

Pruning Drought Stressed Shade Trees

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While we are in the midst of the ideal time of year (February and March) to prune most shade trees, keep in mind we are also in the midst of exceptional drought. It may be advisable to do minimal pruning this year.

How Trees Respond to Pruning

When trees are pruned, they are wounded. Trees do not heal wounds like people and animals do. Instead, they wall off wounds by producing chemicals that prevent pathogens from spreading throughout the tree through wounds.

There are times when a tree's natural defense system is lowered. During these times, only minimal and necessary pruning is recommended. These times include the spring growth period, the late summer/fall dormancy preparation period, and during times of stress.

Pruning drought stressed trees could lead to increased risk of a disease or insect attack, or slow a tree's recovery from drought. Not only is the tree being wounded, stored food reserves in the branches are also being removed.

Is Your Tree Drought Stressed?

So how does one determine if a tree is drought stressed? This can be difficult to determine because signs of drought injury in trees can be sudden or may take up to two years or longer to appear. Given our current drought conditions, it is safe to assume most trees are experiencing some level of stress. Some are more stressed than others, depending on the tree's tolerance to drought and the tree's growing environment. Even trees growing in irrigated lawns can be drought stressed.

If a tree showed any of the following signs last summer, it was and still is drought stressed. Drought injury includes leaf wilting, curling or browning of leaf edges, leaf yellowing and early leaf drop. But again, it is best to assume trees are drought stressed and safest to avoid unneeded pruning.

What Should be Pruned

If a tree has a broken, dead, or insect- or disease-infested branch, go ahead and remove that branch. Leaving these can further weaken a tree during drought and set the tree up for more serious insect and disease problems.

Woody plants have stored food in branches. When branches are removed, some food reserves are lost, one reason it is recommended that no more than $\frac{1}{3}$ of a tree's mass be removed at one time.

If a tree is not stressed, the loss of some stored food is not an issue. If the next growing season is favorable, the tree replenishes food reserves through photosynthesis. When a tree is stressed, the loss of stored food could lead to additional stress or slow the tree's recovery. It is the ideal time to prune shade trees, so remove dead, broken or pest infested branches. Otherwise do minimal pruning. In place of the $\frac{1}{3}$ rule, use a $\frac{1}{4}$ rule. Only remove up to $\frac{1}{4}$ of a tree's mass this year, and only prune if there is a solid reason for doing so.

When pruning, use correct pruning methods. Make proper cuts by avoiding flush cuts or leaving a branch stub; and do not use pruning paints or wound dressings on pruning wounds.