

# Be Healthy – Grow What You Eat!

## EXTENSION'S *Successful* Gardener

NC STATE UNIVERSITY NORTH CAROLINA COOPERATIVE EXTENSION

Helping  
Carolinians  
Increase Their  
Knowledge of  
Gardening,  
Manage Their  
Landscape  
Investment &  
Protect the  
Environment



**V**egetables and fruits that you grow in your home garden often are superior in quality, freshness and taste than those in the grocery store. Just-picked freshness and the satisfaction of growing your own produce may renew the desire in both you and your children to eat more vegetables and fruits. Adding more fruits and vegetables shouldn't be difficult. They can be eaten raw or cooked, with a meal or as a snack, and they are part of a healthy diet, which has big pay-offs. Conversely, an unhealthy diet is one of the causes of rising health problems and medical costs.

Obesity is now the greatest health hazard in the United States. According to the latest data from the International Food Information Council, 25 percent of America's children are obese or at risk of becoming obese. The U.S. Department of Agriculture (USDA) Community Nutrition Mapping Project reports that nearly half of North Carolina individuals are overweight. While the USDA recommends that all Americans eat 5 to 9 servings of fruits and vegetables a day for good health, less than half of North Carolinians meet the daily vegetable recommendations and even fewer meet the fruit recommendations. This information alone is good reason to grow your own vegetables and fruits but it is not the only reason.

Gardening is great exercise, burning anywhere from 250 to 400 calories per hour depending on your intensity while doing your garden chores. A daily visit to your garden can be part of your exercise program and eating the bounty from your garden can be part of your healthy eating plan. Instead of being a couch potato, grow a potato and a tomato and burn some calories.

Gardening relieves stress and provides mental relaxation while also satisfying the human instinct to



nurture. With the rewards of fruits, vegetables and flowers, gardening provides tremendous enjoyment and brings beauty to you and the world.

Involving children in gardening is a great way to spend time with them as well as teach them invaluable lessons of life. The knowledge of where plants come from, how fruits and vegetables grow and the requirements for the plants to live and survive is something children will enjoy learning. It teaches them responsibility and respect for living things and nature. Working in the dirt and getting their hands dirty

while producing vegetables and fruits is a lesson that will stay with them for a lifetime.

No matter what kind of space you have, you can grow a vegetable garden. An area as small as 25 square feet will feed a family. You can grow a garden even if you live in a condo or an apartment by using containers on your patio or deck. Containers can be half barrels, bushel baskets, five-gallon tubs, window boxes and other creative containers. Creative gardeners grow vegetables, fruits and herbs along flower beds and mixed in with ornamentals. For those with disabilities, raised beds help make gardening possible. Any type of garden space will grow a productive vegetable garden when you plan and use good cultural practices.



### HOME VEGETABLE GARDENING INFORMATION

[www.ces.ncsu.edu/depts/hort/hil/pdf/ag-06.pdf](http://www.ces.ncsu.edu/depts/hort/hil/pdf/ag-06.pdf)

continued ▶

## Selecting a Garden Site

All vegetables, herbs and fruits need at least 6 hours of direct sunlight each day and most prefer 6 to 8 hours of sunlight daily. Make your garden site convenient, easy to reach and near a water source so you will be able to enjoy and work in your garden.

Choose an area with well-drained soil. Improve the drainage by adding organic matter such as compost or well-rotted leaves. If you have poor drainage, use raised beds. A good loamy soil that is fertile, well drained and high in organic matter is ideal for most fruits and vegetables. Raised beds permit plant roots to develop in soil above the poor soil, helping gardeners with poor soil grow vegetables, herbs and fruits. Because raised beds dry out faster and warm up more quickly than in-ground gardens, you will need to water them more often.

Consider incorporating vegetables, herbs and fruits into your ornamental plantings. Edibles in your landscape can be functional and attractive. If you have limited garden space, grow vegetables in containers or window boxes. Be sure the containers have adequate sunlight, proper drainage holes, good soil mixture and ample room to hold roots of mature plants.



## Planning the Garden

Planning for your fruit, vegetable and herb garden is important. Fruit plants are permanent so carefully choose the site. Select the vegetables and herbs you want to grow, then diagram the space where you will plant, including spacing between plants. A garden journal in which you note time of planting, weather during the growing periods and any problems encountered will be invaluable as you plant future gardens.

Before planting, complete a soil test and find out the pH of your soil. The ideal pH for most vegetables is 6.0 to 6.5. (Pick up a soil test kit from your local N.C. Cooperative Extension Center.) Your test results

will indicate whether to add lime and the amount. Test your soil every three years to determine the soil pH.

Vegetables grow at different temperatures. There are cool-season crops and warm-season crops. Seeding and transplanting times may differ based on temperature. For a bountiful, successful garden follow the suggested planting dates and days to maturity for the vegetables you plan to grow. See Web sites on page 4.

For maximum use of your garden space, plant a spring, summer and fall garden. This involves succession planting in spots vacated by spent plants. Interplanting is the technique of growing two or more types of vegetables in the same place. For example, plant smaller plants close to larger plants or plant quick maturing plants with slower maturing plants.

