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Leaf Galls

Galls are abnormal growths on plants caused by living organisms. Galls rarely cause any harm to the tree. Galls can be present on several species of trees, too numerous tomention. The galls are better known than the insects that cause them.

Symptoms

Galls may occur on any of the actively growing parts of plants, from root tips, trunk, branches, twigs, flowers, buds, fruit and leaves to the growing points of shoots. The physical appearance of a gall can vary greatly. They can be round, globular, thorn or dish-shaped, smooth or fuzzy. Each gall maker incites its own distinctive gall, which is unlike those caused by other species. It is from the shape, location and appointments of these galls that the insect that caused its production can most easily be identified.

Life Cycle

Galls are the trees reaction to the presence of nematodes, mites, insects, bacteria, fungi or viruses feeding on tissue and/or utilizing the tissue for reproductive purposes. About 95% of the known types of galls are caused by nematodes, mites and insects to include wasps, aphids, psyllids, midges and sawflys. The remaining 5% are caused by bacteria, fungi and viruses. Galls are formed by the trees powerful growth -regulating chemicals or other stimuli produced by the insect that react with the trees hormones. Trees produce gall to restrict injury caused by the pest, placing a barrier between the pest and the rest of the tree. The inner walls of galls arequite often rich in protein providing the larvae residing inside the gall with an abundance of concentrated food. The larvae inside the gall are somewhat protected from predators by the abnormal plant tissue that surrounds them. Generally, when larvae are mature they drop from or leave the gall to continue with their life cycle.

Management

A dormant season horticultural oil application in the spring of the year applied to the buds, branches & trunk, before buds start to open, may help reduce the gall population for that season. On petiole (leaf stem) galls, a soil drench systemic insecticide will eliminate mites that produce these galls. Galls located on above ground parts of a tree seldom, if ever, kill the tree. The exceptions are horned and gouty oak galls. Controlling gall insects is difficult due to the short time the insect is susceptible to an insecticide spray application. Once the gall forms the insect is protected inside the gall. Physically removing each gall is typically not practical and can actually prolong the gall problem due to removal of beneficial insects when removing the gall. It is best to accept galls as curiosities of nature and allow the natural predators to, in time, eliminate the galls. No one can reliably predict how long this may take.