

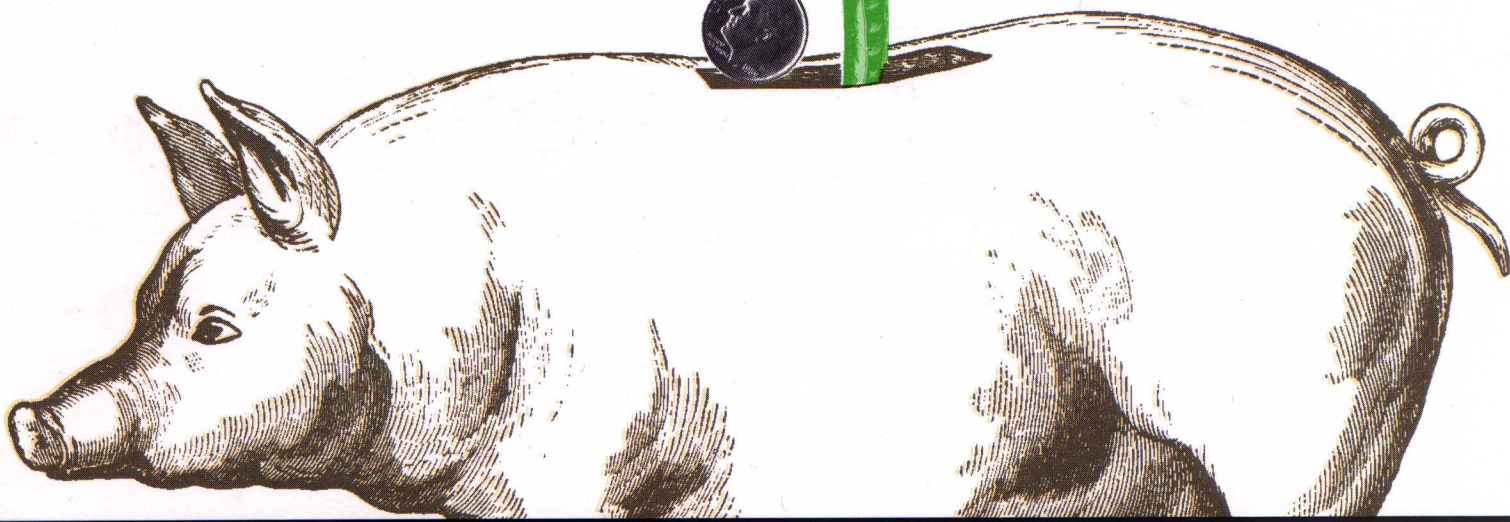
Radishes to Riches

A Produce Marketing Project for Youth

4-H Member's Guide 142-M-5



Marcia Eames-Sheavly



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Radishes to Riches is dedicated to the memory of Laurel Shenstone.

This publication was developed to promote 4-H programs in New York State.

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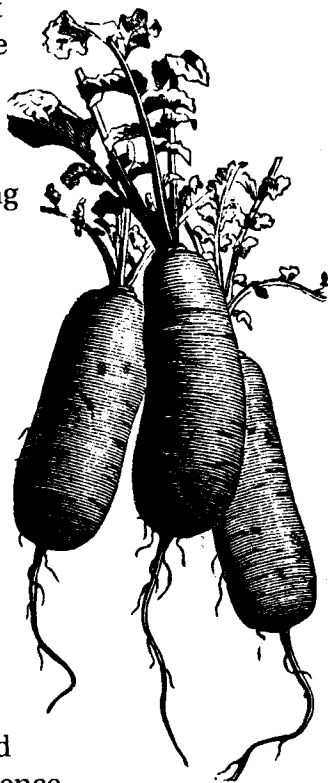
What Is Radishes to Riches?

Radishes to Riches is a project to consider if you would like to raise and market a fruit, vegetable, or flower crop, or if you have already completed a project in horticulture and would like a new challenge.

You probably have already learned a lot about selecting and displaying marketable produce if you have exhibited vegetables, fruits, flowers, or herbs. This project helps you take that knowledge one step further by developing a marketing plan for the produce you grow.

Radishes to Riches is unique because it combines disciplines that influence both the grower and the marketer, such as entomology, plant pathology, marketing, consumer economics, and business and money management. Because this makes the project rather complex, both you and your family should give the project careful preparation and thought.

Radishes to Riches is a very flexible project and has great potential. You can raise a small amount of produce one year and a larger amount the next. You can add pizzazz to your display as you gain confidence and learn what customers like.



What is Marketing?

Marketing is a process. The goal of marketing is to create an exchange that satisfies the consumer and the producer. A marketing plan can lead to a successful business, whether you are selling a few vegetables or a variety of horticultural products.

Think what you like in a product, whether it's grocery store produce or an ice cream cone from the local stand. You want to buy from a store that is clean and neat. You prefer fresh, high-quality produce to produce that is wilted, soiled, or in poor condition. You expect to pay a price that is fair or close to what is being charged by other vendors in the area; you may consider paying slightly more if you are convinced that it is a superior product. You want to know that you can buy a consistent product from week to week. For example, you wouldn't buy from an ice cream stand that sells you a great cone one week and a tiny one the next.

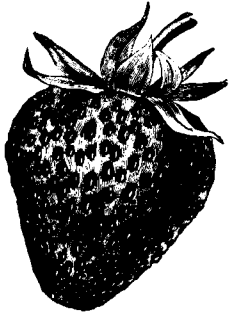
Your customers will be no different from you—they will want produce that is fresh, fairly priced, and of consistent quality from week to week. They also will need to know that your product is available.

Your potential customers make up your market. To reach them, you design a marketing program around the four Ps: **Product, Place, Price, and Promotion.**

- **Product** is what you have to offer that people will want to buy.
- **Place** is where you market the product.
- **Price** is how much people will pay for the product.
- **Promotion** is what you do to make people aware that your product is available.

