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# Fruit

Small Fruit

Tree Fruit

# Introduction

Welcome to the module on Fruits. In this module you will learn about site selection, soil preparation, buying, planting, soil management, pruning and training, pest control, sanitation, and harvesting fruits.

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](mailto: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](http://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)

- General information concerning site selection, soil preparation, buying plants, planting, soil management, pruning and training, pest control, sanitation, and harvest
- How to plant, prune and care for fruit trees

## What I Will Become Familiar With:

- Cross pollination of tree fruits
- Definition of self-fruited or self-fertile and self-sterile
- Definition of rootstocks and scions of grafted varieties; what each contributes to the plant
- Recommend pH for fruits
- Most common pests and diseases of fruits and their recommended management
- Recommended varieties for the area



# Small Fruit

Strawberries



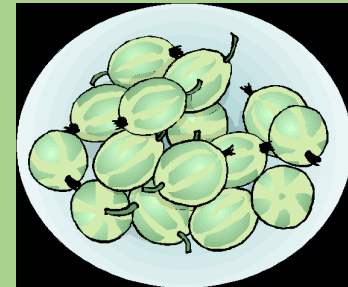
Blueberries



Grapes



Gooseberries



Brambles



Currants





# Strawberries: Site Selection



- Well drained soil
- Avoid frost pockets
- Sandy loam (pH 5.9 – 6.5)
- Avoid planting early varieties on south facing slope
- Do not grow where tomato, potato, or eggplant has grown in the past
- Set out virus-free 1-year-old dormant plants 3 to 4 weeks before average last date of frost
- Plant no less than 12 inches apart





# Strawberries: Plant selection

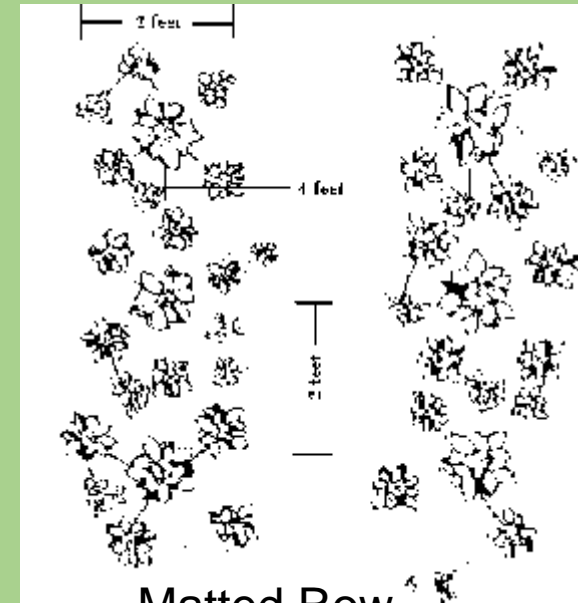
- Order plants from Reliable nursery
- Order cultivars appropriate for your area \*
- Virus free
- Usually bundled in lots of 25



# Strawberries: Planting

- Mid to Late March is preferred time
- Three training systems:
  - Matted Row
  - Spaced Row
  - Hill System

Read the following references to see how these systems differ



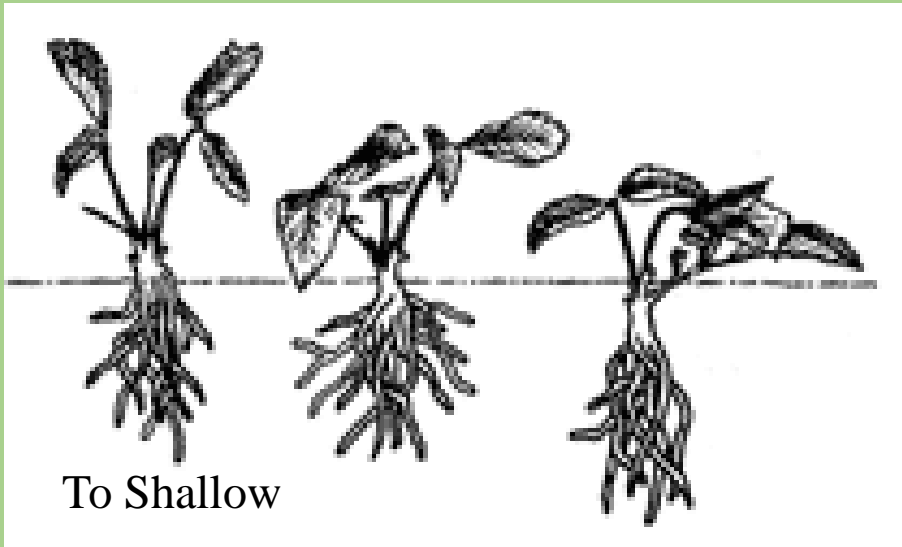
Matted Row

## [Growing Strawberries](#)

### [Small Fruit in the Home Garden](#)



# Strawberries: Planting Depth



To Shallow

Too Deep

- Plant same depth as plants grew in nursery
- Too deep (Crown will suffocate)
- Not deep enough (Roots will dry out)



