

# Horticulture Tips

## September 2024

Oklahoma Cooperative Extension Service  
Division of Agricultural Sciences and Natural Resources  
Department of Horticulture & Landscape Architecture  
Oklahoma State University

### **GARDEN TIPS FOR SEPTEMBER!**

*David Hillock, Senior Extension Specialist*

#### Landscape

- Watch for fall specials at garden centers and nurseries since fall is a great time for planting many ornamentals.
- Choose spring flowering bulbs as soon as available.
- Plant cool-season annuals like pansies, ornamental cabbage or kale, snapdragons and dusty miller when temperatures begin to cool.
- Watch for and control any late infestations of tree webworms.
- Twig girdler insects should be controlled if large numbers of small branches of elms, pecans, or persimmons are uniformly girdled from the tree and fall to the ground.
- Begin to reduce the amount of light on outside tropical houseplants by placing them under shade trees before bringing them indoors for the winter.

#### Vegetables

- You have all of September to plant cool-season vegetables like spinach, leaf lettuce, mustard and radishes, and until the middle of September to plant rutabagas, Swiss chard, garlic and turnips.

#### Lawn

- Last nitrogen fertilizer application of the year on warm-season grasses should be applied no later than September 15th. ([HLA-6420](#))
- Winter broadleaf weeds like dandelion will begin to emerge in late September, which is also the best time to control them with a 2, 4-D type herbicide.
- If pre-emergent control of winter-annual weeds (henbit, chickweed, annual bluegrass, etc.) is desired in lawns, the application should be completed by the 2nd week of September. ([HLA-6421](#)) *Note: Do not treat areas that will be seeded in the fall.*
- Continue bermudagrass spray program with glyphosate products for areas being converted over to tall fescue this fall. ([HLA-6421](#))
- Plan to seed bluegrass, fescue or ryegrass as needed in shady areas in mid- to late-September. Fall is the best time to establish cool-season lawns ([HLA-6419](#)).
- White grub damage can become visible this month. Apply appropriate soil insecticide if white grubs are a problem ([EPP-7306](#)). Water product into soil.

## Fall Pecan Field Day to Feature Improved Pecan Management

*Becky Carroll, Senior Extension Specialist, Fruit & Pecans*

**REGISTER NOW**

# FALL PECAN FIELD DAY

---

► **September 19, 2024**  
Cleveland, OK

---



Cedar Creek Pecan Farm, Oklahoma State University Pecan Management, Pawnee County Extension, and the Oklahoma Pecan Growers Association are hosting a Fall Pecan Field Day on September 19 from 2:30 – 6:00 pm. Check-in will begin at 2:30 pm at Dr. Mike Smith’s orchard, 364839 E. 5200 Rd, Cleveland, OK 74020. Program kicks off at 3:00 pm with dinner at 6:00 pm.

Tentative topics include:

- Establishment – spacing, rootstocks, cultivars
- Irrigation installation
- Weather setbacks/ replants
- Crop thinning
- Spray schedule
- Fertilization/Leaf Sampling
- Using clovers as cover crops
- Tree thinning
- Irrigating from ponds
- Pecan weevil monitoring
- Disease updates from 2024
- Harvest equipment maintenance
- Harvest & drying
- Update on APC/APPB promotions

The field day is free of charge, but participants should pre-register by September 15 at [https://okstatecasnr.az1.qualtrics.com/jfe/form/SV\\_bdXJK1gd4tZWgya](https://okstatecasnr.az1.qualtrics.com/jfe/form/SV_bdXJK1gd4tZWgya) . Please bring a lawn chair and plan to stay for dinner, sponsored by Dusty Skaggs with BW Fusion.

For more information contact [becky.carroll@okstate.edu](mailto:becky.carroll@okstate.edu) or 405-744-6139.

## **Controlling Deer Damage**

*David Hillock*

Oklahoma's white-tailed deer population has increased significantly over the past several decades. As the deer population expanded, deer moved into peripheral suburban areas. Increasingly, homeowners at the rural/urban interface must deal with damage to ornamental and garden plants. As deer begin moving into an area, homeowners initially enjoy seeing them and may actually encourage deer to come into their yard by feeding them. Rural subdivisions may ban hunting or place restrictions on firearm use to protect their deer or for safety reasons. Homeowner attitudes begin changing after deer numbers increase to the extent that shrubbery shows heavy browsing and gardens become difficult to grow because of continued depredation. In addition to browsing, damage may occur in the fall when bucks begin rubbing antlers on small trees or young nursery stock.

