

Agricultural Products of Florida

Florida Ag in the Classroom

Agricultural Products of Florida

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Florida Ag in the Classroom



Agricultural Products Of Florida

Unit Overview

Grade Levels - Middle School
**Subjects - Science, Social Studies,
Math, Language Arts**

Unit Description: *Agricultural Products of Florida* will help students examine the significant role agriculture plays in Florida's economy. They will explore the dairy business and milk processing by actually producing butter, ice cream, yogurt and cheese. They will explore breeds of cattle on the Internet. Students will also read and create graphs and complete tables of real-life data about the business of dairy, crops, livestock, honey, horticulture, peanuts, cotton, and sugar cane.

Sunshine State Standards:

| | |
|------------|------------|
| LA.A.1.3.4 | SC.A.1.3.6 |
| LA.A.2.3.5 | SC.G.1.3.3 |
| LA.A.2.3.6 | SC.G.2.3.2 |
| LA.A.2.3.7 | MA.A.1.3.2 |
| LA.B.1.3.2 | MA.A.3.3.2 |
| LA.B.2.3.4 | MA.A.4.3.1 |
| LA.C.2.3.1 | MA.D.1.3.1 |
| LA.C.3.3.1 | MA.D.1.3.2 |
| LA.C.3.3.5 | SS.A.1.3.2 |
| LA.D.2.3.5 | SS.B.1.3.1 |
| SC.A.1.3.1 | SS.A.2.3.3 |
| SC.A.1.3.5 | |

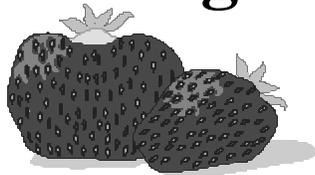
Objectives: The students will:

1. identify the significance of agriculture to Florida's economy.
2. analyze Florida's livestock cash receipts by creating graphs about the production and value of Florida's field crops.
3. recognize the importance of dairy in Florida.
4. identify the five major breeds of dairy cattle.
5. identify the steps of the milking process.
6. identify various breeds of beef cattle and recognize the impact of the beef industry to Florida's economy.
7. define ruminant and describe why a ruminant animal can live off of grass and humans cannot.
8. describe the important role broiler production has in Florida.
9. calculate the space needed to adequately raise broiler birds.
10. determine the different characteristics used for grouping and naming plants with common and scientific names.
11. identify native trees of Florida.

Pre-Tests/Post-Tests:

Many lessons have pre- and post-tests for your utilization.

Florida's Agricultural Cash Receipts



Florida Ag in the Classroom

Mathematics, Social Studies, Language Arts

Agricultural Products of Florida - Lesson #1

Brief Description: Students will examine the economic importance of agriculture to the state of Florida by examining and manipulating data in several ways. *Florida's Agricultural Cash Receipts* will analyze the production and value of Florida's field crops, Florida's livestock cash receipts, and dairy products.

Objectives: Students will be able to:

- ❶ identify the significance of agriculture to Florida's economy.
- ❷ interpret agricultural data to create line graphs and histograms (bar graphs).
- ❸ construct line graphs to show variations in livestock cash receipts.
- ❹ create a pie chart of livestock cash receipt percentages.
- ❺ choose the appropriate operation, multiplication or division, to complete the data of field crops.

Life Skills:

- ❶ Problem Solving Skills
- ❷ Understanding Systems
- ❸ Analyzing Information



Sunshine State Standards:

MA.A.1.3.2 - understands the relative size of integers, fractions, and decimals; numbers expressed as percents; numbers with exponents; numbers in scientific notation;

MA.A.3.3.2 - absolute value; and ratios.
selects the appropriate operation to solve problems involving addition, subtraction, multiplication, and division of rational numbers, ratios, proportions, and percents, including the appropriate application of algebraic order of operations.

MA.D.1.3.1 - describes a wide variety of patterns, relationships, and functions through models, such as manipulatives, tables, graphs, expressions, equations, and inequalities.

SS.A.1.3.2 - knows the relative value of primary and secondary sources and uses this information to draw conclusions from historical sources such as data in charts, tables, graphs.

LA.A.2.3.5 - locates, organizes and interprets written information for a variety of purposes, including classroom research, collaborative decision making and performing a school or real-world

| | | |
|------------|---|---|
| LA.A.2.3.6 | - | task. uses a variety of reference materials, including indexes, magazines, newspapers, and journals, and tools including card catalogs and computer catalogs to gather information for research. |
| LA.B.1.3.2 | - | drafts and revises writing that has support that is substantial, specific, relevant, concrete, and/or illustrative. |
| LA.B.2.3.4 | - | uses electronic technology including databases and software to gather information and communicate new knowledge. |

- Make transparencies (3) of *Agriculture in Florida*.
- Make copies of *Florida's Livestock*, and *Florida's Field Crops* activity sheets, 1 set for each student.

Background:

Agriculture is Important to Florida's Economy

Agriculture is the leading industry of the United States. It accounts for almost 20 percent of the Gross Domestic Product (GDP) of the U.S., according to the United States Department of Agriculture (USDA). Florida's agricultural industry makes a significant contribution to that productivity. Agriculture is the second leading industry in Florida, second only to tourism. Florida's agriculture accounts for over 200,000 jobs with an economic impact of more than \$53 billion.



Florida is the ninth ranked state in overall agricultural production in the U.S.

Florida leads the nation in the production of citrus, bell peppers, cut ferns, eggplant, fresh snap beans, escarole/endive, foliage, fresh cucumbers, fresh squash, gladioli, grapefruit, houseplants, oranges, sweet corn, radishes, sugar cane, tangelos, tangerines, tropical fish, watermelons, and fresh tomatoes. It is second in the production of vegetables and horticultural products, and ranks fourth in the production of all agricultural

Materials:

- Copies of *Florida's Agricultural Cash Receipts* (3 pages), *Florida's Livestock*, and *Florida's Field Crops* activity sheets, 1 set for each student
- Transparencies of *Agriculture in Florida*
- Pencils/pens
- Paper (several sheets per student)
- Graph paper (several sheets per student)
- Rulers
- Calculators for each student

Time: Activity One:

45 to 60 minutes

Activity Two:

Two, 45 to 60 minute class periods

Activity Three:

Two, 45 to 60 minute class periods

Preparation:

- Make double-sided copies of *Florida's Agricultural Cash Receipts* activity sheets for each student.

crops. This led to farm receipts totaling \$6.68 billion in the sales of agricultural products last year.

