



PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

WEDNESDAY, MARCH 26, 2014

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

GROWING DEGREE DAY TOTALS, 3/25/14:

LOCATION	GDD TOTAL
Indiana, Indiana Co.*	0.5
Montoursville, Lycoming Co.*	0
Mount Joy Twp, Elizabethtown (NE), Lancaster Co.	2.5
New Cumberland, York Co.	1
New Ringgold, Schuylkill Co.	0

* Figure courtesy of www.weather.com.

WHITE PINE WEEVIL

In parts of Pennsylvania today, trees and fields were once again covered with snow, albeit a light covering in South Central PA. Between the snow



Figure 1: Whalon Modified Tedder's trap used for monitoring White pine weevil emergence covered with snow on 3/26 in York County. [S. Pickel]

and cold temperatures, pest activity is getting off to a very slow start this season. So far, no weevils have been found in traps being monitored in Lancaster, York and Schuylkill County. [Fig. 1] Temperatures are expected to steadily increase the rest of the week and through next week, so growers could expect to see some weevil activity next week. There is still time to place traps out in the fields and begin monitoring several times a week.

For growers tracking growing degree days (find out how at:

<http://extension.psu.edu/pests/ipm/program/christmas-tree/ipm-basics/Step3.pdf/view>), look for weevils to be found in traps with in a range of 7-58 GDD. Another monitoring method for determining weevil emergence time is tracking ground temperatures using a probe thermometer. Insert a thermometer approximately 2 inches into soil under a tree in a target block, on the sunny side of the tree. When temperatures reach 50°F, weevils can be expected to be found in traps.

Growers can also be scouting the tops of host trees (pine and spruce, especially Eastern white pine and Serbian Spruce, and occasionally Douglas-fir) to look for active white pine weevils. When white pine weevils emerge from their overwintering sites in the duff underneath host trees, they will be moving to the leaders to feed on sap and to begin to mate.

Feeding sites can be identified by the clear sap bubbles that form over the weevils' puncture wounds in the bark. Within approximately 10-12 days of emergence, weevils will be ready to lay eggs. The female weevils bore into the leader to lay eggs. Soon after, the eggs hatch into larvae, which move up and down within the leader, feeding on the vascular tissue. This feeding will girdle the leader, causing it to wilt and die. This damage will show up in late spring and should be noted, so that damaged leaders can be removed before late summer. At that time, larvae will have pupated and changed into adults, which will emerge and drop to the ground to begin the wait for next spring. New leaders should be trained to help the tree to continue its upward growth.



Figure 2: White pine weevils are approximately 1/4" in size and have distinctive white spots. [S. Pickel]

When white pine weevils are found in the traps or on leaders, an insecticide should be applied to the upper 1/3 of the trees. This application should be made less than two weeks after weevils are found. Growers may want to make a second application if weevils continue to be found in traps after the first application.

RABBIT DAMAGE

After a winter with a constant and heavy snow cover like the winter we've just had, growers are more likely to see higher amounts of damage from rabbits. When regular food sources are unreachable because of snow cover, rabbits will resort to feeding on tree bark above the snow line. Sometimes this damage can be quite extensive on a tree, as rabbits may remove large amounts of bark, sometimes even girdling the trees. Also, shoots or tops of young seedlings may be completely removed, typically at a 45° angle. Foliage may not yet be showing the effects of this damage, so growers who dig nursery stock may want to keep an eye out for this damage when selecting trees to dig.

ERIOPHYID (RUST) MITES

No rust mite activity was observed this week at scouting sites in Lancaster or York County. Eriophyid mites can be expected to begin



Figure 3: Rust mites on hemlock
[R. Lehman, PDA]

hatching from their overwintering eggs at a range of 7-22 GDD. Overwintering eggs are faintly salmon colored, about the size of needle stomates, and are clustered at the bases of needles. Begin looking for these mites on rusted or faded foliage of host trees, which include spruces, firs, hemlocks and pines (called sheath mites when found on pines). On pines, symptoms are yellowed and sometimes stunted needles. A hand lens of 16X or higher is essential when scouting for this pest.

For a heavy rust mite infestation, consider treating with a miticide. Carefully check to make

sure that Eriophyid mites (or rust & sheath mites) are mentioned on the miticide label, as not all miticides are effective against eriophyid mites. For more information, visit: <http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/eriophyid-rust-sheath-mites.pdf/view>.

HELPFUL RESOURCES

A list of Pennsylvania's registered miticides and insecticides (*2013 Insecticides and Miticides for Christmas Tree Pests*) can be found on Penn State's Christmas Tree Website, <http://ento.psu.edu/extension/christmas-trees>.

The PA IPM Program publication, *Integrated Pest Management for Christmas Tree Production: A Guide for Pennsylvania Growers* is available as a free PDF download at <http://pubs.cas.psu.edu/FreePubs/pdfs/agrs117.pdf>. To purchase this publication (# AGRS-117), call the PSU College of Ag Publications office at 814-865-6713, fax them at 814-863-5560, or send an e-mail to AgPubsDist@psu.edu.

The next scouting report will be available April 2, 2014.