

WHAT'S IN THIS ISSUE

Start Here: OSU—Garden Tasks for April

- Problems to manage in April
 - Insects
 - Slugs
 - Shrubs not blooming?
 - Azalea Lace Bug
 - Roses—black spot and powdery mildew
 - New: Crown Gall
 - Pear Leaf Blister Mite
 - Grape Erineum Mite

- Apple and Pear Scab
- Apple Anthracnose
- Peach Leaf Curl
- Good to Know
 - Weeds—ID and Manage
 - Horsetail
 - Poison Hemlock and Giant Hogweed
 - Spring Houseplant Care
 - Lawn Care
 - Getting Your Garden Ready
 - Resources
 - Diagnostic Resources

LANDSCAPE PESTS

These guys are still around--see February and March Looking Ahead issues for images and more information

- Western Boxelder Bugs!
 http://ipm.ucanr.edu/PMG/PESTNOTES/pn74114.html
- Carpet Beetles and Drugstore Beetles
- Cutworms and other lawn pests

LANDSCAPE PESTS

ANTS on Parade! Featuring the Odorous House Ant (AKA sugar ant)

- Live outside in temporary shallow nests, but can find their way inside
- Found marching in lines across your kitchen counter or window sill
- Attracted to sweets or any food
- The lines of ants leave "butt trails" so that other ants can find the source of food.
- Wipe all counters clean with soapy sponge to remove scent and food debris
- If problem persists, an organic chemical ant baits are is available—in gel form-E.g. Terro Ant Killer
- Important: Read and follow all directions on the product—keep away from pets and children

Odorous House Ant



FACTS: • Black or Brown Bodies • 1/16" to 1/8" • Feed on dead insects and sugary things • Commonly nest in and/or around houses • Known for strong rotten coconut smell when squished • Live in colonies of up to 100,000 members.• No stinger •



https://yourlocalpestcontrolexpert.c

SLUGS—THINGS YOU CAN DO...

- Water EARLY in the morning so surface will dry out by evening when they feed
- Reduce hiding places- Large bark mulch is a great slug hiding place, as are wood piles.
- Clean up- Remove weeds, and dead plant debris, and rocks; keep shrubs pruned off the ground
- **Plant slug resistant plants:** Aquilegias, Astilbes, Astrantias, Begonias, Crocosmias, Euphorbias, Ferns, Fuchsias, Grasses, Hardy geraniums, Hellebores, Hydrangeas, Japanese anemones, Lady's mantle, Lavenders, Lilium henryi, Pelargoniums, Penstemons, Roses, Sedums
- Traps & Bait: Try a pie plate with beer (or yeast and water) with lip of pan ½ inch above the soil level.
- **Barriers-** Desiccating, caustic, & rough surface barriers: Egg shells, wood ash wood chips, lava rock, cinders, sand, sawdust, ashes, gravel, and natural diatomaceous earth (not the variety used in swimming pools).
- Caffeine—Researchers at Agricultural Research Service in Hawaii say that it's a natural slug killer. Spray leftover coffee around (but not on) plants in garden.
- Hand-picking-Examining plants and hand-pick slugs when found. The best results are at night, two hours after sunset. Flashlight and bucket of soapy water
- Animals-DUCKS!

SLUGS—THINGS YOU CAN DO...

- Chemical Controls-- Cereal-based mini-pellets and very small pellets, much smaller than the pencil-eraser shaped pellets we are used to-- (e.g., Metarex) have the best performance record in our rainy climate and can last 2 to 3 weeks on wet soil. They also are very palatable to slugs. ALWAYS READ AND FOLLOW LABEL DIRECTIONS!
 - **Metaldehyde** (e.g., Durham, Deadline, Metarex) does not affect beneficial organisms such as earthworms, predatory insects, and bees. However, it is toxic to dogs, cats, and other mammals.
 - Iron phosphate-based products -based products (Sluggo and Bayer's Natria are approved for organic production). May be toxic to earth worms and dogs if the formulation also contains SODIUM FERRIC EDTA.
 - Salt--use with caution--can burn plants and leach into soil.

