



What's Bugging You?

September 2004 Vol 1. No. 4 - A Newsletter from the makers of Sevin® Brand Insecticide

PESTS IN THE GARDEN

VEGETABLE GARDEN INVADERS

The purpose of the garden will vary from person to person, but the troubles of the garden are the same. Insects love vegetables as much as we do, and, like us, some are picky about which vegetables they eat. Which vegetables are in your garden? Following are some common garden pests.

INSECTS THAT EAT YOUR VEGETABLES

Leafy Crops (cabbage, broccoli, cauliflower, radish, turnip)

Cabbage worm, flea beetle, grasshopper, japanese beetle, lace bug, leafhopper, stink bug, whitefly, Alfalfa caterpillar, Aster Leafhopper, armyworm, bagworms, cutworm, diamondback moth, imported cabbage worm, little leaf notcher (adults), plant bugs, sap beetles, scale insects, spittle bugs, tomato fruitworm, white fringed beetle adults



Japanese beetle

Root Crops

Cabbage worm, aster leafhopper, sweet potato hornworm

Cucumber

Cucumber beetle, aster leafhopper, pickleworm

Pumpkin plants (squash, pumpkin, gourd)

Cucumber beetle, squash bug, cutworm, harlequin bug, pickleworm

Melons (watermelon, cantaloupe)

Cucumber beetle, melonworm, pickleworm, three cornered alfalfa hopper

Beans (soy beans, lima beans)

Cucumber beetle, corn earworm, mexican bean beetle, stink bug, bean leaf beetle, blister beetle, cutworm, grape colaspis, green cloverworm, harlequin bug, three cornered alfalfa hopper, velvetbean caterpillar, western bean cutworm

Corn

Cucumber beetle, corn earworm, flea beetle, aster leafhopper, chinch bugs, corn rootworm (adults), european corn borer, fall armyworm, grape colaspis, harlequin bug, southwestern corn borer, thrips, tomato fruitworm, western bean cutworm, white fringed beetle adults

Grains (wheat, barley)

Chinch bugs

Peanuts

Cucumber beetle, rednecked peanut worm, velvetbean caterpillar, white fringed beetle adults

Potatoes

Cucumber beetle, colorado potato beetle, flea beetle, tomato hornworm, blister beetle, sweet potato hornworm, sweet potato weevil, thrips, tomato pinworm, tortoise beetles, white fringed beetle adults

Tomatoes

Colorado potato beetle, tomato hornworm, aster leafhopper, cutworms, harlequin bug, sweet potato hornworm, three cornered alfalfa hopper, tomato fruitworm, tomato pinworm



Chinch Bug



Colorado potato beetle

Eggplant

Colorado potato beetle, flea beetle, tomato hornworm, tomato pinworm

Avocado

Avocado leafroller

Peppers

Colorado potato beetle, tomato hornworm, Aster leafhopper, cutworms

INSECTS

THAT EAT YOUR FRUITS

Citrus trees/ plants

Apopka weevil, apple pandemis, apple rust mite, bagworms, citrus cutworm, citrus root weevil (adults), citrus rust mite, fruitree leafroller, little leaf notcher (adult), orange tortrix, sap beetles, scale insects, spittle bugs, tarnished plant bugs, western tussock moth



Bagworm

Cherries

Apple maggot, apple mealybug, black cherry aphid, fruitree leafroller

Apples (Green, Red, Crab)

Apple aphid, apple maggot, apple mealybug, apple pandemic, apple rust mite, fruitree leafroller, western tussock moth

Plum

Apple maggot, citrus cutworm, fuller rose beetle

Berries (Strawberry, blackberry)

Fuller rose beetle, grape colaspis, tarnished plant bugs, white fringed beetle adults

Pears

Apple aphid, apple maggot, citrus cutworm, fuller rose beetle

INSECTICIDES 101

Deciding which insecticide to use can be confusing, and it takes careful consideration to maximize the success.

Dust is a quick and easy way of applying insecticide on vegetables. It's no-mix, fast acting, and its excellent residual control provides control of leaf eating and sucking insects. Dust also has a short pre-harvest interval.

