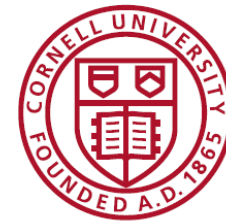


# Vegetable Gardening for Beginners

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Cornell Cooperative Extension  
Jefferson County



# You Can Do This!

- Brown thumbs do not exist!
- Benefits of Home Gardening:
  - Food Security
  - Grow vegetables that are fresh and organic
  - Save money
  - Free exercise!





# \*Start Small!

- 10 X 10
- 20 X 20 ideal for a family of five
- Raised beds





# \*Pay Attention to the Weather!

- Temperature- spring and fall frosts
- Heavy rain
- High winds





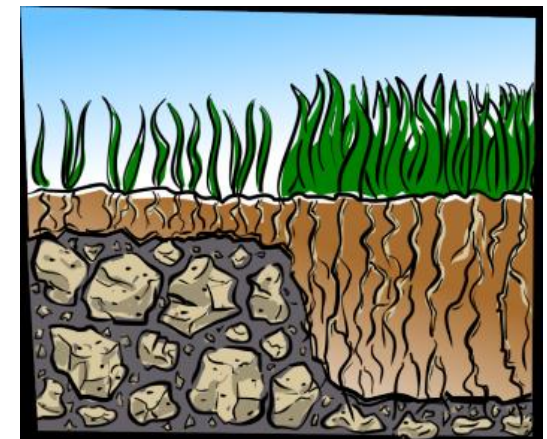
Let's do this!





# # 1- Locating your Garden

- Directly in ground or raised bed
- Sunlight
- Site conditions
  - Slope
  - Soil
  - Environment
- Access to water
- Expansion



# Placement-Ground vs Raised Beds

## Ground

- Cheapest option



## Raised Beds

- Building material- black locust, white oak, white cedar
- Soil for fill
- Good for areas with poor or contaminated soil; or no depth
- Good for people with limitations
- Decorative options







# Placement- Sunlight

- Evaluate the sun's path- shade from trees/buildings?
- 8 hours per day- 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 to 5 hours- spinach, arugula, lettuce
- Sites with full sun on a southern slope will require more water





# Placement- Slope

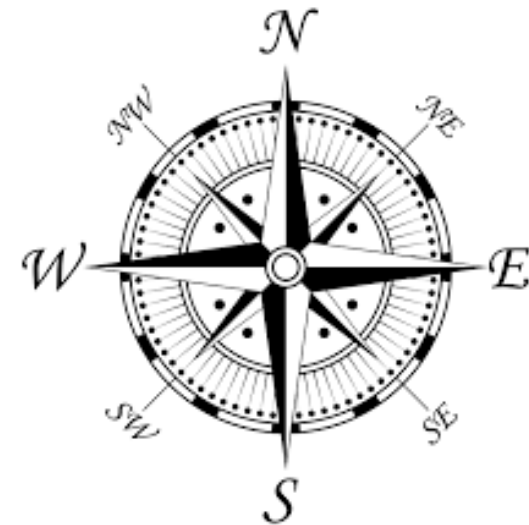
- As level as possible
- Slopes should be terraced to prevent erosion





