

PIÑON IPS BEETLE PREVENTION & CONTROL

by: Robert.Hammon@colostate.edu

PREVENTIVE SPRAYING (protecting non-infested piñon from ips beetle attack):

Products: Carbaryl, commonly sold under the trad names Sevin, Sevimol, Savit, and Carbaryl; and Permethrin, sold under the trade name Astro, Permethrin 38+ and others. It is important to select a product that lists bark beetle prevention as an intended use and to follow label instructions. Avoid other products not specifically labeled for bark beetle prevention since they may not be effective or may readily wash off in the rain.

Available at: At least one or more insecticides labeled for bark beetle prevention should be available at the following outlets:

- * •Fruita - Fruita Consumer Co-Op
- * •Grand Junction - Randall Industries, Bookcliff Gardens
- * •Cedaredge - Grand Mesa Discount
- * •Delta - Schall Chemical
- * •Montrose - Montrose Potato Growers

Note: Insecticides labeled for bark beetle prevention may also be available at locations not listed above.

Technique: Apply to living, high-value piñon trees. Spray trunks, and larger branches near the trunk, from ground level to near the top of tree where the trunk tapers to an inch or less in diameter. If trees are tall, a motorized spraying unit may be necessary to provide the spray pressure needed to reach the upper portion of the trunk.

Timing of Application: Can apply anytime during the warmer months of the year when ips are active. The first application of the year should be in early April to insure that trees are protected when the first generation of ips emerges to attack new trees, then at least one reapplication in midsummer is strongly recommended to insure pesticide effectiveness later in the season. Three applications (on approximately April Fools Day, July 4th, Labor Day) will provide even better protection. Be aware that some formulations require monthly reapplication - read product instructions.

Comments: Preventive spraying will not save piñon already infested by ips beetles or those infected with black stain root disease. Although insecticides for preventive use can be purchased and applied by landowners themselves, there are also well qualified and equipped arborists and tree care companies available to do the job.

TREATING INFESTED TREES (treating beetle infested piñon to prevent beetle spread):

Chemical Control: There are no longer any pesticides labeled for treating beetle infested trees. Lindane is no longer available, and according to the EPA remaining supplies should not be used for this purpose.

Non-Chemical Methods of Treating Infested Wood: Include burning (in fireplace, woodstove, or outdoors), chipping, peeling, floating/submerging (in water), burying, transporting to a safe haul site (at least a mile from piñon trees). Solar treatment, with or without the use of clear plastic sheeting, has been used for treating wood infested by other varieties of bark beetles (i.e., mountain pine beetles in ponderosa and lodgepole pine), however it is not recommended for piñon ips due to the short period of time between ips generations.

Older Ips-Killed trees: Only currently infested trees need to be treated. Beetle-killed trees exhibiting a combination of dark rusty red or brown needles (or needles have fallen off), trunks riddled with numerous "exit" holes (look like small drill bit holes without pitch tubes), and no living ips (adult, larvae, or pupae) between the bark and wood, are no longer infested. It is likely dead wood insects, such as woodborers, will be found beneath the bark, but these are not a threat to healthy, living trees.

OTHER Problems:

Black Stain Root Disease: There is no pesticide for controlling black stain root disease. Other control methods are aimed at preventing the disease from spreading via root contacts beneath the ground. These include trenching (18" deep if possible) around disease pockets to separate the roots of infected trees from those of healthy trees (trench is usually filled with some substance to keep it from refilling with dirt), or cutting a band of live piñon surrounding a pocket of infected trees, which kills the roots needed to spread the disease.

Juniper and Ips Beetles/Black Stain Root Disease: Rocky Mountain and Utah juniper (often referred to as "cedars") commonly occur intermixed with piñon pine in the piñon-juniper woodlands of southwest Colorado. Although junipers are not attacked and killed by piñon ips beetles or black stain root disease, they have their own set of biological enemies. Fortunately, these are not a significant problem in our area at this time.

Thinning and Pruning of Piñon: It is a good practice not to cut or prune piñon during the warmer part of the year when ips beetles are active. Such activity can attract ips into the area. Instead, thin or prune in late fall, winter, or early spring. If cutting must be done during the warmer months, preventively spray nearby high-value piñons as soon as possible following cutting. Thinning of piñon-juniper woodlands will reduce competition for sunlight, water and nutrients, making the residual trees healthier and more resistant to beetle attack, and also reduces wildfire hazard.

Infestation of Other Varieties of Trees: Piñon ips do not infest deciduous trees, and they are not a threat to other varieties of conifers such as juniper, spruce, fir and Douglas-fir. However, they can infest other species of pine growing in close proximity to infested piñon (a number of 12-15 foot tall Austrian and Scotch pine were reportedly attacked and killed in a windbreak in

Montezuma County). Ponderosa pine potentially could be infested as well, especially smaller ponderosa of around piñon size. Preventive spraying of other high-value pines may be advisable where piñon ips are present.