

CMG GardenNotes #654
Staking Trees

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Many gardeners believe that tree staking during the planting process is necessary, but it is really only required in certain situations. More important than staking a tree is to ensure it is planted properly. Refer to the Colorado Master Gardener Garden Notes #633 or the shortened version #636 at www.cmg.colostate.edu.

When to stake

Staking is only necessary in the following situations:

1. Windy sites: When a tree is planted in a wind tunnel or in an area that is perpetually prone to wind and/or damage from wind, then staking can be justified.
2. Protecting the newly planted tree from people or activities: If the tree is planted in a public space that gets high amounts of traffic or is prone to vandalism, stakes may be used to help protect the tree. Sometimes just having posts (without staking straps attached) around the tree may divert vandals or harmful activity.
3. Supporting the weight of the tree because the tree cannot stand on its own. In this situation, the tree should not be planted, since quality of nursery stock is an important component when planting trees. However, if the tree was planted but cannot stand on its own, staking straps should be attached six inches above the point where the tree can support itself, but at least three feet below the terminal leader. Again, there is a responsibility of consumers to demand quality nursery stock—planting inferior trees should not be a standard practice.



Staking Straps

Always use wide canvas straps with grommets at either end to attach staking wires to trees. These wide straps help distribute the pressure evenly. Wire threaded through hose concentrates the pressure, causing girdling and other damage.

For details about staking trees properly, refer to the Colorado Master Gardener Garden Notes #634 at www.cmg.colostate.edu.

Staking can lead to increased tree height at the expense of caliper (diameter) development. It can also lead to a smaller root system, since the tree may not have the ability to sway/move with wind (which builds caliper and roots). Staking has also been found to damage the trunk as soon as six months after planting, causing girdling and compression injury to the trunk.

When stakes are used, they should be removed after **one growing season**. Stakes are often forgotten if left on the tree longer, leading to long-term damage. Materials can girdle or grow into the tree, creating weak points and potential failure.



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