Horticulture Newsletter

November 3, 2026

KANSAS STATE UNIVERSITY
Horticulture and Natural Resources

Video of the Week:



Most deciduous trees will benefit from a fall fertilizer application if they are not growing in a lawn area that is already regularly fertilized. Fertilizers should be applied in late fall, just as fall color begins to develop on the trees, and before leaf drop. Trees can also be fertilized in early spring before growth begins (before and during crabapple bloom), and this timing is better for most evergreen trees. Fertilizers should be applied to the soil under the dripline of the tree. This week's video covers fertilizing trees for healthy, vigorous growth, and walks through the tree fertilization process: https://youtu.be/aHKH3uVoJyc?si=Np1RrYZeI02Pa0E6

Announcements:

November K-State Garden Hour:

Join us tomorrow (Wednesday, November 4th) for our next K-State Garden Hour webinar on "Houseplant Propagation And Care" from Noon to 1pm. Learn how to take cuttings from and manage the size of the houseplants you bring indoors this winter. Discover various methods of houseplant propagation, as well as the best practices for their indoor winter care. Register to join us live, or view the recording afterwards online at: www.ksre-learn.com/KStateGardenHour



Garden Calendar:

- Protect the trunks of fruit trees, ornamental trees, and young plants from rabbit damage by wrapping or enclosing them in wire screen at least 24-36 inches tall.
- Sort apples in storage and remove spoiled fruit.

KANSAS STATE UNIVERSITY | Department of Horticulture and Natural Resources
2021 Throckmorton Plant Science Center
1712 Claflin, Manhattan, KS 66506
HortSupport@ksu.edu (785)-532-6173 www.hnr.k-state.edu

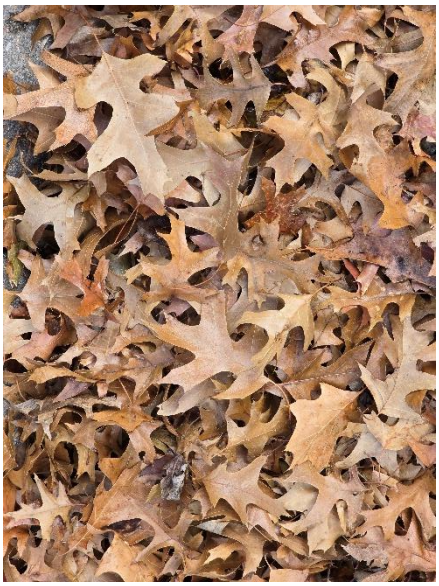
- Take a soil test and make needed adjustments this fall.
- Continue to plant spring flowering bulbs.
- Rake or mow over fallen leaves from the lawn to prevent winter suffocation.
- Fertilize cool season lawns (Tall Fescue or Kentucky Bluegrass) with a quick-release high-nitrogen fertilizer to promote root development and early spring green up.
- Control dandelions, henbit, and chickweed before spring green up.
- Continue to mow into the fall at a mowing height of 2 to 3 inches.
- Plant new trees and shrubs.
- Check mulch layers and replenish.
- Start a compost pile with fallen leaves. Turn existing compost piles to hasten breakdown.

Vegetables:

Work Organic Matter Into The Garden Soil This Fall:



Fall is usually the best time to prepare garden soil for next spring's vegetable garden. Spring conditions are often wet, making it difficult to work soil without forming clods that remain the rest of the season. Working soil when it is wet destroys soil structure and results in hard clods that are very slow to break down. Fall usually is drier, allowing more time to work the soil when it is at the correct soil moisture content. Even if you work soil wet in the fall and form clods, the freezing and thawing that takes place in the winter will help break them down.



Fall is an excellent time to add organic matter to the soil. Organic materials are usually more readily available in the fall, including fallen leaves, rotten hay, and grass clippings. By adding these materials in the fall, rather than the spring, there is more time for these materials to break down and benefit the soil.

While organic matter is important to a healthy soil, do not provide too much of a good thing. Too much organic matter may influence water infiltration and limit root growth. Normally, adding a 2 inch deep layer of organic matter is adequate, with 5 to 6 inches of organic matter being the maximum that should be added at one time. Shredding the material before application encourages faster and more complete decomposition due to the increased surface area.

Instead of adding organic matter only to the soil surface, consider tilling it in to a depth of at least 6 inches. This will create a more even, nutrient rich soil profile. Be careful not to over till the soil. If garden soil is tilled into the consistency of flour, the soil structure will have been destroyed.

Tilling the soil in fall will also help to eliminate garden debris that may harbor hidden insects or disease. Pests are less likely to overwinter if old plants are worked under, rather than remaining on the surface of the soil. This garden debris will also help to increase the organic matter content of the soil.

