

Grasshoppers

(**Order:** Orthoptera, **Family:** Acrididae) and

Katydids (**Family:** Tettigoniidae)

American Bird (*Schistocerca americana*)

Carolina Locust (*Dissosteira carolina*)

Dichromorpha viridis (*Dichromorpha viridis*)

Several Melanoplinae (*Melanoplus* spp)

Meadow Katydids (*Orchelimum*, spp)



Adult American bird grasshopper.

Description:

Adult: Many Acrididae (short-horned grasshoppers) species can be found on leafy greens, but the American bird grasshopper has been a consistent contamination pest (see photo) in Georgia. The adult of this species is large (39-68 mm) with a creamy white dorsal stripe from the head to the tip of the forewing. Carolina locust is darker, cinnamon-brown to greyish tan and is not as large (35-50 mm). The rest of the acridids are smaller, all are relatively hard-bodied (i.e., greater contamination problem). Meadow katydids are soft bodied, small to medium size, greenish in color, and bear long antennae.



American bird grasshopper from harvested greens.

Immature stages: American bird grasshopper eggs are elongate (7.5 mm x 2 mm), light orange to tan and are clustered together in a pod of 75-100 eggs about 4 cm below the soil surface.

Nymphs that emerge from the soil go through six instars and look increasingly similar to the adult as they grow, but without the developed wings. In contrast to this and the other acridids mentioned here that lay their eggs in pods in the soil, many katydids lay eggs in plant tissue.

Biology:

Life cycle: The American bird grasshopper has 2 generations per year and overwinters in the adult stage. The eggs from the overwintering adults produce the spring generation and eggs from this population produce the late summer-fall generation. Carolina locust likely has only one generation per year (no more than two) like the other grasshoppers mentioned here. Meadow katydids pass the winter in the egg stage in plant tissue, and nymphs emerge in the spring. Adults are common in the summer, but the authors have observed a peak of adults in September (possible a second generation in Georgia) and eggs are laid again in the fall.



Melanoplus adult in vegetables.

Seasonal distribution: Adult grasshoppers are most prevalent in the summer and numbers decline later in the fall. Meadow katydids tend to be more prevalent than acridids and all concentrate around the field edges.

Damage to Crop: The principal damage to leafy greens is as an insect contamination in mechanically harvested leaves. This a serious problem that can cause whole shipments to be rejected.

Management: Since field insecticide sprays near harvest only increase the problem of contaminants, preventative treatments are needed to prevent the build up of grasshopper in adjacent grass habitats.

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Predominant meadow katydid in leafy greens (greener when alive).