# Placement- Wind

- Prevailing winds
- Hilltops





# Placement- Water

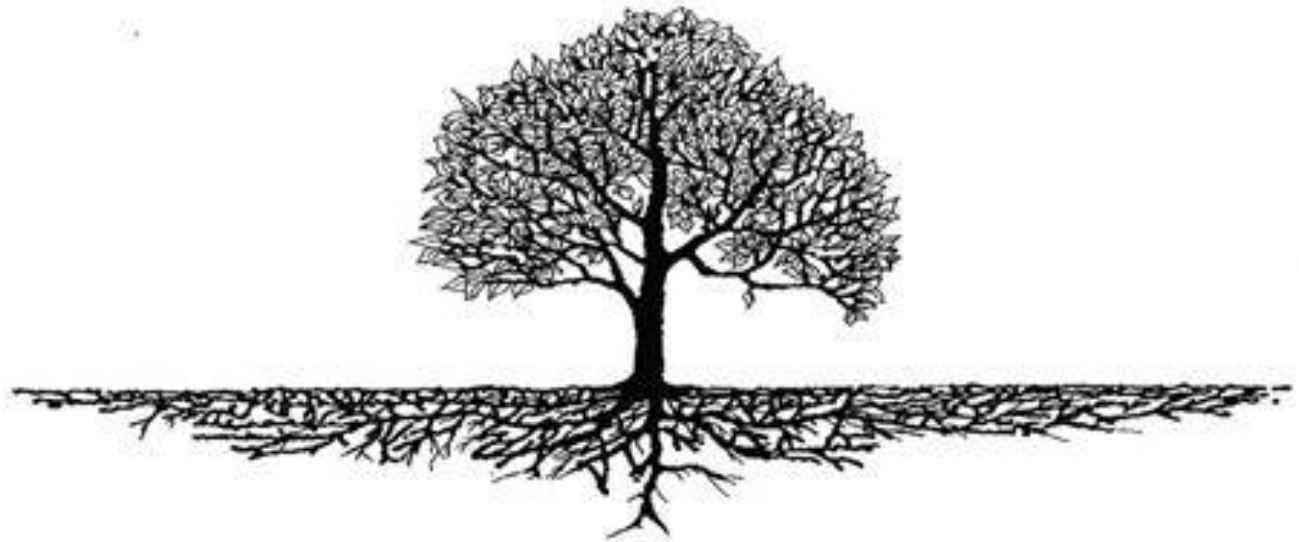
- Mother Nature?
- Access to water
  - Spigot
  - Hose
  - Sprinkler
  - Drip irrigation





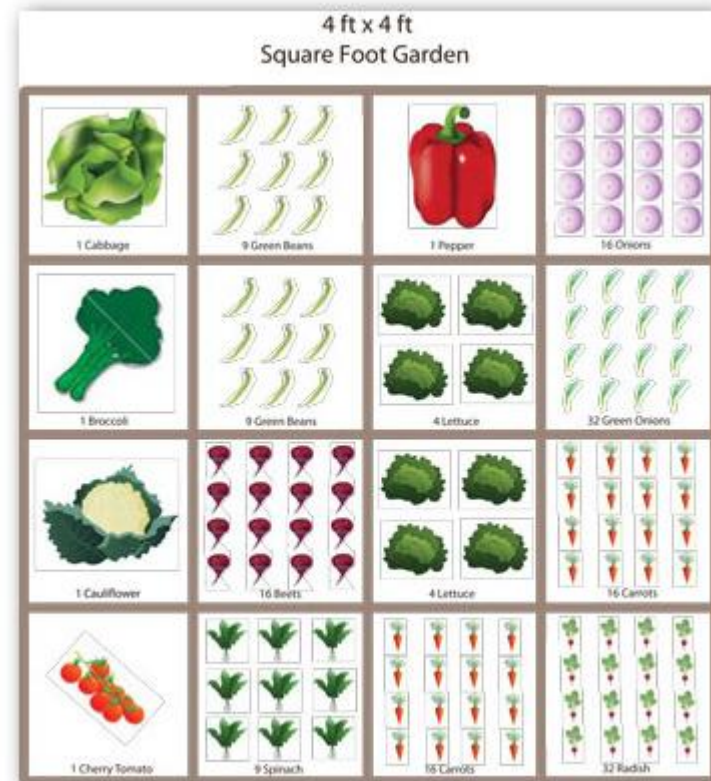
# Placement- Tree Roots

- Competition
  - Water
  - Nutrients
  - Sun
- Black Walnut Trees



# Placement- Expansion

- Plan for expansion





## # 2- Prepare the Soil

### **Raised bed:**

- Fill with topsoil mixed with peat moss, compost, or composted manure
- Barrier?
- Rake to level

