

FRASER FIR IPM 2020 – PEST FACTS AT A GLANCE

HEMLOCK RUST MITE

Nalepella tsugifoliae

Where from: Native to US

Host plants: Hemlocks, firs, white pines

SYMPTOMS

Bronzing of
foliage



Defoliation

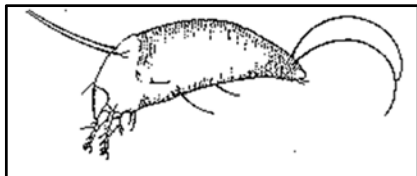


LIFE CYCLE

How overwinters: Eggs on shoots, active during warm periods

generations/year: Multiple generations per year.

Drawing of
rust mite.
Has only 4
legs.



Weather considerations: Hemlock rust mites like cool, spring-like temperatures from March through June. Numbers drop quickly as summertime temperatures start but can sometimes flare back up in the fall.

Scouting: Rust mites are not a problem every year. If you start seeing rust mites in the spring, it may be necessary to scout more fields and more frequently. It is important to catch rust mites early as numbers can build quickly – even causing needle drop before bud break.

To scout, select small shoots of the most current growth in the interior of the tree canopy and look for mites on front and back of needles. Rust mites are very small and can even be mistaken for pollen – but pollen doesn't walk!

Check other conifers such as white pines during years with bad outbreaks. In white pines, pull needle fascicles off the tree and check for mites between the long needles, especially at the base.

Control considerations:

- Don't be too quick to treat for rust mites – changes in weather may reduce numbers
- Not all miticides control rust mites. Miticides that only control the tetranychid mites (spider mites) will most likely not control rust mites
- Rotate chemicals from year to year – mites can develop resistance!
- Horticultural oil and sulfur are two good low impact controls for rust mites
- Some insecticides such as Asana (esfenvalerate) seem to increase problems with rust mites, even when applied the previous year