You will learn about each of those in this project.

Product: What Will I Grow?



What Will I Gain from This Project?

The obvious benefit of choosing this project is that if you do it well, you will earn money! There are many other rewards, however. In addition to acquiring cash, you also will learn how to manage money, a skill that will be useful for the rest of your life.

You will learn to grow attractive products such as fruits, vegetables, herbs, and cut flowers. As you raise, prepare, sort, and grade products for market, you'll learn a great deal about buyer preferences.

You will gain valuable work experience. As your own boss in this venture, you will get an idea of what it is like to operate a business. This will give you insight into possible future careers in plant science, consumer economics, produce marketing, business management, or other areas such as environmental issues.

This challenging project will teach you how to communicate with people and develop interpersonal skills. You will learn about other people's attitudes and build self-esteem. Learning to present yourself effectively is a skill you can use for many years to come!

There are many different crops that are popular with consumers and fairly easy to grow. To decide what to grow, you will need to think about your potential customers and what types of crops you'd like to plant. To get information about spacing, depth to plant, approximate yields, and days to harvest, refer to the list of fact sheets and publications at the end of this guide.

How Much Should I Grow?

How much time are you willing to spend caring for and picking your crop? Start small and expand as you become familiar with your capabilities. Many crops such as pickling cucumbers and strawberries will take a lot longer to harvest than you think. You want this project to be an enjoyable money-maker, not an exhausting chore. Plan ahead and consider the time, energy, and space requirements for each crop.

How much you should grow also depends on the amount of land you have to work with. Refer to one of the planting guides listed in the section "Resources" to find out how much space the crops you have in mind require.

How Many Different Crops Should I Grow?

You might want to start with a single planting of a summer crop to find out how well that crop grows under your conditions. This will allow you to see how well it is accepted by customers before you commit large quantities of land, time, and money.

If you decide to plant more than one crop, think about how long you want to be selling your produce. Do you want to be in business for an extended period, or would you rather market only during your summer vacation from school?

Having variety attracts customers, but it can spread work from spring to fall. By planting a number of different vegetables, flowers, or fruit, you will give your customers a wonderful selection. For example, you might start off with asparagus, followed by peas, lettuce, carrots, strawberries, cucumbers, tomatoes, and gladiolas, and end with pumpkins and chrysanthemums. But you will spend an entire season growing and selling those crops.

Growing several crops is more demanding than growing a single crop because you also have to learn about each crop you grow. If you're a beginner, it may be best to choose





a few high-volume crops—those that produce a lot per plant. As you master the challenges of growing those crops, you can add different crops later.

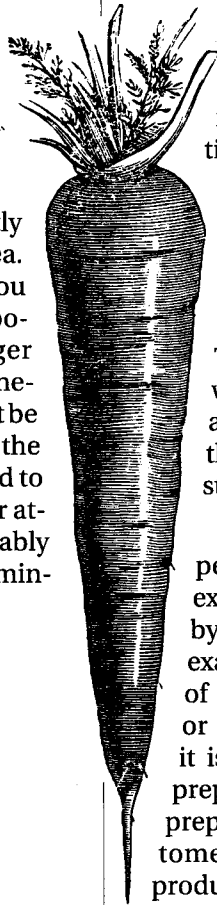
You can offer your customers a selection by growing different varieties of the same crop. Each variety can have a different time of ripening, color of fruit, and taste. Experimenting with a few varieties of the same crop may lead to some interesting preferences.

How Much Can I Sell?

Your sales will depend greatly on the population of your area. If you live near a large city, you have a greater number of potential buyers and a larger choice of markets than someone in a very rural area. Don't be discouraged if you live in the country; you will simply need to do a bit more planning. Your attitude and desire are probably the greatest factors in determining how much you can sell!

What Will People Buy?

Even if you have an idea of what you'd like to grow, it is best to do some research to see if you're on the right track. An easy way to find out what people like is to survey your neighbors. Ask them if they would purchase fruits, vegetables, flowers, or herbs and which varieties they prefer. You may be surprised by their comments! Perhaps many of them already have vegetable gardens, but they don't have the time to grow flowers and would like a source of fresh flowers for table decorations. You may find out that fresh produce is in demand during a particular time of the season.



Another way to determine people's preferences is to explore farmers' markets or grocery stores in your area to see what is offered. Talk to the vendors about what people like. Ask them if any products are so popular that they can't keep them in stock.

Once you decide what people will buy, you can still experiment with other crops by doing small trial runs. For example, you may grow a row of eggplant, Brussels sprouts, or basil to see how popular it is with your customers. Be prepared to provide ideas for preparation in case some customers are unfamiliar with a product. Use your imagination! Your enthusiasm about your trial crop may be enough to encourage your customers to give it a try.

Customer Survey

You can help our youth group by completing this questionnaire. The results will help us plan better service for you.

Name: _____

Where do you live? _____

How many miles would you drive to purchase produce? _____

Do you prefer to pick your own produce? _____

If so, what crops? _____

What newspaper do you read? _____

Is your decision to buy produce influenced by

newspaper advertising

radio promotions

roadside signs

other (please specify)

Comments: _____

Place: Where Will I Sell My Produce?

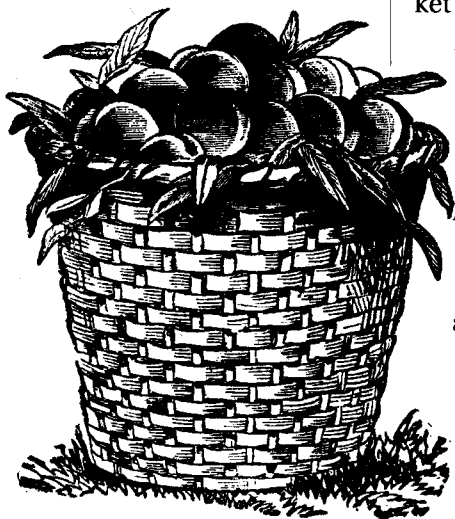
There are many ways to sell horticultural products, and deciding which is best for you will be one of your biggest decisions.

