

PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

APRIL 18, 2012

Weekly newsletter compiled by Sarah Pickel, PA
Department of Agriculture.

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GDD TOTALS AS OF TUESDAY, 4/10/12:

LOCATION	GDD TOTAL
Elizabethtown, Lancaster County	231
Hallstead, Susquehanna County	140
New Cumberland, York County	267
New Ringgold, Schuylkill County	196.5

BUD BREAK

Yesterday, Douglas-fir in southern York County was at 90% bud break in a number of fields. Some



Figure 1: Douglas-fir bud break
[B. Schildt, PDA]

fields showed a slower rate of opening than others. In Schuylkill County, there is also a wide percentage range of bud break in Douglas fields. The range is from approximately 10% - 90% in different blocks. In Lykens, Dauphin County last Thursday, bud break was still light, with about 10% break. Douglas-fir in Lehigh County is just beginning to break bud, and in Susquehanna County, buds are swelling, but not yet breaking.

Other conifers showing signs of break were Colorado blue spruce, with approximately 10% break in York County and about 2% in Schuylkill County and Fraser fir, which in southern York

County, was showing signs of bud lightening, swelling, and less than 2% breaking.

SPRUCE NEEDLE RUST

This week in New Ringgold, Schuylkill County, fruiting structures, or *telia*, of spruce needle rust were swollen and beginning to split the needle surfaces on Colorado blue spruce. Blue spruce were beginning to break bud in this area, so



Figure 2: Bud break of Blue Spruce
[S. Pickel, PDA]

growers who have an issue with this disease should be prepared to apply fungicides when they find bud break of Blue spruce on their properties. On

Serbian spruce, the fruiting structures were poking out through the ruptured needle surfaces; however the buds of Serbian spruce were still tight. Fungicides should not be applied until the buds of Serbian begin to break.

This disease will infect only new needles of Colorado blue and Serbian spruces (Sitka spruce



Figure 3: Spruce needle rust sporulating
[T. Olson, PDA]

also susceptible). An infection will often be found on the bottom half of the tree. Infected needles have an orange band which circles the needle. At this time the bands will be swollen and eventually will rupture to release spores, which will be carried by wind or rain to infect the newly emerging needles.

After the fruiting structures are done releasing spores, the needles will drop. It's recommended that growers begin

application of fungicides when buds begin to break and then repeat applications weekly until infected needles drop or new needles harden off. This should total between 3 and 5 sprays. For more information on Spruce needle rust, visit: <http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/spruce-needle-rust.pdf/view>.

DOUGLAS-FIR NEEDLE MIDGE

As growers are making fungicide applications for needle casts of Douglas-fir, they should also think about applying an insecticide for Douglas-fir needle midge if they experienced damage from this pest last season. The distribution of this pest in Pennsylvania has ranged from the southeastern part of the state to Lycoming and Sullivan in the north and Blair in the west. However the midge could be found outside of this range.



Figure 4: Douglas-fir needle midge adult [S. Gardosik, PDA]

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Although midges have not yet been found in emergence traps in Cumberland and Lancaster County, growers should expect that the midge will be active when the Douglas buds are opening. They can look for the presence of orange gnat-like insects flying over Douglas-fir buds. For more 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>

OTHER PESTS

Eggs of pine bark adelgid have not yet hatched on Eastern white pine in Schuylkill and York Counties. Currently, eggs can be found under the white cottony



masses found at the bases of the new candles. Nymphs will hatch from these eggs and move up the newly expanding candles to feed on the developing bark tissue. If growers have a problem with the pest, the time to control them is when the nymphs are exposed on the candles. Look for more information in next week's report.

Growers in Cumberland, Schuylkill and York Counties have begun making fungicide applications for Rhabdochline and Swiss needle casts. The purpose of these applications is to protect the surfaces of the newly expanding needles from the fungal spores. The fungicides prevent the disease penetrating the needle tissue. To best prevent infection, growers need to stick to their spray schedules. (See last week's report.)

Eriophyid mites continue to be active in Schuylkill and York Counties. Also, feeding damage from this season's spruce spider mite population is becoming evident. To prevent damage to new growth from either of these mites, make sure populations are controlled before the new buds open.

LOOKING AHEAD

The males of elongate hemlock scales are starting to mature in both Schuylkill and York Counties. This is indicated by the build-up of white waxy filaments on the underside of the infested needle surfaces. As the wax builds up, it will also be evident on the upper surfaces of the needle, along with the symptom of yellow speckling caused by the scale feeding. This development is early this year, so growers should be looking at the end of April or beginning of May for scale crawler activity, which normally begins at the end of May. There will be more information on this pest in weeks to come, but for those interested in reading more about this pest, visit: <http://extension.psu.edu/ipm/program/christmas-tree/pest-fact-sheets/needle-discoloration-and-injury/elongate-hemlock-scale.pdf/view>.

For your reference, the *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>.

The next scouting report will be available on Wednesday, April 25, 2012.