

The Vegetables Garden

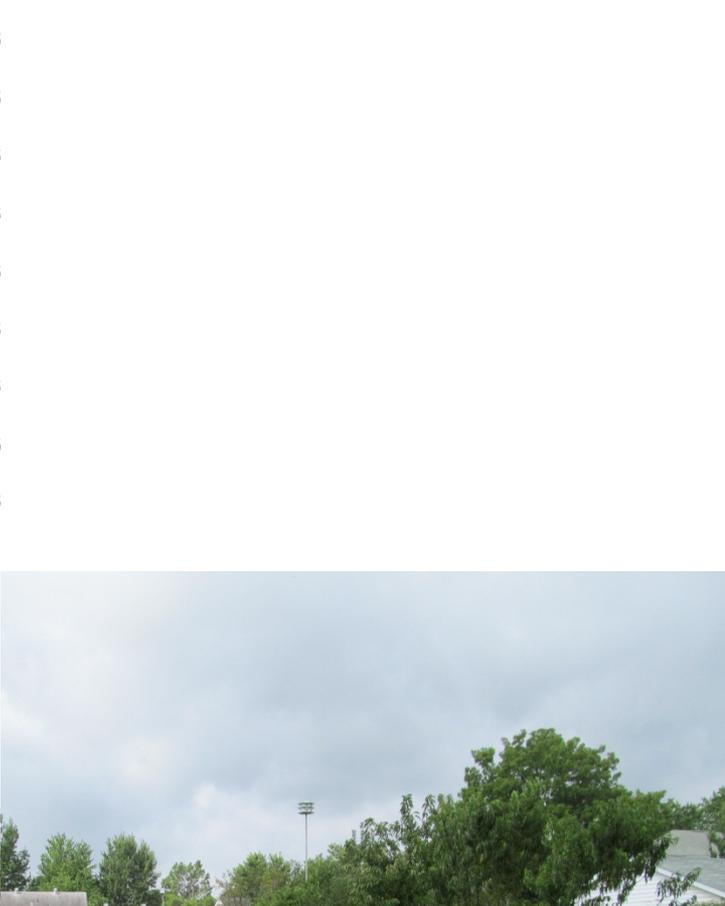
Chapter 13

Hampton Master Gardener



Introduction

- Who will be doing the work?
 - Choose a size you know you can manage
 - How much time is needed to maintain garden?
- Grow crops that you will eat
- Perennial crops limit succession planting
- What will you do with the harvest (bush vs pole)
- Crop rotation (what is in the soil – NPK, insects, disease)
- Locating the Garden
 - Well drained loose soil, lots of sun
 - Take advantage of what you have (hard surfaces reflect light)





Introduction

- Soil Preparation
 - Soil test vs soil analysis
 - Ph 6.2 to 6.8 for most vegetables
 - Tilling the soil (raised beds)
 - Soil Amendments (lime, sulfur)
 - Amendments to improve soil (perlite, vermiculite, compost)
- Selecting Gardening Equipment (toys for the garden)
 - Shovel, fork, hoe, rake, cultivators)
 - Carts, wheelbarrows, watering cans, seeding/planting tools, soil thermometer, pruning tools, trellises)







Seeds for the Garden

- Winter - planning for next year
 - Catalogs, online, local garden center
- Saving seeds
 - Hybrid vs open pollinated varieties
 - Seeds are cheap to buy
- Saving purchased seeds
 - Cool and dry
- Starting seeds indoors
- Starting seeds outdoors



Transplants for the Garden

- Easy and great time savers
- Annual plants
- Perennial plants



Irrigating the Home Garden

- Adequate moisture, 1 inch per week
- Know your crops water needs
- Too much water will cause problems
- Watering too often can cause problems
- Mulching helps retain moisture
- Irrigation Methods

Irrigating the Home Garden





Fertilizing the Garden

- Soil testing kit
 - Available at extension office, library, local garden center

