

PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

JUNE 13, 2013

Weekly newsletter compiled by Sarah Pickel, PA
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This week's scouting data contributors:
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GROWING DEGREE DAY TOTALS, 6/12/13:

| LOCATION | GDD TOTAL |
|---|-----------|
| Conoy Twp, Elizabethtown (SW), Lancaster Co. | 1,090 |
| Mount Joy Twp, Elizabethtown (NE), Lancaster Co. | 812 |
| Hallstead, Susquehanna Co. | 530 |
| Indiana, Indiana Co.* | 724.5 |
| Millcreek, Erie Co.** | 639 |
| New Cumberland, York Co. | 781 |
| New Ringgold, Schuylkill Co. | 768 |

* Figure courtesy of www.weather.com.

CRYPTOMERIA SCALE

In Lancaster and York Counties this week, tiny, yellow Cryptomeria scale crawlers were just beginning to move along the needles of Canaan, Concolor and Fraser firs. There were some

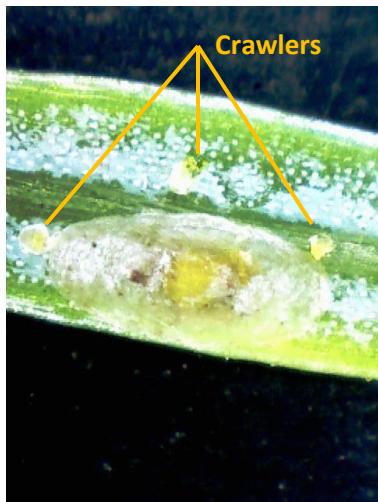


Figure 1: Cryptomeria scale adult with crawlers [S. Pickel, PDA]

no crawlers were found moving about on the needles. The crawler emergence may be drawn

out over a period of approximately 3 weeks (although sometimes longer). It typically takes place in the range of 600-800 GDD. After a short time, the moving crawlers will find a place on the underside of a needle to settle, or permanently stay in place. The settled crawlers begin to build up protective, white coverings.

Growers who have observed the yellow, speckled damage from this pest and the scales causing this damage should definitely consider taking control action against the first generation of crawlers. Two applications of an insecticide should be made (7-10 apart) so that the product will penetrate the lower, interior branches, where the scale infestation is located. Growers who miss the window for control with this generation will have a second chance sometime in August when the second generation crawlers emerge (approximately 1,750-2,130 GDD).

Because these insects are concentrated at the base of the trees, weeds can be big a problem when trying to achieve good insecticide coverage. Growers will see the best control results if the rows between the trees are mowed before making any control applications.

For more information on Cryptomeria scale, visit: <http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/cryptomeria-scale.pdf/view>.

ELONGATE HEMLOCK SCALE

This week in Dauphin, Schuylkill and York Counties, elongate hemlock scale crawlers continue to be active on Fraser and Canaan firs and Douglas-fir. Crawlers have also settled and have begun forming their protective coverings. This crawler emergence will be staggered throughout much of the growing season. Control can be difficult because of this staggered emergence. According to Penn State research, the most effective control action is a series of insecticide applications (3 applications with 4 weeks between each application, or 4 applications with 3 weeks between each application). Some

growers have also found success with a single basal trunk application of Safari insecticide (**made prior to bud break**), as recommended by Connecticut's Agricultural Experiment Station.

When scouting for this pest, growers may want to first look at trees closest to wood lines with native hemlocks. This is a pest that can move easily from infected hemlocks in the tree line to trees of all ages in the plantation/nursery. Like *Cryptomeria* scale, elongate hemlock scales will be found on the underside of the lower, interior branches of host trees. Preferred trees are true firs and Douglas-fir. For more information on Elongate Hemlock Scale visit:

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

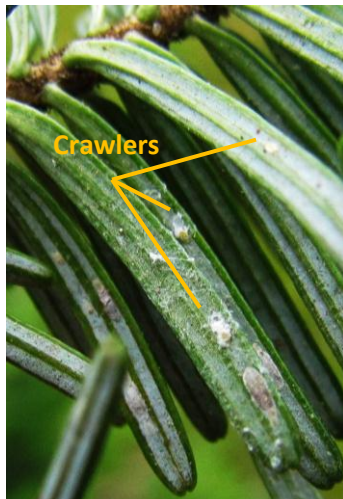


Figure 2: Elongate hemlock scale crawlers [S. Pickel, PDA]

BAGWORM

Bagworm larvae continued to mature and increase in size in Schuylkill and York Counties this past week, however, as of yet, there still has not been a great deal of feeding damage in some areas of Schuylkill County. As the bagworms increase in size, they do have potential to clear the foliage from host twigs and branches. An insecticide application made while the larvae are young will help to control this pest. As the larvae increase in size, they become less susceptible to insecticides. For more bagworm information, visit:

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



Figure 3: Juvenile bagworm larva [S. Gardosik, PDA]

WHITE PINE WEEVIL DAMAGE

Now is the point in the season where leader damage from white pine weevil will become apparent. The wilted leaders resemble a curved shepherd's crook. This damage to the leaders is irreversible and will in fact continue to worsen as the weevil larvae feed further down the main trunk. When larvae are mature they will begin to form a chamber inside the leader, a "chip cocoon", and will pupate for several weeks before emerging from the leader as an adult. This adult emergence typically begins in mid-July in central Pennsylvania and may continue through late summer. These



Figure 4: White pine weevil damage to leader (top), bark tissue damaged by weevil larvae vs. healthy tissue (bottom) [PDA]

are the adults that will overwinter and lay eggs in leaders next season. To prevent the new adults from emerging, growers can remove the infested leaders before July. When removing the leader, it is important to cut below any brown larval feeding damage (these areas will feel soft when squeezing the trunk). See Figure 4. It is also important to remove these leaders from the field and burn. Adults can still emerge from cut leaders!

HELPFUL RESOURCES

A list of Pennsylvania's registered miticides and insecticides, entitled *2011 Insecticides and Miticides for Christmas Tree Pests*, can be found at the Penn State Christmas tree Website, <http://ento.psu.edu/extension/christmas-trees>.

A great source for in-depth pest information and scouting suggestions is the PA IPM Program publication, *Integrated Pest Management for*

Christmas Tree Production: A Guide for Pennsylvania Growers, available for free download (<http://pubs.cas.psu.edu/FreePubs/pdfs/agrs117.pdf>) or for purchase from the PSU College of Ag Publications office (phone: 814-865-6713, fax: 814-863-5560, e-mail: AgPubsDist@psu.edu). Ask for publication item # AGRS-117.

The next scouting report will be available June 20, 2013.