### **Ground:**

- Remove any sod
- Hand dig or till in a 4" layer of peat moss, compost, or composted manure to a depth of 10 inches
- Rake to level

**When???**- Ground must be thawed  
and the soil needs to dry out-  
Never work wet soil!

# Your soil...

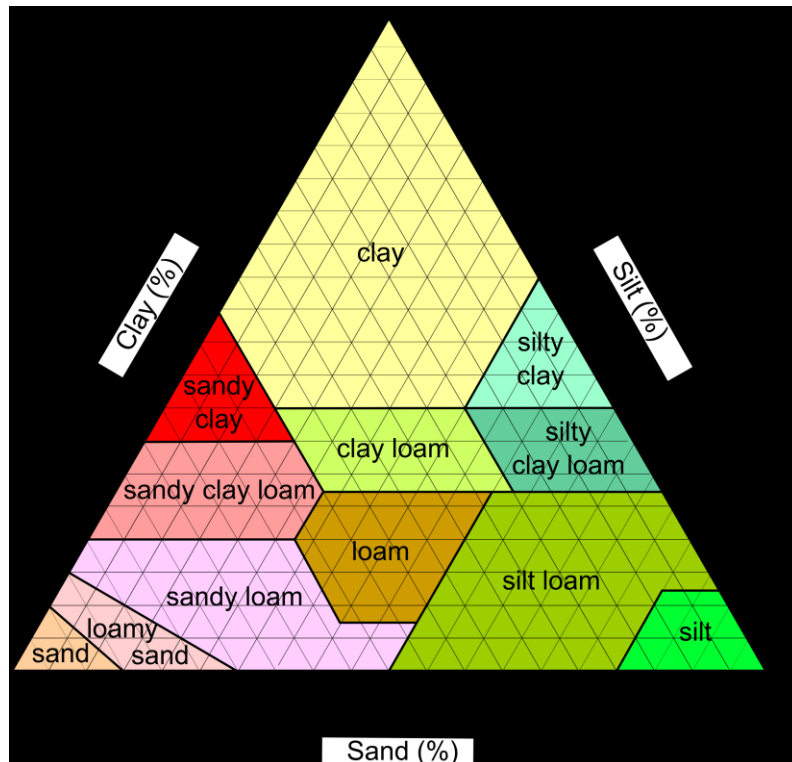
## Texture-

Sand

Silt

Clay

Loam\*

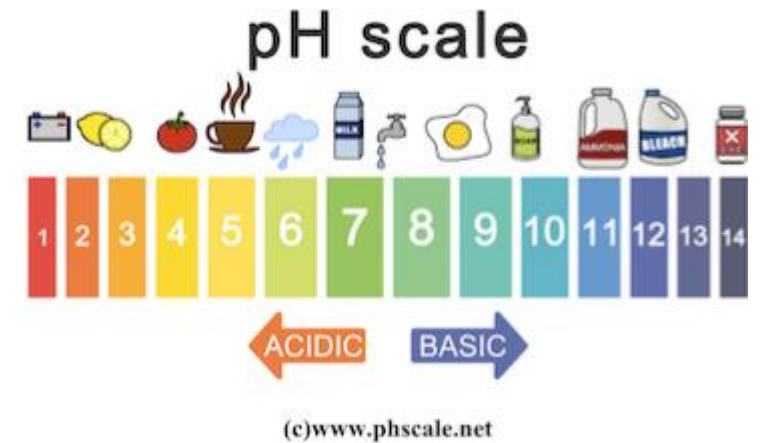


## pH-

Acidic

Alkaline

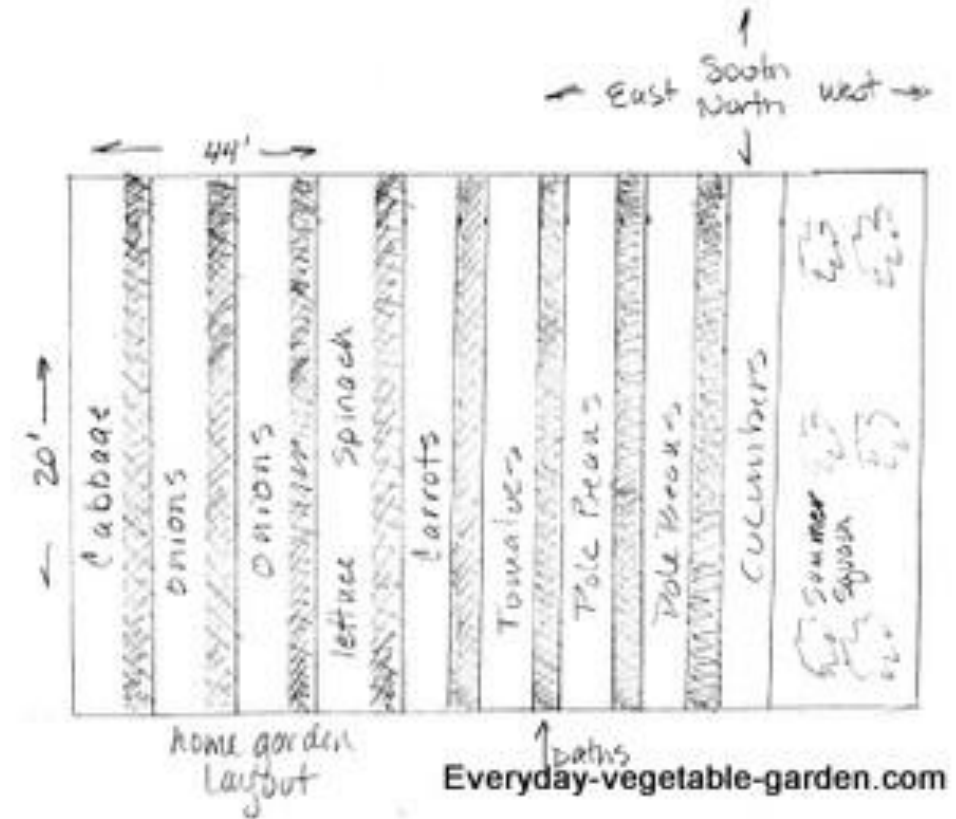
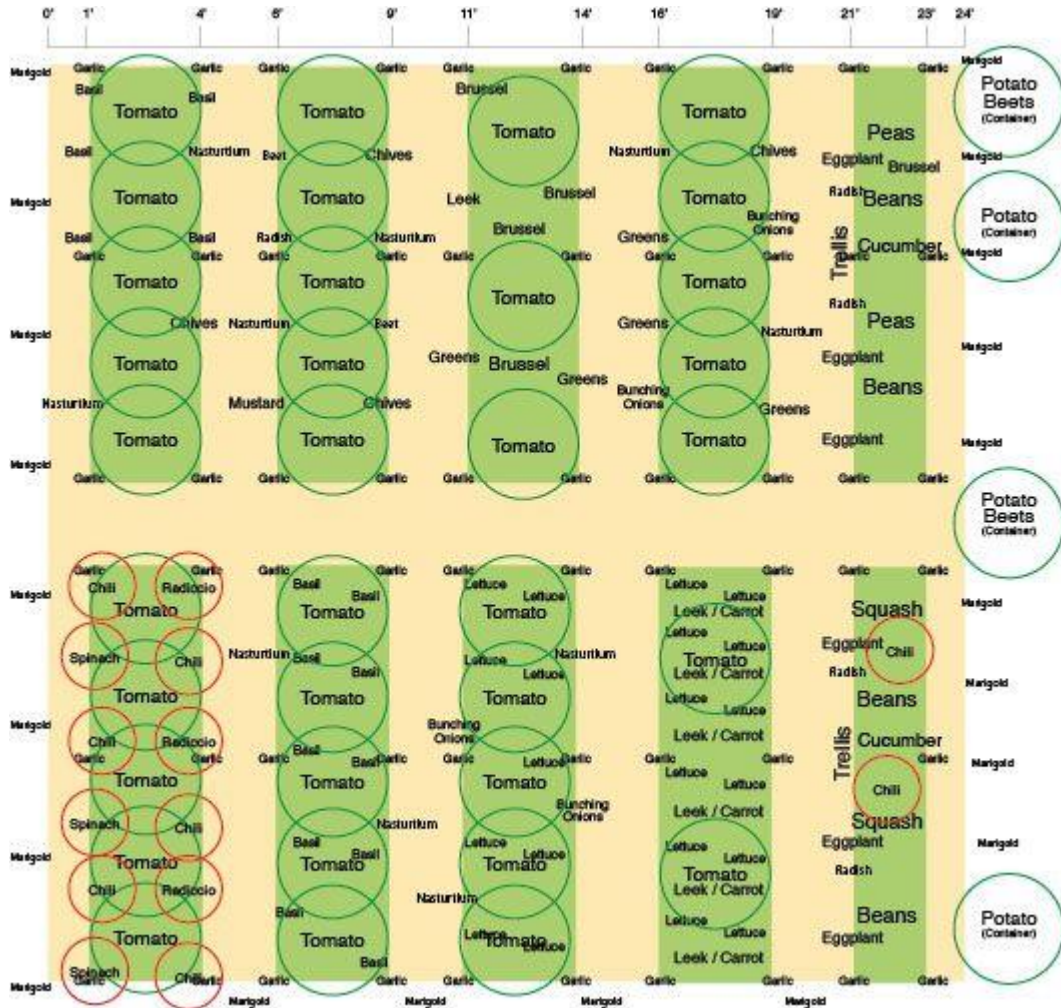
Neutral





