

PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

MAY 16, 2012

Weekly newsletter compiled by Sarah Pickel, PA
Department of Agriculture.

This week's scouting data contributors:
Jim Fogarty (Halabura Tree Farm), Susan Newhart
(Acadia Tree Farm) Sarah Pickel, Brian Schildt
(PDA), Cathy Thomas (PDA)

GDD TOTALS AS OF TUESDAY, 5/15/12:

| LOCATION | GDD TOTAL |
|------------------------------------|-----------|
| Elizabethtown, Lancaster County | 484.5 |
| Hallstead, Susquehanna County | 300 |
| New Cumberland, York County | 524 |
| New Ringgold, Schuylkill County | 455.5 |

BAGWORMS

This week in Northern York County, the larvae of bagworms began exiting the overwintering cases. There were still a number of larvae inside the casings, but as temperatures warm through the end of this week, the other larvae should be



Figures 1 & 2: Bagworm casing with exit silk; young bagworm larvae feeding on Douglas-fir needles [S.Pickel, PDA]

exiting soon. Growers scouting for this emergence should look for strands of silk moving out the bottom of the overwintering casings, which will be dangling from the twigs of last year's growth. Larvae exit the casings on the silk strands they have produced in a process referred to as "ballooning." The larvae are able to glide on the silk to other areas on the tree or neighboring trees. While the casings are easy to see, with a size of 1½ - 2½ in. and a fibrous, brown, pine cone-like appearance, the larva are quite small at this early stage (< 1/8 in.). They will soon begin to construct casings for themselves out of needle material, which they will carry around with them, hermit crab style.

The best time to achieve control is while the larvae are still small and most susceptible to insecticides. Growers should make one application of a registered insecticide after the larvae have exited the bags. A *Bacillus thuringiensis*, or Bt, product, such as DiPel (Valent) or Javelin (Certis), is effective on bagworms while they are still small. This type of product will kill caterpillars, but will not kill the many other types of beneficial insects present at this time, such as lady beetles, lacewings and others. For more information on bagworm, visit: <http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/bagworm.pdf/view>.

CRYPTOMERIA SCALE

Eggs were found under the adult female scale coverings of Cryptomeria scale this week in Lancaster and York Counties. The presence of the tiny, bright yellow, jelly bean shaped eggs is a signal to growers that the scale crawlers, or nymphs, will be appearing in approximately two weeks. The crawlers are the exposed, vulnerable stage of this pest, which is protected for most of its life by a tough, protective covering. This insect pest has two generations in one season. The first generation is beginning with the presence of eggs at this time, and the 2nd will occur in early August.

Growers can look for this pest on the undersides of branches at the bases of host trees. Hosts of



Figures 3 & 4: Above: *Cryptomeria* scale damage [S.Pickel, PDA]; Below: Eggs with female scale, cover removed [S.Gardosik, PDA]



Figure 5: Female elongate hemlock scale with crawlers [S.Gardosik, PDA]

Cryptomeria include true firs, Douglas-fir, spruce and hemlocks. True firs, such as Fraser and Canaan, are most often the preferred hosts. The upper surfaces of infested needles will be speckled yellow. On the undersides of the needles, white and yellow scales resembling a fried egg will be found. A

hand lens is necessary for observing this pest! The white scale covers can be scraped away with a fingernail to reveal the tiny eggs surrounding the plump, round, yellow female. In the next few weeks, growers should be looking for the presence of flat, oval shaped crawlers moving along the

needles. When those crawlers appear, it's time to begin the insecticide applications. Two to three applications of a registered insecticide should be made, with 7-10 days between each spray.

One important tip growers should follow is to make sure grass is mowed between tree rows. Because this pest prefers the lower branches of the trees, pesticide sprays should be directed at the lower half of the trees. Tall grass can be a hindrance for pesticide coverage on the lower branches. 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

A heavier flush of elongate hemlock scale crawlers was seen this week in New Ringgold, Schuylkill County. Scale crawlers were also found emerging from female scales in Dillsburg, York County. Growers may have already begun their spray program a few weeks ago, when the first crawlers were seen moving on the needles. Growers who have not made a first application may want to begin when they find this greater emergence of crawlers. As stated in last week's report, it's recommended to begin a spray program consisting of 3 sprays with 4

weeks between each spray, or 4 sprays with 3 weeks between each spray. For more information on elongate hemlock scale, consult last week's report, or visit:

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

OTHER THINGS

An increased number of cones have been noticed



Figure 6: Fraser fir with cones [S.Pickel, PDA]

on Fraser fir this season. This may be due to extra stress last season caused by extreme weather conditions (heavy rains, drought, flooding, etc.). The problem with Fraser fir cones is that they grow on top of the branches and do not fall off naturally, so they can be aesthetically

unappealing and may affect the growth of the upper portion of the tree. While cone removal

can be time consuming or costly, removing the cones means producing better looking trees for sale.

Growers should be keeping up with their fungicide applications on Douglas-fir. In Dillsburg, York County this week, a number of fruiting bodies of Rhabdochline needle cast were beginning to dry up, but others continued to release spores. Remember that a fourth spray is recommended if the spring weather continues to be rainy or if Swiss Needle cast is present.

Lastly, growers who employ Spanish-speaking workers may be interested in a new pest identification resource produced by Oregon State

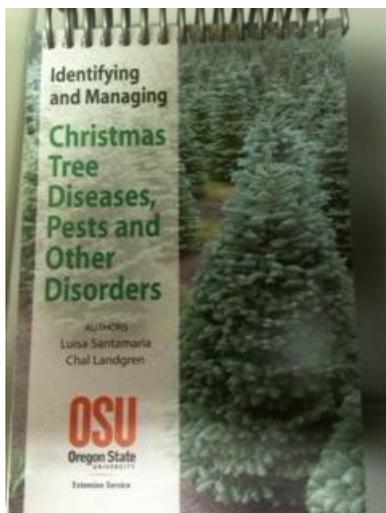


Figure 7: OSU pest booklet available in Spanish [C.Thomas, PDA]

University. Extension specialists at OSU have produced a spiral bound set of pest ID cards which contains both an English and Spanish version of each card. The publication is titled Identifying and Managing Christmas Tree Diseases, Pests and Other

Disorders and may be purchased for \$45 by contacting:

Extension Service North Willamette Research & Extension Center, Oregon State University, 15210 NE Miley Road, Aurora, OR 97002-9543. Phone: 503-678-1264, Fax: 503-678-5986, Web: <http://oregonstate.edu/dept/NWREC/>.

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>.

The next scouting report will be available May 23, 2012.