



# PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

## FRIDAY, JUNE 24, 2016

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

### GROWING DEGREE DAY TOTALS, 6/23/16:

| LOCATION                     | GDD TOTAL |
|------------------------------|-----------|
| Indiana, Indiana Co.         | 889       |
| Montoursville, Lycoming Co.  | 931       |
| Elizabethtown, Lancaster Co. | 1132.5    |
| New Cumberland, York Co.     | 1159      |
| New Ringgold, Schuylkill Co. | 1096      |

\* Figures courtesy of [www.accuweather.com](http://www.accuweather.com).

### CRYPTOMERIA SCALE

Cryptomeria scale crawlers continued to emerge in locations around central, southern and eastern



Cryptomeria scales and crawlers [C. Thomas, PDA]

Pennsylvania. In York County, Cryptomeria populations observed on Fraser fir were 100% hatched from the eggs, and most had emerged from under the female scale covers. (Less than 50% had any crawlers remaining under the coverings.) In populations

observed in northern Dauphin County, less than 10% of female scales had any eggs remaining under the coverings. In Schuylkill County, there were still some female scales with eggs underneath them.

Crawlers that have just recently hatched and emerged are oval in shape and will be bright, lemon yellow. These may still also be on the move. When the crawlers settle, they begin to form a light cream colored covering, which gives the crawlers a

pale yellow appearance. They will also be rounded in shape. Look for these on the lower branches of the tree, near branches showing the yellow speckled symptom of scale feeding. The new crawlers will often spread to the new growth.

The crawlers are the stage to target with insecticide applications. When uncovered and mobile, the crawlers are very susceptible to insecticides, however, settled crawlers with light coverings are also affected by insecticides. To determine if insecticides have been effective look for crawlers that are more golden/brown in color. The crawlers that had begun to settle will appear as though the covering is peeling up if controlled by insecticides. If live crawlers or eggs are still observed, growers may want to consider making a second application of insecticide 1 week – 10 days after the first. (In some heavy cases, a 3 application may be necessary.)

There will be a second generations of this pest occurs early in August (GDD range of 1,750 – 2,130). If the control window is missed with the first generation, growers can attempt to get the population under control during the second generation.

### FLETCHER SCALE

In Schuylkill County, the crawlers, or first stage nymphs, of Fletcher scale which were still under the adult scales last week had emerged to spread out along the foliage of arborvitae this week. The light amber or peach colored crawlers will be flat and oval shaped and can be found settled on foliage near the brown, helmet shaped female scales.

The scale can be controlled with a horticultural oil or insecticide that would be applied to infested



Fletcher scale nymphs [DKB Cheung, Canadian Journal of Arthropod Identification]

hosts at this time. Hosts include arborvitae, cedar, hemlock, juniper and yew.

### **COOLEY SPRUCE GALL ADELGID**

One pest whose symptoms may be evident at this time is Cooley spruce gall adelgid. These small, black sucking pests actually have two hosts on which they can cause damage.



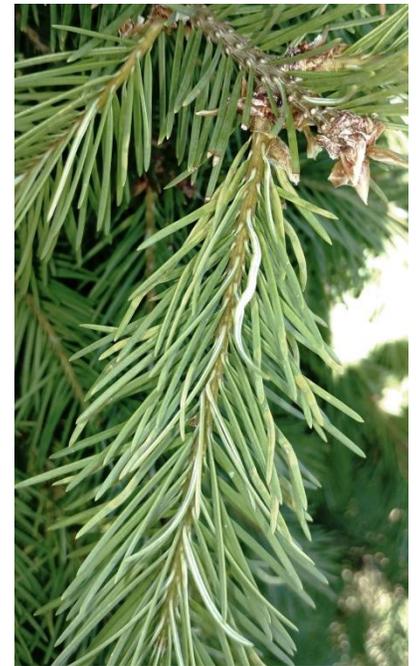
*Cooley spruce gall adelgid on Douglas-fir (Above) [S. Pickel, PDA]; and on Colorado blue spruce (Below) [PA DCNR, Department of Forestry, Bugwood.org]*

They are responsible for causing the large (thumb-sized) galls in the new growth of Colorado blue spruce and for causing kinked needles on the new growth of Douglas-fir. While the adelgid on Blue spruce are currently inside of the galls, the adelgids on Douglas fir will be found on the underside of the kinked needles covered by a white, woolly ball of waxy strands. The best time to achieve control of these insects is in the fall, after the exposed overwintering nymphs have settled at the bases of Colorado blue spruce buds or on the undersides of Douglas-fir needles (typically by October). There is a short window in the spring when an insecticide or horticultural oil can also be applied before they develop their waxy coverings (21-88 GDD). Although not ideal, some control can be achieved on Douglas-fir with a summer time application of insecticide. If gall formation on Colorado spruce is light, one control strategy is to clip the galls and remove them from the field during summer before the adelgids leave the galls.

### **DOUGLAS-FIR NEEDLE MIDGE DAMAGE**

Another pest of Douglas-fir whose damage is also visible at this time is the Douglas-fir needle midge.

The new needles will be kinked and swollen because of the presence of a gall in the needles. Unfortunately, there is nothing that can be done about this pest at this time, because the midge larvae are feeding inside of the needles and will remain there until winter. It would be wise for growers to note what trees/blocks/fields had damage this season. That way growers could place midge emergence traps in those areas next spring (April) to determine when the midge first start to emerge. Insecticide control can be effective at that time.



*Douglas-fir needle midge damage in June [S. Pickel, PDA]*

### **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, June 30, 2016.