

# PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

APRIL 18, 2013

Weekly newsletter compiled by Sarah Pickel, PA  
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## GROWING DEGREE DAY TOTALS, 4/17/13:

LOCATION	GDD TOTAL
Conoy Twp, Elizabethtown (SW), Lancaster Co.	177
Mount Joy Twp, Elizabethtown (NE), Lancaster Co.	107
Hallstead, Susquehanna Co.	30
Indiana, Indiana Co.	130.5
New Cumberland, York Co.	103
New Ringgold, Schuylkill Co.	93.5

## BALSAM TWIG APHID

This week in Lancaster and York Counties, stem mothers (or 1<sup>st</sup> generation nymphs) of Balsam twig aphids were found hatched on the needles of true firs (the only host genus of this pest). When scouting for this pest, hold a dark flat surface



Figure 1: Balsam twig aphid stem mother [PDA]

under a branch and tap the upper surface of the branch. The light-green aphids will fall to the dark surface and be clearly visible. This soft-bodied pest hatches from a silvery overwintering egg and begins to feed on the underside of last season's needles. As bud break approaches, the stem mothers will move to the buds and prepare to give birth to live young which will enter and feed inside the newly breaking buds. The key to avoiding the typical symptom of the twisted new

growth is to control the stem mothers after the eggs have hatched, but before bud break occurs. In northern York County, no eggs were found, so the hatch was close to 100%. For more information on Balsam twig aphid, visit: <http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/balsam-twig-aphid.pdf/view>.

## SPIDER MITES

Spruce spider mites have hatched this week in central York County on Fraser fir. No eggs were found on these sprigs, so in that region, hatch is close to 100%. Spider Mites were also hatched on Arborvitae in Schuylkill County. In this location, eggs were still found, and the hatch level was estimated at about 50%. Egg hatch has not yet been reported from scouts in Lancaster and Susquehanna Counties. Growers can monitor for hatch by holding a light flat surface (ex. Paper plate) under a branch and tapping the upper side of the



Figure 2: Spruce spider mite nymphs and adults [PDA]

branch to dislodge any mites onto the surface. After a few seconds, the rusty-brown mites will begin to move across the surface and be clearly visible. When hatch approaches 100%, growers should consider making a control application if 10 or more mites are found per sprig. Growers should scout the treated blocks about a week after the first application to determine if a second application would be necessary. For more information on Spruce spider mites, visit: <http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/spruce-spider-mite.pdf/view>.

## WEEVIL TRAPPING

Weevils continued to be active in traps in Schuylkill and York Counties this week. After a

week of simply feeding on the terminals of host trees, the weevils will mate and will begin to lay eggs inside of these terminals. Growers who find evidence of weevil feeding, or who have found weevils in traps, and plan to make control applications should do so soon. If weevils are still being found in the traps a week to 10 days after the first insecticide application, second application made a week to 10 days late, may be necessary. If control was not achieved in time, growers will see infected leaders begin to wilt in a few weeks.

### **SPRUCE GALL ADELGIDS**

The spring time control windows for both Cooley spruce gall adelgid and Eastern spruce gall adelgid are coming to a close. In York County, the nymphs of Eastern spruce gall adelgid, the pest of Norway spruce, have waxed over and are



Figure 3: Eastern spruce gall adelgid nymphs waxed over [PDA]

beginning to plump, which mean eggs will soon be laid. In Cumberland County, the nymphs of Cooley spruce gall adelgid, the pests of Douglas-fir and Colorado blue spruce, have waxed over and have laid eggs. The wax provides the oval-shaped nymphs protection from insecticide sprays and the

eggs will soon hatch and spread out to the new buds, causing either kinked needles (Cooleys on Douglas-fir) or gall formation (Cooleys on Colorado blue spruce; Eastern on Norway spruce). In Susquehanna County, neither the Cooley or Eastern spruce gall adelgids have begun to wax over, so there is still time to achieve control. The preferred time to control these pests is in the fall, after the overwintering nymphs have settled on the twigs or needles. For more information on Cooley spruce gall adelgid, visit:

<http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/adelgid.pdf/view>, or [\[tree/pest-fact-sheets/shoot-and-branch-injury/cooley-spruce-gall.pdf/view\]\(http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/shoot-and-branch-injury/cooley-spruce-gall.pdf/view\).](http://extension.psu.edu/ipm/program/christmas-</a></p></div><div data-bbox=)

### **DOUGLAS-FIR BUD BREAK APPROACHES**

In southern York County, the buds of Douglas-fir are both swelling and lightening in color, both of which are indications that bud break will soon occur. Bud break of Douglas-fir is important to note because 1) both Rhabdocline and Swiss needle cast diseases can infect the newly expanding needles and 2) Douglas-fir needle midge will be emerging and laying eggs inside the opening buds. For this reason, growers should be ready to make their fungicide applications when bud break begins, and if needle midge is a problem, should also be ready to apply an insecticide at the time of, or just prior to, midge emergence. For more information on the needle cast diseases, visit:

<http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/rhabdocline-needle-cast.pdf/view>, or <http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/swiss-needle-cast.pdf/view>. For 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 25, 2013.