

Agriculture & Natural Resources



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HENRICO HORTICULTURE

Late Summer to Early Winter 2019 Edition

Edward R. Olsen, *Henrico County Extension Agent for Agriculture & Natural Resources, Horticulture*

A handwritten signature in black ink that reads "Edward R. Olsen".



Image by [PixelAnarchy](#) from [Pixabay](#)

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Virginia Cooperative Extension

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Fall Vegetable Gardening

Now that the hot summer sun has slowed your pace, it's time for some "cool" vegetable gardening. The fall garden prolongs the harvest of fresh vegetables which equals savings on your food costs and makes full use of your gardening space. In fact, some of the best quality vegetables are produced during the warm days and cool nights of the fall season!

Cabbage, cauliflower, broccoli, Brussels sprouts, kale, spinach, collards, mustard, beets, carrots, radishes, parsnips, turnips, lettuce, parsley, peas, and Jerusalem artichokes are all candidates for your fall garden. Onions and garlic only achieve their full flavor and size, when left in the garden over winter.

Choose early maturing vegetables for your fall garden. To know when to plant a specific variety, count back from your average first frost date the number of days the variety requires to mature and plant at that time. Also, plant fall vegetables when the soil is moist and cover the seeds about twice as deeply as you do in the spring. There are usually fewer insect problems in the fall; however, cabbage, broccoli, and cauliflower may be sprayed with BT (*Bacillus thuringiensis*) to avoid cabbage loopers.

Fall is also the best time to incorporate organic material into your garden as it will have plenty of time to decompose and blend into the soil before spring planting time. Additionally, the freezing and thawing that takes place during the winter will help improve soil structure. Be sure to remove any diseased or insect-infested plant material before tilling. If time or weather conditions prohibit tilling, let your garden rest under a layer of mulch fine enough that it will break down over the winter.

It is always a good idea to get your soil tested. A soil test from Virginia Tech will provide information on soil texture, pH, lime content, and available phosphorus and potassium. Soil tests should be performed every 3 to 4 years. The sample should be submitted in the fall, prior to planting or tilling so that needed lime or sulfur can be added to change the pH over the winter. Fertilizers should be incorporated the next spring. Soil testing kits are available at your local Extension office and all Henrico County libraries.

As you can see, vegetable gardening neither begins nor ends with those wonderful vine-ripe tomatoes. As winter approaches, follow good garden care practices so that your garden will be ready to produce healthy vegetables next spring.

Fall Vegetable Gardening Extension Publications found at pubs.ext.vt.edu
(search by publication number)

Vegetable planting guide – publication 426-331	Planning the vegetable garden – publication 426-312
Cole crops and Brassicas – publication 426-403	Leafy green vegetables – publication 426-408
Onions, garlic and shallot – publication 426-411	

Fall Color in the Garden

Autumn is coming! Soon, the air will be crisp and cool, the sky a brilliant blue and colors of red, orange, yellow, gold and scarlet will be all around us. After a long (usually dry) summer in Central Virginia, our gardens are ragged and worn out. Thank goodness nature is preparing for the most colorful season yet.

In autumn, many gardens are winding down for the year, but some are just gearing up for their turn in the spotlight. Some may think the end of summer means the end of gardening. But fall is a wonderful time to plant trees, shrubs, bulbs and tend to your lawn.

Fall color is often thought of with regard to trees, but shrubs, annuals and perennials can offer just as much interest. Here are just a few to consider to brighten up a tired looking garden:

Annuals

- Snapdragons
- Flowering Cabbage and Kales
- Pansies

Perennials

- Asters
- Chrysanthemums

- Sage
- Sedum

Shrubs with Fall Foliage

- Crape myrtle – red, orange, yellow
- Oakleaf Hydrangea – scarlet, purple
- Virginia Sweetspire – red

Shrubs with Fall Flowers or Berries

- Viburnum – berries
- Witch Hazel – flowers
- Virginia Sweetspire – flowers
- Camellia – flowers

Trees with beautiful fall foliage

- Black gum – red
- Dogwood – scarlet
- Sourwood – scarlet
- Sugar maple – red, orange, yellow
- Sweet Gum – scarlet, purple
- Red oak – red

The work you do in the fall is an investment that will last you year after year. As the weather cools off it is an ideal time to give your garden a striking and colorful look for the season, however, it's also an important time to prepare your plants for the winter and begin thinking ahead about your spring gardening.



