

PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

2011, Report 5: April 20, 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), Brian Schildt (PDA), and Cathy Thomas (PDA). The links included in several paragraphs lead 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 April 19th, growing degree day (GDD) accumulations were 74 in Elizabethtown, Lancaster County, 71.5 in New Cumberland, Cumberland County, 41.5 in New Ringgold, Schuylkill County, and 8 in Montrose, Susquehanna County. Ground temperatures in New Ringgold, Schuylkill County have been 47 - 49° F this week.

In Elizabethtown, Lancaster County, crawlers of pine bark adelgid were just beginning to emerge on eastern white pine. These dark, flat insects insert their



Figure 1: Pine bark adelgids on eastern white pine [Brian Schildt, PDA]

mouthparts into the bark of its hosts (mainly eastern white pine, but also Austrian and Scotch pines), feed on plant juices and cover themselves with white, cottony wax. [Fig. 1] In early spring, over-wintering females lay yellow eggs underneath their waxy coverings. The eggs hatch and crawlers move out from under the wax to move to the base of this year's candles. While not typically a serious pest, heavy feeding will reduce tree vigor. Often, beneficial insects are able to keep populations in check. If waxy areas have increased and growers feel that control is necessary, the time to apply horticultural

oil or insecticide is soon, after most of the eggs have hatched.

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

Spruce spider mites were beginning to hatch this week in Schuylkill and York Counties. Look for dark red – brown mites on the underside of spruce and true fir twigs. [Fig.2] Spider mite feeding can cause yellowing or browning of the needles. Growers wishing to treat with a horticultural oil or insecticide should wait until the majority of the over-wintering eggs



Figure 2: Adult spruce spider mite [R. Lehman, PDA]

have hatched, as miticides and insecticides are not effective against these eggs.

<http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/spruce-spider-mite.pdf/view>

Balsam Twig Aphid continued to hatch in Schuylkill and York Counties. In Schuylkill County, the egg hatch is at about 50%. The pale green stem mothers can be found feeding on the undersides of the needles of true firs. If growers had aphid damage last season (kinked needles) and wish to make a control application, it would be best to wait until a majority of the eggs have hatched. However, it is also important to apply chemical controls before bud break to prevent stem mothers from giving birth to the next generation of aphids at the new buds.

Douglas-fir buds are just starting to break in Elizabethtown, Lancaster Co. [Fig.3] In Dillsburg, York County, the buds have begun to swell, but breaking buds were not observed yet. This is an important sign that spraying for Rhabdochline and Swiss needle casts should begin soon. These diseases will infect the new needles as they emerge, so it is very important to apply fungicides as protection on the new growth. In several

counties, Rhabdocline fruiting bodies have begun to swell, so they will be ready to release spores as soon as humid or rainy conditions are present. [Fig.4] <http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/rhabdocline-needle-cast.pdf/view>



Figure 3: Douglas-fir buds [B. Schildt, PDA]



Figure 4: Rhabdocline needle cast [T. Olson, PDA]

Douglas-fir bud break also signals the time to treat for Douglas-fir needle midge. This tiny fly-like insect, which grows inside of the needles, causes kinked needles in the summer, which will be cast in late fall. Growers who had a problem with this last season, can make an application when buds begin to break. (Commonly mixed with the first Rhabdocline fungicide application.) There will be more information on this pest in the next report. <http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/Douglas-fir.pdf/view>

Lastly, the fruiting bodies of Spruce Needle Rust have begun to swell. [Fig.5] This disease can be found on Colorado blue and Serbians. When buds of these trees

break and moist conditions are present, the spores will be ready to infect the new growth. If growers have this disease, when buds break, they will need to make several protective fungicide applications, with a week between each spray.



Figure 5: Spruce needle rust [T. Olson, PDA]

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

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>).

The next scouting report will be available April 27, 2011.