



# Getting Started in the Vegetable Garden

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# Today's Agenda

- Considerations and realities
- Growing Conditions
- Site selection
- Soils
- Care & Management
- Recommendations



# CONSIDERATIONS

- Who's caring for the garden?
- Do you have the space?
- Do you have the time?
- Access to water and sunlight?
- Appropriate soil conditions?
- What will you grow?
- Plan for your harvest?



# Realities

- Care while you're on vacation
- Plant failure
- Pests (animals, disease, weeds)
- Overwhelming if improperly managed
- Weather, especially summer
- You're still going to the grocery store



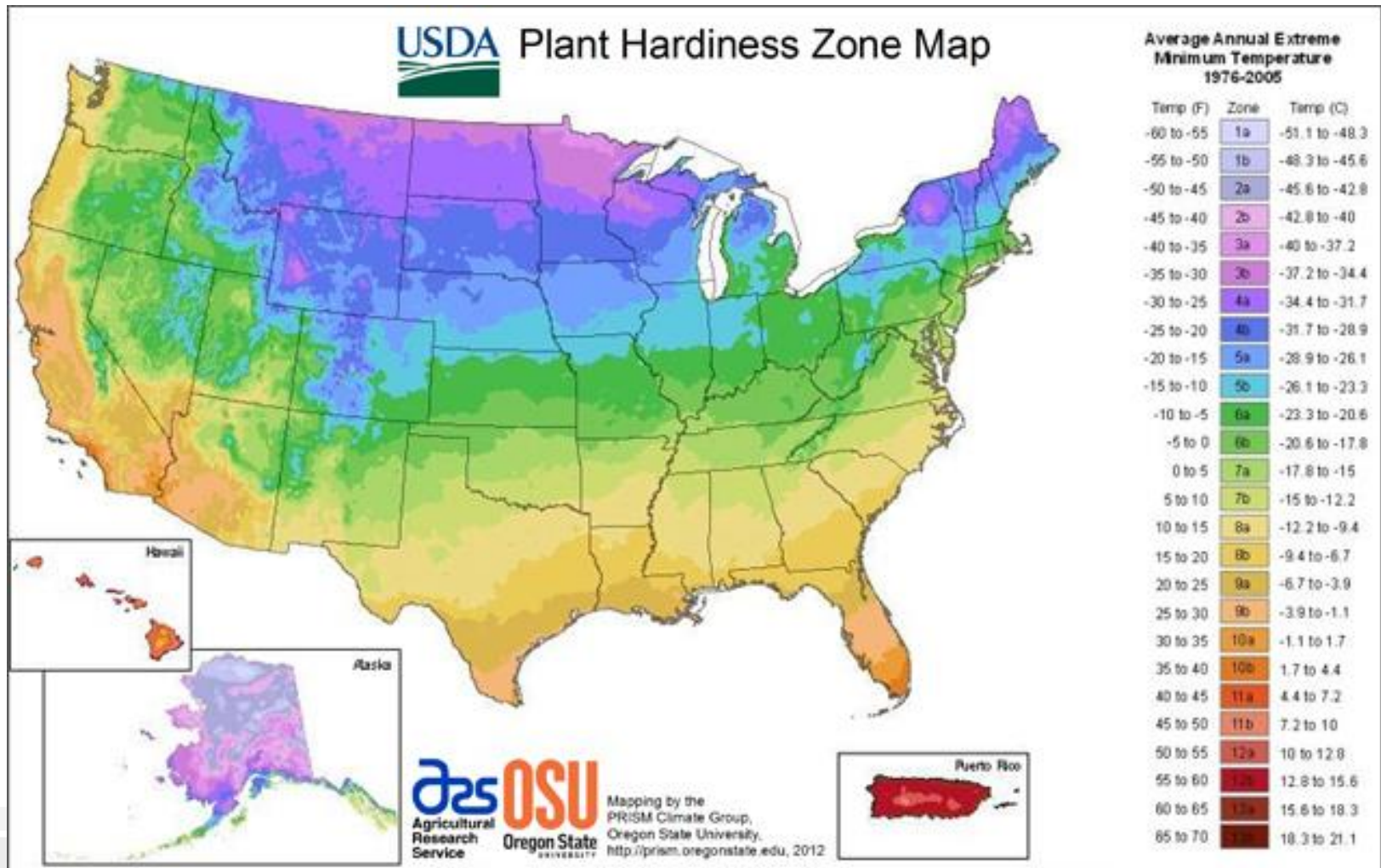








# Can I Plant?



Credit: USDA Agricultural Research Service



## Virginia Hardiness Zone Map

### Zone 7a

Last Spring Frost: 4/15 – 4/25

First Fall Frost: 10/15 – 10/25

### Zone 7b

Last Spring Frost: 4/5 – 4/15

First Fall Frost: 10/25 – 11/5

### Zone 6b

Last Spring Frost:  
4/25 – 5/5

First Fall Frost:  
10/5 – 10/15

### Zone 6a

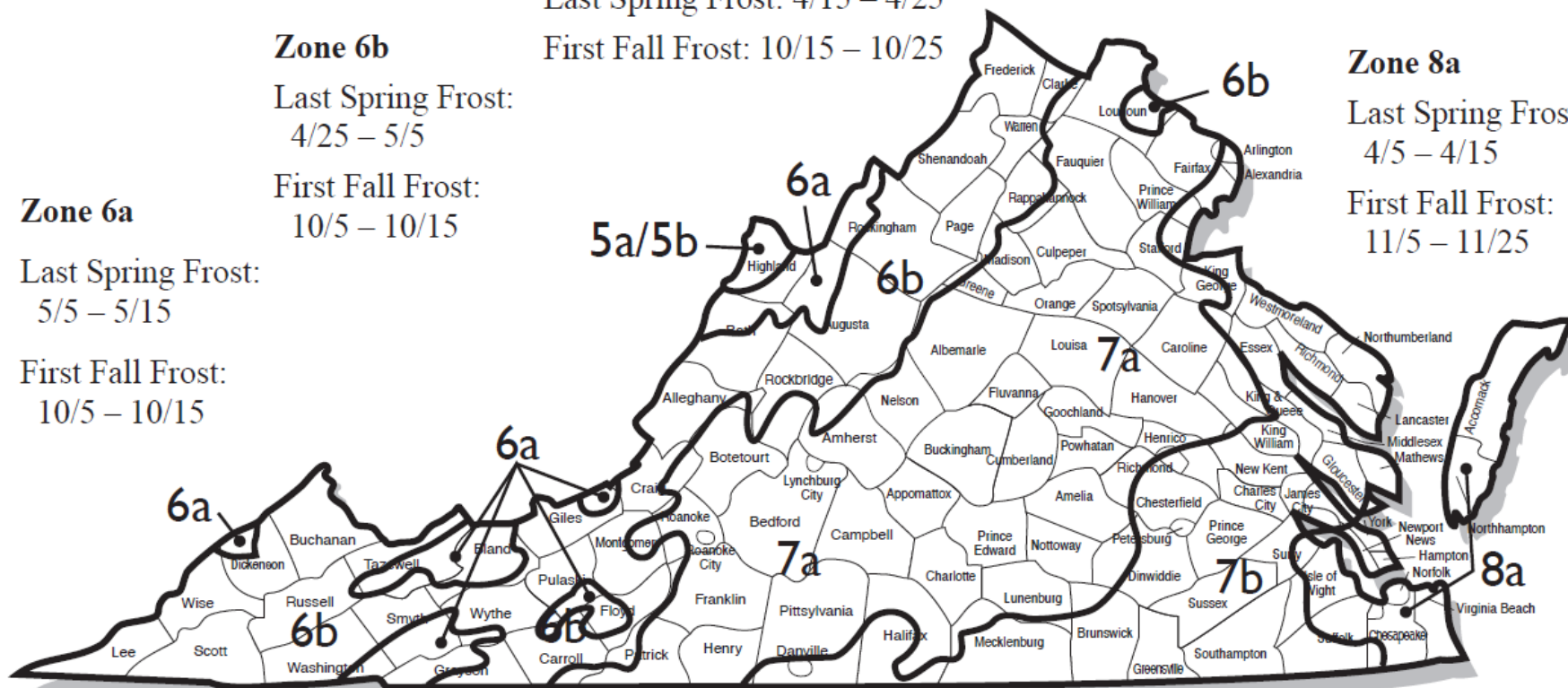
Last Spring Frost:  
5/5 – 5/15

First Fall Frost:  
10/5 – 10/15

### Zone 8a

Last Spring Frost:  
4/5 – 4/15

First Fall Frost:  
11/5 – 11/25







# When Do I Plant?

## Hardiness Zone 8a

### Recommended Planting and Harvest Dates

Refer to the legend at the bottom of the chart to determine when it is appropriate to plant and harvest each vegetable, based on the last and first killing frost date for your