Impact on the Nation

Florida produced more than 20 percent of the nation's fresh vegetables, 95 percent of the nation's tropical fish, 100 percent of the nation's tangelos, 100 percent of the nation's temple oranges, 70 percent of the nation's eggplant, 68 percent of the nation's oranges, 52 percent of the nation's bell peppers, and 53 percent of the nation's sugar cane. Florida has been the nation's leading citrus producing state for more than 100 years. According to the USDA, 11 Florida counties rank in the top 50 nationally in the value of the crops they produced. Palm Beach County ranked 3rd nationally, with gross agricultural receipts of \$961,366,000. Florida exported more than \$1,103,400,000 in farm commodities last year. This has a significant impact on the balance of trade for the U.S.

Products

Dairy animals produce dairy products, such as fluid milk, ice cream and butter. Beef animals produce meat products, such as steak and hamburger. Dairy cattle produce **fluid milk** and **dairy products**. Dairy products have played an important role in the history of America since 1611, when the first cows were brought to Jamestown, Virginia.

Fluid Milk

Most of the milk produced in Florida, is used for fluid consumption. Some plants, such as Publix Processing Plant in Lakeland, take the milk they are delivered and turn it into products such as sour cream, ice cream, yogurt, frozen yogurt and cottage cheese. Hard cheese, (i.e. cheddar) however, is a product that is not made in Florida.

Production Animals

Production animals are raised for our **consumption**. Production animals are those that make something of value (meat, milk, eggs, wool, etc.). Therefore, production animals provide a great deal of the food and clothing that we consume and use. There are numerous food products that are made by using animal products as well. For example, cakes are made by using eggs from chickens. By-products are items that we get as a result of the production of something else. For example, cattle are raised for meat but we get the by-product leather from the hide of cattle. In other words, cattle are not raised for leather.

Products from Processing

Processors can make many different grain, fruit, vegetable, meat, and dairy products. Hotdogs, sausages and luncheon meats are examples of processed meats. Milk, yogurt, cottage cheese, cream cheese, butter, ice cream, and hard cheeses are dairy products. Breads, cereals, pastries, cake mixes, and cookies are grain products. Oils are also extracted from grain

crops: corn oils, soybean oil, safflower oil, olive oil, sunflower oil, peanut oils, canola oil, and coconut oil are examples. Fruits and vegetables are also processed into many forms. Foods are also made using plant and animal by-products. Check the ingredient statements on different human and pet food labels to see what animal products are used.

Other Types of Harvesting

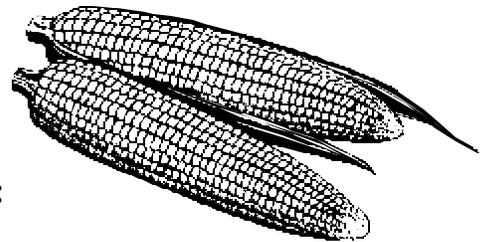
Harvesting milk, wool and eggs or plant products differs. There are several steps involved in the milking process. Dairy cattle are generally milked two or more times per day to increase milk production. Therefore, the farmer tries to be as efficient as possible. As was explained earlier, several processes must occur before we actually get milk for our consumption.

Wool is obtained through shearing or clipping the sheep. Wool is then washed in soapy water, rinsed and dried, and then spun into yarn and sent to clothing manufacturers. Eggs are collected and sent through a machine to be washed, then sprayed with a light oil to prevent bacteria from entering the pores and to improve quality. They are graded (sorted by size) and packaged. Eggs that are broken and those that are not to be used as shell eggs are sent to a breaker operation, which uses the eggs in baking and other prepared food items.

Field Crops

Field crops cover a broad array of plant

production. They are generally annual plants that are planted each year in rows. These crops may be raised for animal feeds or for human food. They include forage crops such as alfalfa; corn for silage; and grass for hay. Field crops also include peanuts, small grains (wheat and oats), soybeans and corn. They are generally those crops that are processed into other goods before being marketed and are highly mechanized in their production and harvesting.



Activity One:

Introduction

1. Ask the class:

Have you ever thought about what keeps Florida's economy going? *(Answers will vary.)*

There are three economic legs on which Florida's economy stands and prospers. Do you know what they are? *(Tourism, Construction, Agriculture)*

2. Ask the class:

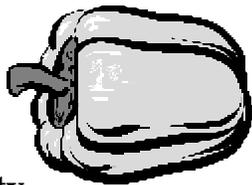
What is agriculture?

Have them give their thoughts and write them down on the chalkboard.

Let's define it and include what you have brainstormed. *(Agriculture is the total food and fiber system. Agriculture is the science and art of cultivating soil, growing crops, and raising livestock to produce food,*

natural fibers, fuels, flowers, turf, pets, pharmaceuticals, wood products, industrial products from biological sources, and meet recreational needs. It also includes the businesses, industries, and organizations that provide input, support and technology to accomplish the production, and management of the items listed above, and provide those items to the consumer.)

3. Share that Florida is the nation's 9th leading agricultural state, with annual farm cash receipts totaling nearly \$6 billion. Today, you will look at data of Florida's agricultural cash receipts from the past century.



Activity

1. Using transparencies 1 through 3 give an overview of the importance of agriculture to Florida's economy.
2. Hand out ***Florida's Agricultural Cash Receipts*** activity sheets.
3. Instruct students to follow the directions at the top of page 1 and complete the questions.
4. Discuss the information with the class by asking:
What did you learn about Florida's economy from this activity?
(Answers will vary.)

Were you surprised by how much money agriculture contributes to Florida?

(Answers will vary.)

What agricultural products are included in the **cash receipts**?
(**Citrus:** grapefruit, lemons, limes, oranges, tangelos, tangerines, temples;

Vegetables, Melons, and Berries: blueberries, cabbage, carrots, cucumbers, eggplant, escarole, green peppers, lettuce, potatoes, radishes, snap beans, squash, strawberries, sweet corn, tomatoes, watermelons, others;

Other Fruits and Nuts:

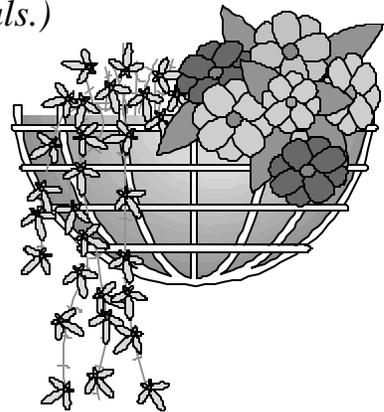
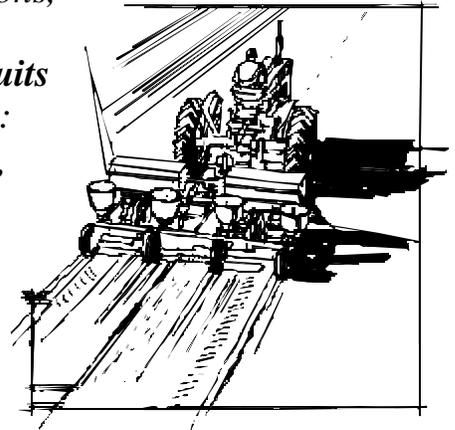
avocados, mangos, pecans, others;

Field

Crops:

corn, cotton, hay, peanuts, soybeans, sugarcane, tobacco, wheat, etc.;

Greenhouse/Nursery: floriculture, ornamentals.)



