



Green Lacewing Introduction

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Description:

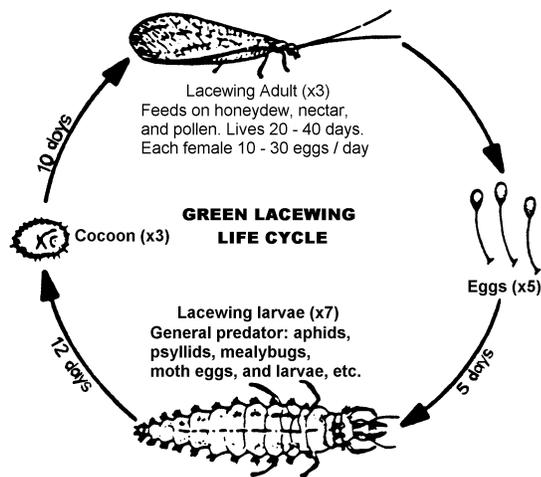
A beneficial predatory insect that attacks insects and insect eggs, such as aphids, small caterpillars, mites, whitefly, scale, mealybug, thrips, psyllids, and other soft-bodied insects.



Species Options:

- *Chrysoperla carnea* from central and southern California farms
- *Chrysoperla rufilabris* from Georgia pecan orchards
- Mixture for varied garden and farm plantings.

Lifecycle: At 80° F (27° C), larvae emerge from eggs in 3 to 5 days from date of shipment. Larvae can walk up to 7 miles. They move from plant to plant if leaves are touching - slower on rough or hairy foliage. For each 5 degrees higher temperature, larvae will clean up aphid infestations a week sooner (higher metabolism makes them eat more). Temperature of at least 60° F (15.5° C) is required for significant eating and egg-laying.



Life cycle of *Chrysoperla carnea* at 24°C or 75°F (Tassen and Hagen 1970)

Larvae are predators for 2 weeks (or longer if nights are cool).

Cocoons yield adult green lacewing in about 5 days.

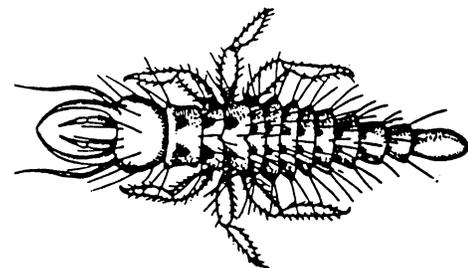
Adult lacewing migrate toward nectar, pollen or insect honeydew before laying eggs.

Sugar sources attract adults.

Eggs are laid on hair-like filaments – up to 600 eggs per adult

Release guidelines:

On slow-growing plants: 1 larvae for each 50 prey
 On fast-growing plants: 1 larvae for each 10 prey
 On aphids in greenhouse flats: 5 to 20 hatching eggs per square yard
 In orchards and row-crops: 2,000 to 30,000 hatching eggs 2 to 4 times every 7 to 14 days.
 Frequency and quantity of releases also vary with size and type of plant, number and type of pests, other predator and parasite populations, and temperature.



First instar lacewing larva X about 80
 Walton 1916: Jr. Agric. Res 6(14):515.

Handling Lacewing Eggs:

- Keep warm (75° to 90° F) [24° to 32° C] but out of direct sun and away from heaters that dry the air.
- Maintain relative humidity at 30-50% (not in plastic).
- Check each morning for emergence.
- If no larvae appear within 5 days of shipping date at 75° to 90° F, call supplier.
- Release within 24 hours of first signs of emergence.
- Sprinkle or blow into foliage or fasten cups or cards as close as possible to infestations.
- Distribute as widely as possible.



Lacewing eggs on cards

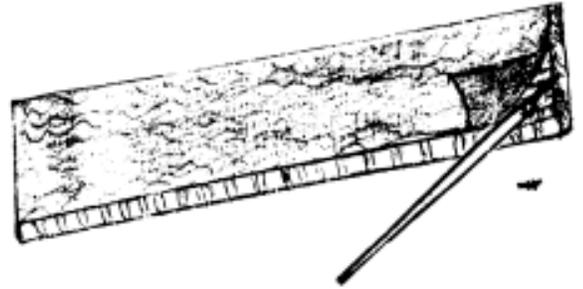
RVI's unique and popular lacewing cards come 5,000 eggs per card divided into 30 of 3/4 X 2 inch hangable units with 166 eggs per unit.

Lacewing's Favorite Habitat:

- Annual or reseeding borders of early grasses, sorghum, corn, sunflower, legumes or mustards (Brassicas) are good places for spring releases to yield large movements of adults into later plantings of vegetables, cotton or ornamentals.
- Hedgerow borders of perennials blooming various months of the year with large bunches of tiny inflorescences help feed adult lacewing and other beneficials. Ask about our habitat seed mixes.
- Brush-type mulch under perennials shelters overwintering lacewing adults.
- Lacewing are nocturnal, but adults can be found feeding in blooms at dawn and dusk.
- Watch out that you don't feed your lacewings to the ants - ask about RVI's ant management products.

Lacewing Packaging Options:

- Loose eggs in increments of 5,000 and 10,000 in bags or cups with or without rice hulls or vermiculite and food.
- Eggs glued on cards (5,000/card) perforated to cut into 30 hangable units.
- Pre-hatched larvae in cardboard honeycomb units (500 larvae/unit) come as first instar (young and small) or third instar (larger, faster and hungrier, that pupate sooner).
- Pre-hatched larvae 1,000/bottle in rice hulls (2 week notice required).
- Adults in cartons of 50 or 250 mated females with about 6 to 20 days of egg-laying capacity depending on temperature (must ship overnight).



Larval Unit

Pre-hatched lacewing larvae come in 1st or 3rd instar with 500 larvae per Larval Unit, larvae can be tapped out or flicked out of the paper honeycomb with a few hairs of a brush.



Beneficial Blend Seed Mix

cereal rye grain, barley, subterranean clover, common vetch, crimson clover, alfalfa, mustard, carrot, annual white clover, yellow sweet clover, cilantro (coriander), caraway, fennel, white yarrow, dwarf white alyssum, buckwheat, annual baby's breath, baby blue eyes, bishop's flower, tidy tips