Commonly Used Control Methods – The problem of damage control is not an easy one to solve. Trapping and moving excess deer is often suggested by homeowners as a humane alternative to hunting with guns or even limited hunting with archery tackle. However, the cost to move enough deer to lower damage to tolerable levels is prohibitive. It should be recognized that most areas of Oklahoma are well populated with deer. Any deer moved to another area will only shorten food supplies for both resident and transplanted animals. Nature will then control the excess through starvation or decreased reproductive success because of chronic malnutrition. At best, trapping and relocating problem deer is only a short-term solution.

Deer damage control methods fit into six categories: 1) exclusion—by electric fence or eight-foot high, deer-proof fence, 2) scare or frightening tactics—with tethered dogs, gas exploders, fireworks or discharging firearms, 3) habitat modification, 4) population reduction through sport hunting, 5) repellents—area repellents repel by smell and contact repellents repel by taste, and 6) alternative plantings.

Control methods other than an eight-foot high, deer-proof fence or an electric fence reduce damage by 50 to 75 percent at best, and often much less. A deer-proof fence does not fit well with most landscaping plans and can be expensive if large areas are to be protected. For small gardens, a deer-proof fence can be cost effective. For the best results they should be constructed before serious damage occurs.

Scare tactics work for only short periods of time but may be useful by providing enough protection to allow the crop to be harvested. Habitat modification is expensive and may actually attract deer if misapplied. A professional wildlife biologist should be consulted if this is the desired course of action. Population reduction by sport hunting is the most cost effective, long-term solution and should be seriously considered if damage is widespread.

Repellents which provide an unpleasant taste or odor can be used, but damage will not be entirely eliminated. Effectiveness will vary with deer density, season, and availability of alternate foods. To be effective, repellents must be applied before deer begin actively browsing in the affected area. Area repellents are generally less effective than contact repellents. Research results on the relative effectiveness of area and contact repellents from several sources can be

found in OSU fact sheet [HLA-6427](#) – Ornamental and Garden Plants: Controlling Deer Damage. Bear in mind that repellents will not completely eliminate damage and that a given method's effectiveness will change seasonally, based on what natural foods are available to deer. Many repellents do not weather well and will need to be reapplied after a rain.

To see a list of plant material that may or may not be affected by deer or for more information on control see fact sheet [HLA-6427](#) – Ornamental and Garden Plants: Controlling Deer Damage.

## **Aster Yellows**

*Casey Hentges, Associate Extension Specialist*

*Bailey Singleton, Extension Assistant*

Aster Yellows, a disease which is spread by a leafhopper, can leave you wondering if you have discovered a new cultivar. It creates a witches' broom effect with dense branches and thin stems. The flowers are often smaller and malformed compared to a healthy plant and tend to remain green. The leaves can also be stunted and can range in color from pale green to yellow and in some cases even white, red or purple. Often, the plants will be symptomatic as soon as 10 days after being visited by an infected leafhopper, but it could take up to 40 days. Aster Yellows tend to spread more prolifically in cool, wet summers due to a more favorable environment for both the pathogen and the leafhopper.

As the name implies, Aster Yellows often affects plants in the Asteraceae or composite family – those that tend to have a sunflower or daisy look to them. However, it can also affect many other plants such as carrots, garlic, and even tomatoes and some grains. In fact, it can affect over 300 different species of plants.

As mentioned, Aster Yellows is spread by a leafhopper but is the result of a pathogen carried by the leafhopper. This pathogen infects every part of the plant from the roots to the flowers, so unfortunately this is not something that can be cut out of a plant. While the pathogen can overwinter in the crown and roots of plants if it is not removed, it does not survive in dead plant debris that may be left on the ground.

Because plants infected with Aster Yellows can't be cured, the best treatment is to remove the plant to prevent its spread. Once the plant is removed, it is best to burn it, bury it, or place it in plastic bag to prevent leafhoppers from being able to feed on it while it is still green because the pathogen won't survive in dead plant material.

Fasciation can have very similar symptoms to Aster Yellows but is harmless to the plant. Fasciation is an abnormal growth that creates flattened stems and may look like the stems or flowers are fused together. It can create a ribbon like effect out of the stems that often fan out toward the end. While this is a physiological disorder that typically doesn't reoccur on plants, there are some plants such as forsythia that may be more genetically predisposed to it reoccurring.

