

Building a Home Vegetable Garden One Step at a Time



Why do people like to grow vegetables?

There are so many different reasons. Many people find gardening to be a source of relaxation, a way to enjoy their backyards. Some people like growing their own produce because they like to know where their food comes from and whether it has been sprayed with herbicides or is organic. Others appreciate being less dependent on grocery stores with their rising prices and limited inventory. Then there are folks who welcome variety and trying new foods. Finally, the satisfaction obtained from eating and sharing fresh produce with friends and neighbors, and giving away the surplus is hard to beat.

In this mini-guide, we'll take you through the key steps to growing vegetables in your own yard.

Selecting a site

It begins with selecting a site. Some factors to consider include:

Getting enough sun

Since vegetable plants need at least six hours of direct sunlight every day, selecting a sunny area is crucial. If you have a sun-filled patch in your yard, you can plant rows of vegetables in an in-ground garden or in containers. Plant the vegetables away from the shade cast by buildings, fences, and shrubs.

Beans, tomatoes, peppers, eggplants and melons — among the plants that flower and set fruit — need more

sunlight. Some vegetables tolerate shade better than others. These include broccoli, kale, cabbage, collards, lettuce, parsley and spinach — vegetables that produce edible stems and leaves. Plants with edible roots, such as beets, carrots, radishes and turnips also tolerate shade.

Access to irrigation



Situate your garden near a water source such as a hose so that it can easily be watered in drier periods. Or install an irrigation system such as the one above.

Well-drained soil

Avoid putting your garden where water pools in your yard. Avoid planting your garden at the bottom of a hill for the same reason. Place your garden where the water will drain in less than twenty-four hours following a major storm.

Good quality soil: Testing your soil

Ideal gardening soil has a pH between 5.8 and 7.0. Several weeks before starting your garden, it's a good idea to find out if your soil has all the



nutrients it needs to grow vegetables. You can pick up special boxes to collect your soil from the Cooperative Extension office. Take a soil sample from soil where you're planning to locate your garden and send it to the NC Department of Agriculture. They will analyze the completed sample to find out if your soil needs amendments before you start planting seeds or plants.

Both clay and sand can be amended to create a loamy texture, ideal for growing vegetables. For more information on soil testing go to <https://www.ncagr.gov/agronomi/pdffiles/stflyer.pdf>

Avoid using garden soil for container gardening because garden soil is heavier and can quickly become compacted and waterlogged in containers. Garden centers have soil specifically formulated for containers.

The New Demonstration Vegetable Garden at the Pitt County Arboretum

The new demonstration vegetable garden is to the left of the Pitt County Agricultural Center as you come in, and then around the side.

Step 1: Site selection



The site was selected, measured, cleared, and leveled. The team sketched out where containers of various sizes and shapes would be placed. Containers were assembled and placed in their desired positions. Soil and compost were added.

Step 2: Installing irrigation

In the case of the Demonstration Vegetable Garden at the Pitt County Arboretum, a micro-spray irrigation system was installed to ensure that plants have a regular, reliable source of water. Drip irrigation is actually a more economical use of water, but is

more time consuming. Home gardeners might prefer drip irrigation for water conservation. Timers can also be used to ensure that vegetables are watered on a regular basis.



Make sure you will be home or have a friend who can tend your plants while you are away. While a watering system on a timer can help, you need to have someone at least look in on your crops while you are away.

If you're going to be out of town for part of the summer, consider growing fall crops that require less maintenance, such as lettuces, kale, peas, and root vegetables.

Step 3: Selecting what to grow

- ✓ Choose what you and your family like to eat.
- ✓ Don't overplant. You want growing vegetables to be a pleasurable activity, not something that becomes a chore

because you've planted way too much.

- ✓ Consider what's readily available locally. For instance, it's easy to find red tomatoes, but not heritage tomatoes, and you will pay a premium for these. A basket of orange cherry tomatoes will set you back a small fortune in the grocery store. Or you buy one plant and harvest hundreds of tomatoes over months.
- ✓ You can buy common herbs or grow them for pennies from seeds. In addition to being inexpensive, the quality and taste of what you grow may also be superior to what you can purchase.

