



GardenWise

August 2011

SUMMER CROPS PEAKING - TIME TO PLAN FOR FALL

Although your garden is currently full of beans, tomatoes, okra, summer squashes, cucumbers, peppers and other summer crops, it is now time for you to start clearing garden spaces where you can and start planning for your fall garden. We will be including a fall planting guide in this newsletter to help you get started. Also, look for an article on ideas to extend your growing season to get maximum use of your garden space.

Some gardeners opt not to plant a fall garden, but planting in the fall is actually one of the easier times to garden in the south. There are less bugs, the temperatures are cooler and one doesn't need to spend so much time watering. Some of the many crops that can be planted include collards, mixed greens, lettuces, radishes, beets, cabbage, Chinese cabbage, and Brussels sprouts. Check the planting guide in this newsletter for crops you might be interested in including in your fall garden.

Regardless whether you plant a fall garden or not, one of the most important things you can do towards next year are getting a soil test, completing clearing your garden space of old plants and debris, as well as mulching your garden with leaves to control the growth of winter weeds.

We hope your spring and summer garden season has brought you successes. Remember we learn from our failures so if this is your first attempt at gardening don't be too discouraged.

LeAnn Glessner

EMGV



Planting the Fall Garden

Direct seeding (planting seeds rather than using transplants) for crops such as broccoli, cabbage, and collards is often used in the fall. However, the success of this planting method depends on having adequate moisture available to keep the young seedlings actively growing after germination. If you do not have an irrigation source available, you would be wise to buy vegetable transplants from a local garden center. Seeds should be planted deeper in the fall because the moisture level is lower in the soil and the surface temperature is higher. In many cases, the planting depth may be 1 1/2 to 2 times as deep as for spring planting of the same crop.

Our summers can be hot and dry. Soils may form a hard crust over the seeds which can interfere with seed germination, particularly in heavy clay soil. Seeds of lettuce and spinach will not germinate if the soil temperature exceeds 85° F. You may need to cover the seeded area with burlap cloth, newspapers, or boards to keep the soil cool and moist. Shading the soil or using a light mulch over the seed row will help keep the temperatures more favorable for germination. The shading material must be removed as soon as the seeds begin to germinate. Another useful technique is to open a furrow, seed, and cover the seeds with potting soil or vermiculite. Young transplants may also benefit from light shading for the first few days after transplanting.

Watering/Fertilizing

Most vegetables require 1 inch of water per week. It's best to make a single watering that penetrates deeply rather than frequent shallow applications. Young seedlings and germinating seeds may need more frequent, light waterings. Do not allow seedlings to dry out excessively. New transplants may also benefit from frequent light waterings until they develop new roots.

Many fall maturing vegetables benefit from side-dressing with nitrogen just as do spring maturing vegetables. Most leafy vegetables will benefit from an application of nitrogen three and six weeks after planting.

Insects and Diseases

It is not uncommon for insects and diseases to be more abundant in the fall. Most problems from insects and diseases result from a buildup in their populations during the spring and summer. There is hope of keeping these pests at tolerable levels, however, if a few strategies are followed. Strive to keep fall vegetables healthy and actively growing; healthy plants are less susceptible to insects and diseases. Check the plants frequently for insect and disease damage. When sufficient damage is detected, use an approved pesticide. You may decide not to grow vegetables, such as squash, corn, and cucumbers, that are specially insect and disease prone during late summer and fall.

Frost Protection

You can extend the season of tender vegetables by protecting them through the first early frost. In North Carolina, we often enjoy several weeks of good growing conditions after the first frost. Cover growing beds or rows with burlap or a floating row cover supported by stakes or wire to keep the material from directly touching the plants. Individual plants can be protected by using milk jugs, paper caps, or water-holding walls.

Most of the semi-hardy and hardy vegetables will require little or no frost protection. Semi-hardy vegetables should be harvested before a heavy freeze. Root crops such as carrots and radishes should be harvested or mulched heavily before a hard freeze. The harvest of mulched root crops can often be extended well into the winter. During mild winters, harvest may continue till spring.

Published by North Carolina Cooperative Extension Service

Distributed in furtherance of the Acts of Congress of May and June 30, 1914. Employment and program opportunities are offered to all people regardless of race, color, national origin, sex, age, or disability. North Carolina State University at Raleigh, North Carolina A&T State University, U.S. Department of Agriculture, and local governments cooperating.

Table 1. Fall Vegetable Planting Guide.

Vegetables	Suggested Planting	Suggested Cultivars	Inches Between Plants	Planting Depth (inches)	Cold Tolerance	Days to Maturity
Asparagus (crowns)	Nov. 15 to Mar. 15	Mary Washington, Jersey Giant, Jersey Gem	15	6.0	--	2 years
Beets	July 15 to Aug. 15	Ruby Queen, Early Wonder, Red Ace, Pacemaker II	2	0.5 to 1.0	Semi-hardy	55 to 60
Broccoli	July 15 to Aug. 15	DeCicco, Packman, Premium Crop, Green Duke, Emperor	18	0.5 to 1.0	Hardy	70 to 80
Brussels sprouts	July 1 to 15	Long Island Improved, Jade Cross Hybrid	20	0.5 to 1.0	Hardy	90 to 100
Cabbage (plants)	Aug 1 to 15	Round Dutch, Early Jersey Wakefield, Red Express, Red Rookie, Sweetbase	12	0.5 to 1.0	Hardy	70 to 80
Cabbage, Chinese	Aug. 1 to 15	Pak Choi, Mei Ching, Jade Pagoda, China Pride	12	0.5 to 1.0	Hardy	75-85
Carrots	July 1 to 15	Danvers Half Long, Spartan Bonus, Little Finger, Thumbelina, Scarlet Nantes	2	0.25 to 0.5	Hardy	85 to 95
Cauliflower	Aug 1 to 15	Early Snowball "A", Violet Queen, Snowcrown	18	0.5 to 1.0	Semi-hardy	55 to 65
Collards	July 15 to Aug. 15	Vates, Morris' Improved Heading, Carolina, Blue Max	18	0.5 to 1.0	Hardy	60 to 100
Cucumbers, pickling	Aug. 1 to 15	Carolina, Calypso, Liberty (mnts.), County Fair '83	10	1.0 to 1.5	Tender	40 to 50
Cucumbers, slicing	Aug. 1 to 15	Poinsett 76, Sweet Slice, County Fair '83, Salad Bush, Fanfare	10	1.0 to 1.5	Tender	40 to 50
Kale	Aug. 15 to Sept. 1	Green Curled Scotch, Early Siberian, Vates, Dwarf Blue Curled Scotch, Blue Knight	6	0.5 to 1.0	Hardy	40 to 50
Kohlrabi	Aug. 1 to Sept. 1	White Vienna, Grand Duke Hybrid	4	0.5 to 1.0	Hardy	50 to 60
Lettuce (leaf)	Aug. 1 to Sept. 1	Grand Rapids, Salad Bowl, Buttercrunch, Red Sails, Romulus	6	0.25 to 0.5	Semi-hardy	40 to 50
Lettuce (head)	Aug. 15 to 31	Great Lakes, Ithaca	10	0.25 to 0.5	Semi-hardy	70 to 85
Mustard	Aug. 1 to Sept. 15	Southern Giant Curled, Tendergreen, Savannah	2	0.5 to 1.0	Hardy	30 to 40
Onions (seeds)	Sept. 1 to 30	Texas 1015, Granex 33, Candy	4	0.5 to 1.0	Hardy	130 to 150
Onions (sets or plants)	Sept. 1 to 15	Ebenezer, Excell, Early Grano	4	--	Hardy	60 to 80
Radishes	Aug. 15 to Sept. 15	Early Scarlet Globe, Cherry Belle, Snowbells, White Icicle	1	0.5 to 1.0	Hardy	25 to 30
Radish, Diakon	Aug. 15 to Sept. 15	April Cross, H. N. Cross	4	0.5 to 1.0	Hardy	60 to 75
Rutabagas	July 1 to Aug. 1	American Purple Top, Laurentian	4	0.5 to 1.0	Semi-hardy	70 to 80
Spinach	Aug. 1 to 15	Hybrid 7, Dark Green Bloomsdale, Tyee Hybrid	6	0.5 to 1.0	Hardy	50 to 60
Turnips	Aug. 1 to 31	Purple Top White Globe, Just Right, Tokyo Cross Hybrid, White Egg, All Top	2	0.5 to 1.0	Hardy	55 to 60

