

Farming — A Familiar Way of Life

Theme: Agriculture

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with assistance from

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Subject Areas

Social Studies, Science

Duration

One or two class periods

Setting

Indoors

Skills

Comparing, analyzing, interpreting

Charting the Course

Agriculture has played, and continues to play, a significant role in shaping the lives of the people that live in the region called Down Jersey. Indeed, the rich soil, extensive supply of high quality water, vast areas of open space, and proximity to major markets and ports all contributed to the settlement of the area and the reliance on agriculture and agricultural products for the local economy.

Vocabulary

Agriculture, farm, soil, irrigation, cultivation

Correlation to NJ Core Curriculum Content Standards

Social Studies

6.4 (1)

6.5 (4)

6.6 (2,3,5)

6.8 (2,3,5)

6.9 (2)

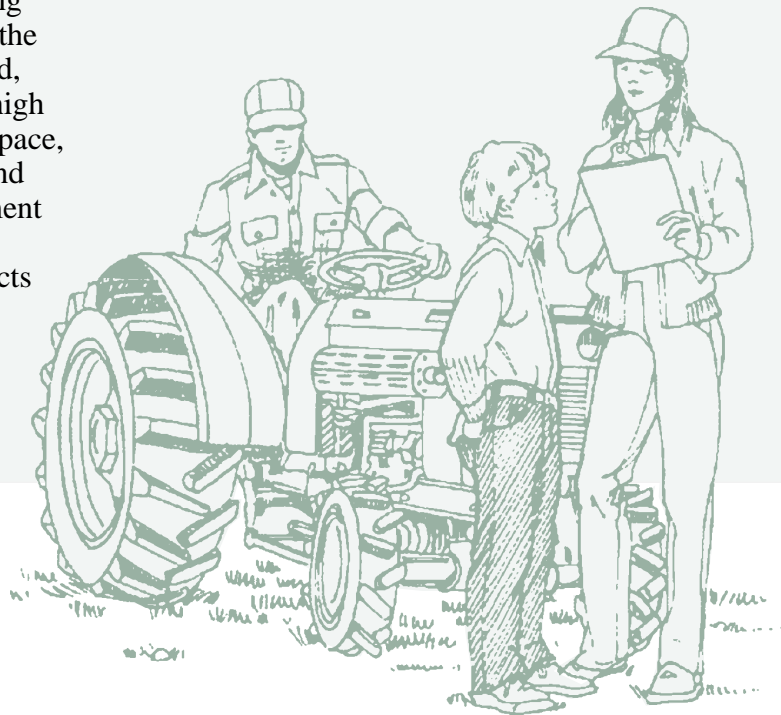
Science

5.4 (2,5)

5.6 (2)

5.10 (2,3)

5.12 (2,3,4)



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■ Objectives

Students will:

1. Compare the agricultural significance of New Jersey by comparing the number of farms by county in 1940 and 1992.
2. Describe the relative role that the Down Jersey region played (and plays) in the agricultural production of New Jersey as determined by the number of farms within the region.
3. List and explain the characteristics of an area that make it suitable for farming and agriculture and relate these criteria to the Down Jersey region.

■ Materials

Flip-chart paper or large pieces of paper for each group of five or six students

Copies of the student worksheet “Down on the Farm”

Art supplies (markers, etc.)

