



Vegetable Gardening Basics

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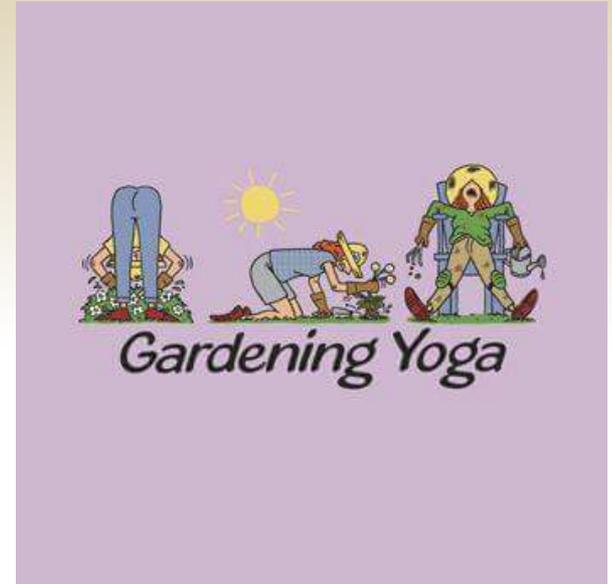


Master Gardener Program



Why grow vegetables

- More nutritious, fresher, more flavorful you pick when ripe
- Eat healthier as you add more salads & vegetables to your menu
- Safer as you control the chemicals you can become organic
- Get exercise and fresh air while tending the garden
- Have a sense of satisfaction or accomplishment



Why grow vegetables

- Save money on groceries?
- Can be a source of beauty ornamental as well as edible
Combine pollinator flowers & vegetables
- Can share bounty of harvest with friends & relatives or preserve extra (freezing, canning, drying)
- Can share experience with children or grandchildren - they are the future stewards of the earth



Planning is important

- Put your ideas down in writing
- Keep a garden journal
- Read books, use resources on Internet, join Master Gardeners
- Acquire the necessary tools you will need



Be realistic in what you can do!

- Start small
- Stay simple



Selecting a site

Needs include:

- 8-10 hours of direct sun light
- Avoid being near trees
- Shades blocks light & roots compete for nutrients
- Well drained soil
- Avoid low wet spots - plants don't like wet feet
- Good air circulation
- But avoid areas that get high wind
- Level spot easiest (can terrace slope – use south facing)
- Avoid low areas as cold air can be trapped – frost

Selecting a site

- Convenient to water source
- Close to kitchen & garden tools
- Avoid areas near a busy road
- How much space do I have?
- How much produce do I want?
- Keep in mind crop rotation (genetically related – need to avoid the same location every three years)
- Choose to test the soil – pH available nutrients, etc



Choose a garden style

Depends on available space & needs:

Traditional

- Orderly narrow single rows
- Plants in line with one another
- Space between rows or have path



Wide row planting

- plants alternate – less space for paths
- Need to know diameter of mature plant, want them to touch not overlap
- Sprawling plants can be trellised



Choose a garden style

Raised Beds: Many advantages

- Soil warms up faster for better growth
- No deep deep digging required
- Better control of soil amendments
- Good drainage naturally provided
- Use of space is more efficient
- Easier to water and weed
- Don't have to bend, can sit on seat edge to plant, weed, harvest
- Can have uprights that allow for application of shade cloth, plastic sheeting for frost protection, netting for bird control, etc



Choose a garden style

- Can easily do successive plantings
- Lends itself to **square foot gardening**
- Disadvantages
 - Cost of materials
 - Labor intensive to build
 - Is semi-permanent



Choose a garden style

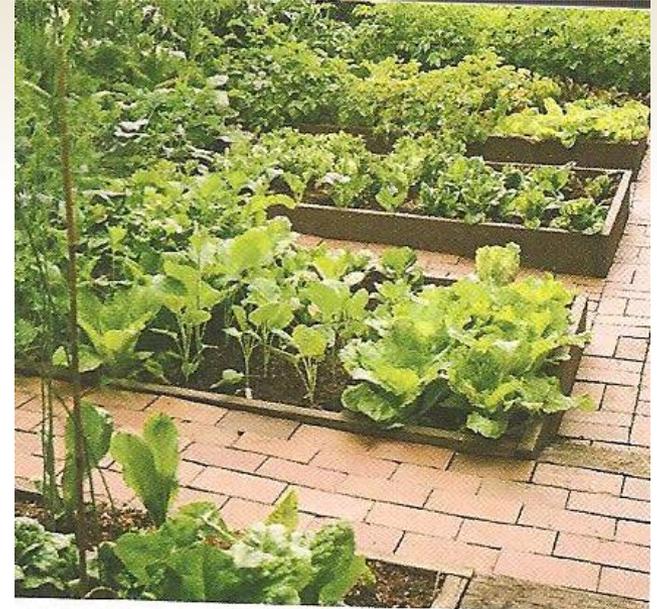
Materials that can be used for raised beds include:

- Treated wood, stone, cement blocks, pavers
- Size best at 3-4' wide, 6-8' long, at least 10" deep
- Shape often rectangular but can be square, triangle, circle, be creative



Choose a garden style

- Amount of space between rows
Need space for wheel borrow or just walking
- Path between beds choices if bare soil will get weeds
- Grass - need to water and mow
- Put down weed barrier - black plastic
- Brick, pavers, gravel more permanent & costly
- Wood chips, shredded bark, pine needles – must be renewed