Pick-Your-Own

Pick-your-own is a common method used to sell crops such as strawberries and raspberries. People come to your planting and pick the produce they want. Prices are lower because the customers do the work themselves.

A good pick-your-own operation needs a good check-in and check-out system and a parking area. Long hours, hard work, ability to handle overflow crowds, and neat, well-kept buildings and grounds are some of the success factors in this marketing method.

Unless you have prearranged sales through friends and family, selling by having customers harvest their own produce will be a great challenge. You will need to work weekends, early mornings, and late evenings. Discuss with your family members whether you want to become involved in this method. If you feel it is too great a challenge, it is best to pick the crops yourself.



Selling at Home

There are several ways to market produce that you have picked. A common method is to sell it at home. This method works best if your home is located on a road that is well traveled.

To sell at home, you can either set up a permanent table or use a temporary card table, wagon, or stand. Make sure that you are close enough to the road to be convenient for passersby, but not dangerously so.

You also can keep produce on your porch or in a garage or barn. Be sure to use adequate signs to let people know what is available for sale and where to go.

If you sell from your home, will you be there all the time, at just certain hours each day, or only by appointment? Can you leave your stand unattended? Ask yourself these questions before you begin, so you are not surprised by a knock at the door one morning while you're still in bed!

Selling Door-to-Door

Selling door-to-door in your neighborhood is a very good way to market produce. The first contact with potential customers is very important! Be cheerful, confident, and courteous. Tell them what you have for sale and let them know how often you will be coming. Be prepared to make change. Using a wagon or cart to carry your produce is easier than carrying bags of produce, and it looks nice.

Door-to-door sales are wonderful for people who cannot get to a store themselves, such as the elderly or those with physical disabilities.

Selling Away from Home

Another option is to sell away from home—at a booth or stall along a heavily traveled highway, a shopping plaza, a farmers' market, a senior citizens' center, a housing project, or a nearby roadside market. One entrepreneur took a horse and cart loaded with flowers to a senior citizens' center. Because she provided not just bouquets but amusement and recreation as well, you can imagine the sales she made!

You and the members of your group can sell produce together from a booth at a farmers' market. This method works well because the rental of the booth is shared. If you are only growing one crop, having a booth with other members of your group also allows you to display a variety of fruits and vegetables.

If you sell your produce away from home, be sure that you are not violating any zoning laws by setting up a table. Talk to owners of the property, or call your city or town hall and they can refer you to a zoning officer.

Selling through a Store

Another method of marketing is through a store. You deliver the produce and the store does the selling. This method can apply to supermarkets, restaurants, roadside markets, and specialty stores such as green grocers. One requirement is that you have a driver's license and the use of a vehicle or a cooperative parent or friend. Another requirement is a consistent supply of high-

quality produce that is packaged according to the standard methods used in the produce industry.

If you feel that you can meet those requirements, it is important to make an appointment with the produce manager and show him or her your product. If you sell to a store or restaurant, you will be paid wholesale prices, which will result in a lower net return than if you sell directly to the customer.

Selling Subscriptions

A very good selling plan, which can be incorporated into any of the above methods, is to sell subscriptions to your produce. With this plan, customers purchase produce before it is available, such as \$20.00 worth of sweet corn. Then you deliver it after it's harvested. This method is especially beneficial if you need money in advance to make purchases for your project. It is attractive to customers because they have the convenience of a one-time purchase.

A Comparison of Marketing Methods

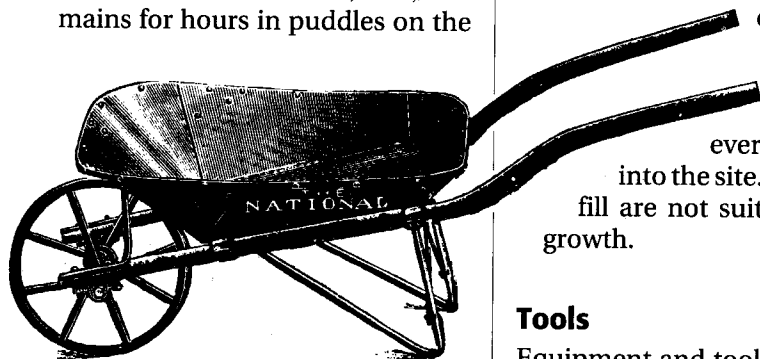
<i>Marketing Method</i>	<i>Advantages</i>	<i>Disadvantages</i>
Pick-your-own	Do not have to harvest crop	Poor weather discourages customers Need facilities for parking, checking in, and checking out Hours may be long Less net return because customer provides the labor
Roadside table	Easy to set up and take down Can choose your own hours High net return	Need a good location Poor weather can be discouraging
Door-to-door	No stand or table setup Can choose your own hours Can choose to canvas area where you already know customers Can charge higher prices	Approaching people may be difficult at first Need a way to transport produce
Store delivery	No stand or table setup	Demands high level of expertise Less net return Need a way to deliver produce

What Do I Need to Know to Grow a Crop?

Learning about and working with the land you have is a great challenge. The following steps for preparing and growing crops on a site involve some technical methods that may not be familiar to you but are necessary to grow top-quality produce. If you simply throw seeds in the ground without learning something about the soil, you risk losing the crop. So take time to become familiar with the information presented in this section.

Choosing Your Site

The first thing you need to learn is what **soil type** you have. Soils for growing vegetables, flowers, fruits, and herbs should be easy to work, or "light" in texture. A deep, fine sandy loam or silt loam is best. If, after a moderate shower, water remains for hours in puddles on the



soil's surface, the site should not be used. As a general rule of thumb, if your soil is "heavy," or high in clay content, and drains poorly, you may have a difficult time growing crops.

