Azaleas (and Rhododendrons) vs Lace Bugs & Spider Mites

The two greatest threats to your Azaleas and Rhododendron's health (other than under and over- watering) are two very common pests found throughout Maryland. Lace Bugs and Spider Mites. What follows is a discussion of these two pests.

Lace Bugs

Azalea Lace Bug: Azalea lace bug (*Stephanitis pyrioides*) is a major pest of azaleas. Lace bug adults are about ⅛-inch long. The wings are highly sculptured, giving them a lacy appearance. The adults also have some dark markings on the back and wings. Their markings make them difficult to see when on the leaf. The immature forms, called nymphs, are colorless initially but turn black over time. The nymphs have a number of spines on their back.

Both adults and nymphs have needle-like mouth parts that they use to suck plant sap from the leaf's underside. As a result of the feeding damage, leaves develop pale colored speckling (stippling) on their upper surfaces, giving leaves a grayish cast. When damage is severe enough, the whole leaf appears white and drops early. This early leaf drop can make the azalea susceptible to some of the die-back diseases. As a result of their feeding on the underside of the leaf, most people do not see lace bugs until damage is visible. Black shiny bits of insect waste and cast off skins from immature forms also can be found on the undersides of leaves.

Lace bugs overwinter (survive the winter) as eggs. Adult female lace bugs insert their eggs into the leaf tissue and then cover them with a dark splotch of a varnish-like material to seal the egg into the leaf. This,

along with their droppings, gives the underside of the leaves a “fly-specked” appearance. There are usually three or more generations of this pest in Maryland each year.

Control: Control of this pest on azalea begins with the planting of resistant varieties. The following azalea cultivars have resistance to azalea lace bug: ‘Dawn,’ ‘Pink Star,’ ‘Ereka,’ ‘Cavalier,’ ‘Pink Fancy,’ ‘Dram,’ ‘Seigei,’ ‘Macrantha,’ ‘Salmon Pink,’ ‘Elsie Lee,’ ‘Red Wing,’ Sunglow’ and ‘Marilee.’ However, most likely you don't have any of these varieties in your yard.

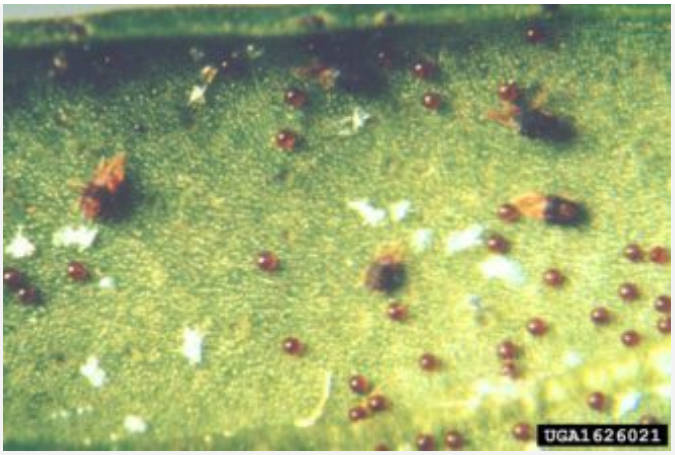
Lace bugs, however, have several natural enemies that feed on them. These include lacewings, assassin bugs, praying Mantis's spiders and predaceous mites. **BUT...** these predators don't like it hot. So if you, like many people, have planted their Azaleas where they get full sun during the Summer, most likely you won't see any of these predators feeding on any Lace bugs you my have.

