KANSAS STATE UNIVERSITY

Extension
Butler County

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The Grapevine

Home Soil Tests?

I will admit that, in my personal opinion, a soil test is one of the most important tools a gardener can use. I find it's an important diagnostic tool if there is an issue in the yard and garden. I'm not an advocate of testing your soil every year (unless the previous year's test showed a major issue); however, I do recommend testing it every 3 to 5 years in a vegetable garden to ensure your plants have the nutrients they need without adding nutrients they already have enough of. When I'm talking with clients, I often hear people say they don't need to do a soil test because they used a kit they bought locally or a pH meter in their yard to test their soil. While I applaud them for the effort, the tests you can buy in stores are notorious for being inaccurate, depending on the nutrient or item you are testing for and the current soil conditions. The other issue with home soil test kits, even the more accurate ones, is that they may tell you what the nutrient levels and pH are currently, but they don't give you recommendations on where those levels should be or what you need to apply for your situation. It's best to spend a little more to get results that benefit you as a homeowner and gardener. Happy Growing!



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Growing Beautiful Annuals



Annual flowers are unmatched in their ability to provide a plethora of blooms throughout the growing season. No matter what color, size, or shape of flower you want, there is likely an annual that will fit your needs. Annuals are plants that sprout, grow, flower, and set seed all in one growing season. Some plants that we consider annuals are actually perennials in other locations, but that's a conversation for another time. For some, growing annuals can be a frustrating task, but with a few tips, you can have beautiful blooms all summer long.

The first key is to pick the right plant for the right location. A sun-loving plant will never be happy or perform well in full shade, no matter what type of care you give, while a shade-loving plant will burn and ultimately die if planted in a location that is too sunny for its preference. Be sure to check the tag to see the plant's growing requirements before you buy it. It's also important to check how much water each plant needs before planting them together. Try not to plant water-loving annuals with plants that prefer to stay dry. You will never make both happy, and in turn, you will be disappointed in how your pots and flowerbeds turn out in the end.

The second tip is to encourage bushy plants. Annuals can become leggy and slow to bloom if not trimmed, especially right after planting. While it might seem harsh to remove flowers when planting annuals, it's important to encourage them to develop a root system, and they will develop more branches when trimmed, so you have a larger, healthier plant with more blooms later. Another key to keeping annuals blooming is to deadhead the flowers. Some annuals, such as petunias, no longer need deadheading; however, they will bloom better if spent flowers are removed. Always use scissors to cut the old flowers off instead of pulling them to remove.



The third tip is to fertilize. Annuals are heavy feeders and need fertilizer throughout the growing season to support their growth and blooms. Plants in the ground should be fertilized every 4-6 weeks through the growing season with a general-purpose fertilizer. In contrast, plants in pots should be fertilized weekly with a water-soluble fertilizer. If your plants stop blooming or their blooms slow down, you most likely need to fertilize more. Since you are fertilizing regularly, it's also important to flush any excess salts or fertilizer from the potting soil periodically by watering the plant until the water runs in a steady stream out the bottom of the pot. Along with fertilizer, be sure the flowers are watered regularly and don't allow them to dry out for too long, as this will shorten bloom time. Some plants we consider annuals, such as geraniums, hibiscus, and mandevilla, can be brought inside as houseplants to be moved back outdoors the next year. Just make sure to treat for bugs before bringing them inside.

Annual flowers are wonderful additions to a flowerbed or a pot, decorating your front step or patio. By taking a few steps now and throughout the growing season, you can have beautiful blooms that will have your neighbors thinking you are the best gardener on the block.

Side Dressing Vegetables and Flowers



Nitrogen is an important plant nutrient in the metabolism of vegetable crops and annual flowers. Most annuals and vegetables are fast-growing plants with lush vegetation and high nitrogen needs. Home gardens can be a hodgepodge of soil fertility, depending on previous fertilization, soil type, and what was grown there previously. A few gardeners over-fertilize their gardens, a few get it about right, and most actually under-fertilize. They may apply a general-purpose fertilizer at planting time and never fertilize the garden again, which can compromise plant growth and productivity. Coupled with the fast growth of the plants with the extreme mobility of nitrogen, it is necessary to split applications of the nutrients on most vegetable crops. This is known as side-dressing because we apply a nitrogen fertilizer alongside the row. In the absence of a recent soil test, we generally recommend a fertilizer application 3 to 4 four weeks into the growing season. That is 3 to 4 weeks after seeded crops emerge for transplants, or 3 to 4 weeks after transplanting. This is a general rule of thumb; however, there are some vegetables we need to be careful with when applying the next nitrogen application. Below are more specific recommendations.

- **Bell peppers and eggplants** – at first fruit set.
- **Tomatoes (two side dressings)** – at first fruit set and every three to four weeks after.
- **Cucumbers, cantaloupes, watermelons, and squash** – when vines begin to run, then every three to four weeks after.
- **Okra**– at first fruit set and every four to six weeks after.
- **Sweet corn –** when corn is 1 foot tall and again when it is 3 feet tall.

Peas, green beans, and butter beans should not be side-dressed, as these plants can fix their own nitrogen – they belong to the legume family. Additional nitrogen will stimulate vegetative growth but reduce yields. Annual flowers should be fertilized approximately once a month to encourage blooming and growth throughout the season. Some good nitrogen-only fertilizers to use for side dressing include ammonium sulfate, nitrate of soda, blood meal, and calcium nitrate. The first one, ammonium sulfate, is my preferred tomato fertilizer because it also helps lower my soil pH while adding nitrogen.