Although you may not be able to influence **climate** and **weather**, you should be aware of their effects on your project. Always choose crops that grow well in your area and that have a growing season that is appropriate for your area. Be sure to select a site that has at least 6 hours of direct sunlight a day. Avoid low areas, which tend to drain poorly and are susceptible to late spring and early fall frosts.

In addition to knowing something about the soil and sunlight at your site, you also need to know about the **history** of your site. Find out what was grown on the site before and what pest problems may be present. If potatoes, tomatoes, strawberries, or raspberries were grown for several years, a soil disease called verticillium could be present. Once you learn the history of your site, you may need to change your planting plan. For example, if you learn potatoes have been grown on a site for many years, it would be best to avoid planting a crop like strawberries or tomatoes.

If your site is in an urban setting, such as a vacant lot, find out if anything on the site in previous years could present a health hazard if today's crop is eaten. If so, you could grow cut flowers, which are not eaten. Ask if fill has ever been brought into the site. Some types of fill are not suitable for plant growth.

Tools

Equipment and tools are essential for growing crops. Every gardener will at some point need a hoe, a rake, a spading fork, and a spade or rounded shovel. String will be helpful for making straight rows. You will need some type of stake to mark your plots. For large plantings, a good wheel hoe or hand cultivator will make life a lot easier. Tools will be one of your greatest expenses if you do not already have them or cannot borrow them.

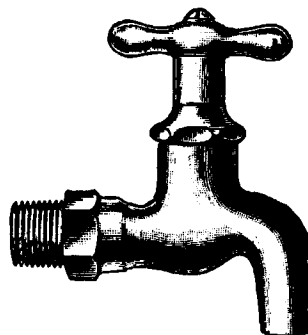
Small garden tractors and Rototillers are usually available from rental stores or garden centers and are especially useful if the site is being prepared for the first time. Have an experienced person do the

tilling for you if you are not familiar with operating that type of equipment.

Preparing Your Site

The first step in preparing your garden site is to have your soil tested. Soil tests provide information about the nutrient content and the pH of the soil. Cornell soil sampling kits can be obtained from local county Cornell Cooperative Extension offices or by contacting Cornell Nutrient Analysis Laboratories, 804 Bradfield Hall, Cornell University, Ithaca, NY 14853.

The pH, or active acidity, tells how acid or alkaline the soil is. A soil with a pH of 7.0 is neutral. One with a pH of 7.1 or above is alkaline or "sweet." A pH below 7.0 is acid or "sour." It takes time to change the pH of a soil that is very acid or very alkaline. Most vegetables, fruits, flowers, and herbs grow well in a soil that has a pH of about 6.0 to 6.5, although there are exceptions. It is a good idea to test your site every three years.



Use lime on your garden only when a test shows the soil is too acid. If the soil's pH is between 5.5 and 6.0, add 3 pounds of ground limestone to each 100 square feet of garden on sandy soils and 5 pounds on heavy, clay soils. Work the lime in before you cultivate or spade the soil for planting. If the pH of the soil is between 5.0 and 5.5, apply the amounts given above before you work the soil and make another application just before you rake to prepare a seed bed. If the soil's pH is below 4.9, double the recommendation for the 5.0 to 5.5 range.

Organic matter is important in all soils. It helps sandy soils hold water and makes heavy soils looser and easier to work. It also adds nutrients. The most inexpensive and readily available supplies of organic matter are farm manure and compost. Add these or a similar material such as peat moss when you till the soil. The following recommendations are general guidelines:

well-rotted cow manure—
2 bushels/100 sq ft

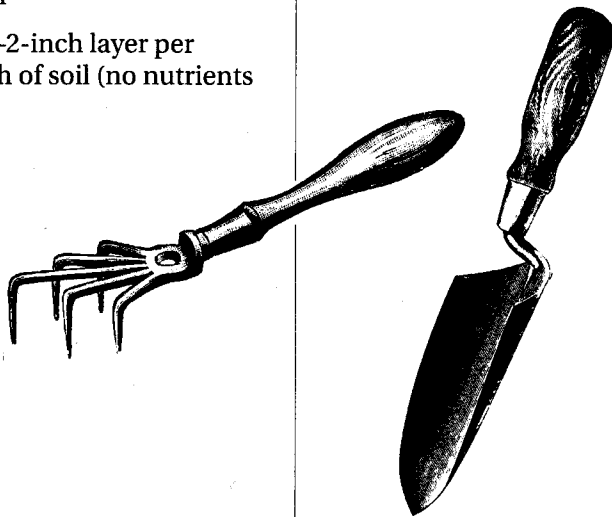
well-rotted chicken manure—
1 bushel/100 sq ft

compost —2-inch layer per 6-inch
depth of soil

peat moss—2-inch layer per
6-inch depth of soil (no nutrients
supplied)

Fertilizers are usually applied to meet the nutritional needs of plants. Standard preplant fertilizer applications usually provide plants with nutrients needed for the complete growing season. Some crops, such as tomatoes and corn, benefit from side dressing or from the addition of fertilizer during the growing season. Irrigation and rainfall leach nitrogen from the soil, so nitrogen fertilizer can be applied to encourage good growth, development, and higher yields. When fertilizing established gardens, take care not to have dry fertilizer come in contact with the foliage. Rake fertilizer into the upper 2 inches of soil and water the garden to move the fertilizer down into the root zone.

Many gardeners use a complete fertilizer such as 10-10-10. (These numbers represent the amount of nitrogen, phosphorus, and potassium present in the fertilizer.) Fertilizers are available in different forms, such as granular or liquid. There are also organic fertilizers, such as fish emulsion. Whatever form of fertilizer you choose, *follow the instructions on the container and only apply the amounts recommended for the crop, as indicated by a soil test.*



How Do I Keep Records?