region. Actual last and first killing frost dates will vary due to local conditions and yearly temperature fluctuations. Planting and harvest periods are represented as a 10-day range. You may wish to favor earlier or later planting dates within the given range based on local data or experience.

Note: The use of row cover fabric and cold frames may extend the expected planting and harvest window by two to four weeks in the spring and fall.

Crop	Last Spring Frost: 4/5 - 4/15															First Fall Frost: 11/5 - 11/25																								
	2/5	2/15	2/25	3/5	3/15	3/25	4/5	4/15	4/25	5/5	5/15	5/25	6/5	6/15	6/25	7/5	7/15	7/25	8/5	8/15	8/25	9/5	9/15	9/25	10/5	10/15	10/25	11/5	11/15	11/25	12/5	12/15	12/25	1/5	1/15	1/25	2/5	2/15	2/25	
Asparagus***				x	x	x	#	0	0	0	0	0	0																											
Beans, bush							x	x	x	x	x	#	#	#	#	#	#	#	#	#	#	0	0	0	0	0	0	0	0	0										
Beans, pole								x	x	x	x	x	#	#	#	#	#	#	0	0	0	0	0	0	0	0	0	0	0	0										
Beans, lima									x	x	x	x	x	x	x	#	#	#	0	0	0	0	0	0	0	0	0	0	0	0										
Beets			x	x	x	x	x	x		0	0	0	0	0								x	x	x	x		0	0	0	0	0	0	0	0						
Broccoli*				x	x	x	x	x		0	0	0	0	0								x	x	x	x		0	0	0	0	0	0	0	0						
Brussels Sprouts*																						x	x							0	0	0	0	0	0					
Cabbage*				x	x	x	x	x	0	0	0	0	0	0								x	x	x			0	0	0	0	0	0	0	0	0					
Chinese Cabbage*				x	x	x	x	x		0	0	0	0									x	x	x	x			0	0	0	0	0	0	0						
Carrots			x	x	x	x	x		0	0	0	0	0	0	0				x	x	x	x	x			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Photo Credit: Virginia Cooperative Extension, 426-331

