

4-H Vegetable Garden



Project Book

Name: _____ Age: _____

Club Name: _____ Years in 4H: _____

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4-H Garden Record

Prepared by:
James M. Stephens,
Vegetable Crops Specialist,
Florida Cooperative Extension Service,
University of Florida, Gainesville.



Vegetable Gardening

Those of you enrolling in this gardening project area will be growing a vegetable garden. Better health should come from working in the sun and eating nourishing, fresh vegetables which you grow and pick yourself. Successful gardening is a sure fire way to strengthen the four H's:

Your Head

by drawing up a garden plan
by selecting seeds and supplies
by choosing the right soil and the best time to plant and harvest

Your Hands

by plowing
by planting
by hoeing
by harvesting

Your Heart

by learning to love growing plants
by appreciating the earth's goodness
by being thankful for our blessings
by enjoying success

Your Health

by eating nourishing, fresh vegetables
by working in the sunshine and fresh air



Requirements of the Project Area

You should have your own garden plot or care for part of the family garden. The size of your garden will depend on the amount of space you have available and the time you have to tend it. Do not take more than you can properly take care of. For most beginning gardeners, at least 200 square feet of garden space is sufficient. More than 2,000 square feet is probably too much. You should plant crops that you like to eat and that are fairly easy to grow. Plant such crops as tomatoes, beans, radishes, beets, turnips, squash, peas, strawberries, lettuce, and sweet corn. You should exhibit your garden vegetables at a community, county, or district event. Keep a record of your garden's progress. Fill out the report form included in the back of this booklet. Answer the questions and write your story as indicated.

Other Beginning Gardening Project Areas

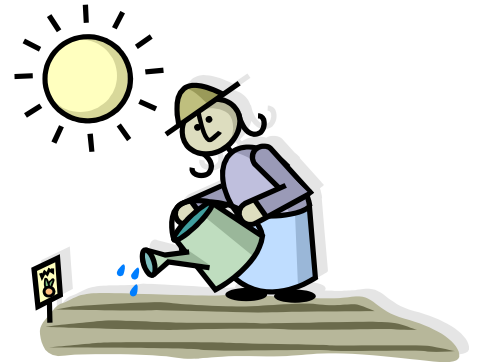
Vegetable Gardening is one of four areas you may select in the *Beginning Gardening* project. The four areas are:

1. Vegetable Gardening
2. Plant Science Experiments
3. Growing Vegetables in Containers &
4. Vegetable Identification Workbook.

There is a separate booklet for each area. You may choose at least one of the four areas. If you complete one area one year, you may wish to do another area the next year. You should be 9 - 12 years old to do this project.

About Gardening

To grow a successful garden in Florida requires a great deal of gardening know how. Use the following information and tips on gardening to help you with your gardening fun.



Plan Your Garden

You wouldn't take a vacation trip without taking along a map. It's important to "map" your garden, too, before you do anything else. Then you'll know where you are going. To plan a garden, you should ask yourself these questions:

Which crops will I grow?

Which varieties are best?

How much seed will I need?

When is the best time to plant?

How far apart should the rows and plants be spaced?

Draw a plan of your garden in the space provided in your record section. This sample plan should be helpful:

Sample Plan (Central Florida) 50 feet x 30 feet

<i>Row Width</i>	<i>Plant Spacing</i>	<i>Crop</i>	<i>Variety</i>	<i>Planting Date</i>
1 1/2"	1"	Radish	Cherry Belle	September 15 th
2"	4"	Turnips	Purple Top	September 15 th
2"	4"	Mustard	Fla Broad Leaf	September 15 th
2"	4"	Onions	Yellow Granex	September 15 th
2"	24"	Cabbage	Marion Market	September 15 th
2 1/2"	24"	Collards	Vates	September 15 th
2 1/2"	4"	Beans, snap	Contender	September 1 st
3 1/2"	36"	Squash	Summer Crookneck	September 1 st
3 1/2"	36"	Tomatoes	Better Boy	September 1 st
3 1/2"	36"	Tomatoes	Flora-Dade	September 1 st
3"	12"	Strawberries	Florida Belle	September 15 th
2"				

Location

A garden spot handy to the house and kitchen is best. A good water supply, such as a spigot, should be nearby. Choose a spot where the soil is as rich as possible and one which is not shaded, especially in the morning hours.