FALL CLEAN UP TIPS FOR A HEALTHY GARDEN

Fall is a great time for garden and landscape maintenance. The temperatures are cooler, making several important gardening jobs more pleasant to do this time of year. Tasks like garden clean up, monitoring your garden, soil testing, cultivating, mulching and weed control will help your garden get off to a healthier start next season. Enjoy the beautiful weather over the next few months by getting out into your yard and following these few tips for a healthy garden.

Clean Up

August is the best time to start cleaning up and discarding plants that have finished their productive season. Remove dead fallen leaves and diseased plants. Leaving infected plant material in the garden will provide a safe haven for plant diseases and insects. If infected material is left in the garden, next spring you will have a worse disease and insect problem. Healthy plant material showing no signs of disease can be composted and returned to the garden as compost in future years. Even with a good clean up, plant pathogens can survive the winter in infected plant debris. Pull up and discard old tomato plants at the end of the growing season to help reduced root-knot nematode problems. Check trees for dead limbs and twigs as diseases thrive over winter on dead wood.



Monitor Your Garden

Walk around the garden weekly to monitor plants and identify problems. Regular monitoring allows you to compare from week to week how the plants look, so an insect problem will be noticed early on. Insects are more easily managed with early detection which allows time to control them before damage is severe and unsightly.

Soil Testing and Improvement

Now is a good time to test your soil since the busy growing season is coming to a close. Improving the soil is a proven method of reducing plant stress and decreasing soil borne diseases. Good soil drainage, proper soil PH and optimum fertility produce good healthy plants that are more resistant to insects, diseases, and environmental stresses. Soil testing will reveal pH and nutritional problems that can be corrected now to support healthier growth for the next growing season.

Cultivate Flower Beds and Vegetable Gardens

Cultivation can expose soil insects and disease organisms to the weather and birds. Lightly turning the soil, deep plowing, or soil removal, depending on the size of your area, can help control some soil borne diseases. A layer of leaves several inches thick prevents weed formation over the winter months and is especially beneficial in a community garden setting. The leaves will slow down the formation of chickweed and henbit over the cool season months.

Mulch

Mulching gives landscape plantings a fresh look while helping to reduce some plant diseases. A layer of mulch acts as a barrier between the soil and the plant and may prevent disease infested soil from splashing onto the plants during watering or heavy rain. Mulching will also enhance the total health and vigor of most plants. Three to four inches of mulch is perfect around most plants, as deeper levels can cause additional problems. If the mulch is already at this level, raking the mulch will give it a fresh look. When adding additional mulch be careful to select quality mulch, compost and manure; otherwise, inferior material may introduce new weeds.

Weed Control

Weeds should be removed while they are young. Some weeds can harbor diseases and insects that spread diseases. Weeds will seed and increase the weed population next spring. When practical, remove weeds with a trowel or shovel, digging down to get the roots. Mulching will help suppress weed growth but will never totally eliminate weeds.

To learn more about caring for your landscape throughout the year contact Guilford County Cooperative Extension Service by calling the Master Gardeners at 336-375-5876.





Kitchen Gardeners

A global community cultivating change



Kitchen Garden Day is an annual, decentralized celebration of food produced on a human-scale. It is recognized each year on the 4th Sunday of August. It is an opportunity for people around the world to gather in their gardens with friends, family, and members of their local community to celebrate the multiple pleasures and benefits of home-grown, hand-made foods.

Why not plan a time that day to visit your community garden?

Background:

KGI initiated Kitchen Garden Day in 2003 as a healthy response to "Snack Food Month" organized by the International Snack Food Association each February. The thinking was that if the makers of potato chips, pretzels and fluorescent orange cheese doodles could spend 28 days and millions of dollars promoting their foods, the world's kitchen gardeners should be able to have at least a day for celebrating theirs.

Goals:

- To celebrate the positive role of organic kitchen gardening in society, health, and gastronomy
- To raise awareness about the benefits of eating local and to encourage people to explore local food options in their areas
- To build community spirit, at local and international levels, around the universal experiences of gardening, cooking, and eating

Activities:

How people celebrate International Kitchen Garden Day and with whom is up to them. Some choose to do so in public ways with large gatherings of friends and neighbors, whereas others opt for a more intimate celebration with close family.

Here are a few ideas for some activities you might consider organizing depending on the level of involvement you would like to have:

- a walking tour of gardens in your area
- a kitchen garden or local agriculture potluck
- a kitchen garden taste-test
- a harvest or planting party
- a benefit for a local food/gardening charity
- a kitchen garden "teach in"
- a single food theme party
- an activity at a local farm
- etc.



Season Extenders

Authors as Published

Diane Relf, Extension Specialist, Horticulture, Virginia Tech; and Alan McDaniel, Extension Specialist, Horticulture, Virginia Tech



To get the most out of a garden, you can extend the growing season by sheltering plants from cold weather both in early spring and during the fall. Very ambitious gardeners harvest greens and other cool-weather crops all winter by providing the right conditions. There are many ways to lengthen the growing season, and your choice depends on the amount of time and money you want to invest.

Cold frames and hot beds

Cold frames, sun boxes, and hot beds are relatively inexpensive, simple structures providing a favorable environment for growing cool-weather crops in the very early spring, the fall, and even into the winter months. Some are elaborate and require a large investment, but are reasonable for those who are serious about having home-grown fresh vegetables during the winter.

Cold frames and sun boxes have no outside energy requirements, relying on the sun for their source of heat. Hot beds are heated by soil-heating cables (Fig. 1); steam-carrying pipes; or fresh, strawy manure buried beneath the rooting zones of the plants. All of these different types of structures collect heat when the sun's rays penetrate the sash, made of clear plastic, glass, or fiberglass.

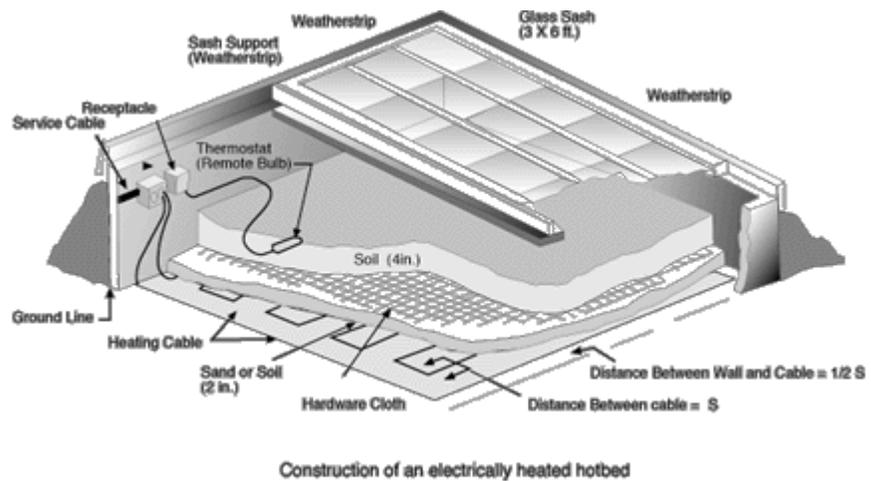


Figure 1.



