Azalea Lace Bug

There are white speckles on the leaves of your azalea or perhaps the leaves are turning almost completely white. There is a high likelihood that you have azalea lace bugs feeding on your plant.

1. **Heavy azalea lace bug feeding has caused these leaves to turn a speckled white color. If one looks closer, you can also notice several small brown areas speckled on the mostly white leaves.**



Photo by Whitney Cranshaw, Colorado State U, Bugwood.org

Azalea lace bugs, *Stephanitis pyrioides*, are small, sap-feeding insects. The adults are only about 1/8 inch (~3 mm) long. They feed primarily on the undersides of leaves, sucking out plant juices and leaving behind a characteristic stippled or speckled appearance on the upper surface of the leaf. Heavy feeding can make it look as if the leaves were hit with a can of white spray paint, sometimes with brown, dead spots mixed in on the pale leaves.

The name 'lace bug' originates from the delicate, lace-like appearance of the wings and body of the adults. The mostly transparent wings have some dark patterns on them but overall, the wings have the appearance of clear stained glass windows. Both adults and nymphs feed on plants, and several generations can occur during the growing season. Azalea lace bugs are particularly noticeable during the hot summer months when populations can build up.

2. **An azalea lace bug nymph. Notice the spiny decorations on its thorax and abdomen. (Left image)**
3. **An azalea lace bug adult. Notice the elaborate wings that look similar to clear stained glass windowpanes. (Right image)**



Photo by Tracy Wootten, U of Deleware, Bugwood.org


Photo by Jason Pavel, University of Arkansas Division of Ag

Although azalea lace bug damage can look alarming, it usually does not cause serious long-term damage to healthy, established plants. Plants that are already stressed, newly planted, not yet fully established, or growing in conditions that are not ideal for them can be more seriously harmed by the feeding. Just like weak or ill animals can attract predators and are more vulnerable to them, stressed azaleas both attract more azalea lace bugs and are more susceptible to damage by them.

One particularly notable growing condition that will stress azaleas is growing them in full sun rather than their ideal morning sun and afternoon shade; azaleas in full sun have been found to be twice as likely to be infested with azalea lace bugs. Make sure you water your azaleas during periods of drought. Even established trees and shrubs should be watered 2-4 times a month during a drought to reduce water stress and make them less vulnerable to diseases and pests. Two to three inches (50-75 mm) deep of mulch extending out three feet on each side also helps conserve soil moisture and moderate soil temperatures. Be

sure to keep mulch 5-6 inches (125-150 mm) away from direct contact with trunks and stems.

4. **The upper surface of an azalea leaf. Much of the leaf has turned white while some of the tissue has died and turned brown due to azalea lace bug feeding. (Left image)**
5. **The lower surface of an azalea leaf. These shiny dark brown dots on the leaf underside are the frass of azalea lace bugs. (Right image)**



Photo by Pest and Diseases Image Library (PaDIL), Bugwood.org


Photo by Jason Pavel, University of Arkansas Division of Ag

Due to a longer growing season for azalea lace bugs to multiply and feed, evergreen azaleas tend to be more vulnerable to azalea lace bug damage. If you know azalea lace bug damage is a problem for your plantings and you still want to plant evergreen azaleas, the 'Encore' series of azalea varieties have shown resistance to azalea lace bug feeding. In the spring, spraying strong streams of water on the foliage can help to knock azalea lace bug nymphs off before they cause too much damage. Naturally occurring assassin bugs, azalea plant bugs, earwigs, green lacewings, ladybugs, pirate bugs, tree crickets, spiders, predatory mites, and parasitic wasps can all help keep populations in check. Planting native perennials nearby will increase the number of natural predators, letting them control the population growth of azalea lace bugs even further. If the leaf speckling

doesn't become widespread until late in the growing season, insecticides shouldn't be necessary.

If you decide to apply an insecticide spray, note that insecticidal soap and horticultural oil sprays are extremely effective at controlling azalea lace bugs. Remember that azalea lace bugs feed on the undersides of leaves, so good coverage of the lower leaf surface is important for these spray insecticides. Insecticidal soaps will not kill the eggs, and neither spray kills creatures that aren't hit with the spray. This limitation helps minimize damage to predators and pollinators but means spraying once or twice more 4-7 days apart will likely be needed for best pest control. Like most insecticides, these sprays work best when the insects are young and less abundant, so if there is a known annual azalea lace bug problem, scouting for the tell-tale damage in the spring will help you treat early. Holding a white sheet of paper below a leaf and tapping the top of that leaf can make it easier to see azalea lace bugs or other small pests when they fall off the leaf and are contrasted against the white surface. Always read and follow the pesticide label before applying an insecticide.

Arkansans who are applying insecticides to ornamentals commercially can also refer to page 249 of the current Insecticide Recommendations for Arkansas MP144 under 'Lace Bug' for recommended insecticides registered for use against lace bugs in Arkansas.