



PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

WEDNESDAY, JUNE 7, 2017

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

GROWING DEGREE DAY TOTALS FROM 6/6/17:

LOCATION	GDD TOTAL
Elizabethtown, Lancaster Co.	763.5
Indiana, Indiana Co.	635
Montoursville, Lycoming Co.	618
New Cumberland, York Co.	837
New Ringgold, Schuylkill Co.	704.5

CRYPTOMERIA SCALE

Today in York area, the very first few tiny, bright yellow crawlers, or first-stage nymphs, of Cryptomeria scale were seen on needles of Fraser fir.



Cryptomeria scale mobile crawler (top), settled crawler (lower right) and adult scale (lower left) [S. Pickel, PDA]

Nearly 100% of adult female Cryptomeria scales were found with eggs underneath their off-white coverings and underneath these coverings, only a very small percentage of moving, hatched crawlers were found among the eggs. Yesterday in Dauphin County, there were still only eggs found underneath the female coverings.

In Schuylkill County last week, eggs were found under only about 50% of female scales. After the start of egg laying, crawler emergence can be expected within

two weeks' time. Scouting for the timing of crawler emergence is important because this is the life stage of this damaging pest of true firs, spruces, hemlocks and other conifer species which is most susceptible to control by insecticide applications.

This scale pest's feeding causes yellow speckled discoloration to the needles of its hosts. Look for this damage on the upper surface of lower, interior branches. The off-white and yellow, oval-shaped scales will be found on the undersides of damaged needles. As the scale populations build, the damage may be found higher on the tree and on newer growth. Eggs will be found underneath



Cryptomeria scale feeding damage [S. Pickel, PDA]

the off-white coverings of females which can be seen by scraping away the coverings with a finger nail or a pin. When crawlers are first hatched, they will be mobile and found moving along the needles. Within a day, crawlers will find a place to settle along a needle and will begin to develop a light scale covering. When growers find that Cryptomeria crawlers have begun to hatch, it is time to begin insecticide application for control. Because crawler emergence can take place over a period of 3 weeks or more, repeated applications may be necessary. For more information on this pest, visit:

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

BAGWORM

Late last week, larvae of bagworm were found on the foliage of Arborvitae. In Dauphin Count the week before, new bagworm larvae were found on



Above: Early bagworm feeding damage [S. Gardosik, PDA]; Below: Young bagworms on Douglas-fir [S. Gardosik, PDA]



foliage of Colorado blue spruce.

Bagworms, which have one generation a year, typically hatch between 650 and 750 GDD.

Bagworms can be found on any species of conifer. When they begin to feed, they start to build a brown, cone-like case, made of pieces of needles, which they carry with them. The

bagworms will feed on needle tissue throughout the summer and as they increase in size, so do their cases or "bags". While soon after their emergence, the bagworms will only feed on parts of the needles (resulting in brown, ragged looking needles), the

bagworms will eventually consume whole needles. This can result in entire twigs being stripped of their needles.

To prevent this feeding damage, growers can apply an insecticide when larvae are still small, but when the majority have exited the cases. In smaller populations, if control is not achieved at this time with chemical controls, bagworms may be picked by hand later in the season.

WESTERN CONIFER SEED BUG

With many growers commenting on an increased number of cones found this season, a rise which can likely be

attributed to many trees stressed by drought conditions late last summer, they may also be noticing an insect invader in their fields of Douglas-fir, pines or Fraser fir. This relatively large ($\approx \frac{3}{4}$ inch), true bug would be the Western Conifer Seed Bug, which is similar in body shape to an assassin bug or may look like a narrower stink



Western conifer seed bug [Dawn Dailey O'Brien, Cornell University, Bugwood.org]

bug. This insect, as its name suggests, feeds on the seeds of conifers. For nurseries that cultivate cones to collect a seed crop, this insect can be very damaging. The ones growers may see now are overwintered adults that have emerged to feed and reproduce. Next generation nymphs of various stages will feed on cones throughout the summer. Growers who are raising a seed crop may want to consider taking a control action for this pest, but for Christmas tree growers and other nurseries who are not saving cones, these insects are not a concern. These insects are not dangerous to humans! Although, similarly to some other true bugs, such as boxelder bugs and stink bugs, these conifer seed bugs may become a nuisance by moving into barns, garages or homes to seek shelter. Sealing doors and windows and repairing screens are the best solutions to keeping these bugs out of structures on the farm.

ADDITIONAL RESOURCE

More information on Christmas tree pests and production is available at the PSU Department of Entomology's Christmas tree site: <http://ento.psu.edu/extension/christmas-trees>.

The next scouting report will be available Wednesday, June 14, 2017.