# Strawberries: Space Requirements

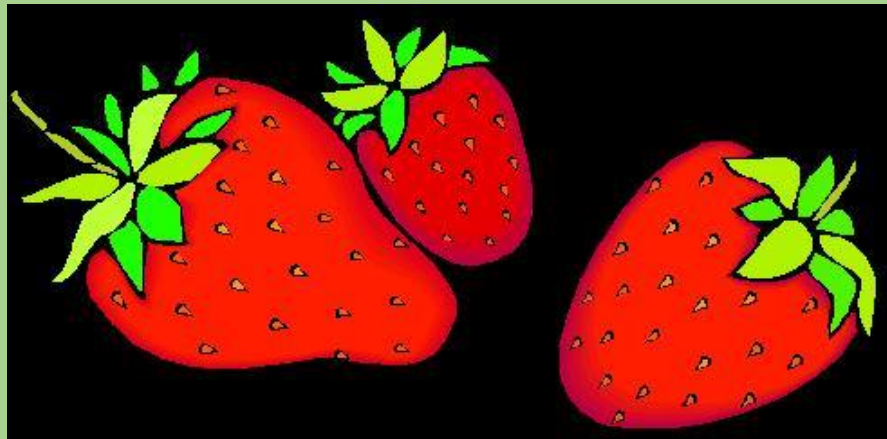
For information on space requirements for strawberries read the Virginia Cooperative Extension Master Gardener Handbook, Chapter 14 , Fruits in the Home Garden.

This reference includes information on minimum distance between rows and plants; average yield per plant, bearing age, and life expectancy.

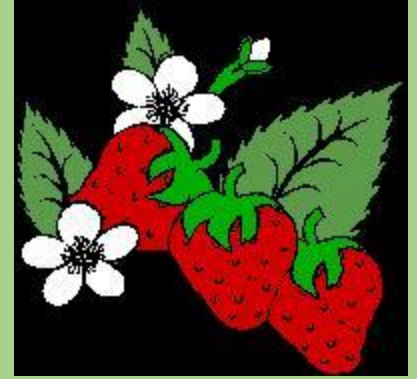


# Strawberries: Fertilization

- 1 pound of 10-10-10 cultivated into 100 foot row before planting and again in late August or early September
- Do not apply spring fertilizer in heavy soils (causes excess vegetative growth, reduced yield, increased rot, later ripening, & poor fruit quality)



# Strawberries: Harvesting



- Remove all flower stems during the first season
  - Strengthens plant and allows early and vigorous runner production; Early formed runners provide best fruit next season
- Allow berries to develop an overall red color and become fully ripened
  - Will not ripen further once removed from the plant
- Harvest by the stems above the caps to prevent bruising
- Pick all that are ripe
- May need to pick everyday during peak season



# Strawberries: June Bearing

- **Allstar**

Resistant to red stele & verticillium wilt; some resistance to leaf scorch & powdery mildew

- **Delite**

Highly resistant to red stele & verticillium wilt; vigorous; Produce runners freely

- **Delmarvel**

Productive on a variety of soils; excellent disease resistance; Good winter hardiness

- **Earliglow**

Noted for disease resistance; very vigorous; very productive; bloom early and are susceptible to frost injury

- **Honeoye**

One of the most highly regarded & popular varieties; perform best on lighter soils; lack disease resistance

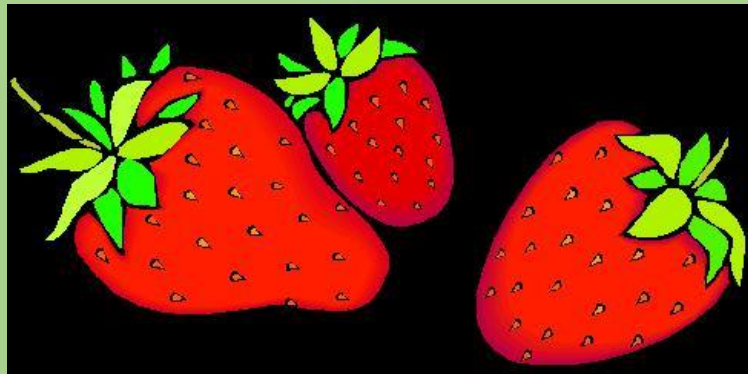
- **Surecrop**

Vigorous; tolerant of drought & other environmental stresses



# Strawberries: Everbearing

- Begin bearing in May; end with frost in fall
- Less vigorous and less productive than regular varieties
- Vigorous; good quality fruit
- Red, wedge-shaped berries
- Slightly acid
- Fresh eating or freezing