A local phone directory

■ Making Connections

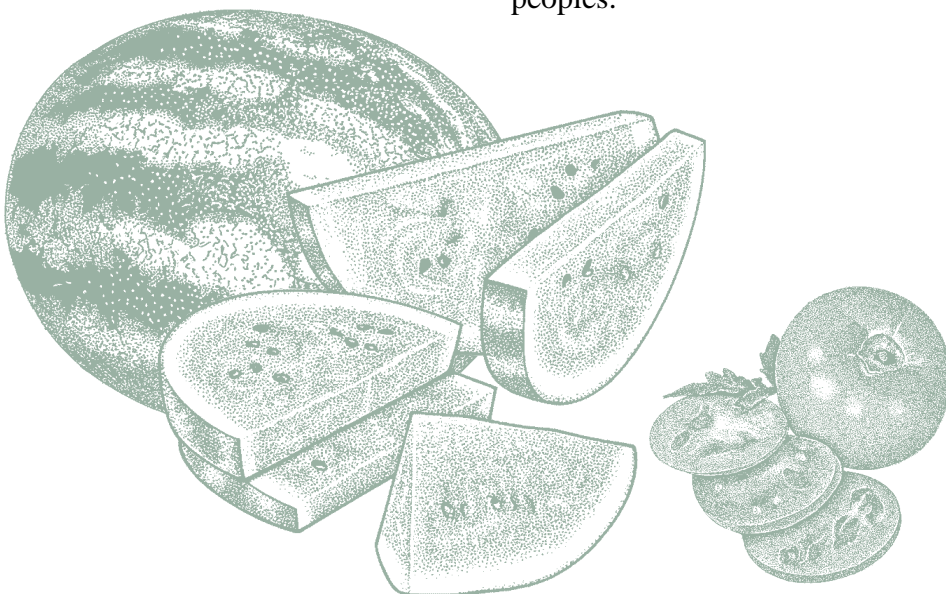
The Down Jersey region has long been known for its role in both agricultural production and innovation. The history of farming and agriculture is well documented and began when the first humans to inhabit the area (the Lenni Lenape) began to inhabit and alter the area for their own sustenance and benefit. Thus began man’s manipulation of the environment for cultivation of crops and plants (and animals) purposefully grown for production. Distinct architectural styles and a variety of farm types have made their mark in the physical landscape of the region. Along with the abundance of farms, came the abundance of workers for planting and harvesting — enter the migrant workers. This influx of people from a range of geographical locations led to a significant number of different nationalities and cultures entering the region and establishing permanent residency. As a result, the region known as Down Jersey represents a true “melting pot” of different peoples.

■ Background

The *Historic Themes and Resources* book devotes an entire Chapter to Agriculture (#4) from pages 57-76.

The following outline is the result of a phone conversation with Mr. Jim Johnson, Cumberland County Agricultural Extension Agent when asked the question: “What makes the region Down Jersey (the southern Delaware Bayshore of Cape May, Cumberland and Salem counties) so conducive to agricultural pursuits?”

First, think about what a farmer needs by thinking about what some plants’ basic requirements are and how they are obtained. Areas are continually modified for agricultural pursuits, but if the right conditions exist already, less work is needed for production, and less money has to be spent for production. Thus, the question of “where” becomes a question of economics for the farmer. After all, the farmer is working hard to grow crops that are profitable. The less augmentation, irrigation, alteration needed, the more profit for the farmer. It makes good business sense to attempt agriculture production that has the most required components for success. A simple discussion could yield these requirements from your students through a brainstorming exercise.



There are some basic requirements of plant growth that need to be provided in order for agricultural pursuits to be successful. They are:

- 1. Good supply of high quality water** — both surface water (streams, creeks and rivers) as well as large supplies of groundwater.
- 2. High quality soil** — light, well-drained (warms up faster and allows for optimum root development.) Also has some areas where the soil is heavy, highly organic, with a lot of clay. The variety of soil types allows for a variety of crops — each with specific soil requirements.
- 3. Temperature fluctuations are moderated** (the proximity to the ocean and bay provides a buffer to extreme temperature changes) Called “heat of fusion,” it can be simply demonstrated by comparing the temperature changes between a cup of wet soil and a cup of dry soil, both in heat and freezing ambient air temperatures.
- 4. The Hardiness Zone** — determines the first frost and the last frost which, in turn indicates the optimum growing season. Cumberland County has the same hardiness zone designated as North Carolina, and therefore has an extended growing season.
- 5. Large expanses of undeveloped, open space for cultivation and agricultural production.**

- 6. Market potential for produce** — the region Down Jersey is uniquely situated in a central location for transporting produce to both northern and southern urban markets. It is said that one in five people in the United States live between Boston and Washington. The southern portion of New Jersey is roughly in the center of this market potential.
- 7. Shipping options** — the accessibility of transportation options for the produce to bring it to the market is provided by roadways (truck farming), railroads, and shipping ports and extensive waterways.
- 8. Preserved foods** have a much longer shelf life and, therefore, a much greater profit is available to the farmer. Canning factories made it possible to have many crops locally processed and preserved for shipping. Freezing techniques were also developed in the region and provided another way to preserve fruits and vegetables for markets.



