



PENNSYLVANIA'S CHRISTMAS TREE SCOUTING REPORT

FRIDAY, MARCH 11, 2016

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

GROWING DEGREE DAY TOTALS, 3/10/16:

LOCATION	GDD TOTAL
Indiana, Indiana Co.*	20
Montoursville, Lycoming Co.*	24.5
Elizabethtown, Lancaster Co.	33.5
New Cumberland, York Co.	39.5

* Figure courtesy of www.weather.com.

Greetings, readers, and welcome to the 2016 scouting season. This is the first scouting report of the season, and it is being sent a week earlier than it has in the past few years. Because of the record setting warm temperatures we've been seeing in Pennsylvania and the other Mid-Atlantic states, we will see pest activity increasing sooner than usual. For this reason, growers should be making efforts to begin trapping and scouting a little earlier than they normally would. For growers who have had issues with White Pine Weevil, it's important to note that in one region, this pest has already been seen this week. More information on that can be found in the next section.

As we do every season, PA Integrated Pest Management (PA IPM) program team members began watching daily temperatures on March 1st for the purpose of tracking the accumulation of Growing Degree Days (GDDs). Using average daily temperatures, it's possible to calculate the cumulative amount of heat accumulation in a growing season or GDDs. For insects, mites and plants, certain development events (emergence from dormancy, egg laying, hatching, molting, etc.) take place once a certain amount of GDDs have been reached. The chart above lists GDD totals from a few regions in PA. You can track temperatures on your farm using a maximum/minimum thermometer to have the most accurate GDD total. (The following link gives an explanation of the GDD calculation:

<http://extension.psu.edu/pests/ipm/agriculture/christmas-tree/ipm-basics/Step3.pdf>.) Alternatively, you can track GDDs in your town using Weather.com's GDD Calculator at the following site: <http://www.yourweekendview.com/outlook/agriculture/growing-degree-days/>. The pests we'll be scouting for this season all have a specific GDD range during which they typically emerge. This information will be shared about the pests we report on, along with current pest activity, life cycle details and management options. Pest activity information will mostly be from the south-central Pennsylvania region, but occasionally information from other PA regions will be available.

WHITE PINE WEEVIL MONITORING

Early in March, PA IPM team and a few reporting farms set white pine weevil emergence traps in several locations across south central PA. These pyramid shaped traps are baited with vials of denatured alcohol and turpentine (chemicals simulating those produced by stressed conifers) and have the purpose of capturing white pine weevil adults as they emerge from their overwintering sites in the duff



underneath host tree species. (The traps are sold as Whalon Modified Tedder's traps at Great Lakes IPM, Inc. (www.greatlakesipm.com), or construction instructions are available at: <http://extension.psu.edu/ipm/program/christmastree/appendixes/insect-traps.pdf/view>.) Weevils can be expected to be found in emergence traps or on the leaders of trees around the range of 7-58 GDD,

or when soil temperatures reach 50°F. This week in Schuylkill County, growers began finding weevils in traps by Wednesday morning. Although no weevils were found yet in traps placed in York County, the GDD totals for that area show that they could be out.

The white pine weevil is a beetle that causes leader dieback in host trees, which could be almost any



species of conifer, although preferred hosts include eastern white pine and other pine species, Serbian spruce and other spruce species, and occasionally Douglas-fir. The brown and white mottled weevil has white and rust colored spots on the posterior

end of its wing covers, and is approximately 1/4 inch long. When it emerges in early spring, it moves to a host tree leader to feed first and then to mate. After mating, a female weevil will lay her eggs inside a leader. Egg laying can occur within a week of weevil emergence. The eggs will hatch into larvae and the larvae will feed on the vascular tissue inside of the leader, eventually girdling and killing the leader.

If growers have set traps in susceptible blocks of trees, they should be monitored several times a week. If growers are scouting for weevils, they can be seen on leaders if care is taken (They will drop when disturbed.), or evidence of feeding will appear as droplets of sap coming from small holes on the leaders.



When weevils are caught in traps or seen on leaders, it's recommended to make an insecticide

application to the top third of the trees very soon after weevils are found in order to prevent egg laying from occurring. If weevils continue to be found in traps several days after the first application, growers may want to consider making a second application 7-10 days after the first.

ADDITIONAL RESOURCE

For a list of control options for insect and mite pests, the most recently updated list of Insecticides & Miticides for PA Christmas Tree Pests can be found at the following link:

<http://ento.psu.edu/extension/christmas-trees/publications/2013%20Christmas%20Tree%20Insecticides-Miticides.pdf>.

The next scouting report will be available Thursday, April 2, 2015.