

Q: My Oak tree has large green balls hanging from the branches. I have seen these before, but never to this extent. How can I get rid of these?

A: The round growths you see on your oak are apple galls, which is another name for cynipid wasp nurseries. These growths are part of a fascinating arrangement between insects and oaks. The tiny wasps lay eggs on oaks, stimulating the plant tissue to grow at a rapid rate. The eggs become encapsulated, and the ensuing gall providing food and shelter for the emerging larvae. Different kinds of cynipid wasps will lay their eggs on bark, leaves, branches root, leaves and acorns, each one causing a different kind of gall to form in a very specific location and at a specific time. They range from the tiny jumping gall, to the large apple gall, and from white to red to brown to green. These galls for the most part do not harm the plant, although one leaf gall will cause leaves to turn brown and fall off. The trees are not harmed in the process, and as the wasps are so tiny with such complex lifecycles, preventing their appearance is not practical or possible. You can knock them off of the tree if they really bother you, but know that they will be back next year. If you would like to see the wasps, collect the galls in the late summer/fall and place them in sealed bags. The wasps will emerge in the early spring.

Q: I have funny things growing on the leaves of my oak tree. Some of them look like little sea anemones and others like little stars. Is this a problem?

A: You are describing some of the wonderful variety of galls that can be found on the oak trees in California. Galls come in a large variety of shapes sizes and colors, and are growths produced by the oak tree in response to the egg-laying of several kinds of insects and mites. The Gall most readily recognized are the large round growths that occur on Valley Oaks. Green and smooth as an apple when young,, these galls age to a tan then blacken with mold if they remain on the tree. If you cut them open with a sharp knife you may see the tiny larvae living inside, or perhaps the predators that have learned to take advantage of a captive meal. Our native oaks support over 100 different kinds of distinct galls, on their leaves, stems, flowers, buds branches, roots and acorns.

When the tree is 'stung' by the insect's or mite's ovipositor at just the right moment in the life of the plant, it responds by pushing the nearby cells into overdrive. One of the insects responsible for gallmaking is a tiny cynipid wasp, although certain flies, moths, beetles and mites are also gallmakers. The rapidly growing plant cells create a nursery and food source for the emerging larvae that are protected from some predators by the gall surface. The larvae live and eat in the gall until they emerge from pupae, chewing their way out as adults. On some galls you can see the emergent holes at the end of the summer.

Galls are not harmful to the host plants, although some may cause leaf tips to turn brown or small twigs to die. It is not realistic to try to stop the galls from forming, so it is best to learn to enjoy the incredible diversity of shapes and forms that decorate our trees.