October 2015 - Vol. 1 No. 10

Table of Contents

Spring-Flowering Bulbs 1
Garlic 10
October Vegetable Garden:Tips & Tasks 17
Callicarpa (Beautyberry) 20
The Ornamental Garden in October 25
Virginia Healthy Lawns 28
My Grandmother’s Gumbo, Fortified with Okra 31

Spring-Flowering Bulbs

By Patsy Chadwick | October 2015 - Vol. 1 No. 10

by Pat Chadwick

One of the best investments a gardener can make is in spring-flowering bulbs — the easiest and most dependable ornamental plants to grow. Depending on the species, bulbs will bloom and multiply for years, decades even, making them a very inexpensive investment over time. Ah, but it's autumn and you're probably wondering why we're talking about spring bulbs now. The reason is simple. When bulbs become available in late summer for fall planting, they look brown, lumpy, and totally uninteresting. Besides that, at this time of year, our gardening priorities are normally placed on fall clean up – not planting. However, autumn is precisely the right time to plant bulbs for an early spring garden because they need to undergo a long period of chilling in order to bloom. So, when it comes to bulbs, the idea is to PLAN in the spring or summer and PLANT in the fall.

ADVANTAGES OF GROWING BULBS

Spring-flowering bulbs are the earliest plants to bloom in the garden. Depending on the weather, cold-hardy snowdrops and winter aconites make an appearance in February or March, often peeping through the

snow. Crocuses soon follow, along with *scilla*s and *Chionodoxas*. As spring arrives, daffodils and hyacinths emerge in March and April, followed by tulips and ornamental onions in May and early June. In other words, it's possible to have a nearly continuous sequence of bulbs in bloom from the last snowy days of winter until the heat of early summer.

Bulbs are very versatile. They can be incorporated into perennial beds, mixed borders, foundation plantings and rock gardens. They can be planted along walkways and paths. They can be used in mass plantings, in drifts in large beds, or naturalized in woodland settings. They can be planted in frost-proof pots or forced into bloom indoors, but more on that later.

Once they're planted, bulbs require little human intervention. After they finish blooming, they continue to grow and store food in their underground storage organs, at which point the foliage dies back to ground level. Once the foliage is dead, the bulb enters a period of dormancy until the following spring, when it repeats the cycle.

MAJOR TYPES OF SPRING-BLOOMING BULBS

Tulips, narcissus, and hyacinths are by far the most commonly used bulbs in the spring landscape. It's not an exaggeration to say that they are the star attractions in the spring garden.

TULIP – Few sights are more glorious in the springtime than a mass planting of tulips. Images of this beloved spring favorite were portrayed on walls, vases, and other ancient artifacts dating back as early as 2200 B.C. and possibly beyond. Its continued popularity over the centuries makes it one of the most easily recognized plant species in modern-day gardens. Whether your preference is for a stately formal planting or for a naturalized setting of tulips, many varieties and colors are available from which to choose. They are available in just about every hue imaginable and range in height from 6 inches to about two feet. Most tulip experts organize the species into 15 families or groups. Depending on the variety, the blossoms may be single, double, fringed, ruffled or even lily shaped. Smaller species tulips tend to be reliably perennial, while larger varieties may need to be replanted every few years or simply treated as annuals. You can extend the show by planting early, mid-, and late-spring varieties. One word of caution: deer typically avoid most spring-flowering bulbs, but they make an exception for tulips and can devastate an entire bed of them in one night. In my experience, deer have an uncanny sense of timing. They either ignore the foliage, or perhaps nibble at it, but then devour the flower buds just as they emerge. Voles can also be a problem. To avoid vole damage, plant tulip bulbs about two inches deeper than normal (eight inches instead of the normal six). This may delay blooming slightly but voles don't like to go that far underground to feast.

Tulips in Mixed Border

NARCISSUS – Whether you call it *Narcissus* or daffodil, this dependable spring-flowering bulb is a favorite of gardeners everywhere. According to classical mythology, the name comes from the story of a beautiful youth, Narcissus, who fell in love with his own reflection in a pool. He stared at the image so long that he died and was transformed into a nodding flower. Despite the sad story behind its name, this cheery plant lights up the landscape in spring time. It offers up abundant blooms in yellow, white, pink, salmon, and various bi-color combinations. Daffodils range in height from 6 to 20 inches and grow singly or with multiple flowers per stem. According to the American Daffodil Society, the 13 families making up this genus consist of more than 25,000 registered daffodil cultivars. That's impressive! The large-cup and trumpet daffodils are the ones with which most of us are familiar. But if you like to experiment, try growing some of the double and split-corona types or some of the many multi-stemmed and miniature cultivars that are available. Like tulips, daffodils may be selected for bloom times so that you can keep the show going from early to late spring. Because the bulbs are poisonous, mice and voles do not eat them. Squirrels sometimes dig up the bulbs but they don't eat them. Deer may occasionally "taste" the foliage but they don't normally do any significant harm.

Daffodil 'Dutch Master'

HYACINTH –Many gardeners are drawn to hyacinths because of their intoxicating fragrance and because of their vibrant (some might say intense) colors, including many shades of pink, blue, yellow, red, and purple as well as white. The tubular, bell-shaped single or double flowers are either loosely or densely held on short stalks, depending on the cultivar. Hyacinths have a strong presence in the garden and are commonly used in large masses in formal bulb plantings. After a couple of seasons, the flower size may decline, in which case, you may want to plant fresh bulbs. After the flowers bloom in spring, the flower stalks should be cut back but leave the foliage in place to die back naturally.

Hyacinth 'Sky Jacket'

EXAMPLES OF SPECIALTY SPRING-BLOOMING BULBS

While tulips, daffodils and hyacinths may be considered the crème-de-la-crème of spring-blooming bulbs, many lesser known or less showy bulbs are just as interesting. These "specialty" bulbs have slightly different growing requirements than the major bulb families, but they are also easy to grow. Some of the more commonly grown specialty bulbs include:

ALLIUM — In addition to culinary onions, shallots, leeks and chives, the Allium family includes a wide range of ornamental onions that add a pleasing architectural element to the ornamental garden. Most of the ornamental onion varieties have spherical flower heads on long stems that rise well above a clump of strap-like leaves. The foliage of the early bloomers generally dies back just as the plants come into bloom. Foliage of alliums that bloom later in the season remains green and attractive much longer. Position the early bloomers in the landscape so that surrounding plantings hide the deteriorating leaves.

Allium 'Giganteum'

CROCUS – The low-growing crocus can often be spotted emerging through snow in late winter or early spring. It is arguably the most anticipated of the spring-flowering bulbs. Of the more than 80 known species

of crocus, more than 40 may be found in bulb catalogs. The most commonly planted crocuses are the Dutch hybrids, which bear larger blossoms than the species and bloom a little later. Their diminutive form and bright colorful blossoms make the crocus a welcome sight, especially when viewed in mass plantings. The colors range from lavender to purple, white to cream, and from yellow to orange. Because crocuses bloom so early, they are an excellent choice for naturalizing in the lawn. Over time, they will multiply to cover a large area. For best effect, they should be planted in groups of a dozen or more. If you're interested in the saffron crocus, it is a fall-flowering crocus that is planted in spring.

Crocus

CHIONODOXA – Commonly known as glory-in-the-snow, this bulb gets its name from its appearance in late winter to early spring. Planted in naturalized masses in rock gardens or in sunny lawns or partly shady woodland settings, it forms a carpet of color that mixes well with other early spring bulbs, such as snowdrops, daffodils, or species tulips. Each bulb produces a six-inch flower stalk topped by three to six star-shaped, upward facing violet-blue flowers with white centers. This is one of the few plants that can tolerate juglone, a toxic substance produced by black walnut trees.

