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# The Gardener's Dirt

**Johnston County Center** **February 2017**

## Feature Article

### Would you like to be a beekeeper

**Chip Braswell, Past President of Johnston County Beekeeper's Association**


Photo Courtesy of Chris Braswell


Photo Courtesy of Chris Braswell


Photo Courtesy of Chris Braswell

How much honey do you get in a year? How many bees are in a hive? What types of plants do bees get honey from? Is there really only one queen in a hive? How often do you get stung? One thing is for sure, if you become a beekeeper you will get asked these questions, and many more, by the large part of the general public that does seem fascinated with bees and beekeeping.

The lack of bees in our garden 15 years ago led to my desire to begin beekeeping. That, and a desire to maybe produce some honey! At the time there were few resources available to help a novice get started. There was one bee school held per year in Wake County, no internet resources were available, the North Carolina Beekeepers Association was not well publicized outside the beekeeping community, and since I didn't know a beekeeper, I did not have a mentor to train me.

As a result and since I was determined to keep bees, I bought a "Beeginner" kit from a bee supply company in the fall. Over the winter, I watched the video and read the included book on beginning beekeeping. By spring, I had put together the hive and bought my first package of bees. Through persistence, meeting some great mentors in local beekeeping groups and continuing education over the years, I gained a lot of experience and am keeping bees today.

Today there are a lot more opportunities and resources available for people who want to become beekeepers. There are many bee schools being held at different times of the year in Johnston and surrounding counties. There are many online resources available (see some of the links below.) And there are active beekeeping clubs in almost every county including our very own Johnston County Beekeepers Club that meets at the Johnston County Ag Center on the 3rd Monday of every month at 7 PM.

The Master Beekeeper program, administered by the North Carolina Beekeepers Association, has been updated and improved and includes beekeeping certification in four levels of expertise and involvement in beekeeping public outreach - Beginner, Journeyman, Master and Master Craftsman Beekeeper.

Although space limitation won't allow for much detail on honey bee biology and colony dynamics, please note the interesting bee facts listed below. Although beekeepers have many different opinions on how best to manage hives, the information in the list should be generally accurate.

Just like in any kind of farming, beekeeping has its ups and downs. In recent years, there has been a lot of news about colony collapse disorder and other problems keeping honey bee colonies healthy and productive. It is a challenging time to be a beekeeper, but with the challenges come a lot of opportunity to improve bee colony health and survival. Improved health and survival would lead to thriving bee colonies and result in a higher level of production for commercial produce farmers and vegetable gardeners. Gardeners would have the satisfaction of watching honey bees working the flowers in their yards and an abundance of local honey would be an added bonus! In recent years it has become obvious that everyone has become concerned about bees. Row crop farmers, horticulture producers, produce farmers and individual gardeners generally want honey bees around and are willing to minimize their impact on honey bees as much as possible.

I would encourage everyone, if you like honey, to buy local to support your local beekeeper and also to plant bee-friendly plants.

**Honey Bee Facts:**

1. All the worker bees are female. All the males are for is reproduction. They don't even feed themselves!
2. The single queen will lay about 1 egg/minute, around 1500 a day, produce 250,000-300,000 eggs per year and about 1,000,000 in her lifetime.
3. The queen leaves the hive, 3 times soon after she hatches to mate 15-20 times. She will only leave the hive again if the colony swarms.
4. A hive contains about 40,000-60,000 bees at its peak during the summer.
5. Bees die after they sting.
6. A hive of bees will fly about 40,000 miles to produce 1 pound of honey.
7. A worker bee will produce about 1/12 of a teaspoon of honey in her lifetime.
8. A bee will visit 50-100 flowers in one foraging flight and return with half her body weight in nectar.
9. It takes 40-50 pounds of honey for a colony in central NC to survive the winter.
10. While foraging for pollen and nectar bees can pollinate almost 100 food producing crops worth 10 billion dollars, contributing to 1/3 of crops produced per year.
11. Bees do not collect honey but pass nectar to specialized worker bees in the hive that repeatedly regurgitate and pass nectar between them until honey is produced.
12. Honey is the only food that does not spoil.
13. The United States produces about 80,000 tons of honey per year. China produces the most

at a140,000 tons.

# Feature Plant

## Redbud - *Cercis canadensis* 'Carolina Sweetheart' PPAF

*(Grown and recommended by Johnston County Nurserymen)*

**Marshall Warren, Horticulture Extension Agent**

Photo Courtesy of NC State University

One of the loveliest, most colorful redbuds I've seen is the Carolina Sweetheart™ Redbud. In early to mid-spring, rosy purple flowers open along its stems, creating a spectacular effect. The color show continues when its graceful, heart-shaped leaves emerge. The variegated leaves open to shades of pink, red, white, purple and green. This beauty makes Coleus look drab in comparison.