If you come across a plant that looks different for some reason, don't just assume it is good or bad. You can always take pictures or a sample into your local extension office to help you further identify what is going on in your garden.

<https://www.youtube.com/watch?v=2EPj9n-CiJs&t=148s>

## **Building Healthy Soils**

*David Hillock*

Gardeners want a healthy soil in which to grow plants. This includes ample organic matter, good drainage, sufficient water holding capacity, a rich supply of nutrients and active biological life. Unfortunately, healthy soils are commonly removed from building sites during construction, leaving a new home sitting atop sub-soils, which are often compacted and devoid of nutrients.

Before you can build a healthy soil, you need to know what you have to work with. Soil tests are a great way to determine soil pH, nutrient contents and organic matter content. Simply feeling the soil, running it through your fingers is a good way to identify the texture of your soil. Sandy soils feel gritty and clods break apart very easily. Clay soils are sticky and clods are very hard. A clay soil can be molded in your hands. Loam soils, the ideal condition for gardening, feel smooth in your hand. They are easy to work.

Surface and sub-soil types vary significantly across the state. If you live near a river you may have a very sandy soil, while other areas have heavy clays. Fortunately, the secret to improving soil is the same for both conditions. And that secret is organic matter. Organic matter is a term used to describe living and dead materials derived from plants or animals including compost, manure, straw, leaves, grass clippings or kitchen scraps. Organic matter enriches soil by providing a surface area where water and nutrients can bind. In clay soils, organic matter loosens structure to improve drainage. Organic matter also invites beneficial organisms into the soil. Soils rich in organic matter are going to have a darker color and many more nutrients.

Fall is a great time of year to add organic matter to the garden. It will decompose over the winter months to build healthier soils.

References: [HLA-6436](#) – Healthy Garden Soils

[PSS-2257](#) – Building Soil Organic Matter for a Sustainable Organic Crop Production

## **Soil Testing...the Right First Step**

*David Hillock*

We all appreciate thick green lawns and lush productive gardens around the home. After all, attractive lawns and gardens add to both the aesthetic value and real value of our homes.

To achieve a high level of lawn quality and garden productivity, it is necessary to add fertilizer on a timely basis. When lawns and gardens don't receive the amount of fertilizer that they need,

they never achieve the quality or productivity we anticipate. When too much fertilizer is applied, nutrients are wasted and pose a threat to the environment.

The true value of a soil test is to help insure that only needed nutrients are added in quantities which don't adversely affect environmental quality.

The best time to test the soil is during a time when plants aren't growing, although any time of year is satisfactory. In any case it is better to have the soil tested rather than guess which fertilizers to use and how much to apply. To make sure the test is accurate, sample the soil before fertilizer has been applied and follow proper collection procedures.

A soil test is only as good as the sample submitted for testing. Samples collected should represent the lawn or garden as a whole. The following steps will help in collecting good samples for submission.

- Scrape plant debris from the soil surface before sampling
- Sample lawns to a depth of 3-4". Sample gardens to a 6" depth.
- Use a clean bucket or other container and a soil probe or spade; collect cores or slices of soil from at least 10 different areas scattered throughout the lawn or garden and mix them together in the container.
- Mix soil thoroughly and fill the sample bag (bag can be obtained from your OSU County Extension Office) with a pint of the mixture.
- Submit samples and the completed information sheet to your OSU County Extension Office. They will send samples into the OSU Soil, Water, and Forage Laboratory for testing and then help you interpret the results.

The benefits of soil testing are many – it takes advantage of nutrients already in the soil, identifies nutrients that are lacking, reduces fertilizer applications, provides a proper balance of plant nutrients, allows adjustment of soil pH to an optimum level, and reduces chances of excess nutrients getting into the water sources.

For more information about soil testing contact your OSU County Extension Office or pick up the leaflet [L-249](#) – Soil Testing...the First Right Step.

## **Cool-season Lawn Planting and Renovation**

*David Hillock and Dennis Martin, Extension Turfgrass Specialist*

The period mid-September through early October in Oklahoma typically has near-ideal day/night temperature combinations for germination of cool-season grasses. So, let the tall fescue, perennial ryegrass and Kentucky bluegrass seeding begin (if you have access to water)! Sodding of these grasses is also appropriate at this time. The best temperatures for germination are when we experience a mid-80s day and upper 50s/low 60s night. You might be asking, is it possible that we will get fooled, and the temperatures will shoot back up. Sure, anything is possible in Oklahoma, but what is key to remember is that the nighttime lows are what's important. When you see evening temperatures from the upper 50s to mid-70s, it's time to seed cool-season lawns.

