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Harvesting and Handling Your Crop
by Mary Jac Brennan, Extension Agent, Community Gardens

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Forsyth County Center
1450 Fairchild Road
Winston-Salem NC
27105
336-703-2850
Fax: 336-767-3557
www.forsyth.cc
forsyth.ces.ncsu.edu

R. Craig Mauney

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Extension Agent
Horticulture

You have spent a lot of effort on preparing and tending the garden. Now it's time to reap the rewards of your work! To ensure the enjoyment of the 'fruits of your labor' take time to harvest and handle crops properly. Harvested produce continues to respire and to lose water after it is picked. Most produce is 80-95% water so protecting against water loss is critical to maintaining freshness after harvest. In order to preserve sugar content and freshness of the produce, it is important to follow these harvesting guidelines:

- Harvest in the cool of the morning.
- Keep the picked produce in the shade, and maybe even spritz it with a fine mist of water if it is going to be more than 45 minutes before you get it into a cooler.
- Remove excess plant parts to reduce the area of respiring material.
- Don't put ethylene releasing produce with lettuce, carrots, and greens. Ethylene releasing crops are tomatoes, cantaloupe, peaches, pears, plums, and apples. Cucumbers will release ethylene if harvested at maturity. Ethylene is a natural plant hormone. It affects the growth, development, ripening, and senescence (aging) of all plants. It is normally produced in small quantities

by most fruits and vegetables. Many fruits produce larger quantities of ethylene and respond with uniform ripening when exposed to an external source of ethylene.

Proper handling of your harvest will guarantee opportunities for enjoying it. Summer is a great time to try a new recipe, host a garden potluck, or put some by for later use. Eating garden grown vegetables is a healthy practice all through the year! Here are specific recommendations on common garden crops:



Snap Beans: Ready to harvest 8-10 days after blooming. Harvest when the pod is bright green and fleshy, and the seeds are small and green. Put dry pods in the refrigerator to store for up to 6-10 days at 41 degrees F.

Cucumber: Pickling type is picked small for processing; Slicing type is picked when the skin is dark green and glossy. The spine color is associated with mature fruit. The spines of a white cucumber are light green to yellow at maturity. The spines of dark green cucumbers are orange or brown when mature and may be netted. Sliced cucumbers are generally harvested immature, at sizes starting at three to four inches. There is a burst of ethylene gas release in mature cucumbers. Store cucumbers at 50 degrees F. Rapid yellowing and loss of quality occurs at temperatures

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above 59 degrees F.

Eggplant: The time from flowering to harvest may be 10-40 days, depending on the variety grown. The diverse varieties may have fruit that is black, purple, yellow, white, or striped. Harvest the fruit when the skin is smooth and shiny. Rapid cooling is good for eggplant, and store at 50 degrees F with high humidity for use within two weeks.

Peppers: Whether you are growing bell, chili, chilies, aji, pimento or paprika, there are various harvesting techniques you may use. Green bells are actually immature and will have increased sugar content as they ripen to red. Some varieties of bell will ripen faster to yellow, red or brown. Bell peppers are usually harvested for fresh use when the flesh is firm and glossy. Pick colored bells when fully colored and firm. Cool bell peppers rapidly to 45 degrees F and store at high relative humidity for up to two weeks. All of the other peppers are considered chili peppers and will be mild to hot

depending on the capsaicin content. Habanero peppers are picked when green, red or orange. Serrano peppers are picked when green or red. Pick the other chili peppers when red, and dry them.

Summer Squash: This includes zucchini, crookneck, straight, scallop, and vegetable marrow. Squash will be ready to pick within one week after flowering. Small fruits are best for tender flesh, small seeds and sweet taste. Promptly pre-cooling the squash after harvest will extend the shelf life up to two weeks. A cool water bath works or a cooler in the field with ice can be used. Hold the squash at 41-50 degrees F with 95% relative humidity.

Tomatoes: Select shiny, firm fruits. Tomatoes will continue to ripen after harvest because they lease ethylene gas. You may decide to harvest at the light red stage when 60-90% of the surface is not green. Most people will harvest tomatoes at the red stage, when more than 90% of the surface is not green. Ripe tomatoes can be stored for two days at 45 degrees F.