What agricultural products are considered part of the **livestock** cash receipts?

(Milk, Cattle/Calves, Poultry, broilers, eggs, others)

Miscellaneous: catfish, hogs, honey, sheep/lambs/wool, others.)

5. Have the students seek the most current information at the Florida Department of Agriculture and Consumer Services website.

Activity Two:

Introduction

1. Ask the class:
When you hear the word 'livestock,' what do you think of?
2. Make a list on the board of what students consider to be 'livestock.'
3. Explain that Florida's livestock industry includes dairy, beef cattle, broiler chickens, laying hens, horses, goats, sheep, aquaculture products, and honey production. Today, you will take a closer look at the contribution of five of these industries to Florida's economy.

Activity

1. Hand out copies of *Florida's Livestock* activity sheet. Make sure the students have pencils, graph paper, rulers, and calculators.
2. Instruct students to complete the activity sheet drawing their line graphs on a blank sheet of graph

paper. You may want to stress the importance of titling charts and labeling the x and y-axis.

3. When students finish, discuss the correct answers with them by asking these questions:

What is the largest contributor to livestock cash receipts and what percent did it contribute? *(Milk production, 38.36%)*

By looking at your line graphs, describe the increases or decreases milk had in cash receipts from 1993 to 1998. *(Milk cash receipts had a high in 1996 and saw increases and decreases from 1993-1998, with the low in 1995.)*

What did your line graph tell you about cattle and calf cash receipts for 1990 to 1995? *(Cattle and calve cash receipts had a high in 1993, decreasing in 1994, 1995 and 1996; 1997 showed an increase from the previous two years, but receipts decreased again in 1998. The lowest year for income was 1996.)*

Since cash receipts were lowest in 1996, does that mean production was also lowest in 1996? *(No, Florida still had its largest number of brood cows since 1983 and its second largest calf crop (1.040 million) since 1987. However, declining market prices dropped the total cash receipts to its lowest since 1986 and third lowest*

in 15 years. In fact, the average price of Florida calves fell to nearly 71 cents a pound; the lowest in eight years.)

What does your graph indicate about the cash receipts of chicken and eggs during 1990-1995?

(Chicken and egg cash receipts were relatively steady from 1993 - 1994, with a slight decline in 1994. 1995 and 1996 brought a significant increase. 1997 was a stable year maintaining the increased value of the previous inclines. 1998 saw another increase in the value of receipts.)

What have the cash receipts for hog production done since 1993?

(Cash receipts for hogs saw a steady decrease from 1993 through 1995, with low cash receipts in 1995. 1996 saw a dramatic increase in cash receipts, almost back to 1993 levels. Then a drastic decline occurred in 1997 and an even steeper decline in 1998.)

Do you know why cash receipts for hogs continue to decrease?

(Cash receipts continue to decrease due to a decrease in the number of hogs on Florida farms; 1998 produced an all-time low in the number of hogs on farms, beating the previous all-time low in 1995.)

How have the cash receipts for honey fluctuated over the six-year span indicated?

(Honey saw a decrease in 1994, but honey value rose in 1995 and rose dramatically in 1996 to see a steep drop in 1997, with the low coming in 1994. 1998 saw an increase from the previous year, but did not bring the receipts back to the 1996 levels.)



If you produced a pie graph for each of these years from 1993 - 1998, how much would they differ? *(They would differ slightly in some cases and greatly in others. Only milk would remain relatively stable.)*

Why do these figures vary so much from year to year? *(weather, market prices, producer decisions that affect supply)*

Activity Three:

Introduction

1. Ask the class:
How many of you like peanuts?
What type of products are peanuts used to make? *(Answers will vary.)*

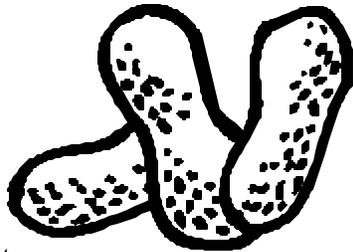
Do you know in what products soybeans are used? *(cooking oil, tofu, candy bars, soy sauce, high protein drinks and bars, etc.)*

How about sugarcane, what are some of the products in which you can find sugarcane? (*any product that contains sucrose*)

2. These crops, plus several more, make up Florida's field crops. Florida's field crops are the following: corn, cotton, hay, peanuts, soybeans, sugarcane, tobacco, and wheat. Today you will look at the value some of these field crops bring to Florida's agriculture.

Activity

1. Hand out *Florida's Field Crops*



activity sheet.

Make sure students have calculators, paper and pencils.

2. Instruct students to complete section **A** by finding the missing information in the tables that show the production of peanuts, cotton, corn, and sugarcane.
3. Next have them create graphs as instructed in section **B**; then have them answer the questions found in section **C**.
4. Review and discuss the correct answers with students by asking these questions:

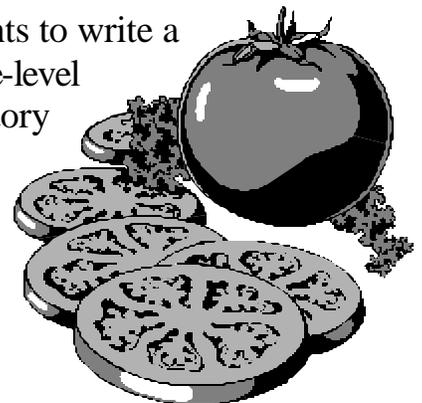
What distinguishes field crops from other vegetable crops? (*Field crops are row crops that are processed into many other products.*)

Why is corn considered a field crop? (*Corn is grown as silage that is fed to cattle or grown for grain, which is used in a variety of products, including cattle, horse and hog feed, and human products, such as taco shells, corn flakes, and tortilla chips.*)

