

(revision date:5/20/2014)

## ***Pear: Pear trellis rust***

*Use Integrated Pest Management (IPM) for successful plant problem management.*

### ***Biology***

Pear trellis rust is a fungal disease that attacks pear trees and junipers. It is commonly reported on pear leaves in western Washington. Like many rust diseases, pear trellis rust requires both hosts to complete its life cycle. Spores produced on juniper infect only pear trees and spores produced on pear only infect junipers. However, pear can occasionally be reinfected from overwintering diseased material on the tree. Symptoms on pears appear on both upper and lower leaf surfaces. Bright yellow to orange spots up to about 1" in diameter appear on pear leaves, fruit, twigs and branches in spring and summer. Diseased fruit may become mummified. Small fungal fruiting bodies develop in the center of the lesions on the upper leaf surface. Opposite these pimple-like fruiting bodies, additional fruiting structures (up to 1/4" high) develop on the leaf underside. These brown fruiting bodies first appear blister-like, then develop a distinctive acorn-like shape with a pointed tip. The sides of the structure are finely divided, creating a trellis-like appearance that gives the disease its name. These may appear as early as mid-June, but are more commonly found in late summer. Spores produced in the trellis structure infect species of junipers in the fall. Infected junipers do not show symptoms until the following spring or later. Symptoms on juniper can be very difficult to detect and may include spindle-shaped swellings on twigs which girdle and kill plant tissues. The fungal fruiting structures which develop on juniper consist of long cylindrical, gelatinous, reddish-brown "horns" that appear during wet weather on the swollen tissues. Infected tissues on junipers may continue to produce spores for several years. For more information on pear rust diseases, see Pear: Pacific coast pear rust and Juniper: Pear trellis rust.

### ***Management Options***

#### **Non-Chemical Management**

- ~ Carefully examine plants before adding them to your landscape. Many diseases are introduced on infected planting material.
- ~ Complete removal of one host is the only completely effective cultural control.
- ~ Do not plant pears and junipers within 1,000 feet of each other. Most local transmission of this disease is by wind-blown spores.
- ~ Plant only disease-resistant junipers in areas where this disease is a concern; cultivars of *Juniperus squamata*, *J. horizontalis*, and *J. communis* are resistant.
- ~ Remove and destroy infected material from pear trees (fallen leaves, mummified fruit, heavily infected twigs, etc.) to help minimize disease spread. To help protect junipers, infected plant material must be removed from the pear trees before spores form, usually around late August in western Washington. This may not be practical on large trees.
- ~ Prune out swellings or galls from junipers.

*Select non-chemical management options as your first choice!*

#### **Chemical Management**

***IMPORTANT: Visit Home and Garden Fact Sheets for more information on using pesticides***

There are no products labeled for homeowner use on pear trees grown for fruit production.

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*Images*



~ Caption: Upper and lower leaf surface on *Pyrus* sp.

~ Photo by: F. Geller-Grimm,  
[commons.wikimedia.org](https://commons.wikimedia.org)



~ Caption: PTR on pear fruit

~ Photo by: P. Kapitola, [Bugwood.org](https://Bugwood.org)