earth-wise guide to

Fleas

Enlarged photo of a flea

description

Fleas are tiny insects with hind legs modified for jumping; adults are found on pets; eggs, larvae and pupae are found in carpet and in shady, moist soil in the yard; they leave black droppings around pet sleeping areas and jump when disturbed

infestation

Fleas can attack pets and people - flea bites are mostly on the lower legs, and can turn red and itch. Most adult fleas live on the animal host (pets or other animals in the area), however, flea eggs and larva can be found in bedding, carpeting and areas where pets spend time resting and sleeping. An effective program to eliminate fleas must include controlling fleas on pets, and removing eggs and larva from the living area

If you have fleas in your house but do not have pets, you could have animals entering your attic or crawlspace.

Least Toxic Solutions

- Keep your house well vacuumed, especially where your pet rests; dispose of vacuum bags after use to prevent fleas from escaping back into your home
- Steam clean carpets to remove organic material which is food for flea larvae
- Wash your pet's bedding regularly in hot water; wash your bedding if pets sleep with you
- Use a flea comb to remove fleas from your pet. Drop fleas in a bucket of soapy water
- Shampoo your pet regularly with a gentle shampoo to remove fleas and flea eggs. Shampoos containing chemical pesticides are not necessary because ANY soapy water will kill fleas
- Try flea traps that utilize light, heat and sticky boards to trap adult fleas living in your carpeting
- Test for flea infestation by walking around in white socks – fleas will be visible as they jump on your legs
- If areas of your yard are heavily infested, treat them using a spray of beneficial nematodes (*Steinernema carpocapsae*). These organisms kill flea larva, but are not harmful to the environment

If You Must Use a Pesticide...

- Many new products target fleas specifically. Try spray products containing insect growth regulators that stop fleas from maturing into adults, eliminating the flea population
- Very effective once-monthly pills or spot treatments for pets are available through veterinarians. These products contain chemicals that kill fleas and stop flea larvae from developing, but are of low toxicity to people and pets
- If you have a severe infestation, diatomateous earth or boric acid can be used in cracks and crevices around the house. Do not use dusts in open areas
- Some pesticides, such as those containing d-limonene (from citrus), kill fleas on contact. These can be applied indoors and outdoors, however some products may stain furniture, carpet, etc. Read the label for the allowable treatment areas. Do NOT spray them on pets!
- If you feel you must use a pesticide, make the most earth-friendly choice
- Always follow the instructions on the label of any product that you use

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 acute	human toxicity chronic	aquatic life	birds, bees, pets	soil mobility	environmental persistence
	Antidote™	*Beneficial nematodes*	?	?	?	?	?	?
least toxic	Concern® Citrus Home Pest Control™	*D-limonene 5.8%*	◐	?	◑	◐	◯	◯
	Cutter® Bug Free Backyard® Concentrate	*Lambda-cyhalothrin 0.5%*	◑	◐	◑	◑	◐	◑/◐
	Maxide® Dual Insect Killer	*Thiamethoxan 0.20%* *Lambda-cyhalothrin 0.04%*	◐	◐	◑	◑	◑	◐
	Spectracide® Triazicide® Once and Done!™ Insect Killer2 Concentrate	*Gamma-cyhalothrin 0.25%*	◑	◐	◑	◑	◐	◑
	Bayer Advanced™ PowerForce® Multi-Insect Killer Concentrate	*Cyfluthrin 0.75%*	◐	?	●	◑	◯	◐
	Scotts®Turf Builder® with SummerGuard™	*Bifenthrin 0.86%*	◐	?	●	◑	◯	◐
	Diatect® Multi-purpose	*Pyrethrins 0.2% Piperonyl butoxide 1.0% Silicone dioxide 82%*	◐	●	◑	◑	◯	◯
	Bayer Advanced™ Complete Insect Dust Ready-to-Use	*Permethrin 0.25%*	◐	◑	●	◑	◐	◑/◐
	Bayer Advanced™ Complete Insect Killer for Soil & Turf Ready-to-Spread Granules	*Imidacloprid 0.15%* *beta-cyfluthrin 0.5%*	◐	?	●	◑	◑	◑
	Eliminator® Fire Ant Killer Dust	*Deltamethrin .05%*	◐	◐	●	●	◯	◑/◐
	Hi-Yield® Turf Ranger Insect Control Granules	*Deltamethrin 0.1%*	◐	◐	●	●	◯	◑/◐
most toxic	GardenTech® Sevin® Lawn Insect Granules	*Carbaryl 2%*	◐	◑	●	●	◑	◑

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 Pesticide Safety Education Program, Texas AgriLife Extension Service . The rating system was developed by Philip Dickey of the Washington Toxics Coalition.

why grow green?

The Grow Green program is based on Integrated Pest Management (IPM) principles that encourage the LEAST TOXIC approach to pesticide and fertilizer use. The goal is to reduce the amount of landscape chemicals that degrade water quality when they run off into waterways or leach into our groundwater.

Grow Green is a partnership between the City of Austin Watershed Protection Department and Texas AgriLife Extension Service. Call 974-2550 or 854-9600 for more information or visit our website at **www.growgreen.org**

Scoop the Poop
ScoopThePoopAustin.org

City of Austin
WATERSHED PROTECTION
974-2550

AgriLIFE EXTENSION
Texas A&M System
854-9600

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