■ Procedure

Warm Up

Begin this activity by personalizing the discussion about agriculture to have students realize its role in their lives and the importance of fruits and vegetables to their diets.

Option One

Ask students to list the agricultural products that they have utilized and/or consumed so far today. (Even if it is early morning, chances are that your students have consumed cereal, milk and probably some sort of fruit juice.) Explain that all of these items are grown on farms and that they are very important part of our diet. Have students brainstorm a list of things needed to grow plants (or summarize for them from above background information).

Option Two

Ask students if any of them live on a farm. What crops do they grow? Does anyone in their family work on a farm? Did any of them pass a farm on their way to school? Do they know where there are any farms?

The Activity

1. Have small groups of students look through the local phone book for agriculture-related businesses. Farms, nurseries, and orchards, dairy farms, markets, also, canning factories, equipment suppliers, pesticide and herbicide distributors, etc. Have them tally the number of businesses that are locally connected to agriculture and record the different types of

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businesses on a flip chart paper. You may want to generate a list of what types of agriculture-related businesses there are, or you may want the determination of what constitutes such a business to come from the students. In other words, they will probably all look up farms and may think that it ends there. This task may be quite overwhelming, and may need to be shortened, depending on the time you want to spend on this activity.

2. Distribute the “Down on the Farm” worksheet. Have students complete the questions individually. Discuss the results as a class. Has there been a significant change in the number of farms by a county by county basis from 1940 to 1992? Discuss with the class the possible reasons for decreasing numbers of farms in New Jersey. What do they think has happened since 1940?
3. Have the students repeat the activity with the new data available up until 1992. Were their predictions from above correct? What has happened to the number of farms in New Jersey? In the counties in the Down Jersey region (Salem, Cumberland, Cape May)? Have these three counties maintained their status as important agricultural areas? In relative terms, has the loss of farmland been equal throughout the state? Discuss.

Wrap Up

Discuss the importance of farming and agriculture to the economy of the state, the region, county. Reiterate the students’ dependence on farms and agriculture both directly and indirectly.

Action

Visit a local farm, interview a farmer, learn about their local agricultural heritage. Southern New Jersey and the Down Jersey region are renowned for the many roadside farm stands that dot the countryside. Many of these have been family-owned and -operated for many years, and in some cases, for many generations. There are interesting stories to be told about each individual farm and family. For example, DiLuzio’s Farm Market on Route 49 in Tuckahoe is operated by Eddie and Ginny Chiappini (Ginny is the daughter of the original DiLuzio who came from Europe with a plum seed and began the first farm to utilize irrigation in Cape May County). One visit to the market revealed a wonderful sense of place, tradition, and heritage. Mrs. Chiappini would be a wonderful candidate for an oral history project. There are many such examples that abound within the Down Jersey region. Please see the activity entitled *Collecting Oral Histories* in the last chapter of the Cultural and Historical section.

Assessment

Participation in class discussions and group activities. Completion of the two worksheets “Down on the Farm.”

Extensions

- Investigate and research the Farmland Preservation Act and describe how it has helped save farmland in the state. Use the information provided in Chapter 4 of *Historic Themes and Resources* to create a time line that traces the historical role that farming and agriculture played in the development of the region.
- Plan a field trip to a local farm to find out more about how they operate. Contact: New Jersey Agricultural Society, CN 331, Trenton, NJ 08625, or call (609) 394-7766 and ask for the guide called “Person to Person — Farmer to Students” which lists farms and farmers by county with their contact information as guest speakers or tour hosts.
- Create a multimedia school program to showcase, celebrate, and highlight the influence of agriculture in your town, county, region.

Resources

County Agricultural Agents, NJ Agricultural Society, NJ State Department of Agriculture, Local Planning Departments, specific trade organizations and groups (i.e., NJ Ornamental Horticulture Advisory Board, P.O. Box 1888, Trenton, NJ 08625)

From Marsh to Farm — The Landscape Transformation of Coastal New Jersey, Kimberly R. Sebold, U.S. Department of the Interior, National Park Service, Cultural Resources, New Jersey Coastal Heritage Trail.



