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*Extension Gardener* provides timely, research-based horticultural information. We publish four issues per year. Send comments about *Extension Gardener* to:

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## Tried-and-True: The Chaste Tree

Vitex or chaste tree (*Vitex agnus-castus*) is the perfect shrub or small tree for gardeners who are looking for something that thrives in unforgiving conditions, particularly in sandy soils in full sun. Chaste tree originated in China and India and was first introduced into North America in 1670. Today this tree is still cultivated—mainly because of its wide range of medicinal and herbal uses. Interestingly, the “chaste” part of the common name comes from the medieval belief that the potions made from the berries helped monks maintain their vows of chastity. Chaste tree has also served as a replacement tree or shrub for gardeners who yearn for the lilacs they had to leave behind when they moved south of the Mason Dixon line.

Growing conditions for vitex are clear: well-drained soil, full sun, and plenty of room. If your site meets those conditions, simply plant vitex and watch it thrive. Vitex can even be grown in partly shaded areas, but flower production and growth will not be as prolific as in full sun. Once established, chaste tree makes an excellent specimen plant for your xeric garden. Chaste tree is also salt-tolerant, so it is a great addition in areas near the ocean that receive salt spray.

In the past, gardeners without a lot of space could not grow chaste tree. Some cultivars, such as ‘Cooke’s Blue’, ‘Cooke’s Pink’, or ‘Cooke’s Purple’, could grow as tall as 25 to 30 feet with the same spread. But recent introductions are appealing to gardeners with smaller spaces. A new variety introduced in 2015, ‘Blue Diddley,’ is a Proven Winners cultivar with lavender-blue flowers. This cultivar spreads from 3 feet to 6 feet high and just as wide.



Vitex requires well-drained soil, full sun, and plenty of room to thrive. ©Elizabeth, CC BY-NC-ND-4.0



‘Blue Diddley’ offers lavender-blue flowers and a 3-foot to 6-foot spread.

Courtesy of Proven Winners, [www.provenwinners.com](http://www.provenwinners.com).



‘Blushing Spires’ has soft-pink flowers and reaches small tree size. ©Dawe’s Arboretum, Newark, Ohio.

‘Blue Puffball’, a 2016 introduction, is a compact, densely-branched shrub with a maximum height and spread of 3 feet. The spot-resistant leaves are shiny and bluish-green. ‘Delta Blues’ is a larger cultivar from First Editions that has more compact flower spikes and a smaller profile of 8 to 10 feet high at maturity. This variety works well as a container tree for summer color. If you want something other than purple or blue flowers, try ‘Blushing Spires’, a cultivar with soft-pink flowers and the potential to reach 15 feet by 15 feet at maturity. Its variety of growth habits and flower colors, as well as its tried-and-true ease of care, pleasant aroma, and benefit to pollinators, means that chaste tree deserves a spot in your garden.

## Extension Showcase

### Horticulture workshops and demonstrations

Extension Master Gardener Volunteers (EMGVs) in Surry County are few in number but mighty in reaching the multitudes. Over the past five years, the group has quadrupled in size. The group offers an average of 20 horticulture workshops and demonstrations throughout the spring each year. The numerous topics vary from fruit tree grafting to raised-bed gardening to beginning permaculture.

Whether the EMGV group is welcoming participants, registering participants, teaching curriculum, or evaluating, the volunteers all have a role in the program's success. Participants receive current information from people with a genuine love of horticulture in the programs. For complete details on EMGV workshops, visit [surry.ces.ncsu.edu](http://surry.ces.ncsu.edu).

—Joanna Radford



EMGVs provide horticulture workshops, demos, and sound advice. @Joanna Radford

## Smart Gardening: Trellising tomatoes



A sturdy tomato trellis can be made of bamboo or wooden poles and wire fencing. @Will Hooker

If your tomato cages fall over just when the tomatoes are getting ripe, you may want to try this sturdy tomato trellis system. It takes about an hour to get in place each season. But once put together, the trellis and tomatoes require little maintenance throughout the summer other than watering.

