PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

FRIDAY, JUNE 10, 2016

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

GROWING DEGREE DAY TOTALS, 6/9/16:

LOCATION	GDD TOTAL
Indiana, Indiana Co.	635
Montoursville, Lycoming Co.	665
Mt. Joy Twp., Elizabethtown (NE), Lancaster Co.	802.5
New Cumberland, York Co.	832
New Ringgold, Schuylkill Co.	795.5

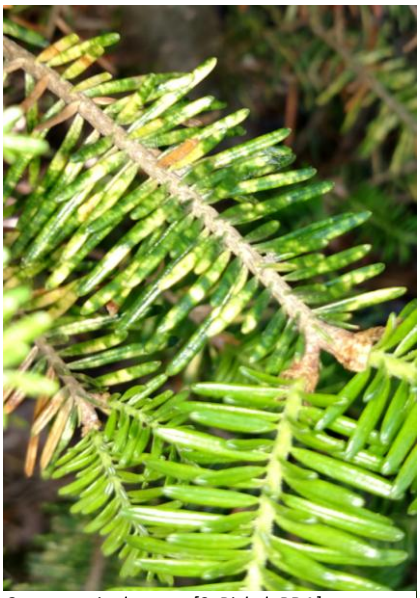
** Figure courtesy of www.weather.com.*

CRYPTOMERIA SCALE

Today in northern York and Lancaster Counties, crawlers of Cryptomeria scale were seen moving and beginning to settle on the needles of Canaan and Fraser firs. In populations checked in Schuylkill County, there were no crawlers found yet. The crawlers are the first stage nymphs which hatch from the scale eggs and are the only mobile stage of this armored scale pest. Cryptomeria scale can be a serious pest of true firs, spruce, Douglas-fir and hemlocks. This is because each individual scale has the capability of laying several dozen eggs, meaning an infestation can increase exponentially in just one generation. As the pest has two generations each growing season, it is important to get early control to prevent considerable damage to host trees.

Cryptomeria scale crawler (top), settled crawler (bottom right) and mature female scale (bottom left) [S. Pickel, PDA]

Cryptomeria scale damage is similar to that of another armored scale pest: elongate hemlock scale. Both cause a yellowed mottling of the upper needle surface, although Cryptomeria scale damage is typically more pronounced. Look an infestation to begin on the lower, interior branches of host trees. If the infestation is heavy enough, needles may turn brown and needle loss may occur. Use of a hand lens is recommended when scouting for Cryptomeria. Mature female scales with eggs will appear as yellow, plump ovals on the underside of the needles showing the tell-tale yellowing. These scales are covered with a pale covering that can be scraped away to show the round, bright yellow female and the very tiny, bean-shaped eggs surrounding her. The eggs will begin to hatch when GDD fall in the range of 600-800. In the locations where the tiny (<1/10 size of mature scales), bright yellow crawlers were seen moving on foliage, there were still eggs found under ever mature scale checked. The crawlers hatch and move out from underneath the female covers to find a location to settle. As soon as they settle, they begin to develop a pale round covering.



Cryptomeria damage [S. Pickel, PDA]

The best strategy to control Cryptomeria scale is to make 2 (sometimes 3) insecticide applications, applying the first spray when the early crawlers are found. Because crawler emergence can take place over several weeks, a second application should be made 7-10 days after the first. If the population is heavy and the trees are close to sale, growers may want to consider making a third application if crawlers are still seen moving around a week after the second application. Some growers have found control with a single application of the systemic

insecticide spirotetramat (Movento or Kontos), but this seems to have mixed results with heavier populations.

Disease Update

In Schuylkill County this week, spruce needle rust is done sporulating. This can be noted when the rust lesions turn brown and the needles are cast from the tree. If growers are only treating spruce for this disease, they can stop their fungicide applications. If they are also treating for Rhizosphaera or Stigmina needle casts they will want to make sure the needles are fully elongated and beginning to harden off before ending fungicide applications. As for the needle cast diseases of Douglas-fir, it is undetermined when Swiss needle cast is done sporulating. If the new growth has not completely elongated, they may want to consider making one last application.

Looking Ahead

This week, the eggs of the soft scale pest Fletcher scale began darkening in arborvitae fields of Schuylkill County. This pest infests several varieties of landscape conifers including arborvitae, cedar, hemlock, juniper and yew. The changing egg color indicates that crawler hatch may soon occur. Look for more on this pest upcoming weeks.

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, April 2, 2015.