What did the graphs show you about the crop value of corn and the production of peanuts from 1993-1998? (*Answers will vary.*)

Alternatives or Variations:

1. Have the students research a single commodity using the Internet and the Florida Department of Agriculture and Consumer Services Website listed in the reference section, and write a report on its significance to Florida's economy, graph the last several years of production and include facts important to its future in Florida.
2. Have the students create graphs and charts on single commodities from the data given. Manipulate it in various ways.
3. Challenge students to decide what they would eat or wear if there was no agriculture industry.
4. Instruct students to write a creative, grade-level appropriate, story describing how they would picture the

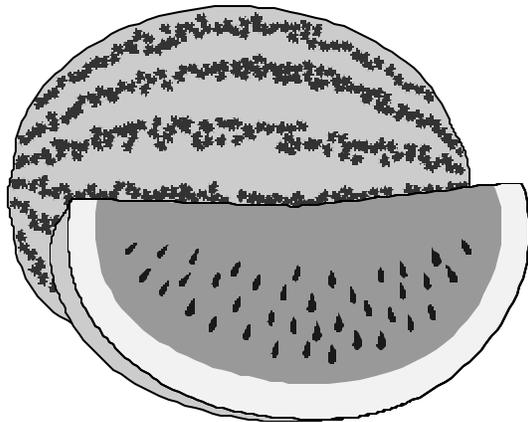


state of Florida without agriculture.

5. Have students research to find the field crops that are grown in their county and nearby counties and write a report, complete with graphs.

Evaluation Options:

1. Utilize the completion and accuracy of assigned work to assess understanding of content and ability to perform operations.
2. Select a set of data from one of the charts, have students create the most appropriate graph to display the information for easy comprehension.
3. Have students research the most current data at the Florida Department of Agriculture and Consumer Services website and create a report on the current trends of Florida's agricultural production.



Resources:

1. The Florida Department of Agriculture and Consumer Services, at The Capitol, Level 10, Tallahassee, Florida, 32399-0810.

Website <http://www.fl-ag.com> can provide most up-to-date statistics.

2. National Agricultural Statistics Service (NASS) of the United States Department of Agriculture (USDA) can provide additional information and comparisons to other states and countries. They can be accessed through the Florida Department of Agriculture and Consumer Services website or directly through <http://www.nass.usda.gov/fl>, once at the site, select publications and then the commodity you seek.

Notes:

TM - 1

Agriculture in Florida*

**9th Ranked State in Overall Agricultural
Production**

1st Ranked State in Citrus Production

**2nd Ranked State in Production
of Vegetables**

**2nd Ranked State in Production
of Horticultural Products**

**4th Ranked State in the Production
of All Agricultural Crops**

**\$6.68 Billion Sales
of Agricultural Products**

* 1999 Florida Agriculture Facts, Florida Department of Agriculture



Florida led the nation in the production of:

Bell Peppers

Cut Ferns

Eggplants

Escarole/Endive

Foliage

Fresh Cucumbers

Fresh Squash

Fresh Snap Beans

Fresh Tomatoes

Gladioli

Grapefruit

Houseplants

Oranges

Radishes

Sugarcane

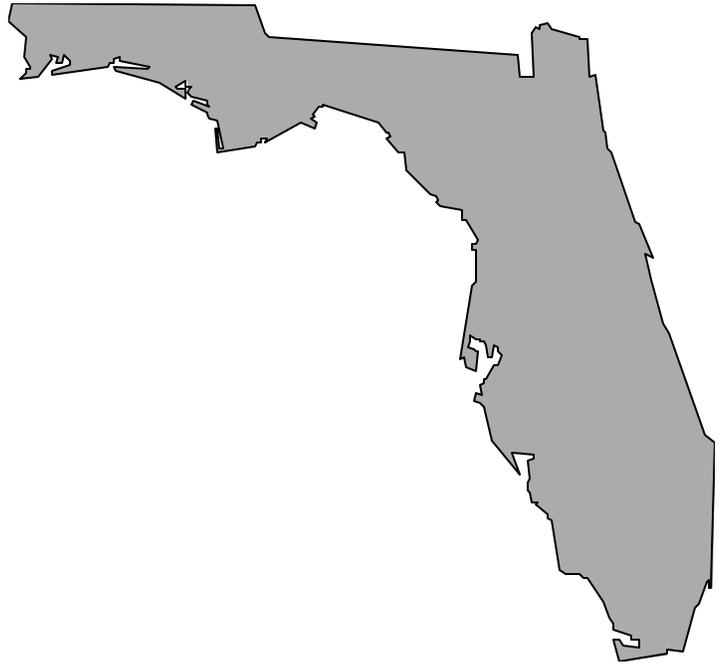
Sweet Corn

Tangelos

Tangerines

Tropical Fish

Watermelons



TM - 2

Florida Produced More Than:

100% of the Nation's Tangelos

100% of the Nation's Temple Oranges

95% of the Nation's Tropical Fish

70% of the Nation's Eggplant

68% of the Nation's Oranges

64% of the Nation's Grapefruit

64% of the Nation's Escarole/Endive

53% of the Nation's Sugar Cane

52% of the Nation's Bell Peppers

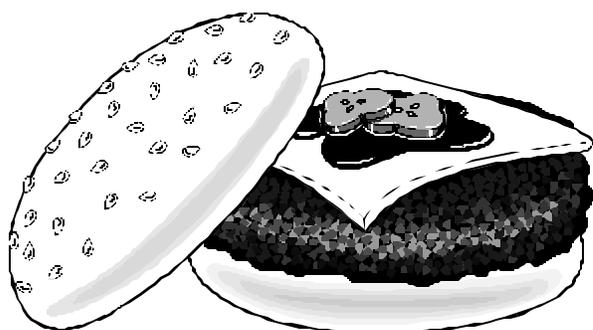
20% of the Nation's Fresh Vegetables TM - 3

