

## ***COMMON PLANT PESTS AND LEAST-TOXIC CONTROLS***

### **Pests**

**Aphids:** Winged or wingless; pear shaped body; usually green, may be yellow, black or other color; typically congregate at twig or tips; leaves may be twisted or distorted; ants or sooty mold may be present.

**Mealybugs:** 1/16-1/8 inch long, soft body; well developed legs; bodies covered by powdery white coating that may also surround egg masses; attack leaves, twigs, roots, lots of ants; white, mealy wax deposits, sooty mold.

**Scales:** About 1/16 inch diameter; various size, shape and color; some produce honeydew (sugary secretion); body hidden under waxy scale covering; mature scales are stationary and feed on leaves, twigs, stems, fruit; yellow spots on top of leaf with scale underneath; ants; sooty mold.

**Whiteflies:** Adults appear as white specks on plants; deposit eggs on underside of leaves; stationary larvae are oval, flat, transparent-to greenish color when alive and dull white when dead; ants, sooty mold; adult flies around or on plant; larvae under leaves.

### **Remedies**

**Natural Controls:** Lady beetle adults and larvae, lacewing larvae, syrphid fly larvae, parasitic wasps.

**Other Controls:** Flush from branch tips with water from hose, apply insecticidal soaps.

**Botanical or Natural Insecticides:** Cinnamite, Concept, Impede, Pyrethrins, Sumethrins.

**Natural Controls:** Lady beetles, lacewing larvae.

**Other Controls:** Spray with horticultural oil or vegetable oil. If oil spray fails, systematic pesticide may be applied to root system affecting only pests that feed on plant sap. Alcohol spray, plant shine. (Brand X)

**Natural Controls:** Lady beetles, parasitic wasps.

**Other Controls:** Plates or saucers of beer. See methods for mealybugs.

**Natural Controls:** Fungi (white, orange or tan, most effective in humid weather), parasitic wasps, lady beetles.

**Botanical:** Cinnamite, Botanigard

**Other Controls:** Spray with insecticidal soap. Follow with horticultural or vegetable oil. Avon-Skin-so-soft.

## Pests

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**Caterpillars:** larvae of moths, chew on foliage causing skeletonized leaves and notches, greenish fecal pellets are on foliage, caterpillars observed.

**Thrips:** Tiny (1/32 inch); wings: scar leaves and suck sap from wounds; plant may be dull, grayish, curling distorted leaves.

**Spider mites:** tiny (1/32 inch); oval bodies; red, yellow or greenish; may have spots; adults spin loose webs of foliage; reproduce rapidly in hot weather; injuries to plants look like light colored dots, giving leaves dull gray/green, stippled appearance. Fine, loose spider webs, ashy looking residues.

**Mole Crickets:** Up to 1 ½ inch long, velvety brown, front legs flattened and adapted for burrowing; affects Bahia and Bermuda grass, turf may be spongy and thinning, ½ inch round holes with signs of tunneling; infestation likely to occur in same area each year. Test for infestation by flushing area with soapy water; crickets will surface if present.

**Chinch Bugs:** Adults 1/5 inch long, black and white patches on wings; young nymphs smaller and reddish, attacks St. Augustine grass, yellowing turf grass, often in stressed areas in full sun or near paved areas.

## Remedies

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**Natural Controls:** Birds, predatory stinkbugs, big-eyed bugs, and lizards.

**Other Controls:** Spray or dust with bacillus thuringiensis. Most effective when caterpillars are small.

**Common name:** Thuricide (available in most nursery and garden centers (very safe)

**Natural Controls:** None are identified.

**Other Controls:** Apply horticultural oils. Cinnamite, Concern, Safer Soap.

**Natural Controls:** Lady beetles, predatory mites. Cinnamite, Floramite, Sannamite, Silicon Solution.

**Other Controls:** Alternate with soap and oils with silicon. Hydrogen peroxide and vinegar.

**Natural Controls:** Red-eyed fly, beneficial nematodes, ibis (bird)

**Other Controls:** For chronic infestation, consider replacing turf with trees, shrubs or ground covers. May spot treat infestations in June with materials labeled for mole cricket control. Use bait later if necessary.