Put poles in the ground and attach three horizontal layers of 2-inch by 4-inch welded wire fencing at about 1½-foot to 2-foot-high intervals. The width of the fencing is 2 to 4 feet, although 3 feet seems to accommodate a mature tomato plant while allowing easy access from both sides. The length of the fencing depends on how many tomatoes you are growing. Staggering the trellises on either side of the bed allows for more intense production, but don't underestimate mature plant size as adequate airflow and sun penetration are required.

Bamboo poles will work if you have access to free bamboo, or any sturdy wooden pole will also work. Lay the three layers of fencing on the ground on top of one another. Then mark and dig holes at the outside corners (and in the middle if the planting area is more than 4 feet long, or place poles at 4-foot intervals if the bed is more than 8 feet long). Insert the poles in the ground. Carefully raise the top fence piece up the poles with someone's help, and attach the piece at the desired height with zip ties. Fully tighten once all the fence pieces have been raised. (You can also put the poles in the ground and lower the fence pieces from the top if desired). Plant tomatoes, and watch them grow up through the fences!

—Jeanna Myers

## Food Production: Growing blackberries

Growing blackberries is rewarding. But like most things, you get out what you put in. Blackberries like a pH of 6.2. Take a soil sample and add recommended nutrients and soil amendments. Blackberries are planted in plowed, 4-foot-wide rows that provide a loose soil bed for root establishment. Varieties that do well in the NC piedmont are: 'Arapaho', 'Cheyenne', 'Navaho', 'Ouachita', and 'Shawnee'. These are thornless erect varieties that produce large sweet fruit. Plant reputable blackberry canes in the early spring.

These varieties produce large upright canes that fall over once fruit set occurs unless they are trellised. A V-shaped trellis works best to support the plants and to keep the outside fruiting canes attached to the wires. This leaves the inside of each plant open for new canes to emerge and grow. For more information on trellising, see [rubus.ces.ncsu.edu/rubus-trellising](http://rubus.ces.ncsu.edu/rubus-trellising).

Many blackberries have biennial canes called primocanes that emerge the first year and grow for one year. The following year, the two-year-old cane, called a florocane, fruits. After fruiting the second year, the florocane dies. Pruning is essential for next year's harvest and should occur immediately after fruit harvest. Pruning removes the dying florocanes from the growing primocanes' pathway and removes any disease on florocanes. Blackberries are hardy but are susceptible to pests. Cane blight is the main disease problem. It will leave cankers on the stems and can kill the entire plant. Cane blight can be controlled with pruning. A few insect pests occur, but they generally do not require chemical control. A bountiful harvest waits.



Blackberries require trellising and pruning, but the rewards are great. @Kostik2photo, bigstockphoto.com, ID 157802537

—Daniel Shire

## Pest Alert: Crape myrtle bark scale

According to the NC Department of Agriculture & Consumer Services (NCDA&CS), one insect that we need to be particularly aware of this year is the crape myrtle bark scale (CMBS). This insect pest is not one we have been concerned with in the past in North Carolina. There has been at least one occurrence of this pest in the state, however, and NCDA&CS is keeping a close eye on its progression.

The main host plant for this insect, as the name implies, is the crape myrtle, but it has also been detected on pomegranate. CMBS is the only scale known to affect crape myrtles and looks similar to other scales that attach to the trunks of trees and shrubs. The females are white to gray in color and measure approximately 2 mm long. Eggs laid by the female in clusters of 100 to 300 hatch into pink nymphs. Nymphs are mobile, and therefore referred to as the crawler stage of the insect's life cycle. The males are winged and mobile, although they are rarely seen.

Although CMBS does not kill the host plants, the scale exude large amounts of honeydew, which turns to a black sooty mold and causes the plants to lose their aesthetic value. For more information, pictures of CBMS, and what to do if you observe this insect on your crape myrtles, visit [ncagr.gov/PLANTINDUSTRY/plant/entomology/documents/CrapeMyrtleBarkScalePestAlert.pdf](http://ncagr.gov/PLANTINDUSTRY/plant/entomology/documents/CrapeMyrtleBarkScalePestAlert.pdf).

