

SUGARBEET ROOT APHID

Pemphigus populivenae



photo by: S. R. Winter

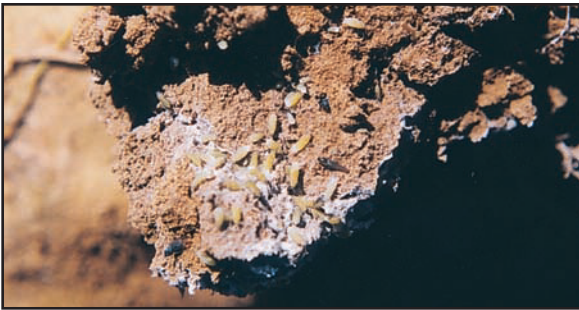


photo by: C. Schlagel

Identification

- Overwinters in the larvae stage on trees (Rocky Mountain States) or as aphids in sugarbeets or weed hosts
- Winged adults migrate from their winter hosts to sugarbeets in early summer and produce up to seven generations of wingless aphids
- Aphids are a white to yellowish green
- The female body is about a 1/16" long
- Aphids live in a white waxy secretion which repels water

Detection

- Infestations start out as small round patches in the field
- Patches have wilted leaves during the heat of the day
- Surface of roots are covered with white, waxy material secreted by the insect



- Beet leaves can turn from dark green to yellowish green and eventually wilt and actually shrink in size
- In extreme cases of aphid infestation, both winged and non-winged aphids can be found on the petioles of the beets

Cause of Infestation

- Aphids thrive in high temperatures and in limited soil moisture
- Under ideal conditions, numerous aphid generations may be produced
- Aphids spread by crawling through cracks in the soil and on the soil surface
- Winged aphids can fly
- Aphids can be moved by both wind and water

Cause of Damage

- Feeds mainly on the secondary roots of beets
- Feeding reduces the beets' ability to take up water and nutrients

Beet Damage

- Beets wilt and become stunted
- Aphids reduce the size and the quality of beet roots
- Aphid damage opens the door to other infestations such as alternaria
- Can cause reduced tonnage, sugar, and quality

Control

- Crop rotation and plowing can reduce infestations
- Variety resistance
- No current insecticide control
- Irrigation can slow the production of future generations