



Pests and Pesticides

Of all the bugs in the world, what percent are considered “pests”? It may surprise you to know that less than 5% of insects have significant impacts on plants or crops, or carry diseases. The rest are either beneficial or are nuisances (they don’t bite, sting or carry diseases).

The problem with insecticides is that they are nonselective. That is they kill all insects - beneficials and pests. The average homeowner uses 9 times more pesticides on their property than a farmer does on the same size piece of land. Excessive use of pesticides affect water quality and pollute ground water.

Insect populations are cyclic. First you may see aphids, but if you wait..... soon the lady bugs, lacewings, assassin bugs, praying mantids, damsel bugs, big eyed bugs and tiny predatory wasps will come to feast.

If you grow perennial or annual flowers and herbs in your yard, you will soon have butterflies and hummingbirds using these nectar and food sources. Pesticides are lethal to these tiny winged visitors.

The best control for pests is to keep your plants healthy and vigorous. Healthy plants are better able to resist pests and disease. By watering, fertilizing and pruning appropriately, you will have little or no pest problems. Occasionally, some control may be necessary. This may be as simple as a strong blast of water from your hose.

Discourage outdoor pests by planting pest resistant or well-adapted plant varieties such as native plants.

Problem	Damage	Natural Predators	Control
Aphids Whiteflies	“Stippling” or mottling on leaves caused by piercing mouthparts that suck plant juices. “Honeydew” is sticky excrement	Lady Bugs, Lacewings, Tricogramma wasp (non-stinging), Assassin Bug	Occasional strong blast of water from the hose.
Mealy Bug		Assassin Bug	Soapy water spray. 1-2 teaspoons of liquid dish soap (no lemon scent) per gallon of water. Apply in early morning. Be sure to spray underside of leaves.
Cochineal (on prickly pear cactus)		White cottony spots on pads. The insect is underneath this covering	
Spider Mites	Stippling on leaves	Spider Mite Predator	Water spray on leaves. Spider mites hate moisture
Whiteflies	Stippling on leaves	Big eyed bugs, lady bugs	Yellow sticky traps
Slugs, snails	Missing leaf or plant parts		Beer traps
Thrips (on citrus)	Crinkled leaves, especially on tangelo. Superficial dry rings on rind of fruit.	Six spotted thrip	None needed. Any damage caused is strictly cosmetic.
Caterpillars	Missing leaf or soft plant parts.	Birds, Syrphid flies	Hand picking Bacillus thuringiensis (Bt)
Ants	Nuisance to humans, feed on honeydew produced by aphids and whiteflies	Lizards & geckos	Boric acid powder in sugar bait (like jelly), orange peel slurry.