Arrangement

How you arrange the vegetables in the garden is important. Keep tall vegetables, such as corn, to one side and low growing plants, as radishes, to the other side. Otherwise, the tall plants will shade the little ones. Run the rows north and south so more sunlight can strike the plants.

Tools

For a small garden only a few simple tools, such as a spade, rake, hoe, trowel, bucket, garden hose, and hand duster, are needed. Also, a quart can for putting out fertilizer, a ball of twine, and garden labels will make your gardening easier.

Soil Sampling

Your garden soil should be sampled and this sample tested to find out what fertilizer and lime are needed. Call the University of Florida Lake County Extension 343-4101 for more information. How to take soil sample for testing:

- 1. Take samples from 5 different places in your garden.*
- 2. Take a slice of ground to spade depth at each point*
- 3. Place the samples in bucket and mix.*
- 4. Place sample from bucket in a clean container with your name & address on the container.*

Liming

The most important test of your soil is a test for soil pH. The best pH range for garden soils is 5.5 to 6.2. If your soil tests under pH 5.5 your soil is sour and lime may be needed. Use 3 to 4 pounds of finely ground limestone to every 100 square feet of soil. Scatter the lime evenly over the soil surface and then spade it in to a depth of 6 inches. You should apply lime 2 to 3 months ahead of planting. Some soils are sweet (alkaline), such as the marl and rock soils of Dade County. These do not need lime, but require special fertilizer instead.



Spading

Turn the soil completely over when spading. Weeds, cover crops, and added lime can all be spaded under at the same time. Break all clods and level with a rake. Remove all woody weeds and trash from the plot.

Garden Layout

Use stakes, string, and a yardstick to lay off straight rows. Follow your previously prepared plan. Place a garden label at the head of each row. Information on the label should include the crop, variety, and planting date.

Nematode Control

Tiny, eel like worms called nematodes may live in the soil in your garden. Nematodes can only be seen with a microscope. These tiny worms feed on plant roots and cause them to become knotted or stunted. To help control nematodes solarize soil prior to planting with clear plastic. Refer to Publication PPP51: Soil Solarization for Management of Soil Borne Pests, available at the University of Florida Extension Office.

Bedding

A raised bed is made for the purposes of drainage, keeping plant roots up out of water, and in some cases for furrow irrigating the plants. For most vegetables, a small bed about one foot across and six inches high is best. Later this bed may be enlarged by cultivation and side-dressing with fertilizer. Where possible, you may wish to plant flat without raised beds.

Fertilizing

Commercial fertilizer should be applied right before or at planting time. The best way is to place it in one or two hands. Each hand should be 3 inches to the side and 2 inches below the level of the seed. Do not put the fertilizer directly under the seed. Additional fertilizer, called side dressings, may be needed during the growing season. Apply side dressings at about 1/4 the rates listed below. Most gardens will need from 2 to 4 side dressings at about two week intervals, or whenever needed. Some gardeners prefer to broadcast their fertilizer over the entire garden plot before planting. This should be done a week or ten days before the seed are planted.



Soil	Fertilizer Grade	Amount 100 sq ft
Sand - Clay - or Marl	6-8-8	4
Muck or Peat	0-12-20	2

Planting Seed

Be sure you have good fresh seed to start your garden. Plant the variety suggested in this booklet. Since some diseases may be carried on the seed, buy treated seed. Rake and smooth out your planting surface. To plant in straight rows, tie a string between the garden labels at both ends of each row. Follow this string with the end of a hoe handle or your finger, to make a planting furrow. Seeds should be planted at the proper depth. Use the Planting Information Chart to find out how deep to put the seed. Plant spacing is important. Place the seed somewhat closer together in the row than the suggested plant spacing. Then you can thin out the time plants to obtain the "stand" you want. When you transplant young plants directly into your garden, put them at the proper spacing.

