

# Pest Update (February 1-7, 2012)

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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. **Walnut samples may not be sent in from any location – please provide a picture!**

## Available on the net at:

<http://sdda.sd.gov/Forestry/Educational-Information/PestAlert-Archives.aspx>

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 product identified in this publication.

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## Current information

**Spraying for protecting pines from mountain pine beetle.** Last weekend the SD Department of Agriculture, the Cooperative Extension Service and the US Forest Service had a workshop at Crazy Horse on spraying to protect pines from mountain pine beetle attack this coming summer. Pesticide treatments are an effective means of protecting a small number, usually 20 or fewer, pine trees from mountain pine beetle. If there is mountain pine beetle activity within several

miles of a property, protecting valuable trees from attack may be necessary. Generally it is more effective for homeowners to hire a commercial applicator with the experience and equipment to properly treat and protect the trees. While there are insecticides labeled for bark beetle control that may be applied by tree owners, we recommend that commercial licensed applicators be hired.



### **What to check for when hiring an applicator**

First, make sure that the applicator has the appropriate licenses to apply pesticides in South Dakota. Commercial applicators applying insecticides on trees surrounding homes and in lawns or maintained groundcover must be licensed in Category 4: Turf and Ornamentals. If the applicator is applying insecticides in forest stands, they must be licensed in Category 3: Forestry. In addition to check for the appropriate licenses it is also a good idea to request references and also a commitment to apply the treatment before the end of June.

### **What insecticides can be used to protect trees from mountain pine beetle?**

The insecticides that are commonly used and labeled for bark beetle control have Bifenthrin, Carbaryl or Permethrin as their active ingredient. There are products containing these active ingredients that are restricted to commercial applicators as well as some products that are general use and may be applied by tree owners on their property. Regardless, the insecticide used *must be specifically labeled for bark beetle control* as there are products containing these active ingredients that are not labeled for bark beetles and will be ineffective. Insecticides containing any of the three activity ingredients Bifenthrin, Carbaryl and Permethrin can be used to protect trees in an ornamental setting, for example trees in a lawn area near a residence usually only a few acres or less in size. Only Carbaryl and Permethrin can be used to protect trees that are in forest stands, insecticides containing Bifenthrin are not registered in South Dakota for use in forests.

### **When to treat**

The insecticides currently available are only effective for preventing a successful attack by the mountain pine beetle so they must be applied before the beetles begin to fly in the summer and seek new hosts. We recommend that the application be applied during the month of May or mid-June. This is sufficiently early enough to ensure that the insecticide will be protecting the tree before the season's beetle flight begins. The application will only be effective for one growing season so trees that are in an area with mountain pine beetle activity must be treated every year to continue protection. Protection from pine engraver

beetles (*Ips pini*), another bark beetle that may attack branches and tops of trees, requires the spray to be applied in late March or early April as this insect begins flying sooner than mountain pine beetle. If applied properly the insecticide will still be effective at killing mountain pine beetles later that same summer.

### **How the spray should be applied**

The bark of the trunk must be treated so that is thoroughly wetted with the insecticide to the point of runoff, merely misting the trunk will not allow for penetration of the chemicals into the bark fissures and cracks. The insecticide should be applied completely around the trunk from the base to a point where the trunk tapers to a diameter of 4 or 5 inches for mountain pine beetle and the entire trees for protection from pine engraver beetle. Homeowners attempting to treat their own trees should be sure that their sprayer has sufficient pressure to wet the upper trunk of their trees. A hydraulic sprayer with at least 250 psi is needed for small trees, those that are less than 25 feet tall, while 400 psi or more is required to treat tall trees, those over 50 feet. All trees to be protected from mountain pine beetles must be treated, merely spraying trees surrounding a property as a buffer will not prevent the beetles from attacking interior trees that were not sprayed.



### **I also got a question from Rapid City about the ground being covered with the tips of pine branches.**

At this time of year we find squirrels biting the tips off of pine branches, the ground beneath some trees is littered with these tips. The bases of the tips lying on the ground will be cut at a sharp 45-degree angle. Squirrels will do this sort of injury to pines from late fall to spring, sometime on the same tree from year to year but other times a

tree will only be bothered for a single tree. One caller from Sturgis mentioned this was the first time in 30 years he has seen this injury to his pine trees and they seem to be picking on only a few trees in the grove. Why they do this no one knows. Squirrels will sometimes damage branches when they are trying to remove the cones but this activity is not related to cones though it seems to pop up every year.

### **E-samples**

**I had a picture of a split tree trunk with a question about how much of a concern this splitting should be to the tree owner.** First, cracks appearing along one side of a tree trunk are a common sight during the winter. When we have cold weather followed by warm weather – a common and repeated pattern this winter – vertical cracks will sometimes appear on the tree. These are not

new cracks; in fact the cracks are a result of an earlier trunk wound, such as a lawn mower “bumping” the trunk many years ago. While this injury appears to be healed over, the wound is still there, now deep inside the trunk and this weakness can sometimes rupture to the surface if we have temperature fluctuations that cause rapid expansion and contraction of the wood. As long as these are shallow cracks, merely a thin strip, and are not cracks that are splitting the entire trunk (so they can be seen on both sides of the tree) then they are not a cause for concern.



And if you are concerned about a crack, here is NOT what to do! Kim James, an instructor at South Dakota State University, took this picture of a wrapped and bandaged tree trunk. While all this work may make the tree owner believe they are helping the tree this effort cannot make it better and probably will make it worse as the wrap provides the perfect environment for cankers and boring insects to begin their damage.