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Tests of Knowledge (Not
active in this sample)

The Vegetable Garden

Introduction

Welcome to the module on Vegetables. In this module you will learn the principles for starting a vegetable garden. You will learn the culture, pests and pest management for the most commonly planted vegetables in the geographic area.

Browse the Suggested Readings at the end of these slides. They contain online sources that will be helpful for your learning.

The Test Your Knowledge section is for fun and review

You can move through the slides in this module by scrolling with the mouse.

[Blue underlined](#) words or phrases are links to sites on the Internet; Click on the [Blue underlined](#) word or phrase to get to the Internet site. To return to the module from a website, click on the “x” at the top right of the website screen.

You can return to the beginning of any module by clicking on the house in the lower right corner of any slide.



Questions or Feedback

If you would like to provide feedback on this module, you can call the Virginia Cooperative Extension office in Bedford at 540-586-7675 or email the Extension Help Desk at

Bedfordmg@vt.edu

If you would like to learn more about the Master Gardener program and the Bedford Area Master Gardener Association, go to the website:

www.bedfordmastergardeners.org



Continued Learning and Finding Answers to Your Questions

No module will teach you everything about the topic, so it is important to know how to search for reliable information. If you type a search term (like “propagation”) into a search engine (like Google or Bing), you will be given lists of references. Each reference has a web address which identifies its “domain”. Examples of web domains include:

.gov a U.S. government agency

.edu a college –level educational institution

.org a not-for-profit organization

The most reliable sites are .gov and .edu. .org is the next most reliable.

.com’s are commercial enterprises and are not unbiased or research based.

