

Field Finds: Lacewings!

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I was counting Argentine ants (and the aphids they protect) in a local cherimoya orchard. I was there to monitor how different pesticide treatments control Argentine ant populations. These ants protect other pest insects, like aphids and mealy bugs, from their natural predators and make them that much harder to kill. While I was counting, I found this egg hovering above a leaf, like a magic trick Houdini would've performed! I almost thought it may have been the egg of some crafty pest, so I looked into it.



Fig 1. The mysterious lacewing egg “floating” above the leaf surface

It turns out that this is a lacewing egg! Lacewings are insects from the family Chrysopidae of the order Neuroptera. Of note are the members of the genus *Chrysopa* and *Chrysoperla*, which are the most common here in America. These insects are the natural predators of many pest insects like: aphids, lace bugs, mealybugs, psyllids, scales, and more. In actuality the larvae are the ones that do the majority of the pest

control since most adults feed on nectar. However, adults of the genus *Chrysopa* are also predatory.



Fig 2. Green lacewing larvae eating aphids. Photo credit: Jack Kelly Clark

Lacewings start their lives out as those strange tiny “floating” eggs. Adult females lay the eggs to the end of thin silky stems attached to plants. They are laid throughout the year and take between 4 to 6 weeks to grow into adults in warm weather. The larvae look like small alligators and prey on pests; some of them even carry debris on their backs. After they pupate, they emerge as delicate and dainty adults that go on to reproduce.



Fig 3. Green lacewing adult. Photo credit: Max E. Badgley

Now if you're like me and want to get some of these critters so they can munch on some pests, boy do I have good news for you! There are two things you and I can do:

1. **Purchase lacewing eggs, larvae, or adults from your local insectary.** That's right, you can straight up buy them! You can check out this link from the University of Kentucky that has all the beneficial insect vendors in North America and their offerings: <https://entomology.ca.uky.edu/ef125> However, establishing a starting population this way can be a bit tricky since you have to consider which life stage to choose and when to release them. You also have to take care if you have ants, since they can ravage improperly placed release cards with larvae and eggs. For more information on this topic please check out this UC IPM article on releasing natural enemies: <https://ipm.ucanr.edu/agriculture/natural-enemy-releases-for-biological-control-of-crop-pests/>
2. **Plant more flowers.** If you want to retain or attract your new friends, they'll need adequate habitat and food sources when they're adults. Consider adding hedgerows to your land. More information on options to include insectary plants can be found here: https://ipm.ucanr.edu/mitigation/insectary_plants.html

Congratulations friends, we have laid the groundwork for a lacewing population! As long as we control dust, ants, and avoid the use of broad-spectrum insecticides, we should have another powerful ally in the field.