

Ladybug Fact Sheet & Release Instructions

(Hippodamia convergens)

KEEP LADYBUGS REFRIGERATED (35-40°F.) UNTIL USE

After receiving your package of live ladybugs, leave the bag sealed and place them in a refrigerator, or other cool place. This calms ladybugs down from their shipping experience. Early evening is the best time to release ladybugs, and gives them all night to settle in, find food and water, and realize they've found a good home (your garden). Ladybugs are usually thirsty from their long journey and storage, and appreciate moist places to drink. If necessary, sprinkle some water around first before their release. Later on, they'll get most of their moisture needs from eating aphids and other "juicy" plant pests.

Ladybugs like having large pest populations to eat, which helps stimulate them to mate and lay eggs. When food is harder to find, adult ladybugs may fly off, but their eggs then hatch and provide further control. (Both adults and larvae feed on insect pests.) If desired, you can keep ladybug adults from flying by "gluing" their wings shut, temporarily, with a sugar-water solution. Half water and half sugared pop (Coke, Pepsi, etc.), in a spray bottle, works fine. Spray it right in the bag the ladybugs come in, as soon as you open it. You'll easily coat most of them. After a week or so, the "glue" wears off.

What do ladybug eggs and larvae look like? Their eggs look like clusters of little orange footballs, each laid on edge. After hatching, they'll look like tiny black "alligators", with orange spots. Extremely fast moving, they grow to 1/2" long over 2-3 weeks, then pupate, usually on the top of the leaf, into another adult ladybug. One larvae will eat about 400 medium-size aphids during its development to the pupal stage. An adult ladybug may eat over 5,000 aphids during its lifetime (about a year).

When not being used, ladybugs may be stored in the refrigerator, where they live off their body fat. (Keep the temperature between 35-45° F.) They appear almost dead in the refrigerator, but quickly become active when warmed up. How long can they be stored? Usually 2-3 months, but it depends on the time of year, and some losses can be expected the longer they're stored. During early spring (March and April) they should be used somewhat sooner, as these are older ladybugs from the previous year. During May, ladybugs should be released immediately. The new ladybug crop comes in about June 1, and these young ladybugs actually seem to benefit from refrigeration

1-2 months - it simulates winter for them. (Note: Modern frost-free refrigerators tend to dry out ladybugs in storage. For prolonged storage, your bags of ladybugs can be misted or sprinkled with water, perhaps every 2-3 weeks. Allow ladybugs to dry at room temperature until moisture is mostly evaporated, then replace ladybugs in refrigerator.) Ladybugs are one of the few insects we sell that are collected in the wild, rather than insectary grown, so we are dependant on their natural lifecycle for collections and storage. We "crawl clean" all Ladybugs before shipping to ensure that only live ones are sent out, although a small loss in shipping is normal.

In order for ladybugs to mature and lay eggs, they need nectar and pollen sources. This is normally supplied by a wide range of sources such as flowering plants and legumes (peas, beans, clover, alfalfa).

Suggested release rates for ladybugs vary widely - we've seen recommendations varying from 1 gallon (72,000) for 10 acres, up to 3 gallons per acre. You can't use too many ladybugs, but remember that they do need time to work - ladybugs need to be released early enough in the pest cycle so they can do their job, and regular, repeated releases of small amounts are often for effective than one, very large release of ladybugs. For home use, 1,500 is usually enough for one application in a small greenhouse or garden. For larger areas, a quart (18,000) or gallon (72,000) of ladybugs may be desired. Many people store ladybugs in the refrigerator, and make regular repeat releases, perhaps weekly.

If ladybugs are used indoors or in a greenhouse, screen off any openings to prevent their escape. And, of course, you'll want to avoid spraying with pesticides, both after release and for at least a month before. (Soapy sprays, such as Safers, are an exception - you can use them right up to the arrival of the ladybugs, and indeed, ladybugs hard outer shell seems to protect them from soapy sprays even afterwards. Botanical pesticides [pyrethrin, rotenone, etc.] are ok to use if you wait a week before releasing ladybugs.)

Some people believe that ladybugs bring good luck. We hope they bring you good luck, too!