



Fact sheet

Insect Pests of the Home Garden Series

Tortoise Beetles

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Sweet potato beetle damage.



Striped goldbug.



Tortoise beetle larva

Goldbug larva.



Goldbug on potato leaf.

Injury:

Occasionally these beetles are abundant enough to cause serious defoliation to sweet potato foliage, but usually they are just a curiosity. However, when the beetle population is high, leaves may become riddled with many small holes. Newly set plants are most susceptible, and can be severely damaged or killed by feeding of this pest.

Description:

Tortoise beetles, or sweet potato beetles, are often called “goldbugs” due to their color. They are turtle-

shaped, flat underneath, and slightly squared at the shoulders. Common tortoise beetles in New Jersey include the golden tortoise beetle, *Metriorhynchus bicolor* (Fabricius), the mottled tortoise beetle, *Deloyala guttata* (Oliver), and the striped tortoise beetle, *Cassida bivittata* (Say). Most species are basically orange or gold in color, sometimes marked with various black stripes or spots, and about 1/4 inch long. The body margins are extended to cover much of the head and legs. Eggs are about 1/16 inch long, whitish, deposited in clusters of 15–30 eggs, and each egg is attached to the leaf by a slender stalk. The larva is 3/8 inch long and spiny around the margins with 2 long spines at the rear of the body. These long spines hold



the excrement and the shed skins over its back, tied together with silk, so that the larvae look like moving bits of dirt, earning them the nickname “peddlers.”

Life History:

Tortoise beetles overwinter as adults in dry protected areas such as under bark or leaf trash. They emerge in May and June and feed on various weeds of the morning glory family until sweet potato plants are available. Eggs are deposited on the leaf undersides, hatching in 7–10 days. Larvae and adults feed on the underside of leaves, but eat entirely through the foliage. Larvae feed for 3–4 weeks, then attach themselves to leaves by their anal end, and pupate for 1–2 weeks to emerge as adult beetles. New Jersey has several generations per year.

Management of tortoise beetles:

1. Tortoise beetles are leaf feeders and do not usually affect sweet potato quality unless beetle

numbers are excessive. Adequate fertilization, irrigation, and weed control are generally effective measures to compensate for leaf damage.

2. Reduce or eliminate weeds of the morning glory family, such as morning glory and bindweed, from the garden and bordering areas.
3. Hand-picking and destruction of larvae and adults are labor-intensive but effective for reducing the population of tortoise beetles.
4. Chemical control is generally not required for this pest. However, when the tortoise beetle population is high, 1–2 foliar applications of an insecticide may be needed to effectively manage these pests. Read and follow all label directions, restrictions, and precautionary statements before using any pesticide.