IPMNET Bulletin – 18 Dec 2025

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- IPM in Christmas trees – an introduction to the major pest and disease challenges and solutions
- Seasons Greetings to all IPMNET members!

IPM in Christmas Trees

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At this time of year, many are busy decking their homes with seasonal decorations like Christmas trees. Growers of Christmas trees will have been working throughout the lead-up to the season to protect our trees from pests and diseases – often using IPM strategies!

Common Diseases in Christmas Trees

Several major diseases regularly threaten the quality and marketability of Christmas trees, particularly Nordmann fir, the most widely grown species in Europe. Three of the most common issues include ***Rhizosphaera* needle cast**, **current season needle necrosis (CSNN)**, and **fireweed rust** which can all lead to discoloured needles, bare branches, and ultimately unmarketable trees if not carefully managed.


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1. *Rhizosphaera* Needle Cast: often begins on the lower, inner branches, causing needles to turn golden, then purplish-brown, and fall prematurely. Because symptoms typically appear a year or more after infection, whole blocks can look healthy until harvest season approaches.


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2. CSNN: caused by the fungus *Sydowia polyspora*, strikes the newest needles, producing necrotic tips and distinctive brown bands after wet spells followed by intense sunlight. In severe seasons, up to 40% of trees may be affected.

3. Fireweed Rust: meanwhile, firewood rust exploits the presence of its alternate host (rosebay willowherb) sending spores into plantations in late spring and stripping entire shoots of needles as infections progress.

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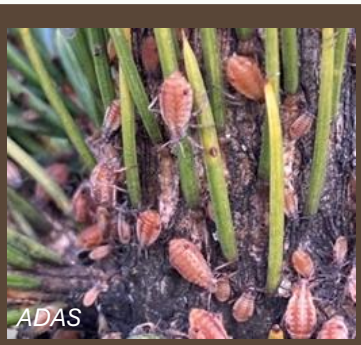
IPM Solutions for Diseases

- **Cultural control** including the improvement of airflow by pruning, widening spacings, and removing weeds all help to minimize the moisture that fungi need to infect needles.
- **Monitoring** with hand lenses, identifying the presence of pycnidia or spore fruiting bodies, and removing symptomatic trees can slow the disease development within plantations.
- **Managing nearby vegetation**, especially fireweed, is key to breaking the rust disease cycle.
- Where permitted, **targeted fungicide use** timed to weather forecasts or needle flushing stages can help protect new growth, though good coverage is often difficult on dense trees.
- Increasingly, growers are also evaluating **less-susceptible varieties** and optimising planting stock to reduce the overall disease burden.

Common Pests of Christmas Trees

1. Aphids are significant pests of Christmas trees. The main pest species are spruce shoot aphid *Cinara pilicornis*, green spruce aphid, *Elatobium abietinum* and giant fir aphid *Cinara confinis*. Aphid feeding damage can cause yellowing, defoliation, deformed growth and can lead to growth of sooty moulds, which leave a sticky, black residue. Large aphids found on trees in the home can lead to complaints from the public.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2. Adelgids are another serious pest of Christmas trees. They are small sap suckers, often covered in a layer of wax wool. The main species attacking Christmas trees are Balsam woolly adelgid *Adelges piceae*, silver fir woolly adelgid *Adelges normannianae,* and pineapple-gall adelgid *Adelges abietis*. They have a complicated lifecycle and cause infested tissue to become distorted, swollen and stunted. The white wax wool can also lead to rejection of finished trees

IPM Solutions for Pests

- **Cultural controls** include selecting tree species that are less susceptible to attack, locating new plantations away from other infestations or host trees, encouraging natural enemies by providing sources of pollen and nectar, and cleaning tools and clothing when moving between plantations to avoid spreading pests.
- **Monitoring** can help to identify pest threats early; growers quarantine and inspect young plants for pests before planting.
- Where **insecticides** are necessary, applications are timed to target the most vulnerable stages of the pest's lifecycle. Selecting insecticides that have short persistence or that are systemic or translaminar and those with the least harmful side effects on **beneficial insects** can help to limit impacts on non-targets. Biobest and Koppert provide apps for checking the side effects of plant protection products on natural enemies.

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Warmest wishes for the season and a very Happy New Year!

Rosie Knapp, ADAS

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