

Planning and Preparing a Kitchen Garden



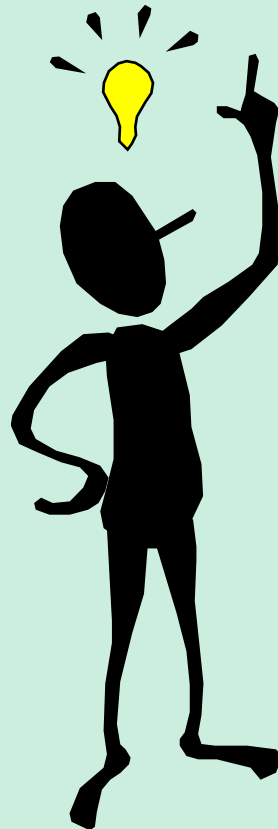
Advantages of Gardening

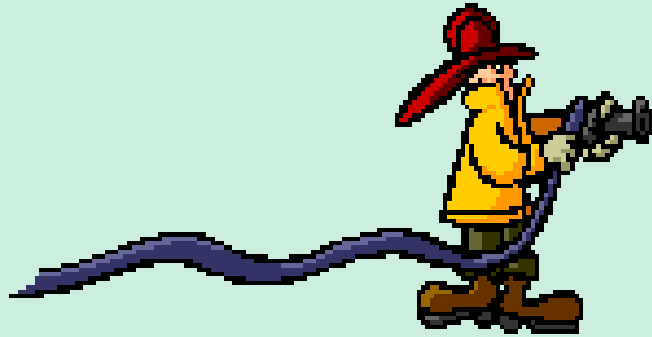
- 1.) Hobby that provides exercise
- 2.) Satisfaction of growing something useful
- 3.) Saves on grocery bill
- 4.) All ages can participate



Things to Consider...

- Location
- Soil types
- Types of crops
- Garden Layout
- Rotation of crops
- Planting Methods
- Weed Control
- Pest Control





Location

- Near water supply for easy access
- Full sun- some plants will grow in shady areas (leafy greens, pumpkins)
- Away from trees- rob nutrients from veggies
- Flat land to prevent runoff and erosion

Soil Types

- Best garden soil is loam= equal amount of sand, silt, and clay
 - Good drainage so oxygen is available for roots
 - Organic matter to hold moisture and provide plants with nutrients
 - pH range should be from 6.3-7.0 for most veggies

Soil Management Practices...

- Clay Soils
 - Work up in the fall of the year
 - This allows drier soil in spring for earlier planting
 - Prepare “raised beds” to plant early in season
 - Work manure, residue, and leaves into soil to increase organic matter

Soil Management Practices...

- Sandy Soils
 - Best when planted with a fall cover crop, rye or vetch and the worked in early spring
 - This adds organic matter
 - Helps to hold on to moisture and and plant food
 - Soil tests should be done each year to determine nitrogen, phosphorus, and potassium levels as well as pH level.

Soil Management Practices...

- pH is too high (alkaline)
 - Add sulfur to recommended amounts
- pH is too low (basic)
 - Add lime to recommended amounts
 - When close to proper pH 5lbs/100sq. Ft. every 2-3 years should keep soil at good levels
 - Beans, peas, onions require high pH levels

Fertilizing

- Plant Food Elements on front of bag

5-10-5

N-P-K

Nitrogen %

Phosphorus %

Potassium %

Fertilizing Continued

- High Nitrogen Crops
 - Leafy veggies and corn
- High Phosphorus Crops
 - Pod and fruit crops
- High Potassium Crops
 - Root crops



Applying Fertilizers

- **Broadcasting**- spread amount of fertilizer equally over the entire garden and mix into soil before planting
- **Sidedressing**- Mix half into the soil before planting and apply the rest later in the season on top of the soil on each side of the rows about 3-4 inches from the stem.

Applying Fertilizers continued

- **Banding-** place the fertilizer in rows dug 3 inches from each side of the row of seeds or plants and slightly deeper than the depth planted.
- **Plowing Under-** if soil is very low in “P” and “K”, then add nutrients and plow under. Top dressing does not allow nutrients to be leached into soil fast enough.

