

Aspen's "10 Most Wanted" List

Tom DeGomez, Area Extension Agent, University of Arizona Cooperative Extension, Coconino and Mohave Counties

Aspen trees grace our high elevation areas in Arizona, both in the wild and in landscapes. However, this beloved tree has more than its fair share of insects and diseases that can reduce its growth, cause its white bark to discolor and decay, cause branches to wither and die, and disfigure its foliage. It is hard to decide which of its many pests is the worst of the bunch, but here are the top "10 Most Wanted" for damage to aspen.

Cryptosphaeria canker (Photo 1) and the American hornet moth (Photo 2) certainly are at the top of the list for damage. Nearly as devastating are several other canker diseases: *Cytospora*, *Hypoxylon*, and sooty bark. If left untreated the insect oystershell scale will eventually kill trees.

Severe outbreaks of the fungal disease black leaf spot can cause trees to defoliate which will lead to a fall without their stunning color. Western tent caterpillar and the fall webworm will defoliate trees in the summer and fall respectively. Last on the list are the aphids that can cause leaves to be mis-shaped and discolored.

Prevention and Control

Several wound-invading fungi cause the majority of damage to aspen. Once the canker forming fungi have invaded an aspen there is little that can be done other than prune out the infection. With *Cryptosphaeria* canker it is recommended to prune at least 18 inches below the infection. If the canker is high on a side branch pruning may not affect the overall integrity of the tree, but if it is lower on a limb or trunk it often means removing the tree entirely. The most common causes of cankers are wounds to the bark. To prevent wounding, avoid hitting trees with lawn mowers, using trees as supports for hammocks, volleyball nets or wood piles. Elk, deer, sapsuckers, and children armed with toys of various sorts can cause wounds that can easily become infected.

The wood boring American hornet moth larvae can be prevented with regular insecticide sprays to the base of the tree. Frequent inspection for boring at the base of the tree is important to detect tunneling larvae. Once an attack has been detected, a solution of an insect feeding nematode can be injected into the tunnels. Larvae can also be dug out of the wood or killed by pushing a wire into the hole.

Oystershell scale is best controlled by brushing these tiny insects off the trunk and limbs with a stiff nylon brush. Spraying dormant oil prior to bud break can also be helpful in preventing their spread.



Photo 1. *Cryptosphaeria* canker in aspen.

Black leaf spot is best prevented by raking up infected leaves and destroying them. Fungicides may help prevent further spread of the disease once an infection has started.

The western tent caterpillar and the fall webworm

are most serious on young trees but can be easily pruned out of the tree when they are resting in their webs. The bacteria insecticide *Bacillus thuringiensis* (B.t.) var. *kurstaki* or *berliner* provides excellent control of feeding larva when sprayed on the leaves.

Aphid infestations can be reduced by controlling the activity of aphid-nurturing ants on the trees. Tanglefoot, a sticky paste, can be applied to the base of the tree to prevent ants from moving up and down the tree. A strong stream of water sprayed into the canopy can dislodge the insects, preventing them from feeding and reproducing. Insecticides are also available for aphid control.

Growing healthy, beautiful aspen trees can be a challenge. Increased knowledge of the "10 Most Wanted" enemies can help prevent and control infestations before they spoil your trees.

References

- DeGomez, T. 2002, revised 2009. American Hornet Moth in the Urban Forests of Northern Arizona above 6000 Foot Elevations. University of Arizona, College of Agriculture and Life Sciences Bulletin, AZ1284. Tucson, Arizona. <http://cals.arizona.edu/pubs/insects/az1284.pdf>
- DeGomez, T. 2001, revised 2009. Oystershell Scale in Northern Arizona above 6000' Elevations. University of Arizona, College of Agriculture & Life Sciences Bulletin AZ 1248. Tucson. <http://cals.arizona.edu/pubs/garden/az1248.pdf>
- DeGomez, T. 2001, revised 2009. Tent Caterpillars in Northern Arizona above 6000' Elevations. University of Arizona, College of Agriculture & Life Sciences Bulletin AZ 1249. Tucson. <http://cals.arizona.edu/pubs/garden/az1249.pdf>
- Field Guide to Insects and Diseases of Arizona and New Mexico Forests. 2006. USDA Forest Service, S.W. Region, Albuquerque, NM. <http://www.fs.fed.us/r3/resources/health/field-guide/index.shtml>



Photo 2. American hornet moth damage.

Tom DeGomez