Video of the Week: Fertilize for a Healthy Lawn

Reminders

- Light pruning of shrubs and trees where 10% or less of the plant is removed can be done any time of year. Heavier pruning should be done in the spring if possible.
- Fertilize strawberry bed for added flower bud development and larger crop next year.
- Too late to spray for bagworms but can pull them off and dispose of them if practical.

TURFGRASS

Fall Lawn Seeding Tips

The keys to successful lawn seeding are proper rates, even dispersal, good seed to soil contact, and proper watering. Evenness is best achieved by carefully calibrating the seeder or by adjusting the seeder to a low setting and making several passes to ensure even distribution. Seeding a little on the heavy side with close overlapping is better than missing areas altogether, especially for the bunch-type tall fescue, which does not spread. Multiple seeder passes in opposite directions should help avoid this problem.

A more serious error in seeding is using the improper rate. For tall fescue, aim for 6 to 8 pounds of seed per 1,000 square feet for new areas and about half as much for overseeding or seeding areas in the shade.

Kentucky bluegrass is much smaller seed so less is needed for establishment. Use 2 to 3 pounds of seed per 1,000 square feet for a new lawn and half that for overseeding or shady areas.

Using too much seed results in a lawn more prone to disease and damage from stress. The best way to avoid such a mistake is to determine the square footage of the yard first, and then calculate the amount of seed. Using too little seed can also be detrimental and result in clumpy turf that is not as visually pleasing.

Establishing good seed to soil contact is essential for good germination rates. Slit seeders achieve good contact at the time of seeding by dropping seed directly behind the blade that slices a furrow into the soil. Packing wheels then follow to close the furrow. The same result can be accomplished by using a verticut before broadcasting the seed, and then verticutting in a different direction a second time.

Core aerators can also be used to seed grass. Go over an area at least three times in different directions, and then broadcast the seed. Germination will occur in the aeration holes. Because those holes stay moister than a traditional seedbed, this method requires less watering.

If the soil that has been worked by a rototiller, firm the soil with a roller or lawn tractor and use light hand raking to mix the seed into the soil. A leaf rake often works better than a garden rake because it mixes seed more shallowly.
Water newly planted areas lightly, but often. Keep soil constantly moist but not waterlogged. During hot days, a new lawn may need to be watered three times a day. If watered less, germination will be slowed. Cool, calm days may require watering only every couple of days. As the grass plants come up, gradually decrease watering to once a week if there is no rain. Let the plants tell you when to water. If you can push the blades down and they don't spring back up quickly, the lawn needs water. Once seed sprouts, try to minimize traffic (foot, mower, dog, etc.) seeded areas receive until the seedlings are a little more robust and ready to be mowed. Begin mowing once seedlings reach 3 to 4 inches tall. (Ward Upham)

**Overseeding a Lawn**

Tall fescue lawns that have become thin over the summer can be thickened up by overseeding during September. Start by mowing the grass short (1 to 1.5 inches) and removing the clippings. This will make it easier to achieve good seed-soil contact and increase the amount of light that will reach the young seedlings.

Good seed-soil contact is vital if the overseeding is to be successful. Excess thatch can prevent seed from reaching the soil and germinating. Normally we want 1/4 inch of thatch or less when overseeding. If the thatch layer is 3/4 inch or more, it is usually easiest to use a sod cutter to remove it and start over with a new lawn. A power rake can be used to reduce a thatch layer that is less than 3/4 inch but more than a quarter inch.

Once thatch is under control, the soil should be prepared for the seed. This can be done in various ways. For small spots, a hand rake can be used to roughen up the soil before the seed is applied.

A verticut machine has solid vertical blades that can be set to cut furrows in the soil. It is best to go two different directions with the machine. A slit seeder is a verticut machine with a seed hopper added so the soil prep and seeding operation are combined. Another option is to use a core aerator.

The core aerator will punch holes in the soil and deposit the soil cores on the surface of the ground. Each hole produces an excellent environment for seed germination and growth. Make three to four passes with the core aerator to ensure enough holes for the seed. Using a core aerator has the additional benefit of reducing the amount of watering needed to get the seed germinated and growing. Aeration also increases the water infiltration rate, decreases compaction, and increases the amount of oxygen in the soil.

Of the three methods, I prefer the slit seeder for obtaining good seed/soil contact. However, if watering is difficult, core aeration may be a better option. Regardless of method used, fertilizer should be applied at the rate suggested by a soil test, or a starter fertilizer should be used at the rate suggested on the bag. (Ward Upham)

**Give Cool-Season Grasses a Boost**

September is almost here and that means it is prime time to fertilize your tall fescue or Kentucky bluegrass lawns. If you could only fertilize your cool-season grasses once per year, this would be the best time to do it.

