oregon Department of Forestry has a nice fact sheet on some of our more common woodboring beetles.
Clockwise from top left:
1. Cedar tree borer (Semanotus ligneus), feeds on dying and dead cedar and juniper and often found in firewood;
2. Larva of a horntail wood-wasp, which lives on dying or dead conifers;
3. Green bark-gnawing beetle (Temnoscheila chlorodia), found on dead or dying pines where it is a predator of other wood-boring beetles;
4. Golden buprestid (Buprestis aurulenta), inhabits recently dead or dying trees and logs, sometimes emerging much later out of structural timbers;
5. California prionus (Prionus californicus), larvae feed on dead and dying conifers. Photos are not all at the same scale.

There are some important exceptions: invasive, non-native bark beetles and wood borers. Some of these are tree killers because our native trees did not evolve with natural defense mechanisms against them and there are fewer natural enemies in their introduced environment. We worry about potentially major impacts of the emerald ash borer, the Asian longhorned beetle, and the gold-spotted oak borer, among others. Because none of these insects is known to be in Oregon, you’re unlikely to find one; but if you think you might have, you should send in a report to the Oregon Invasive Species Hotline.

To sum it up: more often than not, abiotic (non-living) stress factors such as drought or injury typically play a leading role in triggering tree decline. Bark beetles may or may not show up to finish the job. Then, wood boring insects – the ones that we usually observe – come in to be the tree recyclers. They are important components of the forest ecosystem, and often beautiful to look at.

Now that you know about these non-tree killers, I still welcome your forest insect photos (high-resolution please!) and specimens for identification, as I often learn new insects myself this way. Another useful tool for crowdsourcing insect identification is iNaturalist. And, don’t forget, if you’re concerned about something being invasive, use the Oregon Invasive Species Hotline.
Forestry & Natural Resource Publications

2019 PNW Plant Disease Management Handbook
Jay W. Pscheidt, Cynthia M. Ocamb
Revised September 2019  998 pages

A comprehensive guide to plant disease management in the Pacific Northwest.

Includes materials and tactics suitable for organic production and homeowner use as well as for commercial production. Covers testing services, common pathogens (e.g., nematodes, viruses, fungi, and bacteria, as well as Phytophthora diseases), nonpathogenic phenomena (e.g., thatch, algae, and lichens), and pesticides for disease control. Contains an alphabetical listing, by host plant, of diseases, including their causes, symptoms, and recommended cultural and chemical controls. Available free in searchable online format or hardcopy for purchase. https://catalog.extension.oregonstate.edu/plant

Forestry Workshops

Early Detection of Sudden Oak Death Citizen Science. Do you live near areas impacted by Sudden Oak Death? If you are interested in participating in a citizen science project for the early detection of Sudden Oak Death please contact Norma Kline at norma.kline@oregonstate.edu or 541-572-5263 ext. 25294

Please join the Gorse Action Group for a FIRE AWARENESS night. December 18th, 2019. Bandon Public Library, 1204 11th St SW, 7pm. Come learn about the science behind catastrophic fires and what we can do as a community to prevent fire and be better prepared should a quick moving fire knock at our doors. The event is free. For more information, contact Carri Pirosko at 541-292-2680. This event is sponsored by the Gorse Action Group. gorseactiongroup.org
SPRING 2020 MASTER WOODLAND MANAGER TRAINING

The Master Woodland Manager (MWM) program will help you gain in-depth skills for tending your forest, provide you with opportunities to share your passion for stewardship with others, while learning from topic experts from across the state. As this is an advanced program, prior woodland management experience and/or education (e.g. participation at an Introductory Forest Management course or Tree School) is recommended.

After taking this series you practice what you've learned by volunteering in the community to join an amazing team of Master Woodland Managers. Master Woodland Managers have been providing excellence in stewardship for over 25 years. What is Master Woodland Manager? Learn more: http://extensionweb.forestry.oregonstate.edu/mwm

What counts as volunteering? Its up to you and the forestry topics you're passionate about. Other Master Woodland Managers have hosted property tours, completed group or one-on-one site visits, written newsletter articles, provided leadership in a local stewardship group such as Oregon small woodlands association, worked with youth, staffed an extension fair booth, participated in a citizen science program, and more!

ABOUT THIS TRAINING

- Classes held from 9am – 4pm (may be adjusted for some classes)
- Cost: $75 per person or $100 for two people sharing materials
- Visit a variety of forest properties & see diverse management strategies in Coos & Curry Counties
- Meet & learn from experts in forestry, river, fire, wildlife and more
- MWM is offered every 5 - 8 years & seats are limited

2020 SCHEDULE [SUBJECT TO CHANGE]

<table>
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<th>Date</th>
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<tr>
<td>Feb 7</td>
<td>Introduction to Master Woodland Manager &amp; Local Forests</td>
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<tr>
<td>Feb 21</td>
<td>Watershed Ecology &amp; Management</td>
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<td>Mar 6</td>
<td>Upland Forest Ecology</td>
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<td>Mar 13</td>
<td>Logging, Marketing, Harvest Systems and Roads</td>
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<td>Apr 17</td>
<td>Forest Health, Insects and Diseases</td>
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<td>Apr 24</td>
<td>Reforestation, Vegetation Management and Invasive Species Management</td>
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<tr>
<td>May 8</td>
<td>Forest Business Planning &amp; Taxes, Graduation</td>
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Applications are available at Coos County Extension Office or by calling Shawna at 541-572-5263 or email Shawna.horner@oregonstate.edu

Register by December 20th!

