

Home Vegetable Gardening - Getting started

Additional sources of information on specific topics are referenced as Hyperlinks listed on the last page

Garden Needs

- Sunny location with a minimum of 5-6 hours of sunlight daily, preferably 8-10
- Access to a water source: hose, [rain barrel](#) or pond, or other [water catchment system](#)
- Quality, well-drained soil or planting medium
- Convenient site, where you will be able to check on it frequently (close to the house)

Growing Seasons

- Spring, for Cool Season crops planted early, well before the last [average frost free date\(April 1- 10\)](#)
- Summer, for Warm Season crops planted after all frost is past, grown until first frosts in fall
- Fall, for Cool Season crops established prior to frost but that tolerate moderate to freezing temperatures
- Winter, for Cold Hardy crops planted in fall but live through the winter such as kale, collards, turnip greens

Plant Selections

See **Vegetable Variety Guide** on page 3.

- Herbs – Many are perennials that can be grown in containers (easily moved and great for small spaces), or planted in permanent garden beds. Others are annuals which must be planted each year from seed or transplanted.
- Vegetables – Can be grown in [containers](#), [raised beds](#) (easy to establish and removable) or in garden soil. Choose plants based on the season, your tastes and space available. [Asparagus](#) is a perennial vegetable and needs a separate garden bed where it can grow and spread for many years.
 - o Vegetables that do well in containers include: beans, beets, carrots, collards, cucumber, eggplant, garlic, kale, leeks, lettuce, mustard greens, peas, peppers, potatoes, spinach, squash, swiss chard, tomatoes and many others. [Container Gardening Planting Calendar](#)

Both containers and raised beds are a good choice for new gardeners as they are easy to establish, have few weeds, and take up little space. The larger the mature plant, the larger the container needs to be.

Soil Preparation

- [For Containers](#) - Purchase a good quality premixed potting soil (without [polyacrylamides](#)) or make your own combining equal parts of compost, shredded pine bark mulch, and vermiculite. Homemade mixes should be tested for soil pH and fertility. Container soil will dry quickly, requiring daily watering.
- [In Raised Bed or In Ground](#) - Amend your purchased or in ground soil with organic material, either homemade compost, purchased certified compost, leaf or pine bark mulch. After the soil is mixed with organic material, have a [soil test](#) done to determine the pH and nutrient content of your soil. Good garden soil should have a pH of 6-6.5. Nitrogen is needed annually, so choose an organic source (blood meal, feather meal) or non-organic source (ammonium nitrate or ammonium sulfate). If other nutrients are recommended by the soil test, you can use a mixed fertilizer which contains nitrogen, phosphorus and potassium (10-10-10 for example).

Supplies

- Appropriately sized containers with drainage holes for container gardens; wood, plastic or stone siding material for raised beds; supports such as a trellis or fence for vigorous climbing plants like cucumbers or beans, and stakes for tomatoes
- Means of watering: hose, watering can or jug, irrigation (water soil, not leaves!)
- [Gardening Tools](#): soil knife, pruners/clippers, trowel, small pick for planting and weeding, shovel, pitch fork, rake, sprayer, wheelbarrow and tiller for larger areas (optional)
- Soil amendments: fertilizer, lime, mulch, compost
- Plants: seeds or transplants (grow your own from seed or purchase transplants)

Garden Design

- Plan for the size of plant when mature so you don't shade out other plants – bean poles are tall!
- Rotate crop placement from year to year.
- Consider “Succession Planting” to extend each growing season by:
 - o Planting at 2-3 week intervals, prolonging your harvest.
 - o Using newly vacated spots to replant for a longer growing and harvesting season.
- Plan to grow crops in each of our 3 main seasons.

Seeds or Transplants

See **Vegetable Variety Guide** on page 3. (Seed/Plant)

- Some seeds can be sown directly into the garden. Plant seed according to package directions.
Cool Season - arugula, beets, carrots, chinese cabbage, cilantro, kale, lettuces, mustard, peas, radishes, spinach, swiss chard
Warm Season - basil, beans, eggplants, peppers, squashes, tomatoes
- To grow [transplants](#) from seed – plant seed according to seed packet direction into a small pot, or peat pot indoors or in a greenhouse. Plant indoors 6-8 weeks before transplanting date allowing time for transplants to be “hardened off” and ready by planting time. Hardening off ensures the transplant will be strong enough to take full outdoor sun. Slowly introduce the transplants into full sun, each day over a couple weeks' time.
- After a hardening off period, plant transplants gently into moist, loose soil into the garden. If in a peat pot, make sure the pot is completely covered with soil so it doesn't wick water away and dry out.
- Seeds can be less expensive than using transplants but this will depend on the size of your garden.
- Purchase seed packets at local stores or order from seed catalogs.
- Purchase transplants at your local farmers market, garden center or other stores that sell plants.