Organic matter can also be added during the winter months as well, anytime the soil is not frozen. If soils are not tilled after organic matter is applied, the freezing and thawing cycles of winter will help to incorporate organic matter into the soil over time, however much more slowly than tilling.

Remember, soil preparation is an important key to a successful garden. Healthy soils grow healthy roots, and healthy roots are necessary to grow healthy plants.

Fruit:

Winterizing Strawberry Plants:



Winter weather can make survival difficult for strawberries in Kansas. Plants need adequate time to adjust to cold weather, becoming gradually more cold resistant as fall progresses. This gradual hardening off allows strawberry plants to withstand colder temperatures in the middle of the winter better than they can in the fall while still developing cold tolerance.

For example, if temperatures suddenly plummet below 20°F before the plants complete this hardening off process, they can be severely damaged by the cold. Mid-winter, however, hardened off strawberry plants can easily withstand temperatures below 20°F.

With the unseasonably warm fall this year, a lack of hardening off may be a concern for strawberry plants. If a sudden drop in temperatures to below 20°F is forecast, it may be wise to mulch the plants as you would for the winter. After the cold snap is over, uncover the plants so they continue to harden off.

Normally, strawberries should be mulched for the winter around Thanksgiving. However, if temperatures stay abnormally warm, give plants another couple of weeks to become cold hardy before mulching. Mulching plants helps to protect strawberries not only from low temperatures but also from heaving damage. Heaving damage occurs when repeating freezing and thawing cycles, common in Kansas winters, heave plants out of the ground where the roots are exposed and the plants die from lack of water.

Most often wheat straw is used for mulching strawberries and should be spread over the plants to a depth of 3 inches. Be sure to break apart and scatter the straw evenly, ensuring there are no large, compressed bale chunks. This straw mulch not only helps protect the plants over winter but can also help avoid damage from late spring frosts by delaying blooming for a few days in the spring.



In the spring, gradually remove mulch as plants begin new growth. Remove enough mulch so that leaves can be seen. Leaving some mulch in place in the spring, however, may help to keep the berries off the ground, prevent weeds, and help conserve soil moisture.

Visit our Strawberry publication for more information on growing strawberries in Kansas: https://bookstore.ksre.ksu.edu/pubs/strawberries_MF598.pdf



Flowers:

Perennial Garden Clean Up - Spring Vs Fall:

Many gardeners are eager to clean up the garden as we move into fall, while other gardeners tend to wait until spring to cut back perennials. While there is no right or wrong time of year to do this, there are benefits of both waiting until spring and cleaning up in fall.

Starting garden cleanup in the fall is beneficial when:

- Dealing with plants infested with insect or disease problems - By sanitizing the garden and discarding pest infected plant material, this can be an effective way to reduce pest problems next growing season.
- Managing the spread of perennial plants in the landscape - Many perennials produce large amounts of seeds, which can cause some perennials to spread and overtake an area. By cutting back these perennial seedheads, we can limit the spread of seedling plants without the need for extra weeding next spring.
- Reducing the risk of fire - Many ornamental grasses and dead plant debris can serve as a source of fuel for fires as they dry over the winter months. Plants near structures or in wildfire prone areas may need to be cut back to the ground in the fall to reduce the fire hazard of the landscape.
- Eliminating messy plants - Not all plants overwinter well. Some plants are naturally messy after entering dormancy, and do not add winter interest or significant habitat value. These plants could be cut back in the fall.
- Freeing up time in the spring - Gardening in the spring can often be very busy. Most plants (and weeds) explode with growth in the springtime rains, creating a long to do list of gardening tasks. Our ability to garden is also controlled by less predictable weather patterns, making getting to those tasks more difficult. By starting on those gardening tasks in the fall, there is less work to do in the spring when to do lists may potentially be longer.



Waiting until spring to cleanup the garden offers benefits such as:

- Providing winter interest - Many perennial plants provide texture, color, structure, and wind movement through the winter months, which can make the dormant landscape more interesting. These plants can also collect frosts and snows for added winter interest. If perennials have been pest free, consider leaving key plants for winter interest.
- Protecting plants from winter injury - The leaves and debris from our

perennial plants can serve as insulation, protecting the crowns of our plants from extreme cold temperatures. This insulation is especially helpful on our marginally hardy or tender garden perennials to help ensure the plants overwinter. Foliage can also insulate the soil, reducing plants heaving out of the soil from the freezing and thawing cycles of the winter months.

- Benefitting pollinator populations - Many pollinators and beneficial insects overwinter in the leaves & stems of our perennial plants. These desirable insects are supported through the winter by having plant material to overwinter in.
- Providing wildlife habitat - The seed heads on many perennial plants can provide an important winter food source for birds, small mammals, and other wildlife. Not only are the seeds an important food source, but dormant plant material can provide foraging area to find insects and other food sources. These materials can be used for nesting, as well as protective cover from predators and wintery conditions.