# VEGETABLES TO PLANT IN APRIL



Virginia Tech • Virginia State University  
www.ext.vt.edu



	ZONE 6A	ZONE 6B	ZONE 7A	ZONE 7B	ZONE 8A
DIRECT SOW	Asparagus Beets Carrots Chard, Swiss Collards, Kale Kohlrabi Lettuce, Baby Salad Mustard Onion, Bulbing Peas, Garden Potatoes Radish Spinach Turnips	Asparagus Beets Carrots Chard, Swiss Collards, Kale Kohlrabi Lettuce, Baby Salad Mustard Onion, Bulbing Peas, Garden Potatoes Radish Spinach Turnips	Asparagus Beets Carrots Chard, Swiss Collards, Kale Kohlrabi Lettuce, Baby Salad Onion, Bulbing Peas, Garden Radish Potatoes Spinach Squash, Summer Squash winter Sweet Corn Sweet Corn Turnips	Asparagus Beets Beans, Brush Beans, pole Beans, Lima Carrots Chard, Swiss Collards, Kale Cucumbers Kohlrabi Lettuce, Baby Salad Musk melons Mustard Onion, Bulbing Radish Potatoes Spinach Squash, Summer Squash winter Sweet Corn Sweet potato Pumpkins Turnips Watermelon	Asparagus Beets Beans, Brush Beans, pole Beans, Lima Carrots Chard, Swiss Collards, Kale Cucumbers Kohlrabi Lettuce, Baby Salad Musk melons Mustard Onion, Bulbing Radish Potatoes Spinach Squash, Summer Squash winter Sweet Corn Sweet potato Pumpkins Turnips Watermelon
TRANSPLANT	broccoli* cabbage* cauliflower* leeks* lettuce, head*	broccoli* cabbage* cauliflower* leeks* lettuce, head*	broccoli* cabbage* cauliflower* leeks* lettuce, head*	broccoli* cabbage* eggplant* leeks* lettuce, head* peppers*	broccoli* cabbage* eggplant* leeks* lettuce, head* peppers* tomatoes*

