

The Mystery of the Disappearing Redbuds

Article and photos by Shari Wentz, Alameda County Master Gardener

It all started with the following email from a neighbor:

Can you please provide me with some Master Gardener's advice? I've replaced the Redbuds on the south side of my property twice. The most recent tree I added seems to be stressed.

Am I overwatering? Too little water? Does it need fertilizer?

We planted it in Mid-May in a big hole, filled it with planting mix and tried not to plant it too deep....

This question did not come as a surprise. In the eight years that we have lived in our current Livermore home, I have observed that many of the redbuds in our area flourish and then become weak and die. These Eastern Redbuds, *Cercis Canadensis*, were planted by the builder at the direction of the city of Livermore in median strips filled with fescue. The trees are on drip irrigation but they also get water from the overhead emitters that water the fescue.



Redbuds are gorgeous deciduous trees, covered with small pink blossoms in the Spring and developing heart-shaped leaves after they flower. They have a classic “urn” shape and don’t get too large. Often their sisters, California redbud and Oklahoma redbud, are planted, but for whatever reason, our builder or the city chose Eastern redbuds as our street tree. Solving a plant mystery is what we Master Gardeners do. Since we are trained by the University of California under the division of Agriculture and Natural Resources, I went to one of the ANR publications, *Pests of Landscape Trees and Shrubs* (available to the public through their website) to search out the culprit. And there it was, that all-time nasty fungus, verticillium wilt! My neighbor’s tree and those in the neighborhood fit all of the symptoms. Verticillium wilt affects the tree’s vascular

system and prevents the transportation of nutrients and water. It causes the foliage to turn yellow and wilt. Yes. Shoots and branches of the tree begin to die on one side of the plant. Yes.

Unfortunately, verticillium wilt fungus resides in the soil. Keeping plants vigorous by providing plants with proper irrigation and modest amounts of fertilizer is the best way to increase the tree's chance of survival. If chronic dieback occurs, all dead wood should be eliminated by pruning. Dead trees need to be removed and only trees and plants resistant to verticillium wilt should be planted in the area.

“Proper irrigation” is always difficult to assess. But a tree or plants receiving water from both drip irrigation and overhead emitters are probably receiving too much water. Young redbuds are particularly vulnerable to overwatering. It would have been advisable to plant trees with ground covers that have the same watering needs. In this case, it might have been better to plant a drought-resistant ground cover and place all plants on a drip system.

My neighbor's redbud may make it yet, especially with reduced water and light fertilizer. If it doesn't, she can select a new tree from verticillium resistant trees. A list is at this website:

<http://www.ipm.ucdavis.edu/PMG/GARDEN/PLANTS/DISEASES/rstverticillium.html>

Alameda County Master Gardeners are adult volunteers of all ages and from all walks of life who want to help the diverse communities of Alameda County learn more about gardening. ACMGs are trained through the University of California and UC Cooperative Extension to extend research-based knowledge and information on home gardening issues. The Master Gardeners have three demonstration gardens in the county and offer a number of outreach programs to serve the public. For more information, go to their website: <http://acmg.ucdavis.edu>.

Or contact the hotline at 510-639-1371. It is answered on Mondays and Thursdays, please leave a message or email the hotline at mgalameda@ucdavis.edu