

Pear Rust

(Gymnosporangium sabinae)

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Identification, Biology & Management

Pear Rust (*Gymnosporangium sabinae*, aka pear trellis rust) is a rust fungus which attacks both pears and junipers; both hosts are required for different stages of its lifecycle. It is especially damaging to pears. Recorded cases of pear rust have been increasing in the past decade.

Symptoms

On pears, from summer to early autumn, the fungus causes orange spots on the upper surface of the leaf, often with a black centre (Figure 1). Later on in the season the corresponding lower surface of the leaf swells into gall-like mound with light-coloured fruiting bodies blistering out (Figure 2). They can also form on petioles. Spores produced on pears can only infect junipers.

Figure 1. Upper leaf symptoms of pear rust.



On Pears, the fruit of the tree is sometimes affected by the disease. Bark/twig lesions may also occur on but are uncommon in the

UK. With time, repeated outbreaks may weaken trees and predispose them to other pests, however, death rarely, if ever, results from infection by these fungi.

Figure 2. Symptoms of pear rust on leaf underside showing fruiting bodies of various ages.



On junipers it causes canker-like swellings year-round (Figure 3), in spring these sprout horn-shaped orange-yellow fruiting bodies (Figure 4). These become gelatinous when wet. Spores released from these fruiting bodies can infect pear trees. Junipers provide a winter host while pear trees are dormant.

Biology

Spores from either host may travel significant distances by wind.

Please note similar rust pathogens can affect many different species but juniper is usually the secondary host.

Figure 3. *Gymnosporangium* rust infection on juniper.



Figure 4. *Gymnosporangium* rust fruiting bodies on juniper in spring.



Control

Typically this disease is only an aesthetic issue. If defoliation occurs at objectionable levels, applications of appropriate plant protection products are advised.

While removing diseased limbs from nearby junipers may reduce spores in the immediate vicinity, spores may travel long distances by wind and so the host plants may not be local and/or belong to the client. Complete removal of the juniper host is also not recommended for this reason. Similarly,

clearing of fallen or infected pear leaves may not have a significant effect.

During winter clean and/or light thin the crown to improve circulation of air through the crown.

Affected trees should be surveyed for any other sources of stress and supported through plant health care practices e.g. mulching, nutrient analysis, irrigation etc. where appropriate.



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