Growing Daffodils, Jonquils, and Narcissus in East Texas, October 7-13

In East Texas, where the seasons dance to their own beat, gardeners want blooms that endure with grace. Enter the genus *Narcissus*, a treasure trove of spring blooming bulbs that not only bring timeless beauty but also demand little in return. These long-lived, Earth-Kind bulbs are a gift to our East Texas gardens.

The *Narcissus* genus includes a vast array of species and cultivars each with its own character. While the classic yellow trumpet daffodils are iconic, there are countless other options to explore including cluster flowered narcissus and dainty jonquils.

The ideal time to plant these bulbs in East Texas is during the fall, generally in October. This allows the bulbs to establish their roots before the arrival of winter.

Narcissus bulbs thrive in well-drained soil and full sunlight. When selecting a location in your garden, ensure it receives at least six hours of sunlight per day. Adequate drainage is essential, as waterlogged soil can lead to bulb rot.

As a general guideline, plant *Narcissus* bulbs at a depth twice the bulb's height, making sure the nose of the bulb is under the ground. Space the bulbs about 4 to 6 inches apart, giving them room to multiply over the years.

Before planting, amend the soil with organic matter such as compost. This not only improves soil structure but also provides some slow-release nutrients for the bulbs.

Once established, many daffodils, narcissus and jonquils are remarkably low-maintenance and long lived. They are the epitome of Earth-Kind plants as they require no irrigation, nor fertilizer, and no pesticides.

Unlike tulips, these bulbs have the delightful habit of multiplying and returning each year. Although large flowered modern daffodils often need dividing about once a decade, most heirloom narcissus and jonquils continue blooming for centuries. If you'd like to order those types proven to perform well in East Texas, the Smith County Master Gardeners are starting their 25th annual bulb sale on-line tomorrow.

The SCMG webstore (scmg-online.company.site) will open at 7 a.m. on Monday, October 9, and close at 1 p.m. on Wednesday, October 18. Bulbs featured in the sale are all locally trialed and proven performers here. A small selection of new and improved trees and

shrubs, along with the new SCMG 2024 calendar and garden guide will be available for pre-order. Anything ordered from the webstore must be picked up between 10 a.m. and 1 p.m., Saturday, October 21 at Pollard United Methodist Church (3030 New Copeland Road, Tyler) immediately after the *Bulbs to Blooms* conference.

During pick-up hours, there will be a plethora of Smith County Master Gardeners to answer gardening questions; "bonus" bulbs, artwork, and tee shirts for sale; children's activities, and more helping them celebrate the 25th anniversary of the popular sale and conference.

The Smith County Master Gardeners have worked diligently through the years identifying and making available long-lived, Earth-Kind bulbs that are uniquely adapted to Texas and the South.

For more information visit the Smith County Master Gardener website at https://txmg.org/smith/ or follow them on Facebook. Proceeds from the sale support horticulture education in Smith County, the Tyler Botanical Garden, and scholarships for horticulture students at Texas A&M and Stephen F. Austin State Universities. Smith County Master Gardeners are trained volunteer educators coordinated by the Texas A&M AgriLife Extension Service.

Article Written By Greg Grant, Texas A&M AgriLife Extension Smith County Horticulture Agent

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Apple Facts, October 14-20

Last week I helped put on an apple variety tasting at the Polk County Senior Citizen Center. The goal was to help the seniors determine which apple variety they liked the best and encourage them to eat more fruit. For the tasting we brought six different varieties of apples from the grocery store. Additionally, as part of the program I researched facts about each apple variety and wanted to share that information with you today to encourage you to eat more apples and fruit!

Jazz: Was developed in New Zealand and is a cross between royal gala and braeburn apple. Development started in 1985 and was commercially released in 2004. The apple is known for being hard and crisp but juicy. Trees take between 4-5 years to produce fruit.

