

Pest Profile



Photo credit: Erik J. Wenninger, University of Idaho

Common Name: Sugarbeet Root Aphid

Scientific Name: *Pemphigus populivenae (betae)*

Order and Family: Hemiptera, Aphididae

Size and Appearance:

	Length (mm)	Appearance
Egg		
Larva/Nymph		- Nymphs are small and resemble adults.
Adult	2 mm long	- Some are winged and some are wingless. - Aphids found on roots are pale whitish-yellow and broadly oval to pear shaped. - They secrete white, waxy strands, which give beets a distinctive “moldy” appearance.
Pupa (if applicable)		

Type of feeder (Chewing, sucking, etc.): Piercing-sucking, both nymphs and adults.

Host plant/s: The primary host plants of sugar beet root aphids are certain deciduous trees in the genus *Populus*, including narrow-leaved cottonwood, balsam poplar, and black cottonwood. Secondary hosts include the roots of beets, lambs quarter, pigweed, foxtail, dock, and some other species, on which the aphids will feed and reproduce for the majority of the growing season.

Description of Damage (larvae and adults): Adults and nymphs cause damage by sucking juices from host plants. Sugar beet root aphids mainly feed on the roots of their host plants. They generally feed on secondary roots but will feed on the tap roots as well when the infestation is heavy. Symptoms on individual beet plants may include severe wilting. On their secondary hosts, sugar beet aphids will only feed on the roots and not any shoot tissue; on their primary host, they commonly cause gall formation along the midrib of the leaves. These galls can be very large and damage the aesthetics of these trees. Overall, the main issue with these pests is the damage to sugar beet crops. Severely infested plants become chlorotic and wilt easily; under conditions of prolonged moisture stress, the storage root becomes flaccid and rubbery. Infestations in the field often appear as circular or elliptical patches in which the foliage on plants is wilted or, in extreme cases, collapsed and dying. In sugar beets, these aphids may greatly reduce yield by weight.

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