**Natural Controls:** Big-eyed bug, earwigs.

**Other Controls:** Avoid high fertilizer rates. Maintain St. Augustine at height of 3 inches in sun and 4 inches in shade. Use chinch bug resistant grass varieties (floratam, floralawn) spot treat infestations with materials labeled for chinch bugs.

## Pests

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**Fleas:** Small, dark colored, 1/6 inch long, can hop some distance, obvious effects on pets and people, prevalent in areas where pets bed down or dig holes.

**Nematodes:** Small, unsegmented roundworms, generally transparent and colorless, invisible to unaided eye. Feed on living plant tissue, may cause premature wilting, stunting, yellowing of leaves premature leaf loss, thinning of turf, galls or “knots” on roots, short roots, dark roots, root decay. Root-knot nematodes can often be identified by their recognized galls on roots of many plants. Laboratory analysis required to identify types and numbers of most kinds of plant parasitic nematodes present.

**Ants:** Three body segments, sizes range from 1/16 - 1/2 inch, depending on species, most species not harmful, mounds, ants in trails and in plants, controls not recommended in landscape unless fire ants are a problem.

## Remedies

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**Natural Controls:** None identified.

**Other Controls:** Spot-treat pet bed/outdoor resting areas with soap solution. Other least toxic products are boric acid and those containing fenoxycarb (an insect growth regulator) that may be effective in shade. Professional can apply a new beneficial nematode product outdoors.

**Natural controls:** Choose landscape plants that are least susceptible to damage by most common (root-knot) nematodes. Most soil contains millions of spores of many fungi and bacteria that attack and reduce numbers of nematodes in soil. Adding more spores is unlikely to enhance natural level control. Adding organic matter to soil may help increase food base for “friendly” fungi. Use horticultural practices encouraging more efficient root systems and improving soils ability to hold water and nutrients.

**Other Controls:** “Solarize” soil by covering soil with clear plastic for 4-8 weeks to generate heat, replace infested soil. Soil fumigant chemicals sometimes are used before planting. No residual control, however, from any of these controls. Planting site is easily reinfested. No chemical controls available once landscape is established.

**Natural controls:** None identified.

Boron (Borax) and brown sugar 50/50.

## Safest solutions for landscape and vegetable plants

**Insecticidal soap:** Make your own effective spray with 4 tablespoons liquid dish soap in 1 gallon of water. Spray liberally on effected plants and repeat application if necessary.

**Horticultural oils:** Labeled as such in garden centers, these products are used as sprays. To make your own oil spray, mix 2 tablespoons vegetable oil, 2 tablespoons liquid dish soap and 1 gallon of water.

**Bacillus thuringiensis (Bt):** A bacterium that infects and controls caterpillars. Available commercially in liquid (spray) form and dusting powder. Sold as Thuricide at local garden supplies. Safe. Use every two weeks.

**Coffee grounds and tea bags:** The tannic acid prevents mosquito larvae from hatching.  
(particularly useful as mosquito preventative in bromeliads)

**Beer:** In areas where slugs are a problem, place a shallow pan of beer on the ground.

**Molds and fungi:** Baking soda, 1 tablespoon per gallon, spray frequently. Copper and Lime, Sulfur. Air circulation is the best preventative. Hydrogen peroxide and Vinegar (1:1 solution) Test spray first.

**Spiders and Mosquitoes:** In one gallon of water add 1 tablespoon of Joy or Dawn detergent and 1/4 cup of gum turpentine. Controls for 3-6 weeks. Yellow Sticky Strips for most insects and Blue sticky Strips for others such as Thrips.