

# Cottony Ash Psyllid

## A damaging pest in North Dakota



A new non-native insect has been found in North Dakota. The cottony ash psyllid initially found in Bismarck has been found in Dickinson, Fargo, Grand Forks, Hankinson and Minot. There have been reports of the insect in Minnesota, South Dakota and Montana as well. The insect is native to Central Europe and Scandinavia. Several specimens have historically been collected in North America, including Nova Scotia in 1921, Michigan in 1955, and Minnesota in 1993, although little is known about these specimens. In 2000, the aphid-like insect was reported causing damage to black and Manchurian ash trees in Edmonton and Calgary, Alberta, Canada.

**Biology** - The insect overwinters as eggs in the crotch between twigs and buds. These eggs hatch about the time of bud break and feed on the expanding leaves. Nymphal feeding causes the leaves to curl. The nymphs extrude a whitish substance, which lends the cottony portion to the common name. Adults are small, 3 mm in length. Coloration is yellow with black markings; the wings are clear with shading towards the tips. The eggs of the second generation are laid on the midrib of the top of leaves. The second generation of nymphs feed in the curled leaves which were created by the first generation nymphs as well as along the midrib of the bottom of previously unaffected leaves. Nymphs of the second generation molt to adults in early August. At this time it is not clear if a third generation occurs in North Dakota.

**Feeding** - The cottony ash psyllid has piercing-sucking mouthparts. Feeding by the nymphs causes leaves to curl and crumple. The nymphs and the cottony substance can be found enclosed within the curled leaves. Leaves which are severely distorted have a cauliflower appearance. Cottony ash psyllid feeds on black ash, *Fraxinus nigra*, Manchurian ash, *F. mandshurica*, and hybrids of these two species such as 'Northern Treasure' and 'Northern Gem.' Cottony ash psyllid apparently does not feed on green ash or white ash.

**Management** - The impact of the cottony ash psyllid on North Dakota trees remains to be seen. Entomologists in Calgary feel that the overall health of trees needs to be considered and believe that drought and cottony ash psyllid caused tree mortality in 2000. However, in recent years more rainfall has allowed trees to recover and cottony ash psyllid has had less of an impact. Interestingly, city foresters in St. Albert, a town near Edmonton believe that the insect is having a more severe impact on trees. They believe that the insect can kill healthy trees within a year or two of heavy cottony ash psyllid feeding. There is little information available about control and management of this insect. Trees should be closely monitored and well taken care of. Watering during dry periods will help trees. City foresters in St. Albert, Canada have had success controlling the insect with acephate (Orthene®) applied as a foliar insecticide. Always read, follow and understand label directions if chemical control measures are pursued. For more information refer to: [www.agdepartment.com](http://www.agdepartment.com)



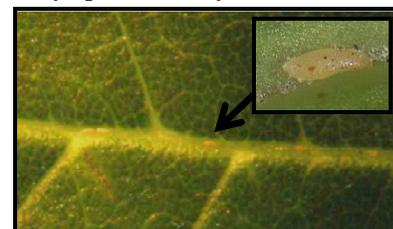
Adult



Nymph



Nymph covered by wax



Summer eggs along leaf midrib



Over-wintering eggs



Injury caused by psyllid feeding

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Nymphs feeding on a bud as it opens



Thinning crown due to psyllid feeding