So even if a few daytime highs slip back in the mid to upper 90s, (and it will happen) our day-time lows are looking great!

Fact sheet [HLA-6418](#) covers turfgrass selection, while [HLA-6419](#) covers the establishment (planting method) and [HLA-6420](#) covers the mainstream long-term maintenance practices (mowing, fertilization, irrigation, etc.). A newer fact sheet, [HLA-6608](#), addresses managing turfgrass in the shade.

There are many satisfactory performing tall fescues. These include, but are not limited to Crossfire II, Houndog V, Millenium, Rembrandt, and Plantation to name just a few. There are dozens of good performers. A blend is a combination of two or more varieties within the same species. A mix is two or more species combined. Blends and mixes are beneficial in cool-season lawns as they broaden the genetic diversity present. In theory, this decreases the likelihood that your lawn will be completely wiped out by a single disease or single insect infestation.

Most importantly, if turf-type quality is expected, choose a turf-type rather than a forage type tall fescue. Forage type fescues include Fawn and Alta. General purpose soil stabilizer types include the old K-31, Kentucky 31, KY 31, they get used as a forage and as a lawn, but these variations on Kentucky 31 are not true turf-type tall fescue despite what the marketing message on the seed bag might say. Turf-types are selected for improved color, texture, density, slower vertical leaf expansion rate and other important characteristics for lawn use.

Tall fescues are best in medium to light shade. There are no hard and fast rules for “hours of sunlight” required. There are no perfect solutions to dense shade where grasses fail repeatedly, year-in and year-out. It is best to take a hint if grass is failing in a shaded site many years, it’s time to move on to mulches, shade tolerant perennial ground covers, hardscape elements, etc.; a list of alternate shade tolerant plants can also be found in fact sheet [HLA-6608](#). Sometimes grass does not die exclusively from shade, but rather the combination of shade and tree root competition for nutrients and water in combination with added disease pressure due to less air movement and more grass canopy moisture caused by less air movement in a “tight and mature” landscape.

In lightly shaded areas, mixtures of tall fescue and Kentucky bluegrass can sometimes work best. While Kentucky bluegrass is generally not as shade tolerant as tall fescue, it still has some shade tolerance, and it has improved brown patch disease and *Rhizoctonia* blight resistance over that of tall fescue. Brown patch is usually the most serious disease of tall fescue. These mixtures will often have Kentucky bluegrass present at 5 to 10% by weight and tall fescue at 90 to 95%. There are 10 times as many bluegrass seeds in a pound of bluegrass as there are tall fescue seeds present in a pound of fescue, so we use about 10 times less bluegrass seed to get to a 50/50 species count. Never use a 100% stand of Kentucky bluegrass in most areas of Oklahoma because pure stands of Kentucky bluegrass in most of Oklahoma can get summer patch disease. Also, older Kentucky bluegrasses such as Park, Newport, South Dakota Common (SD Common), Kenblue and variety not stated (VNS = when there is no variety name stated) really don’t bring any value to the cool-season mix. So, if these are the only ones available locally, you might as well use 100% tall fescue. Most other varieties of Kentucky bluegrass that you might

encounter (there are hundreds nationally, and yet few repeatedly available in Oklahoma from year to year) are improvements and will benefit the mix!

There is seldom any benefit and there is often detriment created by mixes of cool-season perennial grasses with annual or Italian ryegrass. Yet, if you scout the store shelves, you will find these mixes. Annual ryegrass simply competes with the cool-season perennial grasses in the mix in the cool portion of the year when good growth can take place and then annual ryegrass, having taken its fair share of the lawn, dies out in the heat. This leaves uninformed consumers in a panic at worst and with unsightly dead areas in their remaining cool-season perennial lawn at best. Avoid mixes of annual ryegrass with the desirable cool-season perennials like tall fescue, perennial ryegrass, and Kentucky bluegrass.