CHECK OUR PUBLICATION FOR EXACT PLANTING DATES!

\*=TRANSPLANT

DO NOT HARVEST ASPARAGUS IN FIRST YEAR  
NOTE: FOR A FULL LIST & MORE INFO SEE OUR PUBLICATION "VIRGINIA'S HOME GARDEN VEGETABLE PLANTING GUIDE"



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<https://ext.vt.edu/lawn-garden/home-vegetables.html>





Credit: Gaylynn Johnson



# How Much Do I Plant?

## How Much to Plant

How much of each crop to plant is determined by many factors, including your vegetable preferences, the size of your garden, and the time and energy you can devote to maintaining it. The age, lifestyle, and cooking habits of your family influence how much of each vegetable you should grow. You may want to grow more of a certain crop if you plan on canning or freezing.

### How Much to Plant

Crop	Distance between plants in row	Distance between rows	Approximate amount of seed/transplants for 10' row	Approximate yield per 10' row	Approximate number of plants per person per planting	Number of Plantings Spring/Summer	Number of Plantings Fall
Asparagus	12-18"	36-48"	10 crowns	3-4 lbs	5-10	1	
Beans, bush	1-3"	24-36"	1 oz seed	3-5 lbs	10	4	
Beans, pole	4-12"	36-48"	1 oz seed	6-10 lbs	3-5	2	
Beans, lima	3-6"	24-36"	1 oz seed	4-6 lbs	4-8	1	
Beets	2-3"	12-18"	1/8 oz seed	8-10 lbs	10-20	2	2
Broccoli	12-24"	18-36"	10 transplants	4-6 lbs	3-5	2	3
Brussels Sprouts	18-24"	30-36"	7 transplants	3-5 lbs	2-5		1
Cabbage	12-18"	18-36"	10 transplants	10-25 lbs	4-8	1	2
Chinese Cabbage	4-30"	18-36"	10 transplants	20-30 lbs	6-8	1	2
Carrots	thin to 1.5-2"	6-12"	1/20 oz seed	7-10 lbs	10-30	1	2

