



PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

WEDNESDAY, APRIL 2, 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, 4/1/14:

LOCATION	GDD TOTAL
Indiana, Indiana Co.*	4
Montoursville, Lycoming Co.*	0
Mount Joy Twp, Elizabethtown (NE), Lancaster Co.	2.5
New Cumberland, York Co.	3.5
New Ringgold, Schuylkill Co.	0

* Figure courtesy of www.weather.com.

COLD WEATHER'S EFFECT ON INSECTS?

The question I have been asked the most thus far in 2014 is whether or not I think the cold temperatures we saw this winter have killed off the pests of Christmas trees. This winter was one of the colder winters in recent years and Pennsylvania saw some seriously cold temperatures, with several nights in negative numbers. Unfortunately, a number of experts agree that insects native to the northeast, and even some that have moved in, have strategies



Figure 1: Hemlock woolly adelgid [PA DCNR Forestry Archive, Bugwood.org]

for dealing with the cold that would have helped them survive even this cold winter. Still, there could be a few exceptions. Connecticut researcher Dr. Rich Cowles expects that the invasive hemlock pest, Hemlock Woolly Adelgid (Fig. 1) could see population decline. (See Reference section.) Time will tell if other invasive pest populations, such as Cryptomeria scale and Elongate hemlock scale have been reduced due to the cold temperature.

Monitoring previously infested trees is the key to detecting population changes!

ERIOPHYID (RUST) MITES

Rust mites were observed moving today on Concolor fir samples collected yesterday in northern Dauphin County. Because these mites are so tiny, a hand lens of 16x magnification or greater is necessary to scout for them. The mites are triangular in shape.



Figure 2: Rust mites on fir [PDA]

Rust mite color will vary depending on host. On true firs, the mites are white and almost translucent. On spruce, they are peach or salmon colored. The eggs are clustered at the bottom of the needles and are about the size of needle stomates.

Hosts trees include firs, hemlocks, pines and spruces. Begin scouting trees that have gray or rusty looking foliage. On pines, symptoms are yellowed and sometimes stunted needles. For a heavy rust mite infestation, consider treating with a miticide which lists Eriophyid or rust mites on the label.

<http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/erriophyid-rust-sheath-mites.pdf/view>.

WHITE PINE WEEVIL

There were no weevils found in traps being monitored in Dauphin, Lancaster, York and Schuylkill Counties this week. The southeastern counties of Pennsylvania have accumulated enough Growing Degree Days to fall within the White pine weevil emergence range (7-58 GDD), so weevils could be out in those areas. For those

monitoring soil temperatures, emergence will occur when the sunny side of the soil climb above 50°F. In New Ringgold, Schuylkill County, soil temps have reached 46°F.

When white pine weevils are found, apply an insecticide to the upper 1/3 of the trees to prevent damage. This application should be made within 2 weeks of emergence. If weevils continue to be found in traps after the first application, a second may be made in 7-10 days. Another management strategy is to wait to cut out any damaged leaders after they've begun to wilt in early summer. Leaders should be cut down to point of "good wood," or below the brown, soft vascular tissue where larvae have fed, and remove them from the field. A new leader can be trained for future seasons.

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.

REFERENCES

Foderaro, L.W. (2014, January 9) Celebrating Deep Freeze, Insect Experts See a Chance to Kill Off Invasive Species. *The New York Times*, p. A16. http://www.nytimes.com/2014/01/09/nyregion/experts-cheer-the-deep-freeze-as-a-killer-of-invasive-insects.html?_r=0

The next scouting report will be available April 9, 2014.