The ideal location for a cold frame (Fig. 2) is a southern or southeastern exposure with a slight slope to ensure good drainage and maximum solar absorption. A sheltered spot with a wall or hedge to the north will provide protection against winter winds. Sinking the frame into the ground somewhat will also provide protection, using the earth for insulation. To simplify use of the frame, consider a walkway to the front, adequate space behind the frame to remove the sash, and perhaps weights to make raising and lowering of glass sashes easier. Some gardeners make their cold frames lightweight enough to be moved from one section of the garden to another. Another possibility is the Dutch light, which is a large, but portable, greenhouse-like structure that is moved around the garden.



Figure 2

New designs in cold frames include passive solar energy storage. For example, barrels painted black and filled with water absorb heat during the day and release it at night. The solar pod (Fig. 3) is one design that provides for this type of heat storage. Other new cold frames are built with a very high back and a steep glass slope and insulated very well; these may also include movable insulation that is folded up during the day and down at night or during extremely cold weather.

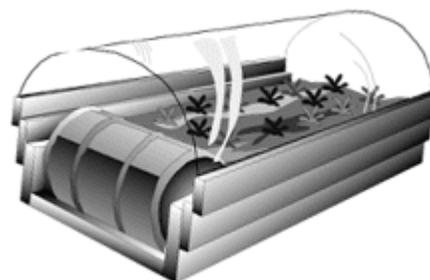


Figure 3



You may convert your cold frame to a hotbed (Fig. 4). For a manure-heated bed: 1) dig out to 2 feet deep (deeper to add gravel for increased drainage); 2) add an 18-inch layer of strawy horse manure; and 3) cover with 6 inches of good soil. For an electric heated bed: 1) dig out an area 8 inches deep; 2) lay down thermostatically controlled electric cable in 6- to 8-inch long loops, evenly spacing cable, but never crossing; 3) cover with 2 inches of sand or soil; 4) lay out hardware cloth to protect cable; and 5) cover with 4 to 6 inches of good soil.

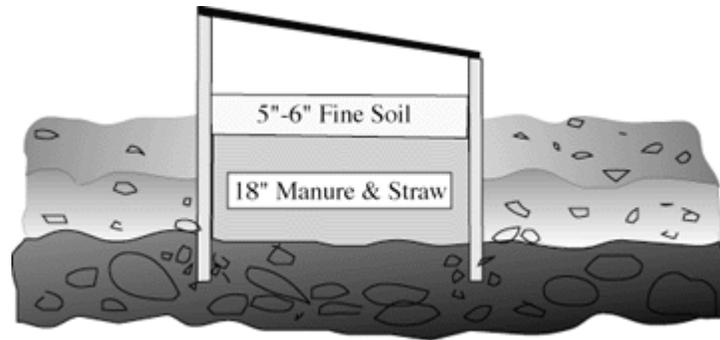


Figure 4. Hotbed using manure.

Building a Cold Frame

Growing frames can be built from a variety of materials; wood and cement block are the most common. If you use wood, choose wood that will resist decay, such as a good grade of cypress or cedar. Wood frames are not difficult to build. Kits may also be purchased and easily assembled; some kits even contain automatic ventilation equipment.

There is no standard-sized cold frame. The dimensions of the frame will depend on the amount of available space, desired crops, size of available window sash, and permanency of the structure. Do not make the structure too wide for weeding and harvesting; 3 to 4 feet is about as wide as is convenient to reach across. The sash of the frame should be sloped to the south to allow maximum exposure to the sun's rays.

Insulation may be necessary when a sudden cold snap is expected. A simple method is to throw burlap sacks filled with leaves over the sash on the frame at night to protect against freezing, or bales of straw or hay may be stacked against the frame.

Ventilation is most critical in the late winter, early spring, and early fall on clear, sunny days when temperatures rise above 45°F. The sash should be raised partially to prevent the buildup of extreme temperatures inside the frame. Lower or replace the sash each day early enough to conserve some heat for the evening.

In summer, extreme heat and intensive sunlight can damage plants. This can be avoided by shading with lath or old bamboo window blinds. Watering should be done early so that plants dry before dark, to help reduce disease problems.

Using Your Cold Frame

In early spring, a cold frame is useful for hardening-off seedlings that were started indoors or in a greenhouse. This hardening-off period is important as seedlings can suffer serious setbacks if they are moved directly from the warmth and protection of the house to the garden. The cold frame provides a transition period for gradual adjustment to the outdoor weather. It is also possible to start cool-weather crops in the cold frame and either transplant them to the garden or grow them to maturity in the frame.

Spring and summer uses of the cold frame center on plant propagation. Young seedlings of hardy and half-hardy annuals can be started in a frame many weeks before they can be started in the open. The soil in a portion of the bed can be replaced with sand or peat moss or other medium suitable for rooting cuttings and for starting sweet potato slips.

Fall is also a good time for sowing some cool-weather crops in frames. If provided with adequate moisture and fertilization, most cool-season crops will continue to grow through early winter in the protected environment of the cold frame. Depending on the harshness of the winter and whether or not additional heating is used, your frame may continue to provide fresh greens, herbs, and root crops throughout the cold winter months.

Cloches, Tunnels, and Row Covers

The cloche (pronounced klosch) was originally a bell-shaped glass jar set over delicate plants to protect them from the elements (Fig. 5). The definition has expanded, however, to include many types of portable structures that shelter plants from drying winds and cold air.

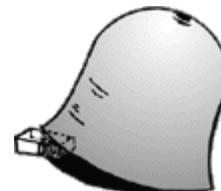


Figure 5.



Figure 6.

The idea is to provide a greenhouse-like atmosphere for seeds and small plants in order to get an early start on the season or to extend the fall garden as long as possible. Cloches are set out over individual plants or are made into tunnels for whole rows. They trap solar radiation and moisture evaporating from the soil and plants. The hotcap is a simple form. More elaborate ones are fiberglass tunnels, special plastic cloches, row covers (Fig. 6.) with slits in them to allow some aeration, and panes of glass connected by specially designed hinges to form a tent. There are a variety of forms on the market now, some work, some don't, and some are easily constructed from materials around the home.



Floating Row Covers

Row covers are a more recent development in extending vegetable production past frost dates. They are simple devices, pieces of material (in spun bonded polyesters) laid over transplants in the field. As the plants grow taller, the plants push up the material. Row covers retain heat and protect against frost so crops can be planted earlier in the spring and harvested later in the fall. They have demonstrated insect and vertebrate pest protection while also protecting plants from wind damage.

Row covers generally provide 4 to 5 degrees of frost protection, so cool-season crops can be planted in air temperatures as low as 28°F. Covers should be removed from the crops when air temperatures beneath the cover reach 80°F. Problems associated with row covers are lower light transmission, as nonwoven materials allow 75 to 80% transmission of light to the crop. The fabric covers can be extended through two seasons if treated with care. If used in conjunction with other season-extending techniques, row covers can mean earlier harvests with greater yields in addition to extended harvests.