So, when lace bug populations get out of hand, using chemical controls is necessary. Insecticidal soaps may give some control of young lace bugs, and complete coverage of all leaf surfaces is essential but as these creatures live on the undersides of the leaves it may be hard to reach them. For adult lace bugs, recommended spray insecticides include acephate, bifenthrin, lambda cyhalothrin, malathion, and cyfluthrin. Acephate may give the best control, as this insecticide is a foliar systemic that will move through the leaves to kill the lace bugs on the undersides of the leaves. The other insecticides are contact insecticides, and once again sprays need to be directed onto the lower surface of the foliage to be effective. Azaleas should be sprayed when the first lace bugs appear, usually around the end of April or early May in Maryland, but with global warming this date keeps on getting earlier and earlier. So just to be safe make your first application in mid April. A second application in seven to ten days may be needed to control newly hatched lace bugs. Good control of the first generation in April to May will greatly reduce problems later in the season. Control of second (July to August) and later generations (September to October) may be necessary. As an alternative to spraying the azaleas, products containing either imidacloprid or dinotefuran may be used as a soil application around the base of the azaleas. These products are available as either granules or concentrates. The granular products are sprinkled around the base of the shrubs, and the concentrates are diluted with water and then poured around the base of the shrubs. The amount to apply is based upon the height of the shrubs. If granular products are used, the shrubs are then watered to enhance the uptake of the product. The advantage to these soil applied products is that they give season-long control of lace bugs. As with all pesticides, read and follow all label directions and precautions. If you use insecticidal sprays for heaven's sakes wear gloves, masks and long sleeves and full length jeans (no shorts, Capri pants or cut-offs) as some of these products have been associated with being the possible cause of certain cancers such as non-Hodgkins lymphoma!

Rhododendron Lace Bug: Rhododendron lace bug (*Stephanitis rhododendri*) adults are slightly larger than azalea lace bugs, and they are yellow. Their nymphs are similar in color, but are slightly larger than azalea lace bug nymphs. Feeding behavior by the rhododendron lace bugs is the same as with azalea lace bugs, and the symptoms that are produced are similar.

Control: Rhododendron lace bugs should be treated when they appear in mid -April to early May. Repeat sprays as needed. Recommended insecticides to control the Rhododendron lace bug are the same as for the azalea lace bug. As with all pesticides, read and follow all label directions and precautions.

Mites, specifically Spider Mites



Spider mites are not insects but are more closely related to spiders. Mites, such as azalea spider mite (*Eotetranychus clitus*) and southern red spider mite (*Oligonychus ilicis*), are a common problem on azaleas and may also attack rhododendrons. They are very small and barely visible to the naked eye. Spider mites are typically found on the undersides of leaves, although with heavy infestations they will feed on the upper surface also. Mites suck plant sap causing leaves to change from their normal green color to dull green, and with a heavy infestation, leaves will turn to a gray-green or bronze-green color. Also with heavy infestations, leaves may be covered with fine webbing.

The southern red mite is a “cool weather mite,” which means that it is active in spring and fall, but almost inactive during the summer and winter. However, most species of spider mites develop most rapidly in dry, warm (temperatures greater than 70 °F) weather, and their population peaks in midsummer.

An easy way to detect spider mites is to take a white sheet of paper and wipe the undersides of several leaves. If mites are present, there will be red streaks on the paper which often after a few seconds begin to move!

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Control: Natural enemies of mites, such as ladybird beetles (ladybugs), thrips and predaceous mites usually keep mite populations reduced. But once again if your plants are located in the full sun you are not likely to be fortunate enough to have these helpful predators keep the spider mite population in check.

While pesticides are available, their misuse often makes the problem worse by killing off the mites’ natural enemies (again not usually a problem if your plants are planted in full sun.) If the population level is low, early season (mid April to early May in Maryland) mite infestations can often be controlled with insecticidal soap or horticultural oil sprays. Insecticidal soaps and horticultural oils offer no residual activity and help to conserve beneficial insect species. Test insecticidal soap on azalea varieties before applying to all plants. It is best to spray insecticidal soap or horticultural oil when the temperatures are between 45 and 85 degrees, and spray in the evening to slow drying time and increase effectiveness. Thorough coverage of both the tops and bottoms of leaves is necessary for any control. Apply horticultural oil sprays at a 2% solution (5 tablespoons oil per gallon of water).

A recommended miticide for use on azaleas is tau-fluvalinate. It is best to alternate the miticides that you use to decrease the chance of mites developing resistance. An alternate insecticide with miticidal activity is bifenthrin, though almost any systemic pest killer (including acephate) will do (read the label to male sure they control mites.) If mites have been a problem on azaleas, do not use carbaryl sprays or imidacloprid soil drenches to control other pests. Their continued use may cause a subsequent spider mite outbreak. As with all pesticides, read and follow all label directions and precautions.

If you have any questions call me: Eugene (Gene) Berk, Landscape Designer/Certified Professional Horticulturist, TFMD, 443 812-2760(Cell)