

#### CMG GardenNotes #710

# Vegetables

## **References and Review Material**

## **Reading/Reference Materials**

#### **CSU GardenNotes**

- <a href="https://cmg.extension.colostate.edu/volunteer-information/cmg-gardennotes-class-handouts/">https://cmg.extension.colostate.edu/volunteer-information/cmg-gardennotes-class-handouts/</a>.
- #711, Vegetable Gardens: Soil Management and Fertilization.
- #712, Sample Vegetable Garden Seed Catalogs.
- #713, Block Style Layout in Raised Bed Vegetable Gardens.
- #714, Irrigating the Vegetable Garden.
- #715, Mulches for the Vegetable Garden.
- #716, Water Conservation in the Vegetable Garden.
- #717, Growing Tomatoes.
- #718, Tomato Early Blight.
- #719, Vegetable Garden Hints.
- #720, Vegetable Planting Guide.
- #721, Sample Planting Guide for Raised-Bed Garden.
- #722, Frost Protection and Extending the Growing Season.
- #723, Growing Vegetables in a Hobby Greenhouse.
- #724, Vegetable Gardening in Containers.
- #731, Herb Gardening.

#### **CSU Extension Fact Sheets**

- https://extension.colostate.edu/topic-areas/yard-garden/.
- #2.949, Recognizing Tomato Problems.
- #5.536, Grasshopper Control in Gardens and Small Acreages.
- #5.540, Potato or Tomato Psyllids.
- #5.550, Beneficial Insects and Other Arthropods.
- #5.569, Horticultural Oils.
- #5.587, Greenhouse Whitefly.
- #5.592, Flea Beetle.
- #5.609, Squash Bug Management in Home Gardens.
- #7.221, Storing Vegetable and Flower Seeds.
- #7.409, Growing Plants from Seed.
- #7.601, Storage of Home-Grown Vegetables.
- #7.602, Saving Seeds.
- #7.609, Cucumbers, Pumpkins, Squash, and Melons.

- #7.616, Peppers and Eggplant.
- #7.617, Potatoes in the Home Garden.
- #9.335, Growing, Preserving and Using Herbs.
- #9.369, Preventing E. coli From Garden to Plate.

#### Planttalk Colorado™

http://planttalk.org.

## **Learning Objectives**

At the end of this training, the student will be able to:

- Describe block style layout in a raised bed garden design.
- Describe garden planning and planting times.
- Describe soil preparation and fertilization for the vegetable garden.
- Describe routine garden care including mulching, irrigation, and water conservation.
- Describe routine care for tomatoes.
- List hints for growing other vegetables.
- Describe frost protection and microclimate modification.

#### **Review Questions**

- 1. Describe management techniques for your soil type to maximize soil tilth in a vegetable garden.
- 2. Describe how to make a raised bed box for vegetables.
- 3. Describe the layout of a raised bed garden in block style planting.
- 4. Describe the management of a block style raised bed garden, including irrigation, mulching and fertilization.
- 5. From your garden experience, describe a common challenge in growing vegetables and how the gardener deals with it.
- 6. Describe how adding organic matter improves a sandy garden soil and a clayey garden soil.
- 7. List techniques to manage soil compaction in the vegetable garden.
- 8. What are the limitations on using manure and compost made with manure in the vegetable garden?
- 9. Describe the pros and cons of homemade compost and commercial compost.
- 10. Describe the standard application rate for compost. How does it change with incorporation depth and potential for salts in the product?
- 11. If the soil is low in organic matter, will a routine application of compost and/or manure supply the nitrogen needs for crops? Explain why.
- 12. How does the fertilizer application rate change based on soil organic content?
- 13. What is the purpose of a starter fertilizer? List examples of common fertilizers that could be used as a starter fertilizer.
- 14. What is nitrogen side dressing? List examples of common fertilizers that could be used for side-dressing.
- 15. In Colorado, what types of soils will likely have deficiencies of phosphorus and potassium?
- 16. What are the advantages of a block style garden layout and of raised bed gardens?
- 17. Describe how to design a garden in block style layout.
- 18. Describe how to make a raised bed garden. How high should the beds be raised? In routine raised bed gardening, where are the crops' roots?
- 19. Explain "double digging".
- 20. Describe how to set up a soaker hose drip irrigation system in a raised bed garden.
- 21. Describe procedures and limitations on using grass clipping mulch in the vegetable garden.
- 22. Can wood/bark chip mulch be used in the vegetable garden? Explain.

- 23. List gardening techniques to conserve water in the vegetable garden. What happens to vegetable quality with inadequate water supplies?
- 24. What is the critical water period for various vegetables?
- 25. Describe the ideal tomato transplant. How should tall leggy transplants be planted?
- 26. What are the advantages of trellising tomatoes? How far apart should tomatoes be spaced? Give examples of trellising methods.
- 27. What are the advantage and limitations of using black plastic mulch on tomatoes, peppers, eggplants, and vine crops?
- 28. Describe techniques for using plastic mulch.
- 29. Tomatoes are often referred to as being a "low nitrogen" crop. More correctly stated, they are fussy about nitrogen levels. Explain the fertilizer needs at planting and as the crop nears harvest.
- 30. Explain the management option for early blight on tomatoes. Will a fungicide stop the disease when leaves have turned yellow late summer?
- 31. Why will vine crops bloom but not set fruit?
- 32. When should beans be planted?
- 33. Beans have a higher water use than other vegetables. What happens when they get a little dry? How can you tell when bean plants need irrigation?
- 34. Explain the growing techniques for quality cole crops.
- 35. *Bacillus thuringiensis*, *Bt*, is the standard biological control approach for worms in cole crops. Describe the criteria in using *Bt*. See Fact Sheet #5.550, *Beneficial Insects and Other Arthropods*.
- 36. Why is isolation required in growing Super Sweet corn varieties?
- 37. Gardeners often list "poor quality" as the reason most people do not grow leafy vegetables. What are the keys to great quality lettuce, spinach, chard, and other leafy vegetables?
- 38. What cultural practices are needed to compensate for the onion family's poor, inefficient root system?
- 39. What is the difference between English peas, snow or sugar peas, and snap peas?
- 40. Describe how to get potatoes off to a great start.
- 41. What are the different temperature requirements of hardy, semi-hardy, tender, and very tender vegetables?
- 42. How does a gardener know when to plant various crops?
- 43. In covering plants for frost protection, what is the heat source, i.e., where is the heat stored?