# 3. Layout- Diagram

- You DO NOT need to be a Landscape Architect!



# Layout- Beds vs Rows

## **Beds**

- 2 foot rule
- Dense planting for weed control
- 'Scatter' seeds
- Best for greens

## **Rows**

- Easier access
- Long rows- crooked?
- Best for root crops
- Hybrid- rows within beds

→ Combination of both most common



# Layout- Placing Tall Plants

- Place them on the north and west sides of the garden
  - Tomato
  - Asparagus
  - Climbing peas and beans



# Layout- Shade

- Some vegetables benefit from shade!
- Place them in the shade of taller plants, or in a shady portion of the garden
  - Lettuce
  - Spinach





# Layout- Companion Planting

- Add flowers to attract pollinators
  - Daisy family
  - Carrot Family
- Add flowers to deter insects
  - Marigold
  - Nasturtium
  - Herbs



# Layout- Perennial Crops

- Place off to the side, or in a separate garden



- Horseradish\*
- Mints\*
- Asparagus
- Rhubarb
- Strawberries
- Perennial herbs



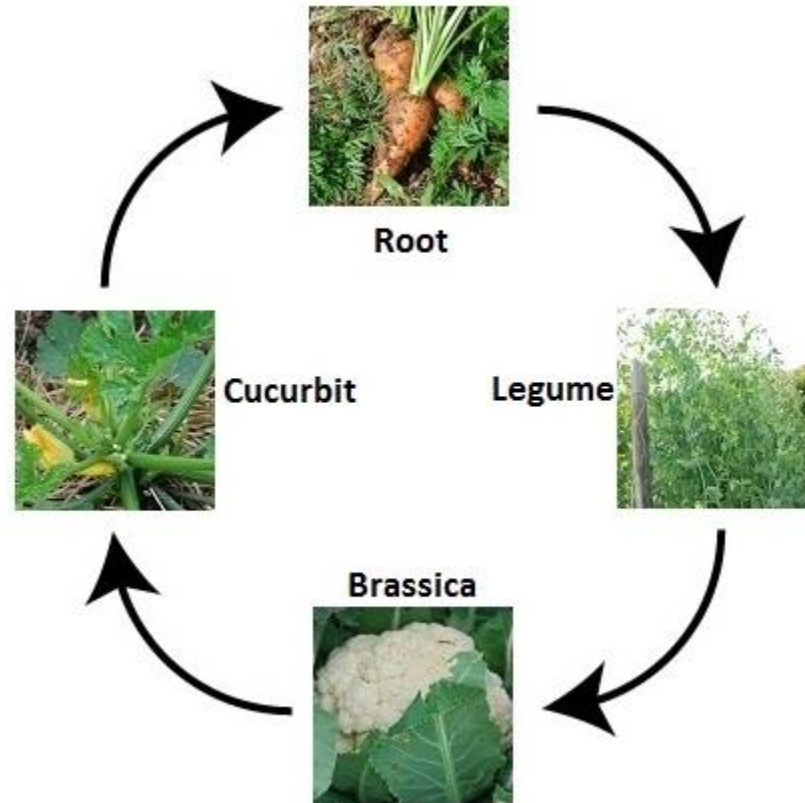
# Layout- Wheelbarrows

- In a small garden make sure the main path can accommodate a wheelbarrow or cart.
- Foot paths can be as little as one foot wide



# Layout- Crop Rotation

- In subsequent years plan to rotate your crops!
  - Helps with insect control
  - Helps with disease control
  - Prevents nutrient depletion





## 4. What to grow?

- What do you like?
- Children love fresh vegetables that they have planted
- Try something new every year!



# Grow Easy Crops!

## From Seed:

- Greens
  - Lettuce
  - Spinach
  - Swiss Chard
  - Kale
- Peas
- Beets
- Bush Green Beans
- Carrots
- Radish

## From transplants:

- Tomatoes
- Hot or frying Peppers
- Zucchini (seed too!)
- Cucumber (seed too!)





# Veggies that are expensive to buy or difficult to obtain:

- Garlic
- Leeks
- Herbs
- Heirloom Tomatoes
- Asian greens
- Ethnic varieties







# High maintenance/difficult

- Broccoli
- Cauliflower
- Watermelon
- Cantaloupe/Honeydew
- Celery



# 5. Seeds and plants

## SEEDS-

- 'Regular'
- Organic
- Non-GMO
- Hybrid
- Open pollinated
- Heirloom







# Plants

- Transplanted crops
  - Tomatoes
  - Peppers
  - Eggplant
  - Herbs
  - Perennials
- Garden shops
- Big box stores
- Start your own- not for beginners!





## 6. Cool Season Crops

- Plant from seed- lettuce, spinach, kale, peas, beets, carrots, radish, onion sets or plants (*not seeds!*)
- Plant as early as mid-April if the ground can be worked
- Cold/frost does not bother them!
- The above dieback or go to seed when the weather gets warm (early July)
  - Exception- carrots
- Re-plant in late August for a fall crop