These grasses are entering their fall growth cycle as days shorten and temperatures moderate (especially at night). Cool-season grasses naturally thicken up in the fall by tillering (forming new shoots at the base of existing plants) and, for bluegrass, spreading by underground stems called rhizomes.

Consequently, September is the most important time to fertilize these grasses.

Apply 1 to 1.5 pounds of actual nitrogen per 1,000 square feet. The settings recommended on lawn
fertilizer bags usually result in about 1 pound of nitrogen per 1,000 square feet. We recommend a quick-release source of nitrogen at this time. Most fertilizers sold in garden centers and department stores contain either quick-release nitrogen or a mixture of quick- and slow-release. Usually only lawn fertilizers recommended for summer use contain slow-release nitrogen. Any of the others should be quick-release.

The second most important fertilization of cool-season grasses also occurs during the fall. A November fertilizer application will help the grass green up earlier next spring and provide the nutrients needed until summer. It also should be quick-release applied at the rate of 1-pound actual nitrogen per 1,000 square feet. (Ward Upham)

Power Raking and Core-Aeration

September is the optimum time to power rake or core-aerate tall fescue and Kentucky bluegrass lawns. These grasses should be coming out of their summer doldrums and beginning to grow more vigorously. This is a good time to consider what we are trying to accomplish with these practices.

Power raking is primarily a thatch control operation. It can be excessively damaging to the turf if not done carefully. For lawns with one-half inch of thatch or less, I don’t recommend power raking but rather core aeration. For those who are unsure what thatch is, it is a springy layer of light-brown organic matter that resembles peat moss and is located above the soil but below the grass foliage. Power raking pulls up an incredible amount of material that then must be dealt with by composting or discarding.

Core-aeration is a much better practice for most lawns. By removing cores of soil, core-aeration relieves compaction, hastens thatch decomposition, and improves water, nutrient, and oxygen movement into the soil profile. This operation should be performed when the soil is just moist enough so that it crumbles easily when worked between the fingers. Enough passes should be made so that the holes are spaced about 2 to 3 inches apart. Ideally, the holes should penetrate 2.5 to 3 inches deep. The cores can be left on the lawn to fall apart naturally (a process that usually takes two or three weeks, depending on soil-type), or they can be broken up with a power rake set just low enough to nick the cores, and then dragged with a section of chain-link fence or a steel doormat. The intermingling of soil and thatch is beneficial to the lawn. (Ward Upham)

ORNAMENTALS

Dividing Peonies

Peonies are a favorite perennial of gardeners because of their beauty and low maintenance. In Kansas, peonies provide a beautiful display of flowers each spring before Memorial Day. Though peonies can be left in place indefinitely, many gardeners wish to increase their plantings and use a process known as division to accomplish this. Keep in mind, however, that peonies often take about three years to return to full bloom and size after division.

Fall is the traditional time to divide these plants. Peonies are essentially dormant by mid-August even though the foliage is still green. The first step in division is to remove the foliage. Then dig out the entire plant. Shake and wash off as much soil as possible so that the pink buds or "eyes" are visible. Peony roots are tough, and a sharp knife is needed
to cut the roots into separate pieces. Make sure each division has three to four buds. Make sure the location chosen for planting receives at least a half-day of full sun. However, the more sun, the better. Space the plants so that there is at least 2 feet between dwarf types and 4 feet between the standard types.

Follow the same rules for planting these divisions as you do for new plants. Make sure the pink buds are about 1 inch below the soil surface. If they are set more than 2 inches deep, flowering may be delayed or completely prevented. As you set the plants, firm soil often as it is added around the plant. If the soil is not firmed, it can settle and pull the plant down with it. Water in well after planting and water as necessary through the fall and winter to keep the soil moist.

It is often a good idea to add mulch to the new planting to protect it from heaving. The alternate freezing and thawing that commonly occurs during Kansas winters can "heave" weakly rooted plants out of the ground. Add a mulch of straw, leaves, compost or other material after the soil freezes. Remember, it is not the cold that harms these plants but the alternate freezing and thawing of the soil. (Ward Upham)

**VEGETABLES**

*Preparing the Vegetable Garden for Next Year*

If there are areas of the garden that are done producing, chop and shred residue in preparation for tilling. If soils are wet, wait a few days so the soil is no longer muddy. Tilling in residue allows plant material to decompose and helps reduce insect and disease problems for the next year.

Also consider using a cover crop to hold the soil and increase the organic matter content of the soil. Small gains such as wheat should be seeded at 3/4 to 1 pound of seed per 1,000 square feet from mid-September to late October. Spring oats can also be seeded until mid-September but the rate should be 2 to 4 pounds per 1,000 square feet. Spring oats will winter kill and can be tilled under in the spring.