Garden Care

- Water new seeds and transplants every day until established, mature plants every two or three days
- Fertilize to maintain enough nitrogen
- Mulch to maintain moisture and control weeds (grass clippings, wheat straw, pine bark mulch, newspaper)
- Extend the growing season by protecting crops from extreme hot and cold; use mulch to keep soil temperatures moderated, cover plants during freezing temperatures and shade from hot sun. [Season Extenders](#)

Pest and Disease Management

- Focus on reducing plant stress first! Give them adequate sun, water, and fertility
- Plant flowering plants that support beneficial insects to help control pests and aid pollination.
- Plant disease or pest resistant seeds or plants, i.e. VFN resistant tomatoes and hardy, disease free plants
- Concentrate on watering the soil and root area, not the foliage, to discourage disease.
- Examine plants for critter or insect damage or disease, to catch early.
- Use stake, cage or trellis to keep plants from toppling and remove dead/diseased plants to trash.
- Mulch with leaves, shredded wood, or pine needles to reduce weeds. Remove growing weeds - don't let them go to seed!
- Practice crop rotation - Pests and diseases can live in the soil near previous host plant. By moving the host plant to a new area each year it reduces the pests' ability to reproduce and disease build-up.
- Become educated and know what to look for. Specific plants have known problems: squash often get vine borers; broccoli, collards and cabbages get cabbage loopers; melons can be prone to fungus, etc.
- Consider using products with the least toxicity. Some examples of organic control are: Bt, Diatomaceous Earth, Horticultural Oils, and Insecticidal Soap. Be aware that many products that address your problem may also harm non-targeted, beneficial insects and may be toxic to you, your pets or the environment. Read labels!

Vegetable Variety Guide listed by Seasonal Planting Date(s) for Wake County, NC

Vegetable	Variety		Planting Date		
		Seed/ Plant	Late Winter/ Early Spring	Fall	Days to Maturity
Cool Season Crops - Spring and Fall Planting - Not harmed by frost					
Asparagus	Jersey Giant, Jersey King, Jersey Supreme	P	2/15-3/31		2 years
Beets	Ruby Queen, Red Ace, Bull's Blood (for greens)	S	3/1-4/15	8/1-9/15	55-60
Broccoli	Marathon, Packman, Premium Crop, Arcadia	P	2/15-4/15	8/1-9/15	70-80
Brussels sprouts	Long Island Improved, Jade Cross Hybrid	P		6/15-7/15	85-95
Cabbage	Round Dutch, Early Jersey Wakefield, Red Rookie (red)	P	2/15-4/15	8/1-9/15	70-80
Cabbage, Chinese	Pak Choi, Bok Choi	S/P	3/15-4/1	8/15-10/1	45-80
Carrots	Danvers Half Long, Sugar Snax 54, Thumbelina	S	2/15-3/31	6/15-8/15	75-95
Cauliflower	Early Snowball, Snow Crown	P	2/15-4/15	8/1-9/30	55-65
Collards	Vates, Morris Heading, Top Bunch, Blue Max	S/P	2/15-4/15	8/1-9/15	60-100
Kale	Dwarf Curled Scotch, Siberian, Vates, Blue Knight, Lacinito	S/P	2/15-6/30	8/1-9/15	40-60
Kohlrabi	Early Purple Vienna, Grand Duke	S	2/15-6/30	8/1-9/15	50-60
Lettuce (head)	Ithaca, Mighty Joe, Maverick	S/P	2/1-4/10	8/25-9/25	70-85
Lettuce (leaf)	Grand Rapids, Salad Bowl, Buttercrunch, Red Sails, Romaine	S/P	2/1-4/20	8/25-10/1	40-50
Mustard	Southern Giant Curled, Tendergreen	S/P	2/15-6/30	8/1-9/15	30-45
Onions (seed)	Texas Grano 1015, Granex 33	S	8/1-6/15	9/15-10/31	4-5 mos.
Onions (sets or plants)	Texas Early Grano, Hi Ball, Scallions	P	10/1-3/1		60-80
Peas (edible-podded)	Oregon Sugar Pod II, Sugar Snap, Sugar Bon	S	2/15-4/15	8/1-9/30	60-70
Peas, garden	Green Arrow, Tall Telephone	S	2/15-4/15	8/1-9/30	65-70
Potatoes, Irish	Kennebec, Red Pontiac, Superior, Yukon Gold	S	2/15-4/1		95-120
Radish, Diakon	April Cross, Everest	S	2/15-6/30	8/1-9/15	60-75
Radishes	Early Scarlet Globe, Cherry Belle, Easter Egg, White Icicle	S	2/15-6/30	8/1-9/15	25-30
Rutabagas	American Purple Top, Laurentian	S	2/15-4/15	8/1-9/30	70-80
Spinach	Early Hybrid 7, Bloomsdale Long Standing, Tye	S	2/15-6/30	8/1-9/15	50-60
Swiss chard	Lucullus, Rhubarb Chard, Argentata	S/P	3/15-5/1		60-70
Turnips	Purple Top White Globe, Tokyo Cross, White Egg	S	2/15-6/30	8/1-31	55-60
Warm Season Crops - Plant after Frost Free Date					
Beans, Lima (bush)	Fordhook 242, Bridgeton, Early Thorogreen	S	4/10-6/15	7/15-8/1	65-80
Beans, Lima (pole)	King of the Garden, Carolina Sieva	S	4/10-6/15	7/15-8/1	75-95
Beans, Snap (bush)	Bush Blue Lake 274, Roma II	S	3/20-6/15	8/1-9/15	50-55
Beans, Snap (pole)	Kentucky Wonder 191, Stringless Blue Lake, Romano (flat)	S	3/20-6/15	8/1-9/15	65-70
Cantaloupe	Ambrosia, Athena	P	4/15-5/15	7/1-7/15	85-90
Corn, Sweet	Silver Queen, Bodacious, Merit, Summer Sweet	S	3/15-4/30		85-90
Cucumbers (pickling)	Colt, Sassy	S/P	4/20-5/20	7/15-8/15	40-65
Cucumbers (slicing)	Poinsett 76, Slice More, Stone Wall, Thunder	S/P	4/15-5/15	7/15-8/15	40-65
Eggplant	Black Beauty, Calliope, Classic, Ichiban, Listada di Gandia	S/P	4/15-5/10	8/1-8/15	80-85
Okra	Clemson Spineless, Lee, Annie Oakley II	S	5/1-5/30	8/1-8/30	60-70
Peas, Southern	Queen Anne, Mississippi Silver, Pinkeye Purple Hull	S	3/25-6/15	8/1-8/30	55-65
Peppers (hot)	Habanero, Aji Dulce, Cayenne, Hungarian Wax, Jalapeno M	S/P	4/15-5/10	8/1-8/15	75-80
Peppers, Bell/Ancho	Camelot X3R, Excursion II, San Juan (Ancho)	S/P	4/15-5/10	8/1-8/15	75-80
Pumpkins	Autumn Gold, Howden's Biggie, Magic Lantern, Spookie (small)	S	6/15-7/10		115-120
Squash, Summer	Goldbar, Dixie (yellow), Elite (zucchini), Sunburst (scalloped)	S	4/1-5/30	7/15-8/15	50-60
Squash, Winter	Butternut Supreme, Veg. Spaghetti, Golden Hubbard, Table Ace	S	4/15-5/20		70-95
Sweet potatoes	Beauregard, Hernandez, Jewel	P	5/1-7/15		95-125
Tomatoes	Mtn. Spring, Celebrity Better Boy, Cherokee Purple, Sun Gold	S/P	4/15-5/10	8/1-8/15	75-85
Watermelons	Crimson Sweet, Mardi Gras, Sangria, Atlantic Giant	S	4/15-6/30		90-100

