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North Carolina Cooperative Extension

Tips to Improving Your Vegetable Garden

by Craig Mauney, Extension Agent, Horticulture

Inside this issue:

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There are tips and suggestions on how we can improve our vegetable gardens that can be found on the internet, in books and from other gardeners. Suggestions range from choosing the right tools to using cover crops to maintain soil health. Some of these stand out and I have included some of them for your consideration.

Managing Your Soil – If you will continually build up your soil, the end result will be a higher yield and lower cost of the vegetables and fruits you are growing. Taking a soil test to measure the nutrient values in your soil and then use the information to apply amendments is the best way to improve the soil and not be detrimental to the environment. When we apply our lime and fertilizer, whether it is an organic amendment or chemical, we are conserving our resources. The most important amendment for building up our soils is adding organic matter. The best form of organic matter for soil health is to add finished compost.

Using Green Manure and Cover Crops – Using green manure and cover crops are one of the best management practices that has an initial cost of the seed but a long term practice that maintains soil health. Using these plantings when the garden is not being used for vegetables helps the gardener with the following management goals.

- Adding organic matter to soil
- Suppressing soil diseases and reducing pests
- Weed control
- Reducing soil loss from runoff
- Improving the workability of the soil
- Fixing nitrogen
- Storing and harvesting soil nitrogen

When the garden is not planted or when you finish harvesting in the fall, you can plan on a cover crop or green manure crop to help with your management goals and you will see a direct benefit the first year in controlling weeds and erosion. Legumes such as peas, crimson clover, other clovers and mixing in grasses such as oats, wheat, or rye grain will provide organic matter and some nutrients. Either till into the soil or use as a no till area for the following season.

Controlling Weeds and Pests - One of our continual goals in the vegetable garden is to control weeds as environmentally as possible and to reduce pests to an acceptable level through Integrated Pest Management. To accomplish this we need to continually check our plants as they grow and produce. Check them as often as possible even daily. This helps you to learn what is normal and what is not so normal. You will spot pest problems early and they will be much easier to control if you are proactive in your plan. If the population of pests reaches a "threshold" of numbers you cannot accept, then apply controls correctly and choose ones as gentle as you can on the soil and the environment as well as the pollinators.

Right Tool For the Right Job – Always use clean tools, especially when sowing or working with growing media like with seed starting. Dirty tools may harbor diseases which could kill your plants. Choose the right tool for the job such as using a tiller too big for the area

(Continued on page 2)

(Continued from page 1)

will be harder to turn and may dig your garden soil deeper than you planned. Try new tools. Many of the newer tools are designed to be more ergonomic and fit to your own muscle power and body form. Tools should make gardening easier and not more complicated. If you are spending too much time gathering up tools then take a new look at whether or not you really need them.

Harvesting – Harvesting vegetables at the right time will keep the plant healthy, vigorous and high yielding. The best time for most vegetables is when they are mature but not at the overripe stage. Your storage and using depends on the method that works for your home. The main ones people use are canning and freezing. Of course many gardeners are looking at the possibilities of going back to the root cellar. If you have too much produce, then consider donating it to a local food pantry rather than letting it spoil. For information on local food pantries that accept fresh produce, go to our website at:

http://www.forsyth.cc/CES/Gardening/resources.aspx

Cold Hardy Bananas *by Derek Morris, Horticulture Technician*

There are several banana species and varieties that grow well in the piedmont of North Carolina. These are not grown for their edible fruit but rather grown and utilized in the landscape as ornamentals. These species do sometimes produce fruit in our climate but the fruits are small and not very tasty and the fruits are full of very hard buckshot-like seeds. In the case of Musa velutina the cluster of bright pink fruits are highly ornamental.

Cold hardy bananas are the perfect choice for anyone wanting to create a tropical effect in the garden. Bananas pared with palms, gingers, and cannas certainly conjure up a "south seas" feel. Bananas also look right at home planted next to swimming pools or any kind of water feature. Children are generally fascinated with the gigantic leaves that can serve as umbrellas and so banana is a natural choice for a child's garden if one has the room.

Japanese Fiber Banana tree behind our office.

All bananas are fast growers and are treated as dieback perennials in our climate. Depending on the severity of the winter the plants usually die back to the ground but in mild winters some types and especially Musa basjoo may retain their trunks. Mulching the ground well will ensure winter survival, this can be done once the first killing frost of fall has darkened the leaves of the plant. Letting the browned top growth remain through the winter will further ensure survival since this gives added protection from cold however most find this quite unattractive. In this case you can simply cut down all the above ground parts of the frost bitten banana and cover with about 6 inches to a foot of mulch. The large biomass from the banana makes a great addition to the compost pile or can be used as mulch itself. Once you have a large established banana, cut leaves make excellent mulch placed around in the vegetable or flower garden. It does not take many considering that each leaf can be up to 5 foot long and at least a foot wide.

To get a banana established they are best planted in our region in the springtime once the danger of frost has past. They will grow in part shade but do much better planted in full sun. Bananas are heavy feeders and love water and will respond dramatically if a regular feeding and watering regimen is kept. Fish emulsion is an excellent fertilize and can be applied every third week during the growing season. They need at least one to two inches of water each week while actively growing. Bananas will usually survive ok without this treatment but will never attain their maximum growth if deprived. Keeping bananas mulched year round will help in numerous ways. Any organic mulch is fine.

Banana plants will grow quite large and slowly spread over time. Most will easily grow to 8 to 10 foot tall each season even if the trunks were cut down by the gardener or winter. Anticipate a spread of at least 12 foot after several years of growth especially with the large growing Musa basjoo that will in time send up many very thick trunks.

