

## Natter's Notes

### Pear Trellis Rust, a new disease

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Recently, Pear Trellis Rust (*Gymnosporangium sabinae*) became the newest contributor to this hodge-podge-let's-try-everything year. During 2016, the first case of pear trellis rust was reported in the northern section of the

Willamette Valley, that on a Bartlett pear growing in Milwaukie, Clackamas County. (See "Pear Trellis Rust: First Report in Oregon" Metro MG Newsletter, January 2016;

[http://extension.oregonstate.edu/mg/metro/sites/default/files/dec\\_2016\\_mg\\_newsletter\\_12116.pdf](http://extension.oregonstate.edu/mg/metro/sites/default/files/dec_2016_mg_newsletter_12116.pdf).

Then, in mid-September 2017, an inquiry about a pear leaf problem in Multnomah County was submitted to Ask an Expert. [Fig 1; Fig 2] Yes, it's another fruiting pear tree infected with trellis rust. It seems that gardeners are beginning to recognize this newcomer.



Fig 2: Pear trellis rust (*Gymnosporangium sabinae*) on the reverse of a leaf from an edible pear tree; Multnomah County, OR. (Client image; 2017-09)

"Symptoms [of trellis rust] on pear begin as yellowish-orange leaf spots early in the season. Young fruit and twigs can also be infected. Leaf spots can become bright reddish orange during the



Fig 1: Pear trellis rust (*Gymnosporangium sabinae*) on the top leaf surface of edible pear tree; Multnomah County, OR. (Client image; 2017-09)

the aecia are wind-blown to susceptible juniper hosts where they can cause infections on young shoots. These spores are released from late summer until leaf drop." ("Pear Trellis Rust, *Gymnosporangium sabinae*" ([http://www.ladybug.uconn.edu/FactSheets/pear-trellis-rust\\_6\\_2329861430.pdf](http://www.ladybug.uconn.edu/FactSheets/pear-trellis-rust_6_2329861430.pdf)))

Signs on affected alternate host junipers are difficult to detect. During wet weather in spring, look for swollen areas on branches which exude orange jelly-like horns.



Fig 3: Pycnia (the black dots) of pear trellis rust on the upper leaf surface are involved in development of infectious structures on the underside. Bartlett pear tree; Milwaukie, Clackamas County, OR. (R. Frick-Wright; 2017-09)

### Differentiate Trellis Rust from Pacific Coast Pear Rust

Trellis Rust is quite different from the widespread Pacific Coast Pear Rust you've likely seen every spring on *Amelanchier* (shadbush; serviceberry) and pears.

Pacific Coast Pear Rust infects both Asian and European pears. And, as is common with rusts, it also has an alternate host. During spring, host spores erupt on fruits, flowers, leaves, and twigs, often deforming them. [Fig 5; Fig 6] Management includes removing nearby hosts. A home-use spray is available for ornamental pears but not edible pears. (Keep current with the PNW Disease Management Handbook.) incense cedars (*Calocedrus decurrens*) are recognized by the bright orange jelly-like globs on the foliage. On pears, the bright orange, powdery spores erupt on fruits, flowers, leaves, and twigs, often deforming them. [Fig 5; Fig 6] Management includes removing nearby hosts. A home-use spray is available for ornamental pears but not edible pears. (Keep current with the PNW Disease Management Handbook.)



Fig 4: In late summer, trellis rust lesions on the undersides of the leaves become “acorn-shaped structures (aecia) with open, trellis-like sides” that account for the common name of pear trellis rust.” (<http://www.ladybug.uconn.edu/FactSheets/pear-trellis-rust.php>)

#### Management strategies for trellis rust

Minimizing overhead irrigation might help reduce the number of infections. But you know how Oregon springs are. It rains! Cultural management may help decrease infection rates:

1. Collect and discard infected leaves.
2. If practical, remove juniper hosts from a 1000-ft radius. (The PNW Disease Handbook states “*J. communis*, *J. horizontalis*, and *J. squamata* are immune or highly resistant.”)
3. No chemical remedies are available for edible pears.

#### Master Gardeners as First Responders

When MGs see a plant affected by a disease or insect, we’re required to verify our tentative diagnosis before we suggest a remedy. So, here’s an important project for you: Help track the spread of Pear Trellis Rust.

If you suspect pear trellis rust while volunteering at the MG Offices or elsewhere in the metro counties, request images and/or samples. Take pictures and jot down a history with at least these few facts, if known: the name and age of the pear; when the client first detected the problem; also, in which town the tree grows. Next, email the images and history to me ([j.r.natter@aol.com](mailto:j.r.natter@aol.com)). After I verify your tentative diagnosis, I will notify both you and the pathologist.



Fig 5: Rust on Amelanchier (serviceberry); early lesions are small but may coalesce to cover much of the leaf/fruit surface. (J.R. Natter; 2011-06)



Fig 6: Rust on Amelanchier (serviceberry); powdery spores are released from the center of each small crater-like structure. (J.R. Natter; 2011-06)