Hotcaps

Hotcaps (Fig. 7) function as miniature greenhouses, trapping the heat from solar radiation. An effective hotcap transmits sufficient solar energy for photosynthesis and for warming the air inside, but not so much that overheating damages the plant. Hotcaps also must retain sufficient heat throughout the night to protect plants against low-temperature injury. Hotcap designs vary from wax paper cones to water-filled, plastic tepees (Wall-O-Water™). All hotcap designs are most effective during sunny weather and have little effect on temperature during cloudy periods. The greatest temperature differences occur during sunny days and clear nights. However, hotcaps transmit less than 70 and 50% of the available solar energy and photosynthetic photon flux, respectively. The reduced light transmittance contributes to poor plant development inside hotcaps. Low light transmittance may lead to stunted and/or chlorotic plants. Using hotcaps, the mean time to first ripe fruit can be decreased by as much as five to ten days.



Figure 7.

Although the Wall-O-Water™ is reusable, cleaning is time consuming, and the Wall-O-Water™ is quite expensive compared to other hotcaps. However, research has shown them to be more effective than other materials and can add several weeks growth to the early part of the season. Wax paper hotcaps are easy to install and disposable. Plastic jugs may be difficult to secure in the field and can only protect small plants; they do not retain sufficient heat to provide frost protection. They can delay fruit development unless ventilation is provided and can become hot enough to kill plants. For most gardens, simply cover plants overnight if there is a danger of frost. Be sure to remove the covering during the day.



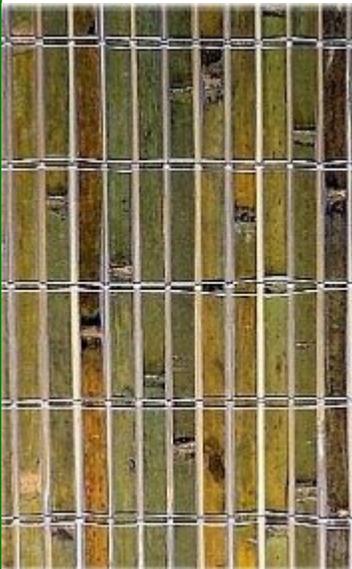
Greenhouses

There is an almost overwhelming selection of greenhouses on the market, and plans for building even more types are available. If you intend to purchase or build a greenhouse, it is wise to investigate the alternatives thoroughly, preferably visiting as many operating home greenhouses as possible. List your needs and wants ahead of time, and determine how you will use your greenhouse. Then compare on that basis. Many companies will send free specifications and descriptions of the greenhouses they offer; look in gardening magazines for their ads.

The conservation-minded person may find a solar greenhouse desirable. The initial cost is generally higher for a solar greenhouse than for the simpler, free-standing, noninsulated types, but for maximum use with lower heating bills, one can insulate north and side walls, provide liberal glass area for winter sun-catching, and make use of some type of solar radiation storage. When attached to a house, these greenhouses can be used for supplementary household heating, but there is a trade-off between heating the home and growing plants (especially heat-loving ones) in the greenhouse. Some researchers have concluded that a good compromise is to forget winter tomatoes and grow cool-weather crops during the winter in a solar attached greenhouse. In addition, they may retain excessive amounts of heat from late spring to fall and can make cooling the home more difficult.

Shading

It is not always easy to start seeds or young plants for fall crops in the hot and dry conditions of August. One simple way to provide shade in otherwise exposed conditions is to build a portable shade frame for placing over rows after seeds are sown or transplants are set out. This can be the same type of frame used for starting early seeds, but using lath strips or an old bamboo shade instead of plastic.



Disclaimer:

Commercial products are named in this publication for informational purposes only. Virginia Cooperative Extension does not endorse these products and does not intend discrimination against other products which also may be suitable.

Rights

Virginia Cooperative Extension materials are available for public use, re-print, or citation without further permission, provided the use includes credit to the author and to Virginia Cooperative Extension, Virginia Tech, and Virginia State University.

Publisher

Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Alan L. Grant, Dean, College of Agriculture and Life Sciences; Edwin J. Jones, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; Jewel E. Hairston, Interim Administrator, 1890 Extension Program, Virginia State, Petersburg.

The Three Sisters

By Bruce Barnes

When you hear the term "**The Three Sisters**" do you think of a group of ultra-exclusive woman's colleges? What about a drama by Anton Chekhov? Actually, the term refers to something much more interesting to gardeners.

The Three Sisters are the three vegetables which were the mainstays of many Native American groups - corn (maize), pole beans, and squash, planted together. We think of this as an early example of companion planting. To the Native Americans, they represent three inseparable sisters who only grow and thrive together. For example, the Iroquois believe that corn, beans, and squash were gifts from the Great Spirit, each watched over by one of three sister spirits. The planting and harvesting seasons are marked by festival ceremonies celebrating these crops, which were basic to survival.

The three crops are planted close together. The corn plant provides the pole for the beans to climb and the squash provides cover and shading, so as to reduce weeds. Typically, several kernels of corn are planted in a small mound. After the corn has germinated and is about 6 inches tall, the bean and squash seeds are planted alternatively in a circle around the corn shoot.

The corn provides a "pole" for the beans to grow on, as well as nitrogen to supply the corn (a heavy feeder) and the squash with an important nutrient. The squash acts as a living, growing mulch. From a nutritional standpoint, the beans provide essential amino acids which are absent in corn. The squash grown by many Native American groups, similar to today's winter squash and pumpkins, provided vitamin A as well as other important nutrients.

Our First Thanksgiving was based on **The Three Sisters**, thanks to Squanto, as legend has it. It is certain that the early European Settlers would not have survived without the gift of the **Three Sisters**. We still honor this tradition at Thanksgiving with our traditional squash (pumpkin) pie.

We can see an homage to **The Three Sisters** on the obverse of the 2009 Native American dollar (Sacagawea dollar coin). Plant **The Three Sisters** and celebrate our pre-history.



Successful Approach to Killing Bermuda Grass

By Emily Tyler, EMGV

If your plot is surrounded by grass, chances are you have been dealing with Bermuda grass (also known as wire grass). Its long runners creep under the boards surrounding the beds and proceed underground, making their way up through the soil into the bed. In plot #39 I have been trying to keep the grass at bay by pulling or digging it up. But in no time it was back with a vengeance. It's impossible to remove the grass without leaving tiny rootlets which will produce new plants. With this spring's rain my Bermuda grass reached a height of 18 plus inches, all but concealing the potato plants in the same area. It was time to take serious action to stop this invasion, now covering almost 30 sq. ft.

From the master gardener classes I learned about a product called Vantage, which kills grass but does not harm vegetables, flowers or many other plants. I found it at Cardinal Chemical and after reading the lengthy instructions, I consulted with their staff about its use. It's important not to spray if the temperature is going to be 100 degrees or above. The foliage needs to be dry without rain expected that day for best results. On a perfect day weather-wise, I calculated how much to use and proceeded to fill my pump sprayer with three ounces of Vantage mixed with a gallon of water. If the grass had been only 6" high instead of up to 18", just two ounces would have sufficed. I positioned the tank in the car so it wouldn't spill and headed for the garden. The movement of the mixture while riding helped to keep it agitating which was important, also while applying the spray.

Once at the garden I pumped the sprayer to build up pressure and approached the bed. As instructed on the label I was wearing long pants, long-sleeved shirt, shoes and socks, and chemical-resistant gloves as well as eye protection. According to the directions I sprayed the grass thoroughly and uniformly, wetting the blades but not to the point of runoff. I was concerned that the solution might not have reached the lower portions sufficiently. I would have to wait and see. Of course the potato plants got their share of the spray as well.