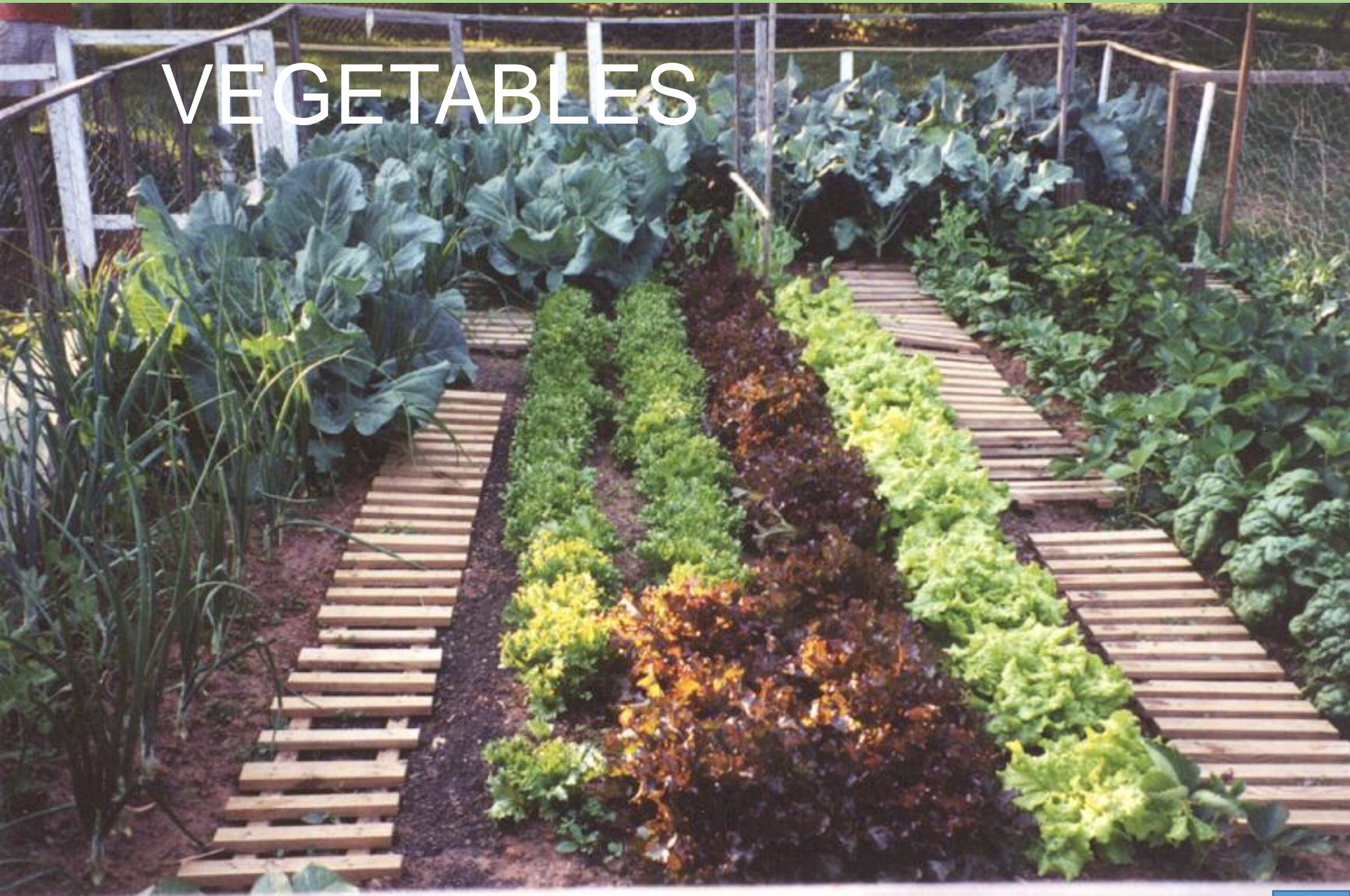


What I Will Learn in this Module (Objectives)

- Basic questions to ask before planning a vegetable garden
- Guidelines for choosing garden site
- How to prepare soil
- Recommended pH for vegetable gardens
- Basic guidelines for starting from seed or transplants from nursery
- Basic principles and techniques for watering
- Average last killing frost in the spring and average first killing frost in the fall for the area
- Most commonly planted vegetables in the area: their cultures; their most common pests; and their recommended pest management



VEGETABLES



Economic Value

1) Per Kroger grocery ad

* Broccoli \$1.72 - \$1.99 each

* Broccoli crowns, \$1.58/lb



2) Compare with package of broccoli seeds:

Territorial Seed:

Package of 125-175 seeds, \$2.75-\$2.90

Package of 75 seeds; \$2.35-\$2.80



Planning the Garden

1. Who's going to do the work?

Are the gardeners older, or do they have any limitations?

If so, adaptations may be needed to help the gardener

2. What do you and your family like to eat?

Raising vegetables that everyone likes may get more help with gardening tasks

3. When will you have time to garden?

If you have limited time to garden, be sure to make the garden small enough that you can take care of it; If you are a weekend gardener, be sure to use plenty of mulch to help keep weeds at a minimum

4. Where is the best location?

Remember that vegetables take lots of sun to grow; Having the garden near the house makes it easier to get fresh veggies for meals



Planning the Garden

5. How much space will you need?

Some vegetables take lots of room (pumpkins, squash), others not so much (pole beans). You may want to draw out a plan for your garden space

6. How are you going to use the harvest?

If you plan to preserve your vegetables (canning or freezing) you may want them to get ripe all at one time; However, if you want some to eat throughout the season, you may want to plant smaller amounts several weeks apart, so you get fresh veggies all season



What Kind of Garden do you Want?

- Raised beds
- Vertical garden
- Intensive gardening
- Wide row planting
- Interplanting
- Succession /Relay gardening
- Containers



Raisedbeds with hoops for row covers

1. Framed or not; 3-4 feet wide; raised 6-8 inches above pathways
2. Warm up earlier
3. Helps in drainage
4. Ease in planting
5. Ease in harvesting
6. Fewer insects

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Vertical Garden

Used to maximize space; Helpful to gardeners with limited mobility;
Can be used for tomatoes, cucumbers, melons, pole beans;
Vertical plants may dry out more quickly

1. Fence type
2. Pole type
3. Cage type
4. "A-Frame" type

Pole beans growing up strings to a circular PCV bar



Intensive Gardening Methods

An intensive garden allows you to get the most from the space you have, reduce the amount of weeding you need to do, and conserve water.