More details regarding logistics, reference materials, and more will be sent to you upon registration.

Accommodation requests related to a disability should be made by December 20, to (541) 572-5263 or Shawna.Horner@oregonstate.edu

Scholarships may be available upon request.

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Cattle Vaccination Programs

From the Cattle Producer’s Library, Cow-Calf section, CL605, Cooperative Extension System

Most successful vaccination programs are those designed and implemented as preventative programs. They are designed after a thorough and advanced assessment of the livestock operation. Vaccination programs are based on all aspects of the production management program for each livestock producer and take into consideration the diseases considered a problem within the geographic area represented. Vaccination programs are implemented before a disease outbreak and not after a serious problem.

With consideration of the risks of diseases in a geographic location, a vaccination schedule for beef cattle to prevent infectious disease losses may be planned, in consultation with a veterinarian, from the following list.

**Calves (1 to 4 months old)** -
- Costridium Sudden Death Group (Blackleg, Malignant edema, Black disease, Black neck disease, Enterotoxemia); Lepto (Pomona, Grippo, Hardjo, Ictero, Canicola, Hardjo-bovis);
- Respiratory complex (Rednose, PI3 Bovine respiratory syncial virus, Pasteurella, and Haemophilus).

**Calves (3 weeks before or after weaning)** -- Sudden Death Group, Lepto, Respiratory Complex, Redwater, and Bang’s

*Note on Bang’s: only for heifers 4-12 months of age. Must be administered by a veterinarian*

**Breeding Heifers, Cows, and Bulls (30 to 60 days before calving)** -- Sudden Death Group, Lepto, Respiratory Complex, Redwater, Vibrio, Trichomoniasis, Calf Scours, Pinkeye

Considering the basic principles of immunology and disease resistance, cattle producers should keep in mind eight important factors in developing and implementing a successful program of preventing disease by using vaccines and vaccinating livestock:

- Immunization is practiced for the purpose of preventing disease. It must, therefore, be accomplished in advance of imminent risk of infection. Several days (up to 14) must elapse after vaccination before the animal’s resistance is increased significantly.
- Vaccine directions often call for repeated administration of the vaccine at appropriate time intervals. The booster injections must be given if maximum protection is to be achieved.
- Vaccines induce resistance against specific infectious agents and/or their products. Thus, they provide protection against only those agents and/or products for which they have specific antigenic components.
- Resistance is a relative matter. If a vaccinated animal is exposed to overwhelming numbers of disease organisms, the animal’s resistance may be inadequate. Thus, vaccination is an adjunct to, and not a substitute for, other preventative measures.
- Each vaccine is different with different types of antigens and different adjuvants. Because there is a difference in each disease process and each vaccine produces a different type of immunity, vaccines and vaccination will not produce the same degree or duration of protection.
- Animals whose immune response capability is impaired as the result of age, disease, poor nutrition, parasitism, stress, or immune tolerance from BVD infection cannot be expected to receive the full benefit of vaccination. In addition, a small percentage of animals are not capable of responding to certain vaccines and will not be protected after vaccination. This lack of response is inherent in the animal and is not the fault of the vaccine. Vaccination cannot be expected to protect every animal.

**All vaccines contain biologic ingredients that can be rendered nonimmunogenic by careless and/or improper storage, handling, mixing, or administration.**

Despite these limitations listed vaccines and vaccinations pay a vital role in a production management, preventative medicine program.
Sheep: Foot Rot Management
By J.M. Thompson, OSU Sheep Extension Specialist (retired)

Foot rot is a highly contagious disease that can force you out of the sheep business if you don't control it. It is caused by a bacterial organism that invades the horny hoof and spreads throughout the horny tissue, resulting in lameness. The disease is characterized by a foul-smelling discharge from the infected hoof.

The organism causing foot rot requires an oxygen-deficient place for growth. Overgrown hooves in wet, muddy areas are an excellent environment. Here are a few tips to help in managing and preventing foot rot in sheep:

- Keeping hooves trimmed is 90 percent of treatment and control. Trim the feet of all sheep and run them through a footbath. An effective footbath solution includes zinc sulfate, 10 percent solution (8 lbs zinc sulfate to 10 gal of water). Research indicates that zinc sulfate is more effective than formalin or copper sulfate.
- Isolate affected animals to a hospital group.
- Inspect affected sheep every 2 weeks.
- Place recovered sheep in a convalescent group.
- Return convalescent sheep to the clean group only after they pass two clean inspections 30 days apart and are treated at the time of each inspection. Treat sheep by running them through a footbath solution or applying a topical solution of 10-percent zinc sulfate to each foot. Use a hand aerosol sprayer.
- Continue treating the infected group every 2 weeks. Cull sheep that do not respond to treatment after 6 weeks.

For more information on sheep production, see the Sheep Production Guide, EM 8916-E.

New Publication from OSU

Basics of Fall Cover Cropping for Hemp in Oregon
Gordon Jones, Valtcho D. Jeliazkov, Richard J. Roseberg, Sam D. Angima

Hemp may only be grown in compliance with applicable state and federal law, including the 2014 and 2018 farm bills and anticipated U.S. Department of Agriculture regulations. The following information is for educational purposes only to inform licensed growers operating in compliance with applicable state and federal laws. Consult your local authorities, Department of Agriculture representatives, or personal attorney for questions regarding the legality of growing hemp in your jurisdiction.

Available online at https://catalog.extension.oregonstate.edu/em9255/html