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## Galls on Oaks & Hackberry

Galls are an abnormal growth of plant cells caused by insects, mites, bacteria, nematodes, or fungi. The most common galls on ornamental plants are caused by insects and mites. Galls develop characteristic shapes and colors. Galls occur on a wide variety of plants and usually a plant is the host for only one or two types of gall-forming insects. Oaks and hackberry trees, however, will host a variety of gall-forming insect species that will form galls on stems and leaves.

Galls can occur on leaves and stems, but are also found on roots, trunks, fruits and flowers. The biggest problem with gall-infested plants is that they are sometimes unsightly. Galls that occur on leaves do not damage plants. Twig and stem galls, however, weaken the stems and they will break in a storm or high wind.

Gall-making insects can have complex life cycles where more than one stage is developed within the gall. Basically, adults lay eggs on branches and leaves and these immature stages develop the gall from plant tissue or by irritating the plant to change its tissue. In the case of the mealy oak gall wasp two immature stages develop, one on twigs and the next stage on the underside of leaves.

Galls are nearly impossible to treat with chemicals. Even though some chemicals are approved for the treatment of galls, they are usually ineffective. The insect inside the gall is completely surrounded by stem wood or leaf material and will eventually eat its way out of the gall, leaving a tiny exit hole in the gall. The best that we can do is to manage gall-forming insects by avoiding plants that host these pests.

If you already have an oak or hackberry, prune branches with galls and pick up all leaf litter under trees.

Several kinds of wasps can parasitize the gall-making insects and reduce the number of pests. These beneficial wasps occur naturally in our landscapes and are usually tiny, nectar-feeding insects. Plants like white brush, Texas kidneywood, desert willow, or lantana will support these biological control species. So, planting a variety of shrubs can be beneficial. In other words, a landscape filled with turf grass, banana trees and monkey grass is not going to support beneficial insects. So, if you really want an oak or hackberry, think about how you will maintain this tree in your landscape and what other plants will contribute to its health, before you plant. For more information on gall-making insects and the plants that host them, go to <http://insects.tamu.edu/>. From this web-site you can search for Bulletin L-1299, "Gall-Making Insects and Mites."

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