Colorado Potato Beetle

Fact Sheet FS224



Cooperative Extension

Gerald Ghidiu

Injury

Potato foliage is the favorite food of the Colorado potato beetle, *Leptinotarsa decemlineata* (Say), followed closely by eggplant and tomato. Adults and larvae will also feed on pepper and various weeds including ground-cherry, jimsonweed, horse nettle, petunia, henbane, thorn apple, thistle, and mullein. Both the adults and larvae eat leaves, flowers, terminal growth, stems, and even the fruit. Plants are often defoliated so completely that they die or produce poor yields.

Description

The adult is a broad, convex, hard-shelled beetle about 3/8-inch long and 1/4-inch wide. It is bright yellow in color with 10 longitudinal black lines on its wing covers and black spots on the thorax. The larva, or "slug," is a soft-skinned, humpbacked, very fat, and is brick-red in color with two rows of black dots on each side of the body.

Life History

Adult beetles overwinter in the soil and emerge in early spring and lay bright, orange-yellow eggs in small clusters on the undersides of the leaves of host plants. The eggs hatch into larvae which feed for about 3 weeks, passing through four larval stages, the last of which enters the soil to pupate. Adult beetles emerge from the soil in about 1 to 2 weeks to lay eggs for a second generation. The process then repeats itself with second generation adults appearing in late summer. These adults feed for a while before entering the soil for hibernation. Occasionally, a partial third generation may appear if fall weather conditions are favorable.

Management of Colorado Potato Beetles

- Hand picking adults and larvae and crushing egg masses is effective. Destroy beetles by crushing or placing them in a can of water with a few drops of dishwasher detergent (note: beetles secrete a reddish-orange fluid that can stain skin, so it is best to wear protective gloves). Do not just knock beetles off the plant as adults and larvae will readily climb back up the host plant if not destroyed.
- Cheesecloth or nonwoven nylon crop covers placed over young transplants help protect tomato and eggplant foliage from beetle damage.
- Because beetles can migrate long distances to the host plant after emerging from the ground in early spring, it is helpful to rotate solenaceous crops as far as possible from the previous year's planting to reduce beetle infestations.
- A biological insecticide, *Bacillus thuringiensis* var. tenebrionis, is available (Novodor). This biopesticide utilizes a bacterium that kills small potato beetle larvae when used according to label directions. It is harmless to other insects and mammals.
- Insecticides may help in reducing Colorado potato beetle populations. Target newly hatched eggs and small larvae for best results. Thorough coverage of leaves and stems is important. If a pesticide is used, read and follow all label directions before application. Observe the required number of days wait before harvest for each particular crop.

RUTGERS
New Jersey Agricultural Experiment Station

Rutgers, The State University of New Jersey
88 Lipman Drive, New Brunswick, NJ 08901-8525
Phone: 732.932.5000

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damage to eggplant fruit

mature larvae and tomato damage

larvae and damage on potato leaf

damage to eggplant leaf

adult, eggs, newly-hatched larvae

damage to eggplant stem

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Rutgers, The State University of New Jersey
88 Lipman Drive, New Brunswick, NJ 08901-8525
Phone: 732.932.5000