



Diagnosing Rhododendron Problems

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Rhododendrons are well suited to a Long Island garden. They appreciate the naturally acid pH of the soil, and the relatively mild winters. To diagnose their problems, one need only have a sense for the type of environment rhododendrons prefer, and some understanding of how to “read” the plants to interpret what elements are out of balance in their world. Some of the most common rhododendron symptoms caused by environmental stress factors, insects and diseases are discussed here.

Yellow Leaves

Chlorotic (pale) leaves are a sign of low fertility for all types of plants, not just rhododendrons. Don't panic if the spring growth on your rhododendrons looks a little pale, however, because it is natural for the foliage to hold its “spring green” color for a while. With rhododendrons, azaleas and other ericaceous plants, a yellow color between the leaf veins is usually a clue to a pH problem. If the soil is not sufficiently acidic, rhodies and their relatives will develop symptoms of iron deficiency, appearing as a breakdown of the green color between the leaf veins. On Long Island, this situation rarely develops, unless a well meaning but poorly informed gardener chooses to dose his rhodies with wood ashes. Ashes are extremely alkaline, and are not appropriate for use with rhododendrons, blueberries or other acid loving plants.

Brown Scorching Along the Leaf Margins

Since they hold their broad leaves year round, rhododendrons are adapted to avoid losing essential moisture during the winter. In cold weather you may notice that the leaves of rhododendron have curled under, and are folded back along the branches. This is not a wilt, but is the rhododendron's way of arranging its leaves so as to best retain moisture. Often rhododendrons will thrive most readily on the north side of houses, or in areas where an overstory of trees provides them with some shelter from the drying effects of sun and wind when the ground is frozen. Since moisture is first lost along the edge of the leaf blades, this is the main area where winter injury will appear. Fungi may grow and sporulate on the scorched area, but they are not the reason for the dead tissue.

Brown Spots

Scattered brown spots may also appear on the leaf blades of rhododendron during the winter. These are usually reflections of poor health in the root system or in the branch. One common cause is rhododendron borer activity below the affected leaves. Rather than using fungicides to combat such spotting, the best approach is to use the appropriate cultural techniques to keep the plants healthy, so that they can better withstand the stresses of winter.

Occasional Dead Branches

This may mean one of two things: rhododendron borer or fungus attack. When branches are seen wilting and then browning on mature landscape specimens, quite often the cause is the rhododendron borer, *Synanthedon rhododendri*. This clearwing moth lays its eggs on the bark of the shrub, frequently in a branch crotch. The larvae tunnel into the branch, severely weakening it structurally. Pale, spotted and wilted leaves appear in the branch above the mined area.

Branches attacked by borer will often break off easily in the hand, and the tunnelings of the insect can then be examined. Exit holes and sawdust provide additional evidence. The weakened branches should be pruned from the rhododendron, ideally before the larvae has matured and flown away. If rhododendron borer is more than a sporadic problem, you may want to use insecticide sprays in May when the adult is active, to prevent new infestations.

Particularly on rhododendrons suffering from drought stress, the fungus *Botryosphaeria* may cause some dieback of individual branches. Again, it is important to

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prune out the branches that have been killed by this fungus, because they will otherwise be a source of spores which can start new infections. Always prune when plant surfaces are dry, to avoid spreading spores into the pruning wounds. To discourage *Botryosphaeria* dieback, it is also helpful to prune out the spent flower heads.

Notches in Leaves

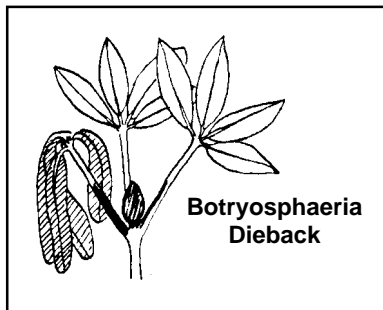
Sometimes rhododendron leaves will bear the marks of insect feeding. The most distinctive feeding pattern is that left by the snout of the black vine weevil, *Otiorynchus sulcatus*. These nocturnal feeders leave behind evidence which looks like someone has run amok with a paper punch. Tiny, semicircular holes appear at the edge of the leaves.

This injury is tolerable up to a point, but the appearance of foliage injury is a sign that more serious damage may follow. By feeding on the root system and at the base of the stem, the larvae of the black vine weevil can seriously weaken or even kill plants. When investigating the cause of death for a rhododendron, black vine weevil injury should certainly be considered. The grubs may sometimes be found in the soil around the brown heads.

More often, the larvae and adults are not in evidence, but girdling wounds where the bark has been eaten away can be round near the soil line, often rimmed by callus ridges. (See *Home Grounds Fact Sheet E-1-36, Taxus Weevil.*)

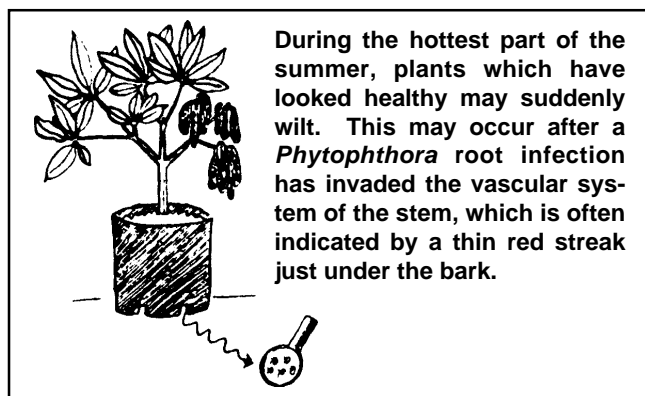
Sudden Death

In addition to the girdling injury caused by black vine weevil larvae, there are several other reasons why rhododendrons



may appear to die suddenly during the growing season. In a new planting, it is possible that plants were not properly established. It is important to loosen the root mass and provide a well-prepared planting hole for containerized rhododendrons, and to provide adequate moisture throughout summer and fall.

Because soils on Long Island are generally sandy, drought can be a real problem for the shallow-rooted rhododendrons. Mulching can help hold moisture in the soil. Occasionally, particularly when the planting area is *not* well-drained, rhododendrons may be lost to infection by the fungus *Phytophthora*, which may invade root and vascular systems. Look at the roots for signs of decay (dark, soft cortical tissues) and scrape away the bark along the stem to look for the telltale vertical red streaks that indicate systemic invasion by *Phytophthora*.



Diagnosing rhododendron problems on Long Island is best accomplished by looking for the simple explanations. Remember that many more rhododendrons on Long Island perish from improper watering practices than from any fungus or insect injury!