



Beneficial insects that feed upon or parasitize garden pest insects include **lady beetles** ('lady bugs'), lacewings, minute pirate bugs, stink bugs, assassin bugs, hover flies, paper wasps and many kinds of parasitic wasps. Flowers provide these insects with important resources:

- the sugar in nectar is used as fuel for searching for prey, mating and egg-laying
- the protein and fats in pollen are used to support egg development
- the flower is used as a place to locate mates
- small prey that live in flowers, such as thrips, are a food source for immature predatory insects.



Syrphid fly on flower



Tachinid fly on carrot flower  
(Photos courtesy of the Cornell Cooperative Extension)

Many beneficial insects are vagabonds which are always in search of prey. Flowers will attract beneficial insects to your garden, nourish them, and induce them to search your garden for pest insects. Planting flowers will increase the likelihood that beneficial insects will colonize your garden and lay many eggs on your garden plants. After hatching, their young will crawl around the garden plants and feed upon pest insects such as **aphids**, caterpillars, leaf beetle larva, thrips, spider mites and whiteflies.

The plants that are most useful for supporting beneficial insects have small flowers with exposed nectar and pollen. Umbels, such as coriander (cilantro), dill (especially 'Bouquet' variety), fennel and caraway are very attractive to beneficial insects. Alyssum, flowering buckwheat, black-eyed susans, dwarf sunflowers and yarrow also attract these insects.

Dedicate five to ten percent of your garden space to growing flowers for beneficial insects. The plants don't have to be massed to be effective, instead they can be tucked away in odd corners. Plant a succession of flowers to attract and support beneficial insects throughout the growing season--avoid gaps without flowers

as this will disrupt the colonization process. Most of these annuals will flower six to eight weeks after germination, so it is a good idea to plant a small batch of seeds every three or four weeks to ensure that flowers are available throughout the growing season. Removing spent ('deadheading') flowers will extend the flowering period of individual plants. Avoid coriander (cilantro) varieties that are slow to bolt, as these take longer to flower. Buckwheat will flower as soon as three weeks after planting. Consider planting alyssum along the border of your vegetable garden in early spring.

**Successional plantings of annual flowers to support beneficial insects:**

**Spring:** alyssum, buckwheat

**Early summer:** coriander, dill, yarrow, buckwheat

**Mid-summer:** coriander, fennel, dill, caraway, black-eyed susans, yarrow, dwarf sunflowers

**Late summer:** coriander, dill, black-eyed susans, dwarf sunflowers

**Fall:** alyssum, buckwheat, dwarf sunflowers

By Joseph M. Patt, Department of Biological Sciences, Rowan University, 2000

**PESTICIDES ARE POISONOUS!!** Read and follow all safety precautions on labels. Handle carefully and store in original containers out of reach of children, pets or livestock. Dispose of empty containers immediately, in a safe manner and place. Pesticides should never be stored with foods or in areas where people eat.

When trade names are used for identification, no product endorsement is implied, nor is discrimination intended against similar materials. Be sure that the pesticide you wish to use is registered for the state of use.

The user of this information assumes all risk for personal injury or property damage.

Rhode Island Cooperative Extension provides equal program opportunities.

**For more information, call the URI CE Gardening and Food Safety Hotline at 1-800-448-1011 or (401)874-2929 from outside Rhode Island; Monday-Thursday between 9 am and 2 pm.**