Crop rotation is important to prevent the buildup of insect and disease problems in your vegetable garden. Rotating crops also helps keep vital soil nutrients from being depleted. Avoid planting vegetables in the same family in the same garden location more often than once every three years.



## General Maintenance

### WATERING

In order to keep your edible garden healthy and thriving you must water it. Most fruits and vegetables require at least 1 inch of water per week, which is about 75 gallons of water per 100 square feet. It is better to water slowly, allowing the water to sink in deeply, rather than short, fast, frequent watering that may only wet the surface or run off. Try to wet the soil to a depth of 6 inches. A soaker hose is the least expensive and easiest way to water effectively. The soaker hose or a drip irrigation system will deliver small amounts of water to the soil very slowly.

### FERTILIZING

The quality of your plants begins with your soil. Adding a 2- to 3-inch layer of organic matter such as rotted leaves, compost or old manure in the spring before you prepare the soil, and again in the fall after harvest, will add nutrients to your soil.

Before planting the vegetable garden, incorporate 20 to 30 pounds of 10-10-10 fertilizer per 1,000 square feet or the recommended rate from your soil test results. After planting, long-season vegetables such as tomatoes, peppers and cucumbers will need at least one side dressing of 3 cups 10-10-10 fertilizer per 100 square feet. Apply the fertilizer around the plant at about 4 to 6 inches from the plant.

## Sanitation and Pest Management

Removal of overripe produce will help prevent scavenger-type insects from visiting your garden. Removal of disease-infested plants can help prevent further spread of the disease. Take the diseased plant completely out of the garden area and discard it. Keep the area

around your garden weed-free and well maintained. This will help keep any plant diseases and insect populations from moving into your garden. Weeds compete with your garden plants for nutrients, water and sunlight. They also provide homes for insects and diseases.

Mulching decreases the amount of weeds in the garden while also conserving water. Organic mulches such as bark chips, straw, leaves, newspaper and compost decompose naturally in the soil over time. In the war against weeds, a hoe is another effective weapon. Hand-weeding is good for getting those weeds that are close to the base of a plant. Try to remove weeds while they are small since pulling large weeds can damage the root systems of vegetable plants.

Pest management may seem overwhelming with the number of diseases and insects, but a few, simple practices will reduce many problems. Properly fertilizing and watering plants, eliminating weeds and removing diseased and rotting fruits will keep your garden healthy.

## Warm-Season and Cool-Season Vegetables

In the South, we are lucky to have several planting seasons. Cool-weather vegetables – those that like warm days and cooler nights – are planted in the spring and fall. Warm-weather vegetables are planted for summer production.

WARM SEASON	COOL SEASON
Asparagus ( <i>perennial</i> )	Beets
Beans - snap beans	Broccoli
pole beans	Brussels sprouts
lima beans	Cabbage
Sweet Corn	Carrot
Cucumber	Cauliflower
Eggplant	Cress
Melon	Collards
Okra	Garlic
Southern peas	Kale
Pepper	Leek
Pumpkin	Lettuce
Sweet potato	Mustard greens
Summer squash	Onion
Winter squash	Peas
Tomato	Radish
	Irish potato – <i>Spring Only</i>
	Spinach
	Turnip

## Vegetables, Fruits and Herbs for Containers

VEGETABLE	Minimum container size
Beans, bush	2 gallon
Beets	1/2 gallon
Carrot	1 quart
Cabbage	5 gallon
Chard, Swiss	1/2 gallon
Cucumber	5 gallon
Eggplant	5 gallon
FRUIT	Minimum container size
Strawberries	Strawberry pot or grow bags
Patio Peach	Half Barrel
Patio Apple	Half Barrel

VEGETABLE	Minimum container size
Lettuce, leaf	1/2 gallon
Onion, green	1/2 gallon
Pepper, bell	2 gallon
Squash, summer	2 gallon
Squash, winter	3 gallon
Tomato	5 gallon
Tomato, cherry	1 gallon
HERBS: Most herbs can be grown in containers	
For more information on herbs visit: <a href="http://www.ces.ncsu.edu/depts/hort/hil/hil-8110.html">www.ces.ncsu.edu/depts/hort/hil/hil-8110.html</a>	
For more information on container plants visit: <a href="http://www.ces.ncsu.edu/depts/hort/hil/hil-8105.html">www.ces.ncsu.edu/depts/hort/hil/hil-8105.html</a>	



**FALL PLANTING GUIDE**

[www.ces.ncsu.edu/depts/hort/consumer/quickref/vegetable/fall\\_planting\\_guide.html](http://www.ces.ncsu.edu/depts/hort/consumer/quickref/vegetable/fall_planting_guide.html)

**SPRING PLANTING GUIDE**

[www.ces.ncsu.edu/depts/hort/consumer/quickref/vegetable/plantingguide.html](http://www.ces.ncsu.edu/depts/hort/consumer/quickref/vegetable/plantingguide.html)

**SMALL FRUITS** are ideal for the limited lot sizes of most homes. These plants often require very little pruning or spraying, and they produce quickly.

