



PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

THURSDAY, MARCH 31, 2016

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).

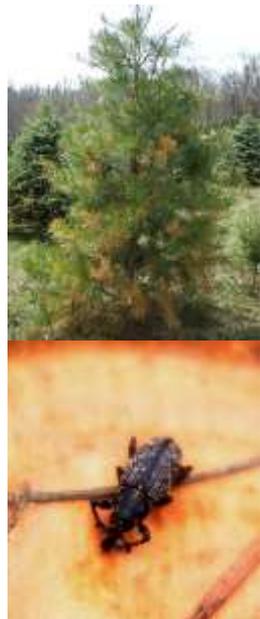
GROWING DEGREE DAY TOTALS, 3/30/16:

LOCATION	GDD TOTAL
Indiana, Indiana Co.	63.5
Montoursville, Lycoming Co.	54.5
Elizabethtown, Lancaster Co.	84
New Cumberland, York Co.	82.5
New Ringgold, Schuylkill Co.	50.5

* Figures courtesy of www.weather.com.

WEEVIL PESTS

This week, more weevils were found in Central PA emergence traps. Pales weevil adults were found in York, Lancaster and Schuylkill Counties. White pine weevils were also found in traps in both York and Lancaster Counties.



The mottled brown Pales weevils may have begun feeding on the lateral branches of conifers, most commonly pine species, but also Douglas-fir, spruce and true firs. This feeding will cause a flagging, or browning, of side branches. To reproduce, Pales adults need to lay their eggs in fresh cut stumps of Scotch pine (stumps cut the previous fall). This occurs several weeks after emergence. An insecticide applied to those fresh cut stumps will prevent the reproduction.

For control of white pine weevils, which can kill the leaders of host trees, an insecticide applied to the upper third of the tree will prevent egg laying. An application should be made soon after the weevils were found in traps. They can begin to lay eggs in

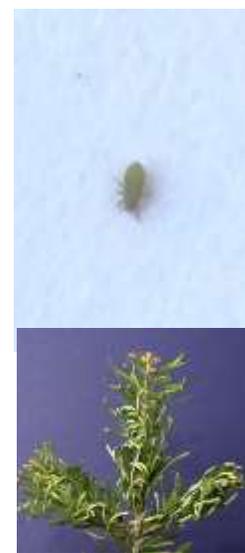
leaders within 2 weeks. If the control period is missed, the wilting of infested leaders will be noticed by the end of April or early May. Growers can cut out wilting leaders and burn them to remove the next generation of weevils from their fields.



BALSAM TWIG APHIDS

On Tuesday in York County, some small Balsam twig aphid nymphs were found on foliage of Fraser fir. Balsam twig aphids are strictly a pest of true fir species such as Fraser fir, Canaan fir, Concolor fir and others. The damage these tiny, soft bodied pests cause is a twisting of the new growth. This twisting does not kill the new growth, but the twisting will not go away.

Balsam twig aphids overwinter as eggs on the underside of the current season's twigs. When GDD



fall within the range of 30-100, gray-green nymphs will hatch from these overwintering eggs. If scouting for this pest, look for eggs on last season's stems that are close to symptomatic twigs, but not showing damage themselves. The aphids will begin feeding on the undersides of the needles. A tip to find these nymphs is to tap the upper side of branches over a white paper plate. The aphids will appear green and plump. These aphids mature to become stem

mothers, or reproductive females, which will produce the next generation of aphid nymphs. As soon as the season's new buds begin to break, those nymphs will crawl in and begin feeding on the new, tender needles. This feeding causes the irreversible, twisting damage.

To prevent this damage from occurring, a control application of a horticultural oil, insecticidal soap or insecticide should be applied after the majority of

eggs have hatched, but BEFORE the buds begin to break.

The next scouting report will be available Thursday, April 6, 2016.

SPRUCE SPIDER MITES

Lastly, this Wednesday, on Canaan firs in Lancaster



County, a few red-orange spruce spider mite nymphs were found moving along the twigs around the round, red overwintering eggs. In Schuylkill County, only one nymph was found in scouted foliage. This hatching is supposed to occur within a range of 50-

121 GDD. Spruce spider mites can be found on spruce, true fir, arborvitae, Douglas-fir and occasionally other conifer hosts.

These mites cause a yellowing or browning of foliage beginning from the base of the needles outward. In heavy populations, they will also develop a fine webbing that will surround the needles and twigs. The feeding from these mites will weaken the tree and can lead to needle drop. Spruce spider mite damage typically begins on the interior branches and moves outward.

Using a hand lens, look for the red overwintering eggs to be scattered along the underside of the twigs. When nymphs first hatch, they will be red orange and will have 6 legs. As they mature, the bodies will darken to brown or dark green and they will have 8 legs. Application of a miticide or horticultural oil should be made after the majority of the overwintering eggs have hatched. (Hatched eggs will appear clear.) It is better to take control measures before the new foliage has broken to prevent damage to the new needles.

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>.