

Four Bad Bugs ... Stop Them Organically

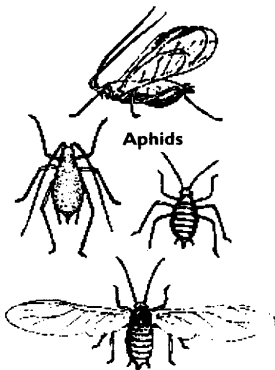
Butterflies are beautiful, but they deposit eggs that turn into leaf - eating worms that destroy the plants. Among the animal friends of yours (even if you don't recognize them as such) are bats, birds, toads, lizards and snakes. If the ground can be left fallow for a few weeks, and there are no fences, even skunks and moles will eat grubs and larva.

SIMPLE SPRAY

Make a simple spray. Smash some onion and garlic, about 1/2 a cup, add to one-pint water, let set overnight, and then strain. Add to a quart of water with cayenne pepper and 4 or 5 drops of vegetable oil. Spray on the afflicted plant. This spray will not harm any friends, but will discourage pests. Add some powdered coffee or tea to the garlic and onion before straining. Most insects will avoid foods treated with caffeine. For instance, mosquito larvae can't swim when sprayed with caffeine. Bacillus Thuringiensis (BT) can be bought as a powder to mix with water, or as a spray. Dipel, Safer, Biotrol and Thuricide are some trade names. To eliminate the pest, the caterpillars must eat BT

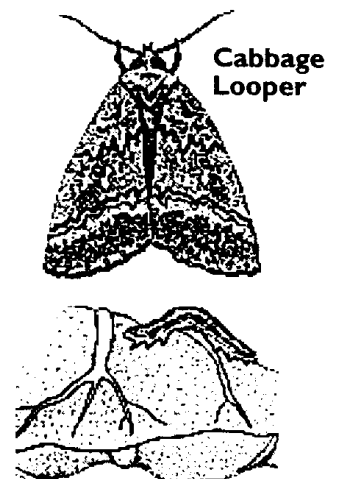
INSECT IDENTITY

Three insects that are prevalent with the warm fall season are aphids, cabbage loppers, and tomato hornworm. Aphids suck leaves, fruit, and stems. Foliage curls, puckers, and turns yellow, and may be stunted or misshapen. Aphids like the undersides of new leaves, buds and tender stems. They are less than 1/10 inch long, can be green, brown, black or pink. When first noticed, use a heavy stream of water to spray the plant. If the infestation is heavy, resort to the allium spray. Use a trap crop such as nasturtiums. Sticky traps can also be used as a control device. Aluminum foil, white plastic or straw can confuse the aphids flying overhead so they can't tell where to land. Floating covers seem to be effective keeping aphids from plants. Check seed catalogs to find varieties resistant to aphids, and to the diseases they carry. Another suggestion is to interplant chives, garlic, onions and petunias with vegetables and roses. Beans intercropped with collards attract wasp parasites. Also, Lacewings and Ladybugs feast on aphids. Toads and many birds are aphid eaters.



CABBAGE LOOPER

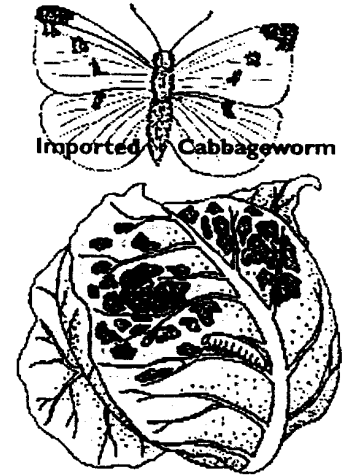
The Cabbage Looper's parent is a brownish night - flying moth with a silver spot in the middle of each forewing. Eggs are greenish white, round, and laid singly on leaves. The looper is a light green caterpillar with yellowish stripes running down its back. Besides cabbage, the looper can be found on lima and snap beans, broccoli, Brussels sprouts, cauliflower, Chinese cabbage, collards, kale, lettuce, parsley, radishes and turnips. Seedlings can be wiped out. Look for small to large ragged holes in leaves. Here in the warm winters, several broods can occur each year. Celery and amaranth are trap crops. Since the pupae overwinter, clean up garden debris. Tunnels made from fine screening or row cover prevent the moths from flying in to lay eggs. Red cabbage is less attractive. Many birds and toads like to eat cabbage loopers. Stagger the plantings to avoid the moth. Rotate the crops every 3 - 5 years. Intercrop with marigolds, alliums, rosemary, sage, tansy, and thyme. Again, Lacewings, Ladybugs, and Trichogramma Wasp feast on loopers



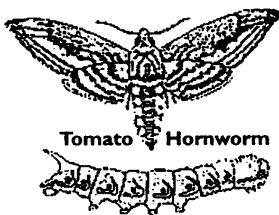
CABBAGE MAGGOT

A related pest is the Cabbage Maggot. It is a small white legless worm with a blunt end, about 1/4 to 1/2 inch long. The parent resembles a housefly that lays eggs in the soil at the base of the plant. The cabbage maggot overwinters as a pupa in garden soil. It tunnels into plant roots and stems, which causes wilting. The tunnels can be an entrance for bacterial and fungal diseases. All the cabbage family can be infected, as well as collards, peas, radish and turnips. The seedlings of all these plants are the most vulnerable. At planting time, use juvenile stage parasitic nematodes. Row cover or collars around the stems are good protectors. Biological controls may not be much help because the time and habitat are tricky. Radishes and turnips can be used as bait crops. When they get infested, pull up and destroy the plants. Plant very early on in the fall to avoid the maggot. Sparrows, wrens and toads are better than insect predators. Robber flies and spiders can help control the adults.

The imported cabbage worm is a light green caterpillar with one yellow stripe. The adult is a white, day-flying butterfly. Interplanting has little effect on this pest. But cornmeal placed around cabbage family plants attracts the worms. After ingesting, the worm becomes bloated and dies. A few birds like the worms. Row cover is a good barrier by preventing the butterfly from laying eggs



HORNWORM



Does the sight of a green hornworm cause you to scream? This 3 - 5 inch caterpillar has white stripes with a horn on its rear. Chewed leaves and fruit, along with black droppings, will alert you to its presence. A large, mottled, gray or brown moth with five orange spots along each side of the body is the parent. They fly quickly and hover like hummingbirds. The 2-inch long pupae have a curved handle and overwinters 3 - 4 inches underground. Tomatoes, peppers, dill, potatoes, and eggplants can all be hosts. BT, allium spray, and handpicking are all deterrents.

Many songbirds and toads relish eating hornworms. If a worm has papery cocoon on its back, natural parasites have already laid eggs. Allow the worm to live somewhere out of the garden so the parasites can reproduce. Braconid and trichogramma wasps and praying mantis are also predators.

When you notice these beautiful butterflies in your garden, be aware one of these pests may be lurking on the plants in a few weeks.