I was not entirely optimistic about what the results would be as most of the grass was high and thick. I was supposed to see significant browning of the grass within about five days. It was a little brown around the edges by then so I anticipated I'd need to spray a second time. However, I remained patient and in a couple of weeks everything was turning brown! That is, everything but the potato plants and the sedges. The sedges growing abundantly in our garden look like grass but are not so the Vantage does not slow them down a bit.

Since I had spray remaining in the tank after spraying the Bermuda grass I sprayed the grass in the paths and around the outside of my plot and the neighboring plots as we share pests and invasive weeds and grasses with each other.



Mulches for the Home Vegetable Garden

Authors as Published

Diane Relf, Retired Extension Specialist, Horticulture; Alan McDaniel, Extension Specialist, Horticulture; Virginia Tech



Introduction

Mulching is a practice adaptable to nearly all home gardens. To mulch is simply to cover the soil around plants with a protective material, organic or inorganic.

Using a mulch can help you and your garden in many ways. Mulches reduce weed growth by making conditions unfavorable for germination of weed seeds and by providing a physical barrier for emerging weeds. A good mulch layer can save many hours of laborious weeding. A thick layer of organic mulch material is especially effective in reducing the number of annual weeds in the garden, since they have difficulty penetrating such a layer. Some perennial weeds may also be suppressed in this way if they are small, but often dandelions or other tap rooted weeds will eventually find their way through the mulch. These are easy to spot, and since the soil stays moist beneath the mulch, they are easy to pull. Rhizomatous grasses will often make their way through organic mulches as well, but often the rhizomes will be on or near the soil surface and will be easy to lift out. Black plastic and thick layers of newspaper are often better mulches for controlling perennial weeds.

Mulches are very useful for maintaining uniform moisture conditions in the garden. Water loss through evaporation is decreased, and soil erosion is decreased as the impact of a heavy rainfall is reduced by the layer of mulch. This allows a slow, steady water infiltration rather than the puddling and subsequent crusting which often occur with a heavy rain. Mulch also reduces splashing of soil onto the fruit, leaving fruits cleaner and helping to prevent the spread of disease.

Soil temperatures are modified by mulches to various degrees. Plastic mulches will warm the soil more quickly in the spring, increasing early plant development. Organic mulches act as insulation, helping keep soil temperatures cooler and, therefore, should be applied later in the season.

Organic mulches add nutrients and humus to the soil as they decompose, improving its tilth and moisture-holding capacity. Most organic mulches should be applied after plants are well established (4 to 6 inches tall). Cultivate out all weeds before spreading the mulch evenly over the bare soil between the plants. Apply organic mulches when there is reasonably good soil moisture and before the weather turns hot. Infiltration of rain water will be slowed somewhat by a mulch, so it is best not to



place the mulch over soil that is dry. Water thoroughly or wait for a good soaking rainfall before applying any mulch.

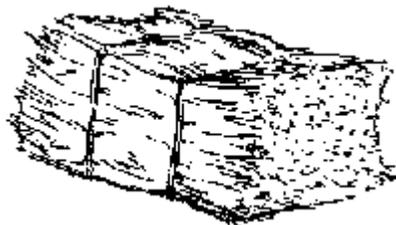
Inorganic mulches, such as plastic films and paper, are applied prior to planting. Black plastic and similar materials should be spread on land that has been completely prepared for planting and has a high moisture level. Place the mulch over the row to be planted, then bury the edge to prevent it from blowing away. Cut slits for seeding or setting transplants. A few additional slits can be made to allow water to infiltrate.

Purpose, availability, cost, and final appearance of a mulch will be the determining factors in choosing which type to use. An evaluation of the more commonly used mulches follows.

Organic Mulches

Sawdust - A 2-inch layer of sawdust provides good weed control. If applied around growing plants, add 1/2 pound of actual nitrogen per 10 cubic feet of sawdust to prevent nutrient deficiencies. Fresh sawdust contains a great deal of carbon and very little nitrogen, and its breakdown requires that microorganisms take nitrogen from the soil. A very thin layer of sawdust (1/4 inch) is useful in starting seeds because it helps keep moisture in; again, be sure nutrients are adequate. There is often a problem with crusting of fresh sawdust, with resulting impermeability of rainfall. Sawdust is best used for garden paths and around permanent plantings. Readily available from sawmills, it tends to be inexpensive.

Hay or straw - A 6- to 8-inch layer of hay or straw provides good annual weed control. These materials decompose quickly and must be replenished to keep down weeds. They stay in place and will improve the soil as they decay. Avoid hay that is full of weed seed and brambles. Fresh legume hay, such as alfalfa, supplies nitrogen as it quickly breaks down. Hay and straw are readily available in rural areas, but city dwellers may not be able to obtain hay. Straw, on the other hand, may be purchased at most garden centers, often commanding a high price. Both are recommended for vegetable and fruit plantings.



Pine needles - Baled pine needles are also found in garden centers for use as a mulch. They make an excellent mulch around shrubs, trees, and in other areas where a long-lasting mulch is desired. Readily available.



Shall I not have intelligence with the earth?
Am I not partly leaves and vegetable mould
myself.

- Henry David Thoreau





Grass clippings - A 2-inch layer of grass clippings provides good weed control. Build up the layer gradually, using dry grass. A thick layer of green grass will give off excessive heat and foul odors rather than decompose as other organic material. However, in limited quantity, clippings will decompose rapidly and provide an extra dose of nitrogen to growing plants, as well as making fine humus. Avoid crabgrass and grass full of seed heads. Also, do not use clippings from lawns which have been treated that season with herbicide or a fertilizer/herbicide combination. Grass clippings may be used directly as mulch around vegetables or fruit plants, or they may be composted. They are an excellent source of nitrogen to heat up a compost pile, especially for those gardeners without access to manures.

Leaves - A layer of leaves, 2 to 3 inches thick after compaction, provides good annual weed control. Leaves will decompose fairly quickly, are usually easy to obtain, attractive as a mulch, and will improve the soil once decomposed. To reduce blowing of dry leaves, allow to decompose partially. Highly recommended as a mulch.

Note: Leaves of the black walnut tree (*Juglans nigra*) are an exception due to the presence of juglone, a chemical that inhibits growth of many plants. While walnut roots and hulls cause most of the problems, the leaves also contain smaller quantities. Avoid using leaves collected from under black walnut trees as garden mulch. However, if leaves are obtained from a municipal collection source, the quantity of black walnut leaves likely will be diluted sufficiently that no injury should be observed. Several other nut trees also produce small quantities of juglone, and problems with sensitive plants are seldom seen even when growing under those tree canopies.

Peat moss - A 2- to 3-inch layer of peat moss will give fair to good weed control. However, peat tends to form a crust if used in layers thick enough to hold down weeds. It is very difficult to wet, and it tends to be blown away if applied dry. Peat is also a relatively expensive mulching material, probably more suitable for incorporation into the soil.

Compost - A 2- to 3-inch layer of compost is a fair weed control. Most compost, however, provides a good site for weed seeds to grow. It is probably better used by incorporating it into the soil since it is an excellent soil amendment. A layer of compost may be used on overwintering beds of perennials, such as asparagus or berries, to provide nutrients and help protect crowns.



Hulls and ground corncobs - A 2- to 4-inch layer of these materials will provide fair weed control, but both have a tendency to be easily blown by the wind. Peanut hulls will stay in place somewhat better. A heavier mulch, such as partially rotted hay or straw, may be used on top to hold down the lighter materials. Recommended if readily available in your area.

Bark and wood chips - A 2- to 3-inch layer of bark provides good weed control. Wood chips are slower to decay than shredded bark, and can be used as a pathway material in raised beds.



