



COMMON INSECT PESTS

STARNOTE 700
June 2009

Getting the Upper Hand

As our population increases, the insect population grows with it. The majority of plants used in our area are imported from other locations and the pests come with them. Few are dangerous but most are annoying to us and can damage our plants. Our warm, dry climate is ideal for a variety of insects and we must learn how to control them. Forget about eradication; they are here to stay. Understanding and using proper control measures will make things easier. Here are some of our most common pests and recommended controls:

Ants are rarely the actual culprit causing damage to our plants! Rather their presence indicates that other insects are likely preying on the plants. Many ants like sugary substances like aphids produce, so you often see a plant with damage at the same time you see the ants. To mistake the actual problem will usually mean failure to control the pest and its damage. In this case treatment is needed for aphids, not ants. Ants will go after sugary sap and fruit. If their after your fruit it is probably time to start picking. If it's sap they are after, then find out why the tree is stressed first.

Controls: Outdoors, you can use some Tanglefoot® to keep the ants away until the tree is healthy again. Amdro® is a very effective bait where you find outdoor colonies. Ants come indoors too. As most like to eat sugar or protein, a safe and effective bait can be made by mixing a teaspoon of peanut butter with ¼th teaspoon of diatomaceous earth "D.E." (available in Safer™ Ant Insect Killer). D.E. is the hard shells of sea creatures and is generally not harmful to humans or other large animals. Put a dab of this mix in their line of traffic, and they'll bring it to the colony.

If you suspect that you might have fire ants, however, contact the Nevada Department of Agriculture (702)486-4690.

Aphids are probably noticed more than any other plant pest. They feed on plant juices from stems, leaves and flowers. In large enough numbers, they can cause extreme damage to plant life. Contrary to popular belief, they are not just green. Aphids come in a variety of colors like red, brown, purple, gray, yellow, orange and black. While feeding, they excrete a sap-like liquid called honeydew that attracts ants and other insects. Some ants "herd" and "milk" aphids, using the liquid as a food source. They appear in largest numbers during spring and fall since neither severe heat or cold agrees with them. Get the upper hand early to prevent any serious damage.

Controls - Organic: Ladybugs, Praying Mantids, commercially packaged Insecticidal Soaps or natural horticultural oils like *Nem*. A new organic pesticide *Spinosad*® can be used on vegetable gardens, fruit trees, lawns and ornamentals.

Commercially packaged garlic sprays have proven effective in deterring aphids. Strong streams of water from a sprayer or hose can wash them away from your plants, but you will need to be very thorough. They hide under the leaves, and if you don't get them all, they'll be back in numbers.

Chemical: **For ornamental plants** - - *Green Light House & Yard Insect Control*, or *Malathion*, and *Sevin*®, are all effective. Systemic insecticides like *Bayer Rose & Flower Insect Killer* can help reduce the number of sprayings required to control this pest. **For vegetables** - - *Sevin*® pyrethrins and synthetic pyrethrins are available.

Borers generally attack stressed or injured plants, not healthy ones! They are the larvae of several species of moths and beetles. They tunnel beneath the bark and eat into the cambium (nutrient bearing tissue). Some bore into the heartwood and branches. Symptoms include holes in the bark, peeling bark and fine sawdust, and areas or spots of sap on the trunk or branches. Caution! Cracked bark and sap are also signs of a stressed plant, so you will need to do some thorough examination of the tree before making a decision. Sudden death of individual branches is another tell-tale sign of borer infestation. Left untreated you will likely lose the tree or shrub, and provide a launching point for the borers to multiply and attack the rest of your landscape. Watch neighboring landscapes for these signs and share this technical bulletin if you see them. Some of their favorite plants are: Cypress, Juniper, and Fruit Trees. It is common to find them in a Flowering Plum Tree, as these are very often improperly watered or have sunscald trunks. They have even been found in shrubs like Hawthorn, and Photinia.

Controls: Prevention is the key with this insect! Proper irrigation, fertilization and routine clean-up can do wonders. To kill borers we need to get the pesticide into the tree, not just treat the surface, so a systemic is required. Borers are very difficult to eliminate once they are established. Perform annual irrigation checks, expand the root zone of your plants by adding drips away from the trunk as it grows, and fertilize regularly and properly. Keep the area around your shrubs and trees clean of debris. In March, paint the trunks and major branch junctions of all fruit trees, willows (except desert willows) and ornamental trees with a white water base tree paint. The paint will protect trees from sunburn and heat stress thereby lessening the chances of borer attack.