Photo Credit: Virginia Cooperative Extension, 426-331

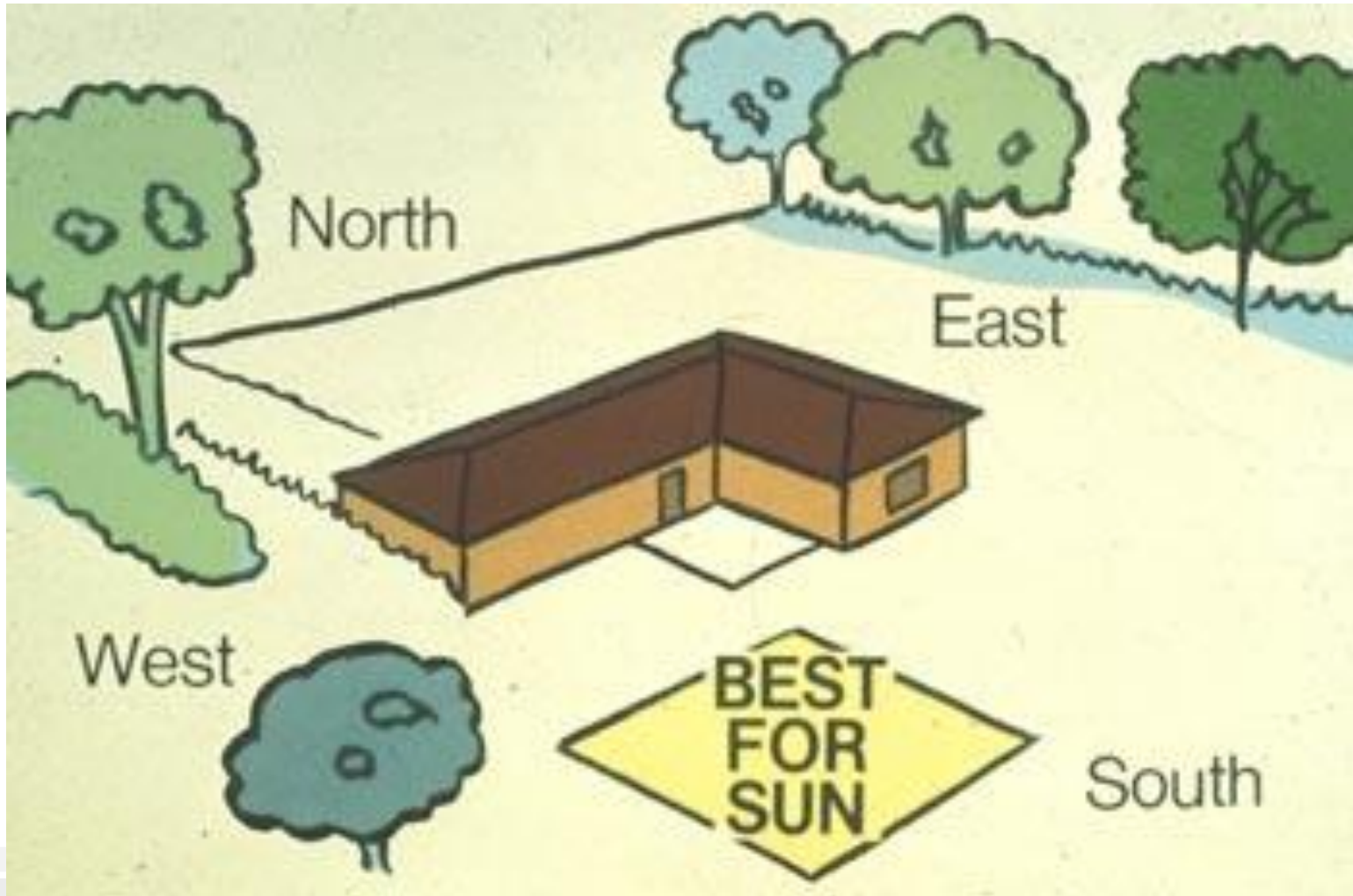




# Garden Placement

- Draw it out on paper
- Sunlight
- Proximity to residence, water
- Loose, well-drained soil
- Avoid low spots