Carolina Sweetheart™ Redbud grows to about 20-30' tall with a 25-30' spread. This lovely redbud has a beautiful umbrella-like growth habit. It's an ideal choice as a specimen plant or grouped with other woodland plants. This new release is the result of work done by Dr. Tom Ranney at North Carolina State University and the combined efforts of NC Nursery & Landscape Association and NC State University.

Transplant balled-and-burlapped or container grown as a young tree in spring or fall into moist, well drained, deep soils; however, it does well in many soil types except permanently wet soil. Grow in full sun or light shade and keep vigorous by regular watering and fertilization. Redbuds suffer dramatically from excessive stress be it lack of water or excessive moisture, or mechanical injury. Hardy in zones 6-9.

Carolina Sweetheart™ Redbud attracts pollinators with its early spring bloom, is deer resistant, Black Walnut tolerant, and Cercis is a genus Native to Eastern North America.

**Several Johnston County Nurserymen grow this tree so ask for it in your local garden center.**

Information sources: Michael A. Dirr - Manual of Woody Landscape Plants

https://www.ces.ncsu.edu/fletcher/mcilab/introductions/carolina-sweetheart-redbud.html
http://www.springhillnursery.com/product/carolina-sweetheart-redbud

# A Veggie Tale

## SPRING.....IT'S SPROUTING!!

**Rose Crickenberger, Extension Master Gardener Volunteer**

With sunshine and an occasional warm day

many think about planting a garden. So consider starting some plants from seed. It takes some planning, providing the proper environment for germination and on-going care until your plants can be planted in the garden.

Decide what seeds you want to plant and be sure to adequately plan the time frame from germination to planting in your garden (See Table 1 at https://content.ces.ncsu.edu/starting-plants-from-seeds You must be aware of the last frost date; for Johnston County it usually is around April 7th with a deviation of 12 days before or after April 7th.

Photo Courtesy of Pixabay

Once you have purchased your seeds, select your potting medium. Look for a commercial potting medium that is fine textured, sterile, drains well but will also hold moisture. Do not use garden potting soil as it is heavy and not sterile.

You will also need planting containers. Cell packs and bio domes can be purchased but any clear domed container will do. Rotisserie chicken containers with their clear plastic clamshell tops are excellent substitutes. Be sure the container has holes in the bottom for adequate water drainage.

Once you have gathered your seeds, soil medium and planting containers you are ready to plant. Moisten the planting medium just enough that you are able to squeeze a few drops of water from it. Lightly pat 1-2 inches of moistened planting medium depending on the depth of your container, more if you have a deep container. Do not pack. Read the back of each seed packet as it contains important and specific information on how deep and far apart to plant your seeds. We take a lead pencil or plastic knife to make rows about 1/2 inches apart in the medium and then place the seeds per packet instruction, usually 1/8 to 1/4 inch apart in the row. Lightly pat the furrow closed. Don't forget to label your container with plant name. If you determine the soil is not moist enough, lightly spritz with water using a spray bottle. Take care to not wash medium off of seeds. Place your closed container in a warm place that receives indirect light. Be aware some plants germinate in darkness, refer to Table 1 previously mentioned. Most home environments are 65 to 75 degrees, which is adequate for germination for most seeds.

Ongoing care requires you check your container daily for moisture and if necessary mist till moist. If the soil dries out, the seed will die. Once seeds have germinated, open the container for longer periods each day and provide bright sunlight, preferably in a window facing south or under lights. Once the first true leaves appear it is time to move these little seedlings into their own individual container. Be sure these containers are washed well, clean and with adequate drainage holes. Using a knife tip or a pencil tip gently lift the seedlings. To avoid root injury, ease the seedlings apart gently. Using a pencil, punch a hole in their soon to be individual container and place the seedling to the same depth it was growing previously. Handle seedlings by their leaves; not the stems. Gently firm the soil and water gently. Do not place in direct sunlight for a few days and keep away from direct heat. Continue daily checking the need for water. Placing your individual plants in a tray and pouring water in the tray bottom to be absorbed thru the individual drainage holes is an easy way to provide consistent moisture and not disturb soil around the seedling. Only water enough to moisten the soil on top when it is wicked up from the bottom of the tray. Do not allow seedlings to sit in water.

After plants have grown to nearly desired height, (about 2 weeks before transplanting in your garden), place them outside in a protected area from wind or temperatures below 45 degrees. This is called "hardening off" and conditions the plants to grow outdoors. Happy Sprouting!!!

