

Green Lacewings¹

Green lacewings are some of the most commonly encountered, and most important, of the insects present in hemp fields that feed on other insects. The adult stage is most commonly seen, which have a generally green body and transparent wings they fold roof-like over the body that have many veins, producing a somewhat lacy appearance.

The immature stage of all green lacewings develop as a predator of insects.

Immature green lacewings, known as

larvae, have an elongate body, tapered at the hind end. On the head are a pair of thin, curved jaws that they used to capture and feed on insect prey. Green lacewing larvae use these jaws



Figure 2. Larvae of green lacewings. Larvae can give a slight pinch if they settle on skin (bottom)



Figure 1. Adult of the goldeneyed green lacewing

to pierces their prey and then suck fluids from them. Known sometimes as “aphid lions” green lacewing larvae are voracious predators that not only feed on aphids, but many other kinds of insect they encounter as they actively crawl about and search plants. They are capable of feeding on fairly large insects, including caterpillars many times their size.

When full-grown, the larvae settle in a protected site and spin round-form cocoon within which they transform to the next stage, a pupa. Ultimately, either later that season or the following spring, and adult will emerge.

Adult green lacewings may, or may not be predators of insects. Those in the genus *Chrysopa*, are predacious as adults, those in the genus *Chrysoperla* are not. All adult lacewings will feed on other foods, such as pollen, nectar and honeydew.

Green lacewing adults lay eggs on leaves or other areas of plants on which prey are present that



Figure 3. Green lacewing egg (**top**). Multiple eggs laid on hemp leaves (**bottom**).



Figure 4. Goldeneyed green lacewing, adult

would support their young. Green lacewing eggs are unique in form, laid on a stalk. Eggs may be laid singly or in small groups.

Three species of green lacewings have been regularly encountered in hemp fields in Colorado. Most widespread in hemp fields is usually **goldeneyed green lacewing** (*Chrysopa oculata*) but two other species, *Chrysopa nigricornis* and *Chrysoperla plorabunda*, also occur in hemp fields.

Some species of green lacewings are available commercially, reared in special facilities (insectaries). These are normally sold as eggs, mixed with some carrier (e.g, rice hulls) that are sprinkled on plants, or attached in group onto hang-cards. The primary commercial species sold is *Chrysoperla rufilibris*. Releases of these commercially available species have potential value to control some hemp insects, particularly cannabis aphid, on indoor plantings.

¹ Neuroptera: Chrysopidae



Figure 5. Adult of the “common green lacewing” *Chrysoperla plorabunda*



Figure 6. Adult of the green lacewing *Chrysopa nigricornis*



Figure 7. Green lacewing eggs, *Chrysoperla rufilabris*, sold in a formulation mixed with a carrier (rice hulls).



Figure 8. A newly hatched larva of *Chrysoperla rufilabris*