Cosmic: Breeding began in 1997 at Washington State University. Many American apple varieties were breed in the Pacific Northwest or Midwest because the environment is ideal for apple production. Cosmic name and apple are trademarked and is a cross between honey crisp and enterprise. Breeding focused on durability and shelf life not on flavor and taste. Durability and shelf life is important so growers can store and ship their commodity long distances. Cosmic has dark red skin and dense firm flesh.

Sweet Tango: Breeding began in 1988 at University of Minnesota and is trademarked. Additionally, University of Minnesota was awarded exclusive rights after a lengthy court battle. Exclusive rights allow University of Minnesota to determine which orchards can grow sweet tango. To grow sweet tango an orchard must be selected by the University of Minnesota and be part of a growers co-op to ensure product quality. Sweet Tango is a cross between honey crisp and zester.

Pink Lady: Cripps pink is the variety of apple, but it is sold under the trade name pink lady. Pink lady was developed and licensed by Western Australia Department of Agriculture. Cross between lady Williams and golden delicious and is know for being a firm sweet apple with long storage life.

Honey Crisp: University of Minnesota started development in 1974 and was released in 1988. Patent expired in 2008. Honey crisp was bred for taste and not for growth and shipping. Honey crisp has very large cells compared to other apple varieties which help to hold more water. This makes the apple ideal for eating raw. Honey crisp is the state apple of Minnesota.

Ambrosia Gold: Ambrosia apple was found growing in an orchard in British Columbia and was developed commercially in the early 1990s. Once the original patent expired for ambrosia, CMI orchards who originally developed ambrosia, then trademarked ambrosia gold apple. Ambrosia gold is know for firm meat with a sweat flavor and taste similar to a pear.

Lastly, I would like to share with you some Texas Apple Fact:

- Apples are not widely grown commercially in Texas.
- Most successful orchards in the Davis Mountains or High Plains are due to colder winters and fewer fungal and bacterial diseases.
- Climate is a major limiting factor in Texas.
- Commercial varieties developed in northern regions are not suited for Texas. Northern varieties require 1,000-2,200 chill hours. Chill hours in Texas range from 200 in south Texas to 1,000 in the panhandle.
- Polk County averages 600 chill hours.
- Recommended varieties for Polk County: fuji, gala, anna, dorsett golden
- Cotton Rot is a major disease in Texas, to prevent cotton rot plant trees in slightly acidic soils.
- Trees may need up to 40 gallons of water a week.

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If summer's end has you in a jam, plant strawberries now, October 21-27

Strawberries are a classic spring and summer fruit across Texas and the U.S., with the ripest berries found from as early as February to as late as early June. So fall may be a strange time to think about strawberries, but a Texas A&M AgriLife Extension Service expert said now is the perfect time to plan for fall planting. Home gardeners may be accustomed to planting strawberries in the spring, however, they likely won't get the best results, said Russell Wallace, Ph.D., AgriLife Extension horticulturist, Lubbock. "The cooler months, especially during October, is the prime time to start planting strawberries for better springtime yields and quality fruit," Wallace said. "We oftentimes get nurseries that sell plants in the spring, and that is really the wrong time of year because it gets too hot, too quickly for the strawberries."

While strawberries are best enjoyed under the hot sun, they are a cool-season plant. The cooler weather provides chill hours that improve bud development and, ultimately, fruit production, Wallace said. He said if you do buy strawberry plants in the spring, you can keep them under shade to help keep them cooler. However, the air temperatures may be too warm. Wallace said strawberry plants prefer an average daytime temperature of about 72-75 degrees. If you're living in Texas, this means October is a good time to let transplants take root. "Strawberries require a lot of care," Wallace said. "They are best planted in the fall so they can get established during cooler weather."

