Video of the Week:  How to Test Your Soil for Nutrients

EVENTS
Kansas Forest Service Tree, Shrub Seedling Sale, September 1 - October 15

K-State Garden Hour

Improving Soil Health In The Landscape & Garden  
Wednesday, October 5th 12:00PM -1:00PM CST

Is your landscape and garden soil healthy? Learn how to measure and improve your soil’s health in the home landscape and garden. Dr. DeAnn Presley, Environmental Soil Science & Management Extension Specialist, will explore ways to improve your soil, including cover crops and soil amendments. Learn how to build your soil’s organic matter, and improve the growing potential of your soil.

Register here!
Please register for this free Zoom Webinar at: ksre-learn.com/KStateGardenHour
Kansas Turf & Landscape Conference

The 72nd Annual Kansas Turf & Landscape Conference will be held on Wednesday, November 30 and Thursday, December 1 at the Hilton Garden Inn, Manhattan. The conference is an excellent way to learn about turf and landscape management, visit with old friends, network with new ones, and see all the latest products and supplies from local and national vendors.

The conference has been approved for commercial pesticide recertification hours:

- 1 Core hour
- 3A - 7 hours
- 3B - 7 hours

GCSAA education points and International Society of Arboriculture CEUs will also be available by attending the conference.

For more information, go to [https://www.kansasturfgrassfoundation.com/](https://www.kansasturfgrassfoundation.com/)

REMINDERS

- Add organic matter to vegetable garden this fall.
- Bring houseplants in if you haven’t already.
- Dig sweet potatoes

WOODY PLANTS

Is It a Maple or an Oak?

Sometimes people are unsure on how to tell the difference between a maple and an oak. The easiest way is to look at how the leaves are arranged on the stem. Maples are opposite leaved and oaks are alternate. Opposite leaved plants such as maples and ash have leaves directly across from one another. Alternate leaved plants have leaves alternating up the stem; one on one side and the next, further up the stem, on the other. (Ward Upham)

Pruning Trees and Shrubs in the Fall

Pruning in August can stimulate new growth that is less hardy during the winter. But what about pruning at this time of year? Woody plants move sugars and other materials from the leaves to storage places in the woody portions of the plant just prior to leaf fall and we would like to maximize those stored energy reserves. Even pruning later in the fall can cause a problem by reducing the cold hardiness of woody plants. Dr. Rich Marini at Penn State Extension has written, “Based on everything that has been published we can conclude that woody plants...
do not attain maximum cold hardiness when they are pruned in the fall. Trees are affected more by heavy pruning than light pruning.” However, this does not mean that woody plants pruned in the fall will necessarily suffer winter damage. In most cases, I think we can get away with the old adage of “prune whenever your pruners are sharp.” However, damage can occur if we have a sharp drop in temperature before plants are completely hardened off. Also, marginally hardy plants are more susceptible to winter damage, especially if pruned in the fall. Though light pruning and removal of dead wood are fine this time of year, you may want to delay severe pruning until spring.

Consider pruning to be “light” if 10% of less of the plant is removed. Dead wood does not count in this calculation. Keep in mind that even light pruning of spring-blooming shrubs such as lilac and forsythia will reduce flowers for next year. We normally recommend that spring-bloomers be pruned after flowering.

Shrubs differ in how severely they can be cut back. Junipers do not break bud from within the plant and therefore should be trimmed lightly if you wish to keep the full shape. Overgrown junipers should be removed. On the other hand, there are certain shrubs that can be pruned back severely during the spring. Rejuvenation is the most severe type of pruning and may be used on multi-stem shrubs that have become too large with too many old branches to justify saving the younger canes. All stems are cut back to 3- to 5-inch stubs. This works well for spirea, forsythia, pyracantha, ninebark, Russian almond, sweet mock orange, shrub roses, and flowering quince. Just remember that spring is the correct time to do this, not now. (Ward Upham)

FLOWERS

Clean up Iris Beds this Fall

Iris are known for a couple of common problems: a fungus disease known as iris leaf spot and an insect named iris borer. Though both cause problems in the spring, now is the time to start control measures. Both the fungus and eggs of the borer overwinter on old, dead leaves. Remove dead leaves and cut back healthy leaves by ½ this fall to reduce populations of these pests. Also remove other garden debris from the iris bed. This can significantly cut down on problems next spring. (Ward Upham)

MISCELLANEOUS

Fall is a Good Time for Soil Testing

Though we often think of soil testing as a spring chore, fall can actually be a better time. Soil-testing laboratories are often very busy during the spring resulting in a longer turnaround from submission to recommendations. Also, soils in the spring are often waterlogged, making taking samples difficult. If your soil test suggests more organic matter, fall is a much better season because materials are more available than in the spring (tree leaves), and fresher materials can be used without harming young tender spring-planted plants.
Begin by taking a representative sample from at least six locations in the garden or lawn. Each sample should contain soil from the surface to about 6 to 8 inches deep. This is most easily done with a soil sampler. Many K-State Research and Extension offices have such samplers available for checkout. If you don’t have a sampler, use a shovel to dig straight down into the soil. Then shave a small layer off the back of the hole for your sample. Mix the samples together in a clean plastic container and select about 1 to 1.5 cups of soil. This can be placed in a plastic container such as a resealable plastic bag.

