Grasshoppers in the Yard and Garden

- Grasshoppers continue to be an issue for several areas in Montana, which will last into the fall.
- The high grasshopper populations this year could be due to a couple of factors.
- Abundance of a yellow sweet clover bumper crop in 2019 (favored by the two-striped grasshopper)
- Due to a cold, wet spring in 2019, grass was abundant and rising grasshopper populations were tolerated and mostly not managed, allowing populations to increase this season.
- Once grasshoppers are adults and have entered the yard and garden, management is extremely challenging.
- Consider focusing on the most vulnerable trees and plants for management (and those of importance).
- Management options are available but several applications might be necessary (following the label).



Figure 1. Two-striped grasshopper, *Melanoplus bivittatus*. Photo by J. Berger, Bugwood.org

Management

- Many plants and flowers will be hard to protect.
- Screen the garden and sensitive areas with metal window-type screening, as they easily chew through fabric.
- Be prepared early next year for possible grasshopper issues.

Several insecticides are available and labeled for use on grasshoppers.

Organic Insecticides & Biological Controls

-Neem oil (products such as AzaGuard)

-Pyrethrins (products such as PyGanic)

-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)

Non-Organic Insecticides

-Bifenthrin & zeta-cypermethrin (products such as Ortho Home Defense Insect Killer for Lawn and Landscape and Ortho Bug B Gon Insect Killer for Lawns and Gardens)

-Cyfluthrin (products such as Bioadvanced Complete Insect Killer)

-Carbaryl (Eco Bran bait or Sevin)

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Disclaimer: These recommendations are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. If any information in these recommendations disagrees with the label, the recommendation must be disregarded. No endorsement is intended for products mentioned. The authors and Montana State University assume no liability resulting from the use of these recommendations.

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. Differential grasshopper, *Melanoplus differentialis*. Photo by E. Manigault, Clemson Univ.,