Interesting in preserving your harvest? Join Extension Agent, Jennifer Brown for the **“Basics of Canning and Freezing”**, a free program that will be held on July 17th from 11am—12:30pm at the Reynolda Branch Library. Registration is not required.

Uses of Basil by Craig Mauney, Extension Agent, Horticulture

Basil is a popular culinary herb that is popular in Italian dishes. There are many different uses of basil including aiding digestion. Of course the most common use of basil is for cooking such as vinegars, pesto, and tomato sauce. Basil can also be used in small quantities to sprinkle over a salad either whole or chopped. If you tear the leaves instead of chopping them you can get more flavor from them.

To make an oil for a salad, pound the fresh leaves of the basil and then mix the pulp in a good vegetable oil. If freezing the leaves for later use, it is better to coat the leaves with an oil such as an olive oil first. Some people mix the basil with oil in a glass container then just freeze the entire container with the leaves and oil infused and ready for processing. Another good idea is to chop the basil up and place a measured amount into ice cube trays, add water to tray, freeze the cubes solid, then pop out the cubes and store them in plastic bags in the freezer for later use. Leaves can be dried and stored and can also be dried and added to salt.

Most of us just think of basil as a plant to grow in the herb or vegetable garden but this plant makes a great addition to a scented perennial or annual garden, is good for edging a bed or path and works great in a decorative container. You can grow basil indoors if you have a lot of light. Basil can be used cosmetically as well as culinary. Put some fresh basil leaves in a hot bath for an infusion. As a

tonic, you can steep basil leaves in wine for several hours before serving. Basil can be steeped in hot water for a tea which aids in digestion.

Sweet Basil or what some people call common basil, grows at a moderate rate for us in the garden. The basil plant can either be upright or mounded according to the cultivar you are growing. ‘Green Globe’ is a compact mounding basil that only gets about a foot high. Green Globe is good for edging and is green to purple in color and has a good aroma. ‘Purple Ruffles’ is a popular cultivar with both purple foliage and ruffled edges on the leaves. If you allow Purple ruffles to bloom they will have a terminal, spike like flower, usually purple or white.

Basil can be propagated from seeds and is how you will have to get some of the more unusual cultivars. Sow the seeds eight to ten weeks before you want to plant them outdoors. Basil likes a well-drained soil with plenty of sunlight for several hours per day. Throughout the season you will need to remove the flower stalks to promote increased leaf growth and branching. You will need to prune the plant every two to three weeks. Basil will not tolerate frost so if you want to overwinter a variety, you will need to take cuttings late in the season. There are 5 main species of basil that are usually grown.

- **Lemon Basil - *Ocimum americanum*:** Has a bushy habit, grows to two feet tall and has an intense lemony fragrance.

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- **Camphor Basil** - *Ocimum kilmandscharicum*: Is an annual shrub reaching about five feet tall. It becomes woody with camphor-scented leaves that can be used in sachets to protect wool clothes and as a tea for stomach aches.
- **Tree Basil** - *Ocimum grattissimum*: Is similar to Camphor Basil and has fuzzy, lime-green leaves scented like pennyroyal. A tea of its leaves is used for colds and fevers

and the leaves can be burned to repel mosquitoes.

- **Clove Basil** - *Ocimum tenuiflorum* or *sanctum*: Is an annual shrub with spicy clove-like scented leaves that reaches two feet in height. Hindu people use it in both cooking and medicines.
- **Bush Basil** - *Ocimum basilicum*: Also known as Sweet or Common Basil is native to the tropical areas (India, Africa, Asia).

From the Master Gardener Hotline - Zucchini Plants Dying

By Bert Lantz, Master Gardener Volunteer

A caller to the Master Gardeners Hotline was concerned that his zucchini plants were dying. He had a wonderful early crop, and all of a sudden the foliage was wilting, the plant stems were turning brown and the fruit production had stopped.

