

Pay Attention To Utility Lines When Planting Trees

Consider the location of utility service lines when deciding where to plant trees.

Overhead lines bring electricity, telephone service or cable television into homes. Underground lines can bring water, sewer and natural gas. Proper tree and site selection within a safe distance from these lines will provide trouble-free beauty and pleasure for years to come.

The mature height of the tree being planted should be within the available overhead growing space, and the soil area must be large enough to accommodate the particular rooting habits and ultimate tree trunk diameter.

Tall trees growing near overhead lines can cause service interruptions when trees contact wires. Proper selection and tree placement around overhead utilities can eliminate potential safety hazards, reduce expenses for utilities and improve land-

scape appearance. When trees are planted too close to overhead lines, they must be pruned to maintain a safe clearance from wires. These pruned trees are under greater stress and are more susceptible to insects and disease.

Tree roots and underground lines often co-exist without problems. However, underground lines could damage tree roots if the lines need to be dug up for repairs. Consult a tree care professional for assistance in choosing trees with the right type of root system for a chosen location. Be sure to call the utility company before planting to find out where underground lines are located.

Trees can be dangerous if planted too close to houses. Plant large trees at least 35 feet from houses for proper root development. Large trees are recommended for streets without overhead restrictions, parks, meadows and other open

areas. Medium-sized trees are recommended for above and below ground growing space that will allow for reaching a mature height of 30 to 40 feet. Small trees that grow no taller than 20 feet are recommended when growing space is limited.

There are many ways to manage tree hazards after planting. Move potential tree targets such as picnic tables, cars and landscape features out of the path of falling branches. Be sure to prune trees to remove defective branches. A professional arborist should do this because inappropriate pruning also may weaken trees. Cable and brace the tree to provide physical support for weak branches and stems to increase their strength and stability. Be sure to water trees and add fertilizer and mulch as dictated by the season and their structure. (DJ)

SOURCE: Christine Meyer, information and education assistant, NUIANR

Bittersweet Vines, Colorful But Invasive

Oriental bittersweet (*Celastrus orbiculatus*) is an invasive vine which needs lots of pruning to keep it from taking over garden areas. It is a deciduous woody vine that can reach 60 feet, depending on surrounding vegetation. The fruit is green changing to bright yellow/orange once mature and is used in floral decorations. The vines damage and kill native vegetation by constricting and shading the trees or shrubs. Oriental bittersweet is found along field edges and thickets.

They are shade tolerant. Oriental bittersweet seeds remain viable for several years and are spread after digestion by birds and other scavenging animals. Control actions must continue until seed sources are eliminated.

American bittersweet is less invasive. On a list of best plants for fall colors is American bittersweet, a vine native to North America. Bittersweet is a must-have for those serious about providing the landscape with fall color. Ask at a nursery for a pair. Spring is the best time since you can discern from the flower parts. The berries, green in summer, bear a yellow husk in early fall. Even at this stage, they provide a truly striking display of fall color, and as autumn progresses, the husk peels back, revealing an orange berry within. As if that weren't enough, the numerous leaves of the vine turn a vivid yellow.



American Bittersweet with fruit

Bittersweet will grow in part shade, but needs full sun for best flowering and subsequent fruit display. Prune in late winter to early spring. Mature vines require little pruning other than removal of dead or excess growth.

Bittersweet can be used in woodland gardens and naturalized areas. The vine provides quick cover for fences, arbors, trellises, posts, walls or other structures in the landscape.

Gardeners either love or hate bittersweet vine. Bittersweet kills trees and is difficult to eradicate from your landscape. But during the fall season, bittersweet vine puts on a display few other plants can rival. (DJ)



Oriental Bittersweet —young plant in May

“Vertebrate Pests” is May Rural Living Clinic

The University of Nebraska Cooperative Extension is presenting a series of seminars entitled “Acreage Insights -- Rural Living Clinics” to help acreage owners manage their rural living environment. “Vertebrate Pests” is the fifth in the series, to be held May 22 from 9 to 11 a.m. at the Lancaster Extension Education Center, 444 Cherrycreek Road.

It will feature an in-depth look, as well as control methods, for many of the animal or vertebrate pests often plaguing

rural landowners. The discussion will include deer, moles, gophers, badgers, turkeys, raccoons as well as any other vertebrate pests you would like to discuss.

