



THE NEW HORT THYMES

**CLEVELAND COUNTY
EXTENSION**

Serving Cleveland County, Oklahoma with the most up to date gardening, lawn, landscaping, and horticulture information.



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In this issue...

Phosphorus.....	2
Powdery Mildew.....	3
Plant of the Month.....	4
Garden Tips.....	5
Seasonal Eats.....	5
Upcoming Events.....	6

Tell Us What You Think

We are looking forward to 2021 and we want to hear your thoughts

2020 has definitely turned out differently than we all expected and wherever you are, I hope this finds you well. For the Cleveland County OSU Extension Horticulture Program, we are thankful that we can still help clients with their landscaping and gardening questions. We weren't able to have the make and take workshops we planned on, but we were able to convert some of our classes to webinars (after a quick learning curve in Zoom, of course!).

Now we're looking forward to 2021 and we want to know what you'd like to see from us. Below you will find a link to a brief survey. If you have a few moments, fill it out and let us know your thoughts. We would be so appreciative! The feedback will be used to plan programs for the upcoming year.

Keep An Eye on Garden Phosphorus

Soil testing is an important habit for gardeners. It gives an exact amount of the nutrients in the soil and recommendations for what to apply if anything is deficient. Testing the soil can also save money by preventing unnecessary fertilizer applications. Even if you don't use synthetic fertilizers, soil testing should still be an implemented practice. We can always write recommendations with organic practices in mind. If you've been a regular reader of The New Hort Thymes or ever attended one of our programs, you've probably heard this before.



Routine soil testing is an important practice to make sure garden plants receive adequate nutrients.

Highly cultivated areas, like vegetable gardens, should be tested more often. These areas receive frequent amendments to keep plants productive and we want to make sure these amendments are appropriate. If these areas are frequently amended without testing, it's possible that some nutrients can become excessive. This is especially the case with phosphorus.

Phosphorus, the middle number on the bag of fertilizer, is responsible for healthy flower and root growth in plants. It's also immobile in the soil, meaning that it doesn't move regularly with water. If phosphorus becomes excessive, it can take a long time to lower the amount in the garden. This is why it's important to regularly check with soil testing.

Compost is a common amendment in home vegetable gardens. It has a lot of benefits, like adding organic matter to the soil, increasing nutrient holding capacity, helping with drainage, and it keeps food and yard waste out of the landfill. One of the downsides is that the actual amount of nutrients in compost can be difficult to distinguish. Purchased compost might not have the break down listed. Homemade compost would have to be tested. Over applying without knowing what's in compost can contribute to high levels of phosphorus.

Phosphorus and potassium are measured as soil test index on test results. The soil test P index is considered adequate at 60. Anything above 300 is considered excessive. Excessive phosphorus can be detrimental to plant growth. It reduces the plants ability to take up required amounts of micronutrients and inhibits beneficial soil organisms. Excessive phosphorus is also detrimental to the environment by entering the watershed. This can cause algae and other undesirable plants to grow, reducing the water quality.

It is easier to monitor phosphorus levels than to correct them. Once levels become excessive, gardeners must be sparing with compost and only use low phosphorus products such as blood meal or pine bark mulch.

- Routine Test -	
pH:	6.4
Buffer Index:	
NO3-N (lbs/A):	
Surface:	13
Subsoil:	
Soil Test P Index:	1193 (596 ppm)
Soil Test K Index:	364 (182 ppm)

Mismanaged fertilizer programs can quickly increase the soil test P index to excessive (>300).

Powdery Mildew in Fall Gardens

Powdery mildews are one of the most widespread and recognized plant diseases. Species of the fungus are host specific, but they generally all look the same – patches of gray powder-like growth on the upper side of the leaves. It can also affect buds, flowers, and young fruits. Powdery mildew affects all kinds of plants: grasses, vegetables, ornamentals, fruit trees, and shade trees.

Powdery mildew produces fungal threads called mycelium that grow on the surface of the plant. The fungi sends down haustoria, or root-like structures, into the cells of the plant to pull up nutrients. Lack of nutrients and inhibited photosynthesis cause the plant to decline.

Most fungi require free water to germinate, but powdery mildew only needs a high relative humidity. Powdery mildew can become a problem when days begin to cool off and nights are humid. With early fall rains and cooler temperatures, newly planted fall gardens are especially susceptible to powdery mildew. Young, succulent growth is also more likely to be infected than older plant tissues.



Photo from NC State Extension



Photo from Virginia Polytechnic Institute and State University

Powdery Mildew Control

Resistance

With any plant disease, choosing resistant plant varieties is the first defense. Look for powdery mildew resistance when purchasing plants or seeds. Resistance doesn't mean immune. If disease pressure is severe, it's possible resistant varieties can still have small infections. This is why cultural controls should also be implemented.

