



PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

THURSDAY, APRIL 7, 2016

Weekly newsletter compiled by Sarah Pickel, PA Department of Agriculture. This week's scouting data contributors: Jim Fogarty (Halabura Tree Farm), Sarah Pickel and Cathy Thomas (PDA).

GROWING DEGREE DAY TOTALS, 4/6/16:

LOCATION	GDD TOTAL
Indiana, Indiana Co.	82
Montoursville, Lycoming Co.	76
Elizabethtown, Lancaster Co.	110.5
New Cumberland, York Co.	115.5
New Ringgold, Schuylkill Co.	81.5

* Figures courtesy of www.weather.com.

SPRUCE SPIDER MITE

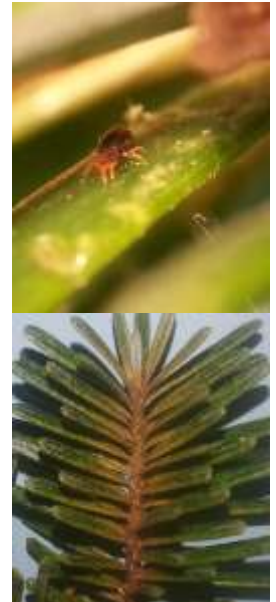
Despite the cold temperatures we've seen across the state this week, spruce spider mites continued to emerge. In York County on Tuesday afternoon, less than 50% of eggs were had hatched on Fraser fir. On Wednesday afternoon, however, in Lancaster, the eggs were nearly all hatched on Canaan fir. In northern Dauphin County on Wednesday morning, eggs were about 50% hatched. In Schuylkill County, however, on Wednesday, only a few mites and empty eggs were found, with the majority of eggs still unhatched.



Figure 1: An empty, hatched spider mite egg and an unhatched egg.

Spruce spider mites overwinter as round, red eggs on twigs or foliage of host plants, which can include spruce, true firs, arborvitae, cedar, junipers, Douglas-fir and occasionally other conifer hosts. Egg hatch will begin when GDD totals fall within the range of 50-121. Eggs that have hatched will appear completely clear. Newly hatched mites will be red-orange. As they mature, their bodies will become darker (brown to dark green).

To scout for these mites, look for areas of damage on the interior foliage. Spider mite feeding causes a yellowed or tan stippling, which is concentrated at the base of the needles. If mite populations are heavy, fine webbing will also be visible on the underside of the twigs. A white paper plate can be a useful tool when scouting for mites. Hold the plate underneath a branch showing symptoms and hit the upper surface of the branch. This will dislodge hatched mites onto the plate.



After a few seconds, the red-brown mites will begin moving across the plate. A hand lens is a necessary tool when scouting for spider mites.

The typical threshold for when to treat for mites is at 10 mites per twig or tap. Application of a miticide, horticultural oil or insecticide should be made after the majority of the overwintering eggs have hatched. It is better to take control measures before the new foliage has broken to prevent damage to the new needles.

PALES WEEVIL



Symptoms of Pales weevil feeding was already beginning to show up this week in Lancaster County. After the adult weevils emerge from their overwintering sites in the spring, they will feed by gnawing on the bark of lateral branches of pines, Douglas-firs, and occasionally other conifers. This damage will cause flagging (or dieback) of these branches. This feeding can continue until June.

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Pales weevils can show up in the emergence traps set for white pine weevil. If enough of these weevils show up in a farm's emergence traps or if damage is noticeable, growers may want to make an insecticide application to affected blocks of trees. To prevent the laying of the next generation of eggs, an insecticide application should be made to freshly cut pine stumps.

BALSAM TWIG APHIDS

Nymphs of balsam twig aphid should have continued to emerge in York County, after emergence began last week. (Windy conditions made scouting for this pest somewhat difficult.) In Schuylkill County, however, there was no sign as of yet of this pest of true firs. These tiny, pale green-gray aphids would be seen feeding on the needles of the most recent year's growth. Often, they will have a droplet of honey dew emerging from their posterior end. Honey dew is a clear, sticky substance excreted by the aphids. Look for aphids on twigs that are close to other twigs which show the typical needle-twisting damage associated with this pest.



Balsam twig aphids hatch from overwintering eggs (Found tucked alongside the base of needles on the most recent season's twigs.) when GDD totals fall within the range of 30-100. The same paper plate technique used to find spruce spider mites can be used when scouting for balsam twig aphid. (See the report's first section.) If aphids are being found on nearly every branch or tap, that would indicate that control measures should be taken.

Damage to the season's new growth can be prevented by making an application of horticultural oil, insecticidal soap or insecticide. This must be made before bud break, but should also be applied after the majority of eggs have hatched.

ADDITIONAL RESOURCE

For a list of control options for insect and mite pests, the most recently updated list of Insecticides & Miticides for PA Christmas Tree Pests can be found at the following link:
<http://ento.psu.edu/extension/christmas-trees/publications/2013%20Christmas%20Tree%20Insecticides-Miticides.pdf>.

The next scouting report will be available Thursday, April 14, 2016.