



earth-wise guide to

Beetles

pest beetles:

There are many types of beetles in the Austin area, many of them beneficial. The two most common groups of pest beetles are listed below.



Flea Beetle



Striped Flea Beetle



Spotted Cucumber Beetle



Banded Cucumber Beetle



Striped Cucumber Beetle

Flea Beetles:

Attack:

Many vegetables including cucumbers, tomatoes, peppers and eggplant, potatoes and corn

Damage:

“Shot gun” pattern feeding damage on leaves and may also spread diseases such as potato blight and bacterial wilt. Larvae feed underground on roots

Flea Beetle Solutions:

- Irrigate efficiently. Drought stressed plants are more susceptible to damage
- Try companion planting with catnip, sage and mint to repel beetles
- Plant trap crops (mustard is good)

Cucumber Beetles:

Attack:

All members of the squash and cucumber family

Damage:

Minimal feeding damage, however they spread diseases such as bacterial wilt and squash mosaic virus that can kill plants

Cucumber Beetle Solutions:

- Choose disease resistant squash plants such as Cougar, Destiny III, Liberator III, Sunglo and Sunray
- Use trellises to get plants off the ground and mulch heavily around plants

Least Toxic Solutions For All Beetles

- Use floating row cover
- Remove dead plant materials and debris from garden
- Treat soil with beneficial nematodes
- Check for damage early and often during the growing season

helpful beetles:

These beetles are beneficial and cause no damage in the garden. They feed on aphids, caterpillars and other garden pests.



Ground Beetle



Ground Beetle



Lady Bird Beetle

identify before you buy
Need help diagnosing a plant problem? Call the Texas AgriLife Extension Service @ 512-854-9600 and ask for the Master Gardener desk or email them at travismg@ag.tamu.edu

product toxicity comparisons

Evaluation of active ingredients only; does not include toxicity information on inert or "other" ingredients.

Toxicity/Threat:

○ low ● low to moderate ● high ● highest NA not applicable
 ? unknown toxicity ☠ banned by EPA 🌍 earth-wise

Hazards:



note	Product Name	active ingredient(s) / concentrations	human toxicity		aquatic life	birds, bees, pets	soil mobility	environmental persistence
			acute	chronic				
most toxic	Green Light® Home & Garden Insect Spray	Thyme oil .33% Clove oil .33 % Sesame oil .33%	?	○	?	?	?	?
	Bonide® Hot Pepper Wax Ready-to-Use [repellant only]	Capsaicin and related capsaicinoids 0.184%	●	?	●	○	?	?
	Safer® BioNEEM	Azadirachtin 0.09%,	●	?	●	●	○	○
	Garden Tech™ Rose & Flower Insect Spray	Pyrethrins .02%, Piperonyl butoxide 0.20%	●	●	●	●	○	○
	Spectracide® Triazicide® Once and Done!™ Insect Killer2 Concentrate	Gamma-cyhalothrin 0.25%	●	●	●	●	●	●
	Ortho® Bug-B-Gon® Max® Lawn & Garden Insect Killer Concentrate Ready-to-Spray	Bifenthrin 0.3%	●	?	●	●	○	●
	Bayer Advanced™ PowerForce® Multi-Insect Killer Concentrate	Cyfluthrin 0.75%	●	?	●	●	○	●
	Ortho® Malathion Plus™ Insect Spray Concentrate	Malathion 50%	●	?	●	●	○	●
	Bayer Advanced™ Complete Insect Killer Dust for Gardens Ready-to-Use	Carbaryl 0.126%	●	●	●	●	●	●
	Diatect® Garden and Floral Insect Control	Silicon dioxide 82.9% Pyrethrin 0.2% Piperonyl butoxide 1.0%	●	●	●	●	○	○
	Ortho® Bug- B-Gon® Max® Garden Insect Dust	Permethrin 0.25%	●	●	●	●	○	●/○
	Bayer Advanced™ Complete Insect Dust Ready-to-Use	Permethrin 0.25%	●	●	●	●	○	●/○
	Bayer Advanced™ Tree & Shrub Insect Control Concentrate	Imidacloprid 1.47%	●	?	●	●	●	●
	Bayer Advanced™ Complete Insect Killer for Soil & Turf Ready-to-Spread Granules	Imidacloprid 0.15% Beta-cyfluthrin 0.05%	●	?	●	●	●	●
	Ortho® Bug-B-Gon® Max® Garden & Landscape Insect Killer Ready-to-Use	Esfenvalerate 0.0033%	●	●	●	●	○	●/○
	Eliminator®Sevin® 5% Dust	Carbaryl 5%	●	●	●	●	●	●
	GardenTech® Sevin® Ready-to-Use 5% DustBug Killer	Carbaryl 5%	●	●	●	●	●	●

most toxic

why grow green?

The Grow Green program educates Austin area residents on the LEAST TOXIC approach to pest management and responsible fertilizer use. Our goal is to reduce the amount of landscape chemicals that "runoff" into our waterways or leach into our groundwater and degrade water quality.

The City of Austin and the Texas AgriLife Extension Service provide this information as a comparative reference only. Listing of specific product trade names does not constitute an endorsement of its use. Many other pesticides and pesticide products are available and may be suitable for use other than those listed in these tables.

Products rated by Grady J. Glenn, Ph.D., B.C.E., of the Agricultural and Environmental Safety Program, Texas AgriLife Extension Service who can be reached for questions at 979-862-1035. The rating system was developed by Philip Dickey of the Washington Toxics Coalition.

www.growgreen.org



Watershed Protection Development Review
512-974-2550

AgriLIFE EXTENSION
Texas A&M System
512-854-9600