



# Leaf Scorch

The hot, dry days of summer are more than a discomfort to many shade trees. Leaf scorch, a non-infectious disease, becomes more prevalent with each hot day.

Leaf scorch is first noticed as a yellowing or bronzing of tissue between the veins or along the margins of leaves. Trees are more susceptible if they have low vigor, have been damaged by machinery, or are surrounded by asphalt or concrete sidewalks, driveways or parking lots.



*Redbud Leaf Scorch*

Symptoms usually follow drying winds or bright sunlight. Later, these leaves appear dry and scorched, and they may even drop off. However, the tree itself will usually not die.

Scorch-stressed trees are more susceptible to insect and disease attacks later.

In most cases, all leaves on the same branch are affected more or less uniformly. Frequently, only one side of the tree is affected—the side exposed to the sun or drying winds. And occasionally, individual trees are severely damaged while those of the same species in the immediate vicinity are unaffected.

Leaf scorch is caused by failure of the tree's root system to supply enough water to the leaves at a critical time, usually in July and August or in times of drought. A great amount of water evaporates from the leaf surface because of sun and wind during hot, dry weather. If the water supply is efficient, the exposed leaves actually dry out and scorch.

In essence, the tree is losing water faster than it can be replaced, even if there is sufficient moisture in the soil.

Trees with defective root systems are particularly subject to leaf scorch. The same holds true for trees with roots that have been partly removed or covered with impervious material like asphalt or concrete paving.

Soil that drains excessively or that has a low water table contributes to the problem, as does attack by leaf-sucking insects.

Leaf scorch cannot be corrected once it appears, but injury can be kept to a minimum by improving the tree's general condition.

Make sure trees receive at least 1 to 3 inches of water every two weeks. Apply the water at the **drip-line of the tree**. Rainfall is ideal, but when rain is deficient, you may have to slowly moisten the soil with a sprinkler. Provide the 1 to 2 inches of water over a 2- to 3-hour period with a slow sprinkler, not all at once.

If the tree has a permanently suppressed or injured root system, prune some of the branches to maintain an even balance between top and roots. This practice will not injure the tree and may actually improve its appearance.

In the late fall, apply fertilizer to improve the overall health of the tree.



If the root system has been injured by excavation, you can expect leaf scorch to recur during drought until the tree repairs the damage or produces a new root system, which may take five or more years.

For prized trees, apply mulch to improve the soil's water-holding capacity. Ideally, 2 to 4 inches of mulch should extend to the drip-line or outer branches of the tree. Also, water liberally to the sub-surface during hot weather.