Choose a garden style

Flower beds

- If don't have space for a garden and needs are small
- Beds usually surround a home or are around the perimeter
- Look at shade patterns first
- Warm weather on south side
- Cool weather on north side
- Can intersperse between perennials and even annuals for pollinators
- Taller plants in back, shorter in front
- Can place sprawling vegetables on trellis or fence



Choose a garden style

Growing in Container pots

- On patio, deck, driveway border, etc
- Can be from all kinds of materials – wood, metal, plastic, etc

Choosing pots

- Clay needs more water than plastic
- Small pots need more water than large pots
- Have tray beneath for water drainage
- Roots need oxygen will rot if left standing in water
- Need to water more when hot



Choose a garden style

Existing lawn can become a garden area

- Labor intensive to remove sod, rototile, amend soil, etc

Lasagna method

- Also called sheet composting
- Year before in fall, lay down wet newspaper, pile on yard debris grass clippings, leaves, etc
- Let decompose over the winter
- Add a border optional
- Add top soil in spring and ready to garden



Soil

Most important ingredient to great vegetable gardens

- DIRT - Good soil is a must!
- Assess type of native soil
clay, loam, sand
- Assess pH – acid / alkaline
pH best 6.2-6.8
- Use amendments to adjust
aged steer manure, limestone
for alkaline soil, etc
- Need abundant organic matter
holds nutrients better and
makes soil more porous
- Can buy commercial compost,
aged steer manure
top soil by the truck load
- Can make own **compost**
A great way to recycle garden
and yard wastes
- Key is to balance food, water
and air to favor growth of
thermophilic microorganism
that will break down ingredients
into rich soil

Planting the garden

- Select only seeds/plants that you or your family like to eat
- Start indoors from seeds – get a jump on the season
- Do you want to use season extenders – cold frames, wall of water, cloches, cut off gallon milk jug with top off
- Plant cool weather crops outdoors after last frost date
 - Pre-sprout larger seeds (damp paper towels in plastic bag)



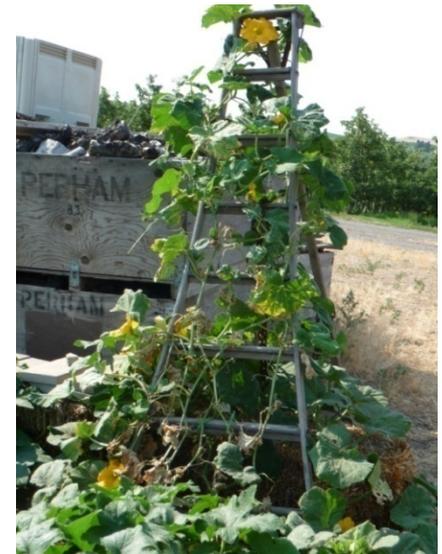
Planting the garden

- Plant warm weather crops when temperatures warm up
- Use bedding plants (MG plant sale first week-end May)
- Decide how much to plant of each - know production amounts
- Decide how you will use excess produce if you grow more than you need
- Plant tall or trellised plants on the north side
- Know planting depth, planting distance, time to maturity, etc for each plant (**read seed packet**)



Planting the garden

- Use of floating row cover for some frost protection, best for insect borne disease protection
- Plant perennials in separate location where they will not be disturbed
- Allow space for sprawling vegetables or trellis
- Label all rows & plants, especially variety types



Watering

- Needs to be consistent yet adjusted to the weather
- More water needed by plant after planting, when sets flower and when sets fruit
- Basic tenants:
 - Water slow and deep best - 4-6"
 - Water first thing in morning so leaves have time to dry



Watering

Ways to water – often depends on garden style chosen

Row type

- furrow irrigation
- overhead sprinklers (assure not affected by wind)

Hand watering

- problem – does not water deep

Drip irrigation BEST

- costly and needs to be set up

Soaker hose

- only if house water used irrigation water plugs up the lines



Fertilizing

“Feed the soil not the plant”
need to keep the microbes happy

- Three important components
 - Nitrogen – N
 - needed for photosynthesis, growth of stems & leaves
 - Phosphorous – P needed for strong roots, ripening of crop
 - Potassium – K assists in production of carbohydrates and aids in resistance to disease
- Micronutrients include: calcium, sulfur, magnesium, iron, etc



Fertilizing

- Know plants feeding needs heavy, moderate and light
- Fertilize every 2-3 weeks depending on need, weaker solution more often
- Types of fertilizers: read labels for NPK ratio's – 20:5:5
- Chemical fertilizers – water soluble
 - Fertilizers with higher nitrogen for growth
 - Fertilizers with higher phosphorous for bloom
- Organic options – fish emulsion, dried kelp, bone meal, etc
- Compost tea – aged horse manure (put in burlap bag and soak in water) side dress plants



Weed control

The scourge of gardeners!

- Pull or hoe weeds when soil is wet
- Pull when weeds are young easier - if older go to seed and get even more weeds

The magic of mulching:

- Advantages
 - Conserves water in the soil lost through evaporation
 - Insulates the plant roots from extreme cold & hot temperatures



Weed control

- Reduces the need for weeding
- Garden looks neater
- Types of mulches
 - Straw
 - Grass clippings
 - Land fill shredded organic material
- Place around plants (but not covering the stem of the plant) about 4-6" thick

Work smarter NOT harder!



Harvesting

- Experience or consult references when food is ready to pick
- Harvest early in the morning best
- The more you pick the more that will be produced
- Excess produce
- Donate to food bank
- Learn preservation techniques



ENJOY THE FRUITS OF YOUR LABOR

- Learn from your mistakes and make changes accordingly for next year's garden
- Keeping a garden journal helps this process





**Thank you
Any questions?**

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