Chionodoxa (Glory in the Snow)

GALANTHAS — Commonly known as snowdrops, these bulbs are some of the very earliest to bloom in late winter or early spring. The teardrop-shaped flowers are white with green blotches or stripes. They will grow in full sun but prefer moist, humusy soil in part shade. They are well suited for areas under deciduous trees where they receive full sun in early spring but part shade once the trees leaf out. Snowdrops are a good

choice for naturalizing since they propagate by both self-seeding and bulb offsets.

Galanthus nivalis (Snowdrops)

MUSCARI ARMENIACUM – Better known to gardeners as grape hyacinth, this spring-blooming bulb features clusters of violet urn-shaped flowers on eight-inch tall scapes. The blossoms resemble a miniature bunch of grapes. When planted in masses, grape hyacinth forms a spectacular violet-blue carpet, which looks stunning paired with other taller spring bulbs. The vivid blue color blends particularly well with the saturated reds or yellows of tulips and daffodils. The foliage typically dies back after the plant finishes blooming. But, unlike other spring-blooming bulbs, this one produces fresh foliage in the fall which stays evergreen through winter. This is a popular container plant, which harmonizes well with other spring bulbs. It is also very easy to force into bloom.

Muscari armeniacum (Grape Hyacinths)

SITE REQUIREMENTS FOR SPRING-BLOOMING BULBS

Bear in mind that bulbs are going to stay in the same spot for years – decades even. If the site meets their needs, the bulbs will reward you with good flower set and they will multiply well. If the site fails to provide a

habitable environment, flower production will be impacted. So, for best performance, choose a planting site that meets the following requirements:

- ***Sunlight*** — The site should be sunny. While bulbs generally do well with 5 or 6 hours of sunlight daily, they will flower better if they receive 8 to 10 hours of sun.
- ***Drainage*** — With the exception of Camassia, which prefers moist soil, spring-flowering bulbs require soil that drains well. Too much moisture can pack the soil tightly, which prevents the bulb roots from penetrating into the soil. Also, soil that is too moist will cause the bulbs to rot. To prevent this problem, make sure water drains away from the site. Depending on which bulb you're growing, loosen the soil with a spade or garden fork to about 8 to 12 inches. The goal is to loosen the soil beneath the bulb roots. Work in organic matter, such as compost or well-rotted manure, which will also help the soil drain. This is particularly important if you have heavy clay soil.
- ***Nutrients*** — A soil test will determine the pH and nutrient needs of the soil. Contact the Virginia Cooperative Extension office for information on how to test your soil. The soil test report will advise you on whether to add lime to increase the pH or fertilizer to correct any nutrient deficiencies.
- ***Soil Preparation*** – Good drainage is the single most important factor to remember planting bulbs. Otherwise, the bulbs will rot. Also, wet soil packs tightly and retards plant growth. Spade the soil about 8 to 12 inches deep, depending on which bulbs you are growing. The soil needs to be loosened at a depth below the bulb so that the roots can easily penetrate into the soil. Incorporate compost or other organic matter and some 5-10-10 fertilizer (if needed) into the loosened soil. Make sure the fertilizer is well mixed into the soil. You do not want to place the bulbs directly on the fertilizer. Follow the directions on the fertilizer to determine how much to add to the area.

PLANTING INSTRUCTIONS

Now that you've prepared the planting site, you're ready to plant your bulbs.

- Plant the largest bulbs available. This is particularly true of tulips, daffodils, and hyacinths. Larger bulbs produce larger plants. Avoid "bargain" bulbs, which may be small, soft, damaged, or even moldy.
- If you have a rodent problem, take preventative action when you plant bulbs. Mice and voles may eat bulbs. Squirrels may dig up newly planted bulbs but they don't generally eat them. One solution is to place a chicken wire cage around the bulbs when you plant them. Commercially made cages are available but you can make your own. Another trick is to place a layer of sharp gravel around the bulbs in the planting hole.
- Plant the bulb with the pointed end up. If you're not sure, then plant the bulb on its side. The bulb will right itself in due time.
- Most plant catalogs, on-line retailers, and garden centers provide instructions on how deep to plant bulbs. As a general rule of thumb, position the bulbs so that the soil above the bulb is about twice the diameter of the bulb. In other words, if the diameter of a bulb is two inches, then plant it four inches deep.
- Space bulbs far enough apart so that they will have room to grow and multiply for several years before you have to divide them.
- Unless you're going for a formal look, plant bulbs in groups or clusters for a more natural look.
- Cover the bulbs and water them well.

CARE AND MAINTENANCE

- ***Deadheading*** – After the blossoms on spring-flowering bulbs fade, snip or pinch them off so that the plant doesn't expend energy producing seeds.
- ***Foliage*** – Leave the foliage in place until it dies back naturally. This may take six to eight weeks but it's important to allow the foliage access to maximum sunlight so that it can continue to photosynthesize. Don't braid the foliage or tie it in bunches with rubber bands.
- ***Watering*** – Other than during prolonged drought periods, spring-flowering bulbs don't normally need to be watered. Rain water is normally sufficient.
- ***Fertilizing*** – Avoid using high-nitrogen fertilizers on bulbs. If fertilizer is needed, work a balanced fertilizer such as 8-8-8 or 10-10-10 into the top inch of soil, being careful to avoid contact between the fertilizer and the foliage or the bulb. Fertilize twice a year: just after the flowers fade and again in fall about the same time as you would normally plant new bulbs.
- ***Mulching*** – Apply a two to four-inch layer of mulch over bulbs after cold weather arrives.
- ***Staking*** – Most spring-flowering bulbs don't need to be staked. However, if you live on a windy site, some of the taller tulips and ornamental onions may benefit from being staked. Be careful to avoid damaging the bulb when you insert stakes.
- ***Dividing*** – Daffodils and other spring-blooming bulbs multiply freely, creating large clumps. When they become crowded, they don't produce as many flowers, which is your cue that the clumps need to be divided. After the foliage has died back in early summer, carefully dig up the bulbs and separate them. Either replant them right away or store them until fall and plant then. If you store them, remove all excess soil, dry them and store them in a cool, dry place. When you re-plant the bulbs, give them plenty of space in which to grow and multiply.

MORE USES FOR BULBS

- ***Forcing Bulbs*** – If you yearn for spring flowers in the dead of winter and you plan well in advance, you can force hardy bulbs into bloom indoors. Tulips, hyacinths, narcissus, and crocus are commonly used for this purpose. Snowdrops don't respond well to being forced into bloom. It takes about three months wait time to force a hardy bulb into bloom. In other words, to have tulips in bloom in December, you need to prepare them for forcing in September. They require chilling (35 to 55°F) for a period of time before they can be forced into bloom. Not all bulbs need to be chilled in advance. Amaryllis bulbs and Paper White Narcissus are two popular bulb choices that may be successfully forced into bloom without being chilled. For more information on how to force bulbs, see Virginia Cooperative Extension Publication HORT-76NP referenced below.

- ***Growing bulbs in pots*** – You don't necessarily need a garden in order to enjoy spring bulbs. To grow bulbs in pots outdoors, first choose a frost-proof pot that drains well. Plant the bulbs as deeply as you would if you were planting them in the ground. Make sure there's at least two inches of potting soil below the bulbs. Try planting a mixture of both large and small bulbs. Layer the bulbs so that the large ones (tulips and daffodils) are planted deeper in the container and smaller ones (crocus, grape hyacinth, Scilla, etc.) are planted more shallowly. For example, white tulips planted with blue grape hyacinths make a classic color combination.

