

PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

2011, Report 2: March 30, 2011

Weekly newsletter compiled by Sarah Pickel, PA
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This week's report includes data from Jim Fogarty (Halabura Tree Farm), Susan Newhart (Acadia Tree Farm), Tracey Olson (PDA), Brian Schildt (PDA), Linda Signarovitz, and Cathy Thomas (PDA). Each section of the report will also include links to fact sheets from the new PA IPM Program publication, *Integrated Pest Management for Christmas Tree Production*. Those interested in purchasing this publication can call the PSU College of Ag Publications office at 814-865-6713, fax them at 814-863-5560 or send an e-mail to AgPubsDist@psu.edu and ask about publication item # AGRS-117.

As of March 29th, growing degree day (GDD) accumulations for the season have not changed in our monitoring area. In Elizabethtown, Lancaster County, there have been 13.5 GDD, in New Cumberland, Cumberland County, there have been 16 GDD, and in Susquehanna County, no GDD have been accumulated. Last week's report did not include data from Schuylkill County, but this week it was reported that the GDD total thus far is 10 GDD in New Ringgold, Schuylkill County.

In Lancaster, Mifflin, Schuylkill and York Counties this week, Eriophyid mites [Fig. 1] were found to have emerged from overwintering eggs and were active on



Figure 1: Heavy Eriophyid mite population on spruce. [PDA]

foliage of Colorado blue spruce, Norway spruce and Fraser fir. These tiny, pale colored, cool season mites can be found on hemlocks, spruce, true firs and eastern white and Scotch pines. These mites can give foliage a gray or rusted appearance. When populations are heavy, trees may experience needle loss. Find more Eriophyid life cycle information

at the following link:

<http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/eriphyid-rust-sheath-mites.pdf/view>. To control Eriophyid mites, a dormant oil may be applied at this time (Do not use oil on Colorado blue spruce, as this removes the glaucous, or blue coloring of the needles!) or a miticide that mentions Eriophyid or rust mites on the label can also be applied when temperatures are appropriate for application. A list of insecticides and miticides registered for use in Pennsylvania, prepared by PA IPM Program scouting consultant, Brian Schildt, can be found on the Penn State Christmas tree website (<http://ento.psu.edu/extension/christmas-trees>).

Thanks to the colder temperatures we've experience this past week across Pennsylvania, trapping of white pine weevil [Fig. 2] had slowed considerably. In traps monitored by PDA staff, there was only one weevil



Figure 2: White pine weevils in a Teddar's trap top [PDA]

found this week, compared to 7 or more found last week, after the warm weather on the weekend of 3/19. White pine weevils begin to emerge from overwintering sites, in the soil and leaf litter below host trees, when soil temperatures (at a depth of 2") reach 50° or a range of 7 – 58 GDD has been reached. In central PA, temperatures are expected to only reach the upper 40's for the rest of the week. When temperatures warm up the following week, we may see more weevil activity in the traps and on leaders. Insecticide sprays applied to the top 1/3 of host trees are most effective when the weevils are actively feeding on the tree leaders. As for host trees, eastern white pine, Serbian spruce, and Colorado spruce are preferred, but most pine, spruce and Douglas-fir are susceptible. Look for this pest by examining tree leaders on a sunny day. Sap bubbles rising from the feeding holes will be easier to see if they reflect the sunlight. If adult weevils or feeding holes are

found after the first spray, apply a second spray a week to 10 days later. For more information on this pest, visit the following link:

<http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/shoot-and-branch-injury/white-pine-weevil.jpg/view>.

Another pest that growers may find in Teddars traps used to trap white pine weevil would be the Pales weevil [Fig. 3]. Like all weevils, it will have an extended snout with bent



Figure 3: Pales weevil on pine [PDA]

antennae branching off it, but these weevils will be larger than the $\frac{1}{4}$ in. long white pine weevil, at about $\frac{1}{2}$ in. long. The Pales also has dull brown wing covers compared to the brown, rust and white spotted white pine weevil. Pales can cause flagging damage to the lateral

branches of pines and occasionally other conifers, but are normally only a problem for farms that grow Scotch pine. These weevils reproduce in the fresh cut stumps of Scotch pine, so removal or insecticidal treatment of Scotch pine stumps will control these pests.

Lastly, on Douglas-fir in Cumberland County, the overwintering nymphs of Cooley spruce gall adelgid



Figure 4: Nymphs of Cooley spruce gall adelgid on Douglas-fir [PDA]

[Fig. 4] have not yet begun to wax over, so growers who missed the opportunity to spray for this pest last fall may still achieve control with an insecticidal spray or horticultural oil spray. For adelgids on Colorado blue spruce, avoid using an oil spray to preserve the

blue coloring. When scouting for this pest on Douglas-fir, look for kinked and yellowed last season's needles. The flat, black, oval-shaped overwintering nymphs will

be found on the underside of the needles near the buds.



Figure 5: Old galls on Colorado spruce [W. Cranshaw, CSU, bugwood.org]

When scouting for the pest on Colorado spruce, find twigs near a brown, spiky gall from last season, then look on the undersides of the twigs in bark and bud crevices near the end of the twigs. Soon, the adelgids will cover their bodies in a mass of white, cottony wax, and at that point will be protected from insecticide sprays. For more information on this pest on Douglas-fir, visit:

<http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/adelgid.pdf/view>. For more information on this pest on Colorado spruce, visit:

<http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/shoot-and-branch-injury/cooley-spruce-gall.pdf/view>.

The next scouting report will be available April 6, 2010