

Wooly Aphid or Mealybug, Mealybug Destroyer or Lacewing Larvae???

Here's How to Tell What's Bugging You!

The moist, hot dog days of summer are a great time to see a lot of the worst little critters to attack our gardens. Some particularly striking and noticeable creatures are the wooly aphid *Eriosomatinae* and the mealybug *Pseudococcidae*. Both are covered in white, waxy fuzz and suck plant sap, weakening the plant and often causing yellowing or wilting. If infestation levels occur and the plant is not treated, it may give up the ghost and die if the plant was not healthy and vigorous to begin with. I've seen both of these critters on a lot of tropical plants lately, including tropical milkweed (mealybugs), citrus trees (wooly aphids) and the non-native hibiscus (both mealybugs and wooly aphids).

Both of these fuzzy critters are sap suckers and have piercing, sucking mouthparts. When wooly aphids and mealybugs feed, they secrete a sugary substance known as honeydew, which can cause sooty black mold and may be collected by ants who protect and tend them in a mutually beneficial relationship. Control for both is the same: hit them with some insecticidal soap or smother them with neem or all-season horticultural oil. Examine your plants regularly and try to

treat these pests when they are still immature. Adults are more difficult to control. Observe temperature warnings to avoid burning the plants on hot days.



A cluster of wooly aphids.



A cluster of Mealybugs.

Contact insecticides that are sprayed on these guys may not work so well because of their protective wax coverings. Wooly aphid adults tend to just fly away when disturbed. Systemic insecticides are also not very reliable for control of either of these insects. Furthermore, since many of the plants that they feed upon are also pollinator or host plants for butterflies and bees, they should be avoided. A stream of water from a hose can work to blast them away, as can washing the plants by hand with an insecticidal soap.

So, how do we tell them apart? Mealybugs and wooly aphids are easily mistaken for one another and cause the same types of damage. Mealybugs love to feed near joints or nodes on plants, where the leaf petioles attach. Wooly aphids prefer to feed on the underside of leaves, on thin stems, and succulent twigs. Mealybugs are shaped somewhat oblong and dome-like, with joint lines running across their bodies, similar to a pill bug or roly-poly *Armadillidiidae*.

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Underneath their wings and fluff, wooly aphid bodies are more pear-shaped. The bodies of the mealybugs are covered with white waxy flakes or strands, while the bodies of the wooly aphids are covered in white hairy material. When disturbed, wooly aphid adults will fly away and nymphs will scurry as fast as they can. Mealybugs move slowly or not at all when you disturb them. Wooly aphids produce excess wax which can coat the back of the leaves and stems that they are feeding on, while mealybugs do not.

There are some look-alikes that you may come across which are actually beneficial insects that will prey upon both mealybugs and wooly aphids. One in particular, the mealybug destroyer *Cryptolaemus montrouzieri* is cigar-shaped insect and has white wooly tufts sticking out all over its body in the larval stage. One mealybug destroyer larvae can eat up to 250 mealybugs! The female destroyer (which looks like a black ladybeetle) will lay her egg in a cluster of mealybugs, and once it hatches, the mealybug destroyer will begin eating mealybug



A mealybug destroyer nymph.

eggs, working up to mature mealybug meals as it grows. Another beneficial look-alike is the larvae of the green lacewing *Chrysopa spp.* which is hatched with spiny, VELCRO®-like appendages all over its body. It creates camouflage by attaching fibers and debris all over its body, making it look like a dirty cotton ball. Pick up that cotton ball and a small, alligator-like insect larvae will be wiggling underneath. Lacewing larvae and adults eat aphids and mealybugs and are most active in the summer months.



A lacewing nymph.

These white, wooly critters can be a real pest in the garden, however a closer look may reveal that they are actually a beneficial insect. It is prudent to check and make a positive identification before reaching for a chemical to control them.

~Anna Timmerman

Holes!

You may have noticed the appearance of quarter sized holes in the ground beneath local oak trees. These are exit holes caused by the emergence of annual cicadas. These insects grow to be quite large during the years they feed underground. So, when they emerge they leave behind a substantial hole. Once the nymphs emerge from the ground, they often crawl up nearby tree trunks and grab hold. The back splits open and the adult cicada emerges and flies up into tree canopies. The loud droning sounds you hear in the evenings are male cicadas calling to the females.

Left: a cicada emerges from its nymph exoskeleton.

Right: the cicada must

Inflate itself and wait until it dries and hardens.

