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GardenWise

Edible Flowers for Your Garden By Craig Mauney, Horticulture Agent

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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

R. Craig Mauney
Extension Agent
Horticulture

You can have a beautiful flower garden and eat from your flower garden too! It is exciting to add some flowers to your cooking, finding some new flavors and impressing your guests by adding a flower or two to your meal. The concept of adding flowers is not new and has been around since Roman times. Today, many chefs are garnishing their dishes and entrees with flower blossoms. Salads and garnishes are the most common ways to use flowers. Flowers can also be used to flavor a stew, a drink or they can be used in confections.

It is very important to remember that not all flowers are edible. Some flower blossoms can make you sick, so do your research first. Some people have allergies to certain flowers too. A good rule is not to use too many flowers in a recipe. If you purchase flower seeds, make sure the flower is listed as an edible one and make sure you get the right species of the flower and do not go by the common name but check the scientific name of each flower before using.

Never use any pesticides on a flower you are planning to use as an edible.

Some of the edible flowers used include: ***Johnny Jump Ups (Violas)*** - A tender perennial with a pansy like flower with deep purple and yellow blooms. This flower has a mild wintergreen flavor used in salads, added to cakes as a decoration or served with a soft cheese. This flower is sun or shade tolerant.

Tuberous begonias - These flowers are annuals for us and can be grown indoors or overwintered similar to a dahlia. The flowers have a sour or citrus taste. The petals are sometimes removed and used in salads or as a garnish. The stems are sometimes used similar to rhubarb. It contains oxalic acid which can cause

problems for people with rheumatism or similar problems.

Nasturtium - A low-growing annual. Blossoms taste like watercress with a slightly sweet flavor. You have several edible varieties to choose from, most of which grow best in full sun or light shade.

Anise hyssop - An attractive perennial that has deep lilac-colored flower spikes that bloom profusely for several months. The blossoms make attractive plate garnishes and are often used in Chinese-style dishes. The leaves can be used to naturally sweeten tea and as a sugar to make candies. Both flowers and leaves have a delicate anise or licorice flavor.

Vegetables and Herb blooms - Many vegetable flowers have edible blossoms. Runner beans (garnish soups and salads) and squash (eat as a vegetable, or fill with a stuffing) are the most popular. Many people think broccoli when it goes to bloom is too far gone to eat but the yellow flowers of broccoli add a mild spicy flavor to salads or stir fry. This is a common addition to many Southeast Asian dishes. The tiny flowers of arugula and herbs such as chamomile, dill, oregano, garlic chives, thyme, rosemary, mint and savory are great to add to different dishes. Lavender flowers have many uses in cooking, such as in bread, sorbet, cookies, stews and to flavor beef and pork. I have had lavender flowers in chocolate desserts.



Properly Timed Chores for the Community Garden

By Mary Jac Brennan, Extension Agent

The summer crops are planted and now it's time to turn your attention to the garden chores which will help to make your harvest bountiful. Properly timed garden chores will improve the success and the overall enjoyment of your community garden experience. Whether you are gardening a large communal plot with others, or working in your own plot alongside other gardeners, the same practices can be used in taking proper care of your growing plants.

•**Weed Control:** Gardens infested with weeds produce fewer vegetables because the weeds compete for the available soil nutrients, water, air and sunlight. Weeds also provide a home for insects and diseases. Keeping a garden 'clean' or free of weeds will be a regular chore you complete every time you visit the garden. A hoe is the most effective tool to use in controlling weeds. Avoid chopping with the hoe, but rather skim the top of the soil with the edge of the hoe to remove the weed by the roots. With regular hoeing you will avoid allowing weeds to grow large. A tall weed will be deeply rooted, and more detrimental to your harvest. For the raised bed garden where intensive and square foot gardening is practiced, a hand held fork or claw may work better for weed removal.



