# Pest Update (January 4-11, 2017)

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**John Ball, Forest Health Specialist SD Department of Agriculture,**
**Extension Forester SD Cooperative Extension**

Email: john.ball@sdstate.edu
Phone: office 605-688-4737, cell 605-695-2503
Samples sent to: John Ball
Plant Science Department
rm 230, Agricultural Hall, Box 2207A
South Dakota State University
Brookings, SD 57007-0996

Note: samples containing living tissue may only be accepted from South Dakota. Please do not send samples of dying plants or insects from other states. If you live outside of South Dakota and have a question, instead please send a digital picture of the pest or problem.

**Available on the net at:**
http://sdda.sd.gov/conservation-forestry/forest-health/tree-pest-alerts/

Any treatment recommendations, including those identifying specific pesticides, are for the convenience of the reader. Pesticides mentioned in this publication are generally those that are most commonly available to the public in South Dakota and the inclusion of a product shall not be taken as an endorsement or the exclusion a criticism regarding effectiveness. Please read and follow all label instructions and the label is the final authority for a product's use on a particular pest or plant. Products requiring a commercial pesticide license are occasionally mentioned if there are limited options available. These products will be identified as such but it is the reader's responsibility to determine if they can legally apply any products identified in this publication.



## Timely Topics

*My Christmas tree is starting to grow!* I usually get a few emails after Christmas about a Christmas in a stand "starting to grow." The question is often will the tree produce roots and continue to live. Nope, it's a zombie tree. Conifers prepare for dormancy in response to the lengthening autumn nights and cold temperatures. They remain in this dormant state

for at least six to nine weeks as this is the time period it takes to fulfill their chilling requirements. The trees have to be exposed to a set time period of temperature below 40oF as a prerequisite to resume growth in the spring. Once this chilling requirement is fulfilled all it take to initiate growth is a little warm weather; just what your house will provide!

Most trees are harvested too early to have already fulfilled their chilling requirement, but if the tree was cut in early December from a choose-and-cut or the Black Hills National Forest, the tree was already primed to grow. Despite the fact it cannot grow – there are no roots nor can it regenerate them quickly – an occasional Christmas tree will have the buds expand or, as seen in this picture on the previous page sent in from the Black Hills, the male cones forming.

## E-samples

A common sight right now are groves of mature Scotch pines (*Pinus sylvestris*) that are presenting a range of color from blue-green to a yellow-green. This is not a disease or disorder but a normal condition during the dormant season. Scotch pine, despite the name, is not limited to Scotland but is native across Europe and much of Asia. Within this large geographical range there is tremendous variation in growth habit and winter needle color. Scotch pine Christmas tree growers avoid this sickly yellow foliage color by either dying their Christmas trees or growing selections that retain their summer blue-green color. When we have a relatively long, mild autumn it seems the color contrast really stands out as can be seen in this grove. While the appearance may be alarming, it is nothing to worry about and the yellow trees will turn back to green come spring.

## Samples received/site visits

Minnehaha County **The top of my Scotch pine is dead. Is this pine wilt disease?**

Pine wilt disease, a disease of exotic pines induced by a nematode, certainly was a common feature in the Update last year. It seems as if the disease, which was confined to the southern edge of the state, suddenly 'exploded' with confirmed reports of the disease common in the Sioux Falls area and even as far north as Watertown. The disease which was first reported in Missouri in 1979 has almost eliminated Scotch and Austrian (*P. nigra*) pines in states south and east of South Dakota.

However, pine wilt usually kills the entire tree in one season. We do not typically see only the top half of the tree killed by the nematode.

The trees in this Scotch pine grove were distorted and the tops divided among competing side branches. This is tell-tale signs of Zimmerman pine moth injury. The larvae of this insect (actually three separate, but closely-related species) burrows into the trunk at the branch whorls. Usually you can find a few bubble-gum like pitch masses at these junctures as indicators that the larvae successfully burrowed into the tree. The tunneling often kills the top above the whorl and weakens the side branches so one or more of this break off. This leaves the tree continuing to sprout up from side branches which makes for a crooked trunk. The management for the Zimmerman pine moth, *Dioryctria. Zimmermani,* is drenching the trunk with an insecticide labelled for this insect and containing bifenthrin or permethrin as the active ingredient. Infested trees should be treated during the end of April with a second application mid-August.

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