## **Turfgrass Fertilization**

*Mingying Xiang, Assistant Professor, Turfgrass Sciences*

*Key info: Now (early September) is the time to finish the final fertilizer application for warm-season turfgrass before taking a break until next spring. For those managing cool-season turfgrass, now is the time to focus on your fertilization program to ensure optimal turf health.*

**Why fertilization matters** – Fertilization is important for turfgrass management, influencing key characteristics such as color, density, uniformity, and growth rate, etc. A properly fertilized lawn is more robust, better equipped to outcompete weeds, and recovers quicker from stresses.

### ***Essential nutrients for turfgrass health***

- **Nitrogen (N):** Required in the greatest amounts. However, plant-available nitrogen is often scarce in Oklahoma's topsoils.
- **Phosphorus (P) and Potassium (K):** retained in the soil for extended periods and is applied less frequently.
- **Micronutrients**

**Importance of soil testing** – Conducting a soil test typically involves analyzing soil pH, phosphorus, and potassium levels. It's essential to base phosphorus and potassium applications on soil test results to avoid unnecessary and potentially wasteful use. Excessive application of phosphorus and potassium, beyond what is recommended, usually does not improve turf quality and can lead to waste.

**Key considerations for a fertilization program** – When designing a turf fertilization program, consider the following:

- The specific nutrients required for turf growth and development.
- The fertility level of your soil.
- The type of turfgrass species, its intended use, and the desired quality.
- Environmental factors and management practices.

**Fertilizing warm-season grasses** – For warm-season turfgrasses like bermudagrass, zoysiagrass, and buffalograss:



Here's an example fertilization program for bermudagrass:

- **Spring:** Apply 1 lb of actual N/1,000 sq ft from a water-soluble, quick-release complete fertilizer a few weeks after spring green-up, typically around May 1st.
- **Summer:** From June through August, apply a total of 2 to 3 pounds of actual nitrogen per 1,000 square feet. If using slow-release fertilizers such as Milorganite or sulfur-coated urea, apply at a rate of 1.5 to 2 lbs of actual nitrogen per 1,000 sq ft per application. Alternatively, if using quick-release fertilizers, apply more frequently at a lower rate, no more than 1 lb of nitrogen per 1,000 sq ft per application.
- **Fall:** Apply the final round of fertilizer no later than early September. Avoid promoting lush fall growth, as this can impede winterization and increase the risk of spring dead spot disease.

If using quick-release fertilizers, make sure these fertilizers are watered in immediately to prevent turf burn.

**Fertilizing cool-season grasses** – For cool-season turfgrasses such as tall fescue, Kentucky bluegrass, and perennial ryegrass:

- **Fall:** Fertilize to help the turf recover from summer stress and prepare for winter. Apply a total 2-2.5 lbs of actual nitrogen starting late September or early October. This can be applied either once using a slow-release fertilizer or multiple times with a quick-release fertilizer.
- **Spring:** Apply approximately 1 lb of actual nitrogen, split into two applications, with the second application completed before May 1.

If your soil test shows a deficiency in phosphorus or potassium, choose a complete fertilizer rather than just nitrogen. Avoid excessive summer fertilization for cool-season turfgrasses.

**Final thoughts** – Simply increasing fertilizer applications won't necessarily enhance turf quality. Effective management also requires proper mowing, irrigation, and cultivation practices aligned with your desired quality level.

## **Roundup Herbicides Updates**

*Mingying Xiang*

For many years, Round-Up was widely known as a non-selective herbicide primarily containing glyphosate, which was used to eliminate all types of vegetation. However, the Round-Up brand has since expanded to include multiple products with various combinations of herbicides, each tailored for different uses. This has led to a range of Round-Up formulations on the market, making it more important to read the active ingredients in each product.

The University of Tennessee has recently compiled a comprehensive document that outlines the specifics of the different Round-Up products now available. It's important for anyone using these herbicides to pay close attention to the active ingredients in each formulation to ensure they select the right product for their needs.

For more detailed information, see the document provided by the University of Tennessee:  
<https://uthort.tennessee.edu/wp-content/uploads/sites/228/2024/05/Update-on-Roundup-Branded-Herbicides.pdf>.

## **2024 Resources for Turfgrass Disease Control Now Available**

*Mingying Xiang*

An updated guide on turfgrass disease control for 2024 has been released, providing valuable information for those seeking detailed guidance on managing turf diseases. The "Chemical Control of Turfgrass Diseases 2024" was recently published by the University of Kentucky, Rutgers University, and the University of Wisconsin-Madison. It is available free of charge, and you can access it by clicking – <https://publications.ca.uky.edu/files/PPA1.pdf>.