Records of planting and growing, as well as finance records, are very important for monitoring how well your business is doing. If you are organized and pay close attention to details, keeping records will be fairly painless!

A Planning Calendar

Organization is just as important for growing your own produce for sale as it is for any successful business. The best and perhaps the easiest way to keep good records is to make up a planning calendar that shows the entire season at a glance. Rather than have your ideas spread around on many sheets of paper, everything will be noted in one place. Be sure to include

- when and how the ground is worked
- the fertilizing and liming needed
- when the seeds or transplants arrive (or are to be picked up)
- the average dates of first and last frosts
- the planting dates
- the pest problems expected and the methods of pest management chosen
- the planting layout
- the harvest dates
- the quantities harvested

Leave space on your calendar to add planning notes and unexpected items that come up throughout the season. Post the calendar where you can see it every day, and think of it as a diary of your project.

- Note plant growth, especially unusual symptoms such as wilting.
- Record unusual weather, such as hail.
- Keep a record of rainfall.
- Be a careful scout, and check daily for pests.
- Note daily practices, such as amount harvested and fertilizer applied.

A blank page of a sample planning calendar follows. Make as many photocopies as you need to keep accurate records of your project.

Your Planning Calendar

Month April

6 Rented Rototiller. Mom rototilled garden area; I removed rocks.
Rototilled most of manure and all of lime into the ground.

7 Heavy rains

18 Worked in remaining manure with spading fork. Unseasonably warm today (78°)!

19 Drew up a garden plan for growing tomatoes.

Notes:

Month May

10 Purchased 180 tomato transplants.

15-26 Gradually hardening off tomato transplants by putting them out in the day and on the porch at night.

27 Weeds are really coming in, so we borrowed a neighbor's tiller.

28 Frost, I hope the last!

Notes:

Month June

1-3 Planted.

10 Weeded lightly.

15 Hail storm! Transplants look pretty good, luckily.

21 Placed stakes by each plant; tied up several plants.

29 Weeded.

30 Side-dressed with fertilizer.

Notes: Checked daily for pests throughout month; saw several "good guy" lady beetles.

Month July

2 Tied up plants.

7 Weeded; plant in 4th row looks bad (Why? Check back).

10 Removed sick plant in 4th row. Not sure of cause - maybe wilt? Check with extension agent.

12 No rain in 1 1/2 weeks; hand watered plants.

13 Hand watered and weeded.

21 and 22 Still no rain! Hand watered again.

25 Tied up plants.

30 Rain - 1 1/2 inches!

Notes: Find out cost of hose and sprinkler.

Your Planning Calendar

Month _____

Notes:

Month _____

Notes:

Business Finance Records

Both the Project Plan and the Cash Account Guide will help you keep accurate financial records of your project. There are many entries to consider; take time to consider each one carefully.

Your Project Plan

Before you begin to plant, it is helpful to try to anticipate what your costs may be. To do this, you first need to decide what to plant. You will be able to estimate the obvious costs, such as seeds and tools. But other costs may arise, such as for land rental or equipment. Review the sample Project Plan illustrated here. Although your Project Plan will be different, the sample may remind you of items to include.

As you fill in your work sheet, check seed catalogs or your local garden center to find out how much various items cost. Write the amount of money you expect to spend in the column "Estimated Expenses."

Then try to anticipate how much money you will bring in by selling your produce. This calculation is easy if you know what price you plan to charge and have a rough idea of how much you will harvest. Write the amount of money you hope to bring in in the column "Estimated Receipts."

If your estimated expenses exceed your estimated receipts, you may need to borrow money from your parents to complete the project. First, though, you should ask yourself why your estimated expenses are high. Is there a way you can cut costs? Do you need to increase your receipts? You may find that selling an extra day per week will solve this problem. Or, you could reduce a cost, such as that for transplants by starting your own seed.

Your Project Plan

Name Keri Spring
 Address 23 Blackberry Road, Clover City, NY 10000

Draw a picture here of the plot, giving approximate dimensions, distance between rows, number of rows, distance between plants in each row, and number of plants in each row.

plants spaced 2ft apart = 20 plants per row x 9 rows = 180 plants

36' width

40' length

include 2' on each side for walkway

12

Example for a crop of tomatoes:
 Approximate width of plot = 20'
 Distance between rows = 4'
 Number of rows = 5
 Approximate length of plot = 40'

Distance between plants in each row = 2'
 Number of plants in each row = 20
 Total number of plants = 100
 Square footage = length x width = 40' x 20' = 800 square feet

Your crop: tomato
 Estimated width of your plot: 36'
 Distance between rows: 4'
 Number of rows: 9
 Estimated length of plot: 40'

Distance between plants: 2'
 Number of plants in each row: 20
 Total number of plants: 180
 Estimated square footage: 1,440 square ft.

Crops to Be Grown	Number of Plants	Estimated Expenses (What you will spend)	Estimated Receipts (What you will take in)
tomato	180	\$53.00	\$300.00

Total estimated profit = total estimated receipts - total estimated expenses
 Total estimated receipts: \$300
 Total estimated expenses: \$53
 Total estimated profit: \$247

Signature of member Keri Spring Date 5/1/93
 Signature of parent Melanie Spring Date 5/1/93
 Signature of group leader Brian Ericson Date 5/7/93

13

Your Project Plan

Name _____

Address _____

Draw a picture here of the plot, giving approximate dimensions, distance between rows, number of rows, distance between plants in each row, and number of plants in each row.

Your Cash Account Guide

Expenses

Supplies and Advertising*

Date Purchased	Item	Quantity	Total Cost

* Include here seeds, plants, fertilizer, lime, and similar purchases; also include the cost of advertising.