Transplanting

It is best to start some vegetables in your garden by setting transplants rather than by direct seeding. By transplanting, you can have an earlier garden and sometimes a better stand. Not all vegetables can be successfully transplanted. Some that you might try are tomatoes, pepper, eggplant, lettuce, and cabbage. Young vegetable plants for transplanting may be obtained from a neighbor's garden, from a garden supply store, or by growing your own in a seed bed or plant box.

1. Transplant when conditions are best, soon after a rain or when cloudy, or in late afternoon.
2. Handle plants carefully when transplanting.
3. Use a trowel or large spoon to lift the plants carefully from the box. Leave as much soil on the roots as possible. Dip roots in soft mud.
4. Water when setting. (Starter solution may be used.) Firm soil around roots and put dry soil over moist soil.
5. Protect plants 2 to 4 days after transplanting. Suggestions are: palmetto leaf * newspaper * board * turn a flower pot upside down over the plant.

To make starter solution: use 2 tablespoons of 6-8-8 fertilizer per gallon of water. Apply ½ to 1 pint to each plant. This will get your plants off to a quick start. You should place a cardboard band around the base of the plant to protect it from cutworms.

Weeds

Knock out weeds before they get started. They compete with the plants for food and water. They may shade the crop. They are hiding places for insects and other pests. Pull or hoe weeds when they are young and tender. When hoeing, do not cut too deeply, as vegetable roots might be damaged.

Irrigating

Never let your garden suffer from lack of water. Most vegetables need about one inch of water per week when young and nearly 2 inches when older. It is better to water heavily once a week than to sprinkle a little each day. Several methods of irrigating may be used:



1. Lawn sprinkler
2. Perforated hose
3. Furrow irrigation



Insects

There are many insect pests which may injure or even destroy your garden vegetables if they are not controlled. Go to work on bugs early. Early detection and identification is crucial for proper control. Insect pests must be present. There is no chemical prevention.

Diseases

Again, early and frequent action is best for keeping plant diseases from damaging your garden. A spray is best since it will stick to the plant. Some diseases, such as wilts and viruses, can not be controlled by spraying and dusting. Planting varieties which are resistant to these diseases is very helpful.

Pesticide Precautions

Consider all pesticides as potential poisons. Read the labels on the containers and strictly follow the directions. It is the responsibility of the user to use these products only within the limits which have been set for their use. Do not apply pesticides on the same day you harvest. Thoroughly wash vegetables from the garden before using them.

Harvesting

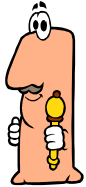
Be ready to harvest your vegetables when they are ready. Some, like tomatoes, have best quality when they are ripe. Others, like beans and cucumbers, should be eaten before they are fully ripe

Dusters and Sprayers

Several different kinds of hand sprayers and dusters are available. Here are a few examples of some that you might use: Trombone sprayer ' Rotary duster ' Plunger duster ' Pressure sprayer.

Activities

Those of you who are taking this project should also take part in one or more of the following activities. They are fun to do and will help you get a lot more from your project.



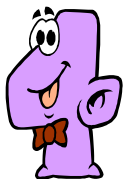
Horticulture Demonstrations – You should participate in a demonstration once a year. If you have ever shown anyone how to make a kite or mix a spray solution, you have given a demonstration. In a vegetable demonstration you show how while you tell about some gardening practice. There is a 4-H pamphlet which you can get that tells how to prepare a demonstration. It is called “4-H Horticulture Demonstrations”. Ask your leader for a copy.



Horticulture Judging – This activity is in the form of a contest. By competing in it, you will learn about kinds and varieties of vegetables, and how to pick the good ones from the bad ones. You might have a chance to be in a club or county contest and test your knowledge of these things. Any of you taking any part of this project may participate in horticulture judging. Get a copy of “4-H Horticulture Identification and Judging Contest” to find out more about this contest.



Exhibiting – At every opportunity you have, such as at a fair, you should be proud to show others the produce that you have grown. When you show others how well you have done, they may benefit by trying to do as well. Exact requirements must be met by exhibits entered for contest. The number called for should be used - no more, no less - and other rules of the Exhibit Committee should be closely followed.