Inorganic Mulches

Black plastic - One layer of black plastic provides excellent weed control. It is relatively slow to decompose, but will be somewhat broken down by sunlight and must be replaced every two years at least. Black plastic mulch will increase the soil temperature by about 8°F in the spring. It may cause soil temperatures to rise too much in mid-summer, damaging the roots of plants unless a good foliage cover or organic mulch prevents direct absorption of sunlight. Check periodically to see that soil remains moist beneath the plastic; cut holes in it if water doesn't seem to be getting through. Black plastic is easy to obtain, but is fairly expensive. A new type of black plastic has recently come onto the market which has a white, reflective side to prevent the overheating problems experienced with solid black plastic. Another plastic is porous to allow penetration of water and exchange of gases between the soil and air.

Clear plastic - One layer of clear plastic will provide little weed control; in fact, it makes an excellent environment for growing weeds. This material is most often used to warm the soil temperature early in the spring to prepare an area for planting. It will raise the soil temperature by 10°F or more. Clear plastic is readily available and somewhat less expensive than black plastic.



Newspaper - Using 2 to 4 layers of newspaper provides good weed control. It decomposes within a season and is readily available and cheap. Cover with an organic mulch, such as sawdust or hay, to hold paper in place. Excellent for use in pathways and around newly set strawberry plants. Lead in printers' ink has been a concern of some gardeners desiring to use newspaper; however, printers no longer use lead compounds in ink for black and white newsprint, though colored inks may contain lead.



Red plastic - Developed and patented by scientists with the Agricultural Research Service and Clemson University, red plastic mulch boosted tomato yields in research plots up to 20 percent, while conserving water and controlling weeds. Red plastic mulch reflects onto plants higher amounts of certain growth-enhancing light waves from sunlight. In 3 years of ARS field tests, red mulch boosted tomato size and weight by increasing the plant's growth above the ground--especially in the fruit. The scientists say the mulch can improve strawberry flavor by changing the fruit's chemistry. A colleague working with Kasperbauer is currently analyzing strawberries for sugars and organic acids. The ARS scientists say their research has focused on two color components of reflected light to enhance plant growth--the percentage of blue and the ratio of far-red to red. Red mulch has a low blue component and a high far-red to red ratio. Numerous garden supply catalogs carry this product.

Cover Crops and Green Manures

Cover crops, such as clover or rye, are not usually considered to be "mulch," but fit the description in that they protect the ground and serve as soil enrichment when deteriorated. A cover crop is a temporary planting of a fast-growing crop, usually sown in the fall and tilled under in the spring, which protects the soil from wind and water erosion and adds organic matter. Crops grown for soil improvement are called green manure crops and are left in place for six months to a year. Legumes are especially efficient because they "fix" nitrogen from the air into the soil.

After the summer garden crops have been harvested, and stalks and vines removed, lightly till the garden to prepare a seed bed, incorporating lime and fertilizer, if necessary. Broadcast the cover crop seed, rake lightly to cover it, and then irrigate. Where you have fall crops growing, you can sow cover crop seed between rows a month or less before expected harvest, but not later than November 1.

If you plant a hardy species that survives the winter, it will resume growth as the weather begins to warm, but be careful not to let the crop go to seed. Cover crops and green manures are usually tilled under in the spring before planting vegetables. If the crop is tall or thick, cut it with a lawn mower prior to tilling - especially legumes as they may clog machinery. For large gardens, a rototiller is the most practical way to incorporate any type of crop. The crop should be turned under two to three weeks before planting new seed.





Virginia Cooperative Extension materials are available for public use, re-print, or citation without further permission, provided the use includes credit to the author and to Virginia Cooperative Extension, Virginia Tech, and Virginia State University.

Publisher

Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Alan L. Grant, Dean, College of Agriculture and Life Sciences; Edwin J. Jones, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; Jewel E. Hairston, Interim Administrator, 1890 Extension Program, Virginia State, Petersburg.

KIDS' CORNER

By Sarah Crawford

Scavenger Hunt

What you need:

1. Paper Bags
2. List of items to search for

What you do:

Give each child or group of children a paper bag and a list of items to search for (e.g., a leaf with smooth edges, a fuzzy leaf, a flower with a pleasant odor, a piece of mulch, etc.) The children will go and hunt for these things in the garden. Give them a time limit. When they come back together, they can share the collections in their bags and talk about the diversity of things found. For young children, you could supplement the list with simple drawings. Using a digital camera may be more engaging and fun for older children.

If you don't want them to remove the items from the garden, they can check off the items on their list and they can walk around the garden afterwards and share them.

This activity hones the children's observation skills and enhances their curiosity and enjoyment of the garden.



SELF-WATERING CONTAINER

By Bridget Bailey

I chose containers as my MG intern project. As a challenge to be able to grow something better than my son, I chose to grow bell peppers in various containers, one of which is a recreation of the EarthBox, at least in function.

I watched several YouTube videos to get ideas. Some designs were much too involved for someone like me who prefers the KISS method. I took the basic concepts they all shared and chose a technique that enabled me to create a container based on items already on hand.

My materials list included: A plastic tub with lid, 20-oz plastic cups, a section of bamboo, a scrap of window screen, a black plastic trash bag, potting soil, a drill, a box cutter, peppers, husband, organic fertilizer, and water.

I drilled holes down the sides of half the cups. These cups I then filled with potting soil. I put the cups in the bottom of the tub, alternating putting in cups with the tops down with ones with potting soil top up. These provided support and a wicking source for the next layer. I then drilled a hole in the side of the tub just above the level of the cups to act as an overflow outlet. I had a length of bamboo that my husband had drilled through the membrane so that it was open all the way through and he notched the end. I put the bamboo vertically in the corner of the box and then I put the scrap of window screen on top of the cups and put in several inches of potting soil on top of the screen. Next I covered the top of the tub with the black plastic bag, cut holes in it to plant the peppers, and then put the lid on after the middle of it had been cut out with the box cutter by my husband, so I ended up with just the outer rim of the lid. The last step was to add a water/fish emulsion solution.

Twice a week I fill the tub with water through the bamboo until water comes out the overflow outlet. The plants are tall, bushy, dark green and full of peppers and are doing better than their cell-mates in other containers. Overall the project has been a success, but I would do some things differently if I had it to do again.

I both lost and won the challenge. I lost because my son has grown huge peppers that put mine to shame, but I won because I couldn't grow anything better than my son.



Remember to order
spring flowering bulbs



COMMUNITY GARDEN ROUND UP – AUGUST 2011

The gardeners at the **Mixed Greens Community Garden** at Cooperative Extension are having a great growing season with lots of summer vegetables maturing in our gardens. Even our new gardeners are experiencing the joys and successes of gardening. A number of varieties of cucumbers and sweet and hot peppers were planted in the educational beds this year. They are producing well and have provided additional produce to share with the community. Additional sweet potatoes and tomatoes have also been planted for sharing with the hunger programs that we support. Many gardeners are also contributing their garden bounty to these programs. We continue to compost for next year's soils and recently added some chicken manure to our composting materials. We all look forward to some cooler days as we continue our summer gardening and look forward to plans for fall gardening. (Bruce Barnes and Ginny Bradsher)

