



PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

SPECIAL UPDATE: FRIDAY, AUGUST 15, 2014

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

GROWING DEGREE DAY TOTALS, 8/14/14:

LOCATION	GDD TOTAL
Indiana, Indiana Co.*	1841.5
Montoursville, Lycoming Co.*	2029.5
Mount Joy Twp, Elizabethtown (NE), Lancaster Co.	2337.5
New Cumberland, York Co.	2138
New Ringgold, Schuylkill Co.*	2285.5

* Figure courtesy of www.weather.com.

2ND GENERATION OF CRYPTOMERIA SCALE

This week is the beginning of a critical time during the growing season for growers struggling with control of Cryptomeria scale, the potentially serious pest of true firs, spruces and Douglas-fir (less common). On Thursday, in northern York County and western Lancaster County, the first few crawlers of Cryptomeria scale were seen moving around on the needles of Canaan fir. This was just the start of the Cryptomeria



Figure 1: Cryptomeria scale adult (left side of needle) with eggs visible underneath the cover, and exposed scale crawler (circled). [S. Pickel, PDA]

emergence, as most of the eggs underneath the scale covers had not hatched. In Lebanon and Dauphin Counties, crawlers were not yet found.

Cryptomeria scale, which is an armored or hard scale, will be found on the undersides of foliage near the interior base of host trees. (Fraser and

Canaan fir seem to be particularly favorite hosts of this pest.) Infested foliage will have a yellow speckled appearance on the upper surface of the needles. A hand lens is necessary to observe the adult scales and the crawlers moving around them. Adult scales are covered by a protective, white, waxy, oval-shaped covering with a yellow area in



Figure 2: Scale damage on Fraser fir foliage. [S. Pickel, PDA]

the center, making it resemble a fried egg. Crawlers are the first stage of nymphs which hatch from the scale eggs found underneath the female scale covers, which typically hatch in a range of 1,750-2130 GDD. As the name implies, these nymphs, or crawlers, are mobile and will move out from underneath the "mother" scale covers to search for open spaces to settle on the needles. Crawlers are much smaller than adult scales, and are bright yellow ovals, which may be moving or eventually settled in one place. To observe eggs underneath the adult scales, the coverings can be scraped away with a fingernail or pin. If no crawlers are observed on the needles or underneath the scales, growers may want to delay any control action until crawlers are finally observed.

The best time to achieve control is while the scale crawlers are exposed on the needles without a covering or while the coverings are still light. For growers who did not get good control of the first generation of Cryptomeria scale, this second generation provides a second opportunity to control this scale pest. When crawlers are seen moving on the undersides of foliage, growers can make an insecticide application. Within a week of

making an application, growers should check their scale populations to determine if the spray was effective. Dead crawlers will appear brownish instead of yellow and will have a dried appearance. If active or healthy crawlers are still present a week later, growers can make a second application about a week after the first application.

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>.

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.