Video of the Week- Beneficial Bugs



Many insects are beneficial. Some pollinate our flowers and vegetables, and many others feed on the pests in our garden. This segment demonstrates a good habitat for caterpillars that will help beautify your garden. Watch the video on the Kansas Healthy Yards website.

Bagworms are hatching in our area! It's time to start scouting for the hatchlings. It's also time to start treating plants that have had past issues.

Question of the Week- Dothistroma needle blight



This week's question was about pine trees with needles turning partially brown. Dothistroma needle blight is a common and serious disease of Austrian and ponderosa pines in windbreaks and ornamental landscapes. Mugo pine can also be infected, but Scots pine and white pine are considered resistant. The disease causes premature needle drop the year after infection. Austrian and ponderosa pines usually retain needles for 3 to 4 years, so the loss of interior needles represents a significant reduction in photosynthetic capacity. Repeated infection over many years can kill a tree. The disease tends to be more severe in crowded plantings. New infections become apparent in late summer or early fall. Diseased needles develop dark green bands or scattered yellow/tan spots. The spots often enlarge into red bands, which are sometimes bordered by a light yellow region. Dothistroma is sometimes confused with environmental stress or natural needle drop. However, a key indicator of Dothistroma is that the needle tip (beyond the red band) turns brown, while the base remains green for several months, resulting in partial needle scorch. The disease is usually most severe in the lower part of the tree, particularly in the interior parts (1-, 2-, or 3-year-old needles). The current needles sometimes show symptoms as well. The fungus Dothistroma septospora overwinters in infected needles and produces small, black, spore-bearing structures (acervuli), which break through the dead needle epidermis in late winter or early spring.

Some copper-containing fungicides can be used for control of Dothistroma needle blight. A single fungicide application in early June normally will protect foliage from infection. There is some risk in a single application since susceptible older needles are not protected in late May. Two fungicide applications in mid-May and mid- to late-June provide a more complete and dependable control. Make sure all needles are covered thoroughly with the fungicide. It is a good idea to spray adjacent susceptible pines. It may take multiple years of application to bring the disease under control. Collection and removal of diseased needles on the ground around individual trees may reduce the severity of infection the following year. Nevertheless, sanitation will probably not eliminate the disease because diseased needles bearing the fungus's fruiting structures sometimes remain attached to the tree. Removal of dead needles is impractical in windbreak plantings.



Upcoming Events

Garden Hour Webinars:

June 3rd- Maximizing Success with Extension Resources

July 1st- Addressing Food Insecurity Through Extension

August 5th- Local Food Gardening Projects in Kansas

Upcoming Events:

June 10th at 12:15 pm- Troubleshooting Issues in the Garden at Andover Public Library

June 10th at 5:30 pm- Landscape Design at the Benton Community Building

June 28th, 10 am to 2 pm- El Dorado Farmer's Market at East Park

Mason Jar Hydroponics



This month's activity is inspired by one of our vendors from this year's Lawn and Garden show. Sustainable Gardens 365 Movement, a community dedicated to growing fresh food indoors year-round using simple, soil-less systems, helps teach people how to use simple hydroponic methods. This hydroponics system uses the Kratky method, in which the plant's roots are partially submerged in nutrient-rich water with no circulation or added airflow. The rest of the roots are dangling above the water where they can get oxygen. This method works well with many herbs and vegetables.

Supplies

- Hydroponics nutrients
- Wide-mouthed mason jars
- 3-inch net cups
- Seed Starter plugs or rock wool
- Clay pellets
- Tin foil
- Seeds

Directions

1. Plant your seeds in the seed starter plugs or rock wool. Do not use soil for germination, as it can leech into the water and become messy.
2. Once seeds have sprouted and the roots are poking through the seed plugs, it's time to set up the hydroponics unit.
3. Wrap the jar with tin foil to block out any light. This prevents algae growth.
4. Place the net cup in the jar.
5. Mix and add nutrients according to directions on the container. Most hydroponic nutrients are concentrated, and a little goes a long way. Fill the jar with nutrient water up to the base of the net cup.
6. Transfer the seedling to the net pot. Hold the seedling in the center of the cup, then surround it with clay pebbles to keep it in place.
7. Add a bit more water to the container until it is just touching the base of the seedling's root system so the roots can access water.
8. Place the plants in a bright location. A bright south-facing window or grow lights will provide enough light for growing your vegetables and herbs.
9. Watch the water level as the plants grow. Ensure that some of the roots are always submerged in water, while the air roots remain above the water.

Best herbs for hydroponics: Basil, Cilantro, Mint, Oregano, Parsley, Thyme, and Rosemary.

Source: Geeky Greenhouse



Maximizing Garden Success with Extension Resources

Wednesday, June 3rd 12:00PM -1:00PM CST

Discover how to leverage Extension resources effectively to plan, manage, and trouble shoot problems in your landscape & garden. Join Cassie Thiessen and Matthew McKernan, K-State Extension Horticulturalists, as they explore practical tools and resources available through Extension that can help improve the success of your garden. Learn how to access research-based resources and utilize them to make informed decisions for your garden.

Register Here!

Please register for this free Zoom Webinar at:
ksre-learn.com/KStateGardenHour

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