



PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

WEDNESDAY, MAY 28, 2014

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

GROWING DEGREE DAY TOTALS, 5/27/14:

LOCATION	GDD TOTAL
Indiana, Indiana Co.*	346.5
Montoursville, Lycoming Co.*	391.5
Mount Joy Twp, Elizabethtown (NE), Lancaster Co.	475
New Cumberland, York Co.	423
New Ringgold, Schuylkill Co.	497

* Figure courtesy of www.weather.com.

DIPLODIA TIP BLIGHT

The first signs of Diplodia tip blight were spotted on Douglas-fir in York County this week. This



Figure 1: Diplodia tip blight on Douglas-fir [T. Olson, PDA]

disease is normally an issue for hard needled pines (Scotch, Austrian), but can be found on Douglas-fir. The new buds are infected by the Diplodia spores and begin to brown and wilt. Later in the summer, round, black fruiting bodies will be visible on the needles and bark of infected twigs. If the problem is serious enough that a grower wishes to apply a fungicide next season (likely too late for control this season), a product other than clorothalonil should be applied at bud break (according to Penn State recommendations), such as these active ingredients: thiophanate methyl, azoxystrobin, copper sulfate, or copper hydroxide. For more information on this disease, visit: <http://extension.psu.edu/pests/ipm/program/christmas-tree/pest-fact-sheets/shoot-and-branch-injury/diplodia.pdf/view>.

ELONGATE HEMLOCK SCALE

This week in Dauphin and Schuylkill Counties, active elongate hemlock scale crawlers were found moving on the needles of Fraser fir. There were other stages present also: eggs (inside the brown, oblong female scales), and developing winged males underneath the white male scale covers. Once crawlers are found, control can begin. Look for these stages on true firs, hemlocks, Douglas-fir and occasionally spruce. They will be found on the underside of needles close to bottom of the tree. The upper surface will show a yellow speckling.



Figure 2: Female elongate hemlock scale with crawlers emerging [S. Gardosik, PDA]

With at least two generations of this pest staggered throughout the growing season, control can be challenging. There are a few control options available for this pest. Research out of Connecticut shows that a systemic trunk spray of the chemical dinotefuran (Safari) prior to bud break can provide control throughout the season. Another control method is to begin insecticide applications when a flush of crawlers can be found moving on the needles. Some growers have found success with a single application of the chemical spirotetramat (product names Movento or Kontos). Penn State research supports a series of multiple applications (3 sprays with 4 weeks between, or 4 sprays with 3 weeks between). For more information on this pest, visit: <http://extension.psu.edu/pests/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/elongate-hemlock-scale.pdf/view>.

BAGWORM

At the end of last week in York County, the eggs of bagworm had still not hatched inside the



Figure 3: Bagworm case opened to show eggs. [S. Gardosik, PDA]

protective cases. However the warmer temperatures Pennsylvania experienced over the weekend may have triggered this hatch to begin in some areas. After the larvae hatch inside the cases, the larvae can be seen exiting the cases with in a day or so. Growers should be scouting fields to find the cone-like cases, which had been woven together from needles by last year's bagworms. Bagworms can be found on any species of conifer. If larvae have not yet begun to exit these cases on fine strands of silk, then growers can cut the bags open to find the larvae inside. Once the majority of the larvae are out of the bags, growers can apply an insecticide product to control these pests. Products will be more effective on larvae that are still small. For more information on this pest, visit: <http://extension.psu.edu/pests/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/bagworm.pdf/view>.

SPRUCE NEEDLE RUST

In Schuylkill County this week, some of the rusty-orange fruiting bodies of Spruce needle rust appear to be beginning to dry up. For this disease of Serbian and Blue Spruce, sporulation typically lasts 2-3 weeks after bud break. The needles which had been releasing spores will turn brown and will be cast from the twigs in summer. Until the disease is dried up, the needles have cast or the new needles have hardened off, infection of the new needles could still occur. It is recommended that fungicide applications begin at bud break and continue to be made weekly until the infection period ends. For more information on this disease, please visit: <http://extension.psu.edu/pests/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/spruce-needle-rust.pdf/view>.

LOOKING FORWARD

In York County this week, there were only eggs under the white, oblong covers of pine needle scale, however for this pest of Eastern white pine and also scotch and other hard needled pines, these eggs will be hatching into crawlers in the very near future. For growers who have a problem with this pest, the crawler hatch is important. The crawlers are the vulnerable stage that can be controlled with horticultural oil or an insecticide. More information will be written about this scale in the coming weeks.

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 June 4, 2014.