

## Ips Beetle

The drought this year has caused many trees to become stressed and die, infested with the Ips beetle. In Colorado there are 10 species of Ips beetle ranging from one eighth to 1/4 inch in length. Some can be found in just a few species but many can be found in all species of pine and spruce trees. They will rarely attack healthy trees but trees that are under stress are vulnerable.

Ips beetles are also found in recently felled logs, firewood and dying trees. According to the information supplied by Dave Leatherman, Colorado State Forest Service entomologist and Whitney Cranshaw, associate professor at Colorado State University and State Cooperative Extension Service entomologist, Ips beetle can be identified in a tree by looking for the accumulation of very fine sawdust at the beetle's entrance hole on the trunk of the tree. Large Pitch tubes, or the accumulation of larger sawdust particles they say, do not indicate ips beetle activity.

The most accurate way to identify the beetle is to peel off the bark near the entrance hole and look for the egg galleries which are different from the mountain pine beetle. The egg galleries come from a central chamber and branch out rather than one long single chamber such as those occurring from the mountain pine beetle. Similar to the pine beetle, in the ips infested tree, blue stain fungi will infect the wood and choke off the water supply.

Other types of beetles called twig beetles will also infest trigs, limbs and trunks of trees. Biologically they resemble the ips and the mountain pine beetle but are much smaller (one sixth to one eighth of an inch ).The treatment is the same as for the Ips.

Usually the Ips are frozen out in the winter, but our warm winters have caused them to emerge much earlier sometimes even in late February or early March. The adult beetles will emerge and look for new hosts in the form of felled logs or distressed trees. The male beetles move into the trees forest and construct a "nuptial chamber," in the cambian of the wood. The females then lay the eggs which forms the identifying "Y" or "H" shaped pattern in the trees. In a years time three to four generations can occur simultaneously in a tree.

Trees that are newly transplanted or are near construction sites are especially vulnerable to infestation by Ips beetle and the Mountain Pine Beetle and therefore need regular spraying. Leatherman and Cranshaw have usually recommended one spraying in the early spring before the beetles emerge. With the drought conditions and the warm winters more applications may be necessary in the late summer. They recommend products containing carbaryl such as Sevin, Sevimol, Pine Tree and ornamental spray. These products should be applied to the trunk and the large limbs of the tree. Once the beetle has moved into the tree it cannot be saved and should be removed to prevent infestation to other trees.

To control the Ips beetle, make sure the site is adequately prepared when planting the tree. Perhaps most important especially in the drought conditions we have been having is the provision for adequate water as the tree gets established. Trees need long periods of at least 3-4 hours of slow drip watering to nourish the roots rather than drowning them with large gulps from hoses.

Dr. Joan Spalding is a member of the Commercial Arborists Association and an educational consultant.