WHY AREN'T MY SHRUBS BLOOMING?

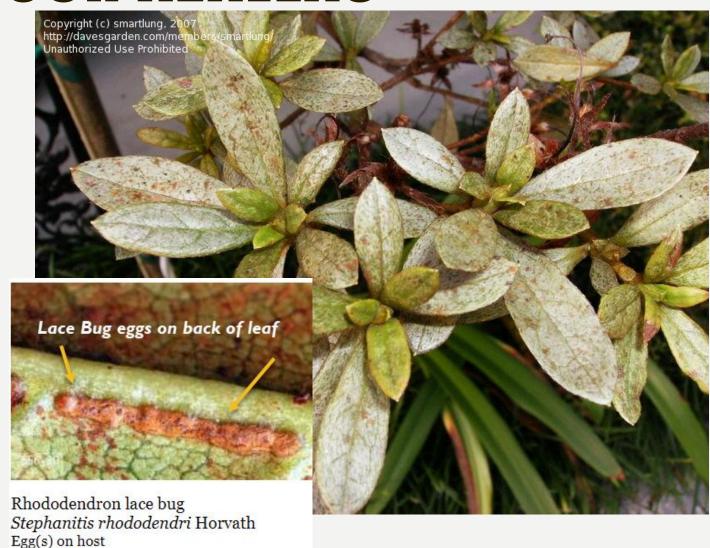
- Age of the shrub-it may take a few years before a young shrub will be mature enough to bloom
- Environmental stress—too much or not enough water, not enough light, winter kill of flower buds, and late frost damage to young blossoms.
- Too much nitrogen fertilizer—this results in lush, green growth but no flowers
- Pruning—spring flowering shrubs should be pruned by the end of June at the latest. If you prune them later, you will be cutting off next year's flower buds. Removing more than 1/3 of the bush when pruning is excessive and may cause no flower buds to be formed because it stimulates leaf growth
- Improper pesticide (Insecticide, herbicide, or fungicide) can damage or kill flower buds. READ THE LABELS!!
- The number one reason why plants of all kinds fail, including trees and shrubs, is not planting the right plant in the right place. Research your plant before you buy it. Look at its growing requirements—sunlight, soil, watering, drought resistance, hardiness zone.



CHECK OUT YOUR AZALEAS

- Do your azalea or Rhododendron leaves look like this? If so, it's from damage caused by the Azalea Lace Bug last year.
- You will have a problem this year—the eggs overwinter along the mid-rib on the underside of the leaf—go out and look for the now.
- They hatch mid-April to mid-May—This is the time to attach them in their immature stage
- First step is to wash them off with a very strong spray of water.
- For complete information on how to manage Azalea Lace Bugs, see WSU Hortsense:

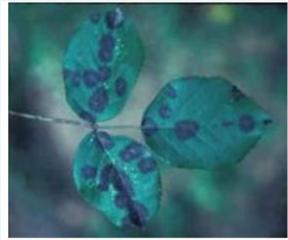
http://hortsense.cahnrs.wsu.edu/Search/MainMenuWithFactSheet.aspx?CategoryId=I &SubCatId=4&PlantDefId=3&ProblemId=782



© Ken Gray Insect Image Collection

COMMON ROSE PROBLEMS--

- Black Spot and Powdery Mildew
 See article for recommendations
- Prune to improve airflow
- Destroy diseased canes and leaves
- Rake up and destroy fallen leaves
- Plant disease resistant cultivars
- If you had black spot and powdery mildew last year, begin spraying with a fungicide frequently during wet weather