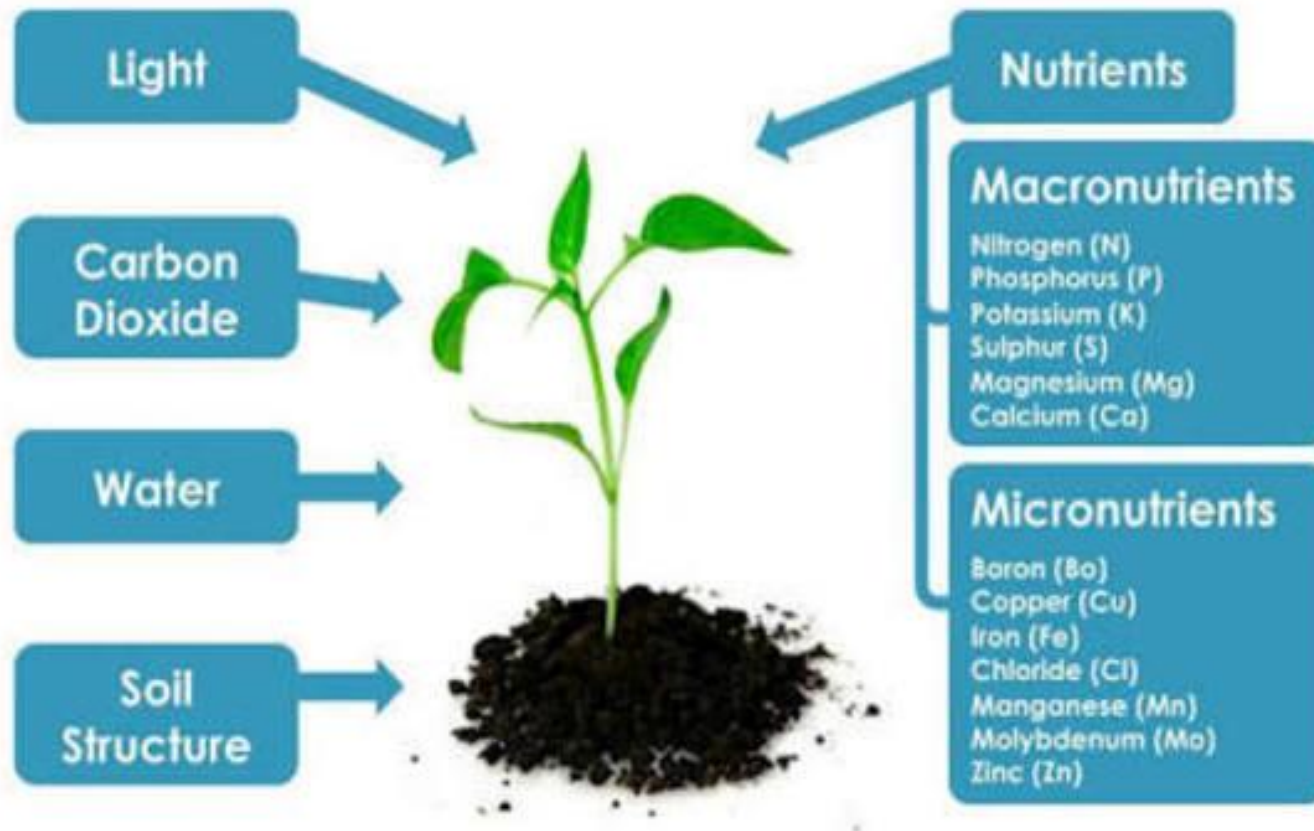
# Site Selection



Credit: National Junior Horticulture Association



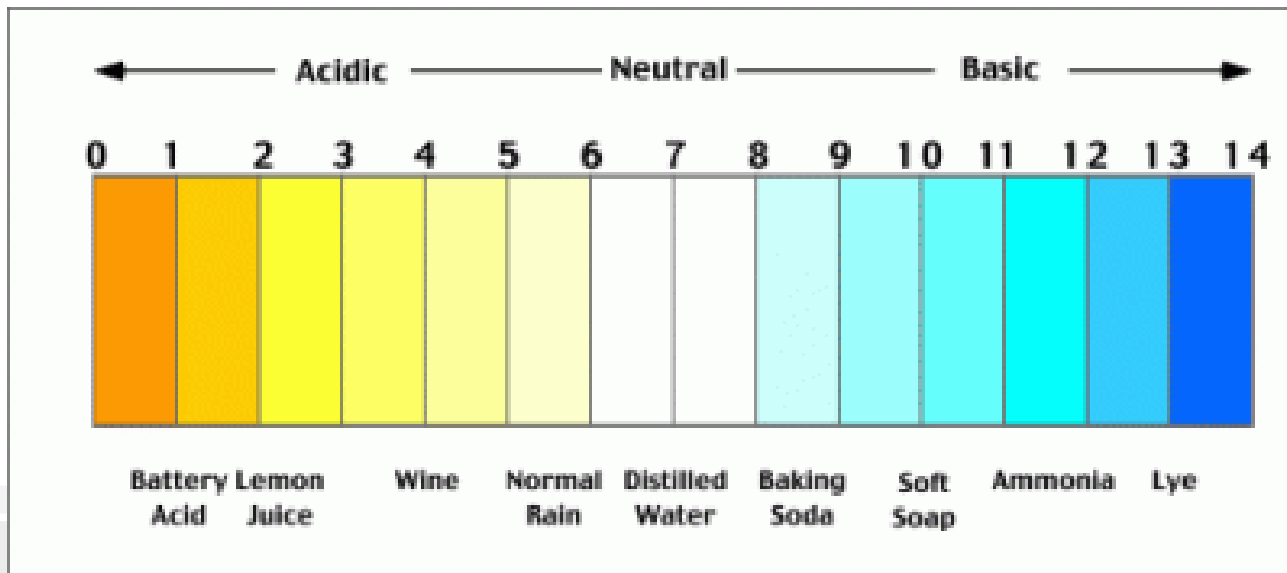
# Growing Conditions



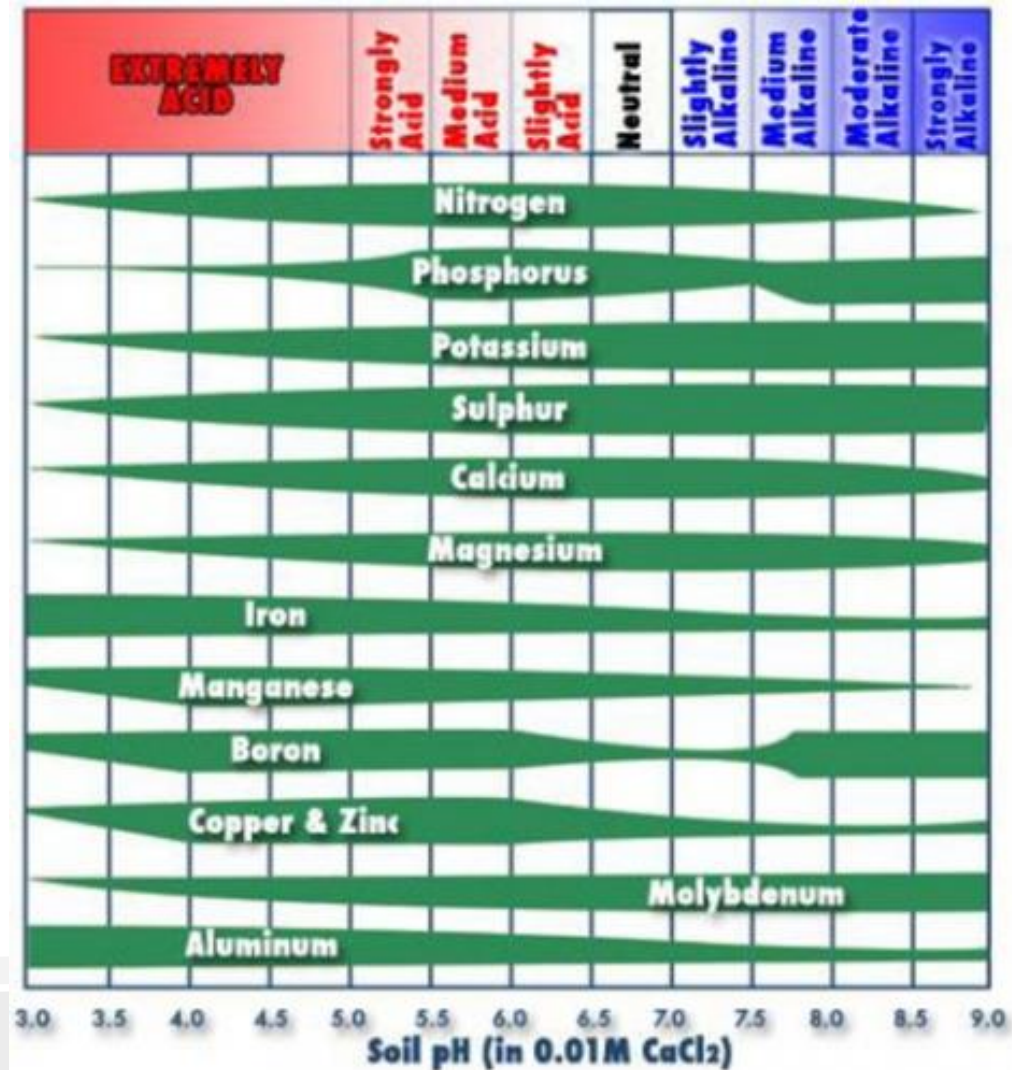


# Soils

- High organic matter (OM)
- pH of 6.2 to 6.8
- Well-draining



# Soil pH



Credit: Michigan State University Extension





# Amending Soil

- Understand your drainage
  - Clay = less drainage, less watering
  - Sand = more drainage, more watering
  - Silt = balanced
- Add OM (manure, compost, cover crops, sawdust, straw, etc.) to improve clay and sandy soils
- Use containers or raised beds



# Amending pH

- Soil test (pH 6.0 to 6.8)
- pH increase (more basic)
  - Lime, wood ashes
- pH decrease (more acidic)
  - Sulfur, gypsum
- Takes several months to change pH
  - Add during the offseason

# Crop Rotation

- Crop Rotation
  - Shift crops from one location in the garden to another
  - Helps to control pests and diseases
  - Maintains soil fertility









# Garden Types

- Container garden
- Raised beds
- In-ground



Credit: Iowa State University Extension & Outreach



Credit: Gaylynn Johnson



Credit: Gaylynn Johnson



# Container Gardens

## Advantages

- Adjustable to height
- Less pathogens and weeds
- More manageable
  - Portable
  - Small spaces

## Disadvantages

- Potting soil dries out more quickly