**Sources:**

www.ces.ncsu.edu/hil/hil-8703.html

https://content.ces.ncsu.edu/average-last-spring-frost-dates-for-selected-north-carolina-locations

# Quick Tip:

## Keeping Deer out of your Garden

**Joanne King, Extension Master Gardener Volunteer**

Food is scarce for deer now, so keep an eye out for damage. For small scale plants, try lawn furniture positioned as a barrier, or stakes and netting for protection. Apply a deer repellant to target plants. It is a ready-to-use spray, available at most garden centers. Other stinky stuff, such as hair or an unlaundered shirt, has been known to help. If they return, try a different repellent as deer may adapt to the odor. Reapply if it rains.

Photo Courtesy of NCSU

# Ask An Expert

## Liriope Crown and Root Rot

**Disease prevention, diagnosis, and control**

**Inga Meadows, Extension Plant Pathologist, Vegetables & Herbaceous Ornamentals**

Liriope (a.k.a. lily turf) is a common evergreen ground cover in North Carolina because it is a tough, hardy plant. It produces long, thin blades that are grass-like and delicate purple flowers in late summer. There are two main types of liriope: creeping lilyturf (Liriope spicata) and big blue lilyturf (Liriope muscari).

Photo Courtesy of NCSU

**Q: I have many liriope in my landscape and the leaves on some of the plants are looking yellow. It's occurring in patches and the location is pretty sunny. What do you think is causing this?**

**A:** Liriope is susceptible to several common soilborne pathogens that can result in yellowing and/or decline of the plants: Fusarium crown rot, root-knot nematode, and Phytophthora root rot.

Fusarium crown rot is caused by the fungus Fusarium sp. This fungus can cause the crown (location where the roots meet the stems) to rot; if you cut it open, it may be completely or partially rotted. This fungus is a common soilborne organism that was probably already present in the landscape. The plants become more susceptible if they have been damaged due to such disturbances as equipment, human traffic, or fertilizer burn. Burying the plants too deep in the soil or over-mulching can also aggravate them and increase their susceptibility to crown rot.

Root-knot nematode is a microscopic worm that burrows into the roots to lay its egg masses giving

the roots a "knotty" appearance. The eggs then hatch into the soil and the cycle continues. Nematodes most likely were introduced into your landscape through some infected plant or plants.

The fungus-like organisms Phytophthora nicotianae and Phytophthora palmivora cause Phytophthora crown and/or root rot. If you were to pull the plant up, you might notice the roots are discolored, breaking off close to the stem, or lacking roots compared to a healthy plant. You may also notice a rotting of crown, similar to that of Fusarium. Standing water or poorly drained soil encourages disease caused by Phytophthora species.

All of these disease organisms can persist in the soil for a long time. There is no cure for affected plants, but you can improve growing conditions for unaffected plants. Liriope grows best in rich, well-drained soil with full to partial sun. In late winter, you may trim back the old leaves, but be sure to not damage the crown. If the affected location is small, you may be able to minimize further damage by removing adjacent plants and soil. Be sure to replace with new soil, preferably topsoil or potting soil. The most important management strategy is to avoid purchasing plants that look unhealthy (particularly, avoid the "bargain bin" plants).

It is important to get an accurate disease diagnosis so you know how to improve the conditions and what to replant. Contact your local extension agent to help collect a proper sample and send them to the NCSU Plant Disease & Insect Clinic.

# Monthly Garden Tasks

## February Garden Tasks

Photo Courtesy of Pixabay

### LAWN CARE

- Cool season grasses should be fertilized mid-month. If a soil sample has not been taken, use a fertilizer of at least 30% slow release nitrogen at the rate of 1 pound of nitrogen per 1000 square feet.
- Crabgrass usually will start to germinate about the same time the Forsythia blooms. If you have had problems with crabgrass in the past, then you may want to apply crabgrass preventer (pre-emergence herbicide) when the Forsythia blooms.
- Digging up wild onion/wild garlic is the best way to get rid of these pesky bulbs, but make sure you get the bulb. If there are too many to dig up, a product with 2,4-D works well for control. Be sure to follow the manufacturer's directions found on the label. Complete control may take two or more years. Apply 2,4-D at half the recommended rate on centipede lawns otherwise it will damage the grass.