Take the soil to your county extension office to have tests done for a small charge at the K-State soil-testing laboratory. A soil test determines fertility problems, not other conditions that may exist such as poor drainage, poor soil structure, soil borne diseases or insects, chemical contaminants or damage, or shade with root competition from other plants. All of these conditions may reduce plant performance but cannot be evaluated by a soil test. (Ward Upham)

**Seed Stratification for Trees**

Gardeners sometimes want to grow trees such as sugar maples, oaks and sycamores from seed. However, most woody plants produce seed that will not germinate immediately after harvest. Normally this is because of one of three reasons:

- Seed is immature and needs more time to develop;
- A mechanical barrier is keeping water from reaching the seed;
- A physiological block is inhibiting germination.

If the problem in only immature seed, the answer is simple. The seed simply needs time to complete development and does not require special treatment.

However, if the problem is a mechanical barrier or physiological block, the answer isn’t so simple. The mechanical barrier and/or physiological block require special treatments to prepare the seed for germination. One such treatment is stratification. Stratification is a process whereby seed is given the moisture and temperature conditions normally found in its natural environment during the fall and winter. Seeds that are shed in early fall often require a warm, moist stratification period before the seed will germinate. Those that drop later in the fall may respond to cool, moist conditions. In Kansas, the most common stratification needed is the cool, moist type. The amount of time required for stratification varies with the plant species. For example, red oak needs 30 to 45 days and sugar maple should have 60 to 90 days. These species require cool, moist conditions. If unsure of the amount of time required for a specific species, 3 to 4 months usually is sufficient.

For cool stratification, temperatures just above freezing are best, with a range between 35 and 45 degrees considered ideal. Temperatures higher and lower than this are less effective. The minimum temperature at which stratification occurs is reported to be 23 degrees, and the maximum is 62 degrees.

Stratification should be done in a medium that is moist but not soggy. If there is too little
moisture, the seed coat does not take up the water needed. Too much reduces the amount of oxygen available to the seed. If peat moss is used, a ratio of 1 or 1 1/4 parts water to 1 part air-dried peat moss by weight is recommended. When wetting peat moss, use warm water, which is absorbed more quickly than cold.

Small amounts of seed can be stratified by placing the seed in moist peat moss inside a plastic bag and placing the bag in the refrigerator. Small seeds can be placed between two sheets of cheesecloth so they are not lost in the medium. Larger amounts of seed can be placed in a plastic container or wooden box. Place layers of seed between layers of moist sand or a mixture of sand and peat moss. Bury the container outside so the top is even with the soil surface, and cover with leaves or straw. Alternatively, the container may be placed in an unheated garage or root cellar. (Ward Upham)

**Using Silt from a Pond**

Some people have cleaned out farm ponds this year as they were dry from the drought. So what do you do with the silt? It can be used as fill, of course, but is it OK for growing plants?

Pond silt has a couple of problems in regard to plant growth. The first is that all soil structure has been destroyed. In other words the soil has collapsed so that there are very few large pores to allow water to soak in quickly or for oxygen to penetrate deeply into the soil.

So how do we rebuild soil structure? We rebuild it by adding organic matter. Actually it is the gums and glues given off by microorganisms as they break down organic matter that gives soil better structure. If possible, add organic matter now if you wish to plant next spring. Sources of organic matter would include old rotten hay, rotted silage, leaf mold and peat moss. Add 2 inches of this material to the surface of the soil and mix it in.

The second problem with this soil is a lack of nutrients. Add a complete, balanced fertilizer to the soil and till it in before planting. Shoot for about 1 pound of actual nitrogen per 1000 square feet. For example, add 7.5 pounds of a 13-13-13 per 1000 square feet. (Ward Upham)

**Contributors:** Ward Upham, Extension Associate

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Division of Horticulture  
1712 Claflin, 2021 Throckmorton  
Manhattan, KS 66506  
(785) 532-6173

For questions or further information, contact: wupham@ksu.edu OR cdipman@ksu.edu

This newsletter is also available on the World Wide Web at:  
http://hnr.k-state.edu/extension/info-center/newsletters/index.html

The web version includes color images that illustrate subjects discussed. To subscribe to this newsletter electronically, send an e-mail message to cdipman@ksu.edu or wupham@ksu.edu listing your e-mail address in the message.

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