

# PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

APRIL 4, 2013

Weekly newsletter compiled by Sarah Pickel, PA  
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## GROWING DEGREE DAY TOTALS, 4/2/13:

LOCATION	GDD TOTAL
Conoy Twp, Elizabethtown (SW), Lancaster Co.	3.5
Mount Joy Twp, Elizabethtown (NE), Lancaster Co.	0
Hallstead, Susquehanna Co.	0
New Cumberland, York Co.	0
New Ringgold, Schuylkill Co.	1

## WEEVIL MONITORING

Again this week, there were no weevils of any species found in the traps monitored by the IPM Program and its cooperators. These traps are located in Dauphin, Lancaster, Schuylkill, and York Counties. Although there were a few higher daytime temperatures over this past weekend, cold overnight temperatures kept the average temperatures low and no growing degree days were accumulated. White pine weevils need between 7 & 58 growing degrees to emerge from their overwintering sites underneath the trees (or ground temperatures above 50°F). When both daytime and overnight temperatures increase and farm locations begin to accumulate growing degree days, weevils can be expected to show up in the traps. Growers should wait until trapping has occurred on their farm (or in their area) to consider applying an insecticide for preventative weevil control.

## RUST MITES

This Tuesday, in scouting locations in Dauphin, Lancaster and York Counties, there were still no

active rust mites found. However, today in western York County, active adult mites were



Figure 1: Hemlock rust mite adults [R. Lehman, PDA]

found on Hemlock needles. In this location, 75% of the eggs were already hatched. As the temperature warms over the next few days, there should be an increase in Eriophyid mite activity as well. Growers can plan on controlling denser populations of

this pest when the majority of overwintering eggs have hatched. Further control information may be found here:

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

## DOUGLAS-FIR NEEDLE MIDGE MONITORING

A pest of increasing concern for mid-Atlantic growers is the Douglas-fir needle midge. This tiny, delicate, fly-like insect emerges from the ground below a Douglas-fir tree (its only host) to lay an egg on newly expanding needles inside the just-breaking buds. A larva will hatch on the underside of the egg and bore into the new needle. As the midge larva grows, it will form a yellowing gall in the needle. [See figure 2.]



Figure 2: Douglas-fir needle midge damage in November [PDA]

From May through late November, the damaged needles are easily seen. After November, in December or January, the larva, which had matured throughout the growing season, will bore out of the needle and drop to the ground to overwinter. At that point, the majority of the damaged needles will be cast from the tree, leaving bare patches in the most recent growth. If a grower hadn't seen the symptomatic needles during the growing season, it can be difficult to identify the problem. Look carefully through the foliage to find any symptomatic needles that may be not have been cast.

In order to pinpoint the time when the adults first emerge, growers can place a simple box trap at the base of a tree where there had been midge damage. These traps can be easily constructed



Figure 3: Douglas-fir needle midge emergence trap [S. Gardosik, PDA]

from a sturdy cardboard box, a clean peanut butter or mayonnaise jar and duct tape. [See picture at left.] The box opening is placed on the ground and when midges emerge, they will fly to

the light coming through the jar and be trapped. These traps should be checked daily as the time of bud break approaches. When the first midges are found, an insecticide should be applied as soon as possible, as the midge will begin mating and laying eggs soon after emergence. For more information on Douglas-fir needle midge, visit: <http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/Douglas-fir.pdf/view>.

### **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](mailto:AgPubsDist@psu.edu)). Ask for publication item # AGRS-117.

The next scouting report will be available April 11, 2013.