



PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

THURSDAY, JUNE 18, 2015

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

GROWING DEGREE DAY TOTALS, 6/17/15:

LOCATION	GDD TOTAL
Indiana, Indiana Co.*	876
Montoursville, Lycoming Co.*	932
Mount Joy Twp, Elizabethtown (NE), Lancaster Co.	1,147
New Cumberland, York Co.	1,059.5
New Ringgold, Schuylkill Co.	1,133.5

* Figure courtesy of www.weather.com.

CRYPTOMERIA SCALE

The Cryptomeria scale crawler emergence continued this week. In Lancaster, Lebanon and York Counties, crawlers were found to be settled out along the needles of true firs, however, active crawlers were still on the move. While there were still eggs found under some scales in these locations, the majority of eggs had hatched out

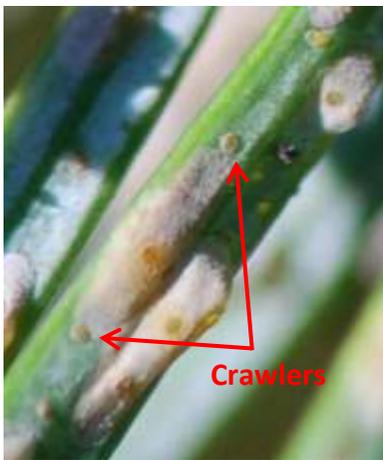


Figure 1: Mature *Cryptomeria* scales with crawlers [C. Thomas, PDA]

and had already moved out from under the adult scale coverings.

In Schuylkill County, some crawlers were found moving around on the needles, however, there were still many eggs under adult scale coverings. The same was true for scales in northern Dauphin County. To find the level of eggs or crawlers present in your trees, look at the lower, interior branches of host trees (true firs, spruces, hemlocks and Douglas-fir) for yellow speckling. Scales will be

found on the undersides of these branches. Use a fingernail to scrape the white, oval shaped coverings back to reveal the bright-yellow, capsule-shaped eggs (visible with hand lens) or recently hatched, flat, oval crawlers nestled around the plump, yellow, mother scale.

Begin control applications when crawlers are found out along the needles. 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), however, this has not been tested by research in PA. A second generation of this pest will be active in August. Treatment of this second generation may also be necessary, depending on the success of the first generation treatment.

ELONGATE HEMLOCK SCALE

Emergence of elongate hemlock scale will continue to take place for an extended time throughout the summer, due to its multiple, staggered generations. Continue to scout periodically to determine if crawlers are still present on lower, interior branches of host trees (true firs, Douglas-fir, hemlocks and spruces). Oblong brown scales (females) and shorter, white, fuzzy scales (males) will be scattered along the undersides of yellow, speckled needles. The oval-shaped, yellow crawlers will be found around these adult scales, but some may be seen with the beginnings of a tan or white scale covering.

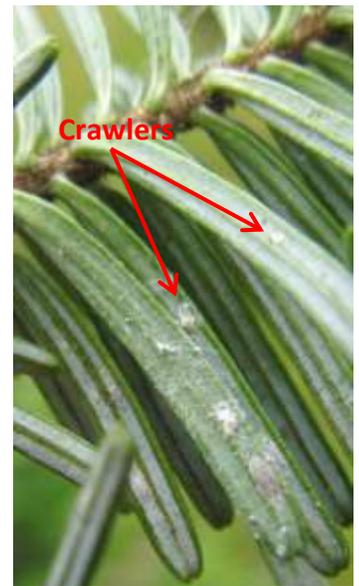


Figure 2: Elongate hemlock scale crawlers [S. Pickel, PDA]

The typical recommended control series (based on PSU research) is to make 3 insecticide applications, beginning at the start of crawlers and spaced with 4 weeks between each spray, or to make 4 applications spaced with 3 weeks between each spray. Some growers have found that a single application of the chemical spirotetramat (Movento, Kontos) has been effective.

FLETCHER SCALE

In Schuylkill County this week, crawlers of another scale pest of conifers were seen this week.



Figure 3: Fletcher scale adult and crawlers [S. Pickel, PDA]

Although these are not a pest of concern for Christmas trees, the hosts of Fletcher scale (arborvitae, cedar, yew and juniper) are commonly grown in nurseries that also grow Christmas trees. The pale, peach crawlers of Fletcher scale were found on Arborvitae in Schuylkill County this week. Although

the majority of crawlers were out, there were still some eggs to be found under the female scales. Look for these crawlers close to the brown, dome-shaped female scales. The best time to control this pest is when new crawlers are out on the foliage.

DIPLODIA TIP BLIGHT

In York County this week, signs of Diplodia tip blight were found on Douglas-fir. This disease affects the new growth of hard needle pines, Douglas-fir and occasionally spruce. Spores are released in the spring from last year's infected needles, woody tissue and even cones. Once the new growth is infected, it will begin to wilt and turn brown. Later in the summer, black fruiting bodies



Figure 4: Wilting from Diplodia tip blight on Douglas-fir [S. Pickel, PDA]

will be visible on needles and bark of the infected twigs. Growers may be wondering how this infection occurs when they've been making fungicide applications to Douglas-fir. Penn State does not recommend using chlorothalonil to prevent this disease, but rather one of the following chemicals: thiophanate methyl, azoxystrobin, copper sulfate, or copper hydroxide. Application fungicide may only be necessary in cases of a heavy infestation. Infected tissue can be removed from the fields by clipping it out when weather is dry, so as not to release spores. Do not use the same clippers to trim healthy growth, because this may also spread the disease. Clippings should then be removed from the field and burned.

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>.

The next scouting report will be available Thursday, June 25, 2015.