Video of the Week: Transforming Leaves from Trash to Treasure

UPCOMING EVENTS

Kansas Turf Conference in conjunction with KNLA
December 4, 5 & 6, 2018
Kansas Expocentre, Topeka

Mark the date to attend the Kansas Turfgrass Conference in conjunction with KNLA on December 4, 5 & 6 in Topeka.

The conference is an excellent way to learn about turf, nursery and landscape management, visit with old friends, network with new ones, and see all the latest equipment and supplies from local and national vendors.

The conference has been approved for Commercial pesticide recertification hours:
1 Core hour       3A - 7 hrs       3B - 7 hrs

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

Download a copy of the program, get exhibitor information, or register online
http://www.kansasturfgrassfoundation.com/annual-ktf-conference.html

Great Plains Growers Conference
January 10-12, 2019
St. Joseph, MO
https://www.greatplainsgrowersconference.org/

FLOWERS

Winterizing Roses
Though most shrub roses are hardy in Kansas, other types of roses can be more tender. For example, the hybrid teas have certain species in their ancestry that originated in the warm climate of southern China. These roses need protection to reliably survive Kansas winters. Mound soil or compost about 8 to 10 inches high around each plant. If using soil, bring it in from another part of the garden. Do not pull it from between plants because this can damage the rose roots or make them more susceptible to cold.

Mounding is normally finished by Thanksgiving. After the ground has frozen, add a 4-inch mulch of straw, leaves or hay for further protection. More soil may be spread on top of the mulch to keep it in place. Do not add the mulch before the ground freezes or mice may invade and feed on the roses over the winter. The purpose of these coverings is not only to moderate the cold, but also to prevent warm days during the winter or early spring from stimulating growth that is tender to returning cold weather. Excessively tall canes should be pruned to a height of 36 inches and tied together to prevent them from being whipped by strong winter winds. Wind can damage the crown of the plant or loosen the surrounding soil.

Next spring, remove coverings before new growth starts. If soil was used for mounding, remove from the area so that the level of soil stays constant from year to year. Wait until after the ground thaws, or the tops may begin growing before the roots can provide water. (Ward Upham)

**Amaryllis Culture**

Now is the time to start amaryllis if you wish to have them in bloom for Christmas. The amaryllis is a tender bulb that is ready to bloom when purchased. The genus name for this plant is Hippeastrum, which means "horse star," an appropriate name for a plant that produces massive blooms as much as 8 to 10 inches across. These plants can produce 3 to 4 blooms on a 1- to 2-foot stem. Often, a second flower stalk follows the first at about the time the flowers on the first stem fade. The leaves usually start to appear when the flowers begin to open.

Amaryllis bulbs can be huge – approaching the size of a grapefruit. The larger the bulb, the larger the flowers and the more expensive the bulb. Regardless of size, amaryllis likes tight quarters. Place in a pot only 1 to 2 inches larger in diameter than the bulb. About half of the bulb should remain exposed. Hold the bulb so the roots hang down into the pot, and add potting mix. Firm the mix around the roots carefully so that they are not snapped off. Water thoroughly and place the plant in a warm, sunny location. Amaryllis likes day temperatures in the 70s and night temperatures in the 60s. The flower bud may start to appear right away or the plant may remain dormant for a period of time, but eventually all mature bulbs do bloom. Move the plant to a cooler location and out of direct sunlight when the flower buds begin to show color so the
flowers last longer. Amaryllis can remain in bloom for about a month.

Flowers should be cut off after blooming to keep the plant from expending energy to form seeds. Place the plant back in a sunny location until it is warm enough to be placed outside. Sink the pot in the soil in an area that has dappled shade. The plant can be gradually moved to sunnier locations until it receives full sun for a half day. Continue to fertilize with a balanced houseplant fertilizer as you would a normal houseplant. Bring the pot in before first frost and place in a dark location. Withhold all water so the leaves have a chance to dry completely. Leaves can then be cut off close to the top of the bulb. Amaryllis can often be left in the same pot for several years but will eventually need repotting. Again, choose a pot that is only 1 to 2 inches larger in diameter than the bulb and repeat the process described above. Offsets are normally produced by amaryllis and can be given their own pots if desired. These small bulbs have a concave side when removed but develop a round shape when given their own space. They grow quickly and can be mature enough to flower in a couple of years. (Ward Upham)

**MISCELLANEOUS**

Garden Soil Preparation — It’s Not Too Late

Autumn is an excellent time to add organic materials and till garden soils. Winter can still be a good time to take care of this chore as long as the soil isn’t frozen. It is far wiser to till now than to wait until spring when cold, wet conditions can limit your ability to work soils easily. Working soil when it is wet destroys soil structure and results in hard clods that are very slow to break down. On the other hand, dry soil may need to be watered so it can be more easily tilled. Be sure to wait several days after watering to let soil moisture levels moderate. You want the soil moist, not wet or dry, when tilling.