- Potting soil lacks buffering capacity
- Small crop and soil volume





# Raised Beds

## Advantages

- Adjustable to height
- Less pathogens and weeds
- More manageable
  - Portable
  - Small yards

## Disadvantages

- Small crop and soil volume
- Soil dries out more quickly



# In-Ground

## Advantages

- Soil buffering capacity
- Less start-up
- More economical
- Working with previous soil

## Disadvantages

- Bending
- Pathogens and weeds
- Working with previous soil









# Seeds or Transplants?





# Seed Starting?

## Seeds

- Vast selection
- Controlled environment needed
- Plants need to be hardened-off

## Transplants

- Ready to go
- Limited selection
- Produced by greenhouse grower



# Transplant Selection

- Young, stocky plants
- Lots of foliage
- Healthy, white roots
- Tease the roots of pot-bound plants
- Pick off any flowers or fruit



Credit: Growing a Greener World



# Care & Management

- Irrigation
- Mulching
- Pests (disease, insects, weeds)
- Sanitation





# Irrigation

- Moisture transmits disease
- Water during the day
- Water the soil and root area if watering by hand
- Soaker hoses and drip irrigation recommended





# Mulching

- Adds organic matter
- Controls weeds
- Insulator
- Protects plant against soil contamination
- Retains moisture



# Pests

- Diseases
