

Mistletoe Disease in Folsom

Since starting here in October 2005, as the Folsom City Arborist, I have seen the typical 2 varieties of mistletoe in our City limits and recently I found a 3rd species, which is more common at the higher elevations of the Sierra Foothills.

1) *Phorandendron villosum* or Broadleaf Mistletoe

The most common type of Broadleaf Mistletoe that is found around Folsom is only on our oaks: i.e. Valley Oak, *Quercus lobata*; Interior Live Oak, *Quercus wislizenii*; and Blue Oak, *Quercus douglasii*.

2) *Phorandendron macrophyllum* also with the same name Broadleaf Mistletoe

This mistletoe is typically found on landscape trees: i.e. White Alder, *Alnus rhombifolia*; many varieties of Ash (especially Modesto Ash, *Fraxinus velutina* 'Modesto'); most varieties of Birch, *Betula* spp.; Box Elder, *Acer negundo*; Poplar or Cottonwood, *Populus* spp.; Aristocrat Ornamental Pear, *Pyrus calleryana* 'Aristocrat'; Locust (most commonly the Pink Idaho or Purple Robe Locust) *Robinia* spp.; Silver Maple, *Acer saccharinum*; Walnut, *Juglans* spp.; and Sawleaf Zelkova, *Zelkova serrata*. This species will not infect the oaks.

Broadleaf Mistletoe is the type we hang over festive walkways to perpetuate the tradition of holiday kissing, but in our trees this is not the growth that we want to foster. Most mistletoe plants are only partially parasitic, as they rely on the host for moisture and mineral nutrients and the plant also requires sunlight for photosynthesis to create its own sugars.

How to control Broadleaf Mistletoe:

Chemical Control may slow down or temporarily halt the progression of the infestation, but the effects are far from ideal and the mistletoe will almost always re-grow at the same spot on the tree.

Mechanical Control is the only real solution, but don't just have it pruned off the branch, as that will be a waste of money and it will re-grow again from the same infested spot. If the branch is not a main stem and less than 2" in diameter, then prune off the branch at the next lowest branch crotch that is at least 8" below the point of attachment. If the branch is too large in diameter or it is the main leader, then exclude all light to the point of attachment by covering it tightly with black plastic and tape around the branch or with a thick covering of black silicone caulk (at least 2" around the point of attachment) to exclude all light and stop all photosynthesis.

3) *Arceuthobium spp.* or Dwarf Mistletoe

This species of mistletoe only infests conifers (most species of pines, firs, and incense cedar), but not usually this low in elevation. I did find it in some Gray Pines to the north of the American River in Folsom. Dwarf Mistletoe is much smaller, they do not produce leaves, and it is gold-yellow in color. The fruit balls contain many seeds that are spread from an internally explosive action that can project the sticky seeds 30-40'. From the top of a tall tree, the seed can travel 100+ feet. This mistletoe is a total parasite, relying completely on its host for 100% of its sustenance.

How to control Dwarf Mistletoe:

The best local control in Folsom at this time, is to remove every clump of mistletoe or remove the whole infested tree, before the seed balls explode.

General Mistletoe Management:

Follow the best local controls to eradicate your species of mistletoe and check with your Folsom City Arborist for the more resistant species of trees to be planted.



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City Arborist Goal: "Positive and Profound Long-Term Effect"