

# PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

## MAY 2, 2013

Weekly newsletter compiled by Sarah Pickel, PA  
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### GROWING DEGREE DAY TOTALS, 5/1/13:

LOCATION	GDD TOTAL
Conoy Twp, Elizabethtown (SW), Lancaster Co.	300.5
Mount Joy Twp, Elizabethtown (NE), Lancaster Co.	164.5
Hallstead, Susquehanna Co.	80
Indiana, Indiana Co.*	189.5
Millcreek, Erie Co.**	116
New Cumberland, York Co.	166.5
New Ringgold, Schuylkill Co.	138.5

\* Figure courtesy of [www.weather.com](http://www.weather.com).

\*\* Figure courtesy of Ruth Benner, PSU Cooperative Extension, Erie.

### DOUGLAS-FIR NEEDLE MIDGE

In Cumberland, Lebanon and York Counties this week, Douglas-fir needle midge adults were found in emergence traps and hovering around Douglas-fir buds. In York County, they have already begun to lay eggs inside the buds. The eggs are transparent, orange and oblong, and can be seen underneath the bud sheath with a hand lens. Making control applications at the earliest sign of emergence is critical, so growers should be scouting and monitoring emergence traps daily. Growers should look closely around the Douglas-fir buds for tiny, fly-



Figures 1 & 2: Top - Female adult Douglas-fir needle midge [PDA]; Bottom - Douglas-fir needle midge eggs [PDA]



like insects, with long, delicate legs, a yellow-orange body and clear wings. In cases of a heavy infestation, a second application may be necessary, a week after the first. More information on this pest can be found at: <http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/Douglas-fir.pdf/view>.

### NEEDLE CASTS OF DOUGLAS-FIR

Bud break of Douglas-fir is happening across the mid-state. In Cumberland, Lancaster, Lebanon and York Counties, 50% -75% of the trees have broken bud. In Schuylkill County, bud break is occurring on 10%-50% of the trees in various blocks. In these locations, the splotchy, rust-colored



Figure 3: Rhabdocline lesions sporulating [T. Olson, PDA]

Rhabdocline lesions have begun to crack and will be ready to sporulate, or to release infective spores, when the needles come in contact with water. Swiss needle cast, which causes Douglas-fir needles to brown from the tips back and develops black fruiting bodies on the undersides of the needles (these line up with the stomates), may also be releasing spores at this time. When new buds are breaking and needles are visible, growers should be making fungicide applications to protect the newly emerging needles from the infective spores of Rhabdocline and Swiss needle casts. The spray schedule for these needles casts of Douglas-fir is as follows:

- 1<sup>st</sup> - at bud break
- 2<sup>nd</sup> - one week after the first
- 3<sup>rd</sup> - two weeks after the second
- 4<sup>th</sup> - three weeks after the third [if Swiss is present or season continues to be rainy]

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>

### **SPRUCE NEEDLE RUST**

In the capital area, bud break of spruce is light and sporadic (<10%). In Schuylkill County this



Figure 4: Bands of spruce needle rust [T. Olson, PDA]

week, a small percentage of Norway and Serbian spruce are beginning to break bud. The yellow-orange bands of spruce needle rust on Serbian spruce in Schuylkill County have begun to swell, but the telia, or fruiting bodies, have not yet broken the surface of the needles. It is these fruiting bodies which

release the spores to infect the new needles. The control for this disease should begin with fungicide applications at the time of bud break. Fungicide applications should be repeated weekly until the needles have hardened off or until the diseased needles have dropped off the trees. For more information, visit:

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

### **PINE BARK ADELGID**

In Cumberland, Lancaster and York County this



Figure 5: Pine bark adelgid nymphs [PDA]

week, the candles of Eastern white pine continued to expand and more nymphs of pine bark adelgid were found on this new growth. There were still eggs present in some of the cottony tufts at the base of the new growth. In Schuylkill County, a few nymphs of were also found on the new growth, however the majority of the eggs were still un-hatched.

These nymphs can be controlled with horticultural oil or insecticide.

### **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 May 9, 2013.