- ***Naturalizing bulbs*** – If you've got enough space in your lawn and the right growing conditions, try naturalizing bulbs. Basically, this means dedicating an area in your lawn or elsewhere where the bulbs may grow undisturbed. In other words, do not mow the grass until the bulb foliage dies back. Before committing to this landscape project, make sure you can live with the tall grass for a couple of months. The easiest way to plant the area is to toss the bulbs in a random pattern and plant them where they fall. This is how they grow in nature rather than in straight rows or neat clusters. As the bulbs multiply, they will eventually fill in the area, creating a mass of blossoms in spring. Daffodils, crocus, grape hyacinths, and snowdrops are generally good

choices for naturalizing. A word of caution: *Scilla siberica* (commonly known as Siberian squill) and *Hyacinthoides hispanica* (also known as Spanish bluebell or wood hyacinth) are often used in naturalized settings but these bulbs spread aggressively and may be potentially invasive. So, monitor these and other naturalized bulbs to make sure they stay where you intended them to. These are all hardy bulbs that don't require special treatment in order to thrive.

SOURCES

American Horticulture Society, *A-Z Encyclopedia of Garden Plants* (2008)

Bryan, John E., *Bulbs* (Revised edition 2002)

The American Daffodil Society, http://daffodilusa.org/

Virginia Cooperative Extension Publication 426-201, "Flowering Bulbs: Culture and Maintenance," http://www.pubs.ext.vt.edu/426/426-201/426-201_pdf.pdf

Virginia Cooperative Extension Publication HORT-76NP, "Fooling Mother Nature: Forcing Flower Bulbs for Indoor Bloom," http://www.pubs.ext.vt.edu/HORT/HORT-76/HORT-76.html

Garlic

By Cleve Campbell | October 2015 - Vol. 1 No. 10

One of the easiest crops I have every tried to grow is garlic. Why? Well, first of all, **the critters** (rabbits, deer, groundhogs, and squirrels) avoid it. Even **insect**s generally ignore it. Plus, garlic has **few disease and pest** problems. Aside from a little weeding, garlic requires very **little maintenance.** And if your passion is **organic gardening,** it doesn't get any easier than growing organic garlic.

One of the joys of growing garlic is that it is out-of-sync with most other vegetable crops; instead of contributing to the spring planting workload, garlic is planted in the fall. The taste of fresh homegrown garlic reminds me of the difference between a homegrown tomato and a tomato from the supermarket. And just like those supermarket tomatoes, the garlic you find in the supermarket is grown for shelf life, not taste. Without a doubt, garlic works miracles in the kitchen when added to soups, stews, tomato sauces, salsas, pickles, salads, salad dressings, marinades, mashed potatoes, seafood — hey, clams with butter and garlic! WOW! One has to search hard for a modern recipe that has onion but does not include garlic. A roasted bulb with a drizzle of olive oil and a pinch of salt turns into butter when you spread it over a slice of warm bread. Most cooks find it indispensable in the kitchen, and these days it is rare to find a recipe that does not call for garlic. In fact, a diligent researcher can even find a dessert recipe featuring garlic: "Roasted Garlic Chocolate Chip Cookies". YUMMMMM!!!!

A Brief History of Garlic

Garlic is believed to have originated in the mountains of Central Asia, in the present-day counties of Kazakhstan, Uzbekistan, and Turkmenistan. Today garlic is found wild in Siberia and the slopes of the Ural Mountains. Garlic has been cultivated for thousands of years. Egyptian and Indian cultures refer to garlic use dating back 5000 years. Detailed models of garlic bulbs were unearthed in the tomb of El Mahasna, in Egypt, dating back 3750 BC. The **Bible** suggests the Israelites may have developed a fondness for garlic around 1500 BC — "We remember the fish, which we did eat in Egypt, the cucumbers, and the melons and the leeks and the onions and the **garlick."** *Numbers 11:5.*

Today garlic ranks second only behind the onion as the second-most important *Allium* crop in the world. A plant, rich in history, that can fight disease, thin blood, reduce cholesterol, season a variety of foods, repel insects and vampires and is celebrated annually by thousands of devotees at numerous garlic festivals thoughtout the country deserves a spot in the vegetable garden.

Types of Garlic

There are hundreds of varieties of garlic, but generally, they are categorized into two different subspecies or groups: hard-necked (*Allium sativum* var. ophioscorodon) and soft-necked (*Allium sativum* var. *sativum*). Each group has several distinct varieties and cultivars.

Hardneck Garlic

Hardneck Garlic With Scapes

Hardneck garlic produces a false flower stalk in the spring called a scape and is also known as "Top Setting Garlic" because it produces clusters of small bulbs ("bulbils") at the end of the scape after the mostly sterile flowers bloom. Some garlic experts believe that hardneck garlic has move flavor than the more domesticated softneck garlic, and it is often referred to as gourmet garlic. Hardneck garlic does not store as well as softneck garlic.

There are 3 subcategories of hardneck garlic:

- **Rocambole**: the most widely-grown of the hardnecks, producing large cloves that are easy to peel. This is the only garlic that sends up a double scape loop. Killarney Red, Spanish Roja, German Gaint and German Red are examples of Rocambole varieties.
- **Purple Stripe:** named for the bright streaks and blotches on both bulb and clove skins. Purple Stripe garlic is milder and stores longer than the Rocambole types. Varieties include Chesnok Red, Persian Star, Siberian and Celeste.
- **Porcelain**: This type displays satiny white wrappers and has large cloves, but typically only four cloves. Has the longest shelflife of the hardnecks. After storing, they can be hotter than Rocambole. Porcelain varieties include China Dawn, Georgian Crystal, German White and Music.

Softneck Garlic:

Softneck is probably the kind of garlic that people think of when garlic is mentioned. It's found on the grocery store shelves and in garlic powder and salt. The skin on softneck garlic is tight on the clove, making it hard to peel, but protecting it and keeping it fresher longer. Softneck garlic is productive in a wide range of climates and soils, out-performs hardnecks in warmer climates, and is usually easier to grow. Commercially grown because of its long storage attribute, softneck garlic is the kind usually found in supermarkets.

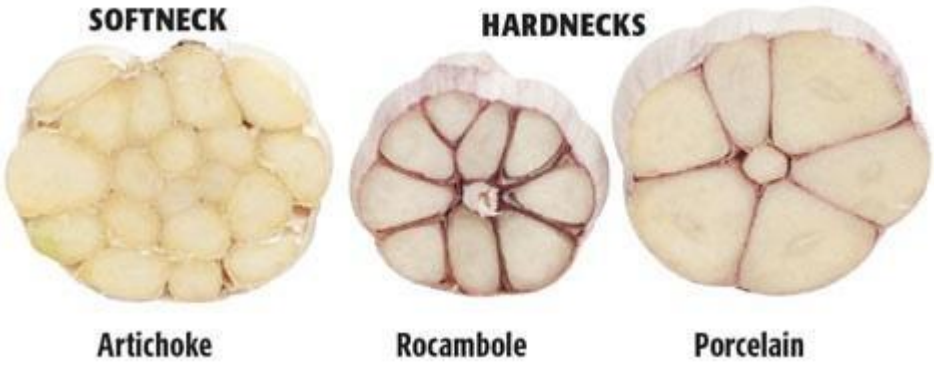
There are two major subcategories of softneck garlic:

- **Artichoke:** named for the fact that the cloves overlap, similar to the artichoke. They have a long shelflife but the taste can be hot. Artichoke varieties are easiest to grow and seem to be less fussy about growing conditions than other varieties and do very well in warm winter locations. Artichoke varieties include: Italian White, Inchelium Red, Polish White and Susanville.

- **Silverskin:** These are the longest lasting of the garlics and usually the last harvested. They can be very, very hot. This is considered the best variety for braiding. Silverskin varieties generally grow in most areas of the United States and if harvested and cured properly, can be stored for up to 10 months. Silverskin varieties include Chet's Italian Red, Nootka Rose, and Sicilian Silver.

Braided Silverskin Garlic

Central Virginia is in a transition zone and both hard neck and softneck garlic do reasonably well in our area. **The hardneck varieties that have performed well for me are China Dawn and Red Killarney. Softneck varieties that have performed well in my garden are: Susanville, Polish White, Sicilan and Sicilian.**



Elephant Garlic:

Elephant Garlic is **not true garlic**; it belongs to the leek (*Allium ampeloprasum)* family. In recent years elephant garlic has become popular due to the huge size of its bulbs and its milder flavor.