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Hyperlinks

Rain Barrel	http://media.clemson.edu/public/restoration/carolina%20clear/toolbox/cc_rainbarrel_manual_may11.pdf
Water Catchment/Rain Water Harvesting	http://www.seattle.gov/util/environmentconservation/mylawngarden/rain_water_harvesting/
Container Gardening	http://cals.ncsu.edu/hort_sci/extension/documents/AG-753_ContainerGardeningforEdibles_Online.pdf
Constructing Easy Raised Bed	http://www.advocatesforhealthinaction.org/system/files/files/How%20To%20guide%20for%20Raised%20Bed%20Gardening.%20Kathleen%20Hebert.pdf
Home Asparagus Production	http://www.ces.ncsu.edu/hil/hil-8002.html
Container Gardening Calendar	http://cals.ncsu.edu/hort_sci/extension/documents/ag-748.pdf
Polyacrylamides	http://puyalup.wsu.edu/~linda%20chalker-scott/horticultural%20myths_files/Myths/Hydrogels.pdf
Soil Testing	http://www.ncagr.gov/agronomi/sthome.htm
Garden Tools	http://lee.ces.ncsu.edu/2013/04/basic-garden-tools-3/
Vegetable Transplants	http://granville.ces.ncsu.edu/2012/02/starting-vegetable-seeds/
Season Extenders	http://pubs.ext.vt.edu/426/426-381/426-381.html

Great Websites

Growing Small Farms Vegetable Variety List	http://growingsmallfarms.ces.ncsu.edu/growingsmallfarms-varietylist/
Home Vegetable Gardening Leaflets	http://www.ces.ncsu.edu/hil/hvegnew.html
NCSU Hort Gardening	http://cals.ncsu.edu/hort_sci/gardening/
The Raleigh Yard Waste Center	Raleigh Yard Waste Center
Urban Horticulture	http://www.ces.ncsu.edu/depts/hort/consumer/



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