**Blackberries** - erect, semi-erect

**Blueberries** - highbush, rabbiteye

**Figs**

**Grapes** - muscadine, bunch

**Raspberries**

**Strawberries**

**TREE FRUITS AND NUTS** require space to grow and need regular maintenance such as pruning and spraying. Choose only those with disease resistance. For good cross-pollination, plant two different cultivars. Trees often are available as dwarf, semi-dwarf or standard.

<b>Apples</b>	<b>Pears</b>	<b>Persimmons</b>
<b>Peaches</b>	<b>Pecans</b>	<b>Plums</b>

**HERBS** are used in cooking and medicines, as fragrances and for ornamental purposes. The following are some of the more popular culinary herbs.

<b>Basil</b>	<b>Fennel</b>	<b>Parsley</b>
<b>Bay laurel</b>	<b>Lavender</b>	<b>Rosemary</b>
<b>Catnip</b>	<b>Marjoram</b>	<b>Sage</b>
<b>Chives</b>	<b>Mint</b>	<b>Tarragon</b>
<b>Dill</b>	<b>Oregano</b>	<b>Winter savory</b>

## Resources for Additional Information

**GENERAL INFORMATION**

[www.successfulgardener.org](http://www.successfulgardener.org)

and

[www.ncstate-plants.net](http://www.ncstate-plants.net)

**VEGETABLES**

[www.ces.ncsu.edu/depts/hort/hil/hvegnew.html](http://www.ces.ncsu.edu/depts/hort/hil/hvegnew.html)

**FRUITS**

[www.ces.ncsu.edu/depts/hort/hil/hfruitnew.html](http://www.ces.ncsu.edu/depts/hort/hil/hfruitnew.html)

**TREE FRUITS**

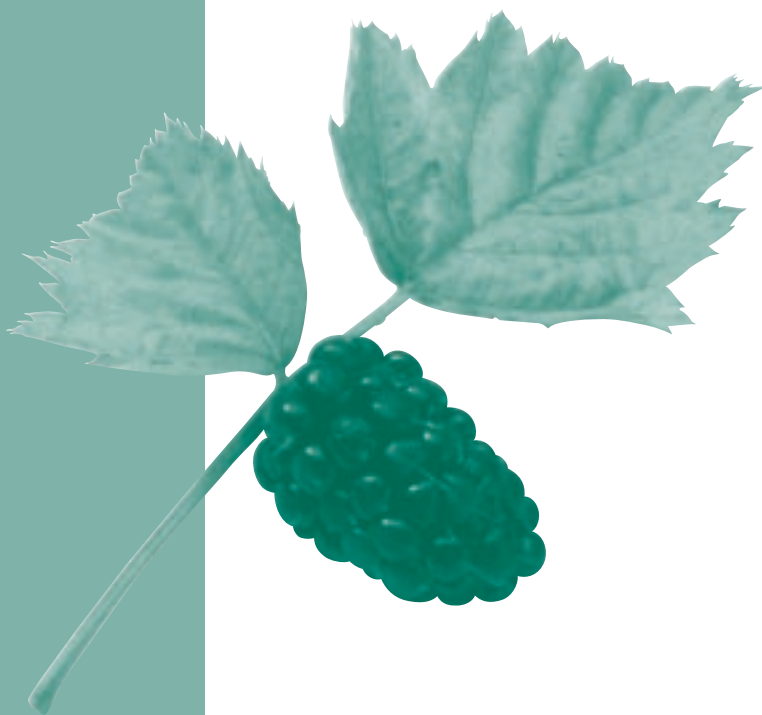
[www.ces.ncsu.edu/depts/hort/hil/ag28.html](http://www.ces.ncsu.edu/depts/hort/hil/ag28.html)

**HERBS**

[www.ces.ncsu.edu/depts/hort/hil/hil-8110.html](http://www.ces.ncsu.edu/depts/hort/hil/hil-8110.html)

**PLANT A ROW FOR THE HUNGRY**

[www.gwaa.org/par/](http://www.gwaa.org/par/)



Distributed in furtherance of the acts of Congress of May 8 and June 30, 1914. North Carolina State University and North Carolina A&T State University commit themselves to positive action to secure equal opportunity regardless of race, color, creed, national origin, religion, sex, age, or disability. In addition, the two Universities welcome all persons without regard to sexual orientation. North Carolina State University, North Carolina A&T State University, U.S. Department of Agriculture, and local governments cooperating.

**Extension's Successful Gardener**

This fruit and vegetable gardening guide was produced by Extension's Successful Gardener team. To learn more about the *Successful Gardener* newsletter and seminars, visit [www.successfulgardener.org](http://www.successfulgardener.org).

By Amy-Lynn Albertson, Consumer Horticulture Agent, Davidson County; Karen Neill, Consumer Horticulture Agent, Guilford County; and Emily Revels, Consumer Horticulture Agent, Mecklenburg County. All with NC Cooperative Extension. Extension's Successful Gardener Editor and Project Coordinator: Leah Chester-Davis, Extension Communication Specialist, Department of Communication Services. 2/04 • 24M

If you do not have access to the internet, contact your county Cooperative Extension Center.



Printed on recycled paper.