

Christmas Tree Scouting

Report #11 – 6/3/09

Weekly newsletter compiled by Sarah Pickel,
PA Department of Agriculture

This week's report includes scouting information from: Jim Fogarty (Halabura Tree Farm), Karen Najda (PDA), Susan Newhart (Acadia Trees), Brian Schildt (PSU), Linda Signarovitz and Cathy Thomas (PDA).

The growing degree day totals as of Tuesday, June 2nd are 625.5 in Elizabethtown, Lancaster County, 451.5 in New Ringgold, Schuylkill County, and 306 in Susquehanna County.

The nymphs, or crawlers, of Elongate Hemlock scale are active in Adams, Schuylkill, and York Counties this week. This armored scale can be found on hemlocks, true fir, Douglas fir and occasionally spruces. Infestations will begin at



Figure 2: Adult female Elongate Hemlock Scale with crawlers (above); Adult male and female Elongate Hemlock Scales. [Sandy Gardosik, PDA]

the bottom of the tree, on the inside branches. As scale levels increase, the population will move upward and outward through the tree. Undersides of the needles may have a white wooly look. This is because of the waxy covering the adult males develop. The females will be oblong and brown. The

active crawlers will be oval and bright yellow. All life stages of this insect may be present through out the year. At this time, when the crawlers become active, growers can begin their spray programs. The recommended spray schedule for elongate hemlock scale is 3 sprays, 4 weeks apart, or 4 sprays, 3 weeks apart. For a list of appropriate insecticides,

see the *2009 Insecticides and Miticides for PA Christmas Tree Pests* found at the Penn State Christmas tree website at <http://ctrees.cas.psu.edu>.

Cryptomeria scale eggs were found underneath scale covers in Adams, Lancaster, Schuylkill and York Counties. This armored scale can be found on true fir species, Douglas fir and spruces.

The nymphs, or crawlers, of this scale will emerge approximately 2 weeks after the yellow eggs first appear. Like the crawlers of elongate hemlock scale, the Cryptomeria



Figure 3: Cryptomeria damage at the base of a tree [Sandy Gardosik, PDA]

scale crawlers will be oval-shaped and bright yellow. When viewing with a hand lens, two black eyes will also be visible. Another characteristic shared with Elongate Hemlock scale is the fact that the infestation of Cryptomeria scale also begins on the lower branches of the tree. When scale crawlers are found on the needles, growers can begin their spray program, as it is the crawlers that are vulnerable to insecticides or horticultural oil. The recommended treatment schedule for this scale is 2-3 sprays, about 7-10 days apart. Growers who achieve good control for this generation may not need to treat the second generation in August.



Figure 1: Young bagworms feeding [Sandy Gardosik, PDA]

Growers should be looking for the young larvae of bagworms to emerge from the overwintering bags, found on several tree species, any day now. In Schuylkill County, eggs have begun to hatch, but the larvae were still inside the bags. These young caterpillars will soon

emerge from the bags via threads of silk and

will begin to feed on this season's new needles. An application of a *Bacillus thuringiensis*, or Bt, product can be made when the young larva have begun feeding. This bacteria is toxic to caterpillars and is sold as several commercially available products. Dipel ES, Foray 76B and Javelin WG are just a few. More can be found on the *2009 Insecticides and Miticides for Christmas Tree Pests*.

Spruce needle rust is still viable on Colorado blue spruce in Schuylkill County. When it is done, the lesions will appear dried up. Growers can also check to see if Rhabdocline needle cast is still viable on Douglas fir by taking a closer look at the underside of the infected needles. Many growers have already applied their third spray for this disease. If treating for Swiss needle cast, remember that a fourth spray will be necessary.

Larva of twice-stabbed lady beetles can be seen in tree fields at this time. This predatory insect feeds

mainly on armored scale, but will also attack aphids and adelgids. The larvae are black or gray and covered in spines. The adults are round with shiny black



Figure 4: Twice-Stubbed Lady Beetle Larva [Sarah Pickel, PDA]

elytra, or wing covers, with one red dot on each side. These combined with parasitoid wasps and other predators may provide some control for scale, but in areas of heavy infestation, an insecticide or horticultural oil spray program may still be necessary.