When to Plant Garlic

Garlic is planted in the fall. In our area mid-October is the recommended time for planting. Garlic requires a

cold treatment period (vernalization) of 32-50° F. for about two months to induce bulbing. Garlic can be planted in the spring, but it should be refrigerated first for several weeks. However, smaller bulbs can be expected if spring-planted, because of the limited growing period.

Do NOT plant garlic that you purchased from the grocery store, as they may be diseased and are often unreliable because they may have been treated with an anti-sprouting chemical. There are numerous online retailers that sell organic garlic for planting.

Site and Cultural Requirements:

Select a sunny or partially shady location to plant your garlic. Good soil drainage is essential for a good garlic crop. One way to improve the drainage is by creating a raised bed before planting. The soil pH should be between 6.5 and 7.0. A light, well-drained soil also reduces the number of irregularly-shaped bulbs. Adding compost or well-rotted manure and mixing it thoroughly can improve heavy clay. **Soil should be loosened** to a depth of 6-12 inches. A field trial conducted by Virginia Tech resulted in a 35 percent bulb failure in a no-till field. Compare that to a minimal 5 percent loss in a conventional tilled field.

Garlic is a heavy nitrogen feeder; the recommended rate of application is 30 to 60 pounds per acre. Downsizing that number to a manageable garden space of 100 square feet equates to 0.07 to 0.14 pounds of nitrogen per 100 square feet. Doing the math for the standard 10-10-10 fertilizer, that would require approximately 0.68 -1.37 pounds of standard fertilizer. An alternative organic fertilizer of cottonseed meal (6-2-2) would require approximately 1.15 -2.3 pounds of cottonseed meal. Because nitrogen is “unstable” and tends to leach, one of the recommendations when using standard fertilizer is to apply a top dressing in the late winter (February) and again in March. Cottonseed meal is a slow-release fertilizer, so it may be applied when the garlic is planted and followed up with a top dressing again in February.

Garlic is also a heavy **user of phosphate and potassium**, and these elements should be added, as with other crops, only in accordance with a soil test. A free Soil Test Kit is available at your local Virginia Cooperative Extension Office.

Planting

In general, garlic, like potatoes, multiplies by vegetative reproduction rather than by sexual reproduction (seeds). Individual garlic cloves are planted and each clove them produces a cloned bulb, having the same genetic make-up as the original parent.

The planting process begins by carefully separating the cloves, **just before planting**, by removing the outer layer of papery skin, and then removing the cloves from the basil plate (the flat base where the roots originated). The papery skin on the individual cloves can be left intact. Select only healthy, firm, unblemished cloves for planting, and aim to use the largest cloves available. In general, the larger cloves yield the largest garlic bulbs. Don’t disregard the small cloves — they can be used in the kitchen, or frozen for future culinary uses.

Planting garlic clove- Plant at 1-2 inches.

Plant the cloves 1-2 inches deep with the pointed end up. Space the cloves 6-8 inches apart. Over-crowding the garlic may result in smaller bulbs. Each garlic clove will yield one bulb. When the planting is complete add about 1-2 inches of compost or leaf mold over the planting area to prevent moisture loss.

Maintenance:

Garlic is a poor competitor, so good weed-control is essential. In general, fall and

winter weed problems are minimum, though spring and summer will bring more weeds. Applying a couple of inches of mulch such as leaf mold or clean straw can help control the weeds. If weeding is required, use caution to avoid damaging the bulbs and roots.

If you are growing hardneck garlic, you may want to consider removing the scape when it begins to uncoil and straighten out. Removing the scape allows the plant to direct its energy toward bulb development rather than bulbils development. Depending on the cultivar, removing the scape can produce 25-30 percent or more in bulb weight.

Garlic requires about **an inch of water a week** (similar to other garden vegetables), during the spring growing season. Stop watering the plants about a month before harvest (when the leaves begin to yellow) to keep the papery skin dry and prevent the bulbs from rotting or splitting.

During late spring and early summer garlic can be susceptible to the same insects and diseases as onions and leeks — thrips and various bulb rots. However, garlic is relatively carefree when grown in a well-drained organic soil (5-10 percent organic matter), with good air circulation and if you stick to a 2-3 year rotation cycle with other vegetables.

Harvesting

Fall-planted garlic grows roots soon after planting, but top growth does not occur until the following spring, and the garlic bulbs are usually mature by early to mid-summer. Knowing when to harvest garlic is like knowing when to sell a stock in the stock market. At the end of the growing season — early summer — the bulbs are growing at their fastest rate. If the crop is harvested too early, the bulbs may be undersized, but if harvested too late, the thin wrapper that holds the bulb begins to deteriorate and the bulb itself begins to fall apart. Naturally, most gardeners are greedy, myself included, and want the biggest garlic bulbs possible, leading to that temptation to wait too long.

Garlic can be harvested in three forms: scapes, green or bulbs. In the spring, hardneck garlic produces a scape. Most gardeners prefer to remove the scape to allow the plant to focus its energy on the bulb. The scapes can be cut off shortly after the flower stalk curls. Harvested scapes can be used in cooking or salad, providing garlic-tasting greens similar to scallions.

When garlic is harvested before full maturity, it is referred to as green garlic. Green garlic can be used like green onions in salads or cooking. Bulbs are ready to harvest when the leaves begin to yellow or brown and fall over, but there are still 50% green leaves on the plant. Green leaves indicate that the bulbs are still intact and have not begun to break apart. If you wait until all the leaves have turned brown and fallen over, you have waited too long.

I usually dig up a few “test bulbs” before I harvest to check the wrappers. If they are in good shape, I wait a few more days and dig a few more.

When you pull the trigger and begin to harvest, carefully loosen the soil around the bulb to minimize damage. The preference is to dig up the garlic bulb rather than pulling it out. I am often amazed at the depth of the garlic bulb and the number of roots that have developed. Shake off the excess soil, keeping the wrapper intact. With more of the wrapper in place, the garlic will store longer. Do not wash the bulbs as that may encourage the growth of fungus and reduce the shelf life of the bulb.

Curing and Storing

Curing the harvested garlic will extend the shelf life of the bulb and strengthen its flavor. To cure the garlic, tie into bunches and hang in a shady, cool dry and well-ventilated location for 4 to 6 weeks. I often use a fan

to increase the ventilation.

Once the bulbs have been cured, I sort the garlic, I save the largest bulbs to be planted the following fall, and the remainder I store in a dark well-ventilated area. I use a homemade screen that hangs in the basement and it works well.

Garlic is a seed savers' delight. There's no need to worry about cross-pollination because what you save and plant is a clone of the parent plant. In addition, garlic adapts to its environment, so the more seasons you plant your saved garlic in the same microclimate, the better it performs. I have noticed that after about the fourth year, the garlic appears to become happy with its new home and I am rewarded with larger bulbs.

What's not to like about growing your own garlic? It will be fresher and tastier than those found in the supermarket, you'll have hundreds of varieties to choose from — way more than what is available in the supermarket, pests mostly leave it alone, and other than a little weeding and occasional watering, it's maintenance-free. On top of all that, because garlic adapts to local conditions, you'll have the reward of being able to save your own garlic and plant it year after year knowing each year your crop will get a little better.

Thanks for joining us in The Garden Shed this month. We hope you will visit again next month.