Methods of intensive gardening include:

1. Raised beds
2. Vertical gardening
3. Interplanting
4. Wide row planting
5. Succession planting
6. Container Gardening

[Intensive Gardening Methods](#)



Wide Row Planting

- Planting vegetables in bands 1-4 feet wide is an effective way to increase vegetable yields per square foot
 - beets, carrots, chard, leeks, lettuce, onions, parsnips, radishes, spinach, turnips, beans, kale, cabbage, beans, peas, garlic and shallots do well in wide rows. Tomatoes and corn need more room.
- The foliage of the maturing plants helps shade the soil, retain moisture and suppress weeds.
- To save valuable garden space, stagger your plants in alternating rows by planting equal distances rather than lining them up in a single file row.



Interplanting/Companion Planting

1. Carrots – Radishes



2. "Three Sisters" - - Corn - Beans – Squash



3. Herbs – Veggies



4. Pest control

Companions are mutually beneficial

- Help each other grow; some plants provide shade for sun-sensitive plants
- Decrease pest problems; plants like onions repel some pests; some plants can lure pests away from other plants
- Use space more efficiently; grow climbing squash on corn stalks
- Attract beneficial insects



Succession / Relay Gardening

- Plant something new in the spots vacated by spent plants. Corn after peas is a type of succession
- Relaying consists of multiple plantings of one crop to provide a continuous harvest. Sweet corn and bush beans are usually recommended for relaying, but cucumbers or other crops that yield for two weeks or less are also good prospects
- One approach to relaying is to plant one variety several times at about two-week intervals. Another approach is to make one planting of two or more varieties that differ in maturity time, e.g., 50-day and 60-day beans or early-, mid-, and late-season sweet corn
- Planting a spring, summer, and fall garden is another form of succession planting. Cool season crops (broccoli, lettuce, peas) are followed by warm season crops (beans, tomatoes, peppers), and, where possible, these may be followed by more cool-season plants, or even a winter cover crop.



This module continues with information about: • Growing Vegetables in Containers • Starting Seeds Indoors • Season Extenders • Types of gardening • Planting guidelines • Location of the garden • Plant growth factors (water, light, fertilizer, etc.) • Soil preparation • Soil amendments • Weed control • Planting dates • Garden tools • Soil testing • Vegetables recommended for Virginia • Integrated pest management. In addition six vegetables commonly grown in our area are described in detail. See the next slide for an example.

Peppers



Culture: warm temps (drop bloom above 90); pH 6-6.8; fertilize 1-2-2 ratio; direct seed or transplant 18" apart; mulch; side dress fertilize; shallow cultivation

Common Pests: aphids; European corn borers; flea beetles; cutworms

Diseases: tobacco mosaic virus; tomato spotted wilt virus; cucumber mosaic virus; bacterial spot; anthracnose; Alternaria leaf spot; Cercospora leaf spot; southern blight and Phytophthora root rot

Pest Management: Proper watering; good cultural practice; foliar insecticides; rotate crops; resistant varieties



Veggies are Fun



Suggested Readings

Note: : While there are many websites outside of our Virginia Cooperative resources that have good information, that information may not be applicable for your geographic area. This is especially true regarding the life cycle and treatment times for insects.

- [Watch Your Garden Grow](#)
- [Tomato Pest Management](#) (multiple links)
- [How to Manage Pests: Potatoes](#) (California)
- [Summer Squash](#)
- [Corn](#)
- [Beans](#)



Credits

This is the end of the module on Vegetables. We hope you have enjoyed this learning module.

This module was developed by Jim Revell, Extension Master Gardener

