

Forest Pest Bulletin



DEPARTMENT OF AGRICULTURE
AND NATURAL RESOURCES
DIVISION OF RESOURCE
CONSERVATION & FORESTRY

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ASH LEAF CURL

CAUSAL AGENT

Prociphilus fraxinifolii

HOSTS

All Ash species (*Fraxinus*)

SYMPTOMS

The aphids will feed on the new growth of the tree. While the aphids suck the sap from newly expanding leaves, the leaves will curl or look like they are rolled up (Fig. 1). The rapidly growing terminal shoots may become distorted as well. Some of the sap does not get eaten by the aphid, which showers down on anything below the tree. This unrefined tree sap is called honeydew. Fungi such as Sooty mold will grow on the honeydew. Ants will also feed on the honeydew.



Figure 1. Damage caused by the Leafcurl ash aphid.
Steven Katovich, USDA Forest Service, Bugwood.org

LIFE CYCLE

The aphids are yellowish green to pale yellow, with brown heads and legs. The aphids overwinter on the primary host trees as eggs. When the weather warms up the eggs will hatch, and feeding will begin. The newly hatched female aphids will produce live young. The females do not need to mate to produce the wingless offspring. The wingless offspring are 1/8 inch (2-2.5mm) long and they are pear shaped. After several generations of wingless aphids, winged aphids are produced. The winged form of the aphid will disperse to a secondary host by early summer. The secondary host will vary between aphid species, but the can be another species of tree or the root system of the primary host. The aphids return to a primary host tree in the fall, where they mate and lay eggs on another tree and the cycle begins again next spring. Both winged and wingless aphids have waxy secretions covering their bodies giving them the woolly appearance (Fig. 2).

MANAGEMENT

There are many natural predators to the Woolly aphid. The main predator is the Lady beetle. The Lady beetle usually does a pretty good job of keeping the aphid under control. Affected leaves will not uncurl. If natural predators are not enough there are insecticides that can be used to control the aphid. The most effective form of control is the use of a systemic insecticide. An Acephate product would be a good choice and should be applied after the leaves have completely opened and before the leaves begin to curl.



Figure 2. Leafcurl ash aphid on green ash.

James Solomon, USDA Forest Service,
Bugwood.org

Due to numerous pesticide labels and/or label changes, be sure the product label includes the intended use prior to purchase or use. Please read and follow all pesticide label instructions and wear the protective equipment required. Spraying pesticides overhead increases the risk of exposure to the applicator and increases the likelihood of drift to non-target areas. Consider the use of a commercial applicator when spraying large trees due to the added risk of exposure and equipment needs. The mention of a specific product name does not constitute endorsement of that product by the South Dakota Department of Agriculture and Natural Resources.

For further information contact your nearest South Dakota Division of Resource Conservation and Forestry office. Hot Springs 605-745-5820; Lead 605-584-2300; Mitchell 605-995-8189; Pierre 605-773-3623; Rapid City 605-394-2395; Sioux Falls 605-362-2830; Watertown 605-882-5367.

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