\$ Florida's Agricultural Cash Receipts* \$ by Years \$

| Year | Total Crops | Total Livestock | Total Cash Receipts |
|-------------|--------------------|------------------------|----------------------------|
| 1998 | \$5,354,616,000 | \$1,331,740,000 | \$6,696,356,000 |
| 1997 | \$5,115,136,000 | \$1,324,880,000 | \$6,441,016,000 |
| 1996 | \$5,079,841,000 | \$1,228,739,000 | \$6,308,580,000 |
| | | | |
| 1995 | \$4,850,299,000 | \$1,134,378,000 | \$5,984,667,000 |
| 1994 | \$4,854,453,000 | \$1,194,603,000 | \$6,049,056,000 |
| 1993 | \$4,866,884,000 | \$1,211,505,000 | \$6,078,389,000 |
| 1992 | \$4,973,212,000 | \$1,165,874,000 | \$6,140,095,000 |
| 1991 | \$4,972,810,000 | \$1,171,626,000 | \$6,144,436,000 |
| | | | |
| 1990 | \$4,442,594,000 | \$1,258,961,000 | \$5,701,555,000 |
| 1989 | \$5,021,374,000 | \$1,218,705,000 | \$6,240,079,000 |
| 1988 | \$4,688,987,000 | \$1,146,040,000 | \$5,835,027,000 |
| 1987 | \$4,207,362,000 | \$1,100,854,000 | \$5,308,216,000 |
| 1986 | \$3,747,156,000 | \$1,030,336,000 | \$4,777,492,000 |
| | | | |
| 1985 | \$3,762,770,000 | \$1,030,336,000 | \$4,793,106,000 |
| 1984 | \$3,631,205,000 | \$1,098,633,000 | \$4,729,838,000 |
| 1983 | \$3,536,267,000 | \$1,078,395,000 | \$4,614,662,000 |
| 1982 | \$3,309,638,000 | \$1,018,326,000 | \$4,327,964,000 |
| 1981 | \$3,254,345,000 | \$1,026,286,000 | \$4,280,631,000 |
| | | | |
| 1980 | \$3,116,101,000 | \$945,832,000 | \$4,061,933,000 |
| 1979 | \$2,854,515,000 | \$1,001,311,000 | \$3,855,826,000 |
| 1978 | \$2,588,238,000 | \$849,558,000 | \$3,437,796,000 |
| 1977 | \$1,875,359,000 | \$748,555,000 | \$2,623,914,000 |

* Source: USDA Economic Research and 1996 Florida Agricultural Facts
(Does not include forestry or seafood/aquaculture products.)

| | | | |
|-------------|-----------------|---------------|-----------------|
| 1976 | \$1,842,627,000 | \$682,643,000 | \$2,525,270,000 |
| | | | |
| 1975 | \$1,867,875,000 | \$623,250,000 | \$2,491,125,000 |
| 1974 | \$1,606,463,000 | \$543,582,000 | \$2,150,045,000 |
| 1973 | \$1,442,362,000 | \$603,814,000 | \$2,046,176,000 |
| 1972 | \$1,219,336,000 | \$467,434,000 | \$1,686,635,000 |
| 1971 | \$1,051,042,000 | \$407,325,000 | \$1,458,367,000 |
| | | | |
| 1970 | \$902,877,000 | \$402,525,000 | \$1,305,402,000 |
| 1969 | \$948,975,000 | \$382,874,000 | \$1,221,849,000 |
| 1968 | \$881,738,000 | \$323,705,000 | \$1,205,443,000 |
| 1967 | \$810,235,000 | \$320,271,000 | \$1,130,506,000 |
| 1966 | \$734,805,000 | \$302,566,000 | \$1,037,371,000 |
| | | | |
| 1965 | \$737,418,000 | \$249,505,000 | \$986,923,000 |
| 1964 | \$762,393,000 | \$220,975,000 | \$983,368,000 |
| 1963 | \$675,717,000 | \$224,740,000 | \$900,457,000 |
| 1962 | \$647,870,000 | \$213,423,000 | \$861,293,000 |
| 1961 | \$649,933,000 | \$207,709,000 | \$857,642,000 |
| | | | |
| 1960 | \$550,348,000 | \$210,472,000 | \$760,820,000 |
| 1950 | \$249,514,000 | \$85,387,000 | \$338,645,000 |
| 1940 | \$61,069,000 | \$18,966,000 | \$80,431,000 |
| 1930 | \$63,458,000 | \$18,558,030 | \$82,897,000 |
| 1920 | \$70,278,000 | \$16,512,000 | \$35,061,000 |
| 1905 | \$18,549,000 | \$16,512,000 | \$35,061,000 |



Name _____



Florida's Cash Receipts

Refer to the table of *Florida Cash Receipts By Years*, and develop graphs to answer the questions below and follow the directions given.

- 1) What dollar amount was the cash receipt total for crops closest to in 1905?
a) 18 thousand b) 18 billion c) 18 million d) 18 hundred

- 2) Use graph paper to draw a line graph of the cash receipts for crops in the following years:
1965, 1970, 1975, 1980, 1985, 1990, 1995, 1998

- 3) According to your graph, which year had the largest cash receipts?

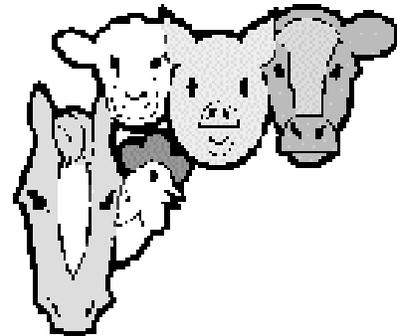
- 4) Which year had the lowest cash receipts? _____

- 5) Referring back to the table, approximately how much more were crops sold for in 1989 than in 1995?
a) 300 billion b) 300 million c) 3 million d) 300 thousand

- 6) Also in the table, what number was the cash receipt total for livestock closest to in 1980?
a) 950 thousand b) 900 million c) 900 billion d) 950 million

- 7) What number was the cash receipt total for livestock closest to 10 years later?
- a) 100 million b) 1 billion c) 100 billion d) 1 million
- 8) Use graph paper to draw a histogram of livestock cash receipts, every five years, starting with 1965 and ending with 1995, and add 1998 or the latest year for which there are data.
- 9) Which year, according to your graph, had the most livestock cash receipts?
 _____ The least? _____
- 10) Referring once again to the table, in 1975 livestock cash receipts were just over \$600 million. In what year, during the 70s, were livestock cash receipts at their peak?