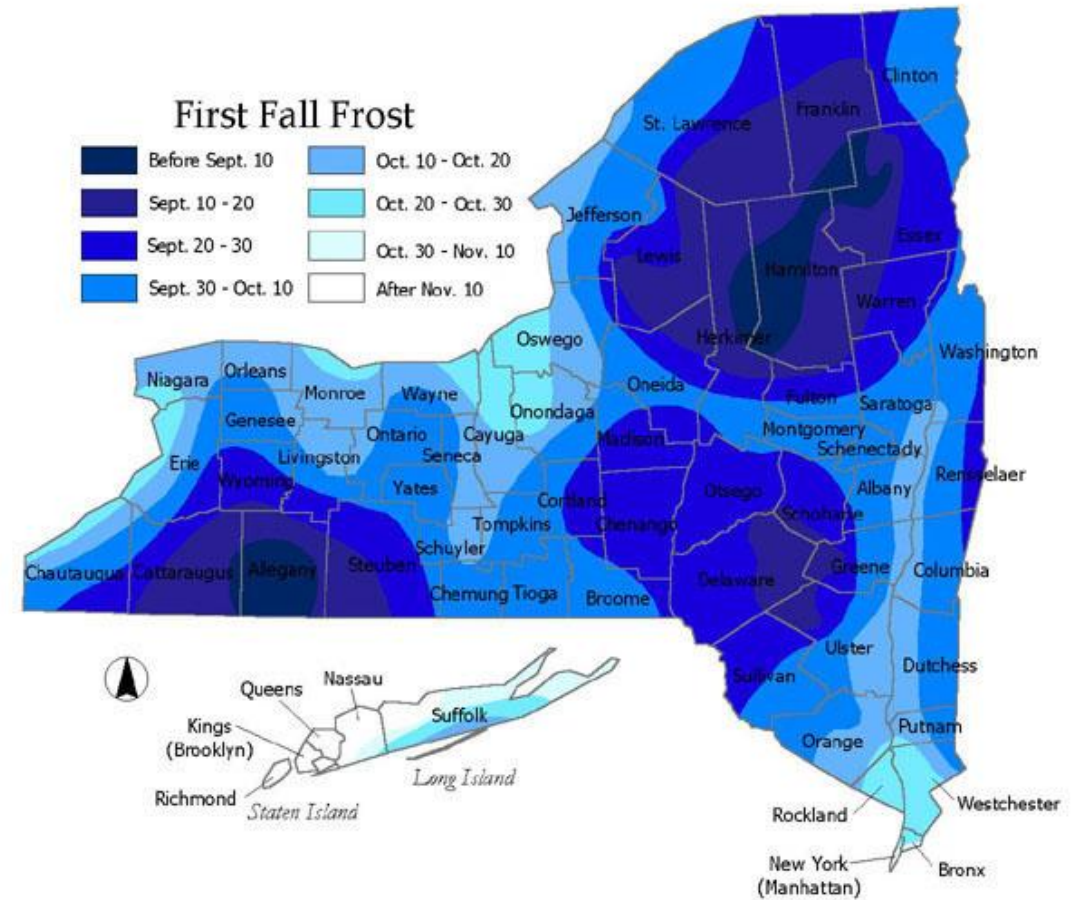