Strawberries can thrive in small spaces and are ideal for square-foot gardening, Wallace said. But he stressed the importance of ensuring that they aren't too close together, keeping them at about one plant per square foot. If plants are too close to each other they compete for nutrients, which may result in fewer and/or smaller berries. Wallace added strawberry plants also prefer sandy soils, typically with a pH of less than 7. He said soilless potting soil is effective but can require more daily care than usual because it can quickly dry your plants out. Wallace suggested keeping plants watered uniformly every day and using a water-soluble fertilizer twice a week. When adding strawberries to your home garden, Wallace said to keep them as cool as possible. "Try using shade cloth above your plants," he said. "Place it about 5 feet or so above the plant to give it room to grow." When it comes to choosing the right strawberry variety for Texas, Wallace previously recommended planting June-bearers. However, he said further research revealed that several day-neutral varieties performed very well in Texas." My recommendation is to keep testing varieties to see what works best in your area," Wallace said. Strawberries do require meticulous care, and with the changing weather from planting to harvest, the type of care administered changes. When you are planting in October, Wallace said it is important to keep the soil moist through consistent irrigation. It is also important for home growers to keep weeds and insects at bay. Fertilizer is also an important amendment for strawberries. "Keep them fertilized and try to promote as much plant growth as possible in the fall because that will increase more buds and more flowers later on in the spring," Wallace said.

Depending on your location, Wallace said flowering and fruiting may start as early as January and last into the spring months. He said once you start to see flowers, it is vital to keep those flowers protected from freezing temperatures with plastic or row cover fabric. For more information, see Wallace's Low Tunnel Guide for Strawberries for home gardeners. "You may lose flowers to cold temperatures, but they should reflower after that," Wallace said. "But it will take about two or three weeks before they get more fruit if they are injured." When it comes to harvesting in the spring, Wallace warns against harvesting too early. "You want to make sure they're at least 75% red when they are picked to guarantee the best flavor," Wallace said.

If you live in a cooler climate, you can protect your plants with a low tunnel covered with plastic. Generally, Wallace said if temperatures don't go below freezing for very long, the plants should survive. "Some of the leaves may burn off, but the plants should do just fine," he said. While you are protecting your plants against weather and insects, it's also important to be wary of disease. Wallace notes that botrytis disease is very common on strawberry plants for home growers. A symptom of the disease is white or gray mold on the berries. "It happens under very wet conditions," Wallace said. "The flowers get infected, and then the fruit gets infected." He said if you aren't using any pesticides, it's best to pick the infected flowers or berries and put them in a plastic bag. Then, put them in the garbage as soon as possible to help curb the spread of the disease.

Wallace suggested home growers start buying their plants now, since nurseries can sell out because many people understand this is the time of year to plant. If you are not happy with the available varieties or are unable to find bare-root strawberry plants in the fall, you can look into online nurseries, he said. "However, some larger nurseries have a minimum order of 30,000 since it is more cost effective for them," Wallace said. "But some online nurseries will sell in bundles of 25, which is better for the smaller growers."

Depending on location, fruiting may start as early as January and last into the spring months. (Texas A&M AgriLife photo by Michael Miller)

Article Written by Katharine Cook, Texas A&M AgriLife Communications Public Relations

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The Egg, More Than Just A Breakfast Staple, October 28 – November 3

Rather it is served scrambled, over easy, sunny side up, poached, or hard boiled, eggs are a staple of the breakfast table. But have you ever given much thought about what makes up an egg and why? The egg is more than just a nutritious food surrounded by a shell; it is an amazing sample of biology and life.

As we study the parts of the egg we will start from the center, the yolk, and work outwards. Working outwards from the yolk is the same process as which the egg is formed within a hen. The yolk is deposited into the hen's reproductive tract first, followed by additional layers being added until the shell completes the process. The yolk is made up of proteins, fats, vitamins, and minerals and provides the food source for a developing embryo or chick. The yolk consists of concentric light and dark bands that is enclosed in what is called a vitelline

membrane. This membrane helps keep the yolk together, but as the egg get older the membrane breaks down and the yolk becomes less plump and begins to flatten. The yolk provides all the nutrition a growing embryo would need, as the embryo grows the yolk gets smaller until it is consumed in its entirety by the embryo. If you ever look closely at a yolk you may see a very small white disc, this is where fertilization would take place. If a rooster is present with a hen you will see a red spot within the disc, commonly know as a blood spot.

