



## BENEFICIAL INSECTS

Most insects in the garden are not harmful pests. Of the over one million known species of insects, more than half spend their time hunting and eating other insects or their eggs. These are called predators, parasites, or beneficial insects. Smart gardeners do everything they can to protect and encourage the presence of beneficial insects in their garden. This includes avoiding the use of chemical insecticides whenever possible, especially those that kill a broad spectrum of insects. Native bees and butterflies are particularly vulnerable to both broad and narrow spectrum insecticides.

Healthy gardens exhibit an ecologically diverse fauna of beneficial insects such as spiders, mites, centipedes, and harvestmen. These beneficials keep plant eater populations in check at tolerable, low levels and thus causing minimal damage. The presence of target "bad bugs" will naturally attract the associated predator insect. Harmful plant eaters such as mites, aphids, thrips, tent caterpillars and others serve an invaluable role as sustenance for beneficial carnivorous or parasitoid insects. Tolerating small populations of these plant eating insects will ensure associated populations of beneficials are present, and ready if damaging infestations of high-impact plant feeders do occur.

### Strategies for Attracting and Keeping Beneficial Insects in your Yard

The single greatest impediment to attracting and maintaining a good population of beneficial insects and other arthropods in your yard is the regular use of synthetic, broad-spectrum pesticides. Extensive lawns are also non-conducive to attracting and retaining a diversity of beneficial insects, mites, and spiders, so it is best to minimize lawn areas and maximize shrub and bush plantings for better ecological diversity.

Providing some elements of a native habitat in and around yards will improve the abundance and diversity of natural enemies of pests and pollinators. Native flora also provides natural overwintering sites for many beneficials. It is useful to leave as much area as possible of native vegetation undisturbed during fall and winter.

## Product Suppliers

If a sufficient source of beneficials is not available naturally, they can be purchased at garden centers or through mail order catalogs. Contact your local nursery or search online for beneficial insect suppliers. **Purchasing lady beetles from a non-reputable supplier may introduce non-native Asian lady beetles which may out compete natives**, so we recommend researching sources prior to purchase.

At first, provide the new insects with water sources such as pie tins of water placed around the garden. Planting flowers and native plants around the garden will help supply food for those who aren't predatory in their adult stage but produce a predacious immature stage. For best results, don't use either narrow or broad spectrum insecticides for at least a month before releasing beneficials.

## Know Your Garden Friends

It is important to be able to identify insect, spider, and mite allies, and to recognize who your insect friends are, in order to gauge how the “war” against pests is going in your garden. Beneficial arthropods (insects, mites, spiders, centipedes, and harvestmen) that help maintain a garden with few or no outbreaks of damaging plant pests, are either predators or parasitoids. Predatory insects and spiders hunt, attack, kill, and consume insect and mite prey, usually smaller than themselves.

Some examples of beneficial insects are:

- [Ladybugs](#) (Lady Beetles): Both larvae and adults consume massive quantities of aphids, mites, and scale insects.
- [Green Lacewings](#): Larvae, often called "aphid lions," are voracious predators of aphids, whiteflies, and thrips.
- [Hoverflies](#) (Syrphid Flies): The adults are pollinators, while their larvae feed on aphids.
- [Parasitic Wasps/Flies](#): These insects lay eggs inside caterpillars, aphids, or grubs, killing the pest from within.
- [Minute Pirate Bugs](#): Prevalent in PNW gardens, feeding on a wide range of small insects and eggs.
- [Predatory Mites](#): Specialized, tiny hunters that control spider mites.
- [Ground Beetles](#): Active nocturnal predators that consume pests living in the soil or at the base of plants.

- [Pollinators](#): Mason bees, bumblebees, and honeybees are essential for Washington's fruit crops.

### **For More Information**

For information on life cycles, images of all stages of life, and the home gardener's role in providing habitat and resources for these charismatic beneficial insects, please refer to: WSU Fact Sheet EM067E "[Beneficial Insects, Spiders, and Other Mini-Creatures in Your Garden: Who They Are and How to Get Them to Stay.](#)"