

Wyoming State Forestry Division



THE FOREST RESOURCE AGENCY OF WYOMING

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Forest fires and bark beetle mortality have been significant in Wyoming the last several years and have increased an awareness of forest health. Private forest landowners have been participating in fuels reduction programs and are realizing the benefits of healthy forests, i.e. preventing green trees from attack by western bark beetles.

Many landowners, particularly in forested subdivisions, do not desire long-term management (silviculture) activities to abate bark beetles due to road building and skidding trails and the aesthetics arising from these logging operations. Often times, there is not enough product to justify a timber sale. Landowners are often hesitant to cut and burn infested trees due to the fear of setting a forest fire. As a result, preventive spraying with carbaryl has been one of the most popular options for bark beetle control. Our statewide average for individual tree spraying with a 2% active ingredient solution of carbaryl is roughly \$15.00/tree. Verbenone, the anti-aggregate pheromone for mountain pine beetle, is available but I understand this is still being evaluated for widespread use. This option is also somewhat cost prohibitive – reaching \$250.00 per acre annually. Given the fact that the efficacy of carbaryl is two years, this is the most affordable chemical treatment currently available.

Of course there are risks applying chemicals. I believe the risk posed by bark beetles toward healthy, green trees far outweighs the risk that "bees" confront when "visiting" an area where carbaryl is applied. To my knowledge, there has been no study in Wyoming that shows large numbers of bees or any non-target organism being killed or adversely affected by applications of carbaryl in forested areas. We have seen vast acreages and numbers of trees killed annually in Wyoming due to bark beetles. While not all trees have been or can be saved, a sizable number have been protected by preventive sprays of carbaryl. Removing carbaryl as an option for bark beetle management would be an unwise decision especially since Wyoming and the western United States are still in the midst of a punishing drought. Forest trees are weakened by drought thus creating favorable conditions for bark beetle attack. Private landowners need carbaryl as a management option in fighting bark beetles on their properties.

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