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Please help us spread the campaign's message about the many benefits of the region's native plants!

Virginia native plants provide:

-  Offer beautiful with appealing foliage, flowers and berries that can make your landscape attractive and welcoming.
-  Are easy and cost-effective to maintain because they're naturally adapted to our soils and climate.
-  Are critical for wildlife that depend on them for food and habitat.

Thank plant providers when they stock and recommend Virginia Capital Region native plants! Tell them you will share the news!

GET YOUR FREE COPY TODAY!

For a list of distribution centers or to download a copy, visit:

www.PlantVirginiaNatives.org

Individual copies of the publication are also available for pickup from the Henrico Extension Office.

Amaryllis

Fall is a great time to talk about Amaryllis. You most likely have seen the bulbs for sale in a variety of places from the traditional greenhouse or garden center operation, to the big box hardware store and even your grocery store. Or maybe you got an Amaryllis in bloom before but have never been able to get it to re-flower.

In the past, amaryllis came in a few basic colors – mostly red, but also in white or pink. But now, in addition to several shades of red, color choices now range from whites to oranges, to salmon and pink. The blooms may be solid in color or include stripes or streaks of different colors or shades. And they come in single, semi-double, or double form.

How to plant an Amaryllis bulb

- First of all, select the largest bulb possible. The larger the bulb, the better the flower. When buying quality bulbs cheaper is not always better. Also, buy your bulbs as soon as they are available. This way you can control storage of the bulb until you are ready for it to be planted.
- Make sure the bulb is firm, dry, and free of mold or signs of decay.
- Select a pot that is a couple inches wider than the bulb and it has a hole for drainage. Amaryllis bulbs perform best when slightly pot bound, so don't put in too big of a pot.
- Place some soil in the bottom of the pot. Place the bulb in the pot and add potting soil to about ½ inch from the top of the pot. Amaryllis bulbs don't like to be covered, so leave the top one third of the bulb exposed.
- Firm the soil around the bulb and then water thoroughly to settle the potting soil.
- Place the pot in a window where it will receive bright light. The bulb will generally begin to sprout foliage within two or three weeks.
- Keep the soil just barely moist. Don't allow the soil to dry out but don't let it get soggy either.
- As the foliage starts to emerge, turn the pot a quarter turn every few days so that the plant will be symmetrical. Otherwise, it will lean toward the light.
- You may need a flower support as the flower spike expands and develops. The flower can be very heavy.
- As the flowers start to open, move the plant out of direct sunlight and keep it in a cooler location to prolong the flowering period.



Image by [Alina Kuptsova](#) from [Pixabay](#)

Caring for your Amaryllis after it has finished blooming

In order to get your amaryllis to re-bloom the following year continue caring for it and nurture it as you would any other house plant. After the plant finishes blooming, remove the spent blooms and flower stalk. Place it in a bright, sunny spot indoors where it can get at least 6 hours of bright light daily. Water the plant when the top inch or two of soil feels dry. After all danger of frost is past in the spring, gradually acclimate your amaryllis to the outdoors by moving it into a shady or

protected spot. After about a week you can safely move it into full sun for at least six hours a day. I like to place my amaryllis around other container plants on my deck or porch so I don't forget to take care of it. Fertilize the plant over the summer months with a balanced fertilizer monthly.

Now, how do I get it to rebloom?