### TREES, SHRUBS and ORNAMENTALS

- Cut back dormant ornamental grasses to about 10 to 14 inches above the soil before new growth starts. Evergreen ornamental grasses (or grass-like ornamentals) such as Liriope and Mondo Grass should be cut short or mowed to remove last year's unsightly foliage. If the clumps have become too big for the area they can be divided and shared with friends or planted in other areas of the yard.
- Summer blooming shrubs bloom on new growth so they can be pruned hard in February to encourage new growth and more flowers. Examples include Abelia, Hibiscus, Hydrangea, Beautyberry, Butterfly bush, Althea, Rose of Sharon, and bush or Tea Roses.
- Spring blooming shrubs such as Azaleas, Rhododendrons, Forsythia, Spirea, Quince, Weigela, and Climbing Roses bloom on last years growth and should not be pruned until after they have flowered.
- Deciduous trees, especially those that bloom in the spring, should not be pruned this time of

the year. Examples being Dogwoods, Red Buds, Maples and several others.
- Wait to prune the dead stems of hardy lantana until you begin to see new growth emerge in the spring. The dead stems help keep it winter hardy.
- For many evergreens this is the best time of the year to prune if they haven't been pruned already.
- Summer blooming roses can be pruned this time of the year. Remember not to remove more than 1/3 of the growth. Remove old mulch and leaves from around plants as this removes many overwintering fungal spores. Put down fresh mulch.
- Bare root roses and trees can be planted this time of the year. Soak the roots overnight to rehydrate them before planting.
- Spring flowers such as Sweet Williams, Pansy, Viola, Calendula, Forget-Me-Nots, English Daisies, Poppy, Alyssum and Dianthus can be planted now. Don't forget to deadhead pansies and fertilize toward the end of the month.

**EDIBLES**

- Asparagus crowns can be planted now through March.
- Transplant cabbage, broccoli, and cauliflower out into the garden.
- Strawberry plants can be planted now for spring fruits.
- Beets, carrots, peas, lettuce, mustard, radish, spinach, Irish potatoes, and turnips can be sown outside.
- Starting seeds indoors is easy and economical. Sometimes it is the only way to get the color or variety of the plants you want to grow. It is not necessary to use "grow lights". Ordinary florescent tubes will usually be enough. For more information you can read the pamphlet "Starting Plants from Seeds", it is on the web at http://www.ces.ncsu.edu/depts/hort/hil/hil-8703.html
- February and March are good months to prune fruit trees.
- It is time to start a spray program for peach trees to control the many diseases and insects that attack peaches.

**INSECTS**

- Control overwintering insects such as scale and their eggs by hand picking or using a dormant oil spray (also known as horticultural oil). Be sure to check for scales before spraying. Follow the manufacturer's directions when applying any pesticide. Do not apply dormant oils to broadleaf evergreens when freezing temperatures are expected.
- Cool-weather mites are not visible to the naked eye. Junipers and other needled evergreens are a favorite hangout of these mites. If you had some of these plants that were an unsightly brown last year, check them with a hand held magnifying glass to see if cool season mites are to blame. Horticultural oil or other registered insecticides can improve their situation and appearance.

# Cool Connections

**NC Extension Gardener Manual**

**Past Issues of Gardeners Dirt**

**NCSU Publication Links**

**NC Extension Gardening Portal**

**NC Extension Plant Database**

**Going Native (Selecting and Planting Native Plants)**

[NCSU Pruning Trees and Shrubs]

[Cooperative Extension Search]

[Field Guide to the Southern Piedmont]

Photo Courtesy of Pixabay

# Upcoming Events

## Blueberry Production Workshop

Thursday **February 9th, 2017** 1:00-4:00pm. Class begins at the Johnston County Ag Center Auditorium and then a short trip to a nearby blueberry farm for an actual pruning demonstration. This class is **FREE** to the public. Call 919-989-5380 to register.

## 2017 Johnston County Beekeeping School

Four consecutive Thursday's -**February 23, 2017-March 2, 9 & 16, 2017**.
Will be held at the Johnston County Ag Center, 2736 NC Hwy 210, Smithfield, NC.
**Registration Fee $50 per person**. Children 14 and under free when accompanied by a paying adult. Special rates; $90 for couples & $40 for current JCBA members. You can pick up an application at the Johnston County Ag Center office or follow the link to print out the application https://johnston.ces.ncsu.edu/2017/01/beginning-beekeeping-school/.

NEWSLETTER EDITED BY: Marshall Warren

**Please note: Last month's newsletter was sent without final approval by editor, Brooke Taylor. I take responsibility for any mistakes. I would like to thank Brooke for all her excellent contributions and service to The Gardener's Dirt. - Marshall Warren**

*** If you would like to receive this newsletter monthly via email, send an email to mhwarren@ncsu.edu asking to be added to "The Gardener's Dirt" email list.

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Home Horticulture in Johnston County, NC

Johnston County NC Extension Master Gardener Volunteers