There is a limit to how much organic material such as leaves can be added in one application. Normally, a layer 2 inches deep is adequate with 5 to 6 inches being the maximum that can be added at one time. Shredding the material before application encourages faster and more complete decomposition due to increased surface area. Remember, soil preparation is an important key to a successful garden. (Ward Upham)

**High pH Soils and What to Do With Them**

Though there are high pH soils in most parts of the state, alkaline soils tend to be more common in the central and western regions of Kansas. These high pH soils can cause problems for plants by reducing the availability of certain micronutrients. For example, most Kansas soils have more than adequate amounts of iron. However, a high pH can
make iron unavailable resulting in a condition known as iron chlorosis as evidenced by light green leaves with darker green veins. Iron chlorosis reduces the health of plants by reducing photosynthesis. Lowering the pH of such soils will eliminate iron chlorosis.

Now would be a good time to have a soil test done to see if your pH is too high. If so, sulfur can be added either now or in the spring to lower the pH. Different textures of soil require different amounts. A sandy soil needs 1.0 to 1.5 pounds of sulfur per 100 square feet to reduce pH one point. A loam soil needs 1.5 - 2.0 pounds and clay needs 2.0 - 2.5 pounds to do the same. For example, if you wished to lower pH from 7.5 to 6.5 on a loam soil, you would need 1.5 - 2.0 pounds of sulfur per 100 square feet.

So, what pH do we shoot for? For most plants, a pH between 6.0 and 7.0 is preferred. Unfortunately, adding sulfur to lower pH is not as clear-cut a solution as we would like. Here are some other factors to keep in mind.

**Free calcium carbonate:** Some soils have free calcium carbonate, actual particles of limestone mixed in the soil. These "calcareous" soils normally have a pH of 7.3 to 8.5, with 8.2 to 8.3 being most common. In order for us to lower the pH with sulfur, all free calcium carbonate must be neutralized first. A recent soil test showed 6.7 percent free calcium carbonate. One pound of sulfur is needed to neutralize three pounds of calcium carbonate. Assuming 80 pounds for a cubic foot of soil, you would need about 1.75 pounds of sulfur per square foot just to neutralize the free lime. Additional sulfur would be needed to lower pH. Adding this much sulfur to a soil at one time is not recommended.

Not all high pH soils are calcareous. Perform this simple test to see if your soil contains appreciable amounts of free lime. Apply one drop of vinegar to dry soil. A vigorous fizz usually means the soil contains at least 3 percent calcium carbonate. A mild fizz suggests a calcium carbonate of between 1 and 2 percent and a fizz that can only be heard suggests the soil has a calcium carbonate content less than 1 percent.

**How sulfur works:** Elemental sulfur does not lower pH directly. It must first be oxidized to the sulfate form with the result being sulfuric acid. The sulfuric acid produces hydrogen, which acidifies the soil and lowers pH. The oxidation takes place primarily through microbial activity.

*Oxidation takes time:* Microbial oxidation of elemental sulfur takes time and depends on:
- number of sulfur oxidizing bacteria present
- temperature (75-104 degrees optimum)
- moisture content of soil (too wet or too dry will slow down process)
- size of sulfur particles (the smaller the better)

A single sulfur application normally takes at least 2 years for most the sulfur to react and form sulfuric acid. This, of course, depends on the above factors. So, what do you do about calcareous soils? See the companion article in this week’s newsletter for specific recommendations. (Ward Upham)
Why Do Houseplants Lose Leaves After Being Brought Inside?

Newly bought houseplants or those brought in from outside often lose at least a portion of their leaves. In order to understand why this occurs, we need to look at how these plants are grown and what the plant needs to do to adapt to its new environment. Houseplants are normally produced either under shade outdoors in southern states or in greenhouses. Also, many homeowners move their houseplants outside during the summer. Regardless, the plants receive much more sunlight than they do in an indoor environment. Research done in Florida in the late 1970s revealed that tropical plants grown under high light conditions produce ‘sun leaves’ while those grown under low light conditions have ‘shade leaves.’ These leaf types differ structurally in that sun leaves have less chlorophyll (the substance that plants use to convert sunlight to energy) and the chlorophyll that is present is located deeper inside the leaf. Sun leaves also tend to be thick, small and numerous while shade leaves are more thin, larger, and fewer in number. When plants are moved from one light condition to another they need time to adjust. This process is known as acclimatization. If they are forced to acclimatize too quickly, they will drop their sun leaves and produce a new set of shade leaves. If the acclimatization process is slower and less drastic, the plant can convert their sun leaves to the shade leaves that do better under low light. If going from shade to sun, this process is reversed.

Some houseplants are acclimatized before they are sold but many are not. So how do we help our new houseplants or those moved inside acclimatize to their new home environment? Houseplants should start out in an area of the home that receives plenty of light and then gradually moved to their permanent, darker location. This process should take 4 to 8 weeks depending on the degree of difference in light levels between the initial and final location of the plant. Remember, plants need to be acclimatized whether they are moved from a sunny location to one that receives less light or from shade to sun. Understanding plant processes allows us to anticipate potential problems. Acclimatization gives our houseplants a greater chance of retaining leaves and avoiding the stress of completely replacing them. (Ward Upham)

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http://hnr.k-state.edu/extension/info-center/newsletters/index.html

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