News from the **Demo Garden** is not really news, rather observations. This includes the benefits of interplanting flowering plants among the vegetables. Many flowering plants are themselves edible. For example - Nasturtiums, Pot Marigolds and Borage, whose beautiful purple flowers taste like cucumbers! The practice of interplanting will help increase the number of beneficial bugs within the insect population and provide more shade to help keep the weeds down. It's easier to remove a plant if an area gets too crowded than it is to fill in a vacant spot. Also, Mexican bean beetles shouldn't be confused with ladybugs. These beetles are oval, yellowish brown, 1/4 inch long with 16 black spots arranged in three rows on their wing covers. For positive identification, look for yellow clusters of eggs or yellow and spiny larvae under the leaves. All three stages can be quickly dispatched by crushing them upon the leaf held between your thumb and index finger. Although it can be time consuming, depending on the number of plants, when it's done on a regular basis you won't be supporting any chemical company. (Dan Amelkin)

Gibsonville Community Garden has had a successful spring season and our tomatoes are finally coming in. It was a great season of cucumbers too! We planted a lovely herb circle and have enjoyed the different herbs. We are leaning what to do with them now and we need easy recipes to try. After all, it is a learning process to actually use what you grow! We also started a Facebook page, which has created another way for us to communicate and show off pictures of even 'ugly' tomatoes. We have also purchased a sprinkler and when we need watering, it is a great help. (Christine B. Stewart)



Asian tepee construction at Gibsonville

This garden season, public health department staff have cultivated and planted the **Centennial Garden**. Okra, tomatoes, squash, zucchini, peppers, watermelons, corn, cantaloupe and cucumbers were planted. To date 266 pounds of produce has been harvested from the garden and all the produce has been donated to Urban Ministry. In the week of July 5 – 8th alone, 124 pounds of produce was donated. Our goal is to donate 1000 pounds of produce this season. As the summer plants are dying off, we are planning on planting broccoli, cabbage, collards and turnip greens for the fall season. During August staff will be utilizing high school students to design a sign for the site. Once the design is completed, the students will make the sign. Our goal is to have the sign completed and ready to install by September. (Ken Carter)

The **Garden Ministry at First Christian Church** is a faith based community garden. Our off-site garden (4321 S. Elm-Eugene St.) is totally dependent on volunteers formed from our congregation, family, and friends. The produce we grow is shared with our congregation and with the food pantry at the Servant Center in Greensboro. We hold work sessions on Wednesdays at 4:30pm and Saturdays at 8:00am. Throughout the summer we have events like our garden blessing, a canning class, and a harvest dinner in celebration of our garden ministry. For more information about our garden visit our website: <http://www.fccgreensboro.org> and click on garden ministry. (Mandie Herbert)

The **Starmount Presbyterian Community Garden** is producing vegetables and camaraderie among the gardeners as we are harvesting. By mid-July we had donated 362 lbs. of fresh vegetables to agencies in the area that feed the hungry. Our tomatoes are doing well, while the squash has been pitiful. The okra is now coming in and we look forward to a bumper crop. (Linda Anderson)

Beloved Community's Garden is coming along nicely. We've accomplished a lot in the short time since the recruitment of garden members. We now have a core group of around 6 gardeners who come once or more per week, even in this heat. We have organized ourselves along the roles we play and how we work as a team to meet our goals and fulfill our mission. We meet on Mondays and Tuesdays at around 5:15 to work in the garden, and we have "leadership meetings" every Wednesday night at 6:00. Within the garden we are demonstrating concepts of sustainability with relation to gardening and the environment as well as socie-



Iyata, Ashantewa, and Negus harvesting beets



Trellis for cucurbits

ty and the economy. We've also produced and distributed quite a bit of food, free of charge, to the community. In the past couple of weeks we have also built our water catchment/irrigation system, featuring complete garden drip irrigation. We are working with IPM methods and plan to design the rest of the churchyard, running drip irrigation off of the same timer. We will acquire productive and beautiful perennial plants to form the backbone of the landscape this fall. Finally, we are looking to recruit a student, etc. who can start in August and take over some of the coordinating/education/documentation of the process. Part of these duties will be maintaining our blog. Please visit our blog site:

<http://www.belovedcommunitygardening.blogspot.com>. Feel free to contact us at Beloved Community Center (230-0001) with any ideas, comments, or suggestions - or stop by anytime (417 Arlington St., Greensboro). We'd love to speak with you. I hope you all are having a great season, and wish you well for the next season also. (Article and Photos by James Fry)

The season of the **St. James Presbyterian Church Community Garden** has been a mixture of successes and failures. We're experiencing bumper crops of squash and beans. Our equally prolific lima beans are just about ready for harvesting, but growth of our tomato plants is stunted. Our cantaloupe plants are growing well but bearing fewer fruits than last year. The same is true of the two watermelon plants that volunteered in the garden this year. Only a few plants grew from the okra seeds we planted, but those few plants are bearing many pods. We planted eggplant and peppers from seed as well, but without success. (Deborah Pelli)

The **Kids Connect Garden** (which is part of the **HP Southside Community Garden**) has had a successful growing season, along with the other members of the newly formed community garden. The children also still have a garden plot outside of our Southside Recreation facility. The children love being in the garden, and by now most of them can easily identify the plants by their leaves. We are growing all sorts of produce – eggplant, melons, tomatoes, okra, basil, oregano and peppers, as well as an assortment of helpful flowers to aid in pollination. Besides tending the gardens, we have visited an organic farm and several of the gardens at Old Salem in Winston-Salem. Now that our vegetables are coming in, we are planning on beginning our entrepreneurial phase of the program. We will be selling our veggies to Southside residents and workers. It's been a great year with a great bunch of kids! (LaMonica Mitchell)

The **Pennybyrn** Gardeners received some great Press from the Jamestown News this week. We are flattered about the coverage of our community garden. Here is a link to the article:

<http://jamestownnews.womacknewspapers.com/articles/2011/07/25/news/lifestyles/lifestyles45.txt>

Certainly we all have worked at keeping up our gardens in this tremendous heat. To date there has not been a big tomato harvest, but we have managed to make some of our favorites and treat friends with tomatoes in spite of the challenges. In addition to tomatoes, carrots, beets, onions and herbs are coming along and our co-gardeners who have beautiful flower beds are managing to keep them looking great. Almost everyone has a tomato plant or two among the flowers. Our diligence has paid off. (Louise Squires)



The **Mosaic Garden** at Macedonia Family Resource Center is thriving beautifully. The Sudanese have PLENTY of okra! They let me have some as mine isn't doing as well. In addition there are corn, tomatoes, cucumbers and beans. The Butanese are also enjoying success with vegetables that are familiar to us as well as plants that are indigenous to Butan. The garden is feeding 14 families! Quite a successful summer. (Martha Yarborough)

The **St. Francis Episcopal Community Garden** now has about 30 plots, 4' x 20', up and producing. Donations are going to the Servant Center and Urban Ministry. Our new greenhouse helped this spring with germination and sprouting, and our three limited-mobility raised beds are producing squash and cucumbers. The perimeter of the garden has been enlarged with the expectation of planting blueberry bushes this fall. We are pleased with our progress after just three years. (Bruce Barnes)

At the **Sedgefield Lakes Community Garden**, we are having a very good year. The gardens have never looked better in spite of the heat. My tomato yield has been unreal and you should see the Rouths' okra - at least ten feet tall and yielding like mad! (Betty Webb)

At **Holy Trinity Community Garden**, we have donated over 300 lbs. of produce so far this summer, already matching last year's total through October. Right now we are harvesting tomatoes, bell peppers, squash, cucumbers, eggplants, and cantaloupes. We are starting to think about plantings starting in September. (Eric Hoekstra)

It's a great season in **Charlie's Garden** at First Lutheran Church. We have harvested well over 300 pounds since the spring and have made deliveries to Mary's House, Servant Center, Hannah's Haven, Urban Ministry, and Joseph's House, and have also provided some fresh produce to a few "shut in" congregation members. Our yellow squash has a bad case of powdery mildew, which we are treating with an organic fungicide. There is some new growth and we have some young squash on the plants, so hopefully they will keep doing well. The cucumbers are producing like mad! Eggplants and green peppers are producing nicely, and the tomatoes are just beginning to ripen. We should have lots of tomatoes in the next few weeks. The young okra plants in the potato box are growing, so we should have okra in late summer. Also, a big thank you to Jen Schell for creating and keeping up the Charlie's Garden Facebook page! (Marian King)

At the **UNC-G Campus Garden** it has been a very hot summer, but the garden seems to be soaking it all in. Many summer crops have been very successful so far, and people have been able to harvest their hard work! The tomatoes growing in multiple plots are ripening, basil grows so big in some spaces they look like bushes, and the last rain we had really benefitted the squash and peppers. As a result of the heat the vegetables are ripening quickly, and some of the harvest has been lost to heat and sun damage. Everyone does have to water a lot as the plants are very thirsty. The ground has been drier in the afternoons now, so really soaking the soil is advisable.

