Cucumber Beetles and Grasshoppers

June 3, 2020



https://pestadvisories.usu.edu/wp-content/uploads/2020/06/June-4-Veg-Pest-Advisory.m4a

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Cucumber Beetles

Monitoring

In Utah, both the Western Striped Cucumber Beetle and Western Spotted Cucumber Beetle can cause significant damage to cucurbit crops (watermelons, cantaloupe, squashes, pumpkins, etc.). Both beetles are about 1/3 inch long, have a black head, yellow prothorax, and yellow wings with black stripes or spots. Larvae are 1/2 inch long with a yellowish-white body and brown head. Eggs are oval-shaped and range from yellow to orange.

Damage

Striped cucumber beetle and adults feed on fruit rinds, foliage, while the larvae will feed on the roots as well. Spotted cucumber beetles may cause similar damage, but less severe. In Utah, the most common damage is adults chewing large amounts of holes in the foliage.

Life Cycle

Adults overwinter in protected sites near agricultural fields. They become active when temperatures reach >50°F. Adults can fly up to 500

miles in high-altitude air currents. They mate in the spring and will lay their eggs on the base of cucurbit plants. Two generations occur in eastern and central Utah.

Management

Consider delaying planting until late May or mid-June until after beetles have laid their first generation. Plastic or organic mulches can deter cucumber beetles from laying eggs in the ground near the base of cucurbits. If choosing to use insecticides, be sure sprays penetrate crop canopy and make contact with damaging life stages of beetles. Home grower options are GardenTech® Sevin, GardenTech® WorryFree, or BioAdvanced Vegetable & Garden Spray.



Spotted Cucumber Beetle (Susan Ellis, Bugwood.org)



Striped Cucumber Beetle



Cucumber Beetle Larvae Feeding Damage



Cucumber Beetle feeding on the Fruit Rind



Cucumber Beetles Feeding on Flowers



Cucumber Beetle Damage on Foliage and Flowers



Grasshoppers

Monitoring

North America is home to over 400 different native grasshopper species. Many are well-adapted to the forage and rangeland of Utah. Notable species that cause damage to vegetable crops include the Differential, Twostriped, Redleged, and Migratory. Right now is the time that many grasshopper nymphs can be seen out in landscapes.

Damage

Grasshoppers have chewing mouthparts that tear away plant tissue and may cause serious defoliation.

Life Cycle

Most grasshoppers in Utah have one generation per year. Eggs are laid in groups on the soil during the summer and fall. They hatch the following spring depending on the temperature. Newly hatched grasshopper nymphs go through 5 instars before reaching full maturity.

Management

Grasshoppers are highly mobile, so control is most effective on a community-wide level. The best areas to treat include roadsides, open fields, drainage ditches, yard boundaries, and general weedy areas. Bait options such as bran + carbaryl or Nosema locustae (a natural grasshopper pathogen) are effective as they selectively kill only grasshoppers and other foraging insects. Dust products that contain carbaryl are easy to apply but may be expensive. Spray options include products with active ingredients malathion, carbaryl, permethrin, or bifenthrin. There are over 500 products registered in Utah for grasshopper control. ALWAYS read labels to ensure proper and legal application. Contact your local county weed office to check availability of sprayers. USDA-APHIS is responsible for control programs for grasshoppers on public lands. Landowners may collaborate to receive federal funding in planning and conducting a cooperative grasshopper management program.



Migratory Grasshopper



Redlegged Grasshopper (Russ Ottens, University of Georgia, Bugwood.org)



Differential Grasshopper
(https://www.ipmimages.org/browse/detail.cfm?imgnum=2511007)



Two-Striped Grasshopper (Whitney Cranshaw, Colorado State University, Bugwood.org)



Grasshopper feeding damage on cabbage



Grasshopper feeding damage on soy beans