Caption: Rose black spot on leaves Photo by: R.S. Byther



Caption: Powdery mildew on rose Photo by: R.S. Byther



Caption: Rose black spot stem infection Photo by: R.S. Byther

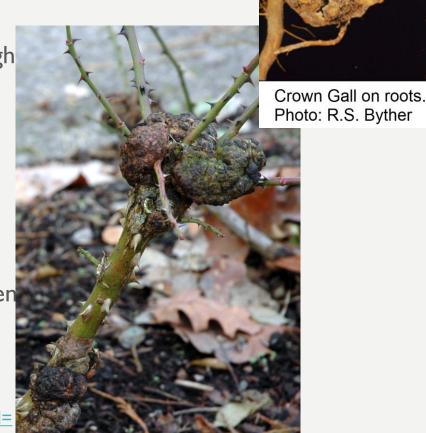
Images: WSU Hortsense

WSU: Rose problem guide from WSU: this covers all the problems and what to do about it!

http://pubs.cahnrs.wsu.edu/publications/pubs/fs246e/

CROWN GALL

- Can affect fruit trees, and caneberries (raspberries, blackberries, etc.). It is most commonly found on cherry, apple, peach, pear, plum, euonymus, rose, raspberry, and blackberry.
- Caused by a bacterium in the soil which infects tissue through wounds on the crown and roots
- Do not replant susceptible species in infected soil.
- Plant disease-free materials.
- Avoid injuries to the bark, roots, and crown while planting.
- Remove and destroy declining plants with large crown galls. Also remove roots and surrounding soil where possible.
- Prune out galls when practical. Sterilize pruning tools between cuts to avoid spreading bacteria to healthy tissue.
- No chemical treatment available for homeowners



Note all the galls along the stem. Many have started at pruning wounds. Jay W. Pscheidt, 2013

PEARLEAF BLISTER MITES

- Tiny insects lay eggs under leaves, causing "blistering" galls
- Usually affect only a single tree or even a single branch
- Remove and destroying infested leaves
- Apply oil plus lime-sulfur in early spring just prior to bud swell
- Examples:
 - All Seasons Horticultural & Dormant Spray Oil Conc
 - R-T-U Year-Round Spray Oil
- More info: <u>http://hortsense.cahnrs.wsu.edu/Search/MainMenuWithFact</u> <u>Sheet.aspx?CategoryId=3&PlantDefId=64&ProblemId=104</u>





https://extension.psu.edu/tree-fruit-mite-pests-pear-blister-mite-and-pear-rust-mite

https://oregonstate.edu/dept/nurspest/lmages/mit/ r%20leaf%20blister%20mite%20MPutnam.jpg

GRAPE ERINEUM MITE

- Caused by a tiny worm-like mite
- Upper leaf surface becomes blistered from mites eating the leaf, and blisters on the lower leaf surface turn white, yellow, or brown.
- Sprays aren't needed. Dormant-season oils and wettable sulfur applications used for other pests and sulfur applications for powdery mildew usually control this pest
- Does no lasting damage on established vines
- More info: <u>http://hortsense.cahnrs.wsu.edu/Public/FactsheetWeb.asp</u> x?ProblemId=753



Erineum mite damage on home garden grape leaves: "Blisters" on the top; corresponding concave areas on reverse filled white fuzzy material (enlarged leaf hairs). (J.R. Natter; 2016-04)



https://agrobaseapp.com/new-zealand/disease/grape-erineum-mites

APPLE AND PEAR SCAB

- Apply fungicides when leaves are separating, just exposing bud cluster.
- Repeat at 7-day intervals for 3 or more applications until weather dries.
- When in blossom, wait until 3/4 of petals have fallen before applying
- For more information:

http://hortsense.cahnrs.wsu.edu/Search/MainMenuWithFactSheet.aspx?CategoryId=3&PlantDefId=59&ProblemId=15



Figure 1. Early apple scab lesion development on leaves.