So which are the best types to grow? The answer to this question most likely will be determined on how much room you have available. For those with limited space there are two species that are ideal, one is known as pink velvet banana or botanically as Musa velutina. This specie only grows from 4 to 6 foot with a similar spread. Its claim to fame aside from being cold hardy is its bright pink fruits which form rather quickly in mid summer and are quite showy. Hummingbirds seem to like the flowers on this one especially. The other dwarf

(Continued from page 2)

commonly known as Chinese yellow banana and botanically as Musella lasiocarpa is actually a very close banana relative. This one does not spread much but rather stays in a tight clump. It grows from 4 to 5 foot tall with a spread of about 4 foot. Its large paddle shaped leaves are an attractive bluish green and sometimes it will sport an attractive yellow blossom though this doesn't seem to happen on a yearly basis.

Probably the most common and largest growing cold hardy banana is the Japanese fiber banana which can attain heights of 12 to 15 foot. Its trunks can get quite large and lend a very tropical feeling wherever seen. It sometimes will produce small 3 inch long green bananas that are interesting especially if the trunks have survived the previous winter. Bananas that have to start growth from ground level each spring usually do not produce fruit before a killing frost.

Another specie that grows almost as large as Musa basjoo is Musa sikkimensis. This banana has glossier and thicker leaves than most others and the undersides of its leaves are a very attractive maroon when they first come out. There is a variety of this specie known as 'red tiger' which has red striped green leaves that are very attractive. Musa sikkimensis and its variety 'red tiger' will grow to about 8 foot tall and spreads very slowly.

These bananas are small and not very tasty and the fruits are full of very hard buckshot-like seeds.

Upcoming Events

5th Annual NC Pawpaw Festival

August 25th
10:00pm to 1:00pm
Jack Warren Park
Lewisville

Please join us on Saturday, August 25th, 2012 from 10am to 1pm at the Jack Warren Park, Lewisville, NC for the 5th Annual NC Pawpaw Festival, presented jointly between Forsyth Cooperative Extension, MKT Real Estate Group, Master Gardener Volunteers and local growers. We will have several presentations about growing and using pawpaws, and lots of free food made with pawpaws for the public to taste. There will also be lots of informational leaflets about pawpaw growing and nutrition. Come join us in celebrating the largest native fruit to North America, a favorite of George Washington and Thomas Jefferson.

For more information, visit www.ncpawpaw.com.

Six-Week Sustainable Stewards Program

Ever wonder how your carbon footprint stacks up? Want to save some money on energy or spend less at the pump? Not sure how environmental policy issues affect your daily life? Join us while we explore these and other topics in sustainability! Starting in August, N.C. Cooperative Extension and the city of Winston-Salem will hold workshops on such topics as: water conservation, stream restoration, community gardening, waste reduction/ recycling, transportation, energy-efficiency, improving indoor air quality, and environmental policy. These workshops will offer unique opportunities to participate in hands-on learning with the best in the business. Classes will be held every Tuesday night for six weeks (August 28th-October 2nd) from 6pm-9pm at various locations. Cost is $35 for the course, due by August 24th. At the conclusion of the course, participants will conduct a service project that puts to work forward-thinking ideas in the community.

Please make checks payable to Forsyth County Cooperative Extension and mail to our address on the front of this newsletter, Attn: Wendi Hartup.

Why are the leaves on my squash turning yellow?

By Craig Mauney, Extension Agent, Horticulture

If the leaves on your squash plants are turning yellow, something is wrong. The hard part is figuring out exactly what is wrong. The leaves on a squash plant will start to turn yellow any time the plant is stressed. Below, I have listed a few reasons why a squash plant may be stressed.

Lack of water: While squash plants are pretty hardy plants, as far as vegetable plants go, they do need about two inches of water a week. Sometimes they will need more due to high temperatures. You may even need more water if the plants are being grown in containers especially on very hot days.

Vine Borers: Vine borers will attack a squash plant and make its way through the vine of the plant. Signs of a vine borer include yellowing of the leaves gradually from the base end of the vine to the tip and possibly a small pile of sawdust at the base of the vine, near where it comes out of the ground. If you suspect a vine borer, be aware that pesticides will not work. The only effective, though not always successful, treatment is to try to remove the vine borer worm from the stem. Go to the spot where you suspect the vine borer is lodged and carefully slit the vine lengthwise (in the direction of the capillaries). This will not hurt the squash plant too much and either way, if you do not find the vine borer, the plant is doomed anyway. If you are able to locate the vine borer, use a tooth pick to pierce and kill it.

Iron Deficiency: Without iron, plants have a difficult time making chlorophyll, the substance that makes leaves green. Adding Iron Chelates (a kind of fertilizer) to the soil can help. Iron deficiency is not usually seen when squash are in the ground but I have seen this in containers. Most of the time, iron deficiency is a result of the nutrients being leeched out of the soil due to over watering. Make sure that you are not over watering your plants. Bacterial Wilt: If your squash plants are infected by bacterial wilt, then there is nothing you can do to save them. The yellowing of the leaves will be followed rapidly by wilting and browning of the leaves and eventually death. Bacterial wilt can be diagnosed by cutting off a piece of the stem and squeezing out some of the juice inside. If the juice comes out slimy or oozing, than the plant has been infected. Destroy the plants and do not compost them. Do not plant squash or other cucurbit vines in that location next year, as the bacterial wilt will still be in the soil and will infect them as well.

These are some of the most common reasons the leaves will turn yellow there are many others. If you are having this problem you may want to contact our office for more advice.

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