Cited Sources:

"Roasted Garlic Chocolate Chip Cookies Recipe," *Mother Earth Living (*July-August, 2004) http://www.motherearthliving.com/food-and-recipes/summer-recipes/roasted-garlic-chocolate-chip-cookies-recipe-zmoz04jazmel.aspx

"Glorious Garlic, Herb of the Year 2004," Virginia Cooperative Extension, Publication 2906-1360, pubs.ext.vt.edu/2906/2906-1360

"The origins and distribution of garlic: How many garlics are there?" United States Department of Agriculture, http://www.ars.usda.gov/Research/docs.htm?docid=5232

"Garlic Production," North Carolina State University, ncsu.edu/garlicproduction

"Soil Sampling for the Home Gardner," Virginia Cooperative Extension, Publication 452-129, http://pubs.ext.vt.edu/452/452-129/452-129.html

"Garlic Productivity and Profitability as Affected by Seed Clove Size, Planting Density and Planting Method" HortScience, vol. 39 no. 6, pp. 1272-1277 (Oct. 2004) hortsci.ashspublications.org

"No-till Organic Culture of Garlic Utilizing Different Cover Crop Residues and Straw Mulch for Over-wintering Protection Under Two Seasonal Levels of Organic Nitrogen," Virginia Cooperative Extension, Publication 2906-1389 https://pubs.ext.vt.edu/2906/2906-1389

"Growing Garlic," University of Vermont Extension's Vermont Vegetable and Berry Program, http://www.uvm.edu/vtvegandberry/factsheets/Garlic.html

"Time to Plant Garlic" Virginia Cooperative Extension (Bratsch Tony), https://pubs.ext.vt.edu/2906/2906-1347

Garlic – An Herb Society of America Guide (The Herb Society of America, 2004) (pp. 16-18) https://pubs.ext.vt.edu/2906/2906-1347/2906-1347.html

October Vegetable Garden:Tips & Tasks

By Cleve Campbell | October 2015 - Vol. 1 No. 10

I often associate the months of the year with the seasonal tasks to be performed in the vegetable garden. I usually think of the months of April–May as the "planting season" while June–July is the "growing" season with its maintenance tasks of weeding and watering; August–September is the harvesting season, and October, well, that is my **paranoia season,**

October is paranoia season because in our area, it is the first frost month — usually around the 15th of the month. It can arrive earlier or later, but we know it is going to happen, we just don't know when. I always have peppers needing just a little more time to turn to that brilliant red or perfect golden yellow, tomatoes on one tomato plant or the other that are slow in ripening, or that one lettuce bed that is just starting to rock, so I am glued to the weather report trying to catch that first freeze warning. I can't count the times we've had a frost and then right afterwards Indian summer shows up smiling with temperatures in the 70's and 80's for a couple of weeks after all the damage is done. I have finally come to the conclusion that waiting for that freeze warning is too late because there are **precautions that can be taken to extend the growing season before that dreaded frost forecast**.

Turns out there are two types **of frost**, advective and radiation. Advective frost occurs when a cold front sweeps into an area. A radiation frost occurs under calm winds and clear sky, allowing radiant heat from the earth to rise to the upper layers of the atmosphere. With radiation frost, the lack of wind prevents mixing of the air and an inversion develops. An inversion is just a fancy way of saying "things get turned around from the normal." Normally the air closest to the ground is the warmest, but when an inversion happens, cold air collects near the ground while the warmer air lies above the trapped cold air. During an inversion, cold air is just like water running down a hill — it seeks the lowest point because it is heavier than warm air, and frost pockets may form. The first frost typically is a radiation frost that occurs on a calm, clear night.

There are several things we can do when a frost warning is issued:

Harvest early: flowering plants such as beans, tomatoes, peppers, eggplant, squash and okra need to be harvested if there is no way to protect them. Fruit harvested in the mature green stage will still ripen but sadly will not have the same flavor as a vine-ripened fruit.

Water before a frost – a moist soil can hold approximately four times more heat than a dry soil. A moist soil can also conduct heat to the soil surface faster than a dry soil, providing some frost protection. A Cornell University study suggests that the air temperature above a wet soil is 5 degrees higher than that above a dry soil, and in the study, that difference was maintained until 6 a.m. The conclusion of this study was that plants could benefit from watering the evening before a frost.

Cover your plants — covering plants can provide anywhere from 2 to 6 degrees F protection, depending on the type of material used. The covers can be laid right on top of the plants or can be supported by stakes or a frame, the main difference being that **there is less frost protection when the cover touches the plant**. Any material can be used as cover; however, woven fabrics are better insulators than plastics or paper. The best time to apply covers is in the late afternoon after the wind dies down. Remove the covers the next morning.

"Hoop-House" with plastic provides 3-6 degrees F protection, depending on the thickness of the plastic.

Row cover provides 2-3 degrees F frost protection

Additional Tips and Tasks for October

- Thinking about planting a **fruit tree**? Fall is usually cool and moist and a great time to plant. In addition, you may be able to save a little money, as local gardening centers usually have a fall sale. Water the newly-planted tree to provide sufficient moisture and prevent winter damage. Add a 3-inch layer of organic mulch, such as shredded bark around the base of the plant to retain soil moisture and regulate soil temperature. Research has shown that roots will continue to grow until the soil freezes, which is around late November in Virginia. Stake and wire newly-planted tress only if necessary. Use a piece of rubber hose around the guy wires to protect the trunk, and the guy wire should not be tied tightly; as the tree needs to be able to move a little in the wind. The supports and stakes should be removed once the tree becomes established, usually in a couple of months. (Relf)
- Fall is an excellent time for taking soil samples in your garden. Soil test measures the pH (acidity or alkalinity) of the soil and the levels of some of the major elements required for plant growth, such as phosphorus and magnesium and potassium. If lime is required to adjust the pH, now is a good time to apply it. A **free soil test** kit is available from your local extension office.
- **Pick-up dropped fruit from under fruit trees**, so that deer and rodents will not be attracted to the fruit for feeding on it — and your growing tree. Raking and disposing of diseased leaves will help keep insects and diseases under control next season.
- **High grass and mulch** are a haven for rodents whose gnawing can severely damage trunks. Keep the grass around new trees mown and the mulch should be raked back 3-4 inches away from the tree trunk.
- Tomatoes need an average daily temperature of 65 degrees F or more for ripening. If daytime temperatures are consistently below this, pick the fruits that have begun to change color and bring them inside to ripen.
- October is the time to plant garlic. See this month's – **In the Vegetable Garden**, article titled " Garlic" for more about that.
- **Harvest sweet potatoes** before frost because cold soil temperatures can reduce the quality and storage capacity of sweet potatoes. I find that removing the vine first makes the digging a lot easier. Also, care should be taken when digging the sweet potatoes as they skin and bruise very easily.

- When removing disease-infested plants or debris, **do not place refuse** on the compost pile. The disease pathogen may continue to live in the compost pile and may be transmitted when the compost is applied to the garden.
- **Asparagus — after frost, cut back all foliage** to within 2 inches of the ground.
- **Cover Crops– we still have time to plant a winter rye** cover crop. A cover crop protects the soil over the winter, traps any unused nutrients to prevent them from leeching, and adds organic matter in the spring when tilled under. For more details, see the September article "Cover Crops" in the prior issues section of "The Garden Shed."

Sources:

Phillips, Ben, "Freeze Damage in Fall Vegetables: Identifying and Preventing,"http://msue.anr.msu.edu/news/freeze_damage_in_fall_vegetables_identifying_and_preventing

"Understanding Frost," Cornell Cooperative Extension, http://www.gardening.cornell.edu/weather/frost.pdf

Relf, Diane, Virginia Cooperative Extension, "The Virginia Gardener Newsletter,"Volume 23, Number 9/10, 2004, page 7.

Clemson Cooperative Extension, Publication HGIC 1322, "Sweet Potato,"http://www.clemson.edu/extension/hgic/plants/vegetables/crops/hgic1322.html

Virginia Cooperative Extension, Publication 426-401, "Asparagus", http://pubs.ext.vt.edu/426/426-401/426-401.html

Colorado State University, Publication GMG #722, "Frost Protection and Extending the Growing Season,"http://www.ext.colostate.edu/mg/gardennotes/722.html

Callicarpa (Beautyberry)

By Patsy Chadwick | October 2015 - Vol. 1 No. 10

by Pat Chadwick

In mid-autumn, when the floral display in the ornamental garden is winding down, shrubs and trees that bear colorful fruits and berries keep the show going well into winter. *Ilex* (holly), *Pyracantha*, *Cotoneaster*, *Viburnum*, and some species of *Malus* (crabapple) offer reds, oranges, yellows and even blues and blacks to the autumn palette. One plant stands out from the rest with its luminous purple berries. The genus name for this plant, *Callicarpa* (pronounced kal-lee-KAR-pah), comes from a combination of the Greek words callos (beauty) and carpos (fruit). One look at the colorful berry display and it becomes abundantly clear how this shrub got its common name of beautyberry.

