



PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

THURSDAY, APRIL 9, 2015

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

GROWING DEGREE DAY TOTALS, 4/8/15:

LOCATION	GDD TOTAL
Indiana, Indiana Co.*	16
Montoursville, Lycoming Co.*	6
Mount Joy Twp, Elizabethtown (NE), Lancaster Co.	34.5
New Cumberland, York Co.	29.5
New Ringgold, Schuylkill Co.	27

* Figure courtesy of www.weather.com.

WEEVIL TRAPPING

Trapping for **white pine weevils** continues this week and weevils were found in several more traps. White pine weevils have now been found in northern Dauphin, Lancaster and York Counties. There were still no weevils found in traps being monitored in Schuylkill County. Ground temperatures near those traps have ranged from 40°-50°F. When ground temperatures



Figure 1: White pine weevils in the top of an emergence trap [S. Pickel, PDA]

remain steadily at 50°F, growers can expect to see weevil emergence. For those monitoring growing degree days (GDD), weevils typically can be expected to emerge within a range of 7-58 GDD.

When checking weevil traps or monitoring host tree leaders for white pine weevils, look for ¼ - ½ inch brown beetles with an extended snout and a line of

rust and white colored spots crossing the lower portion of the wing covers (elytra). On tree leaders, they will often be found near clear sap bubbles, a sign of their feeding. Host trees include pines (Eastern white pine preferred), spruces (Serbian preferred), and occasionally Douglas-fir.

If growers have observed damaged leaders in the past (dead tops with curved, wilted tips) and have caught or observed weevils in their fields, they should consider making an insecticide treatment for control. This should be done soon after weevil emergence, as white pine weevils can begin laying eggs within a week of emergence. Once eggs are laid inside the leader, larvae will hatch soon after that and begin feeding on the vascular tissue of the leader, eventually girdling the leader and causing it to wilt and die. Growers can apply an insecticide to the top third of the trees. If weevils are observed in traps a few days after the first application, growers may want to make a second application 7-10 days after the first.

Another weevil that can also be found in pyramid traps at this time is the **Pales weevil**. This is a larger weevil at ½ inch and is a mottled brown all over. Pales weevils feed on lateral branches of Eastern white pine and Scotch pine, which causes a noticeable flagging of the branches.



Figure 2: Pales weevil [R. Lehman, PDA, bugwood.org]

Looking further back along the branches will show a gnawing of the bark, which is typical to Pales weevil damage. Pales weevils need to lay their eggs in the fresh stumps of Scotch pines, so removal of the Scotch pine stumps or treatment of stumps with an insecticide before the weevils can lay their eggs (7-21 GDD) will prevent further damage.

ERIOPHYID MITES

Observations of Colorado blue spruce in Schuylkill and York Counties this week showed that Eriophyid mites have hatched in these counties. Mites were also observed on Concolor fir in Lancaster and



Figure 3: Eriophyid mites on Norway spruce [S. Pickel, PDA]

Lebanon Counties. In addition to being found on firs and spruce, these tiny mites can also be found on pines and hemlocks. Eriophyid mites typically hatch within a range of 7-22 GDD. When scouting for this pest, the very tiny round eggs will be found in clusters on the lower portion of the needles, closest to the twig. Narrow, triangular shaped

mites will be found roaming the needles. On spruce, both the eggs and mites are peach or salmon colored. On firs and hemlocks, the eggs and mites are white/translucent. Eggs that have hatched are clear.

If mites are found on 80% of twigs samples, growers may want to consider treating with horticultural oil or an insecticide to control the mites. (Warning: using horticultural oil on Colorado blue spruce will cause the blue color to fade.) Make a first application when the majority of the eggs have hatched. If mites are still present after 1-2 weeks, consider making a second application.

SPRUCE GALL ADELGIDS



Figure 1: Eastern SGA nymphs mostly waxed over [S. Pickel, PDA]

Growers who have begun their spring scouting may be noticing some problems that they missed last year. Two of those issues they could be noticing now are Cooley spruce gall adelgid and Eastern spruce gall adelgid. These are tiny stationary insects which can be found on the twigs of either Colorado blue spruce (Cooley SGA) or Norway spruce (Eastern

SGA). Cooley SGA can also be found on the needles of Douglas-fir. As spring progresses, the adelgids will develop a white, fluffy waxy covering, underneath which they will lay eggs. On the spruces, the eggs will hatch into nymphs that will feed on the new buds causing the tree to form galls around the nymphs, protecting them from the outside world. Later in the summer, these galls will dry up and open, releasing a winged form of the adelgid. The winged adelgids move on to other branches or trees to continue the life cycle by producing the next generation of nymphs.

It is the nymphs in the fall that are easiest to control because they are uncovered on the twigs (or needles in the case of Cooley SGA). The waxy covering makes it difficult to control in the spring. In York County, Eastern spruce gall adelgids have already begun forming this coating, making control difficult at this time. In some cooler areas of the northeast, however, the nymphs may have not developed this waxy covering yet. If that is the case, an insecticide or horticultural oil application would control the nymphs.

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 16, 2015.