Concentrated insecticides are economical for larger areas such as gardens and fruit and ornamental trees. They provide excellent control of leaf eating, sucking insects, and ticks that vector Lyme disease. They also have a short pre-harvest interval.

Granular insecticides also are no-mix and provide quick application for broad spectrum coverage for lawns. They are excellent for use as a barrier treatment around foundations, porches, and decks, and can be worked into the soil to prevent ground dwelling insects. They provide control of ants, fleas and ticks, grubs, and Japanese beetles. Granular has a long lasting residual control, up to three weeks.

Ready-to-Use insecticides are quick and convenient for smaller areas, hanging or outdoor potted plants, and great for use in container gardening.

Do not spray strong insecticides every time you see an insect. You will poison your vegetables and stress your plants, which will reduce your crop and may kill your garden. Most insects should be there for pollination and to eat caterpillars, so only spray when you see something that is eating a leaf and causing severe damage.



A FROSTY TALE



Unexpected spring and fall frosts can strike panic in many gardeners. There is no way you can accurately predict or control the temperature, but there are several measures you can take to protect your plants.

Ask your local weather bureau:

- Average first fall frost and last spring frost for your area. This helps you judge planting and harvesting times so you can plan for frost protection. Remember, these are only averages. Frosts can happen weeks before or after the average date.
- Low areas, where cold air settles, freeze earlier in the fall and later in spring. Areas close to lakes usually freeze later in fall and freezing stops earlier in spring. Plants sheltered by buildings or larger plants often are protected from first and last frosts of the season. The heat from buildings, cities and artificial sources also affect frost dates. Predicted temperatures and the type of plants will determine the need for frost protection. Young trans-plants are tender and easily damaged by frost so you should protect them. The frost may not kill the plant, but will interfere with its development. Some vegetable plants tolerate frost and cold temperatures better than others. Tolerant plants include lettuce, spinach, chives, and cole crops such as broccoli, cauliflower, brussels sprouts, cabbage, and kohlrabi. Other crops, such as carrots and parsnips, can not only tolerate a frost, but can be left in the ground all winter if you mulch them heavily.

When temperatures get colder than 28 degrees, you should cover plants with cloth, plastic, newspaper, straw, or evergreen boughs in the evening before the frost occurs. The mulch will trap the soil heat around the plants and prevent freezing. You also can use a water sprinkler to protect plants from frost. As the water freezes on the plant, it gives off heat. The heat keeps the plants from freezing. Continue sprinkling until the ice melts off the plants.

TREATING YOUR INFESTED GARDEN

If your leaves are beginning to look more like lace doilies, you have an infested garden. Even if your garden is healthy, it's important to know how to detect the invaders lurking in your vegetables. There are some common pests in gardens, along with symptoms and a stress-free control plan.

