

## Common beneficial insects found in New Jersey



### LADY BEETLE

Feeds on: aphids, scales, mites, and mealybugs.

To attract lady beetles, plant: yarrow, golden-rod, and morning glory.

### SPIDER

Feeds on: fleas, lace-bugs, and the eggs of the Japanese beetle and sod webworm.



Provide shade to draw spiders.



### GROUND BEETLE

Feeds on: gypsy moths, caterpillars, weevils, and ants.

Low plants, groundcovers, and camphor weed will lure ground beetles.

### GREEN LACEWING

Feeds on: aphids, whiteflies, scales, mites, and lacebugs.



This beneficial insect is attracted to yarrow and wild carrot.



### HOVERFLY

Feeds on: aphids, leafhoppers, scales, mealybugs, and thrips.

Hover flies are lured to coreopsis, candytuft, and morning glory.

## Beneficial insects: Nature's alternative to pesticides

Many property owners assume that spraying pesticides is the only reliable method to kill lawn and garden pests. There is a safer and more effective way, however, to prevent or reduce pest damage—by promoting natural populations of insects that feed on harmful pests.

Beneficial insects used in place of traditional chemical pesticides will:

- Improve the long-term health of your plants
- Save you money by reducing your reliance on costly pesticides
- Help protect the environment

Read this brochure to learn more about beneficial insects.



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# Natural Pest Control

## Using beneficial insects to control landscape pests

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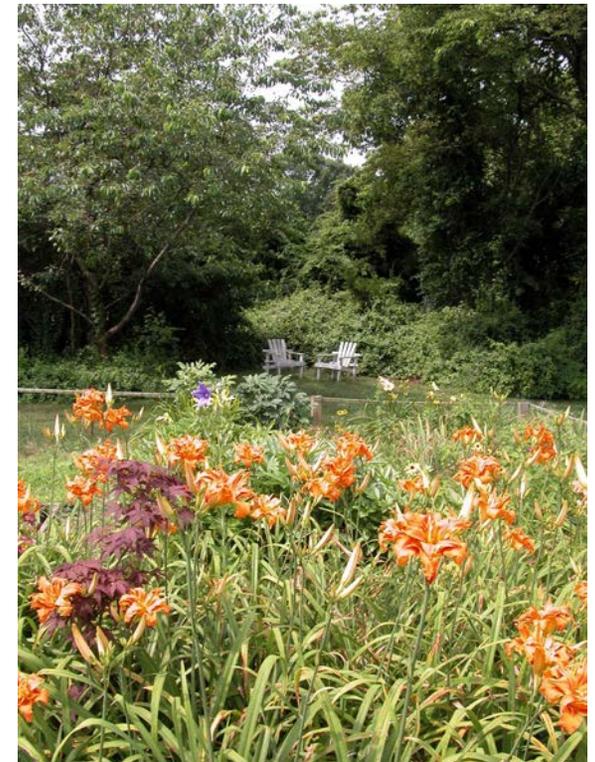


Photo Credit: Holly S. Kennington, Carbonari residential gardens.

## What are beneficial insects?

Many types of insects destroy or damage lawns, trees, and gardens. These harmful insects include scales, Japanese beetles, mites, aphids, weevils, and many species of flies. Other species, called beneficial insects, feed upon these harmful insect pests and can significantly reduce pest populations.

Beneficial insects can be found anywhere. Some common backyard species of beneficial insects include lady beetles, lacewings, and rove beetles. Attracting these insects can reduce the infestation of harmful pests, thereby preventing or limiting damage to landscapes and gardens. The presence of beneficial insects in your landscape will also reduce or eliminate the need to use pesticides. Beneficial insects can also be purchased through catalogs.

The use of beneficial insects is one technique of **Integrated Pest Management (IPM)**, which is the employment of “environment-friendly” methods to control plant insects and disease. IPM stresses natural methods to control plant insects and diseases. For example, the use of beneficial insects and good horticultural practices can often replace the application of chemical pesticides for certain pests.

*For more information on beneficial insects and other Integrated Pest Management techniques, contact the Rutgers Cooperative Extension office listed in the county government “blue pages” of your telephone directory.*

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## How to attract beneficial insects

### 1. Plant flowers

The key to attracting beneficial insects is to plant a variety of flowers. Pollen and nectar from flowers (especially wildflowers) attract beneficial insects and encourage them to lay their eggs nearby.

Daisy, black-eyed Susan, sunflower, ornamental goldenrod, yarrow, aster, and Queen Anne’s lace are especially effective in attracting beneficial insects. Herbs such as parsley, dill, fennel, catnip, spearmint, and thyme also attract beneficial insects.



### 2. Supply water

Beneficial insects need water to survive. A small water garden or a shallow dish filled with pebbles and water will attract and support beneficial insects during drought.

### 3. Provide shelter

Beneficial insects require nearby vegetation (e.g., woods, weeds, mulch) for protection during the warm months and shelter during the winter. Garden pathways and borders offer shelter to soil-dwelling beneficials. Hedges and foundation plantings also provide protection for beneficial insects.

### 4. Provide food

To attract beneficial insects, provide a pollen/nectar food source by spraying your garden and/or borders with a solution of sugar and water. You can also spray your plants with a mixture of three parts water to one part lemon-lime soda or one part yeast and one part sugar to ten parts water. These mixtures can be purchased commercially under the names “Wheat,” “Bugchow,” or “Formula 57.”



### 5. Eliminate pesticides

Since beneficial insects will only stay on your property if they have enough harmful insects to feed upon, traditional pesticides should not be used. Pesticide sprays kill both beneficial insects and their food source, often causing an eventual resurgence of the pests. Less toxic pesticides such as insecticidal soap or horticultural oil can be used to knock down harmful insects, thus allowing beneficial insects that survive to continue feeding.

## Recommended reading:

*A Field Guide to the Insects North of Mexico*, D.J. Borror and R.E. White, A. Knopf, Inc., 1980.

*Rodale’s Color Handbook of Garden Insects*, Anna Carr, Rodale Press, 1979.

*Common Sense Pest Control*, William S. Olkowski, Shiela Daar, and Helga Olkowski, Taunton Press, 1991.

*Rutgers Cooperative Extension Landscape IPM Manual*, Deborah Smith-Fiola, Rutgers Cooperative Extension of Ocean County, 1998.