So when is the best time for putting the garden to bed for the winter, spring or fall? The bottom line is that this decision depends on both the garden style and management schedule of the garden. There are pros and cons of either option, and the needs of each garden will need to inform the decision making.



If fall cleanup makes the most sense for your garden, consider providing habitat for pollinators and other beneficial insects by cutting back perennials and piling the debris elsewhere in the garden, where it can serve as an overwintering habitat. Delay composting or destroying plant debris until springtime temperatures consistently reach the 50's, in order to allow time for beneficial insect emergence.

Turf:

Wild Patterns Formed In Bermudagrass Lawns After Frost:

Gardeners across Kansas have been witnessing wild patterns in Bermudagrass lawns over the past few weeks. Squiggly lines, funky stripes, psychedelic patterns, blotches, and ambiguous shapes cover the lawn in a combination of green and brown turfgrass.



In looking at our NTEP Bermudagrass Trials at the John C. Pair Center this week, each bermudagrass test plot reminds me

of a Rorschach test, where you look at random ink blobs on a paper and are asked "what do you see?".






Well, when I look at these patterns I see frost damage. Even though these patterns are often described as leopard print, zebra stripes, or even camouflage designs, the patterns are created by cold injury to the turfgrass.

For much of Kansas this fall, the first frost or freeze occurred on October 16-17, 2026. A few days later, these peculiar patterns on bermudagrass started to emerge. These patterns emerge as the bermudagrass enters winter dormancy, but temperatures were not cold enough to send the lawn entirely into dormancy.



These unusual patterns visually display how hot and cool air moved at night near freezing. The areas of green turfgrass show areas in which the heat rose from the soil through the turfgrass (keeping the turfgrass alive and protected from cold temperatures). While the brown turfgrass show areas in which cold air descended toward the soil surface (killing the leaf tissue). Instead of mixing uniformly, pockets of air moved in opposite directions, like fans weaving in opposite directions through a stadium crowd after a game. While the physics of this phenomenon is more complicated than this, it exemplifies the movement of heat and what is known as the surface energy balance.



Differences in turfgrass height may also influence how this pattern forms. This frost damage pattern is more common in bermudagrass lawns mowed at a higher mowing height, around 1.5 inches tall or higher. Taller grass blades are more likely to be exposed to colder temperatures, causing the leaves to freeze and turn brown, while shorter grass may stay slightly warmer due to proximity to the soil.

Ultimately, there is no cause for concern for these Bermudagrass lawns. As cooler temperatures return and additional freezes occur, the entire lawn will enter dormancy and turn uniformly brown.

Simply enjoy one of nature's unique masterpieces and ask yourself, "what do I see?" in these patterns. Like chalk on a sidewalk before a rain, these patterns will soon disappear.

KANSAS STATE UNIVERSITY | Department of Horticulture and Natural Resources
2021 Throckmorton Plant Science Center
1712 Claflin, Manhattan, KS 66506
HortSupport@ksu.edu (785)-532-6173 www.hnr.k-state.edu

Make November Fertilizer Applications To Cool Season Lawns:



While September is the most important month for fertilizing Tall Fescue and Kentucky Bluegrass lawns, November comes in as a close second. However, November fertilizations are often overlooked or ignored. There are several important reasons why fertilizing cool season lawns in November is so important.

The primary benefit to fertilizing cool season lawns in November is to boost late season growth. Late season fertilizers increase the rate of turfgrass photosynthesis, helping lawns stay green longer into the winter. The longer the lawn stays green, the more food (carbohydrates) the plant can produce through photosynthesis. While the shoot growth of our cool season lawns may slow this time of year in response to cooler air temperatures, the root growth of our lawns remains active. The best cool season turfgrass root growth occurs at soil temperatures between 50°F and 65°F, although the optimum temperature can vary by turfgrass species. Root growth continues even when soil temperatures drop below 50°F, until soil temperatures begin to approach freezing (32°F). The more photosynthesis that can occur in the fall, the more energy (carbohydrates) the roots receive for growth and storage. This also helps improve the winter hardiness of the turf.

The next reason to fertilize your cool season lawn this month is to help the lawn green up earlier next spring. With shoot growth slowing in the cool fall temperatures, carbohydrates that are produced and not used by the plant are stored in the crown and roots of the plant. These carbohydrate food reserves enable the lawn to green up earlier in the spring, without encouraging the excessive shoot growth that often accompanies early spring nitrogen applications. While many people try to apply springtime fertilizers to boost spring green up, these applications often end up benefiting weeds more than the turfgrass. Not only do early-spring nitrogen applications cause excessive shoot growth in lawns, but they also reduce root growth critical for summer survival.