— Johnny Coley

## Lawns: Spring lawn care

Fertilizing lawns in mid-February through late March lends to good results. Cool-season fescue lawns need to be maintained on a recommended fertilization schedule in the spring. The greatest effect on growth and development of cool-season lawns is fertilization on a regular basis. Turf specialists at NC State University recommend 1 pound of actual nitrogen per 1,000 square feet for cool-season fescue and fescue lawn blends in the spring. Special blended lawn fertilizers with slow-release fertilizers are available pre-measured, usually in 5,000- or 10,000-square-foot bags. This helps eliminate the guesswork out of proper fertilization. Grade fertilizers can be used but aid in excessive spring growth.

Now is a good time to overseed fescue. Fescue germinates well in the spring; however, new lawns will struggle during the hot summer months. Lawns seeded in the late fall or early winter may still be germinating and somewhat weak. Survivability of the seedlings depends on correct seed bed preparation. Gardeners with weak or thin lawns should prepare by adequately tilling bare or weak lawn areas and incorporating fertilizers and lime before seeding. Core aeration in the spring is generally not recommended. But when lawns are excessively thin or bare, there is nothing to lose. Seeds and fertilizer falling into the aerator's holes germinate quickly and have a better chance of survival than seed on top of bare, clay soil. Clean wheat-straw mulch over seeded areas ensures germination while maintaining moisture.

Winter weeds strongly compete with established and newly emerging fescue seedlings. Premixed weed killers designed for garden hoses work well for control. Wait a few weeks after new grass seedlings emerge before applying weed killers. Preemergents can be applied to established lawns to control summer weeds, such as crabgrass. These herbicides come premixed and impregnated on premium turf fertilizers. Always read and follow pesticide labels before any application.

— Darrell Blackwelder

## Tips & Tasks

### Onions belong in salads, not in lawns

Along with spring weather come spring weeds. None are any more dreaded than wild onion or wild garlic. These winter perennials come up in the late fall and grow through the winter and spring. Bulb-lets are formed in the late spring, and the plant dies back in the summer, just to reappear in the fall.

To control wild onions or garlic, try digging them with a trowel. This option might be suitable if only a few plants are present. Hand-pulling is useless. A postemergence herbicide is the key to control, but it does take more than one application and more than one season to achieve total control. An herbicide containing 2,4-D should be applied in March and again in November.

Because plants have a waxy exterior, a spreader-sticker added to the spray will help the pesticide to adhere to the leaf. A couple of squirts of dishwashing liquid in the sprayer should do the trick.

Mow immediately before spraying, and then leave the lawn alone for two weeks. Timing, repeat applications, and the correct herbicide are the keys to successfully controlling this familiar weed of the southern garden and lawn.

— Donna Teasley



Crape myrtle bark scale. ©Jim Robbins, Univ. of Arkansas, CES, Bugwood.org, CC-NC-3.0



Wild garlic (*Allium vineale*). ©Ohio State Weed Lab, The Ohio State University, Bugwood.org, CC-NC-3.0

## Helping You Grow

### NC Planting Calendars

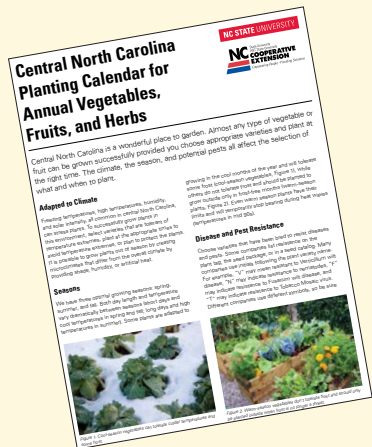
With the welcome arrival of warmer months, gardeners begin to plan and plant spring gardens! Don't know where to start? These resources can help! Successful gardening is a proactive hobby that takes planning. The tables linked below list recommended fruit, herb, and vegetables, the method of planting, and start dates for the three growing regions in North Carolina.