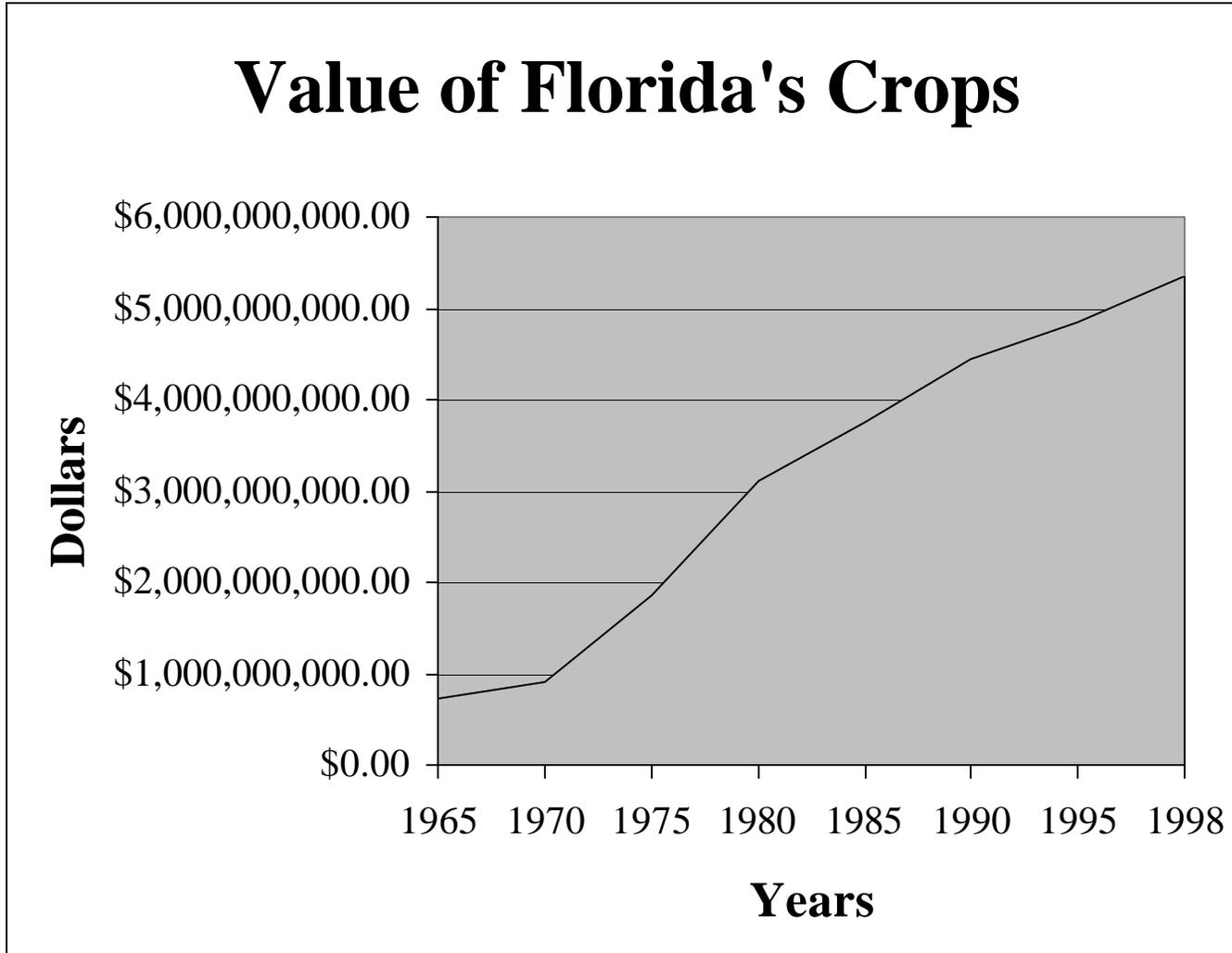
- 11) What were cash receipts closest to during this peak year?
- a) 1 billion b) 100 million c) 1 million d) 100 billion



Florida's Agricultural Cash Receipts

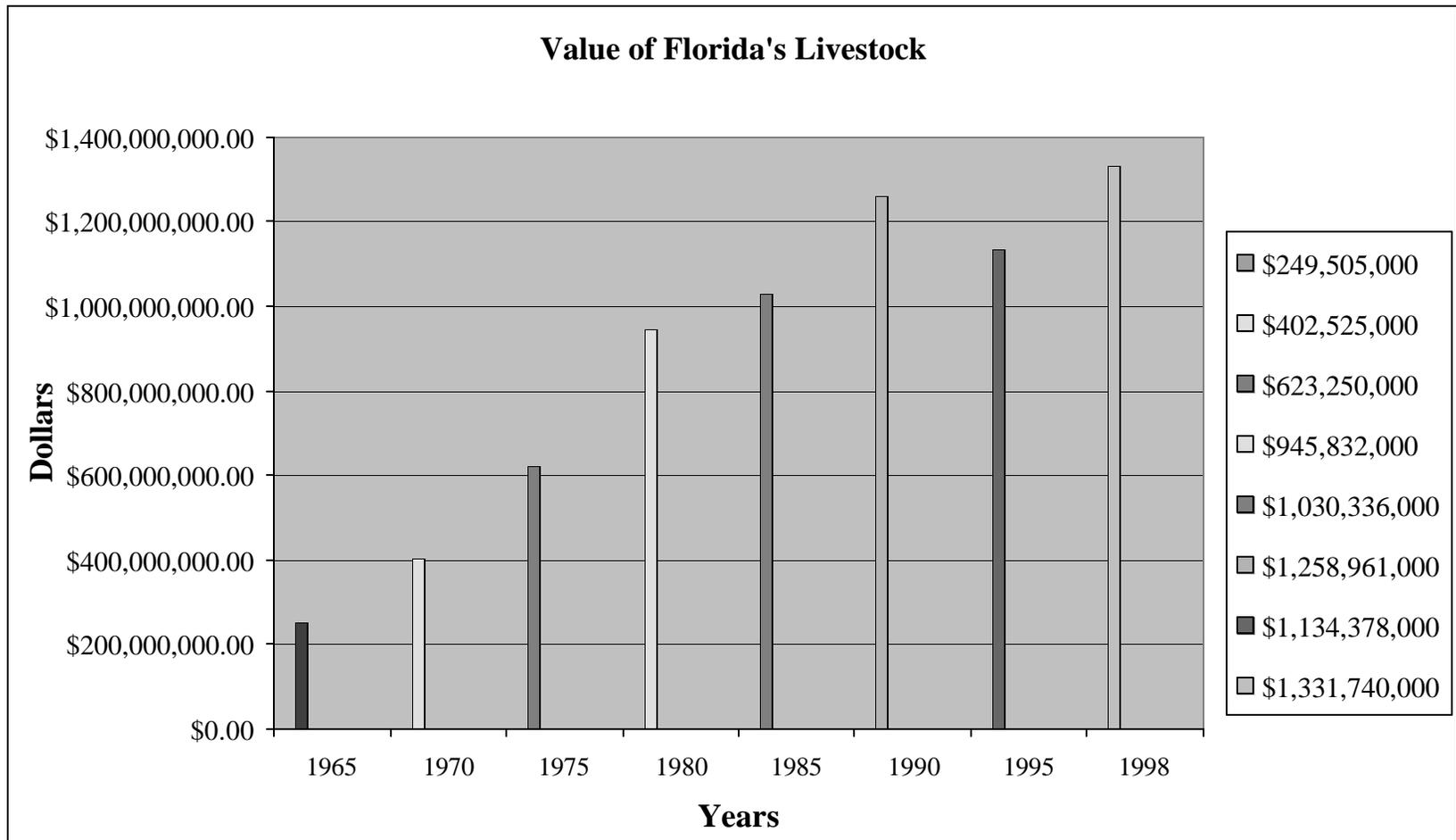
Answer Key

- 1) *c*
- 2)