Tours – Visit the gardens of your neighbors and other members of your club. Field trips into farming areas are fun and educational. Group trips through local market places to see how produce is sold will be very worthwhile.

Suggested number of vegetables to make an exhibit:

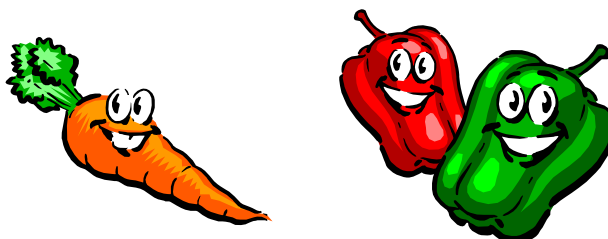
MAJOR CROPS

Beans bush green 1 qt	Onions cured 6
Beans pole green 1 qt	Onions green 12
Beans lima 1 qt	Peas English 1pt
Broccoli 3 flower stems	Peas Southern 1 pt
Cabbage 3	Peppers bell 6
Carrots 6	Potato Irish 6
Collards 3 plants	Radish 12
Corn sweet 6 ears	Spinach 1 bunch
Cucumbers 6	Squash summer 3
Eggplants 3	Squash winter 1
Lettuce 3	Sweet potato 6

MINOR CROPS

Artichoke Globe 3	Kale 1 bunch
Artichoke Jerusalem 6	Kohlrabi 6
Asparagus 12 spears	leek 12
Brussel Sprouts 1 qt	Parsley 1 bunch
Cauliflower 1	Peppers hot 1 pt
Celery 3	Popcorn 12 ears
Chard Swiss 1 bunch	Pumpkin 1
Citron 1	Rhubarb 6 stalks
Endive 1 plant	Rutabaga 6
Herbs collection of 3 kinds	Soybeans 1 qt
Horseradish roots 3	Tomato Cherry 1 plate

Melon cantaloupe 3	Tomato slicing & green ripe 6
Melon watermelon 1	Turnip roots 6
Mustard 1 bunch	Turnip tops 1 bunch
Okra 1 qt	



Expenses (List a value for items used even if they did not cost you anything)

<i>Item</i>	<i>What Kind?</i>	<i>How Much?</i>	<i>Cost \$</i>
Seed			
Fertilizer			
Lime			
Manure			
Dust Material			
Spray Material			
Other			
TOTAL COST: \$			

Returns (List the value of vegetables used, given away, or sold)

<i>How Used</i>	<i>Amount</i>	<i>Value \$</i>
Sold		
Eaten		
Canned		
Frozen		
Given Away		
TOTAL VALUE:		\$

Summary

Total value (Line B) _____ minus Total Cost (Line A) _____ = gain on Project _____

What problems did you have with your garden? _____



Project Summary

LEADERSHIP

List your accomplishments both in this project and as a member of your club, county council, etc.
Ex: participate in TLC as the delegate to District VIII meetings.

Date	Please Describe

COMMUNITY SERVICE

List in detail your individual or club community service accomplishments and the purpose for the service.
Ex: Our 4-H Club saw a need for a food drive & collected 200 items that were delivered to the needy.

Date	Activities and Events

PRESENTATIONS

List in **detail** the demonstrations, speeches, exhibits, workshops where you presented.
 Also list the topic of your presentation & the level at which you participated at.
Ex: County Events Demonstration - "How to prepare your Rabbit for Show" Check County

Date	Activity	Topic	Please check level				
			Individual	Club	Cnty	District	State

CLUB ACTIVITIES

What activities did you participate in with your 4-H Club.
Ex: Workshops, fair, field trips, judging trips

Date	Activities

NEWSPAPER Articles and/or Pictures of your 4-H Project

NEWSPAPER Articles are extra and will not be deducted.

If you or your 4-H club was in the newspaper please attach the article here.

For project pictures, be sure to include captions describing each photograph. If possible show (The Beginning of your project (work being done and (your completed project. (Minimum of 3 pictures). You may insert pages as needed.

