# Plants that Attract Beneficial Insects

In the past few years, beneficial insects have gained popularity as we all strive to reduce the use of pesticides in our gardens. Many adult predaceous insects feed on pollen, nectar, or plant juices to supplement or replace their insect diet. It is, in fact, the larvae of these insects that eat the majority of plant pests. It is in our interest to provide a stable habitat, such as a perennial border, for our predatory friends to live, feed and lay their eggs. Try to avoid excessive mowing or tilling of your "bug bank".

Zinnia

## These plants will attract pollinators and beneficials predators:

## **ANNUALS, SHRUBS AND PERENNIALS**

Agrostemma (Corn Cockle)

Ajuga (Carpet Bugle)

Alyssum

Cone flowers

Coreopsis

Arctostaphylos (Manzanita) CA

Columbine

Cone flowers

Coreopsis

Epilobium (Zauschneria) CA

Phacelia CA

Queen Anne's Lace CA

Santa Barbara Daisy

Scabiosa

Aster Evening Primrose Sedum
Baby's Breath Lavender Sunflowers
Baccharis (Coyote Bush) CA Limonium (Sea Lavender) Veronica
Borage Lobelia Wallflower
Buckwheat CA Marigold Yarrow CA

Calendula Monarda (Bee Balm)
Caryopteris (Blue Beard) Native grasses
Ceanothus CA Penstemon CA

## **VIRTUALLY ALL HERBS (ESPECIALLY WHEN IN FLOWER)**

CarawayFennelRosemaryCatnipFeverfewRueChamomileLemon BalmSage

Chervil Lovage Sweet Marjorum

Chives Mint Tansy
Cilantro (Coriander) Oregano Thyme
Dill Parsley Valerian

## **VEGETABLES (ESPECIALLY WHEN BOLTED/FLOWERING)**

Artichoke Jerusalem Artichoke Mustard Broccoli Kale Onions

Cabbage Leeks Carrot Lettuce

## EVEN SOME LOWLY WEEDS AND NATIVE WILDFLOWERS

Clover CA Monardella CA Thistle
Dandelion Plantain CA Vetch CA

Grindelia (Gumweed) **CA** Shepard's Purse

Please see other side for a list of beneficial insects available at or through all Sloat Garden Center locations.



# Beneficial Insects

### **LACEWINGS**

The common Green Lacewing is widely used in various situations to control many difficult pests. The adult lacewings subsist on pollen, nectar, etc. It is their offspring that do the job. The adult lacewing lays her eggs and after a few days, the eggs hatch and a tiny larvae emerges which is also known as the "aphid lion", because of its voracious appetite. Besides aphids, they feed on just about any soft-bodied pest they can "grab", including citrus mealy bugs, cottony cushion scale, spider mites, thrips, caterpillars, insect eggs, etc.

### **TRICHOGRAMMA**

The Trichogramma is an efficient destroyer of the eggs of more than 200 species of moths and caterpillars. It is a particularly effective control agent because it kills its host before the plant can be damaged. The Trichogramma will seek out and destroy about 50 pest eggs by laying an egg inside the pest egg. The Trichogramma egg will hatch out into a larvae, and it will consume the pest egg contents. Depending upon the climatic conditions, a new adult will emerge in about a week and repeat the cycle. Some moth eggs attacked by Trichogramma are the armyworm, bagworm, European corn borer, peach borer, squash borer, cankerworm, alfalfa caterpillar, cutworm, corn earworm, wax moth, tomato hornworm, cabbage looper and codling moth.

#### BENEFICIAL NEMATODES

Beneficial Nematodes are microscopic, worm-like organisms that normally kill insects in nature. These nematodes can be used to control a wide range of insects that attack plants in concealed environments, such as root zones, tree galleries, thatch of lawns, bark cracks, crowns of plants and corn tassels. Some of the insect pests that are infected and killed by these nematodes are carpenter worms, some immature stages of fruit flies, larval codling moths, some beetle larvae, cabbage root maggots, cutworms, wireworms, pecan weevil larvae and weevil larvae.

## **ENCARSIA FORMASA** (whitefly parasite)

The greenhouse whitefly is a major pest problem in greenhouses, attacking cucumber, eggplant, peppers, tomato and many ornamentals. The female whitefly lays her eggs on the undersides of young apical leaves. The eggs hatch after about 8 days. The newly hatched larvae insert their mouthparts into the leaf tissue and then they lose their functional legs and remain static throughout the remainder of their development. The most cost-effective biological control agent to control the whitefly is the Encarsia Formosa. This parasite is attracted to its host by the actual smell of the honeydew and will feed on this honeydew. It will also feed on the whitefly body fluids through a hole made in the whitefly larvae.

#### **PREDATORY MITES**

Predatory Mites prey ONLY on pest mites. The body of the predatory mite is orange/red colored, pear-shaped and the front legs are longer than those of the pest mites. Once the predators are placed on the leaves, they will begin searching for food on the underside of the leaves where spider mites are most abundant.

#### **LADY "BUG" BEETLES**

Both the adult beetle and the larvae will feed on pests that are not too hard shelled, too fast moving or too large. Lady beetles may fly away soon after release. This can be prevented by evening releases. This gives them a chance to settle down overnight.

### **PRAYING MANTIDS**

The Praying Mantid will attack just about any insect on its path. The Praying Mantid will only complete one life cycle per season. One egg case will yield about 50 to 400 adults (average 200). Unless you can find the small mantids, it is almost impossible to tell if the egg cases have actually hatched.