PEST	SYMPTOMS/DETECTION	DIAGNOSIS/CONTROL
Cabbage Worm	Appearance of pale green, velvety worms covered with fine hairs and a row of light colored spots. Very large, irregular holes eaten through affected leaves. Excrement pellets are generally very noticeable on leaves	Destroy all residual plant material after harvesting crops. Apply insecticide.
Cucumber Beetle	Damage to subsurface root systems, which may leave a plant vulnerable to being blown over by heavy gusts of wind.	To reduce the habitat of these pests periodically cultivate soil in gardens so that no plants or weeds can grow until desirable crops are planted. Apply insecticide.
Colorado Potato Beetle	Skeletonization of plant foliage and stems by beetles with black and yellow stripes running along their wing covers. Consumption of foliage and stems by small, fat larvae.	Plowing during the fall or spring helps destroy over-wintering adults and thereby reduces the population emerging the following spring. Apply insecticide.
Corn Earworm	The presence of holes chewed into corn ear, tomatoes, bean pods or other fruit. Excrement can usually be found in and around these holes.	Plow during the fall or spring to destroy over-wintering pupae and thereby reduce the population emerging the following spring. Apply insecticide.
Flea Beetle	Very tiny, black or greenish-black jumping beetles found on leaves. Small holes chewed through plant leaves by adult beetles, resulting in a "shot-hole" appearance.	Clean out bushy, overgrown areas, especially those which have tall grass or weeds. Remove as much leaf litter, plant remnants and weeds from seed beds as possible. Apply insecticide.
Grasshopper	The appearance of insects with enlarged rear legs that allow them to jump very powerfully. During the day these insects can be found feeding in sunny locations. Egg pods in the soil surrounded by gummy material that hardens to form a protective covering.	Till soil in vegetable garden during fall or spring so that eggs can either be pushed far down into the ground, or brought up to the surface where they are dried out with exposure to sunlight. Note: This technique will destroy only a percentage of eggs, and should not be used as the only means of control in areas of large grasshopper populations. Apply insecticide.
Japanese Beetle	Leaves are skeletonized by shiny green-metallic beetles with tiny tufts of white hair along each side of abdomen. Leaves may turn brown and die.	Vigorously shake small trees and shrubs early in the morning when beetles are sluggish. Place a plastic sheet on the ground so the fallen beetles can be captured and destroyed. Apply insect repellents to shoes and socks. Note: use of pheromone traps to collect adults has not been shown to be effective in controlling Japanese beetles, according to researchers. In fact, these traps may become counter productive by luring the beetles into the home lawn environment. Apply insecticide.
Lace Bug	Appearance of grayish adult bugs with broad, flat, transparent, lace-like wing covers. Found on the undersides of leaves, these adults leave behind specks of sticky, dark brown excrement called honeydew.	Appearance of tiny, very dark nymphs that are covered with spines. These are found on the undersides of leaves. Affected leaves have tiny chlorotic (lightened, gray) spots on the upper surfaces and may fall from the trees. Apply insecticide.
Leafhopper	Tiny, wedge-shaped bugs which can be found feeding on the underside of leaves. These pests jump or fly when disturbed, and at times can be observed running sideways.	Affected leaves wilt and have mottled, whitish, reddish or yellow appearance as a result of sap loss from insects feeding. Stems may also be affected. Apply insecticide.
Mexican Bean Beetle	Skeletonization and browning of leaf tissues by copper-colored beetles with eight black spots on each wing cover.	Remove plant debris and plow under crop residues after harvest to minimize populations of Mexican bean beetles. Apply insecticide.
Squash Bug	The presence of small dark brown or black bugs, often gathered at the base of plants or under dead leaves. Leaves on affected plants wilt, then turn crisp and black as they die.	Remove plant debris and other rubbish from gardens and around home perimeters to minimize the pests over-wintering habitat. Hand picking of squash bugs is helpful if they are present in small numbers. Apply insecticide.
Stink Bug	Stems damaged or split by shield-shaped, sap-sucking insects.	To determine if stink bugs are present, place a light-colored cloth beneath plants that you suspect are infested and shake them vigorously. Apply insecticide.
Tomato Hornworm	The appearance of large, green caterpillar's with posterior horns. Serious defoliation is commonly observed on infested vegetable crops. The appearance of large, powerful moths hovering over flowers to suck nectar at dusk. Hand-pick caterpillars from garden crops.	The appearance of large, green caterpillar's with posterior horns. Serious defoliation is commonly observed on infested vegetable crops. The appearance of large, powerful moths hovering over flowers to suck nectar at dusk. Hand-pick caterpillars from garden crops.
White Fly	The presence of holes chewed into corn ears, tomatoes, bean pods or other fruit. Excrement can usually be found in and around these holes.	Plow during the fall or spring to destroy over-wintering pupae and thereby reduce the population emerging the following spring. Apply insecticide. Apply carbaryl, the active ingredient found in Sevin(r) Brand Insecticide, to your garden, in addition to the diagnosis provided, according to the formulation you've chosen.

As with all insecticides, please read and follow the use instructions on the package. For more information about insects and/or carbaryl, log onto www.gardentech.com

For more information, please contact Gini Dietrich at (312) 787-7249 or gini.dietrich@armentdietrich.com.