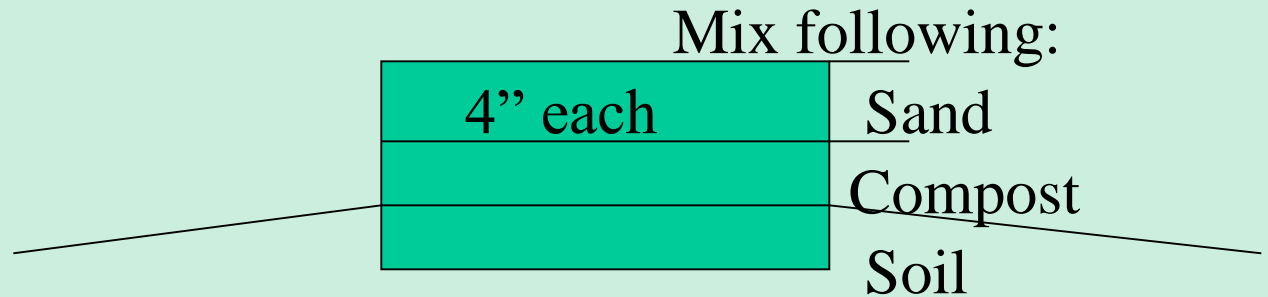
Types of Crops

- **Root Crops**- carrots, radishes, turnips
- **Cold Crops**- broccoli, cauliflower, lettuce, spinach, cabbage
- **Legumes**- peas, beans, sprouts
- **Vine Crops**- pumpkins, squash, melons, cucumbers
- **Black Night Shades**- Tomato, pepper, eggplant, potato
- **Grass**- corn

Root Crops



- Need high aeration, works best in sandy soil
- Short growing season plants
- Raised bed method-
 - Increase length of root crop, thus increasing pounds of veggies/foot/row

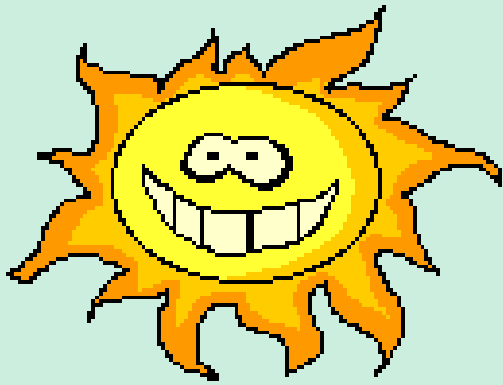


- **Interplanting method-** plant a short term crop with a longer term plant so more crop can be grown in a smaller space!
- **Succession Planting-** if using short term varieties, plant-harvest and replant same crop to get maximum use of garden space and crop!

Cold Crops



- Prefer temperatures ranging from 60-65 degrees F. Intolerant of hot weather, but can withstand some frost.
- Get shortest day possible
- Plant August 1st to avoid bugs, disease, heat and prevent bolting.
- Bolting- shoot out seed heads

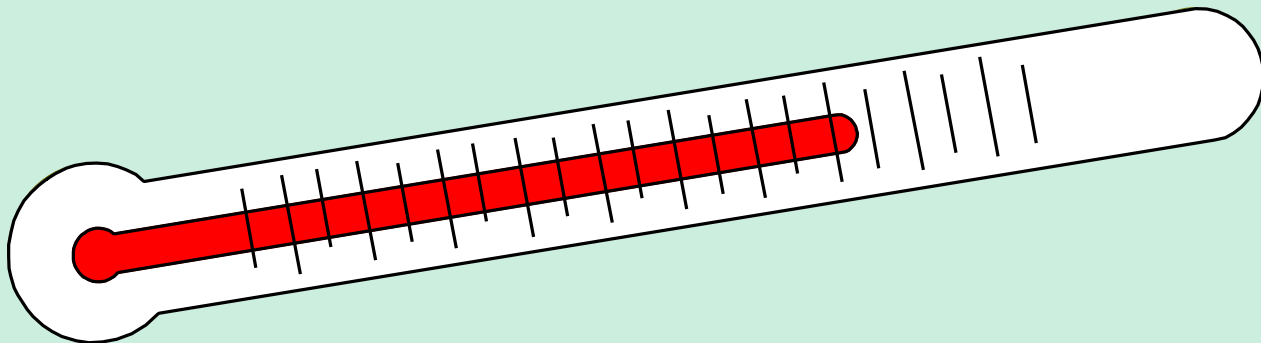


Warm Crops

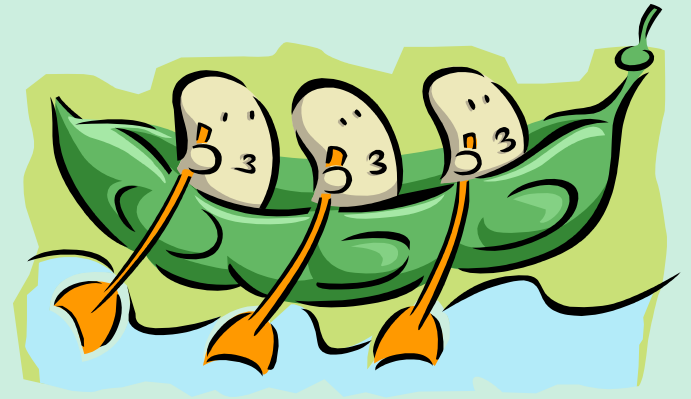
- Prefer temperatures about or beyond 70 degrees F.
- Usually a long growing season is needed
- Watermelons, sweet potatoes, eggplant, peppers, and okra

