

PRODUCE YOUR PRODUCE

Get Started Vegetable Gardening

Growing your own food is great fun, good exercise, and rewarding both for your diet and your budget!

Step 1 Plan Your Garden Edible gardens can be traditional in-ground beds, raised beds, or containers. Start small then increase garden size with experience. Select vegetables and fruits you like to eat and that are expensive to buy at the grocery store. Put your ideas on paper to visualize how the garden fits in your landscape and to make the best use of space to grow your selected crops. Allow for access to water, weed, and harvest.

Create an edible, attractive landscape by growing vegetables, fruits, and herbs mixed with your ornamental plantings. Prepare a list of materials you need to start your garden including some simple equipment – trowel, shovel, rakes, hose with spray nozzle or watering can, and hoe. *Resources:* www.ces.ncsu.edu/depts/hort/hil/ag-06.html and www.ces.ncsu.edu/lawn-and-garden-publications/#vegetables

Step 2 Select Your Site

Locate your garden where you can conveniently reach it for daily care tasks and harvesting. Easy access to a reliable water source such as an outdoor spigot or irrigation system is critical. If planning an in-ground garden, the site needs well-drained soil (drainage can be improved by adding organic matter such as finished compost or well-rotted leaves). Look for a site away from trees and tall shrubs, protected from high winds, and offering good air circulation. But the most important factor for your garden site is a **minimum 6 hours of direct sunlight exposure each day!** *Resource:* <http://extension.umd.edu/growit/basics>

Step 4 Plant Your Crops

Many vegetable seeds are fine for direct sowing in the ground using see packet instructions for spacing and planting depth:

- **Thin seedlings** after germination to avoid overcrowding – snip unwanted seedlings versus pulling to prevent damage to roots.

- **Plants for direct sowing** include lettuces and greens of all types, radishes, turnips, carrots, beets, peas, and beans.

- **Transplants** can be purchased or DIY from seed; plant seeds according to packet directions in soilless growing medium (without polyacrylamides - moisture-retaining chemicals) 6-8 weeks before transplanting date; “harden off” seedlings by introducing plants to outdoor environment and increasing exposure daily over a couple weeks.

- **Space seeds and transplants** for mature-size to avoid shading or crowding plants; also place taller crops on the north and west sides

If mature plants require supports (like beans, peas, and tomatoes), install cages, stakes, or trellises while plants are very small so feeder roots are not damaged. *Resource:* www2.ca.uky.edu/agc/pubs/id/id128/id128.pdf

Step 3 Prepare Your Soil

Healthy soil is essential to gardening success – the soil feeds your plants. Good garden soil delivers the right mixture of air, water, and nutrients to grow large, effective root systems. Organic matter like finished compost is the key to improving soil quality. Never work or plant in soggy, wet soil – create a small ball of soil and if it easily crumbles apart, the soil is fine to work.

For in-ground gardens, amend native soils with organic matter (4” worked into a depth of 12”) to help break up the tight clay particles.

Raised beds, elevated garden spaces that connect to native soil beneath, are a good alternative to circumvent soil problems. *Resource:* http://miami-dade.ifas.ufl.edu/lawn_and_garden/Building%20a%20Raised%20Bed%20Vegetable%20Garden%20The%20Easy%20Way.pdf

Beds should be 8-12” deep unless planting on good, amended soil then bed can be 6-8” deep. Framed by borders of nontoxic wood, stone, or other rigid material, raised beds can be DIY or purchased, premade beds. Fill with a high quality, purchased garden blend or native soil amended with organic material such as finished compost or ground-up leaves. Each year, add more finished compost to replenish nutrients – about 25% of the depth of the bed.

Test soil in your prepared beds to determine nutrient and organic content and pH – good garden soil pH is 6-6.5. Information about soil testing and test boxes are available at your local Cooperative Extension Service. *Resource:* www.ncagr.gov/agronomi/sthome.htm

Soil amendments like lime and organic fertilizers may be needed to correct pH and nutrient deficiencies. *Resource:* www.soil.ncsu.edu/publications/Soilfacts/AG-439-70W/AG-439-70W.pdf

Step 5 Take Care of Your Garden

- **Watering** is key for plant growth and productivity. Water new seeds and transplants daily until established. Mature plants require 1” combined rainwater and applied water per week; avoid shallow, frequent watering. If possible, water the plant base; overhead watering promotes plant diseases and foliage scorch. In warm/hot weather, water in the morning preferably between 4-9am. Soaker hoses and drip systems minimize water use, deliver water slowly and directly to the root system, and avoid splashing soil onto plants.

- **Fertilizing** may be necessary to add nutrients to your garden soil until regular additions of organic matter have built healthy soil. Fertilize based on soil test recommendations and the needs of your different crops. Side dress preferably with a good organic fertilizer following label directions. Both chemical and organic fertilizers can be over-applied and burn plants or stimulate leaf growth at the expense of fruit production.

- **Mulching** retains soil moisture and helps control weeds as well as moderates soil temperatures; organic mulches (soil conditioner made of pine bark fines, finished compost, or newspaper covered with shredded leaves) also add organic matter to soil when they decompose.

