

Pest Profile



Photo credit: [Ken Gray](#) Insect Image Collection – Oregon State University (permission granted).

Common Name: Carrot Rust Fly

Scientific Name: *Psila rosae* Fabricius.

Order and Family: Diptera: Psilidae

Size and Appearance:

| | Length (mm) | Appearance |
|-----------------------------|-------------|--|
| Egg | Microscopic | White, laid at crown of plant in early spring and late summer |
| Larva/Nymph | 8mm | Colorless, changing to yellow/white maggots. Bore into soil and attack young roots after hatching in late spring/early summer. |
| Adult | 5mm | Black and shiny body, with few hairs. Clear wings, 12.7mm wingspan. Pale yellow legs, large red eyes on an orange head. Female attracted to scent of plant, 2-3 generations possible, lasting until October. |
| Pupa (if applicable) | 5mm | Brown, found near root in soil, 2 nd or 3 rd generation overwinter as pupae. 1 month pupation period (typically emerge to adult in late summer). |

Type of feeder (Chewing, sucking, etc.): Larvae have rasping mouth hooks, adults have rasping-sucking, but aren't the direct cause of damage.

Host plant/s:

Mainly members of Apiaceae, including but not limited to carrot, Queen Anne's lace, lovage, parsley, fennel, celery, celeriac, and parsnips.

Description of Damage (larvae and adults):

Larvae feed on young fibrous roots and the larger tap roots. Their feeding results in tunnels that contain a rust colored frass, distorted and scarred crop, and reduced quality yield. Damage can also lead to infection of other pests. Adults do not directly feed on the plants. Large infections can cause yellowing, stunting, and death (especially young plants), but more commonly above ground parts show no visual problems. Therefore, above ground monitoring techniques such as sticky traps are vital for control. Using sticky traps, the economic threshold is typically 2-3 adults per field.

References:

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