



November 2006 report

Preventative Spraying for Beetle Kill

Many situations exist where high-value pines require protection from uncontrolled beetle pressures nearby.

Preventative spraying provides a proven method of keeping uninfected but susceptible pines alive, despite attempted attack. As such, it is a relatively safe and affordable insurance that protects key trees until the nearby beetle threat subsides.

In the great majority of cases, trees selected are big, valuable ponderosa or lodgepole pines. Preventative spraying involves the application of pesticides and is usually performed by commercial sprayers. Because of the associated environmental considerations and expense, it is neither practical nor advisable to spray every tree on a tract of land. Rather, preventative spraying is intended for important, must-save trees. Since MPB rarely attacks trees under 8 inches in diameter, smaller trees do not require spraying.

Treatment needs to be done between May 1 and July 1 on an annual basis during years when the infestation is high. Infestations usually last 5-7 years in a local area and beetles usually fly about a mile or less.

The standard for MPB preventative spraying has been carbaryl (trade name Sevin). Since about 1995 a second material called



permethrin has been legal for MPB prevention and has performed well. A third called bifenthrin did well in research trials and was labeled in 2004. Being so new, results under actual field conditions are limited at this time.

Preventative spraying is applied to the trunk from the ground up to a height of 30 feet or where the trunk narrows to 6 inches, whichever comes first.

September 2006 report

Trees

Many trees in the Retreat have been lost to bark beetles this summer. Years of drought have put many trees in a state of poor health and several types of bark beetles have attacked the trees.

Ips beetles, while not normally killing trees, have attacked in such large numbers that many trees finally succumbed. Mountain pine beetles attacked many trees last fall and those trees finally died during the spring and summer. Mountain pine beetles are appearing in greater numbers than ever. Groups of dead Ponderosa Pines that have reddish-brown or yellow needles indicate that mountain pine beetle has spread through many areas of the Retreat. Specters of the devastation of the pine forests near Grand Lake and Summit County haunt many of us. There are tree companies that will spray pine trees to prevent mountain pine



beetle and other types of beetles from attacking pines. For many reasons, including environmental, this would not be practical for all of the trees on a property, but might be considered for very important trees. The cost ranges from \$12 to \$30 per tree.

Large numbers of long-horned beetles, or pine sawyers, have been noticed this fall. These beetles favor firewood and dead or dying trees. Sometimes it is the pine sawyer larvae that actually finish off trees that are struggling to live. Adult pine sawyers can also damage needles and bark on new growth on pine and fir trees.

The ponderosa pines are now dropping their third-year needles. It has been noted by tree experts that many pines seem to be dropping more than just one year of needles, leaving the trees looking like "poodles." Some ponderosa and Austrian pines are shedding all needles except for those from 2006 growth increments. The reason for this is not understood at this time, although abnormal early heat, aphids and draught have been suggested. Maybe we just do not have sufficient recharge of soil moisture, these conifers have been dry since 2002, and they are tossing all needles but this year's? Our best suggestion is to water now heavily to recharge soil moisture and again during the winter dry spells.

Note: This occasionally applies to firs also, although they do not drop needles every year. Any browning on the outermost needles is not to be considered normal.



Weeds

After a dry winter and early spring, we experienced several rain storms in July and August.

While welcome, the additional rain encouraged the weed population to rapidly increase. Russian thistle (aka tumbleweed) is rampant along the roadside on Dunraven Glade. The seeds of musk thistle and mullettin have now sprouted and formed their first year rosettes of leaves. Since these two weeds will not flower until next year, now is a good time to pull or dig them.

July 2006 report

The continuing drought situation is affecting our lives at The Retreat in many ways. There are few wildflowers this year to enjoy. Many trees, including some very large ones, are dead or dying. Animals that depend on vegetation for food are having a difficult time finding good quality forage. As of June 27th, areas below 9,000 feet in Larimer County are Class D2 or Severe Drought. These same areas are considered Extreme Danger for wildfire.

Vegetation - Shrubs and Trees

Ponderosa Pines are under stress. The stressed trees are attacked by mountain pine beetles which sense that trees do not have the reserves necessary to resist the attack. Trees that have been attacked by this beetle will die. If a Ponderosa pine was attacked by mountain pine beetle last year, the tree will be showing

signs at this time. There may be a general change in the color of the needles. The needles in the crown of the tree could become a reddish-brown color. The beetles generally mature and leave the tree sometime between late July and late August. The infected trees must be cut down and treated before that time to prevent the beetles from infecting nearby trees.

Many shrubs have been affected by the drought and are still showing signs of winter desiccation. Severe browning on Rocky Mountain juniper may be winter desiccation but could also be vole damage. While winter desiccation can be pruned out, voles will continue to girdle stems of the Juniper and can kill it.

Dwarf mistletoe in our Ponderosa pines seems to be slowly spreading into many areas in The Retreat. While this pest is very difficult to control and is impossible to eliminate, the effects and spread can be slowed by diligent cutting of infected limbs. There are other types of Dwarf mistletoe which affect other evergreens but these mistletoe varieties do not seem to be present in the Retreat.

Weeds

The noxious and invasive weeds seem to thrive under all conditions. They will take over areas where the natural vegetation is just barely surviving this year.

Wildfire

The potential for fire in our area is our greatest concern. We must

be vigilant. Take steps to protect your home, property and your life.

May conditions

Drought

May 2006 is the third driest May ever recorded and our vegetation is showing the effects of the continuing drought. Large trees, both evergreen and deciduous, are suffering. Many trees have died due to the effects of lack of winter precipitation. Drought stress causes the trees to be more vulnerable to insect and disease damage.

Vegetation

If a Ponderosa pine was attacked by mountain pine beetle last year, the tree will be showing signs at this time. There may be a general change in the color of the needles. The needles in the crown of the tree sometime could become a reddish-brown color. The beetles generally mature and leave the tree sometime between late July and late August. The infected trees must be cut down and treated before that time to prevent the beetles from infecting nearby trees.

Many Rocky Mountain Junipers have been affected by the drought and are showing signs of winter desiccation. Severe browning of much of the foliage of a Juniper could also be vole damage. While winter desiccation can be pruned out, voles will

continue to girdle the stems of the Juniper and can kill it. Wire mesh barriers 6 inches into the ground can deter voles. Hot pepper spray also works but must be reapplied frequently.

Dwarf mistletoe seems to be slowly spreading into many areas in The Retreat. While this is very difficult to control and is impossible to eliminate, the effects and spread can be slowed by diligent cutting of infected limbs.

Wildfire

This year could be a bad one for wildfire. Larimer County is forming a task force to come up with ideas to lessen the number of wildfires. Be vigilant. Take steps to protect your home and property.

Weeds

Thistles are beginning to grow now. It is time to begin the steps to eliminate this noxious weed.