



# PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

## WEDNESDAY, JUNE 11, 2014

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

### GROWING DEGREE DAY TOTALS, 6/11/14:

LOCATION	GDD TOTAL
Indiana, Indiana Co.*	561
Montoursville, Lycoming Co.*	630.5
Mount Joy Twp, Elizabethtown (NE), Lancaster Co.	748.5
New Cumberland, York Co.	683.5
New Ringgold, Schuylkill Co.	796

\* Figure courtesy of [www.weather.com](http://www.weather.com).

### CRYPTOMERIA SCALE

While there were still only eggs found under Cryptomeria scale covers in Schuylkill and York County this week, there were a few crawlers emerging on Canaan firs in Lancaster and Lebanon Counties. Crawlers are bright yellow, oval-shaped and flat. Scout for the armored scale pest on firs, spruce and hemlocks that are showing a yellow speckling on the tops of needles found on lower, inside branches. The scales can be found on the under sides of these needles. The covering of adult scales is oval-shaped and white with a yellow center (resembling a fried egg). Crawlers will typically emerge about two weeks after the first eggs have been found underneath adult scales. This crawler stage is important because this stage is the one that is vulnerable to insecticides.



Figure 1: Mature Cryptomeria scales with crawlers [C. Thomas, PDA]

For growers who are seeing crawlers move around the needles, or settled in place, a first

insecticide application can be made. Two to three applications with a week between each may be necessary to achieve control, as crawler emergence can be drawn out for several weeks. Some growers have reported achieving control with only one application of the chemical spirotetramat (product names: Movento or Kontos). For more information on this pest, visit: <http://extension.psu.edu/pests/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/cryptomeria-scale.pdf/view>.

### BAGWORM

Last week, bagworm larvae were found feeding on the foliage of Douglas-fir and arborvitae in the mid-state. They were seen in York and Schuylkill Counties. When larvae first appear, the damage appears as brown patches on the needles, where larvae have eaten small sections. As larvae continue to feed and increase in size, they will begin to eat larger portions of the needles, eventually consuming entire needles. The larvae will also continue to build onto the "bag" or protective casing they live in. Insecticidal control is most effective when the larvae are small. It's also important that the majority of the larvae have exited last season's cases. To determine this, use a hand pruner or scissors to cut open a case (They are a lot tougher than they look!) and look for gray larvae with black heads inside a black shell (the dead bagworm mother's body). After making one insecticide treatment, growers should monitor a few days afterward to determine if the bagworms were killed or if a second spray is necessary. For more information, visit:

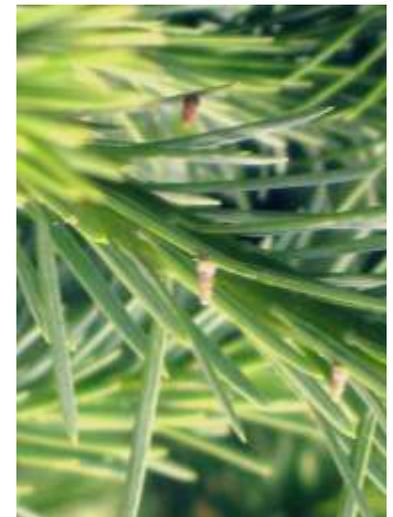


Figure 2: Bagworm larvae feeding on Douglas-fir [S. Pickel, PDA]

<http://extension.psu.edu/pests/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/bagworm.pdf/view>.

### **PINE NEEDLE SCALE**

Today in Lancaster County, scouting showed that the majority of Pine needle scale crawlers had moved out from underneath the white, oblong



Figure 3: Pine needle scale crawlers have moved out from under the adult scale covers. [PDA]

adult scale covers onto the needles of white pine. In York County, however, only the first few rusty or burgundy-colored crawlers have emerged from under the adult scales. Underneath the covers, the majority of eggs have not yet hatched, however, there are some crawlers that have hatched, but have not yet moved out from under the adult covers.

In many cases, this pest may not reach concerning levels on white pine, however, it can occasionally warrant a control action. Populations are commonly heavier on Scotch pine. Insecticide applications can be made when crawlers are moving along the needles. A second application made a week after the first may be necessary if crawlers continue to emerge. For more information, visit:

<http://extension.psu.edu/pests/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/pine-needle-scale.pdf/view>.

### **ELONGATE HEMLOCK SCALE**

Control treatments should be continuing for elongate hemlock scale. All stages of the scale (eggs, moving crawlers, settled crawlers, adults) are present in populations in Schuylkill County. Some control treatment options are: a systemic trunk spray of the chemical dinotefuran (Safari) made prior to bud break (supported by research in Connecticut), or insecticide applications beginning when a flush of crawlers



Figure 4: Elongate hemlock scale crawlers [S. Pickel, PDA]

are 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), often using the chemical dimethoate. For more information on Elongate Hemlock Scale, visit:

<http://extension.psu.edu/pests/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/elongate-hemlock-scale.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](mailto:AgPubsDist@psu.edu).

*The next scouting report will be available June 18, 2014.*