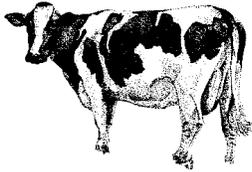


- 3) **1998**
- 4) **1965**
- 5) ***b***
- 6) ***d***
- 7) ***b***
- 8)

- 9) **1998, 1965**
- 10) **1979**
- 11) ***a***



Name _____



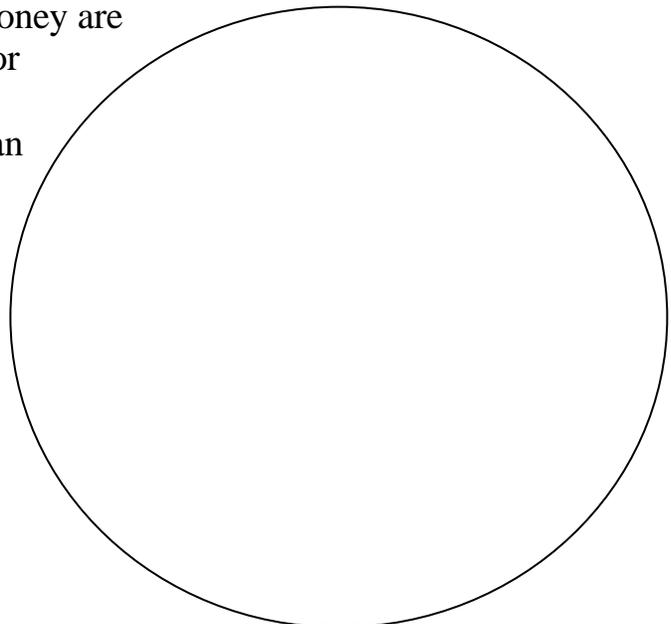
Florida's Livestock



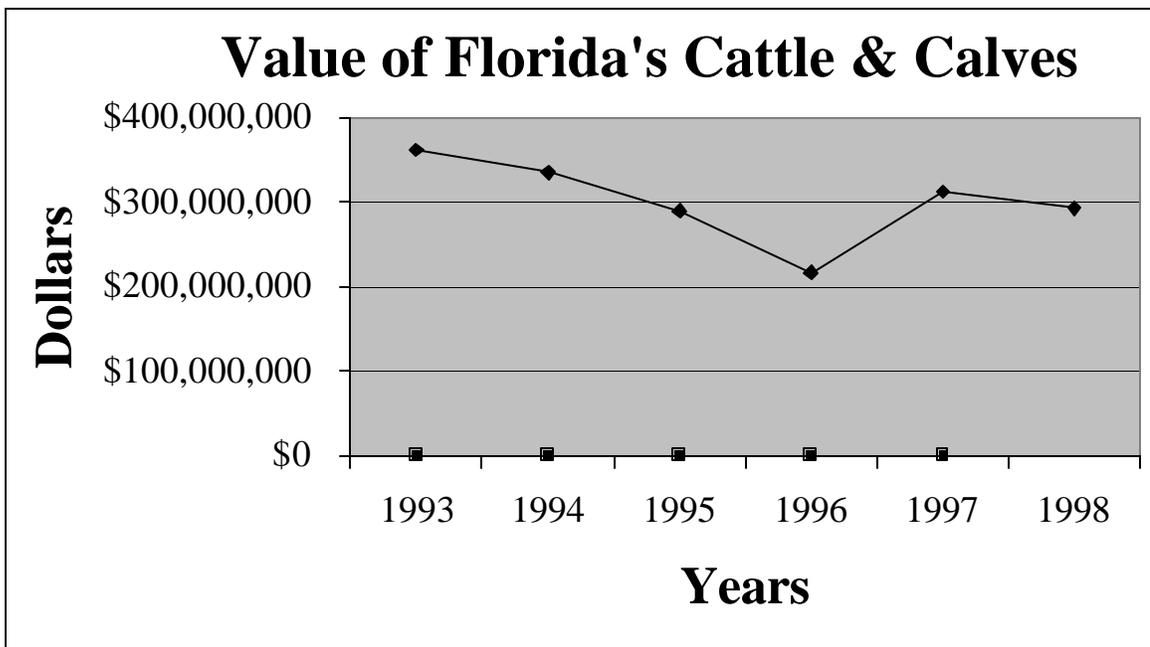
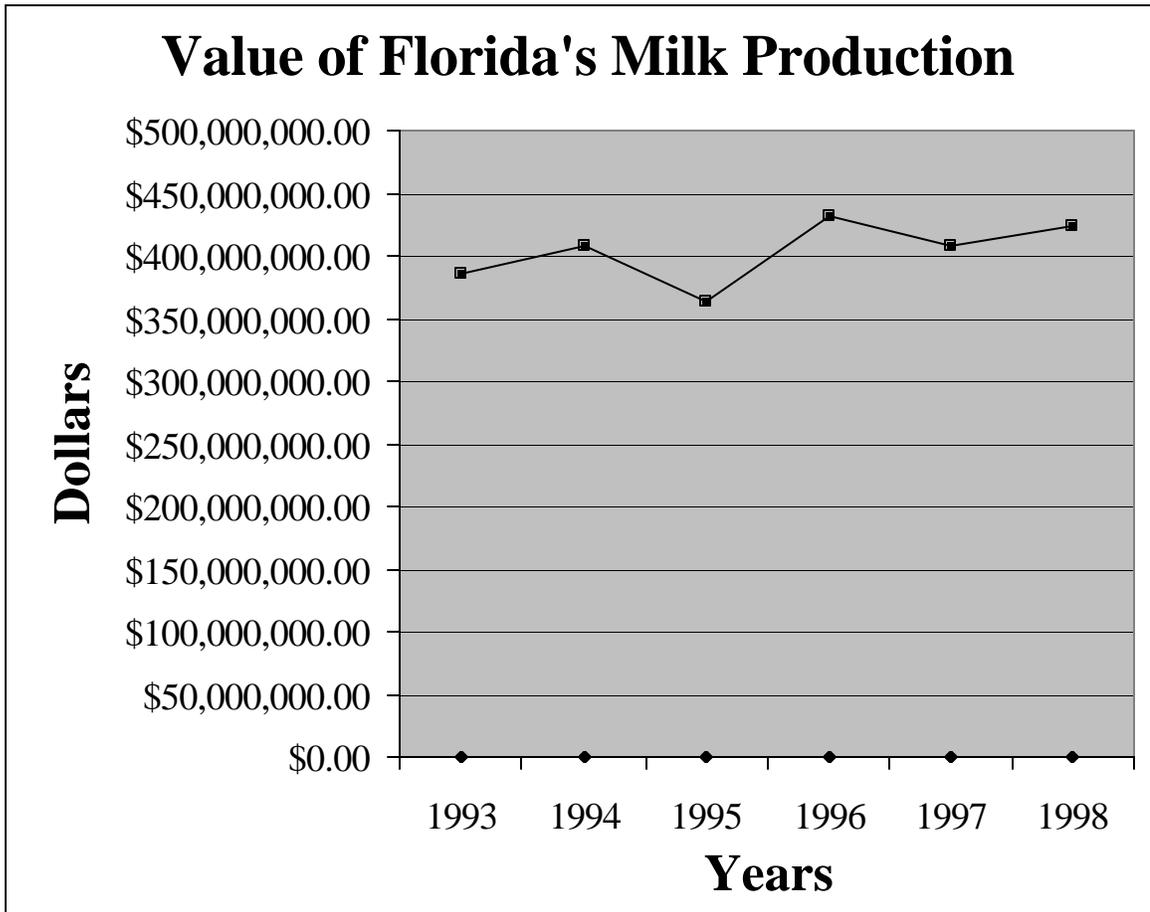
Livestock and Products Cash Receipts

