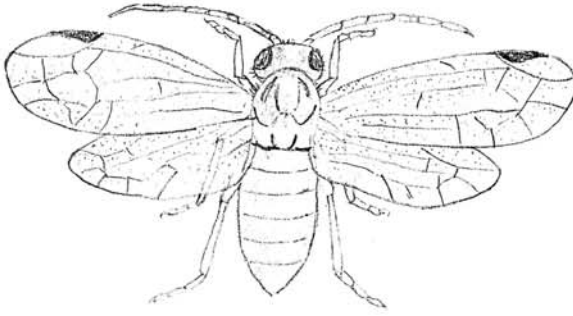


COLUMBINE SAWFLY
Pristiphora aquilegiae (Vollenhoven)

DISTRIBUTION- The columbine sawfly is a European insect introduced into the Ottawa area of Canada around 1964. It was collected at Ithaca, New York, in 1985, and found damaging columbine plants in Maine in 1988. The sawfly is now a common and destructive columbine pest over Maine and has spread to many other states.

DESCRIPTION- The adult sawfly is wasp-like and 5-6 mm (1/4") long with a glossy black body, head and antennae (the antennae are 3-4 mm). The legs are yellow-brown and the wings are clear but dusky looking because of minute hairs. The caterpillar-like larvae are 5-10 mm (1/2") long, leaf green in color and hairless. Young larvae have a brownish head capsule which becomes greenish as the larvae grow.



adult x7.5



larva x7.5

HOSTS- Columbine (*Aquilegia* sp.) is the only known host. The insect is usually found feeding on columbine in perennial gardens or on potted columbine in garden centers. Larvae which were placed on native columbine (*A. canadensis*) also fed upon it, but damage to wild columbine populations has not yet been evident.

DAMAGE- Larvae of the columbine sawfly defoliate columbine, often consuming every leaf and leaving bare stems. Numerous larvae can occur on plants leading to surprisingly quick defoliation. The leaf-green color of the larvae and their habit of feeding on the undersides of leaves might make it difficult to determine the cause of plant damage (turn damaged leaves over and look closely for the green larvae). Newly hatched larvae begin by scalloping small holes on the leaf margins. As the larvae grow, whole leaves are consumed. Badly damaged plants are unsaleable and repeated defoliations may weaken and kill plants.

LIFE CYCLE- The columbine sawfly overwinters as pupae in soil or under debris. On potted columbine, pupae have been found in the pot holes on the bottom of plants and a couple inches below soil level on the outer surface of soil when plants are pulled from pots. The elongate oval pupal cases (cocoons) are 7-8 mm (5/16") long and pliable. They are constructed of whitish silk (when fresh) which turns brown. The sawfly appears to have three to four generations a year at roughly 38-45 day intervals (there may be some overlapping of generations as larvae of different sizes can be seen on plants). Larvae have been found on plants from early May to mid September. The first appearance of the pest each season is dependent on spring weather conditions, but larvae are usually feeding by mid to late May. Larvae feed for about 2 weeks. Different sized larvae pupate over a period of several days and adults appear in 10-11 days (with the exception of the overwintering population). Adults can be seen flying around, mating and laying eggs on the leaf margins of columbine during the day. Adults are most likely to be seen early to mid May, mid to late June, mid to late July and mid to late August. Adults live 7 to 10 days and eggs hatch in about 8-10 days into tiny larvae. These young larvae can be seen curled around small holes chewed in leaf margins on leaf undersides.

CONTROL- Larvae of the columbine sawfly may be hand-picked off infested plants, if feasible, before severe damage occurs. The grower must watch closely for early signs of chewing in May, as damage occurs quickly if the pest is overlooked. Since this sawfly is new to the US, it will not appear specifically on insecticide labels. However, general purpose materials labeled for sawflies and perennials/ornamentals use (such as imidacloprid, acephate, carbaryl, insecticidal soap, spinosad, permethrin and bifenthrin) should give good control if applied when the larvae begin feeding. Columbine is a thin-leaved plant which could be burned by insecticide applications, so use care when treating (test on a few plants first). Be aware that Bt (effective against a variety of moth and butterfly caterpillars) will not control sawflies.

Before applying any pesticide, **READ THE LABEL**. Pesticides must be applied only as directed on the label to be in compliance with the law.