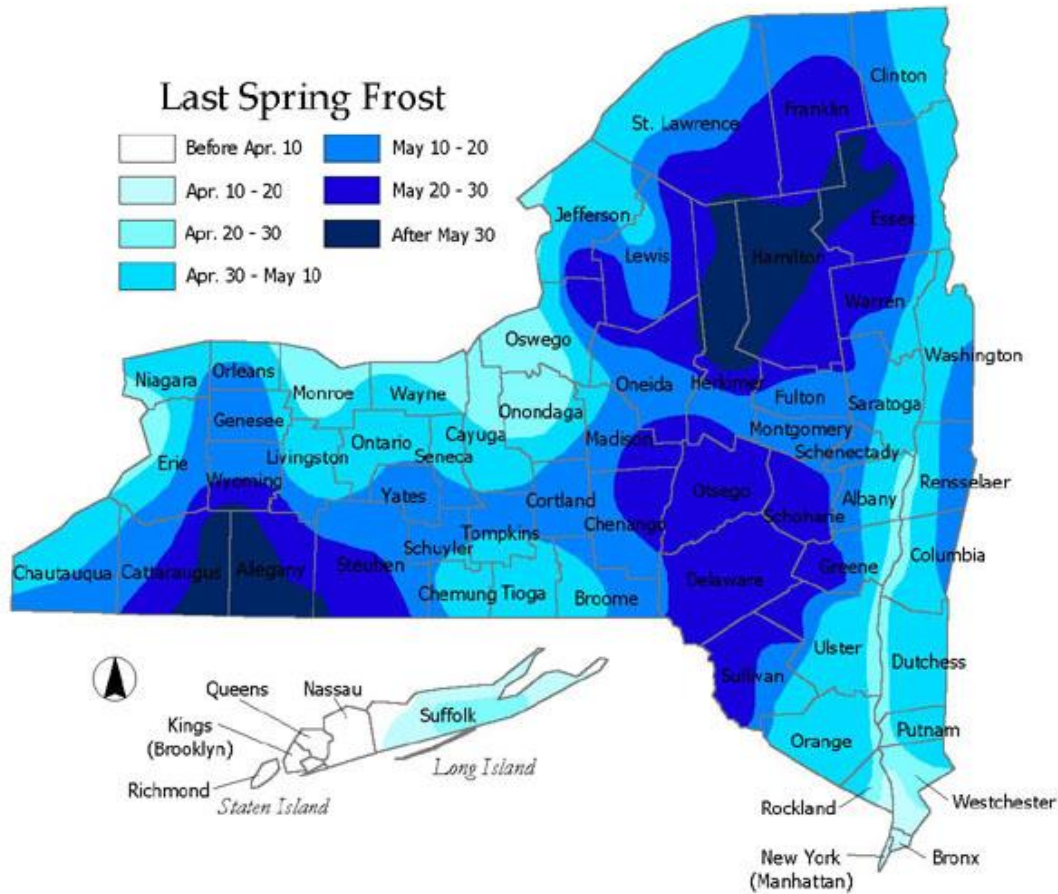
## 7. Planting Warm Season Crops

