MINT FLEA BEETLE Coleoptera: Chrysomelidae Longitarsus waterhousei

DESCRIPTION

Adults are about 2 mm long, elongate-oval, with brownish-yellow bodies and darker, reddish-brown heads. The hind legs are long and thickened for jumping, hence the name "flea beetle". Larvae are very small, slender and worm-like. A full-grown larva is only about 3 mm long. Larvae are white, with a shiny, pale-brown head and three pairs of legs.

ECONOMIC IMPORTANCE

Mint flea beetle larvae feed on mint roots, which stunts plants and reduces oil yield. Spring regrowth of mint injured by this pest is slow and characterized by spotty stands and reddish plants. These symptoms also are typical of other factors, such as water stress or damage from symphylans, root weevils, or nematodes. Adults feed on mint leaves giving them a "shot hole" appearance.

DISTRIBUTION AND LIFE HISTORY

This pest occurs in all areas where mint is grown in the northwest and mid-west, however it does not cause economic loss every year at every location. Mint flea beetle overwinters as eggs in the soil near the crown of mint plants. Eggs hatch in early April through early May. Larvae feed initially on small mint roots and later tunnel into rhizomes. Larval development is completed during late May and early June. Pupation is in the soil near the rhizomes. The pupa stage is completed in three or four weeks. Adults begin emerging from the soil during early July. Adult females usually delay depositing eggs for two to three weeks after they emerge. Females have wings, but seldom disperse by flight. Therefore, dispersal is usually slow and occurs by hopping or walking. In the fall adults disperse to adjacent fields or to margins of fields seeking uncut plants. Eggs may either be deposited in mint fields or along field margins. Egg laying continues into the fall until the onset of freezing temperatures. There is one generation each year.

MANAGEMENT AND CONTROL

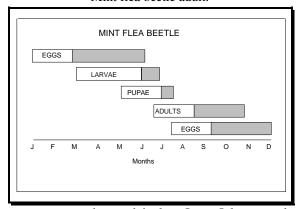
Planting infested rookstock is the principal way new mint flea beetle infestations are established. Perhaps the best management practice is to only plant certified flea beetle-free rhizomes. Recognition of adult flea beetle feeding damage on leaves is the easiest way to determine if this pest is present. A



Mint flea beetle larva.



Mint flea beetle adult.



sweep net can be used in late June, July, or early August to sample adults (850 to 900 degree-days). Adults are most efficiently sampled early in the morning on dry foliage. Sample at least five sites for every 20 acres taking 10 to 20 sweeps through the foliage. Yield reductions have been observed when an average of 5 to 10 adults are found per sweep. To sample for larvae, begin taking soil samples in late May and early June or after an accumulation of 300 to 400 degree-days. Take a minimum of 25 samples per field. Every one to two acres take a 5 by 7 inch soil sample to a depth of 4 inches. Samples can be screened in the field or larvae can be recovered in Berlese funnels in the laboratory. An average of 0.5 to 1.0 larva per sample may cause injury to mint.

[Return to Insect Management] [Home]