



Alternatives to Pesticides



When planting a garden this year, consider using alternative methods to control pests, rather than chemical pesticides. Here are a few you might try:

HANDPICKING: is time-consuming but unbeatable. Use gloves to remove visible offending insect and weed pests.

BARRIERS AND TRAPS: Barriers and traps are types of mechanical controls that can be employed to capture or impede pests.



A beer trap

COLLARS: To stop hatching larvae from burrowing into the soil surrounding your plants, use "collars" made of stiff paper, heavy plastic or tar paper. Cut a piece a foot square and fit snugly around the stem of the plant and press into the soil an inch or so deep. Use a paper clip to hold in place. This prevents cutworms and other burrowing insects from getting into the soil around your plants.



Copper collars

NETTING: Fine netting such as cheese cloth, placed over the bed, will protect seedlings from chewing insects, keep cats and birds away, and prevent flying insects from laying eggs. **COFFEE CAN TRAP:** An effective technique for trapping non-flying insects is to bury a tin can in the bed of your garden so that the lip of the can is flush with the soil surface. Some bugs will fall in the can and be unable to get out. The can should be emptied often. This trap also collects beneficial insects and is a good way to monitor the insect population in your garden.

STICKY BOARD: A board or thick piece of paper painted yellow and coated with a sticky substance such as tanglefoot will attract and intercept aphids and other small flying insects.



Fly papers

TRAP PLANTS: Some insects, if given a choice, will opt to feed on one type of plant or another. For example: maggots prefer radishes over corn and tomato worms prefer dill over tomatoes. Therefore, certain plants can be strategically placed so that they lure harmful insects away from plants you wish to protect. These are commonly referred to as "trap plants." Once the trap plant has become infested, the target insect can be picked off and dropped in soapy water or the entire plant can be pulled up and disposed of.



BENEFICIAL INSECTS: It is important to recognize that not all insects in a garden are "pests." A garden and its surroundings contain many insects that are actually beneficial to the garden because they feed on insects that are harmful. Therefore, it is good to learn how to identify garden insects and determine whether they are harmful or beneficial. Many gardening books provide illustrations of the most common beneficial and harmful insects and will provide information on how to promote the population of beneficial insects such as ladybirds, bees, green lacewings, praying mantises, dragonflies, predacious mites and thrips, predacious wasps and spiders. Some companies such as seed catalogues sell beneficial insects by mail order.



COMPANION PLANTING: Some plants possess the natural ability to repel certain types of insects. Companion planting is the practice of strategically placing insect-repelling plants next to crops that will benefit from their natural properties. For example, planting garlic among vegetables helps fend off 2 Japanese beetles, aphids, the vegetable weevil, and spider mites; basil planted near tomatoes repels tomato horn worms; and marigolds interplanted with cucurbits (i.e., zucchini, cucumbers, etc.) discourage cucumber beetles.



Slugs don't like red lettuces. You can plant the red lettuces encircling the green ones. And slugs cannot move easily over woodchip so it helps to lay it between beds.



They are also killed by nematode worms which burrow inside them.



CROP ROTATION - Planting different kinds of vegetables in each different section of your garden plot each year will help reduce pest infestation. In the fall, some insects lay their eggs in the soil a couple of inches below the surface. The eggs hatch in the spring and immediately begin the search for their food source. Many insects will feed on only one or types of vegetables. If the plant they prefer to eat is located several feet or yards away, the insect must migrate to the source. Many will die along the way or fall prey to birds and other insects. Also, certain families of plants (e.g., potatoes and peppers - nightshade family) attract the same pests. In addition, many crops predominately absorb a particular nutrient from the soil. By rotating your crops each year, the soil in a particular section of the garden will have the opportunity to rest and regenerate.



DIVERSIFIED PLANTING - A common practice among home gardeners is to plant a single crop in a straight row. This encourages pest infestation because it facilitates easy travel of an insect or disease from one host plant to another. By intermingling different types of plants and by not planting in straight rows, an insect is forced to search for a new host plant thus exposing itself to predators. Also, this approach corresponds well with companion planting.

Tagetes and marigolds distract aphids; basil attracts pests from tomatoes; red lettuce repels slugs from the green lettuces.