When applying the November fertilizer to a cool season lawn, look for a fertilizer that contains primarily nitrogen. For a high nitrogen fertilizer, the first number on the bag should be larger than the other two. Something like Ammonium sulfate (21-0-0), Ammonium Nitrate (34-0-0), or Urea (46-0-0) would be ideal. Be sure that the fertilizer is also a quick release or water-soluble source of nitrogen, rather than a slow release (water insoluble) fertilizer. This allows the nitrogen to be readily available to and used by the plant.

Apply between 1.0 and 1.5 pounds of actual nitrogen per 1,000 square feet. Keep in mind that no product is 100% nitrogen, so this is the amount of nitrogen to apply, not the amount of fertilizer. Use the chart on page 2 of the Lawn Fertilizing Guide to determine how much fertilizer to purchase and apply, based on the amount of nitrogen in the product.



Once fertilizers are applied, be sure to sweep up any fertilizer that lands on the driveway, sidewalk, street, or other paved surfaces nearby and transfer it back to the lawn. Make sure to also water in the fertilizer immediately after application to activate it.

KANSAS STATE UNIVERSITY | Department of Horticulture and Natural Resources
2021 Throckmorton Plant Science Center
1712 Claflin, Manhattan, KS 66506
HortSupport@ksu.edu (785)-532-6173 www.hnr.k-state.edu

Visit our Fertilizing Kansas Lawns publication for more information about making your November fertilizer application: https://bookstore.ksre.ksu.edu/pubs/fertilizing-kansas-lawns_MF2324.pdf

Trees & Shrubs:

Protecting Trees From Sunscald:



Throughout Kansas, we often see damage to the bark on the trunks of our trees. This is especially common on maple trees. Large sections of bark usually fall from the tree, especially on the south and west sides of the trunk. This type of bark damage is called sunscald. While the damage tends to show up in the summer months when the bark falls from the tree, the damage actually occurs in the winter months and is prevented by taking action now, in the fall.

So how does sunscald damage occur? During the winter months, trees go dormant, and water and nutrient movement in the tree slows. On sunny winter days, the sunshine heats the southwest side of a tree trunk and bark by as much as 40°F. This heat triggers cells within the trunk to break dormancy and begin to transport water within the trunk. The damage occurs as the sun sets and temperatures fall back below freezing overnight, causing the water in the trunk to freeze, expand, and burst the cells. The damage is not immediately visible, however, and usually shows up late-spring or summer the following year when large sections of bark fall off the trunk.



Sunscald damage can occur on a wide variety of trees and shrubs. Newly planted and young trees are most at risk of sunscald damage, as their bark layers are often thinner and more prone to damage. After 3-5 years of growth, most newly planted and young trees start to develop a thicker, more corky bark which helps insulate the tree from damage. Some trees, however, may need protection for longer, especially thinly barked trees such as maple, oak, linden, honeylocust, and willow.



Once sunscald injury occurs on a tree, there is nothing that can be done to correct the damage. This means that the only solution is to prevent sunscald damage from occurring. To prevent sunscald damage, wrap the trunk of the tree from the ground level to the lowest branches of the tree. Use a light-colored plastic trunk wrap, such as a corrugated plastic



tree tube or flexible plastic sheet. Light colored plastics help to reflect heat, while the plastic material insulates and buffers the trunk. Often plastic tree wraps also include an air gap between the plastic and the trunk, which adds another layer to buffer the heat of the winter sun. Cardboard or paper tree wraps are also available but lack the same insulation value as a plastic tree wrap. Multiple layers of paper trunk wraps may be required to prevent sunscald damage.

Apply trunk wraps in the fall, and remove the tree wraps the following spring (usually around April). It is important to remove tree wraps each spring in order to avoid restricting trunk growth as the tree trunk increases in diameter. Trunk wraps will be most important for the first 2-3 years after planting, but can be used for longer to prevent sunscald injury.

Visit our sunscald fact sheet for more information about how sunscald can affect young trees: https://hnr.k-state.edu/extension/horticulture-resource-center/common-pest-problems/documents/Trees%20-%20Sunscald%20on%20Trunk.pdf

Contributors:

Matthew McKernan, Consumer Horticulture Extension Associate

For questions or additional information, contact: hortsupport@ksu.edu

To have the KSU Horticulture Newsletter emailed to you, subscribe by sending an e-mail message to hortsupport@ksu.edu listing your e-mail address in the message.

The KSU Horticulture Newsletter is also available online at:
http://hnr.k-state.edu/extension/info-center/newsletters/

Mention of trade names, brand names or commercial products in this newsletter is solely for identification purposes and does not imply recommendation or endorsement by Kansas State University, nor is criticism implied of similar products not mentioned. Although every attempt is made to produce information that is complete, timely, and accurate, the pesticide user bears responsibility of consulting the pesticide label and adhering to those directions.

Kansas State University is an equal opportunity provider and employer.