•**Mulching:** Once you have a clean garden and soil temperatures have warmed, it is wise to mulch your garden to suppress weed growth and to conserve soil moisture. Mulches can be organic materials such as wheat straw (not hay), compost, shredded paper, newspaper, sawdust, shredded leaves or ground corncobs. Mulches, such as sawdust, wood shavings and corncobs can use up some of the soil nitrogen as they decompose. To compensate, you should add 1 to 2 cups of 8-8-8 or 10-10-10 fertilizer to each bushel of sawdust, wood shavings, or corncobs before applying them over the soil. Be sure that the soil moisture is adequate for plants before you apply mulch. Some gardeners use a combination of newspaper and straw as an effective mulch. Use several sheets of newspaper and wet it after placing it on top of the soil surface. Add 2 inches of straw on top of the newspaper.

•**Watering:** Keeping well hydrated is important for gardeners and gardens during the growing season. While 8 glasses of water a day is recommended for gardeners, vegetable gardens require one inch of water per 7-10 days for optimum plant health. Generally, if the soil is dry when scratched to a depth of 1 to 2 inches, watering is necessary. On the other hand, if adequate moisture is available, the next watering can be scheduled for at least two days later.

Avoid watering the soil often for short periods of time. Shallow waterings promote the development of roots in the top 1 to 2 inches of soil rather than at a greater depth. Plants with deep root development will be better able to survive the heat and dry conditions of late summer. The timing of water application is important for promoting optimum plant health and discouraging disease development in the garden. Watering early in the morning at the base of the plant is the recommended best practice for irrigation. Many community gardens will use soaker hoses for watering as a form of drip irrigation along the base of the plants. If you must use overhead sprinklers, water early enough in the day to avoid leaving wet foliage at night. Also avoid watering during the hottest time of the day due to water loss to evaporation. Set your sprinkler to apply water at a rate slowly enough to allow for water infiltration into the soil, rather than becoming runoff from the garden. The average vegetable garden takes about 75 gallons of water per 100 square feet (taking evaporating losses into account). When watering, wet the soil to a depth of 6 inches. After some experience you will learn how long it takes for water to reach that depth. One way to check is to dig into the soil with a long trowel or shovel to see how far the water has penetrated into the root zone. Another way is to measure how long it takes to apply 1 inch of water by placing small, straight-sided containers in a grid pattern over the area being watered. Check the containers every 30 minutes until they contain 1 inch of water. As a general guide, the average house spigot must be left running approximately 1 1/2 to 2 hours to apply 1 inch of water to 1,000 square feet.

•**Pest Management:** Regular scouting in the garden to check on what insects, frogs, spiders, salamanders and birds may be visiting the garden is a very important chore. Keeping a list of what you see can be fun and educational, as well as help you to know whether control measures are needed to protect your plants. Many insects we will see in the garden are beneficial insects providing 'work' to help with the success of our gardens. Use the following website to help with identification of beneficial insects and to help determine what control measures to take:

<http://ipm.ncsu.edu/ornamentals/biocon.html>.

Consider having a field guide listing plant pests and beneficial insects to assist in identifying your garden visitors.

Properly timed garden chores will improve the harvest you get from your garden. Not only will you be eating fresh vegetables and fruits, you will have stretched your muscles and sweated off some calories! What a great way to spend the summer days and evenings.

From the Master Gardener Hotline - Tomatoes

By Bert Lantz, Master Gardener Volunteer

This is the time of year that we can just taste that first fresh tomato sandwich! What a treat it is to have a few plants producing a continuous stream of fruit during the summer months.

We had a call from a “novice gardener” who had planted her tomatoes when the daytime temperatures were above 70 degrees and the nighttime low was generally above 60 degrees. The plants had been planted six to eight inches deep and aged cow manure had been used to prepare the soil. So far—so good! The plants appeared to be healthy, and her question was “what should I do now”?

Everyone seems to have their own method of growing tomatoes, and if you ask 10 people you might get 10 different answers. A few years ago, Local Columnist David Barre interviewed a man by the name of John Whitley of Tobaccoville who has successfully grown tomatoes for over 60 years. Here are a few things he does to improve his production. You might consider a similar program for your tomato crop.

