

Grasshopper Control in the Urban Landscape

Grasshoppers, when abundant, are some of the most difficult insects to control in the urban landscape. The reasons for this are 1) grasshoppers are highly mobile and can hop or fly long distances in search of food, 2) depending on species, young can hatch from early spring to midsummer providing a seemingly endless supply of hungry grasshoppers, and 3) when food supplies diminish in their natural habitat (range and pasture) the well watered urban landscape provides an irresistible food supply.

Numerous grasshopper species occur in Texas; however, only a few cause occasional problems for ranchers, farmers and homeowners. The most common in west Texas are the Migratory, Red legged and Lakin's grasshoppers. They are all similar in size and shape but differ somewhat in color. The Lakin's grasshopper is shown in figure 1. During outbreak years these grasshoppers and others can do considerable damage to alfalfa, wheat, vegetables, and ornamental flowers. Can grasshopper problems be eliminated? No, however, during grasshopper outbreak years, homeowners can minimize their impact through the use of IPM (integrated pest management) tactics including barriers, insecticides and landscape plants that are less prone to damage.



BIOLOGY

Most grasshopper species have only one generation per year. All species of grasshoppers lay eggs in the soil about 1-2 inches deep. Eggs are laid in late summer and fall, most often in disturbed weedy pasture and rangeland where they winter till spring. Depending on grasshopper species, young begin to hatch in spring with peak emergence occurring in early summer and take from 40-60 days to reach the adult stage. Adult grasshoppers can be distinguished from young (in most species) by the presence of wings.

CONTROL

Urban residents have little control over surrounding range and pasture areas where grasshoppers frequently breed and lay eggs. However, homeowners can help protect valuable plants proactively by eliminating weedy margins around the home landscape thereby reducing the suitability of the site for grasshopper egg laying. Fabric barriers can also be used to protect valuable vegetables and specimen ornamental plants. If establishing new landscape plants consider those that are less attractive to grasshoppers (Listed below).

The most useful control method for an immediate problem is insecticides. Recent tests have shown that insecticides containing bifenthrin (found in some Ortho® Home Defense products) and lambda-cyhalothrin (Scimitar®) provide the fastest knockdown and longest residual control. Products containing permethrin (some Spectracide® products), cyfluthrin (Bayer®

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Advanced Lawn and Garden products), and esfenvalerate (Ortho® Bug-B-Gone) should also provide good control. Also some bait products are available. Baits consist of wheat bran combined with the insecticide, carbaryl, (Eco Bran, Lily Miller Grasshopper Bait) or a natural grasshopper pathogen, *Nosema locustae* (Semaspore, Nolo Bait). Baits are designed to selectively kill only grasshoppers and other foraging insects and therefore will be less harmful to off target organisms. As with all insecticides read and follow the label instructions.

Preferred	Slight Damage	Not Preferred
Althea	Flowering almond	American beautyberry
Amaryllis	Grape	Artemesia
Bachelor's buttons	Hardy aster	Bridal wreath spirea
Bush honeysuckle		Confederate jasmine
Butterfly bush**		Coralberry
Canna lily		Crape myrtle
Cherry laurel		Dwarf yaupon
Day lily		Dwarf burning bush
Eleagnus**		Dwarf Mexican petunia
Hardy hibiscus		Eldarica (Afghan) pine
Iris		Euonymous
Liriope**		Forsythia
Mondgrass		Juniper
Mums		Lantana
Nellie R. Stevens holly**		Mexican bush sage
Peach		Moss rose
Photinia		Nandina
Privet		Passionvine
Purple loosestrife		Perennial thrift
Rose		Perennial dianthus
Tradescantia		Persian lilac
Wegelia		Penstemon
Wisteria		Purslane
		Pygmy barberry
		Rock rose
		Salvia greggii
		Turk's cap
		Verbena (perennial)
		Vitex

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