The speaker for the program will be Dr. Dennis Ferraro of the University of Nebraska Cooperative Extension located in Douglas/Sarpy County. Dennis has presented a wide array of programs on this issue and is familiar with most of the offending vertebrate animals. Pre-registration is \$10 per

person and must be received three working-days before the program. Late registration is \$15 per person. If pre-registrations do not reach a minimum target number, clinics will be cancelled without public notification. In the event of a cancellation, pre-registered participants will be notified and receive a full refund.

For more information or to view the program brochure, visit the Acreage & Small Farm Insights Web site at acreage.unl.edu or call Sarah Browning at (402) 727-2775.

Slime Flux in Trees

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Did you ever see a tree cry? You might think so if you've ever seen a wet, glistening stream seeping down the ridges of its bark.

Of course, this liquid really isn't tears. Instead, it is a fluid produced by certain bacteria that inhabit many tree species. This disease is known as bacterial wetwood, or slime flux, and it is common in elm, maple, poplar and birch. Even after the slime dries, the bark stains a yellow to brownish color, indicating that at one time the tree was oozing.

Bacteria are microscopic organisms made up of only one cell. Populations can increase rapidly. Many bacteria have a slimy, protective coating. So, when millions of bacterial cells are in one pile, they are usually oozy and gelatinous. The wetwood/slime flux bacteria often live deep within trees.

The wetwood/slime flux bacteria can tolerate low oxygen levels within the wood. Some bacteria even require an oxygen-free environment. Bacteria that can live without oxygen are known as anaerobic. The byproducts of their anaerobic lives are methane gas and liquids, resulting in a pressure build up inside the trees. These gasses and liquids usually have an unpleasant odor. Weak spots in the bark or branch crotches typically give way to the high pressure and allow the material to release. That's when the ooze begins to drip down the tree.

While inside the tree, the slime is usually clear, but it changes color to brown after it is exposed to the air. Organisms, including yeasts, other bacteria, fungi and insects feed on the nutrient-rich broth.

The slime also contains chemicals that are toxic to plants. Therefore, dead grass or other plants can usually be found at the base of weeping trees. Slime poison also can injure the newest layer of live cells inside the tree.



Symptomatic discolored bark. A branch scar is this “source” of the slime flux.

Trees can defend themselves internally from a spreading infection, but wounds can create entryways for disease-causing bacteria to start new infections in other parts of the tree. To gain entry, the bacteria require wounds, such as those from lawn mowers, animal chewing, digging in the root zone or storm damage. Once inside however, bacteria symptoms can take several years to appear.

In elms, this disorder may cause wilting, leaf yellowing and dieback that can resemble other infectious diseases such as Dutch elm disease, which is caused by a fungus. A laboratory test can confirm if the tree has Dutch elm disease.

Preventing wounds and stressful situations is the best way to reduce wetwood problems. However, there is no cure for bacterial wetwood/slime flux. Once a tree shows the symptoms of bacterial wetwood/slime flux, you can probably expect to see it again in following years.

Be sure to water plants when needed—especially during dry periods. Symptoms tend to be more severe when trees are stressed from drought. Check the soil moisture at about 10-12 inches down to be sure it is dry before watering and moist after watering. Avoid compacting the soil over the roots since compacted soil limits oxygen and water uptake.

Growing Tomatoes

Once the tomato plants are established, apply a mulch to conserve moisture and suppress weed growth. If weeds do appear, they may be pulled by hand or removed by shallow cultivation. An even moisture supply is important, especially once the tomato fruits begin to develop. If the soil becomes too dry, blossom-end rot can be a problem. If too much water is applied at one time, ripening fruit may split.

Staked plants are usually pruned to a single or double stem and periodically tied loosely to the stake with soft twine. Pruning is accomplished by removing all the branches or “suckers” that grow from the

leaf axils, leaving only the main stem or the main stem and one additional branch near the base. Unsupported and caged tomatoes may be left to branch normally. Staked and pruned tomatoes produce fewer but larger fruit than caged or unsupported plants.

A sidedressing of a nitrogen fertilizer may be desirable after the first cluster of flowers have set fruit.

There are numerous insect and disease problems of tomatoes that space prohibits describing in detail here. If problems arise, contact your cooperative extension office for identification and control recommendations. (DJ)