Central North Carolina:  
[content.ces.ncsu.edu/central-north-carolina-planting-calendar-for-annual-vegetables-fruits-and-herbs](http://content.ces.ncsu.edu/central-north-carolina-planting-calendar-for-annual-vegetables-fruits-and-herbs)

Eastern North Carolina:  
[content.ces.ncsu.edu/eastern-north-carolina-planting-calendar-for-annual-vegetables-fruits-and-herbs](http://content.ces.ncsu.edu/eastern-north-carolina-planting-calendar-for-annual-vegetables-fruits-and-herbs)

Western North Carolina:  
[content.ces.ncsu.edu/western-north-carolina-planting-calendar-for-annual-vegetables-fruits-and-herbs](http://content.ces.ncsu.edu/western-north-carolina-planting-calendar-for-annual-vegetables-fruits-and-herbs)

—Eric Derstine



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## Plant Watch: Loofah sponge gourd



Loofah sponge gourd.  
 ©Forest and Kim Starr, CC-BY-2.0.

Loofah sponge gourd, *Luffa aegyptiaca*, is commonly used as a bath sponge, but young fruits less than 7 inches long can also be eaten as a squash or fresh cucumber substitute. As common as loofah sponges are, most people don't realize that they are the fruits of a vine that can be grown right here in North Carolina! These cucurbit vegetables need at least 6 hours of full sun, well-drained soil, good air circulation, and a good, sturdy trellis to thrive. Mature looahs can be harvested in the fall when the gourds are brown, light, and dry, and the seeds shake inside when rattled. To make your own "loofah," simply soak the fruit in warm water for 5 to 20 minutes until the skin can be easily stripped off. When the skin is off, remove the seeds and excess pulp and rinse in a 10% chlorine bleach solution to lighten the sponges.

—Hanna Smith

## Incredible Edibles: Spring into action to prevent tomato wilt

The issue for many tomatoes in North Carolina is southern bacterial wilt (*Ralstonia solanacearum*). The first symptom is wilted leaves. Then the plant wilts completely, dying in a matter of days. The vascular system shows brown discoloration, and the root system will reveal several black or decayed roots. The disease shows up in mature plants in midsummer. It spreads quickly through the soil during heavy rains or watering. Infected plants will not survive; however, the soilborne bacteria will survive for years without a host. One of the best practices to combat this disease is sanitation. Remove infected plants, including roots, immediately. Use a three-year rotation schedule for solanaceous crops to prevent disease buildup. Some disease protection is available when you grow resistant varieties of tomatoes and also traditional varieties grafted onto a resistant rootstock. Grafted plants can be purchased at many garden stores.

—Andrea Gibbs

## Sustainability: Organic matter matters!

Organic matter provides plant nutrients and food and habitat for beneficial soil organisms, and it improves soil structure. Organic matter is simply carbon, which consists of plant or animal material that has begun to decompose. These broken down organisms form humus, which holds together soil particles to give soil the crumbly texture that gardeners love. Organic matter also slowly releases minerals that plants need to survive, and it feeds beneficial microbes that improve plant health. Many microbes live in a beneficial relationship with plants by sharing water and nutrients. Organic matter helps to facilitate this arrangement. Also, the microbes that break down organic matter moderate soil pH, reducing the need for lime to battle soil acidity. To build organic matter in garden soil and promote beneficial soil organisms, till in compost when the garden is first created, but do not till in subsequent years. Instead, apply thin layers (1 inch to 3 inches) of organic mulch or compost to the soil surface each year. As this material breaks down, the organic matter levels in the soil will gradually increase. Making your own compost is a great way to know exactly what is going into your garden. For more information about making compost, including what to use and what *not* to use, see these links: [content.ces.ncsu.edu/extension-gardener-handbook/2-composting](http://content.ces.ncsu.edu/extension-gardener-handbook/2-composting) and [composting.ces.ncsu.edu](http://composting.ces.ncsu.edu).



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