Figure 2. Characteristic lesions of apple scab on mature leaves.

https://www.extension.purdue.edu/extmedia/BP/BP-1-W.pdf

APPLE ANTHRACNOSE

Managing the disease: It's a year-round task!

- Sanitation—Clean up all leaf and branch debris
- Pruning affected branches
- Removing cankers during dry weather yearround
- Applying copper-based fungicides every 10-14 days to limit or prevent infection during the dormant and growing seasons.
- Monitor trees monthly for new infections and cut out diseased tissue and new cankers as they appear
- More info from Hortsense



First sign of infection



Late Symptoms--"Fiddlestring" appearance



Progression: Infection causes separation of bark tissue

PEACH LEAF CURL

- Plant resistant varieties—not much available for cold rainy springs in Western WA.
 - Avalon, Frost, Indian Free, Mary Jane, Salish
- Consider growing a peach tree in a moveable pot, and keeping out of the rain.
- Continue applying fungicide at 3 week intervals after that while cool and rainy..
 - Examples: Bonide Fung-onil Multi-purpose
 Fungicide
 - GardenTech Daconil Fungicide
 - Monterey Liqui-Cop Fungicidal Spray



Jay W. Pscheidt, 2013.

https://pnwhandbooks.org/plantdisease/host-disease/peach-prunus-persica-leaf-curl

*IMPORTANT: First fungicide application must begin in October when 50% of the leaves have fallen.

WEEDS-KNOW YOUR ENEMY!

- This is one of the best weed ID guides around for common weeds we see in the PNW:
 portlandoregon.gov/bes/article/471991 And another
- https://s3.wp.wsu.edu/uploads/sites/2054/2014/04/Invasive
 -Plant-Treatment-Guide-US-Forest-Service.pdf
- When you identify your weed, or just to look at common PNW weeds, checkout Hortsense to find out how to manage it.
 - http://hortsense.cahnrs.wsu.edu/Search/MainMenuWithFactSheet.aspx?CategoryId=6
- Cowlitz County Noxious Weed list for 2020. Noxious weeds are harmful to the environment or animals, and are difficult to control, and can have economic impact.
 co.cowlitz.wa.us/DocumentCenter/View/19664/2020-Cowlitz-Noxious-Weed-List



Hairy bittercress (aka Shotweed) Photo by: T. W. Miller

HORSETAIL

- Field horsetail (Equisetum arvense) grows from a perennial, creeping root system, and is toxic to all horses.
- Prefers moist/wet areas, but can easily adapt to dryer ones
- Maintaining a healthy planting or turf area to provide competition will prevent weed establishment, and reduce weed infestation by handpulling weeds.
- Inorganic mulches, such as plastic, commercial "weed barrier" fabrics and other materials such as roofing paper, is an effective weed management option. Cover inorganic mulches with a thin layer of soil or organic mulch. This will not allow photosynthesis to occur, and eventually the roots will starve.
- As soon as the stems appear (before they are 6 inches tall) in March/April, remove them. If you do this consistently, you should see your horsetail population reduce.
- There are several herbicides labeled for use on horsetail that are available to homeowners, but none are particularly effective. Dichlobenil (Casoron) can be effective in the Pacific Northwest particularly when applied during midwinter just prior to an anticipated cold rain.
- More info
 <u>http://hortsense.cahnrs.wsu.edu/Search/MainMenuWithFactSheet.aspx?Categoryld=6&ProblemId=2024</u>



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Caption: Horsetail Photo by: R. Parker