Around the time of the state fair, I bring my plant inside where it can stay cold, but not freeze. You can choose a closet, basement or like me, an unheated garage. At this point, withhold water to allow old growth to completely shrivel and dry up before you remove it. If you want it to re-bloom for the holidays, bring the pot indoors around the beginning of November, place it in a sunny window and begin watering. Repeat the steps above.

Amaryllis bulbs generally perform best when pot bound. This means you only need to re-pot them about every 3 to 4 years. Re-pot them after they have gone through a dormant period and are ready to re-flower.

What do insects do to survive the winter?

Paula Shrewsbury, Extension Specialist, University of Maryland

We are not far from the onset of colder weather and winter which always starts me thinking about how beneficial and other insects are able to survive the freezing cold of winter. Insects are cold blooded animals and are strongly influence by the environmental temperature. The answer is “they do it in a diversity of ways”. Insects vary in the life stage in which they “overwinter”. They may overwinter as adults, pupae, immatures (larvae or nymphs), or eggs. For example, wheel bugs spend the winter in the egg stage (see image). Praying mantids are another predatory species that overwinter as eggs within the styrofoam-like oothecae that the female produces (see image). Lacewings (predators) overwinter in their larval stage and some species of butterflies (pollinators), wasps (predators), and bees (pollinators) overwinter as adults. There are multiple strategies used by various insects to get through the winter, some of which are physiological and others behavioral and some insects use a combination of both.

Some insects survive winter's cold through a process called supercooling. Supercooling is when water cools below its freezing point without turning to ice. Insects use avoidance measures to avoid or stop the freezing of their bodies. Because insects are relatively small, their bodies contain little water so supercooling is not too much of an issue. As temperatures drop in autumn and early winter, many species of insects produce cryoprotectants, antifreeze-like compounds including glycerol and sorbitol, which prevent the formation of lethal ice crystals in bodies of overwintering insects. This “antifreeze” allows insects to



M. J. Raupp

An ootheca (egg case) of the Chinese praying mantis that was found on the vine of bitterweet in the winter. Photo: M.J. Raupp, UMD



At this time of year you should see wheel bug egg masses on the trunk of trees. Wheel bugs will spend the winter in its egg stage. Photo: P.M. Shrewsbury, UMD

survive even when ambient temperatures dip well below freezing. Woolly bear caterpillars and many of their relatives use this strategy.

Many insects will diapause (similar to hibernation in vertebrates) during the winter. Diapause is defined as an inactive stage of arrested development. Diapause results in the reduction of the insect's metabolic rate to 1/10 or less its normal rate. This allows the insect to use its stored body fat to survive the cold winter and there is enough body fat because of the reduced metabolic demands. You may have noticed some insects aggressively feeding in the fall in an effort to store up on carbohydrates to help get them through the winter. In the spring, the onset of warmer temperatures will break or stop an insect's diapause and they begin to develop at "normal" or seasonal rates. Other insects, such as the Mexican bean beetle, will develop and breed continuously throughout the year if conditions are favorable, but will "hibernate" as an adult for several months if exposed to low temperatures (37.4 °F or lower).



Monarchs migrate south in the winter to escape the freezing temperatures of the north.
Photo: M.J. Raupp, UMD

Migration to warmer climates is a strategy some insects use to escape the freezing temperatures. Monarch butterflies are one of the most magnificent examples of a beneficial that migrates.

Other insects tolerate the cold by hiding in protected, warmer locations. Lady bird beetles move up to rocky outcroppings and hide among the rocks. Others, like the multi-colored Asian lady beetle, mistake homes and other structures for rocky outcroppings. Some beetles, like the overwintering white grubs of scarabs, burrow deeper in the soil to stay below the frost line and escape the freezing temperatures. Other insects hide in leaf litter, and under dead plant material or stones such as hawthorn lace bug, grasshoppers, and some butterflies. Others such as bark beetles and checkered beetles hide under bark flakes or in bark cracks of certain tree species. The nymphs of dragonflies and mayflies live in water of ponds and streams where they are active below any ice layer that forms. Other insects find completely dry locations to overwinter where ice crystallization cannot occur. Other insects completely empty their gut before they go into diapause to reduce the likelihood of ice crystallization.



