

# PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

2010, Report 9: May 19, 2010

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 (Arcadia Trees) Linda Signarovitz (scouting consultant), Brian Schildt (PDA), and Cathy Thomas (PDA).

Growing Degree Day totals as of Tuesday, May 18th, were 454 in Elizabethtown, Lancaster County, 447 in New Cumberland, Cumberland County and 321.5 in New Ringgold, Schuylkill County. As of Monday, May 17th, there were 240 GDD in Montrose, Susquehanna County. Regional GDD totals collected last Thursday, May 13th in Northwest PA were as follows: 313 GDD in Clarion County, 287 in Crawford County, 302 GDD in the Millcreek area of Erie County, 367 GDD in Mercer County and 258 GDD in Warren County. [Northwest data courtesy of Ruth Benner, Extension Educator – Penn State Cooperative Extension, Erie County.]

Today in Cumberland County, the first few crawlers of Pine Needle Scale were found on Eastern white pine. When the adult scales were turned over, both eggs and hatched crawlers were found underneath. As temperatures increase throughout the end of the week, more crawlers will emerge. When scouting for this pest, look for white flecks on the needles of pines. The scale may be found on other conifers, but it is rarely a serious problem on those trees. When the scales are found, use a hand lens to look closely on the needles around the white adult scale to find the red-brown scale crawlers. [Fig. 1] When crawlers are found, growers can make an insecticide or horticultural oil application, with a second application following a week later.



Figure 2: Pine Needle Scale with crawlers [Sandy Gardosik, PDA]

The young larvae of bagworm were spotted last Thursday on the foliage of Eastern white pine in Elizabethtown, Lancaster County. As of today, they had not yet emerged in Schuylkill County, however, since larvae were found inside the bags there, growers could expect emergence to happen soon. The larvae exit the overwintering bags on silk strands in a process known as ballooning. [Fig. 2] This allows the larvae to spread out to foliage on different areas of the tree or on other trees. Growers can look for these silks as a signal that emergence

has begun. Bagworm can be found on any conifer species. The larvae are tan in color with black heads. Soon after emergence, they will begin to construct their bags out of



Figure 1: Silk strands produced by bagworm larvae as they exit overwintering bags [Sandy Gardosik, PDA]

needles and can be found hanging down from the needles. Growers can apply an insecticide when they find the new bagworms feeding on the foliage. Aside from traditional insecticides, another control option for bagworm is the use of *Bacillus*

*thuringiensis*, or Bt, which is a bacterium that is toxic to caterpillars. A benefit of this product is that it is not harmful to many of the beneficial insects, such as beetles or wasps, which may also be found in your trees.

Scouts in Schuylkill County found a few winged males of *Cryptomeria* scale out on the foliage this week. This is a signal that the females are beginning to be fertilized. In about a week to two weeks, we may be seeing eggs underneath these scales. After the eggs are laid, it can be a week to two weeks until the scale crawlers are ready to emerge. The crawler stage is the life stage that is most susceptible to insecticide controls. This armored scale pest has two generations per season. Crawlers of the first generation typically emerge in June and crawlers of the second generation will emerge sometime in August. When scouting for this pest, look at the base of trees, near the inside for the spotted chlorotic (yellowed) damage on the tops of the needles. Underneath these chlorotic needles, growers will find off-white, oval-shaped female scales, which resemble fried eggs. This is because the cast skins of the round, yellow scales build up in the center of the scale covering. The male



Figure 3: Male *Cryptomeria* scale (below) and uncovered female scale (above) [Sandy Gardosik, PDA]

scouts in Schuylkill County found a few winged males of *Cryptomeria* scale out on the foliage this week. This is a signal that the females are beginning to be fertilized. In about a week to two weeks, we may be seeing eggs underneath these scales. After the eggs are laid, it can be a week to two weeks until the scale crawlers are ready to emerge. The crawler stage is the life stage that is most susceptible to insecticide controls. This armored scale pest has two generations per season. Crawlers of the first generation typically emerge in June and crawlers of the second generation will emerge sometime in August. When scouting for this pest, look at the base of trees, near the inside for the spotted chlorotic (yellowed) damage on the tops of the needles. Underneath these chlorotic needles, growers will find off-white, oval-shaped female scales, which resemble fried eggs. This is because the cast skins of the round, yellow scales build up in the center of the scale covering. The male

scales may be difficult to find, but will resemble a small yellow fly [Fig. 3] and may be found on the undersides of the needles near the female scales.

Crawlers of Elongate Hemlock Scale continued to emerge this week in Adams, York and Schuylkill Counties. For the most thorough control, growers will want to follow through with the twelve week insecticide series. This means making 3 applications with 4 weeks between each spray, or 4 applications with 3 weeks between each spray.

Last week on Scotch pine in York County, nymphs of the Pine Spittlebug were found. This pest is easily recognized for the masses of white, foamy spittle with which it covers itself. [Fig.



Figure 4: Spittle mass produced by the nymph of the Pine Spittlebug [Eric R. Day, Virginia Tech, Bugwood.org]

4] As the brown-black nymphs feed on the plant juices drawn out through the bark, they excrete the juices and inject air in them to form the foamy spittle mass, which protects the nymphs from predators. These pests are generally not a major concern, and unless population levels are high, control should not be necessary. With heavier infestations, spittlebug feeding may lead to twig

dieback. Control may be achieved at this time with the application of a contact insecticide (good coverage is important!) or with soil-applied systemic insecticide.

The *2010 Insecticides and Miticides Update for PA Christmas Tree Pests* can be found at the site: <http://ento.psu.edu/extension/christmas-trees/scouting-reports>.

*The next scouting report will be available May 26, 2010.*