POISON HEMLOCK & GIANT HOGWEED LOOK-ALIKES

- We have some extremely dangerous plants that grow here in the PNW. Learn to identify them and distinguish them from similar looking plants. <u>Giant Hogweed</u> can cause serious skin damage. <u>Poison Hemlock</u> can kill or make you or an animal extremely ill within 20 minutes.
- Compare Giant Hogweed, <u>Cow Parsnip</u>, and <u>Poison Hemlock</u>
 https://www.oregon.gov/ODA/shared/Documents/Publications/Weedged/GiantHogweedLookalikes.pdf
- Compare Giant Hogweed, Cow Parsnip, and <u>Angelica</u>: http://www.wildflowersofontario.ca/tell-the-difference|httml
- Other poisonous plants in the PNW:. This is in "booklet" form, so when you're looking at the description, note the page number at the bottom and look for the following page number to see accompanying pictures. https://www.wsdot.wa.gov/sites/default/files/2019/02/08/Env-Wet-PoisonousPlantsBooklet PRINTversion.pdf

GIANT HOGWEED











15 to 20 feet

STEM 1 to 3 inch diameter Purple blotches, stiff bristles

LEAF Compound, lobed, deeply incised; up to 5 feet wide

FLOWER White flowers, flattopped, umbrella, up to 2.5 feet across

COW PARSNIP









5 to 8 feet

STEM
1 to 2 inch diameter
Deeply ridged, green
to slightly purple, fine
hairs, fuzzy

LEAF Compound, less incised, 2 to 2 1/2 feet across, fuzzy hairs

FLOWER Whitish flower clusters no larger than 1 foot across



POISON HEMLOCK











HEIGHT 4 to 9 feet

STEM
Smooth and hairless,
waxy green, some
purple splotches, 1 to
2 inch diameter

LEAF Fern-like, bright, almost glossy, green

FLOWER
All branches have small flat-topped clusters of small white flowers

ANGELICA









HEIGHT

4 to 9 feet

STEM
Smooth, waxy green
to purple (no bristles),
1 to 2 1/2 inch
diameter

LEAF Many small leaflets, seldom more than two feet across

FLOWER Softball-sized clusters, greenish-white or white, up to 1 foot across



SPRING HOUSEPLANT CARE

- Know the light, temperature, and watering needs of your plant!
- It's time to resume regular watering during the growing season. Most plants require less water in the winter, but they need it now. Water THOROUGHLY until the water runs out the bottom of the pot. Don't let the pot sit in the water—the roots will drown. More house plants are killed by overwatering than underwatering!
- Begin monthly applications of a diluted liquid fertilizer, following label instructions. Fertilizing once a month from March/April through September should keep your plants happy. You can also use worm castings.
- Excessive fertilizer results in the buildup of salts and excessive, leggy growth.
- This is a good time to repot plants
- Keep your plants neet and clean. Trim off old flowers and dead leaves. You can lightly prune or pinch of growing tips to improve appearance and make it fuller.
- It's too soon to even think about moving them onto your patio yet.
- For more detailed information, see: https://extension.umd.edu/hgic/topics/houseplant-care





LAWNS

- Time to fertilize—first of 3 times this year—in April. The fertilizer should be high in nitrogen (N) and low in phosphorus (P) and potassium (K) (E.g. NPK = 12-4-8 blend)
- Recommendation: For lush, green turf, add one pound of nitrogen per 1,000 square feet; for example, if you use a fertilizer that is 20% nitrogen (e.g., 20-x-y labeled on the package), you will apply 5 pounds for 1,000 square feet of healthy lawn.
- Mow at least every week, if possible, through October.
- Don't cut it too short. If you aren't sure what kind of grass you have, set the mowing height to 2 inches.
- Keep your mower blades sharp
- Mulch grass clippings and return to lawn to return the nitrogen to the soil.
- Source: OSU 10 minute university Handout Lawn Care: https://extension.oregonstate.edu/sites/default/files/documents/12281/lawncare.pdf

GETTING YOUR GARDEN READY

Composting Information for the Upcoming Gardening Season:

- http://pubs.cahnrs.wsu.edu/publications/wpcontent/uploads/sites/2/publications/eb1784e.pdf
- https://sustainability.psu.edu/sites/default/files/documents/19_home_composting.p df



Feed Me:

https://puyallup.wsu.edu/soils/gardening/

When to Plant:

- https://territorialseed.com/blogs/spring-growing-guides
- https://s3.wp.wsu.edu/uploads/sites/2071/2014/04/Home-Vegetable-Gardening-in-WA-EM057E.pdf





READY, SET, PLANT!

