

Grasshoppers in the Yard & Garden

Grasshopper outbreaks are occurring in several areas in Montana. They are difficult to control due to their migratory nature and voracious feeding on several host plants. They tend to avoid feeding on trees and large shrubs unless outbreaks are heavy.



Figure 1. Differential grasshoppers. Photo by E. Manigault, Clemson Univ., Bugwood.org

Life cycle: Most grasshoppers overwinter in the egg stage in the soil. After egg hatch in mid- to late spring, the nymphs (immatures) immediately begin feeding. There are at least five or six stages of nymphs before the grasshoppers reach adulthood. The adult grasshoppers can live for several months into late summer/early fall.



Figure 2. Migratory grasshopper. Photo by J. Berger, Bugwood.org

Management: Once grasshoppers have entered the yard and garden, management is extremely difficult. Additionally, as they get larger, they are more difficult to control.

- Screen the garden and sensitive areas with metal window-type screening, as they easily chew through fabric.
- Several insecticides are available and labeled for use on grasshoppers; however, they will have to be applied every few days. Avoid applications of insecticides to any flowering plants or to where pollinators are foraging.
- Biological controls/baits:
 - *Nosema locustae* (brands such as NoLo Bait) <http://nolobait.com/nolo-bait/>
 - *Nosema locustae* is a protozoan/fungus that is selective to grasshoppers and applied with a bran that the grasshoppers have to consume.
 - Only effective when grasshoppers are in their 1st and 2nd nymph stages (when the grasshoppers are 1/4-1/2" long)

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