



**MASTER GARDENER**  
COLORADO STATE UNIVERSITY  
EXTENSION

CMG GardenNotes #152

## Worksheet: Plant Processes #2

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### Respiration

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Suggested GardenNotes to reference: 132, *Plant Structures: Roots*, 141 *Plant Physiology: Photosynthesis, Transpiration, and Respiration*, 214 *Estimating Soil Texture: Sandy, Loamy, or Clayey*, 215 *Soil Compaction*, 633 *The Science of Planting Trees*, and 636 *Tree Planting Steps*.

A homeowner planted a shade tree two years ago in a landscape with heavy clay soil. The tree has never thrived and is now showing dieback mostly in the lower canopy. They asked the advice of their neighbor, a Colorado Master Gardener, who noticed that the tree had been planted about six inches too deep and the homeowner has been watering daily trying to bring the tree back.

**What is causing the dieback and what plant process is being interrupted?**