Some insects such as brown marmorated stink bug adults find protected locations to overwinter. Unfortunately, these locations are often homes or other structures.
Photo: P.M. Shrewsbury, UMD

Other factors that may influence overwintering survival of insects is how cold the temperatures get, fluctuations in temperatures and how rapidly they fluctuate, how long temperatures stay cold, and if there is snow cover or not.

The reasons insects, as a group, are so successful is their ability to adapt and evolve. So don't worry too much about beneficial insects. Insects have been surviving freezing temperatures for millions of years and have become very good at it.

Educational Opportunities from the Henrico Extension Office

Fall Lawns: The Best Time to Think of Lawns: Henrico Extension Office, Demonstration Kitchen, 2nd Floor, 8600 Dixon Powers Drive 23228, Monday, August 26; 7-8:30 PM. The fall is a great time to start or repair your lawn. In this session, learn about all the fall tasks to make your lawn look great. Cost \$10; to register call 501-5160. All participants receive a rain gauge, turf ruler, coupons for 2 free soils tests and our 26 page color SMART Lawns lawn care booklet.

Master Gardener Clinics

Ask a Henrico Master Gardener your Gardening Questions at the following local events!

Stranges Greenhouse 12111 W. Broad Street Rd. Richmond, VA 23233	Lowe's 8001 Brook Rd. Richmond, VA 23227
Saturdays from 9 am to 3 pm September 7 September 21 September 28	Saturdays from 8 am to 12 pm October 5 October 12 October 19 October 26

Horticulture Hotline

When plant, insect, and wildlife problems happen in the lawn or garden, who do you call? A team of trained Master Gardeners are available to help answer gardening and pest questions, and solve problems using current research-based information.

By calling the helpline, you'll find yourself in contact with someone who will help identify the cause of your problem, or give an answer to your question using Virginia Tech and Virginia State University's experience and research knowledge. If the issue is addressed in one of our many factsheets, it will be sent to you for your reference.

You can reach the Horticulture Helpline by calling: (804) 501-5160.

You can also submit questions online at <http://bit.ly/Henricoaskanexpert> . Make sure to select Henrico County in the appropriate drop down box.

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Extension is a joint program of Virginia Tech, Virginia State University, the U.S. Department of Agriculture, and state and local governments.



1 pm to 4 pm

**Deep Run Recreation Center
9900 Ridgefield Pkwy.
Richmond, VA 23233**

The Bug Bizarre is a way to celebrate the fun and excitement of the science of entomology! Youth and Adults will learn and discovery about insects and their relatives through a variety of outreach and engagement booths. There will be information tables on a variety of subjects, including pollinators, garden insects, forest pests, public health, and *live insect displays* along with children's activities.

Cost: Free!

For more information: Contact the Henrico Extension Office at 501-5160.



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Become a Henrico Master Gardener Volunteer



Program Highlights:

- Join other gardening enthusiasts
- Share experiences and interests
- Learn about lawns, gardens, trees, vegetables, fruits, flowers
- Enjoy educational hands on seminars, garden tours
- Learn to work with the environment, sustainable landscapes and pest management
- Propagate new plants from cuttings, roots, bulbs and seeds
- Learn to prune fruit trees, meet an arborist, and enjoy hands-on-experience

Become A Henrico County Master Gardener

- Applications due October 25, 2019
- Training 2 mornings weekly (~50 hours), January—March 2020
- Participate in 50 volunteer service hours
- Share information through help desks, exhibit booths, at garden centers & special events
- 20—24 training slots available
- 8600 Dixon Powers Drive, Henrico VA 23228

(804)-501-5160

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*2020 Training
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**Application available for
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