Legume cover crops such as hairy vetch, alfalfa and sweetclover provide an additional benefit by ‘fixing’ nitrogen, thereby increasing fertility of the soil. Each of these should be seeded at about 1/4 to 1/2 pound of seed per 1,000 square feet of garden. Sweetclover should be seeded from August to early September and hairy vetch and alfalfa from mid-August to late September. (Ward Upham)

**MISCELLANEOUS**

*Composting Tips*

Following are some tips for having a successful composting experience.

- The compost pile will heat up and then cool. Turn the pile by moving material from the outside of the pile to the inside. The pile will again heat and then cool. The compost is ready once the pile has cooled a second time.
- The top of the compost pile should be dish-shaped so that water soaks in.
- Try to place the compost pile near a water source
so water can be easily added.

• Shredding materials before adding them to the pile will speed up the composting process.
• Do not add fats or meat as this will attract wildlife.
• Do not add grass clippings that have been treated with crabgrass killers. If treated with crabgrass preventers or dandelion killers, the clipping can be added to compost after three mowings. (Ward Upham)

Leaf Spot on Lilac

We have had a number of contacts regarding lilacs that were virtually defoliated with leaves showing many spots on the leaves. Cercospora leaf spot appears to be the causal agent. This is one of those diseases that only shows up during wet, humid summers.

Though the shrubs look bad, loss of leaves this late in the season will not harm otherwise healthy plants. Therefore, there is no need to apply a fungicide. Also, an application this late would not help anyway.

However, cleaning up dead leaves will reduce the amount of inoculum for next year and is recommended.

This disease is weather-dependent and requires wet, humid weather at certain times to flourish. Therefore, lilacs that were hammered this year may not become infected next. Even if we do have another wet summer that encourages this disease, we do not recommend a fungicide application as damage to the plant is negligible. (Ward Upham)

Cicada Killer…Not The Asian Giant Hornet

We are receiving inquiries regarding large wasps flying around. These are the Eastern cicada killer (*Sphecius speciosus*); not the Asian Giant Hornet (*Vespa mandarinia*). Cicada killer females search for, kill, and provision each cell within a nest located in the ground with a dog day cicada (*Tibicen pruinosa*) adult. The dead cicada is a food source for young cicada killer larvae. Cicada killers are an urban nuisance pest, especially when nesting in large numbers, in bare areas, in turfgrass, or around a structure. People are generally concerned because cicada killers resemble giant yellowjackets or they think cicada killers are the Asian giant hornet.

Cicada killers are approximately 2.0 inches long and black with yellow-banded markings on the abdomen. The head and transparent wings are red-brown. Cicada killers are not dangerous, but they are intimidating; especially the males. Cicada killers are ground-nesting solitary wasps, with the female digging a 6 to 10-inch burrow (1/2 inch in diameter) in the ground; usually in sandy or loose soil. A pile of sand or soil, depending on soil type, will surround the entrance. Females search for and sting large insects such as a cicada or katydid, and then bring the immobilized or paralyzed prey back to the burrow.
The female places prey into a chamber in the nest and then lays an egg on the body. Afterward, the female covers the burrow, digs another burrow, and repeats the process. A legless grub-like larva will emerge (eclose) from the egg and proceed to consume the prey. Full-grown larvae overwinter in the burrow, pupate in spring, and emerge as adults from July through August.

Male cicada killers establish aerial territories and patrol for intruders. A male cicada killer wards-off other males that enter his territory and attempt to mate with females. An individual that walks into the territory is typically confronted by a very large wasp hovering in front of the face and ‘zips’ to the side and back. However, after determining that the intruder is not a rival or a threat, the male cicada killer ignores the individual. Nevertheless, an individual walking across a lawn, fairway, or other area where cicada killers are nesting, will experience the same treatment through each male’s territory. After females have left the nest then males will eventually leave.

Cicada killers, in general, will not sting an individual. Wasp and bee stingers are modified egg-laying devices (ovipositors), so males cannot sting. Females, however, may sting if crushed or if stepped on with bare feet, or grabbed with bare hands.

Cicada killers are common in areas with bare soil, so mulching, planting ground covers, or sodding may reduce issues with cicada killers. Cicada killers can be a problem in well-maintained areas such as irrigated and regularly fertilized turfgrass. In addition, cicada killers can be a problem when nesting in areas accessible to or frequented by the public. Applying carbaryl or pyrethroid insecticides containing the active ingredients; permethrin, bifenthrin, cyfluthrin, and/or lambda-cyhalothrin to the burrowed area will kill females in golf course sand traps. In home yards, sandboxes should be covered with a tarp when not in use to deter cicada killers. Sand below swings, jungle gyms, or other playground equipment should be replaced with bark mulch or shredded tires.

Managing cicada killers in baseball infields and volleyball courts is more challenging because people with minimal clothing and exposed skin are diving and sliding onto the ground; thus making it difficult to recommend using an insecticide. However, in the case of a volleyball court, a geotextile fabric placed beneath the sand may create a barrier that prevents cicada killers from creating burrows. (Raymond Cloyd)

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