As you can guess, the next major part is the egg white or albumen as it is technically called. The albumen is made up of four layers: chalaziferous (attaches albumin to yolk), inner thick layer, outer thick layer, and outer thin layer. The egg white consists primarily of water and proteins. Its function is to provide support to the yolk or embryo and provide proteins. If you ever looked closely at a cracked egg you will notice that the yolk is connected to two twisted cordlike structures. This is called the chalazae and is kind of like a spring system for the yolk while keeping it in place.

The last major part of the egg is the shell and its associated membranes. The shell is really an amazing structure. The shell is semipermeable, allowing air and water to be exchanged through pores, which is essential for the developing embryo. There is inner shell membrane and outer shell membrane that adhere together on the inside of the shell, except at the large end where an air pocket is created. If you place an egg up to a light source in a dark room, you can see the air pocket inside the shell. The shell itself is made up of several layers you can only see under a microscope, that is capped off with a cuticle layer. The cuticle layer helps to close the shell pores when the egg is laid to help protect the inside of the egg from bacteria. However, as the egg gets older the cuticle breaks down allowing air and water to move through the pores which corresponds to the needs of the developing embryo.

The egg really is one of natures wonders. Next time you crack open an egg see if you can ID some of the parts.

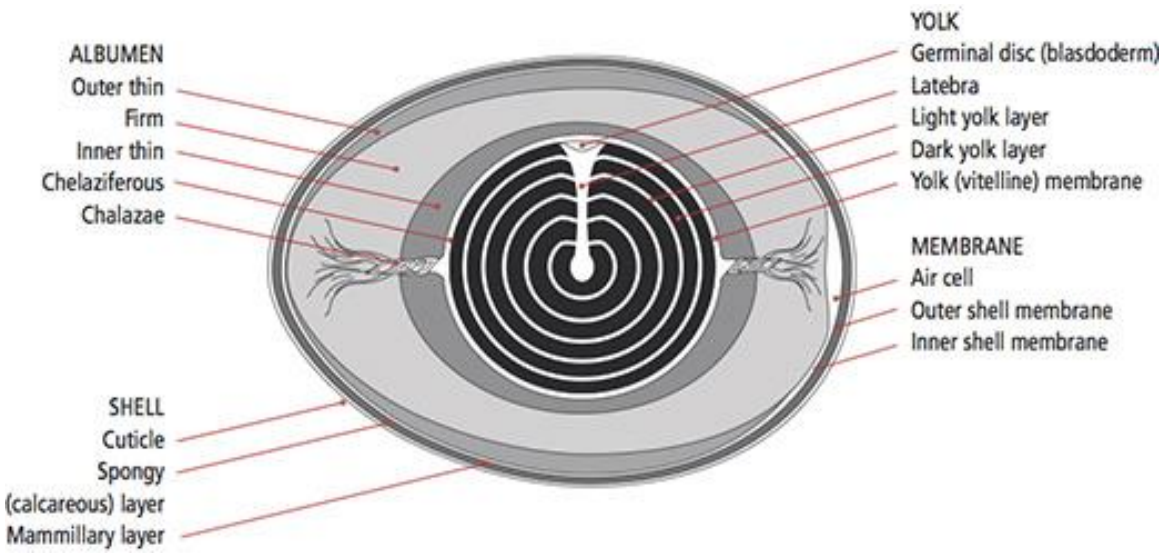

Image Credit:
https://weblab.deusto.es/olarex/cd/UD/Incubator_EN_final/parts_of_the__egg.html

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