If any plant can provide much appreciated bling in the autumn garden, its beautyberry. It's a showstopper that never fails to draw lots of admiring glances from passersby. Beautyberry is an ordinary looking shrub in spring and early summer. The simple, opposite, elliptical-shaped leaves are moderately attractive but nothing special. When viewed up close, the flowers are charming but small and not particularly showy. From a distance, they are barely noticeable. However, this plant undergoes an amazing transformation once the berries start to ripen in late summer. Little clusters of greenish-looking, pearl-like berries that grace the entire length of each branch start turning the most extraordinary shades of vibrant purple. Some people describe the color as metallic purple. Others call it rosy pink, bright magenta, violet-purple or even neon violet. To my way of thinking, the color is faintly reminiscent of redbud blossoms in the spring. Regardless of

what you call it, the color is stunning.

NATIVE AND NON-NATIVE SPECIES OF BEAUTYBERRY

Beautyberry belongs to a genus of about 140 deciduous or evergreen species, which are mainly tropical and subtropical. According to the Clemson Cooperative Extension's Publication HGIC 1086, the following four deciduous species of beautyberry are the most commonly cultivated in ornamental gardens throughout the United States:

- *Callicarpa americana* is native to the southeastern part of the United States (although not specifically native to Albemarle County), where it grows wild in woodland settings from Maryland to Texas. It thrives in USDA gardening zones 7 through 11. It is best described as a loosely branched, deciduous shrub having simple, ovate or elliptical-shaped leaves averaging 6 inches in length. It produces small clusters of lavender-pink flowers in late spring to early summer, followed by violet-color berries in late summer to early fall. The shrub grows about six feet tall and five feet wide. '*Lactea*,' which is a variation of *C. americana*, produces white fruit. 'Welch's Pink' produces pink flowers in mid-summer and bright pink fruit in the fall.

Callicarpa Americana (Native Beautyberry)

- *C. japonica* is from Japan. This species averages six feet in height and width with a rounded habit and arching branches. It bears pink or white flowers and purple fruit. '*Leucocarpa*' has white fruit.
- *C. dichotoma* is from China. This species has been cultivated to have greater cold tolerance and is hardy in Zones 5 – 8. It bears pink flowers and bright purple fruit. This graceful, more diminutive variety is a good choice for smaller gardens as it grows four feet tall and wide. Cultivars 'Issai' and 'Early Amethyst,' which blooms a little earlier than 'Issai,' are generally easy to find in local garden centers.
- *C. bodinieri* is also from China. Like *C. dichotoma*, this species is also hardy in Zones 5 – 8. Cultivar 'Profusion' bears pale pink flowers on arching stems and deep purple fruits in autumn. While most beautyberry species need two shrubs for a good fruit set, this cultivar is self-fertile and does not require a pollinator.

Callicarpa dichotoma 'Early Amethyst' (Non-Native Beautyberry)

The question frequently arises about how to tell the difference between the native North American species and the non-native species of beautyberry. The differences basically consist of form, foliage and fruit:

- **Form**: The native North American beautyberry is larger than the Asian (non-native) species, is more upright, and is slightly taller than wide. The branches on the oriental species are more arching or weeping in form and are generally equally wide and tall.
- **Foliage**: The leaves on the native North American beautyberry measure three to six inches in length, whereas the smaller, narrower leaves of the non-native species measure one to three inches in length.
- **Fruit**: The fruit on both species is spaced along the entire length of the branch. However, the fruit on our native North American beautyberry is larger than the fruit on the non-native species and occurs in tightly formed clusters which wrap snugly around the branch. The fruit on the non-native species occurs in loosely formed clusters that are more open in appearance and are borne slightly away from the branch.

Native Beautyberry Fruit Clusters

Non-native Beautyberry Fruit Clusters

USES IN THE LANDSCAPE

Whether you refer to it as *Callicarpa* or its more common names of

French mulberry or beautyberry, this plant is probably not used often enough in the landscape. It is an ideal choice for a shrub or mixed border or even as a loose hedge. As the featured plant in an autumn container garden, beautyberry is stunning when the fruit display is at its peak. Beautyberry will also tolerate moist sites and can be successfully used in rain gardens. While it can be used as a single specimen, you'll get a better display of fruit if you plant them in groups.

Beautyberry fruits are high in moisture and are an important source of food for many species of birds, including mockingbirds, robins, bobwhite quails, and towhees. Foxes, opossums, raccoons, squirrels, other small rodents, and deer may consume the fruit in the fall after leaf drop. While the berries may last into the winter months, hungry wildlife may strip the berries off in the absence of other suitable food.

CARE AND MAINTENANCE

- Cultural Requirements: Beautyberries are long-lived shrubs and ideally should be planted in loose, fertile, well-drained soil in full sun. Once established, they are reasonably drought tolerant. However, under extreme drought conditions, they may drop their leaves and berries in order to compensate for the lack of moisture. Beautyberry does well in either partial shade or in sunny locations but the plant will have a denser habit and will produce more fruit in a sunny location. Give it plenty of room in the landscape. The weight of the berries can cause the branches to bend over, which may either shade or crowd other nearby plantings.
- Propagation: Beautyberry can be easily grown from seed. Collect very ripe berries and grow them in individual containers the first year. The following autumn, plant them outdoors. They may also be propagated using softwood cuttings. Beautyberry shrubs readily reseed largely due to bird and animal activity, which raises the possibility that it could become invasive. If that is a concern, the best approach is to grow only the native *C. americana* species.
- Maintenance: Beautyberry flowers on current year's growth. For the best berry display, cut the shrub back in late winter or early spring to a low permanent framework about six inches high. This shrub may spread out or become rangy over time. If that becomes an issue, the plant will respond well to renovation pruning, in which all flowering stems should be cut back to the base of the plant.
- Pests and Diseases: This is a mostly trouble-free plant. Potential problems may include minor leaf spot (*atractilina callicarpae*) and black mold (*Meliola cookeana*).

SOURCES

*A-Z Encyclopedia of Garden Plants (*American Horticulture Society, 2008)

Clemson Cooperative Extension Home and Garden Information Center Publication No. HGIC 1086, "Beautyberry," http://www.clemson.edu/extension/ghic

Dirr, Michael, 2011, *Dirr's Encyclopedia of Trees and Shrubs*.

JCRaulston Arboretum at North Carolina State University Website http://jcra.ncsu.edu/

Ondra, Nancy J. and Cohen, Stephanie, 2007, *Fallscaping – Extending Your Garden Season Into Autumn*.

U. S. Department of Agriculture Natural Resources Conservation Service Plant Fact Sheet. Available on-line at http://plants.usda.gov/core/profile?symbol=CAAM2

VCE Pub 426-043, “Rain Garden Plants,” https://pubs.ext.vt.edu/426/426-043/426-043_pdf.pdf.

Weakley, Alan S., Ludwig, J. Christopher, and Townsend, John F., 2012, *Flora of Virginia*.