Equipment*

Date Purchased or Rented	Type	Number of Hours	Cost per Hour	Total Cost

* Include here Rototiller rental and the purchase of hand tools and other equipment. If you used a car, consider the cost of transportation here. Travel costs = _____ miles x \$0.28

Hired Labor

Date Hired	Number of Hours	Cost per Hour	Total Cost

Noncash Expenses

Your Labor

Month	Number of Hours	Cost per Hour (Use minimum wage)	Total Cost

Volunteer Labor

Date	Number of Hours	Cost per Hour (Use minimum wage)	Total Cost

Receipts

Date	Crop	Amount Sold/ Donated/Shared	Price per Unit Sold	Total Sales Price

Total Receipts = _____

How Do I Prepare Produce for Sale?

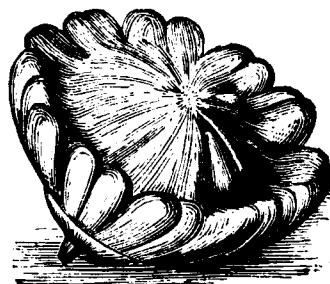
You have spent time, energy, and money preparing for the day you sell your produce. When that time comes there are several steps to follow for a successful outcome. Refer to the guide *Vegetable Fare* for information about harvesting and displaying specific vegetables.

Harvest

Harvesting your crop can be very time consuming, so you will need to plan ahead. The best time to harvest is early in the morning, when the air is cool. If you have a lot to pick and cannot finish before daily selling begins, you may have to harvest the evening before. Remember that crops such as snap beans, pickling cucumbers, and strawberries take a lot of time to pick.

The produce you select for market should not be bruised or damaged by pests. It should be mature, but not overripe. Remove produce that is too mature so the plants continue to produce fruit. You can save overripe or damaged produce for your own use or share it with harvest helpers.

Some containers are better than others for harvesting. A good container for picking has an open top, is durable and easy to clean, and protects produce from bruising. You should be able to lift and carry it easily. A 5-gallon plastic pail, for example, would work well for string beans but not for strawberries. Small baskets or pulp cartons are



best for strawberries, but much too small for peppers or tomatoes.

Decide which container best matches your crop, and get as many as you need ahead of time. Supermarkets are a good source of boxes and pails, but you will need to place a special order for baskets and strawberry cartons.

Some examples of commonly used commercial containers are listed below by the produce they hold. You can find some, such as wired-bound crates, at supermarkets. Often, managers are glad to get rid of used containers. The names of the containers will be new to you, but knowing them will help you describe what you are looking for.

asparagus—pyramid crates

snap beans—wired-bound crates, semitelescope cartons

broccoli—half cartons

cabbage—1 $\frac{3}{4}$ -bushel crate

carrots—bags or burlap sacks

celery—wired-bound crates

cucumbers—1 $\frac{1}{9}$ -bushel cartons or wired-bound crates

lettuce—1 $\frac{1}{9}$ -bushel wired-bound crates

onions—sacks

parsley—bushel baskets

tomatoes, cherry—baskets

tomatoes—3-layer lugs and cartons, tray pack

The quicker you pick the crops, the sooner they can be sorted and stored. Try to enlist help from family and friends when harvest is at its peak.



Storage

Produce that is moved rapidly into a cool area after harvest stays fresh and lasts longer. Produce left in the field for even short periods warms up to temperatures that can be damaging. Although a cooler or a spare refrigerator is ideal, a cellar, a garage, the north side of the house, or a shady back porch works well. Sort the harvest in this area, not in the heat of the field.

Grading

Remove bruised, low-quality produce, which looks unappealing and may cause spoilage. Established grading standards exist for most produce. Sort your harvest into

uniform sizes and grades so buyers can select produce of their choice.

You may have noticed that some roadside markets offer fruits labeled “utility” and “fancy.” This benefits the customers because they can choose a suitable price and fruit quality, and it helps the seller by moving along produce of lesser quality. Do not, however, offer your customers fruit that is obviously damaged or spoiled.

Preparation

Remove soil from root crops. Sort through produce often to check for poor-quality fruits. Spray water on leafy greens, beet tops, and carrot tops to keep them crisp. Keep them lightly moist for freshness, but not wet.

Packing

A good container for taking your produce to market protects the produce and can be stacked and easily handled. Cardboard boxes work well, and most supermarkets are glad to get rid of them. Wooden crates also are good for this purpose, but they are harder to find. Check at local markets for produce boxes, which are ideal.

Display

Merchandising is an important part of promoting your product. The boxes, pails, or bags you used in the field and for transport are not suitable for sales. The container should hold a known weight or volume; protect the contents from bruising; be able to be stacked; and look attractive. Here is where you can use your imagination to create an attractive display. Check a local roadside market or farmers’ market for ideas.

Fruit and vegetable vendors have found that the following containers look pleasing and are durable as well. Examples of some vegetables and fruits they hold are listed, but do not limit yourself to these if you have your own ideas.

1-pint or 1/2-pint basket — raspberries

1-quart basket—strawberries, peas, radishes

2-quart basket—beans, new potatoes, pickling cucumbers, onions

4-quart basket—beans, pickling cucumbers, potatoes, tomatoes, peppers

8-quart basket —any of the above and bulkier vegetables such as gourds and squash

meat or cookie tray —broccoli, corn, greens, carrots, beets

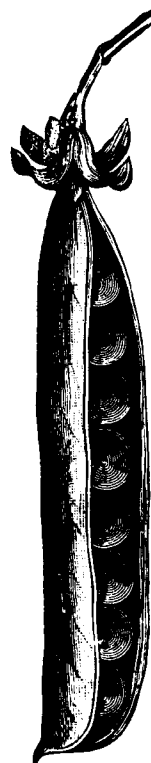
Use attractive containers and display your produce so that customers can see (and touch and smell!) your wares. You can purchase baskets or “dress up” dish pans, boxes, cartons, and other containers with brightly colored permanent markers or paints. Your customers will be pleased with a tidy, creative display. The homemade touch may turn out to be one of your best marketing tools!

