



# PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

FRIDAY, MAY 12, 2017

Weekly newsletter compiled by Sarah Pickel, PA Department of Agriculture. This week's scouting data contributors: Jim Fogarty (Halabura Tree Farm), Karen Najda (PDA), Sarah Pickel and Cathy Thomas (PDA).

## GROWING DEGREE DAY TOTALS FROM 5/11/17:

LOCATION	GDD TOTAL
Elizabethtown, Lancaster Co.	404.5
Indiana, Indiana Co.	334
Montoursville, Lycoming Co.	301.5
New Cumberland, York Co.	459
New Ringgold, Schuylkill Co.	377

\* Figures courtesy of [www.accuweather.com](http://www.accuweather.com).

## BUD BREAK

In York and Dauphin County scouted location, 100% of Colorado blue spruce have broken bud. In Schuylkill County, however, blue spruce are only at about 70% bud break. Also in Schuylkill County, about 80% of Serbian spruce have broken.

Nearly 100% of Fraser firs have broken bud in York County, while in parts of Dauphin County 80% or more of Frasers have broken.

## POTENTIAL FOR FROST DAMAGE



On Monday and Tuesday of this week, some parts of Pennsylvania saw temperatures drop below 32 degrees. In these areas, growers may be seeing wilting damage on any conifer buds that were broken. These buds may turn brown and crispy; however, this damage may take time to show up.

## PINE NEEDLE SCALE

Today in Lancaster County, the crawlers of Pine Needle Scale were seen moving out from under the white adult scale covers. This hard scale pest can be found mainly on Eastern white pine and Scotch pine, but may be a pest of any hard-needled pine. The adult scale covers are oblong and white, while the tiny oval, crawlers are a burgundy or rust colored. This pest may not often post a threat on Eastern white pine, however, in some cases, it can be heavy on Scotch pine or other hard needled pines.



Pine needle scale female covering with crawlers [S. Pickel, PDA]

For best control, it is recommended that growers make an insecticide application when a majority of eggs have hatched under the scale covers and crawlers are seen moving around. If necessary, a second application could be made a week later. For more information, visit: <http://extension.psu.edu/pests/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/pine-needle-scale.pdf/view>.

## ELONGATE HEMLOCK SCALE

In Schuylkill Counties, Elongate Hemlock Scale crawlers were seen moving on needles of Douglas-fir. Additionally, eggs were found inside female scales. These eggs can hatch within two weeks into crawlers that will spread out to new needles. When scouting for this scale, look for gray waxy

residue and the yellow-speckled needle damage on the lower, interior foliage of hemlocks, true firs and Douglas-fir. The tiny, bright yellow, oval-shaped crawlers will be found on the undersides of the needles, along with the brown, oblong female scales and shorter, white, waxy male scales.

Growers should think about starting control measures when they notice more than just the first few crawlers.



*Elongate hemlock scale on hemlock [J.A. Davidson, Univ. Md, College Pk, Bugwood.org, #1635037]*

Because of the staggered generations throughout the season, a spread-out insecticide strategy is necessary. Penn State scale research led to the recommendation of applying either 3 insecticide applications with 4 weeks between each application, or 4 applications

with 3 weeks between each application (trials suggest Dimethoate). Another option that some growers have found to be effective (although no official trials have been conducted) is a single application of the systemic chemical spirotetramat (Movento, Kontos). Lastly, Connecticut research recommended making a pre-bud break trunk application of dinotefuran (Safari).

### ***NEEDLE CASTS OF DOUGLAS-FIR***

Growers of Douglas-fir should be in some stage of fungicide applications for the prevention of needle cast diseases at this point. The traditional timing recommendation suggest following up the 1<sup>st</sup> chlorothalonil application made at the start of bud break with a 2<sup>nd</sup> application one week later, a 3<sup>rd</sup> application 2 weeks after the 2<sup>nd</sup> and a 4<sup>th</sup> application made 3 weeks after the 3<sup>rd</sup>. Those who have consistent problems with Swiss needle cast may follow the newer suggested fungicide program which shortens the intervals between the 2<sup>nd</sup>, 3<sup>rd</sup>

and 4<sup>th</sup> to only 7-10 days between each application, and adds a possible 5<sup>th</sup> spray.

### ***SPRUCE NEEDLE DISEASES***

Growers who have issues with either spruce needle rust (a fungus affecting Serbian and Colorado blue spruce) or spruce needle cast (*Stigmina* affects Serbian and Colorado blue spruces, while *Rhizosphaera* can affect Colorado blue spruce or Engelmann spruce) should most likely have begun their preventative fungicide program. For needle rust (the disease which causes yellow-orange bands surrounding the most recent season's needles), the first fungicide application should be made at the start of bud break, and further applications should be repeated weekly until the needles have hardened off or until the diseased needles have dropped off the trees. For needle cast (two potential diseases which cause needle browning and development of black fruiting bodies on the undersides of needles), fungicide applications should begin at bud break and continue at 2-3 week intervals (or a shorter time span if the season is rainy) for at least 3 applications.

### ***ADDITIONAL RESOURCE***

More information on Christmas tree pests and production is available at the PSU Department of Entomology's Christmas tree site: <http://ento.psu.edu/extension/christmas-trees>.

The next scouting report will be available Friday, May 19, 2017.