

News Article

By: John E. Woodmansee, Extension Educator, Agriculture/Natural Resources

E-mail: jwoodman@purdue.edu

Date: August 27, 2018

Please use by: September 6, 2018

Purdue Extension – Whitley County

Whitley County Courthouse Annex

115 South Line Street

Columbia City, IN 46725-2325

Phone: (260) 244-7615 or (260) 625-3313

www.extension.purdue.edu/whitley

Should you stake a newly planted tree?

As we near Autumn, many homeowners will consider planting a new tree in their landscape. After all, spring and fall are both good times to plant landscape trees. One question some may be asking is whether you should stake a newly planted tree. A Purdue expert recently provided some guidance.

"No is the likely answer," said Lindsey Purcell, Purdue Extension urban forestry expert.

"Trees establish themselves quite well in normal situations," said Purcell. "Support systems such as staking and guying are, in most cases, unnecessary and can even be detrimental." He said movement caused by the wind is crucial to help saplings develop into strong, structurally balanced trees.

"However, in unusual conditions, staking, guying, or a similar system may be needed to hold trees upright until adequate root growth anchors them firmly in the soil," said Purcell. "When necessary, the support system must be installed properly and removed at the appropriate time to prevent damage."

Purcell explained the three main types of tree support systems.

Staking connects the trunk via flexible ties to 1-4 nearby steel or wooden posts. "This is a common approach on smaller trees or containerized tree stock," said Purcell. "Proper tension is important in staking; allow some movement for trunk and root development."

Guying is temporary and typically used on larger trees that are transplanted balled-and-burlapped. "Three points of attachment provide the best support for these large-tree installations," said Purcell. "Often this is done by attaching a wire to an anchor and slipping it through hose material around the tree."

Underground stabilizing systems are also effective and economical for stabilizing the root balls on larger balled-and-burlapped trees. Commercial products are available, or you can make your own.

Purcell said that when stakes are needed, timing depends on the environment and the type of tree. Examples of situations where staking or guying may improve chances of successful tree establishment include:

- * Bare-root trees and container-grown trees
- * Large evergreen trees with high wind exposure
- * Open sites exposed to strong winds
- * Taller trees with undersized root balls
- * Trees in areas with high rates of vandalism
- * Threat of mechanical damage

"Improperly staked trees suffer from poor development such as decreased trunk diameters and smaller root systems—and may be unable to stay upright after you take the supports away," said Purcell. "Often trunk tissue suffers from rubbing and may even be girdled by support materials." Also, due to poor development and taper, previously supported trunks are more likely to break off in high winds or blow over after stakes are removed, according to Purcell.

"Staking and guying a tree trunk to keep it upright can be a necessary, temporary support system, but does not compensate for poor root development and establishment long-term," said Purcell.

It is the policy of the Purdue University Cooperative Extension Service that all persons have equal opportunity and access to its educational programs, services, activities, and facilities without regard to race, religion, color, sex, age, national origin or ancestry, marital status, parental status, sexual orientation, disability or status as a veteran.

Purdue University is an Affirmative Action institution. This material may be available in alternative formats.

“The cardinal sins of support include: staking trees too high, too tightly, and for too long which all cause tree damage,” said Purcell. Improper staking can cause stem abrasions and trunk girdling. Purcell urged homeowners to review the anchor, attachment point, and tension on a regular basis, adjusting as needed to make certain the supports are effective and not damaging the tree. If a tree is supported, the ties and guys should be removed as soon as it is feasible, usually no later than after one growing season or one year.

For more information see Purdue extension publication, FNR-547-W, *Tree Support Systems*, authored by Purcell, at: <https://www.extension.purdue.edu/extmedia/FNR/FNR-547-W.pdf>.