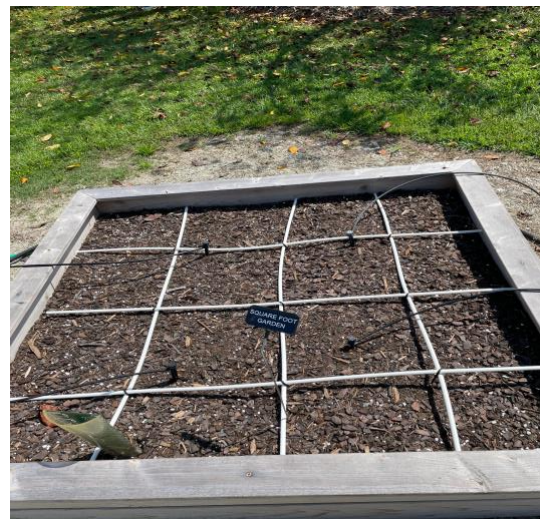


The decision was made to plant vegetables that are commonly grown and consumed in Eastern North Carolina in the demonstration garden. These include fall crops such as carrot, spinach, kale, and lettuce seeds.

Step 4:

Planting seeds

Most vegetables will grow from seeds. Check near the bottom of your seed packet for the expiry date. You can buy seeds at local stores or, for more specialized seeds, through online catalogues. You can also buy seedlings or small plants, from local nurseries.



Using a grid

Intensively planting in a grid pattern helps to maximize harvest and save water and time. The demo garden uses a small diameter tubing to create 16 12-inch grids in a four by four raised bed, but any materials can be used to create the grid pattern to help visualize where plants and seeds go and to keep the garden looking neat. Guides are available to help plan how closely you can successfully plant. Large plants such as tomatoes may require multiple grid areas while several beans or peppers can be

planted in one 12 by 12 inch grid. This method of gardening reduces the need for weeding and for watering since the close spacing of plants reduces open areas (as in long row planting) where weeds can grow and the soil dries faster.

Stagger your planting

Plant seeds at different times so that you will have a supply of lettuce or other produce through the season rather than too large a supply at one point. Consider that some crops mature quickly (e.g. radishes and bush beans), while others take many more days to mature (e.g. tomatoes, peppers).

Companion planting

Tall plants can provide shade or support for other plants. For example, climbing beans can grow up sunflower stalks or sweet corn.

Certain vegetables pair well together, either by deterring pests or attracting beneficial insects.

- ✓ In addition to being a natural culinary pairing, basil protects tomato plants by repelling thrips and disorienting moths, which lay tomato hornworms. Basil also attracts bees. Parsley also attracts beneficial insects to protect and pollinate tomatoes.



- ✓ Caterpillars enjoy kale, cabbage, and broccoli. But growing nasturtiums – edible flowers – close to these vegetables will keep caterpillars out.
- ✓ Most insects in the garden are beneficial insects, helping with pollination. Some plants attract beneficial insects. For example, borage attracts pollinating insects to boost flowering crop plants such as tomatoes and squash.

Eastern North Carolina is fortunate to have a long growing season, with the opportunity to plant thousands of fruits, vegetables, and herbs.

Many sources of information are readily available for learning how to grow a home vegetable garden. Here are just a few:

Information Sources:

Agronomic Division. *Soil Testing: Enhancing land productivity, nutrient use efficiency & environmental quality*. 2008. Raleigh, NC: N.D. Department of Agriculture and Consumer Services. Accessed at <https://www.ncagr.gov/agronomi/pdffiles/stflyer.pdf>

Shawn Banks and Lucy Bradley. 2023. [*Vegetable Gardening: A Beginner's Guide*](#). NC State Extension, available at <https://content.ces.ncsu.edu/home-vegetable-gardening-a-quick-reference-guide>

Farmer's Almanac. [*Vegetable Gardening for Beginners: The Complete Guide*](#). At <https://www.almanac.com/vegetable-gardening-for-beginners>. See the online planting instructions, gardening calendars, as well as guides for how to design a vegetable garden.

Michael Fine. *Growing Vegetables in Central North Carolina*. March 24, 2022. Zoom presentation sponsored by the North Carolina Extension Master Gardener Volunteer Association (NCEMGVA).

<https://growforit.ces.ncsu.edu/activities-for-kids/square-foot-gardening/>

Kathleen Moore & Lucy K. Bradley, editors. "Chapter 16: Vegetable Gardening," in *North Carolina Extension Gardener Handbook*. 2018. North Carolina State University.

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