

As the winter wears on, I thought it might be worthwhile to update you on the progress of our efforts to manage mountain pine beetles in Teton County. So far, I have found trees infested with this insect in Choteau, Dutton, Fairfield, and Power. I have also found countless trees throughout the county on farms and ranches.

Primary hosts for mountain pine beetles are scotch, lodgepole, ponderosa, and limber pines. The classic sign of this insect are “pitch tubes” or “popcorn” that extend out from the main trunk. This is an effort by the tree to force the invading insect from the tree. These tubes can get to about the size of your pinkie and about the same length. Some pitch tubes are smaller, indicating that those trees are already under stress. Most of the trees I have seen have 12-30 pitch tubes on one tree, along the main trunk.

Mountain pine beetle is native to the forests of western North America. Periodic outbreaks of the insect can result in losses of millions of trees. In British Columbia, they are losing so many trees to this insect, they seriously worry about fire and replanting. We are currently in a period of high populations, and the last time period with very high populations in the Western States was the early 1980's with particularly high levels in Northwestern Wyoming and Eastern Idaho. Those high populations assisted in developing a strong fuel base for Yellowstone National Park fire in 1988.

During early stages of an outbreak, attacks are largely limited to trees under stress from injury, poor site conditions, fire damage, over crowding, root disease or old age. However, as beetle populations increase, mountain pine beetle attacks involve most large trees in the outbreak area. Trees are damaged when adult insects bore a hole in the bark of a tree, and if successful each pair will produce about 75 eggs. In the larval and pupal stages, the insects feed under the bark of the tree and can effectively girdle the tree killing it in the process. The adults then emerge from mid-June to September searching for new trees to infest. However, the great majority of beetles exit trees from late July to mid-August.

What can be done to mitigate the effects of mountain pine beetle on high value trees that are important to us? First it is important to realize that mountain pine beetles are an endemic species to Montana, and the current cycle of high populations are affecting many pine forests across the western U.S. Attempting to micromanage small acreages of trees in a virtual sea of infestation is a daunting task. But, there are strategies available to assist your trees in withstanding the latest population growth of mountain pine beetles.

First, you should walk your property and assess the general health of your shelterbelt or yard trees. Learn to identify the trees on your property. Are they Douglas fir, ponderosa pine, Colorado spruce, or others? If you need any information identifying your evergreen, please call me. I have a quick method to determine that. Next, inspect the pine species for the presence of pitch tubes and bore dust, and if noticed, note the location of those trees. You may want to inspect for galleries in these trees as well. All infested trees should be cut and removed from your property. You should then burn or mulch them as well.

The remaining trees can be assisted in their battle with the insects with a combination of tools. Carbaryl, sold under the trade name of Sevin SL or Sevin XLR are labeled for use on mountain pine beetle, and can effectively reduce the number of insects attacking your trees. Let me be very clear here: applying Sevin to your infected trees will have little or no effect. This treatment is a preventative to uninfected trees. Carbaryl application should be accomplished by the first of May, and trees need to be treated from the ground level up to where the trunk of the tree is less than six inches in diameter. Do not treat them now as Sevin will not be effective in the summer when they are flying.

One other option that will be available is to utilize a pheromone called Verbenone. When the insects hit a tree, they send out a chemical scent, called a pheromone, which attracts other insects to the tree. Once the tree is full of insects, they release another pheromone to tell other beetles that the tree is full and to leave it alone. This last pheromone is called Verbenone. A company in British Columbia has reproduced this in a pouch form. You simply staple this pouch to your tree. It is supposed to be effective for up to three months. The manufacture claims that it is 85% effective. If you are worried about a few trees in your yard, this may be a good option for you. If you have 100 trees in your shelterbelt, you may want to use this in conjunction with Sevin. These will be available at all the Mountain View Coop stores and at Choteau Ace in the next few months. You may want to consider hanging one by early May, and another one in mid-summer, like late July.

For more information on your yard trees or shelterbelt, or to get more information on mountain pine beetle, contact the Teton County Extension office at 466-2491 or e-mail mbmajor@montana.edu. A great publication to get you starting is available at the Extension office or online at <http://csfs.colostate.edu/library/pdfs/iandd/insects/MPB.pdf>.