Temperature Tolerant Crops

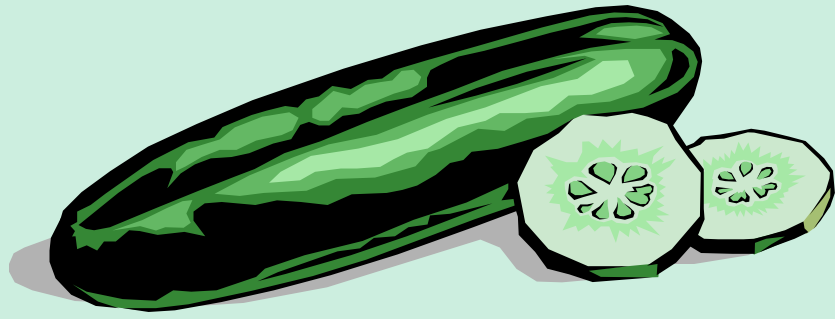
- These can withstand a wide variety of temperatures, 55-80 degrees F.
- Onions, beets, garlic, carrots, potatoes, cucumbers, pumpkins, beans, tomatoes, corn



Legumes



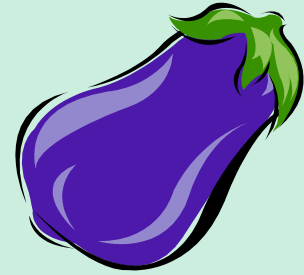
- Can plant early (April 1-15th in Wisconsin) if used with simple mini greenhouse over rows.
- Interplant method can be used with these crops.
- Remember they add nitrogen to the soil, rotate corn in this spot next year!



Vine Crops

- Separate cucumbers and melons to prevent cross pollination which results in off taste in melons.
- Plant in family groups
- Use a trellis and train them to grow “up” to limit the amount of space they take up.
- One plant feeds a family of 4!

Black Night Shade Crops



- Determinate- plants only grow so high/big
- Indeterminate- plants that grow, and grow, and grow...(energizer bunny type)
- Trellis tomato plants to increase garden space and produce better crops.
- NEVER plant root crops after tomatoes!
 - This increases insect and disease problems.

Garden Layout Tips



- Plant perennials together on one side of the garden or in different spot to avoid interference with working.
- Group quickly maturing crops together or plant them between rows of crops that mature later. (Interplanting/Succession)
- Plan the distance between rows according to cultivation methods. No sense in planting if you can't get the tiller between the rows!



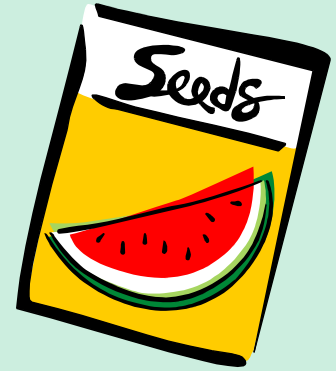
- Crops such as snap beans and sweet corn can be planted at interval sof every two weeks so that they can be harvested at different times during the season
- Replant areas where early crops, such as peas and lettuce are harvested with fall crops, such as kale or turnips. (succession)
- Use black plastic or mulch to cover ground to keep weeds out.
- Plant the garden North and South to make all sun possible available. Put tall crops on the North end.

Crop Rotation

- Decreases insect/disease problems
- Utilize nutrients already in soil provided by previous crop
- Example rotation
 - Green, manure crops
 - High nitrogen crops, corn
 - Root crops
 - Black Night Shades
 - Back to beginning



Planting Methods



- Use fresh seeds from a reputable source
- Pay attention to last frost date in your area
- Plant according to directions on package
- Build “mini greenhouse” to protect seedlings from frost, increase germination rate/date, and increase temperature from sun so gardening can be started early in season.



Weed Control

- Don't delay! Remove weeds when they are less than 1" tall and remove roots, too!
- Mulching- straw, leaves, black polyethylene plastic, grass clippings, wood chips (nontreated) work well
- Chemicals- READ directions! BE careful! Not most desirable for edible plants!

Pest Control/Prevention

- Dispose of crop residue (leftovers)
- Rotate Crops
- Use “treated” seeds
- Use “resistant” varieties
- Purchase healthy transplants
- Use limited chemicals if necessary



THANK YOU