- Start to fertilize shortly after plants are set out. Wait until the plants become established and apply Miracle-Gro on a weekly basis during the first few weeks. The nitrogen content in Miracle-Gro is fairly high, and they are great for getting tomato plants off to a good start.
- When the vines start to get bigger, change the fertilizer to 5-10-10, which has ½ the amount of nitrogen as it does phosphorous and potassium. Apply a tablespoon of fertilizer around each plant every 2-3 weeks during the growing season, but do not over fertilize. Mr. Whitley recommends 7-20-20, but I could not find it locally. High level nitrogen fertilizers should not be used on well developed plants because it creates an excessive amount of foliage and does little for the fruit. An excessive amount of nitrogen also reduces the uptake of calcium from the soil.
- When you start with the 5-10-10 fertilizer, distribute a small amount (One teaspoon) of Calcium Nitrate fertilizer around the base of the plants. Keep the fertilizer approximately 2 inches from the main stem, and making sure there is no contact with any wet foliage. This process should continue every 3 weeks during the



growing season. Tomatoes need calcium or they will develop blossom end rot. Most soils contain an adequate amount of calcium, but many times it is in a compound form that is locked into the soil. The advantage of using Calcium Nitrate is that it contains both Nitrate Nitrogen and Calcium that is easily absorbed by the plant. It not only helps to prevent blossom end rot, but also increases yield, provides resistance to disease and pests and does not create an alkaline or salty soil condition.

- Plants use Magnesium to strengthen plant walls and aid in the photosynthesis process, and tomatoes are magnesium hungry plants. . They also use Sulfate, the mineral form of sulfur, which joins with soil ingredients such as phosphorous and potassium making them more available to the plant. Epsom salts (Magnesium Sulfate) is composed almost exclusively of Magnesium and Sulfate and does not build up in the soil. It is available at drug stores or in larger quantities at some of the box stores. Many people, including Mr. Whitley, feel it is helpful in preventing or treating blossom end rot and it helps to keep foliage green and healthy. It is probably best used as a water mix of two tablespoons per gallon of water. Apply approximately a pint of solution around the base of the plant every 3 weeks during the growing season.
- Keep the tomatoes off the ground by tying up to a tomato stake, using commercially available cages or a trellis. You can also make a cylinder approximately 30 inches in diameter using 4 foot high sturdy fencing. Such a cylinder will support 4 plants arranged around the outside of the cylinder. As the plants grow, the vines can be tied to the fencing and the tomatoes will be on the outside for easy picking. The inside is a great place to discard weeds and excess grass clippings. Be sure to keep the ground cultivated around the plant, and keep your garden mulched. Grass clippings can be used to keep down weeds and help to maintain moisture in the soil. Tomatoes require approximately an inch of water per week and it is best to water early in the morning at the base of each plant.

This article is directed toward tomato plants, but can also be used for pepper plants.

Surface Roots in the Yard by Craig Mauney, Horticulture Agent

Tree and yard owners are often faced with the problem of a tree's surface roots. Tree roots that grow on the surface are difficult to mow or walk over and can effect the growth and health of nearby grass and ground covers. The usual response to remedy the situation is either to cut the roots or add fill soil over the roots and then replant grass or ground cover.

Cutting out tree roots is not advisable. Trees that experience root removal and damage can express top death on the side where the roots were harmed. Removing roots can also introduce rot into the base of your tree. Adding supplemental soil can also harm your tree. Additional soil can reduce the concentration of soil oxygen needed by roots to survive. Tree's can begin to show symptoms immediately or decline over time.

What are some of the symptoms of tree root injury? Visible symptoms of injury may include small, off color leaves, premature fall color, suckering along the main trunk, and dead twigs throughout the canopy of the tree or even death of large branches. Injury will vary by tree species, age, health of the tree, depth and type of fill and drainage. Trees that can be severely injured by additional fill include: sugar maple, beech, dogwood, many oaks, pines and spruces. Birch and hemlock seem less affected by root fill damage. Elms, willow, London plane tree, pin oak and locust seem least affected as well. Older trees and those in a weakened state are more likely to be injured than younger, more vigorous trees.



So how do you deal with surface roots? Be kind to your tree and make adjustments to the landscaping plan. Don't grow your garden or plant small ornamental plants near a tree's root life support system. A better way to deal with surface roots is to cut a bed around the offending root system and cover with coarse mulch. Trying to establish grass or ground cover in among surface roots is often difficult, if not impossible to do.