  - Bacteria
  - Fungus
  - Virus
- Insects
- Weeds





# IPM

- Integrated pest management (IPM) is an ecological approach to pest control that combines several different techniques to maintain pests below damaging levels.
- Incorporates the life cycle of the pest and its interaction with the environment
- Strive for the least toxic options





# IPM Program

- Set your threshold and scout regularly
- Cultural practices (soil test, sanitation, planting resistant varieties)
- Mechanical practices (hand-picking, crop rotation, fencing and other barriers)
- Biological controls (natural enemies of the target pest)
- Chemical control

# Basic Tools

- Folding stool and/or knee pads
- Stand-up cultivator
- Garden hoe
- Garden rake
- Pruners
- Trowel
- Wheelbarrow





# Recommendations for Beginners

- Beans
- Beet
- Carrot
- Cooking greens
- Eggplant
- Herbs
- Leafy greens
- Potato
- Radish
- Summer squash
- Tomato
- Zucchini



# Resources

- VCE Home Vegetables Website  
<https://ext.vt.edu/lawn-garden/home-vegetables.html>
- VCE Publication 426-312,  
"Planning the Vegetable Garden"
- VCE Publication 426-323, "Fertilizing Your Garden"
- VCE Publication 426-331,  
"Virginia's Home Garden Vegetable Planting Guide"
- Your state's land grant university





# Questions?

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