

Christmas Tree Scouting

Report #6 – 4/29/09

Weekly newsletter compiled by Sarah Pickel,
PA Department of Agriculture

This week's report includes scouting information from: Jim Fogarty (Halabura Tree Farm), Karen Najda (PDA), Susan Newhart (Arcadia Trees), Brian Schildt (PSU), Linda Signarovitz and Cathy Thomas (PDA).

The high temperatures we saw over much of last week in Pennsylvania has accelerated pest activity and also bud growth. In one week's time, the accumulated Growing Degree Day (GDD) total in New Ringgold, Schuylkill County has jumped from 42 (on 4/21) to 122.5 (on 4/28). In Elizabethtown, Lancaster County the GDD total is 144. In Susquehanna County, however the total is 82, so activity will be a little farther behind in northern counties.

Spruce spider mites were hatched in Adams County, Cumberland, North Hampton, Schuylkill and York Counties. [Figure 1] When scouting for these mites, find the branches on which needles are yellowed or brown near the twig and tap these branches above a white plate or notebook. The spider mites will be the tiny red specks that begin to move around. Observe these specks closely with a hand lens. To

determine if the mites are nymphs (immature) or adults, count the legs. Nymphs will have six legs and adults will have eight legs. Certain miticides will

either target only adults or only immature stages, so it is helpful to know the stages you have when determining which treatment to use. It's also important to carefully read the



Figure 1: Spruce spider Mite [Sandy Gardosik, PDA]

pesticide labels before application. The list of registered insecticides for Pennsylvania is available on the Penn State Christmas tree web site at <http://ctrees.cas.psu.edu>.

Another issue to consider with spider mites is a threshold level, or how many mites can be present before a spray is necessary. One method for determining this is to count the number of mites dislodged by using the tap procedure mentioned above. If tapping branches produces an average of 10 or more mites/branch, it would be a good idea to apply a miticide or horticultural oil. If this is the year of sale for a particular block of trees, your threshold level may be less than 10.

In Adams, Cumberland, Lancaster, North Hampton, Schuylkill and York Counties, Douglas fir buds are breaking. This signals the time to treat for several problems, as mentioned in last week's report. Rhabdocline Needlecast will be sporulating any day now. The next rainy day may release these spore and the new growth will be susceptible to infection, so it is important to have your first fungicide treatment on very soon.

It's also important for those who have had infestations of Douglas fir needle midge to make

applications of an appropriate insecticide now. In

Cumberland County, the adult midge have already been

observed flying around the newly

exposed needles earlier this week. [Figure 2] A second application, made 5-7 days after emergence, may help to achieve the best control.



Figure 2: Douglas Fir Needle Midge [Sandy Gardosik, PDA]

Adults of Balsam twig aphid have been observed in Fraser and in Canaan fir in Dauphin, Schuylkill and York Counties. The

time for control is nearly at an end, as Fraser fir buds are in the swelling stages. Also, even though the buds of Fraser fir are still not broken in most counties, there is a possibility for the aphids to find protection in the newly expanded cones. [Figure 3] If the gray-green aphids are observed in the cones, it will be difficult to achieve control and prevent them from causing damage.



Figure 3: Balsam Twig Aphid in Cone [Sandy Gardosik, PDA]

In York County yesterday, the larva of Gypsy Moths [Figure 4] were observed on Douglas fir trees. Although not normally a pest of concern on Christmas trees, this pest will feed on conifer needles. For growers who also grow deciduous shade trees or who have them on their or surrounding properties, this is a



Figure 4: Gypsy Moth Larva on Douglas Fir [Brian Schildt, PSU]

serious pest of those trees. If populations are high on Christmas trees, growers may want to consider treating with a registered insecticide or Bt (*Bacillus thuringiensis* var. *kurstaki*), a microbial product.

Lastly, at another York County location, eriophyid mites were still active. These tiny mites [Figure 5] are responsible for causing rusty or washed out color on spruce, pine and

occasionally fir. Although they are considered to be a cold season mite, they can still cause considerable damage before the higher temperatures of summer slow their progression. If treating these mites with a miticide, check the label to make sure that eriophyid mites are listed, as not all registered miticides are effective on these mites. Because multiple life stages can be present at one time, applying a product that will be effective on multiple stages is important.



Figure 5: Eriophyid Mites [Sandy Gardosik, PDA]

The next scouting report will be available on May 6, 2009.