- From seed- May 15 or later for green beans, cucumber, zucchini, winter squash
- Transplants- Late May to early June for tomato, pepper, cucumber, zucchini, winter squash
- Cold temps will kill these plants!  
“Set out after all danger of frost has passed”





# Know your spring and fall frost dates!



## 8. Water

- Rule of thumb- one inch of water per week
- Use a rain gauge
- Water early in the day (before 10 am)
- Avoid wetting the leaves
  - Water at the base of plants
  - Drip irrigation best
- Avoid light sprinkling
  - Deep watering rather than frequent, light sprinkles





# 9. Weeds

- Make this a daily chore- especially early in the season!
- Use mulch around plants and along rows
  - Bagged mulch
  - Leaves/grass clippings
  - Straw (not hay!)
  - Cardboard/newspaper
  - Plastic
- Do not allow weeds to 'go to seed'
- Dense planting of some crops
- Bottom line: You will have to do some hand weeding!





# 10. Fertilization

## Organic-

- Soil amendments of organic matter offer low nutrient amounts
- Fish emulsion for foliar or root feeding- usually every 2 weeks

## NOT Organic-

- Osmocote- one application at soil prep, feeds for whole season

-OR-

- Miracle-Gro- every two weeks
- If you have added bagged 'garden soil' that contains fertilizers, you do not need to do either of the above!

**For Transplants- Water with fish emulsion or Miracle-Gro immediately after planting!**



# 11. Pests- Critter Control

Have a plan!

- Deer- fencing, liquid fence
- Rodents, squirrels, chipmunks- impossible
- Woodchuck, rabbits- buried fence
- Birds- netting
- Cats- repellants, spikes





# Disease and Insect Control

- Check with your local Cooperative Extension!
  - **Correct ID is most important!**
  - Bring in samples
  - Email photos



## 12. Harvest

- Ripeness- timing is important
- Have a plan for storage/preservation





# 13. End of Season

- Remove all plant material, debris
- If adding fresh manure or leaves-till now
- Only till once per year- either in the spring or fall





# Cornell Gardening Site

<http://gardening.cals.cornell.edu/>

Garden Guidance →

Food Gardening →

Vegetable Growing Guides

QUESTIONS?

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788-8450