

PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

Report 1: March 24, 2010

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

Welcome to the 2010 Christmas tree scouting season. This is the first weekly report in a series of weekly updates that will continue through the end of June. These reports will contain information on insect, mite and disease activity, scouting tips and growing degree day (GDD) recordings. There are a number of volunteers across the state who will be contributing scouting data to these reports. This week's report includes scouting information from: Jim Fogarty (Halabura Tree Farm), Karen Najda (PDA), Susan Newhart (Arcadia Trees), Brian Schildt (PDA), Linda Signarovitz (scouting consultant) and Cathy Thomas (PDA).

Things have begun to warm up quickly this March, and we've already seen some insect and mite activity. The first reported trapping of white pine weevils [Fig. 1] was on March 19 in New Ringgold, Schuylkill County. This was at 5.5 GDD. In New Cumberland, York County, a weevil was caught on March 22 at 32.5 GDD. The accepted GDD range for white pine weevil emergence is 7 – 58. This weevil overwinters as an adult in the leaf litter and soil



Figure 1: Adult white pine weevil [Sarah Pickel, PDA]

underneath host trees and emerges as spring air temperatures approach 50°F. The adults emerge and move to the tops of host trees, which are pines, spruces, and occasionally Douglas-fir and feed for about two weeks before beginning to lay eggs into the leaders. To monitor for this pest, look at trees near where there has been previous damage from this pest. Sap bubbles along the tree leaders are evidence of

weevil feeding. Trapping is also an effective way to monitor for the weevil. See the article *Revised Teddar Trap Plans* on the Penn State Christmas Tree Website (<http://ento.psu.edu/extension/christmas-trees>) for more information. If weevils are found, growers may want to consider applying a registered insecticide to the top 1/3 of susceptible trees.

Pest activities correspond with a certain range of growing degree days. These values are calculated by subtracting a base (or active) temperature (50°F) from the average daily temperature. The GDD formula is:

$$\frac{\text{Low Temp.} + \text{High Temp.}}{2} - 50^{\circ}\text{F} = \text{Total GDD}$$

You can record the GDD totals for your farm by using a minimum/maximum thermometer to measure daily high and low temperatures. For more information about growing degree days, you may visit this Penn State University website, <http://ento.psu.edu/extension/christmas-trees/growing-degree-days>, which has a number of helpful links. As of yesterday, there have been 37.5 GDD accumulated in Elizabethtown, Lancaster County, 11 GDD accumulated in Montrose, Schuylkill County, 34 GDD accumulated in New Cumberland, Cumberland County, and 21.5 GDD accumulated in New Ringgold, PA.

Eriophyid mites were active this week in Adams and York Counties. Considered a cool season mite, they hatch very early in the season from their overwintering eggs. A hand lens is required to see these very tiny, triangular mites. The species found on spruce, fir and hemlocks are known as rust mites and their feeding gives foliage a rusted, bronzed or gray appearance. Species found on Eastern white pine or Scotch pine are sheath mites [Fig. 2], which give foliage a yellow stippling and sometimes cause needles to be stunted. These mites can be treated with a registered miticide,

but be sure that Eriophyids are listed on the label. Not all miticides are effective for these mites.



Figure 2: White pine sheath mites [Sarah Pickel, PDA]

Spruce gall adelgids have also been observed this week. The black-gray overwintering nymphs are beginning to feed and swell. In the case of Eastern spruce gall adelgid [Fig. 3], which are found on Norway spruce, the nymphs in Adams in York Counties have already begun to produce their waxy fringe and in some cases the nymphs are already covered. This fringe makes control very difficult. The Cooley spruce gall adelgids, which were found on Douglas-fir in Adams and York Counties, are still mainly black, with only a small percentage beginning to develop the white waxy fringe. There is still time to treat the Cooley spruce gall adelgid with a registered insecticide.



Figure 3: Eastern spruce gall adelgid waxing over [Sarah Pickel, PDA]

Another pest to look for at this time is the Pales weevil. [Fig. 4] This weevil, which is larger and more plainly colored than the white pine weevil, also emerges as an

adult. It feeds on pines and occasionally other conifer species. This feeding causes branches to be flagged. Growers may find this weevil in the Teddars traps used for White pine weevil trapping. The most successful treatment for this pest is to remove recently cut stumps of Scotch pine or to treat them with a registered insecticide. This prevents the weevils from laying eggs in the stumps.



Figure 4: Pales Weevil [Rayanne Lehman, PDA]

A list of Pennsylvania's registered miticides and insecticides is available at the Penn State Christmas tree Website, <http://ento.psu.edu/extension/christmas-trees>, entitled *2010 Insecticides and Miticides for Christmas Tree Pests*.

The next scouting report will be available March 31, 2010.