

PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

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Weekly newsletter compiled by Sarah Pickel, PA
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This week's report includes data from Jim Fogarty (Halabura Tree Farm), Karen Najda (PDA), Susan Newhart (Acadia Tree Farm), Brian Schildt (PDA), and Cathy Thomas (PDA). The links included in several paragraphs lead to fact sheets from the new PA IPM Program publication, *Integrated Pest Management for Christmas Tree Production*.

As of Tuesday, May 31st, there were 707 growing degree days (GDD) in Elizabethtown, Lancaster County, 684 GDD in New Cumberland, Cumberland County, 607 GDD in New Ringgold, Schuylkill County and 270 GDD in Montrose, Susquehanna County. Ground temperatures in New Ringgold, Schuylkill County have fluctuated between 65° F – 73° F.

In York and Lancaster County today, nearly all Cryptomeria scales that were observed on Fraser and Canaan firs and hemlocks had eggs underneath the off-white scale coverings. [Fig. 1] This pest of nearly all



Figure 1: Hemlock with *Cryptomeria* scales; *Cryptomeria* scale with eggs under cover [B. Schildt, PDA]

conifers prefers to infest true firs. To look for this scale, look for yellow splotches on the upper surface of foliage at the base of a tree. The off-white and yellow oval-shaped scales will be found on the underside of foliage. As infestations progress, the scale will move further up the tree. Eggs can take approximately 2 weeks to hatch into nymphs or crawlers. When bright yellow round crawlers start moving on the undersides of needles, this is the time for insecticide applications to begin.

Because crawler emergence will be staggered over several weeks, 2 – 3 applications (7-10 day intervals) may be needed. More information may be found at: <http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/cryptomeria-scale.pdf/view>.

Scale crawlers of Elongate hemlock scale continued to become active in Adams and York Counties this week.



Figure 2: Elongate hemlock scale females with crawlers [S. Gardosik, PDA]

They were also observed in Schuylkill County last week. Crawlers are bright yellow, oval-shaped, mobile and smaller than the adult scales. [Fig. 2] They are also the most vulnerable to insecticide applications. Growers will find these scales near the bottom of the trees and on the undersides of the needles, with symptoms similar to the *Cryptomeria* scales on the upper surface of the needles. Adult scales are either brown (female) or white (male). The life cycle of this scale is more staggered throughout the season than that of *Cryptomeria* scale, so the recommended control applications should be spread over 3 months (3 apps, 4 wks between; 4 apps, 3 wks between). For more information, visit: <http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/elongate-hemlock-scale.pdf/view>.

In New Cumberland, York County on Douglas-fir today, bagworm larvae were found to be increasing in size, but were still small. They are beginning to form their protective cases made of needle material and silk. [Fig. 3] At this stage, they are eating holes in the needles, which will turn brown. As they increase in size, they will consume whole needles leaving bare patches on the newly expanding twigs. They will also become less affected by insecticide applications as they grow, so the best time to achieve control is now, while they are still



Figure 3: Young bagworm larvae [S. Gardosik, PDA]

young. Often, only isolated trees in a patch will be affected by bagworm, so on some farms it may be possible to treat these trees individually with a back pack sprayer.

This would save many of the beneficial insects that can be found in fields at this time, while also using just a fraction of the amount of pesticide

product that would be required for a full-field treatment.

Find more information on bagworm control at:

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



Figure 4: Fletcher scale on cedar [Steven Katovich, USDA Forest Service, Bugwood.org, #5424249]

Growers of landscape conifers, such as arborvitae, cedar, hemlock, juniper, and yew, may want to be checking for Fletcher scale populations at this time.

Eggs were found underneath these round, amber-colored, soft scales this week in Schuylkill County. [Fig. 4] These eggs will hatch into amber colored crawlers in 1 - 2 weeks.

When the crawlers are seen moving around on foliage, an insecticide may be applied. For more

information on this pest, growers may visit this Penn State Entomology fact sheet at:

<http://ento.psu.edu/extension/factsheets/fletcher-scale>.

Lastly, it looks as though sporulation of Spruce Needle Rust has ended in Schuylkill County. The fruiting bodies are drying up and needles are beginning to shed. In late fall or early winter, growers can scout Colorado blue or Serbian spruce to look for infected foliage. At that time, needles that were infected this spring will begin to exhibit pale yellow bands running around the whole needle. For information on the life cycle of this rust, visit:

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

A list of insecticides and miticides registered for use Pennsylvania, prepared by PA IPM Program scouting consultant, Brian Schildt, can be found on the Penn State Christmas tree website:

(<http://ento.psu.edu/extension/christmas-trees>).

The next scouting report will be available June 8, 2011.