Cultural

Several practices will reduce the severity of powdery mildews. Avoid overhead watering to help reduce the relative humidity. Powdery mildew overwinters on plant debris, so remove and destroy all diseased material. Do not compost infected material. Pruning to remove air circulation can also be helpful.

Chemical

If the disease pressure is too severe, fungicide applications may be necessary. Fungicides for powdery mildew include sulfur and myclobutanil. Always check the label to make sure it's labeled for the plant being treated. Chemical controls are more effective when combined with cultural controls.

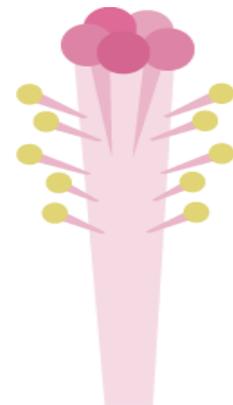


September Plant of the Month: Perennial Hibiscus

A show-stopping perennial with massive blooms

The mind often goes to bright tropical flowers when hearing 'hibiscus', an iconic flower that represents warm beach days. What many people don't realize is that hibiscus is used to describe many different plants. The tropical hibiscus that we know and love has a perennial cousin that returns year after year.

Perennial hibiscus is easy to grow. While it prefers rich soil, it can tolerate average garden soils as long as consistent water is provided. Perennial hibiscus produces very large blooms with five showy petals and a bright staminal column. There are many varieties of perennial hibiscus, including ones that bloom in white, pink, red, and lavender. There are also dark foliage varieties available. Cut plants back to 4" in late fall. Plants are slow to emerge in spring, but quickly become showstoppers.



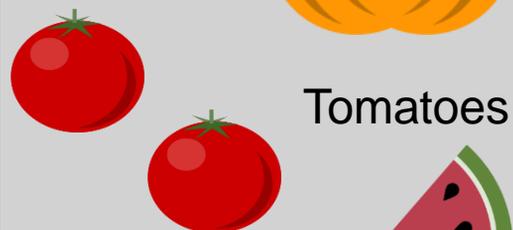
Staminal Column: a modified reproductive structure that contains both male and female organs

Garden Tips for September

- 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
- Trees and shrubs can be planted in September, as it's easier for plants to become established in our winters rather than our summers
- Watch for fall specials at garden centers and nurseries; fall is a great time to plant many perennials
- Continue to fertilize and deadhead containers; most will last until the first frost
- Take cuttings to overwinter indoors
- Watch for and control any late infestation of tree webworms
- Begin to reduce the amount of light on outside tropical houseplants by placing them under shade trees before bringing them indoors
- September is a great time to plant cool-season vegetables
- Last nitrogen fertilizer application on warm-season grasses should be applied no later than September 15th
- 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
- White grub damage can become visible this month; apply appropriate soil insecticide if white grubs are a problem
- Preserve the color of your garden by creating dried arrangements from your favorite flowers
- Make sure to take pictures of your gardens, so you can document the year's successes and frustrations

Eat Seasonally

In-season produce is fresher, cheaper, more nutritious, and better for the environment. These are some of the seasonal crops for September:



Upcoming Events

September 12th, 9:00am to 4:00pm – Grow Your Own

Oklahoma County Extension Office, OSU Conference Center, 2500 NE 63rd St, Oklahoma City, OK 73111

This full day program will cover everything that you need to know to start gardening. This workshop will help you with garden site selection, soil improvement and composting, garden planning and establishment, choosing the best fruit and vegetable varieties, and starting transplants. Everyone attending will receive vegetables or herbs they can use to start their own fall garden.

Spaces are very limited. Registration is \$10. To register, call 405-713-1125.

September 16th, 6:30pm to 8:00pm – Protecting Pollinators at Home

Over 90% of all known flowering plants, and almost all fruits and vegetables, require pollination to produce crops. Between honey bee colony collapse disorder and the decline of monarch butterflies, pollinators have become a major interest for home gardeners. Join us for a webinar to discuss creating pollinator friendly gardens and just how important these little critters are to our lives.

The class is free, but registration is required. To register, visit

<https://dasnr.zoom.us/meeting/register/tJYkcuGsqDMrGNR35h1n4gU0wFzgvZIAdLZA>

About the editor...

Courtney DeKalb-Myers has been the Cleveland County horticulture educator since August 2018. Her position handles homeowner inquiries, master gardener advisement, and other horticulture education programming throughout the state. She is originally from Norman, Oklahoma and developed a passion for gardening at a young age. She went onto study horticulture at Oklahoma State University in Stillwater with an emphasis in entrepreneurship. After graduating from OSU, she moved to Raleigh, North Carolina to attend NC State for graduate school. Her research was heavily focused on vegetable production, specifically processing tomatoes for a local salsa product. The emphasis on local products motivated her to move back to Oklahoma and she is so excited to now serve the town that raised her.

