# PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

## FRIDAY, JUNE 26, 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, 6/24/15:

| LOCATION | GDD TOTAL |
|---|---|
| Indiana, Indiana Co.* | 1028.5 |
| Montoursville, Lycoming Co.* | 1093.5 |
| Mount Joy Twp, Elizabethtown (NE), Lancaster Co. | 1341.5 |
| New Cumberland, York Co. | 1243.5 |
| New Ringgold, Schuylkill Co. | 1316 |

** Figure courtesy of www.weather.com.*

Because new pest activity hits a lull in the month of July, this will be the last regular scouting report of the growing season. There will be a few special updates on the 2nd generation of Cryptomeria scale in August.

### CRYPTOMERIA SCALE

Depending on location, Cryptomeria scale crawler emergence was at different stages this week. In Lancaster, Lebanon and York Counties, many crawlers were found to be settled with the beginnings of scale coverings on them. There were still just a few active crawlers seen moving along the needles of true firs. In Schuylkill County, there were moving crawlers, settled crawlers, and still some eggs found under scale covers. To find the level of eggs or crawlers present in your trees, look on the undersides of the lower, interior branches of host trees (true firs, spruces, hemlocks and Douglas-fir).

*Figure 1: Settled Cryptomeria scale crawlers [PDA]*

Scrape the white, oval shaped coverings back with a finger nail to reveal if there were any more bright-yellow, capsule-shaped eggs (visible with hand lens) 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. Watch for scouting report updates on the second generation of this pest which 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

Remember to continue to scout periodically through the season for the presence of elongate hemlock scale crawlers on lower, interior branches of host trees (true firs, Douglas-fir, hemlocks and spruces). The oval-shaped, yellow crawlers will be found around the female scales (oblong and brown) and male scales (white and fuzzy). 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.

*Figure 2: Elongate hemlock scales [PA DCNR - Forestry Archive, Bugwood.org]*

### *Fletcher Scale*

The crawler emergence of Fletcher scale, pest of landscape tree species such as arborvitae, cedar, yew and juniper, continued this week in Schuylkill County. Crawlers were also found to have settled on the foliage of arborvitae. The crawlers are oval-shaped, flat and pale peach in color. Look for these crawlers on foliage close to the brown, dome-shaped female scales. The best time to control this pest is when new crawlers are out on the foliage. Growers can apply an insecticide or horticultural oil.

### *Douglas-fir Needle Midge Damage*

Something that growers may be noticing now as they are out mowing or shearing is Douglas-fir needle midge damage. As needles of the new growth harden off, the yellowed gall area of infested needles becomes more noticeable. While nothing can be done at this point in the season to save the kinked needles, it's a good idea to mark trees that are infested with flagging tape. Emergence traps can be placed under these trees next season. These traps help to pinpoint the earliest emergence of adult midge from the ground underneath previously infested trees. Trapping occurs close to bud break and helps growers time control applications.

*Figure 3: Douglas-fir needle midge damage [S. Pickel, PDA]*

### *Japanese Beetles Spotted on Christmas Trees*

Growers may have some concern about sightings of Japanese beetles in their Christmas tree fields at this time. This week, Japanese beetles were active in York County and were seen in several conifer fields. Fortunately, although Japanese beetles can feed on over 300 plants, they rarely cause damage to conifers. The beetles are most likely in the field to feed on the weed species common in tree fields. While they may be a concern for growers of other landscape trees, such as ornamental fruit trees, these beetles should not be an issue in your Christmas trees.

*Figure 4: Japanese beetle on Douglas-fir [S. Pickel, PDA]*

### *2nd Generation of Pine Needle Scale*

For growers who have had an issue with controlling pine needle scale, there will be another chance to control it in July. The crawlers of this hard scale pest of pines had settled several weeks ago and have matured. They will lay eggs at the beginning of July. Later in the month, the eggs will hatch and 2nd generation crawlers will move out from under the scale coverings to settle on new needles. If this scale population is heavy and was not controlled during the 1st generation, an insecticide or horticultural oil application can be made when the brick red crawlers emerge. A repeat application may be necessary 7 - 10 days later.

*Figure 5: Pine needle scale on Eastern white pine [S. Pickel, PDA]*

### *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.

Look for the special updates on the 2nd generation of Cryptomeria scale in August.