



Eastern spruce gall adelgid

Adelges abietis

Order Hemiptera, Family Adelgidae;
pine and spruce adelgids
Introduced pest

Host plants: Norway, white, red, and black spruce.

Description: Adult females, both winged and wingless, of this aphid-like insect are approximately 1.5 mm long and dark brown to black in color. Nymphs may have a white waxy covering.

Life history: Overwintered females complete development in spring. They deposit eggs that hatch two weeks later. These nymphs crawl to the base of an expanding bud. Their feeding stimulates a bud to produce the gall. Galls open in late August through September. Nearly mature nymphs emerge, become winged adults very soon after, mate, and then disperse and deposit eggs. There is one generation a year.

Overwintering: Immature females at the base of buds and needles.

Damage symptoms: This adelgid completes its entire life cycle on a spruce. The 12–25 mm long green, rounded, pineapple-shaped galls are formed at the base of new shoots. Galls formed in this region can weaken stems making them susceptible to breakage under heavy snow loads or high winds. Tree health is affected only if galls are extremely abundant each year, and then dieback may occur.

Monitoring: Eggs hatch when common lilac blooms in the first two weeks of May (Herms). Use sticky traps in late summer to detect flying adults. Look in late winter and early spring at the base of needles for wax-covered nymphs. Look in spring for galls forming.

Physical control: Remove green galls in spring and destroy them. Also, prune remaining brown galls in summer to enhance tree appearance.

Chemical control: Chemical control is best achieved by spraying the underside of branches in fall or early spring. Control is directly related to thoroughness of coverage. Horticultural oil, soaps, or chemical applications must be applied before gall formation begins.

Biological control: Lacewings, predatory bugs, and fungi.

Plant mortality risk: Low

Biorational pesticides: horticultural oil, insecticidal soap

Conventional pesticides: carbaryl, chlorpyrifos (nursery only), deltamethrin



Galls caused by Eastern spruce gall adelgid on the basal end of a shoot seen with nymphs emerging from the open gall. (83)
Photo: John Davidson