# Strawberries: Day Neutral

- Do not rely on determined amount of light during the day to initiate production
- May be listed with everbearers in catalogs but they are heavier producers; Examples: Tribute, Tristar

Type	Distance between rows (feet)	Distance between plants (feet)	Annual Yield per plant (quarts)	Bearing Age (years)	Average Life Expectancy (years)
Juneberry & day neutral	3	2	1-2	1	3
Everbearer	3	1	1/2	1-3	2



# Strawberries: Pyramid

- Well drained soil
- Easy irrigation
- Need winter protection
- Common in home gardens
- Limited space
- Handicap accessible
- Each step should have a flat surface not less than 6"-8" in width
- Soil mixture: 2 parts good garden soil, 1 part peat, 1 part sand



# Strawberries: Pests



Birds are one of the biggest pests in the strawberry planting. It may be necessary to cover the plants with plastic netting to keep the crop from being eaten before the berries are ripe enough to harvest. Aluminum pie tins, suspended by a string or wire above the plants in such manner that they twist and turn in the breeze, may be successful in keeping birds away.

Snails, turtles, and rodents are also pests of berries that lay on the ground.

[Photo Credit](#)



# Strawberries: Renovation

- Vigorous plants may be renovated to produce a second year
- After harvest:
  - Remove mulch
  - Cut plants to within one inch of crown, fertilize and water



This module continues with information on growing grapes, brambles (blackberries, raspberries), blueberries, currants, and gooseberries. Also included is information on growing small tree fruit, including a video on pruning

# Small Fruit: Suggested Reading

Note: : While there are many websites outside of our Virginia Cooperative Extension 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.

Click on titles below to go to websites: To return to this page from the website, click on the left arrow key (usually on the top left of the information bar)

[Small Fruit in the Home Garden](#) (15 pages)

[Small Fruits](#) (2 pages)

[Training and Pruning Apple and Pear Trees](#) (13page)

[Pruning Blackberries, Raspberries, Gooseberries, Currants and Elderberries](#)

[A Guide to Succssful Pruning, Shrub Pruning Calender](#) (3 pages)

[Tree Pruning Guide](#) (1 page)

[Home Fruit Production: Grape Training Systems](#) (8 pages)



# Small Fruit: Suggested Reading

## Pruning Videos

- [How to Prune a Fruit Tree](#)
- [Pruning the Peach Tree for Best Results](#)



# Tests of Knowledge

What do you  
know about  
Strawberries

Apply What  
you Have  
Learned





# Apply What You Have Learned

1. If you raise strawberries, what kind of do you grow and what kind of training system do you use? Why?
2. If you have fruits in your garden, what kind of pests have you identified on the fruit or plant in the past? What have you done about them?
3. If you have fruit trees on your property, which ones? Why did you choose these? What is the micro-environment in which they are planted?
4. Describe a place on your property which would be ideal for planting a fruit tree. Why is this spot ideal?

Click to return  
to 'Test Your  
Knowledge'



# What do you know about Strawberries?

Answers on next slide

1. Strawberry plants are set out dormant, after danger of frost. True? or False?
2. Strawberries should be planted: a) 4 inches deep; b) to the top of the leaves; c) with the crown above soil level.
3. If you have clay soil you should not fertilize strawberries: a) in the spring; b) in the fall; c) not at all
4. Everbearer strawberries are more productive than Junebearers. True? or False?
5. Strawberries should be picked partially ripe and allowed to ripen off the plant. True of False?

Click to  
return to  
'Test Your  
Knowledge'



# What do you know about Strawberries?

## Answers

1. Strawberry plants are set out dormant, after danger of frost. True? or False?  
False. While they are set out dormant, they are set out several weeks before the last frost.
2. Strawberries should be planted: a) 4 inches deep; b) to the top of the leaves; c) with the crown above soil level.  
c. With the crown above the soil level
3. If you have clay soil you should not fertilize strawberries: a) in the spring; b) in the fall; c) not at all  
a. Spring fertilizer may cause excess vegetation, reduced yield and increased rot.
4. Everbearer strawberries are more productive than Junebearers. True? or False?  
True
5. Strawberries should be picked partially ripe and allowed to ripen off the plant. True or False?  
False?

Click to  
return to  
'Test Your  
Knowledge'



# Credits

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

This module was developed by Phyllis Turner, PhD, Extension Master Gardener with input from Melanie Barrow, Extension Agent.