- **Weeding** is important to garden success; weeds compete for water and nutrients and may harbor insect and disease pests. Hand-pull weeds when they are young and tender before they have flowered and set seeds!

- **Identify and manage common garden problems** caused by insects and plant diseases by checking your garden frequently to note potential issues. Most insects are beneficial, contributing to a balanced garden ecosystem. Healthy plants grown in good soil are disease resistant and can sustain some insect damage. For more troubleshooting info on garden problems, contact your Extension Master Gardeners or refer to these websites:

Insects in the Garden www.gardening.cornell.edu/homegardening/scene9deb.html

Common Vegetable Problems <http://extension.umd.edu/growit/eco-smart-food-gardening/common-vegetable-problems>

NCSU Plant Disease and Insect Clinic <http://www.cals.ncsu.edu/plantpath/extension/clinic/>

Got Questions? Get Answers to your gardening questions www.mastergardenersmecklenburg.org

WHAT CROPS TO PLANT & WHEN

in the Piedmont of North Carolina



Edibles can be grown in the NC Piedmont all four seasons!

Most vegetables are annuals completing their life cycle in one growing season — from seed to mature flowering plant then fruit production. Cool-weather vegetables—those that like warm days and cooler nights—are planted in spring and fall. In spring, cool-season crops are planted early (before the last average frost free date) and in fall, cool-season crops that tolerate moderate to freezing temperatures are established prior to frost. Many cold hardy crops, such as kale, collards, and turnip greens, planted in fall continue to produce through the winter. Warm-weather vegetables are planted after last frost date and grown until first frost in fall. *Resource: "Central NC Planting Calendar for Annual Vegetables, Fruits, and Herbs" http://cals.ncsu.edu/hort_sci/extension/documents?AG-756.pdf*

WARM SEASON VEGETABLES			COOL SEASON VEGETABLES		
Beans: - snap beans - pole beans - lima beans Cucumbers	Eggplant Okra Southern peas Peppers Malabar spinach	Squash: zucchini butternut crook-neck Tomatoes	Arugula Beets Broccoli Carrots Chard	Collards & mustard greens Garlic Kale Lettuces	Onions Peas – sweet/English Radishes Turnips

SMALL FRUITS like strawberries, blackberries, blueberries ('highbush' and 'rabbiteye' are good varieties), and grapes (Muscadine and bunch) are perennials producing fruit during the growing season for year after year. With lovely spring flowers and interesting, compact growth habits (e.g., vines, shrubs, brambles), these plants are ideal for small urban spaces and are visual assets to the residential landscape. For good cross-pollination, plant two different cultivars of each type of plant. Many of these beautiful plants produce delicious fruit quickly with minimal care. *Resource: <http://gardening.ces.ncsu.edu/fruit-3/>*

TREE FRUITS AND NUTS are large woody perennial plants that require space to grow and need regular maintenance, so choose disease-resistant varieties and learn correct pruning techniques. For best cross-pollination, plant two different cultivars of each type of fruit tree. The mature size of dwarf or semi-dwarf varieties fits better in residential landscapes. Figs, such as 'brown turkey' and 'celeste,' are highly recommended for success in southern Piedmont gardens. *Resource: <http://gardening.ces.ncsu.edu/fruit-3/tree-fruit/>*

CONTAINER GARDENING

If you have limited garden space, grow your own edibles in containers, grow bags, or window boxes. Even if you live in a condo or apartment, containers can be positioned in sunny spots on your steps, patio, or deck. Your containers need adequate sunlight, drainage holes, and ample room to hold roots of mature plants and to avoid crowding. Fill your container with a good quality, premixed potting soil (without polyacrylamides/hydrogels) and remember that container soil dries out quickly, requiring daily watering. Look for vegetables that thrive in small spaces, such as dwarf, bush, or determinate varieties that grow to a specific height and width such as 'Tom Thumb' peas, 'Silver Fir Tree' tomatoes, or 'Baby Bubba' okra. For more on container vegetables, checkout "*How to Create a Container Garden for Edibles in the NC Piedmont*" http://cals.ncsu.edu/hort_sci/extension/documents/ag-753.pdf and "*Container Garden Planting Calendar for Edibles in the NC Piedmont*" http://cals.ncsu.edu/hort_sci/extension/documents/ag-748.pdf.

Herbs also make excellent container plantings in sunny locations. Mix different kinds of herbs and small vegetables like lettuces and other leafy greens or even add flowers for an attractive, edible display. For more on container-grown herbs: www.urbanext.illinois.edu/containergardening/herbveggie.cfm

Basil annual	Catnip perennial	Chives perennial	Dill biennial	Fennel biennial	Mint perennial	Oregano perennial	Parsley biennial	Rosemary perennial	Sage perennial	Thyme perennial
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Producing your own produce is fun and easy when you plan ahead and use good gardening practices. For more information on home vegetable gardening, visit the NC Cooperative Extension resource site at <http://gardening.ces.ncsu.edu/vegetables-2/>



**Extension
Master
Gardener**

**Mecklenburg
County**

NC COOPERATIVE EXTENSION

Got Questions? Get Answers to your gardening questions visit:
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