Down on the Farm

Most of New Jersey has rich soil, good climate, and enough rainfall to grow a wide variety of crops. BUT, farmers need land, lots of land. In a densely populated state, land becomes scarce and very expensive. Most farmers can't afford to buy enough land. They can often make more money by selling their land to builders.

Our maps show the number of farms in each county for 1940 and 1992. The message is clear!

Let's begin by understanding the symbols:

According to the key, how many farms does one "farmer" stand for? _____

How many farms would 2 "farmers" represent? _____

How many farms would 3 "farmers" represent? _____

Draw the symbol to show that a county had only 5 farms:

KEY

 = 200 farms

 = 100 farms

 = less than 50 farms

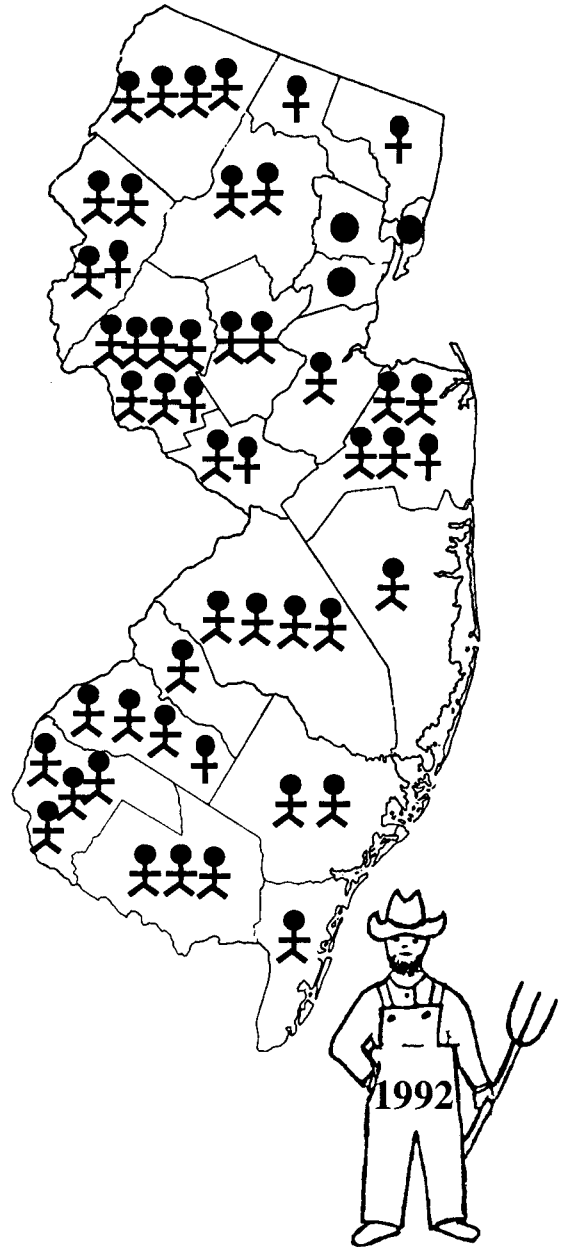
Underline the answer to each question:

- How many farms did Cape May have in 1940?
 - 200
 - 400
 - 2,000
- How many farms did Bergen County have in 1992?
 - 200
 - 10
 - 100
- How many counties had 1,000 or more farms in 1940? (Hint: one thousand farms would be represented by 5 "farmers.")
 - 4
 - 13
 - 1
- How many counties had 1,000 or more farms in 1992?
 - 1
 - 10
 - 5
- From 1940 to 1992 the number of New Jersey farms has
 - increased.
 - decreased.
 - stayed the same.
- We can learn a lot about farming in New Jersey from these maps; but **NOT** everything. Underline the things that these maps **DO NOT** tell:

- size of each farm
- where good soil is found
- farm products
- county populations
- number of farms in each county
- counties with few farms
- number of farms in colonial New Jersey
- exactly** the number of farms in 1992 for Hudson County



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You'll need a crayon to complete numbers 7 and 8. Any color is fine. Use the same color for both questions.

7. On the map of 1940, color the 3 counties with the greatest number of farms.

8. On the map of 1992, color the 3 counties with the greatest number of farms.

(In case of a tie, you will need to color more than 3.)

This is an activity from our 64-page New Jersey Map Skills activities text, *A-Mapping We* WJL Co. 1997