The Ornamental Garden in October

By Patsy Chadwick | October 2015 - Vol. 1 No. 10

by Pat Chadwick

It's October and the autumn landscape is glorious! As you enjoy the show, keep in mind that the autumn "to do" list is very long, making this one of the busiest times of the year for the ornamental gardener. Here are just some of the tasks that need to be completed before the onset of cold weather:

- **Plant spring flowering bulbs** such as tulips, daffodils, hyacinths, crocuses, Dutch irises, and alliums after the ground temperature drops to or below 60°F. For more information on using bulbs in the landscape, see this month's feature article.
- **Plant cool-season annuals** such as pansy, viola, snapdragon, calendula, Iceland poppy, sweet alyssum, stock, and larkspur. Transplants of some of these annuals, particularly pansies and violas, are generally easy to find in local garden centers. For best results, they need to be well established in the soil before freezing winter weather sets in. Seeds of cool-season annuals sown this fall will give you a head start on next year's blooms.
- **Dig up the bulbs or roots of tender perennials** such as canna, dahlia, caladium, elephant's ear, tuberose, and gladiolus and prepare them for winter storage. These bulbs are either not hardy to this area or are only marginally hardy. This task is easier if you wait until after a light frost blackens the foliage. At that time, cut off all the foliage. Then, carefully dig up the roots so that you don't damage them. Inspect them and discard any that appear diseased or soft. Allow the roots to dry thoroughly, clean off soil, and pack loosely in peat moss or vermiculite in open baskets or cardboard boxes. Store in a cool, dry, dark, frost-free location over the winter. Don't forget to label them so that you can easily identify them next spring.
- **Divide and re-plant overcrowded perennials** such as daylilies, yarrow, coreopsis, Shasta daisy, and lambs' ears. Water them well so that they become well established before winter, but hold off on mulching them until after the first hard frost to help prevent frost heaving.
- **Plant or transplant trees and shrubs** before the ground freezes. Keep them well watered until they become dormant. For tips on how to prepare the planting site and how to care for trees and shrubs while they are becoming established, see Virginia Cooperative Extension Publication 430-295, "Tree and Shrub Planting Guidelines" (http://www.pubs.ext.vt.edu/430/430-295/430-295.html).
- **Clean up all flower beds**. Remove all weeds, spent annuals, and other debris from flower beds. However, if you're a bird lover, you may wish to leave some seed-bearing perennials in place. *Echinacea* (coneflower), *Rudbeckia* (black-eyed Susan), ornamental grasses, and other plants, such as sunflowers, will provide food for the birds this winter as well as sanctuary for overwintering beneficial insects. Wait until late winter or early spring to cut them back before new foliage emerges.
- **Not sure which perennials to cut back and which to leave standing over the winter**? Some plants should be cut back for aesthetics and to prevent the overwintering of pests and diseases. The best time to do this is after a couple of killing frosts. If the weather continues to stay warm in October and the plants are still producing flowers, this task may need to wait until November. Here's a brief selected listing of **perennials to cut back in autumn and why**:
    - ***Achillea* (yarrow)** – Cut back to induce new basal growth, which helps protect the plant crown in winter.
    - ***Aquilegia* (columbine)** – Cut back to control leaf miners.

- ***Baptisia* (false indigo)** – Unless you like the dark seed pods, cut the plant back for aesthetics. The foliage turns black after frost and is unattractive.
- **Bearded Iris** – Cut back to prevent overwintering fungal disease and iris borers.
- ***Corydalis*** – Cut back to contain the plant and to keep it from spreading.
- ***Crocosmia*** – Cut back for aesthetics.
- ***Hemerocallis* (daylily)** – Unless you have an evergreen variety, remove dead foliage and dried flower stalks for aesthetics and to help contain daylily rust (fungal disease).
- ***Hosta*** – Cut back for aesthetics. Foliage turns to a mushy mess with the first hard frost.
- ***Iris domestica* (blackberry lily)** – May be cut back in either spring or fall. Leave standing until spring if you want the interesting seed heads to add interest to the winter landscape. Cut back now if you want to avoid harboring overwintering borers or if you want to keep the seeds under control.
- ***Monarda* (beebalm)** – Cut back to control the spread of powdery mildew.
- ***Phlox paniculata* (garden phlox)** – Cut back to prevent the spread of fungal diseases and to prevent the plant from dropping seeds in the garden.

- While many perennials need to be cut back in the fall for aesthetics and pest/disease control, there are advantages to leaving others in place until late winter or early spring before the new foliage emerges. Here's a brief selected listing of **perennials that may be left standing and why**:

  - ***Agastache* —** If cut back in fall, the hollow stems can allow water to migrate down into the crown of the plant, which could cause it to rot over winter.
  - ***Amsonia*** – The foliage helps protect the crown of the plant during the winter. Also, fallen leaves often catch in the plant's standing stalks and provide extra protection to the crown.
  - ***Aster novae-angliae* (New England aster)** – The foliage and stems on this late-blooming perennial help protect the crown and add texture and interest in the winter landscape.
  - ***Bergenia* (pigsqueak)** – The evergreen leaves turn shades of purple and deep red and provide interest in the winter garden.
  - ***Chrysanthemum*** – The foliage and stems help protect the crown over winter.
  - ***Gaillardia* (blanket flower)** – This plant may be cut back in either spring or fall. The seed heads provide food for the birds over winter. If you don't want the plant to re-seed, cut back in autumn.
  - ***Helleborus*** – The foliage remains green over winter, which adds texture and interest to the garden. However, it will look unsightly by late winter, at which point it should be carefully cut back before the new spring growth emerges.
  - ***Lobelia* (cardinal flower)** – The leaves and stems help protect the

crown in winter. Tip: The crown stays evergreen over winter but does not like to be covered with mulch.

- ***Sedum* (stonecrop)** – The thick, fleshy foliage of tall varieties such as 'Autumn Joy' falls off when temperatures drop. At that point, the plant may be cut back to within a couple of inches of the crown. However, many gardeners prefer to leave Sedum standing in place over the winter. The brown flower heads are very attractive in the winter garden, especially when they are covered in frost.
- ***Perovskia* (Russian Sage)** — The stems help protect the crown in winter.
- ***Tiarella* (foamflower)** – The leaves on some cultivars change color in the fall and last through the winter, which adds interest to the winter garden.

- **Mark where late emerging perennials are planted** so that you don't damage them next spring when you begin working in your flower beds. Wooden stakes, popsicle sticks, golf tees, and even plastic straws are useful for this purpose. *Asclepias* (milkweed), *Platycodon* (balloon flower), *Baptisia* (false indigo), and some ferns are examples of late emerging perennials.
- **Bag all diseased foliage and stems from peonies, garden phlox, or roses** and dispose of the debris in the trash. Do not add it to the compost pile. This will reduce the overwintering of botrytis blight, mildew, and other fungal spores.
- **Collect fallen tree leaves** and compost them rather than send them to the local landfill. Chop the leaves into smaller pieces to help them decompose faster.
- **Protect water features** from the accumulation of falling leaves and other debris. Spread netting over the water feature and secure it to keep the leaves out of the water. Remove the leaves from the netting as they accumulate.
- **Cover your fall-blooming perennials** with a frost blanket, old bed sheet, or even layers of newspaper if the threat of frost is imminent. If that's not practical, consider cutting some of those late blooming flowers and bringing them indoors. To keep flower arrangements fresh for as long as possible, remove all foliage below the water line in the container. Add some floral preservative to the water and mix well before you arrange the flowers. You can easily make your own floral preservative by mixing two tablespoons lemon juice, one tablespoon sugar, and one-quarter teaspoon bleach in a quart of water. Don't forget to change the water daily (preferably) or at least every other day.
- **Hold off on pruning tasks** until after your plants go dormant. Pruning now can spur a plant to put out tender new growth, which cannot tolerate our winter weather.
- If you didn't **bring your houseplants indoors** at the end of September, definitely get them indoors this month. The longer they stay outside, the harder the transition to the indoors will be for them.
- One final item to add to your October "to do" list: Treat yourself to all the glorious autumn displays in and around the area. As you drive around town and beyond, look for interesting trees and shrubs that provide outstanding fall color. **Note particularly colorful displays of foliage that appeal to you** and consider the possibility of incorporating those plants into your own landscape.