Fertilizing the Garden



Fertilizing the Garden



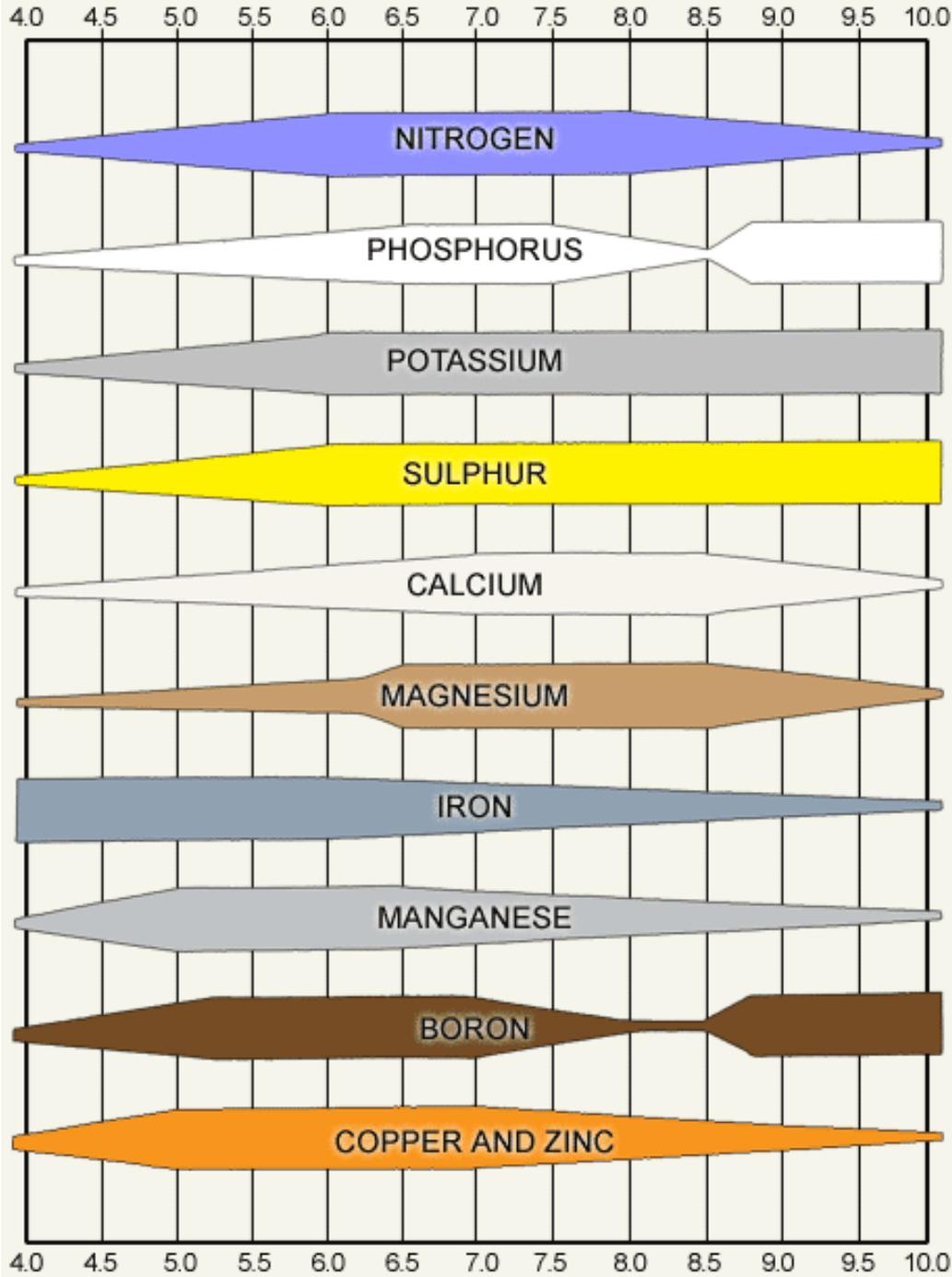


Figure 1: Nutrient Availability as Influenced by Soil pH

Weed Control in the Garden

- One year's weed – seven years seed
- A weed is a plant in a location you do not want it to be, a plant out of place
- Beneficial Weeds
- Control Methods (cultivation, mulch, close space, cover crops, herbicides)

Weed Control in the Garden





Insect Control in the Garden

- Mechanical Controls
 - Traps
 - Repellents
 - Barriers
- Biological Controls
 - Predators
 - Insecticides