 Now that you've read up on how to prepare your garden, you can plant some of the cool weather crops NOW.

 Vegetables that germinate in 40°F soil temperature include: fava bean, beet, broccoli, Brussel sprouts, Chinese cabbage, cabbage, carrot, cauliflower, kale, collard, kohlrabi, leek, parsley, radish, rutabaga, pea, Swiss chard, celery, and turnip;

• Lettuce, onion, parsnip, and spinach germinate at 35°F.

Carrot, pea, lettuce, kohlrabi, greens, beet, and radish grow easily from seeds;
 sow seeds directly into the soil.

• Check the excellent <u>planting guide on the previous page</u> for specific directions for the cool weather plants you want to plant.

Warm weather plants like tomatoes, squash, and peppers need to wait until
the first week of June to plant in our area. You might be able to plant earlier
if you pre-warm the soil and provide warmth and cold protection for your
transplants. We will be telling you about ways to extend the growing season
in next month's Looking Ahead

Images: https://territorialseed.com/blogs/spring-growing-guides

APRIL ADDITIONAL RESOURCES

- Many of the topics covered, especially pruning and pest monitoring, in the last couple months are also relevant in March:
 - Looking Ahead: January
 - Looking Ahead: February
 - Looking Ahead: March
- Home Vegetable Gardening in Washington WSU EM057E
- https://pubs.extension.wsu.edu/home-vegetable-gardening-in-washington-home-garden-series (click on DOWNLOAD NOW)
- Odorous House Ants:
 - http://pestsense.cahnrs.wsu.edu/Search/MainMenuWithFactSheet.aspx?CategoryId=2&ProblemId=779
- Slugs: https://pnwhandbooks.org/insect/ipm/slug and http://hortsense.cahnrs.wsu.edu/Search/MainMenuWithFactSheet.aspx?Categorvld=13&ProblemId=6033

YOU'RE NOT ALONE

- WSU Hortsense (E.g., search Google (e.g. for "WSU Hortsense apple") That's the easiest way. You can also go to the site: http://hortsense.cahnrs.wsu.edu/Home/HortsenseHome.aspx Always search for the singular, not the plural. "Apple" will get results, "Apples" will not.
- PNW Handbooks (E.g., search for "PNW Handbooks apple")

 https://pnwhandbooks.org/plantdisease/host-and-disease-descriptions Always search for the singular, not the plural. "Apple" will get results, "Apples" will not. This site also has information for registered pesticide applicators. Only follow chemical advice for "Homeowners."
- And of course, you can get in touch with us at the Plant and Insect Clinic!
 - Call: 360-577-3014 Ext. 8 M-F 9am-noon,
 - Email: cowlitzmastergardener@gmail.com,
 - PM us on our Facebook page: Cowlitz Master Gardeners

DIAGNOSTIC RESOURCES

- Hortsense: http://hortsense.cahn

 rs.wsu.edu/Home/HortsenseHome
 .aspx
- Pestsense: http://pestsense.cahnr
 s.wsu.edu/Home/PestsenseHome.a
 spx
- PNW Handbooks:
- Insect
 Management https://pnwhandbook
 s.org/insect
- Plant Disease Management
 Handbook: https://pnwhandbooks.
 org/plantdisease

- Weed Management
 Handbook: https://pnwhandbooks.org/
 weed
- WSU Plant & Pest Diagnositc e-Network: http://www.dddi.org/wsu
- WSU Plant Pest Diagnostic
 Clinics:
- CAHNRS Plant Pest Diagnostic Clinic,
 Pullman
- WSU Puyallup Plant & Insect
 Diagnostic Laboratory