Some marketers offer samples for tasting or viewing to boost sales. For example, tear down the husks on some ears of corn so customers can see how mouth watering they look.

Customers generally take produce home in flat-bottomed paper bags, which you should supply. Pack bags three-fourths full to allow for ease of carrying and ensure fewer spills. As a general guideline, a large grocery bag holds 1/2 bushel and works well for vegetables such as

potatoes and corn. A lightweight grocery bag holds about a peck and is suitable for a wide range of produce, including tomatoes, potatoes, corn, beets, green beans, and peppers. Small sacks are best for vegetables such as radishes and peas. Customers will expect to take berries home in the baskets in which they are displayed because they may bruise in a bag.

Family, neighbors, and friends are your best source of bags. You can ask people to save baskets and other containers, too. Once the word is out that you want to reuse containers and bags, you’ll probably receive more than you’ll ever need! Save them throughout the year.



Price: How Much Is Enough?

The price that people will pay for your produce depends on the quality of the product you are selling, your reputation, what your competition is charging, and how badly the customer wants the product. A low price doesn't always guarantee that more people will buy it, and a price that is too low will not bring you any earnings. In fact, sometimes you will find that produce will sell better if you set the price at the upper end of what people are willing to pay. If your prices are too high, however, people will buy from someone else.

To help you decide what to charge, check local prices for the same produce. What are other vendors charging for the same, or a similar, product? Read grocery store ads. Also, know what is in season. For example, dayneutral strawberries can demand a high price when

strawberries aren't usually available. Some customers might be willing to pay two or three times more for a pint of strawberries in October than they would in June.

Price is important because it directly affects your profit. Profit is figured as total revenue minus total cost. Use the Cash Account Guide to figure your costs, revenue, and profit.

Price x Quantity Sold = Total Revenue (money you took in from sales)

Total Revenue - Total Cost = Profit



Promotion: How Can I Interest People in My Produce?

Even the smallest business has to let people know that their product is ready and available. Advertising is a way to inform potential customers about your produce and to get them interested in buying it. People like to know what makes your product unique. They may prefer pesticide-free produce, for example, and even seek it out. They may like the way an ad looks, or be influenced by a catchy phrase. The fact that you are raising the crop as a youth project may influence them. Brainstorm with the others in your group and with your family to get original ideas for advertising.

There are several ways to advertise. Remember to add the cost of advertising to your expense records.

Advertising Methods

Signs are easy to make and catch the immediate attention of passersby. Paper and permanent markers or paint are all it takes to create them. Be sure to make your letters large enough so people can see them from the road. Don't use too many words; be concise and to the point.

Many roadside marketers do not put prices on their signs. Use color and imagination to create interest. Some very attractive signs simply suggest the crop that is offered for sale. For example, if you are selling strawberries, you may want to paint a huge strawberry—which says everything your customers need to know.

An easy way to advertise to customers that you know is to phone them. You can simply say, "My pick-

ling cucumbers are ready, and they are beautiful!"

Delivering cards or fliers to neighbors and friends is another good way to advertise.

Probably your best advertisement will be word-of-mouth. Don't underestimate the importance of establishing a good reputation.

Newspapers are often used for advertising. Look in your local paper, especially during the growing season, for display advertisements. They are fairly large in size and frequently contain announcements about crops that are just coming into season, such as asparagus, strawberries, or pumpkins.

Classified ads are smaller, more affordable means of letting people know your produce is ready. Many newspapers have a special classified section for produce, pick-your-own operations, and roadside stands. Newspaper advertising can be expensive, so first determine if it is worth it.

Some growers use mailing lists to announce when a crop is ready. To use this method you will need to develop a list of customers. Ask current buyers if they want to be on a mailing list, then mail them an announcement when your next crop is ready. Managing a mailing list takes time, however, and postage charges can eat into your profits.

Radio advertising is also effective but expensive.

Because advertising can be a costly part of your project, consider getting together with others in your group to create and pay for an ad that briefly describes what you are doing. People will very likely be interested in your project and in purchasing your produce.

The Best Tomatoes— Homegrown by 4-H Members!

Help Send Us to College.

Purchase Our
Flavorful Produce
in the Following Locations
Now through September 15:

Farmer's Market—Saturday Mornings

Joe's Grocery, 215 Court Street

Produce Stand at Corner of County
Line Road and Route 52

A sample ad

The Art of Selling

Have you ever known someone who was so friendly, so eager, and so “smooth” that it seemed they could sell anything, from candy bars to newspapers? That person had mastered the art of selling. Anyone can learn to sell with a little practice and a lot of enthusiasm.

Know What You Are Selling

First, you should always be able to talk about what you are selling. How can your product make your customer's life more enjoyable? Are your raspberries so delicious that they make the best topping for ice cream you've ever had? A little extra information may persuade a customer to buy from you. Honest, convincing facts about nutrition, for example, may be a selling point. Customers may be interested in learning how your goods were grown. If you used raised beds, practiced organic gardening, or planted by the phases of the moon as your great-grandfather did, talk about it!

Show People That You Like Them

Even if you happen to be in a bad mood on market days, you cannot show it. Always be courteous and considerate to customers. Be friendly, and find out what your customers want by asking them. Whatever you wear, keep your appearance neat and attractive. There are times when you may feel awkward, especially when customers ask questions. But if you appear

busy (even when you're not) and helpful, you are much more likely to sell your produce than if you disappear from sight.

If you talk to buyers on the phone, remember that a pleasant, friendly voice makes a lasting impression. Note their name, so when you call back you can address them by name.