Chemical: On your ornamental trees apply a protective drench of *Bayer Tree & Shrub Insect Control* in the fall or early spring. This product gives systemic control of borers in ornamental trees and shrubs for up to one year. Do not use this product on trees or shrubs that bear fruits you intend to eat! **As always, follow all pesticide label instructions exactly!**

Caterpillars are the larvae of moths and butterflies. If you want Butterflies in your garden, you will need to allow a reasonable number of caterpillars to survive, and so chemical control would not be recommended. Caterpillars are leaf-chewing insects and included harmful varieties like the small cabbage looper, cutworm, grape leaf skeletonizer, and the huge tomato hornworm. All can cause serious damage if left unchecked. Use control measures at the first sign of these.

Control - Organic: *Bacillus thuringiensis* (BT) is a bacteria that attacks the digestive system of caterpillars. It's available in liquid concentrates like *Bio Worm Killer*® or dust and gives outstanding results. If you can stand to handle them, handpicking hornworms on tomato plants is very effective since there are rarely more than one or two on each plant. By the way, has anyone ever seen a "small" hornworm?

Chemical: For ornamentals use *Synthetic Pyrethrin Products*, *Sevin*®, or Bayer Rose and Flower Insect Killer®. For fruits and vegetables use *Sevin*® or *pyrethrins*. Repeat applications as needed.

Leaf Footed Bugs will be after your pomegranates. They have been known to frequent other fruits like pistachios, almonds and peaches as well. If left unchecked they consume your entire crop. The leaf-footed bug often attacks ripening fruit crops and causes discolored depressions or blemishes called cat-faces. These scars can cause undersized fruit or premature drop. You may notice clear sap oozing out of the wounded areas on the fruit.

Controls: Because this bug is so difficult to hit with a spray, Pesticides do not claim to control the *Leptoglossus phyllopus*. Carbaryl (*Sevin*®) and Cyfluthrin (*Power Force*®) have been effective in controlling this voracious bug. Read the label and make sure the product you buy is listed as safe for the type of tree or shrub you intend to treat.

Snails and Sowbugs are becoming more and more evident each season. They can cause damage to young, tender vegetables and bedding plants. Sowbugs (roly-polys) are especially damaging in strawberry beds, attacking the ripe berries just when you want to pick them. Both are more active at night.

Controls: Several insecticide-laced baits, usually containing *Carbaryl*, are available. Bait is required since the insecticide must be ingested to be effective. As always, follow label instructions.

Spider Mites are tiny, sucking insects that attack a wide variety of plants. Some of their favorites are cypress, junipers, bush daisies and pyracantha. Symptoms include a dusty, "tired" look with off-color foliage surrounded by light webbing. Check by shaking some of the affected foliage over a piece of white paper. If crawling specks appear, you've got a mite problem. On leafy plants, blotchy, yellowish leaves may indicate the problem. Turn the leaves over and look for dark, tell tale specks. Mites are most active in hot, dry weather. Failure to control them will result in foliage drop, weakening and eventual death of the plant.

Controls: Periodic washing of foliage with strong sprays of water will help keep these pests under control. If the infestation is severe, applications of a miticide like *Malathion* or *Ortho Orthenex* may be needed for control.

Cicadas are large, noisy insects that are more irritating to your ears than damaging to your plants. Damage is done, however by the nymphs that suck sap from roots. Prolonged feeding by nymphs on a tree's root system may reduce plant growth and fruit production. The most obvious damage is that caused by egg laying in small twigs. This damage causes twigs to split, wither, and die.

Controls: Prune out and destroy young twigs that have been damaged by egg laying within a three week period after eggs are laid. This will prevent newly emerged nymphs from reaching the ground.

Chemical: *Sevin* Brand Insecticide with *Carbaryl* is effective in control of the Cicada.

Mealybug is another pest common to our gardens and landscapes. Adult mealybugs are small (about 3 mm long) and pink in body color but covered with a waxy secretion, so they look cottony. They feed on the soft tissues of plants and inject a toxic saliva that causes curling and contortion of leaves. The entire plant may be stunted and the shoot tips develop a bushy appearance. Buds may not flower and stems may twist. Fruit may also be deformed. The mealybug excretes honeydew which encourages the development of black sooty mold. Very high mealybug populations can kill plants.

Controls – Organic: Lady bugs are a predator of the mealybug. Chemical: This pest is difficult to kill, but *Sevin* (*Carbaryl*) lists and is effective for control. Read and follow label instructions.