Virginia Healthy Lawns

By Melanie | October 2015 - Vol. 1 No. 10

From an acreage point of view, lawns are one of the largest crops in the United States. Much money, time, and effort is spent on lawns, but sometimes the outcome is not a happy one. Healthy Virginia Lawns, a program run by the Piedmont Master Gardeners and available to Charlottesville and Albemarle county residents is designed to change that outcome. Focusing on measurable inputs (soil type, composition and lawn area), the resulting **customized nutrient management plan provides the homeowner with specific nutrient recommendations, including the specific amounts of lime and fertilizer to apply and when**. The environmental benefit of the program is to decrease lawn over-fertilization with the resulting improvement in water quality. The program focuses on lawn areas of 2 acres or less and consists of five parts — an on-site visit by a Master Gardener(s), an evaluation of the lawn and site, lawn measurement, soil test, and finally, a nutrient management plan designed for the site.

Upon receiving the application, the onsite visit starts offsite with a map of the property from the city or county data base. This map contains information on slope, drainage, lot size and adjacent properties, which is helpful in planning the site visit. The homeowner does not need to be present for the site visit but is encouraged to be present if at all possible. When the appointment is made, the Master Gardener will ask if there are issues or problems that the homeowner has so that additional information can be supplied to the

homeowner during the site visit.

The on-site visit takes about 1 1/2 hours, depending on the site and homeowner questions. Upon arriving at the site, the Master Gardener does a lawn evaluation — identifying if the grass is cool or warm season grass or another type of vegetation, how dense the grass is, how much sun the lawn is receiving and assesses the lawn for weed presence.

Grass density is an indicator of grass health, although sunlight and soil type also are determining factors in grass health. Presence or lack of certain weeds is also a quick indicator of soil type, drainage and other issues relating to turf health.

The **soil test** identifies the texture of the soil (clay, sandy, loamy). Most of the soils in this area are clay type soils, although amendments, drainage, site grading, soil additions and other factors can significantly change the soil type. Generally, only one soil sample is sent, but additional samples may be called for. Twenty to 30 divits are taken throughout the property for one sample. Separate soil samples are recommended when there are significant site differences such as slopes, shade, wet or dry areas which could have different soil profiles and therefore different nutrient requirements. If different grass types are to be grown, additional samples

may be recommended.

Lawn measurement is done with a measuring wheel. The lawn area is broken up into distinct areas and measured. The total of these areas results in the square footage of the lawn area. The site map downloaded during the planning process, guides the measurement and serves as a check that all of the turf area has been

measured.

The site visit is complete when the lawn evaluation is done, the turf area measured and the soil sample or samples have been taken. At the end of the site visit, the Master Gardener will leave any additional information requested by the homeowner, or note that additional information has been requested. The homeowner will be given the soil sample (or samples), soil sample boxes, a mailing box with preprinted label and mailing instructions.

Soil sample results are generally available 7 to 10 days after the sample is received by the testing lab. Next, the nutrient management plan is written based on the results of the soil sample and the unique conditions of the lawn. **The nutrient management plan will contain the following information:**

- Area of lawn (in square feet)
- Soil pH
- Fertilizer recommendation
- Lawn fertilization calendar: timing and amount of fertilizer to be applied to lawn area according to grass type
- Lime: recommendation and pounds of lime per application based on soil test results
- Organic top dressing recommendation: amount of compost required for lawn area

This customized information based on your individual lawn environment is an invaluable tool in growing and maintaining a healthy, economical, environmentally-sensitive lawn. Applications for the program are available by emailing the horticulture Help Desk at albemarlevcehelpdesk@vt.edu.

Resources:

TIPS on keeping your lawn Green. . . and Virginia's waters Clean. Virginia Cooperative Extension, Virginia Tech, and Virginia Department of Conservation & Recreation. http://www.dcr.virginia.gov/soil_and_water/documents/tipsbay.pdf

"Soil test Note 17: Lawn Fertilization for Cool Season Grasses," M. Goatley and E. H. Ervin, Virginia Cooperative Extension Publication at http://www.pubs.ext.vt.edu/452/452-717/452-717.html

"Lawn Fertilization in Virginia" by J. M. Goatley Jr., D.R. Chalmers, J. R. Hall III, and R. E. Schmidt, Virginia Cooperative Extension Publication at http://www.pubs.ext.vt.edu/430/430-011/430-011.html

"Maintenance Calendar for Cool-Season Turfgrasses in Virginia," by Mike Goatley and Shawn Askew, Virginia Cooperative Extension Publication at http://www.pubs.ext.vt.edu/430/430-523/430-523_pdf.pdf

My Grandmother’s Gumbo, Fortified with Okra

By Cate Whittington | October 2015 - Vol. 1 No. 10

Spectacular okra bloom

Okra often appears at the top of the most hated vegetable list, but it is packed with nutrients and dietary fiber. High in anti-oxidants, this low calorie vegetable is known to help lower cholesterol. This perennial flowering plant, known to West Africans as gumbo, was transported to the United States many years ago and became a staple of Creole cooking in New Orleans. Okra does not always appear in recipes for gumbo, but knowing that gumbo is another word for okra, I am convinced that my mother was correct when she swore that REAL gumbo is made with okra. So, I will pass along my grandmother’s real gumbo recipe, made with fresh okra.

*****

“First you make a roux” were always the first words out of my grandmother’s mouth as she shared the secrets of her native New Orleans kitchen. And gumbo was no exception. But FIRST…BEFORE MAKING THE ROUX . . . it helps to prepare the vegetables.

The Veggies

Dice and set aside in a bowl:

2 large onions

4 stalks celery

1 bunch green onions

1 green bell pepper

The Roux

1/2 cup oil, butter, or bacon grease

1/2-3/4 cup flour

In a heavy iron skillet, heat the oil over medium-high heat. When it sizzles, sprinkle on the flour. Now, stir or whisk constantly for 12-15 minutes. The color will turn from cream to caramel to reddish brown and it may smell scorched, but if you stir nonstop it should be just fine. When it reaches a thin-pudding texture, add all of the prepared vegetables except the okra and tomatoes. Continue to stir for about 2 minutes or until veggies are limp. Stir in a cup of hot water and transfer to a large pot.

The Okra

1 pound fresh okra (crisp and immature pods are best)

3 large tomatoes, diced

1 stick butter

Prepare the okra by wiping each pod with a clean cloth to remove the fuzz. Slice thinly. Melt the butter in an iron skillet and cook the okra, stirring frequently, until it loses its ropy, stringy texture—about 15 or 20 minutes. Add the tomatoes and stir until mixed. Then, add the okra-tomato mixture to the roux pot.

The Combo

To the combined pot of veggies, add:

3 quarts of water or stock (see below)

1 teaspoon minced garlic

1 teaspoon seasoning (see below)

2 bay leaves

Let the mixture come to a boil and simmer for about 3 hours. Add your meat of choice, remove bay leaves and serve over rice.

The Stock

The following simple stock is good with shrimp, my grandmother’s preference for gumbo:

Heads and peels from 3-4 pounds fresh shrimp

1 fresh lemon, sliced,

3 quarts water

Clean and peel shrimp. Put heads and peels into large pot. Refrigerate shrimp. Boil heads and peels with lemon slices in water for about 30 minutes. When cool, strain and reserve broth.

The Seasoning

½ teaspoon Cayenne pepper

1 teaspoon salt

½ teaspoon thyme

This is a very basic seasoning. Other spices that are commonly added to gumbo include nutmeg, allspice, cloves, and chili powder. You may adjust for heat, adding Tabasco if desired.

The Meat

3-4 pounds fresh seafood or meat of choice

Gumbo is often prepared with seafood, but any meat may be used. Add raw seafood about 10 minutes before the gumbo is ready to be served. Raw chicken, beef, or pork may be added about an hour before serving.

Shrimp Gumbo served with rice