Use Good Selling Methods

Have you ever walked into a store and found that the salesperson is in the back, talking with a friend? You probably felt annoyed at having to wait. Meet customers promptly, and they will be more likely to come back to buy more. Show appreciation for each customer's business. You know how good it feels when someone smiles and says thank you.

Be ready with change for large bills and know how to make change correctly. If a father with a fussy child has to wait while you hunt for change, he probably won't come back.

Think of more ways you can serve your customers. You might suggest: “Have you ever made stuffed peppers? These peppers make the best my family has ever eaten!” Be sure to let buyers know about crops that will be ripening soon and when they will be ready for purchase. Hand out a flier or card that lists the name of your business and the products available. Coupons for a future purchase will keep them coming back too.



Local Laws and Regulations

There are many laws and regulations regarding the selling of produce. They apply mainly to buying produce for resale and to selling prepared and packaged goods such as pies and honey. Bulk displays of unpackaged fresh fruit and vegetables are not subject to grading, packaging, and labeling regulations. If produce is sold by weight, the scales must be checked annually and sealed by an official of the Bureau of Weights and Measures. Therefore, it will be easiest if you sell by volume—that is, by the bag or basket—not by the pound.

It is important to remember that you must be personally clean and follow sanitary practices in handling produce. Pets are not permitted in areas where food is handled. All containers and equipment must be clean and in good condition.

Ask your group's leader to clarify any questions you have about laws.

Reviewing the First Year

At the end of the season, you can put your feet up and take a rest. But even though the physical labor is past, you still have some work to do. This is a time to ask yourself some questions about the season.

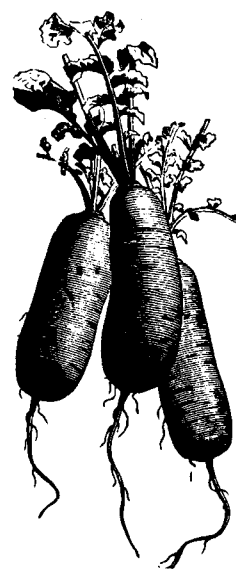
Why didn't some things sell? Ask a member of your family or a valued customer for some constructive criticism—and do not let yourself feel hurt if they give it. Ask them to suggest improvements.

How did customers respond to your attitude? Did you overhear comments about cleanliness, neatness, or appearance?

Which produce was so popular that you couldn't keep it in stock? If buyers asked for products you didn't have, could you provide them next year? Is a more expensive but potentially more effective advertising method worth the risk now?

Review your Planning Calendar. What problems occurred, and how can you solve them next year? Did an unexpected insect problem reduce the quality of a crop, causing you to sell it at a utility or low-grade price? Were you unable to harvest all of a crop because you planted too much? Make note of this year's problems on next year's Planning Calendar so you can prevent them from occurring again. And congratulate yourself on a project well done!

The work sheet "Business Summary" on page 22 outlines your financial accomplishments. It shows you the bottom line of how your business fared—or in other words, how much money you made! Answering the questions will help you evaluate your business and plan for the next growing season.



Business Summary

TOTAL RECEIPTS _____

TOTAL EXPENSES

Supplies and Advertising _____

Equipment _____

Hired Labor _____

Total Expenses _____

PROFIT OR LOSS _____
(total receipts – total expenses)

How does your actual profit or loss compare with your estimated total profit?

How would you change your business next year? What plans do you have?

Why do you think it's important to consider labor costs?

Briefly describe the assistance provided by your parents, other family members, and your group leader; include their help in preparing the land, planting, cultivating, harvesting, and marketing the crop.

It is important for your own records to place a value on produce that you donated (for example to soup kitchens, food pantries), gave away to friends, or used in your household. List your donations and estimate the amount of produce used at home.

Describe the challenges you faced during the production season, such as problems with varieties, insects, diseases, animals, weather, or markets.

Summarize the most important knowledge and skills you acquired in the Radishes to Riches project.

Resources

- Eames-Sheavly, Marcia, and Marvin P. Pritts. 1989. *The Home Fruit Planting*. Ithaca, N.Y.: Cornell Cooperative Extension. (IB156. Available from Resource Center, 7 Business and Technology Park, Ithaca, NY 14850.)
- Jeavons, John. 1979. *How to Grow More Vegetables than You Ever Thought Possible on Less Land than You Can Imagine*. Berkeley, Calif.: Ten Speed Press. (In addition to being a good overall resource, this is an excellent guide for determining spacing. Check for it at the local library.)
- Kline, Roger. 1991. *Vegetable Fare: Displaying Vegetables at Their Best*. Ithaca, N.Y.: Cornell Cooperative Extension. (161-L-14. Available from Resource Center, 7 Business and Technology Park, Ithaca, NY 14850)
- Kline, Roger A., Robert F. Becker, and Lynne Belluscio. 1981. *The Heirloom Vegetable Garden*. Ithaca, N.Y.: Cornell Cooperative Extension. (4-H leader's guide L-10-13. Available from Resource Center, 7 Business and Technology Park, Ithaca, NY 14850.)
- Making Posters*. (Available from the National 4-H Council, Chevy Chase, MD.)
- Rakow, Donald. 1992. *Fabulous Flowers*. Ithaca, N.Y.: Cornell Cooperative Extension. (4-H leader's guide 141-L-9. Available from Resource Center, 7 Business and Technology Park, Ithaca, NY 14850.)
- Swanson, Josephine. 1990. *My Money, Myself*. Ithaca, N.Y.: Cornell Cooperative Extension. (Available from Resource Center, 7 Business and Technology Park, Ithaca, NY 14850.)
- Topoleski, Leonard. 1981. *The Home Vegetable Garden*. Ithaca, N.Y.: Cornell Cooperative Extension. (IB101. Available from Resource Center, 7 Business and Technology Park, Ithaca, NY 14850.)



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