

# Pest Update (March 11-18, 2020)

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

Email: [john.ball@sdstate.edu](mailto:john.ball@sdstate.edu)

Phone: office 605-688-4737, cell 605-695-2503

Samples sent to: John Ball

Agronomy, Horticulture and Plant Science Department

rm 314, Berg 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 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.

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## Plant development for the growing season

The temperatures are continuing to go up during the days though we are still experiencing snow off and on. Many of our woody plants are beginning to wake up from their long winter nap and are more susceptible to cold injury. While the forecast is looking to gradual warming, we might see temperatures dipping into the single digits yet this month and if too long or cold, this may result in "winter" injury.

## Timely Topics



Spring is quickly approaching and one sign of this are the maples “bleeding” from any recent pruning wounds. This flow of sap is often alarming to the tree owner who just cut a few limbs the day before and now sees liquid flowing from the wounds down the trunk. I get calls every spring from panicky tree owners worried they may have killed their tree and wondering if there is a way to save it. Fortunately, what we call bleeding in trees has no relationship to bleeding in people. Maples and birch will have sap flow from pruning wounds, but this “blood” does not carry oxygen in plasma, but sugar in water.

Bleeding only occurs in the spring when days are above freezing but nights dip below freezing. The current thought is the seasonal phenomena is driven by this day-night temperature fluctuation. As the temperatures cool during spring evenings the carbon dioxide gases in the fibers surrounding the sapwood vessels (the pipes that carry water) dissolve so the pressure decreases. This negative pressure sucks water through the surrounding sapwood tissue and ultimately from the roots. As the temperature in the sapwood dip below freezing during the night, the gasses are locked in the ice. The next day as the ice melts, the gasses expand and the pressure (which can reach 25 to 40 pounds per square inch) forces the sap out of the trunk through wounds.

The amount of sugary sap that flows from a pruning wound (or two) is so little that there is no harm to the tree. There is no need to attempt to seal the wound with paint or dressings. The only problem with the bleeding is that the sugary liquid can attract some insects, mostly early-season pollinators, but these are just a minor nuisance. However, if you are someone that faints at the sight of sap, delay pruning until early summer. The wounds will not bleed then and it’s a good time to do pruning.

## E-samples



I received this picture of a spruce branch with discolored foliage. This young tree is in a row with other spruce that lost all their foliage last year and are now dead. The question, of course, is what disease may be responsible for the decline and death of the trees and what can be sprayed to save the rest.

I will have to stop by later in the week to examine the tree and the surrounding site but based upon the symptom pattern (and the weather the last two year) I suspect I might be looking at decline due to poorly drained soils. Spruce do not like ‘wet’ feet (or dry feet for that matter). They prefer moist, well-drained soils and any deviation from this, either dry or wet, can result in slow decline and eventual death.

## **Samples received/site visits**

Brookings County

### **Why do the pine branches keep breaking off?**

This is the work of the Zimmerman pine moth (*Dioryctria*) larvae. The adult moth is just your typical gray (with zigzag banding) moth fluttering about during the late summer. The larvae that hatch in early fall are responsible for the tree damage.



The larvae do little harm during the fall as they have just enough time after egg hatch to form silky cocoons to survive the winter. When the larvae begin feeding the following spring, the array of tunnels they create where the branches attach to the trunk can cause the branches to break off at their bases. The signs that the breakage is due to the pine moth is the presence of frass and pitch masses near the detached branch.

Zimmerman pine moth will attack Austrian (*Pinus nigra*), ponderosa (*P. ponderosa*) and Scots (*P. sylvestris*) pine trees. The smaller trees, those between 6 and 20 feet tall, seem to be the size most often attacked. The insect usually does not kill these trees but there can be enough branch breakage (even the terminal as can be seen in the picture above – it was already cut off) that the mature tree shape becomes distorted forming multiple stems rather than just one.

Treatment is an insecticide application made in early spring (mid-April to early May) to kill the larvae before they burrow into the tree and again in late summer (September) to kill newly hatched larvae as they crawl along the bark to find a spot to form their overwintering cocoon. Insecticides labelled for treatment of Zimmerman pine moth and containing permethrin as the active ingredient are the most common ones used against this insect.

Brown County

## What is chewing on the bark of this sumac?

Blame it on the bunnies. I have seen lots of fruit trees and ornamental shrubs (mostly spireas, but also sumac and their favorite – burning bush) with the bark scrapped off near the base. The signs that rabbits are to blame is the bark is removed up to a height of about two feet, the scrapping in the wood from the teeth are about 1/4-inch wide, and rabbit droppings (look like Coco puffs) are found near the base of the shrub.

Now is the time when we see most of the damage caused by rabbits. Once the grass begins to green-up (maybe another month), the rabbits transfer their attention to this plant material. The best means to protect valuable plants now is to place plastic tree wrap around the trunk of young fruit trees and place chicken-wire fencing around shrubs.



This is the sumac I saw at Northern State University last week and you can see the rabbits chewed up about two feet and completely around each stem. The best treatment for this shrub is to prune all the stems back to about three inches tall and let new stems sucker up. Once a stem is cut completely around, it usually does not survive.

Hey, maybe it's a *jackrabbit!*

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