Insect Control in the Garden



Insect Control in the Garden



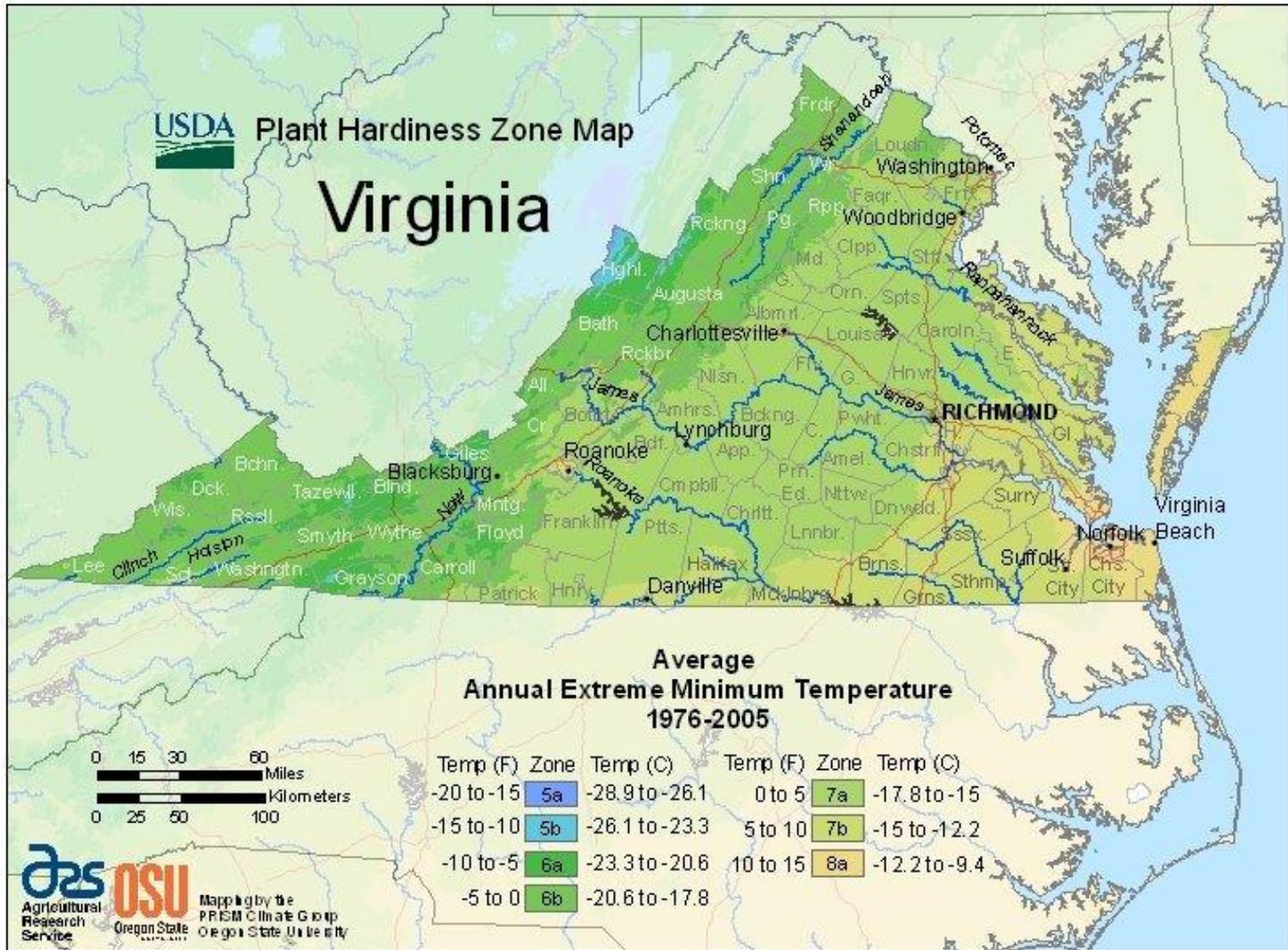
Insect Control in the Garden



Vegetable Planting Guide

- Planting Map/Guide/Dates
 - USDA Hardiness Zone Map
 - By zip code (23669 = zone 7B)
 - Last frost April 5
 - First frost November 10
 - On average, 230 days are frost free
- Take advantage of where we are
 - Spring, Summer, Fall, Winter
 - Plant to harvest something for every season

