



# PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

## FRIDAY, AUGUST 7, 2015

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

### GROWING DEGREE DAY TOTALS, 8/5/15:

LOCATION	GDD TOTAL
Indiana, Indiana Co.*	1,887
Montoursville, Lycoming Co.*	2,048.5
Mount Joy Twp, Elizabethtown (NE), Lancaster Co.	2,423
New Cumberland, York Co.	2,278

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

### 2<sup>ND</sup> GENERATION OF CRYPTOMERIA SCALE

Cryptomeria scale, the hard scale pest of several tree species in central PA (true firs, spruce and



Figure 1: Cryptomeria scale covering pulled back to show mature female with eggs. [S.Pickel, PDA]

Douglas-fir) has a second generation each growing season, during which growers have a second chance to get control of this pest. The 2<sup>nd</sup> generation begins when the adult female scales lay eggs underneath the scale coverings. About 2 weeks after egg laying, the crawlers (or first stage nymphs) begin

to emerge. Second generation crawlers have been known to become active within a growing degree day range of 1,750 – 2,130. In recent years however, crawler activity has begun at the upper end of this GDD range (or beyond it).

Across central PA this week, the second generation of Cryptomeria scale was in various stages. At one Lebanon County farm, only the adult female scales were found under scale covers. These appeared to have swollen, which means they are ready to lay eggs, but no eggs were found under scales in this

location yet. In parts of Lancaster County, the scales were also eggless yet, but on other farms, closer to Elizabethtown, eggs were found under most scale covers and some crawlers were seen moving around on needles. On several York County farms, eggs were found under a little over half of the scales that were checked. There were also a small amount of crawlers found on the needles. This percentage was very low. In northern Dauphin County, eggs were found under some scales.

The symptom of this scale is a yellow speckling on the upper surface of the needles. A scale infestation will typically begin at the bottom of the tree, on the interior branches. If the infestation is left unchecked, however, it can move up the tree and become more noticeable. The scales will be found on the underside of the speckled needles. Use a hand lens to see the oval-shaped white scales which will appear to have a yellow spot in the center, giving them a fried egg appearance. To see if the scale has eggs, use a finger nail to scrape back the white scale cover. The lemon yellow eggs will be jelly bean shaped and very tiny. Crawlers will also be lemon yellow in color and tiny, but will be flatter and may be moving around the surface of the needle. When crawlers finally settle in a spot, they will begin to form a covering and will appear round.



Figure 2: Yellow speckled damage from Cryptomeria scale [C. Thomas, PDA]

Growers should begin control applications when crawlers are found moving on the needles. This crawler emergence will be spread out over a few weeks, so 2 or sometimes 3 applications of an insecticide may be necessary. Some growers have found success with making a single application of the chemical spirotetramat (Movento, Kontos) per

generation; however, this has not been tested by research in PA.

I will be making 1 or possibly 2 more reports in the next week or two to share the progress of scale activity in Central PA.

***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>.