When a zucchini plant suddenly withers and dies, the normal suspect is squash vine borer. Most insects undergo complete metamorphosis in four stages, namely egg to larva to pupa to moth. The squash borer is no exception. The female moth emerges in the spring and is active during daylight hours. She is about the size of a wasp and has a metallic green-brown body with translucent wings and a red to orange striped abdomen. The moth slowly darts around lays eggs at the base and on the stems of the squash plant. In the south, eggs are laid during May to late June. The eggs hatch in a couple of weeks and the larvae (tiny borers) quickly tunnel their way into the hollow stem of the zucchini plant and start feeding on plant tissue. In 4 to 5 weeks the borer develops into a white wrinkle bodied grub-like caterpillar with a brown head approximately 1 inch long. It then leaves the stem and drops to the ground where it undergoes pupation (transformation into pupa) and overwinters inside a cocoon made of earth-covered silk. The following spring the adult moth emerges to start another round of destruction.

An early sign of the borer invader is the presence of yellow sawdust like material (frass) around the squash stem and small holes along the vine. The frass is what the borer leaves behind after digesting plant tissue. If this is discovered early enough, the stem can be sliced open and the borer removed. The stem can be resealed by covering the opening with soil and keeping the soil moist to encourage new root growth. However, even at this stage there is probably little chance that the plant can be saved.

If you have a diseased plant make sure you remove and destroy it. In the fall and spring, dig up the area several times at least 2-4 inches deep to reduce and destroy cocoons that overwinter. It is also recommended to rotate plants to another area in the next growing season.

To prevent the moth from laying eggs near the plant,

cover the plant with a white polyester blanket that allows light, moisture and air to go through. One such product is Reemay and another is Harvest Guard. Both products are usually available at local nurseries or on-line. It may be necessary to remove the cover when blossoms appear to allow for adequate pollination. An alternative is to leave the cover in tact and hand pollinate. Inadequate pollination will cause fruit to die when it is 3-4 inches long. By July 1, the egg laying action will be over and the covers can be removed.

If you see a moth as described above, swat it with a badminton racket so eggs can't be laid.

To help prevent the vine borer from penetrating the stem, wrap the stem with tin foil making sure that the foil extends below the soil surface. The white polyester material mentioned above can also be used in place of tin foil. This should be done when the plant is put in the ground or when it emerges from planted seed.

The most important time to control squash borers is during the egg-laying period. Most commercial growers depend on products such as Sevin (Carbaryl), which reduces the egg-laying capacity of adult moths and controls the larvae stage. Start a regular once a week spraying program around May 10 and continue it until July 1. The spraying should be directed to all parts of the plant, especially the stem areas which seem to be the target area of egg laying moths. Additional applications may be necessary after excessive rains or overhead watering. Remember that Sevin is very toxic to bees so spraying should be done in the evening when the blooms close. Sevin is a chemical and product directions should be adhered to.

One house remedy is to wipe down the stems with garlic. Wiping the stems with insecticidal soap or Dipel (BT - bacillus thuringiensis) may be even more effective. Unfortunately, once the larvae are inside the vine, only extraction can save the plant.

To make sure you have zucchini during the entire summer, consider planting a separate crop. The second crop should be planted after July 1 when adult moths have stopped laying eggs.

Tip and Toss!

by Wendi Hartup, Extension Agent, Natural Resources

This year seems promising for large mosquito populations. Although you may think fogging is the answer, it will only kill the adults, since there are probably still a million babies out there. Prime breeding sites are going to be all of those small or inconspicuous water sources that you can 'tip and toss' such as built-up debris in gutters, tarps covering boats/cars, grill covers, grooves in truck beds and abandoned swimming pools. Other items can be rinsed with clean water every 4 days such as bird baths, water bowls and outdoor flower pots with a dish or tray beneath. For the water that sits in the corrugated pipe connected to your downspouts, we have a solution in the box to the right. To be truly effective, the whole neighborhood needs to get involved with mosquito management. One last point to remember about any wild creature... they do not have any concept of property lines.

Mosquito Control Kit for Corrugated Pipe Downspout

Gloves

Mosquito Dunks

Panty hose

String

Knife



- Using plastic gloves, break mosquito dunk (available at hardware stores) in half and place in toe of pantyhose.
- Tie string around pantyhose to complete the kit.
- Cut u-shape into corrugated pipe just above ground level.
- Lower kit into pipe until it hits back of pipe so rainwater will flow across and leave bacteria residue behind in each corrugation.
- Replace dunk with a new one every 30 days.