Virginia



Average Annual Extreme Minimum Temperature 1976-2005

0 15 30 60 Miles
 0 25 50 100 Kilometers

Temp (F)	Zone	Temp (C)	Temp (F)	Zone	Temp (C)
-20 to -15	5a	-28.9 to -26.1	0 to 5	7a	-17.8 to -15
-15 to -10	5b	-26.1 to -23.3	5 to 10	7b	-15 to -12.2
-10 to -5	6a	-23.3 to -20.6	10 to 15	8a	-12.2 to -9.4
-5 to 0	6b	-20.6 to -17.8			

Intensive Gardening Methods

- Harvest the most produce possible from the space
- Raised Bed
 - Start with a good quality soil
 - Easy to work
- Vertical Gardening
 - Trellis pole varieties
 - Containers are susceptible to change (moisture, temp)
- Interplanting
 - Of different families
 - short with tall, long with short

Intensive Gardening Methods



Intensive Gardening Methods



Intensive Gardening Methods



Intensive Gardening Methods



Intensive Gardening Methods



Intensive Gardening Methods

- Wide Row Planting
 - Plant close and equal distance to create a mulch canopy
 - Leave space to air to circulate
- Succession and Relay Planting
 - Cool season crop followed by warm season crop
 - Warm season crop followed by cool season crop
- Using Transplants
 - Start seeds indoors
 - Purchase transplants from a garden supply center

Intensive Gardening Methods



Intensive Gardening Methods





Container Gardening

- Container Gardening
 - Containers
 - Media
 - Planting
 - Watering
 - Fertilization
 - General Care
 - Indoor Container Gardening With Vegetables
 - Herbs

Vegetable Gardening in the Fall

- Planning for a Fall Harvest
 - Don't hesitate, planting can start in mid-summer
 - Shade young plants from the heat and intense September sun
 - Some crops taste better after a frost
- Care of Fall Crops
 - Pick frost sensitive crop
 - Keep an eye out for insects
- Care of Perennial Vegetables
 - Prep vegetables for the winter
- Preparing Soil for Winter
 - Good time to amend the soil
- Care of Garden Equipment
 - Maintain equipment while it is not in use

Season Extenders

- Cold Frames and Hot Beds
- Cloches and Tunnels
- Floating Row Covers
- Hot Caps
- Greenhouses
- Shading

Selected Vegetable Crops

- Environmental Preferences
 - Light, Soil, Fertility, pH, Temperature, Moisture
- Culture
 - Planting, Spacing, Hardiness, Fertilization needs
- Cultural Practices
 - General growing information
- Common Problems
 - Diseases, Insects
- Harvesting and Storage
 - Approximate yields, Amount to raise, Preservation



Selected Vegetable Crops

- Asparagus
- Environmental Preferences
 - Well drained, deep sandy loam
- Culture
 - Plant crowns in trench adding soil as they grow
- Cultural Practices
 - Perennial
- Common Problems
 - Not a quick return on your investment
- Harvesting and Storage
 - Early spring, not the first year



Selected Vegetable Crops

- Beans
- Environmental Preferences
 - Sunny warm weather
- Culture
 - Pole vs Bush
- Cultural Practices
 - Snap, Half Runner, Pole, Lima, Southern Peas
- Common Problems
 - Excess nitrogen produces lots of green but no bean
- Harvesting and Storage
 - Mature from 50 to 110 days depending on the type



Selected Vegetable Crops

- Brussels Sprouts



Selected Vegetable Crops

- Corn, Sweet



Selected Vegetable Crops

- Cucumbers

Selected Vegetable Crops

- Lettuce



Selected Vegetable Crops

- Okra

Okra



Okra



Selected Vegetable Crops

- Tomatoes

Tomatoes



Tomatoes



Tomatoes



Selected Vegetable Crops

- Culinary Herbs

Selected Vegetable Crops

- Fig

Fig



Fig



Organic Gardening

- Food grown without the use of artificial chemicals
- Certified Organic, USDA
- Certified Naturally Grown
- Building the Organic Garden Soil
- Soil Amendments, Compost, Manure
- Plant Health Management
 - Poor Soil (compost 30:1 brown to green)
 - Poor Plant and/or Placement
 - Faulty Watering, Feeding, Fouled Ecosystem
 - Companion Planting

Questions?



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