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## ROOT ROT & ROOT WEEVIL

Between the two of them, root weevil and root rot cause incredible amounts of damage to various plants. Root rot will generally occur in any plant that is in too moist of an area for its liking, and root weevil feed on a large array of plants. The question is, how do you know that you have one of these problems? And the next question, arising from the fact that symptoms can appear very similar, is which do you have? It is very important to know what you are dealing with, as the treatments are very different.

### HOW ROOT WEEVIL AND ROOT ROT AFFECT PLANTS

Both root weevil and root rot affect water uptake in plants, causing symptoms usually associated with water deprivation. Root rot works by killing off the root mass a bit at a time, causing a gradual decline and eventual death if the problem isn't corrected. Root weevil are insects that chew the bark off the plant's trunk right below the soil line, making water uptake difficult, or impossible in severe situations.

### WHAT ARE THE SYMPTOMS

With both root weevil and root rot, the symptoms can be variable depending on the plant. Usually the plant looks like it is lacking water. The leaves of rhododendrons and some other broadleaved evergreens, will point straight down towards the ground in these situations, but in certain cases the only indication is the general decline of the plant's health.

### SYMPTOMS OF ROOT ROT

If you know that your soil is really heavy and water does not drain well, a plant in that location is a good candidate for root rot. Most root rot cases will occur worst in winter, during the cold, wet months when the plant is not taking up much water. In some cases, the plant will not leaf out at all in spring. Some plants leaf out and bloom, and then suddenly drop everything. In some situations, the tree will leaf out, but the foliage will be sparse, sickly colored, and then turn to fall color (or brown, depending on the tree's dependence on cold to get fall color) early, often in the summer months. Below ground symptoms will be general lack of feeder roots (small, fibrous, hair-like roots) and a very disgusting greenish gray color. Often a sour smell will accompany the soil and roots.

### SYMPTOMS OF ROOT WEEVIL

Root weevil leave notches on the leaves of many broadleaf evergreens, which often aide in diagnosing the problem. Another symptom is missing leaf tips as the leaves unfold which is due to the buds being chewed on at the tips. This foliage damage is done by the adult weevil, and is minor compared to the damage incurred by the young larvae. The larvae live in the soil, and munch on new root growth and the bark around the trunk. Root weevil damage can be found by inspecting the trunk right below the soil line; it will appear as a jagged pattern of missing bark.

### WHAT CAUSES THESE PROBLEMS

Root rot is a disease, caused by heavy wet soils that don't drain well or allow air to move freely. Some plants are more prone to root rot than others.

Root weevil are insects that find host plants they enjoy eating, and settle down. It's hard to say where root weevil come from, they just get up and walk around as adults, and live on plants they like. They also live in soil as larvae, so be cautious about moving soil from a potentially infected area.

## **HOW TO FIX THESE PROBLEMS**

Root rot generally requires relocation of the plant. Many times, all that is needed is to dig up the plant, amend the soil and replant in the same location. If the area wet, you can mound up soil to aid drainage. But, if it comes down to a poor site and a picky plant, you may just need to find a different plant.

Root weevil can be tricky to kill. The important thing to remember is that they are larvae in the spring and fall, and adults in the later spring and summer. The adults actually eat green plant material, so the easiest treatment is to use a systemic insecticide during the adult phases (Orthene works incredibly well). Insecticides like Malthion can be effective, but these products have to come in contact with the bugs, which can be difficult since they are nocturnal. Spraying the adults will damage the population, but to eradicate the problem, you need to go after the larvae. The easiest time to kill the larvae is in the fall, around September. The best product to use is Beneficial Nematodes, microscopic creatures that wreak havoc on any grubs with which they come in contact. They are very effective at controlling root weevil larvae, but still monitor your plants during the growing season. A yearly application of Beneficial Nematodes for a few years will make sure they don't return.

The important thing with both these problems is to diagnose and fix them before they get really bad. If you remove an infested plant, don't place another susceptible plant in the same place without treatment, or you will just be repeating the problem.

## **SUSCEPTIBLE PLANTS**

**ROOT ROT** – Japanese Maples, Dogwoods, Rhododendrons, and Junipers top the list. Most broadleaved evergreens, conifers or plants that come from a drier area are also susceptible.

**ROOT WEEVIL** – Rhododendrons, Heather and most Ericaceous plants, Spruce, Yews, Pines, Arborvitae, Spiraea, Astible, Heuchera, Japanese Maples, Grapes, Strawberries, Raspberries, Blackberries, Roses, Primroses, and Chamaecyparis.