

STARTING A VEGETABLE GARDEN

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Introduction

- Why start a vegetable garden?



Topics covered today

- Getting Started
- Requirements for growing vegetables
- Planning your garden
- Choosing your vegetables
- Propagation
- Caring for your vegetable plants
- Resources

Getting Started

- Rules of thumb for getting started
 - Start small
 - Plan
 - Prepare

Requirements: Site

- Receives ample direct-sun every day:
 - 6-8 hours (best 8-10): potato, tomato, pepper, eggplant, squash, melon, pumpkin, cucumber, bean, garlic, broccoli, cabbage, cauliflower, sweet corn
 - 6 hours: carrot, beet, swiss chard, kale, mustard greens
 - 4-5 hours: leafy greens (spinach, lettuce, arugula)
- Level & well-drained area
- Near water source
- Avoid trees and shrubs
 - Keep black walnut and butternut trees at least 75 ft away (they are toxic to tomato, potato, pea, asparagus)
- Tip: keep out deer, rabbits, groundhogs, squirrels, and other pests with fencing

What if Your Site is Not 'Perfect'?

- Terrace a sloped area
- Build raised beds to improve drainage
- Use containers
- Grow vegetables that require less light

Requirements: Soil

- Soil for vegetables should be deep, friable (crumbly), well drained, high in organic matter
- pH – test your soil
 - Should have a pH of 5.5-7.0, best is 6.0-6.8
- What to do if your soil is not “perfect”:
 - Add organic matter to improve texture, water retention, drainage
 - Adjust the pH of your soil
 - Before you adjust your pH you should do a soil test. Information on testing your soil can be found online at the University of Maryland Extension website
 - Till, double-dig beds, or build raise beds to improve soil depth for optimal root growth

Requirements: Water

- Water deeply and infrequently (vs. shallow and frequent)
 - Rule of thumb: one inch of water per week (test with your finger)
 - When to water: when the surface of the soil feels dry
 - Use a rain gauge to measure rainfall
 - Water at the soil level rather than overhead (option: soaker hose/ drip irrigation)
 - Water in the morning / avoid watering at night to lower risk of some diseases and pests
- Conserve water by adding mulch to the soil
- Organic matter in the soil retains moisture
- Most critical:
 - At & immediately following transplanting
 - During initial stages of growth
 - During development of the edible fruit/vegetable



Requirements: Fertilizing

- Needs vary by:
 - Species: i.e. sweet corn needs more than peppers
 - Lifecycle: need more when getting established, during flowering, during fruiting
 - Fertilize tomato, eggplant, pepper after first fruits form if plant growth lags
 - Growing conditions: sunlight, spacing, weed competition affects needs
- Organic gardening: feed the soil first
 - Add organic matter once a year
 - Add more if you plant more than set of crops (spring, summer, fall)
 - Supply nitrogen: compost, manure, cottonseed meal, blood meal, fish emulsion, kelp meal
- Do not 'burn' plants with too much fertilizer or with fresh manure
 - Apply only recommended dose of fertilizer (see package)

Planning Your Garden

- Choose the best site you have
- Decide how you will set up your garden
 - Garden beds
 - Raised beds
 - Containers
- Determine the size
- Sketch out your ideas
- Consider different types of gardens (next slide)
- Plan your garden design – i.e. straight, curved, square
 - Best to keep plots less than 4 feet wide
 - Look at garden design books/magazines for ideas
 - Formal or Informal styles

Types of Vegetable Gardens

- Sustainable
- Organic
- Intensive
 - Square foot
- Edible landscaping
- Heirloom or specialty

Setting Up Your New Garden

- Gather your materials
- Dig, build, fill your new containers or beds
- Spring or Fall are both good times to put in a new garden
 - Spring started gardens: plant right away
 - Fall started gardens: mulch or plant cover crop

Choosing Your Vegetables

- **Be realistic:**
 - Grow what you want to eat
 - Stick with what grows in your zone
 - Stay within the limits of your space – i.e. containers, less than ideal light, small vs. large garden...
 - Consider disease resistant varieties
- **Be creative:**
 - Consider new or different varieties – i.e. purple string beans
 - Experiment: try something different from last year
 - Consider heirlooms

Popular Vegetables for Mid-Atlantic

- Leek, onion, shallot, garlic, chives
- Broccoli/raab, cabbage, collards, kale, arugula, radish
- Swiss chard, spinach, endive, lettuce
- Watermelon, melons (musk/cantaloupe), cucumbers, winter squash, summer squash, pumpkins
- Okra
- Rhubarb
- Peanut, soybean, lima bean, runner bean, green/snap bean, peas, fava bean, cowpea
- Sweet and chili peppers, tomato, tomatillo, eggplant, potato
- Celery, dill, carrot, parsley
- Sweet potato
- Sweet corn
- Basil,
- Asparagus

Starting vegetables from seed

- Direct sow
 - Follow instructions on seed packet for depth and spacing
 - Do not let dry out
 - Use gentle over head watering until seedlings appear, then water near base of plants
- Start seeds indoors
 - Start 6-8 weeks before planting outdoors (or as recommended on package)
 - Use sterile seed starting medium
 - Do not let seedlings get dry – consider bottom watering
 - Provide enough light – keep light source close to tops of seedlings
 - Harden off transplants before planting outside
- Thin seedlings with both methods

Transplanting

- To purchase a transplant:
 - Buy from a reputable source to avoid importing pests or disease
 - Check carefully to ensure health of the plant:
 - Should display no signs of wilt, yellowing or other discoloring, or other visible defect
- Planting
 - Dig hole at least three times width of roots
 - Add organic matter
 - Add plant and replace soil
 - Water well
 - Continue to water well until plant is established
- Set out at recommended time (in relation to last frost date)

Caring for your vegetable garden

- Keep weeds out
 - Mulch: fabric, newspaper + straw/shredded leaves, grass clippings, compost, plastic
 - Hand pull weeds
 - Don't let weeds go to seed
 - Plant close together to shade out weed seeds
 - Use herbicides very sparingly – very few can be used in vegetable garden
- Control pests:
 - Use companion planting to encourage beneficial insects
 - Handpick pests
 - Learn to identify the pests in your garden
 - Selectively use chemical or organic pesticides
 - Rotate crops
- Encourage bushy plants by pinching back: tomatoes, basil
- Support vines and tall plants: peas, beans, tomatoes

Resources

- University of Maryland Extension
 - Website: <http://extension.umd.edu/>
 - Grow it Eat it Website: <http://growit.umd.edu/>
- Select seed catalogs (my favorites):
 - *Local/Mid-Atlantic*: Southern Exposure Seed Exchange
 - *Heirloom & Organic*: Baker Creek Heirloom Seeds, Bountiful Gardens, Seeds of Change, Seed Savers Exchange
 - *Others*: Territorial Seed Company, Pinetree Garden Seeds, John Scheepers Kitchen Garden Seeds, Burpee, Johnny's
- Helpful topics to research/read about:
 - Companion planting, Organic gardening techniques, Starting vegetables from seed, Pest identification and control

Questions?