The watering cans are a great way to appropriate the water to the right places and have been a very beneficial system of watering, as the roots that developed are stronger and can reach greater depths. Keeping pace with the vegetable growth, if not exceeding, are the weeds. Thanks to our new compost and trash bins, we have a place to put the occasionally large piles of weeds to stop them from spreading elsewhere. This will also serve as a great source of organic matter to mix back into the soil at a later date. So far we have had great luck with a lack of insect problems. There are the occasional squash bugs, but mostly there has been a relative lack of pests and a greater population of beneficial insects. The cover crop, planted in the four vacant plots from the spring to summer transition, has greatly assisted in the



number of beneficial insects. A cover crop serves as a buffer to bare soil and keeps the nutrients in the soil balanced until the land is ready to be used again. The bees especially seem to love the flowers that grow in these beds and other pollinators can often be seen buzzing around. With July coming to an end we are entering the hottest months of summer. Keeping a close eye on your vegetables, especially when they are close to harvesting, will prevent you from losing them to the heat. Also, make sure to keep your plants watered! When it is hot out, watering two times a day, if possible, is suggested. The early mornings and later evenings are a great time to water since it is not the



hottest time of the day. So keep this in mind as the heat keeps rising. It will not be long before fall is here and a new set of crops will grow in the garden. So enjoy those tomatoes while you can and start planning for pumpkins! (Susan Andreatta; Photos by Nicole Latora)



Brandywine Community
Garden
Photos submitted
by Andee



Jamestown Friends Community Garden
Photo by Rita Sullivant



The Village Greens at Brandt Village
Photo by Joyce Powers

2011 Community Garden Tour

This year's Guilford County Community Garden Tour was held on the evening of June 2nd. This was planned for earlier in the season based on input from the garden leaders at a meeting last fall as we all thought it made more sense to try and avoid the incredible heat we've dealt with for the last two years. Well, the best laid plans...

The Triad had an abnormal heat wave that week! Temps that day were actually over 90 degrees, even though the average daily high for the date is only 82 (apparently averages consist of highs and lows). However, the Tour was a success in spite of Mother Nature's failure to cooperate. There were well over 300 visitors to the gardens and a lot of positive feedback. All of the gardens looked great, the heat did not bother them that early in the season, and it was still at least a little cooler than in mid-July. Discussions have already started about ways to improve next year's event, and a number of ideas were mentioned at the summer meeting of the community garden leaders. We'd love to hear from lots of people about this. Please email Jeanne Aller at EMGJeanne@aol.com if you would like to participate in the planning process for next year or if you have any suggestions. This is everyone's Tour and everyone's input is needed and appreciated!

“GROWING THE GREEN WAY” CLASS SERIES - FALL 2011



Fall Food - Extending the Harvest

This workshop will focus on strategies to maximize yields and extend the harvest from your vegetable garden. We'll talk about season extenders and other tips and techniques to keep your garden producing well past the first frost.

Location	Date	Time
Extension	August 9 th	6:30
Bur-Mil	August 11 th	6:30
Arboretum	August 7 th	4:00
Kathleen Clay Edwards Library	August 15 th	6:30
Historical Museum	August 16 th	Noon
Hagan-Stone Park	August 18 th	6:30

Fall Lawn Care- Do it Right, Do it Now

Is there a trick to growing a beautiful lawn? Are there certain seed varieties that do better than others? What is a good pH level for lawns? Be the envy of your neighborhood once you have the answers to these questions and more.



Location	Date	Time
Extension	August 30 th	6:30
Bur-Mil	September 1 st	6:30
Arboretum	September 11 th	4:00
Kathleen Clay Edwards Library	September 12 th	6:30
Historical Museum	September 20 th	Noon

What Do I Do Now? Best Gardening Practices in Fall

Fall is a busy time of the year for gardeners. Come learn what needs to be done and when to do it! From simple maintenance chores like lawn fertilization and mulching to how tools and equipment should be winterized, this class will help protect your investments and prepare your garden for the season ahead.



Location	Date	Time
Extension	September 13 th	6:30
Bur-Mil	September 22 nd	6:30
Arboretum	October 2 nd	4:00
Historical Museum	October 18 th	Noon
Hagan-Stone Park	September 15 th	6:30

Dishing the Dirt–Making Garden Soil out of Red Clay

Healthy soil is the key to healthy plants. Turning red clay into great garden soil isn't magic – it just takes some information about basic soil science, soil testing and interpretation, and sustainable soil management practices.



Location	Date	Time
Extension	October 4 th	6:30
Bur-Mil	October 6 th	6:30
Arboretum	October 16 th	4:00
Kathleen Clay Edwards Library	October 17 th	6:30
Historical Museum	November 15 th	Noon

What To Do Until the Seed Catalogs Come

Did your parents or grandparents have a Victory Garden? Are you tired of the high price of vegetables from the grocery store? Take a little time in this slower gardening season to learn how a bit of planning will let you grow fresh vegetables for your family's table all year long.



Location	Date	Time
Extension	October 25 th	6:30
Bur-Mil	November 3 rd	6:30
Arboretum	November 6 th	4:00
Kathleen Clay Edwards Library	November 7 th	6:30
Historical Museum	December 13 th	Noon

Proper Pruning Prevents Poor Plant Performance

The art of pruning involves more than just electric shears and turning plants into green meatballs (yikes!) This class will discuss the tools, techniques and timing for pruning small trees and shrubs, and how doing it right can produce healthier, prettier, and longer-lived plants.

Location	Date	Time
Extension	February 7 th	6:30
Bur-Mil	February 2 nd	6:30
Arboretum	February 12 th	4:00
Historical Museum	February 21 st	Noon

LOCATIONS:

Cooperative Extension Office, 3309 Burlington Road, Greensboro 27405
 Bur-Mil Park (Wildlife Education Center), 5834 Bur-Mil Club Rd, Greensboro 27410
 Greensboro Arboretum (Ed Center), 401 Ashland Drive, Greensboro 27403
 Kathleen Clay Edwards Library, 1420 Price Park Road, Greensboro 27410
 Greensboro Historical Museum, 130 Summit Avenue, Greensboro 27401
 Hagan-Stone Park, 5920 Hagan-Stone Park, Pleasant Garden 27313



CLASSES ARE FREE BUT PRE-REGISTRATION IS REQUIRED! For more information or to register, call 375-5876 and sign up for your choice of workshop and location.

**THE “GROWING THE GREEN WAY” SERIES IS PRESENTED BY
 GUILFORD COUNTY COOPERATIVE EXTENSION AND GREENSBORO
 PARKS & RECREATION**