| Year | Milk | Cattle & Calves | Chickens & Eggs | Hogs | Honey |
|------|---------------|-----------------|-----------------|--------------|--------------|
| 1998 | \$423,878,000 | \$293,327,000 | \$367,313,000 | \$5,772,000 | \$14,426,000 |
| 1997 | \$407,880,000 | \$312,828,000 | \$353,828,000 | \$11,883,000 | \$11,738,000 |
| 1996 | \$431,280,000 | \$217,008,000 | \$353,811,000 | \$14,441,000 | \$21,672,000 |
| 1995 | \$363,528,000 | \$289,802,000 | \$314,537,000 | \$11,581,000 | \$12,659,000 |
| 1994 | \$408,408,000 | \$335,836,000 | \$290,905,000 | \$12,399,000 | \$9,080,000 |
| 1993 | \$385,503,000 | \$362,495,000 | \$298,121,000 | \$15,106,000 | \$11,300,000 |
| 1992 | \$401,700,000 | \$343,168,000 | \$259,678,000 | \$13,126,000 | \$12,126,000 |
| 1991 | \$372,947,000 | \$363,351,000 | \$276,398,000 | \$17,304,000 | \$9,898,000 |
| 1990 | \$421,007,000 | \$390,561,000 | \$276,398,000 | \$20,558,000 | \$10,332,000 |

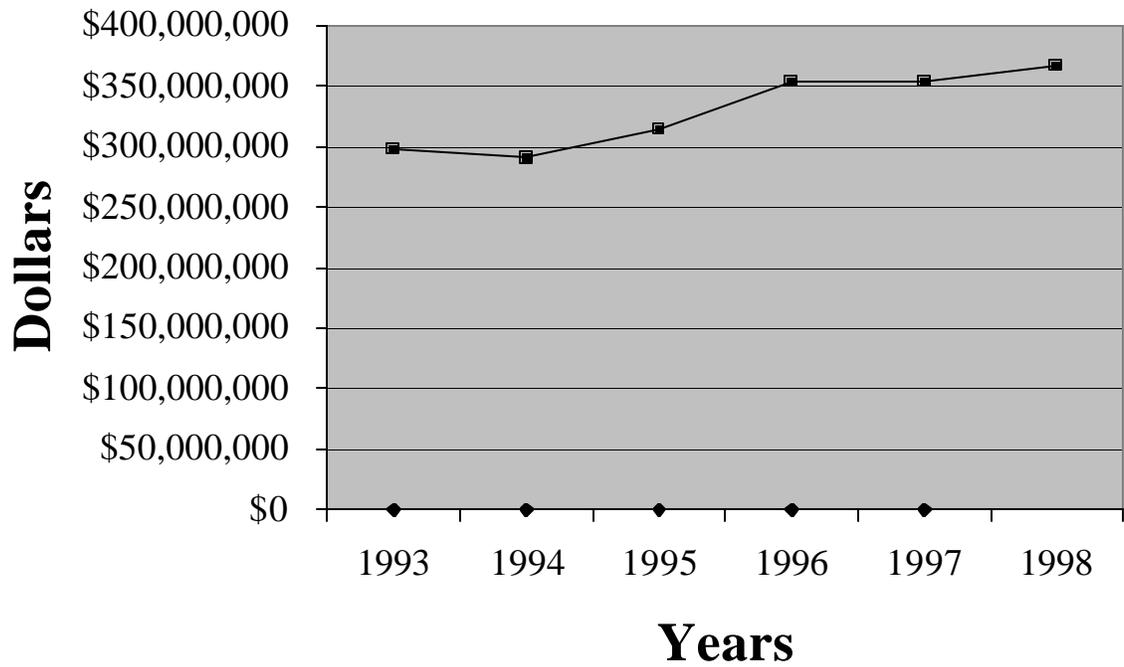
- Use the data in the table above to draw 5 line graphs showing the variances in cash receipts from 1990 to 1998, for milk, cattle & calves, chicken & eggs, hogs, and honey. (Note: the values on your y-axis will vary for each chart.) Make sure you included a title for your graph and labels for the x-axis and the y-axis.
- Use this circle to create a pie graph showing what percent milk, cattle & calves, chicken & eggs, hogs, and honey are of the total livestock cash receipts for 1998. (Note: you must find the total cash receipts for 1998 before you can determine the individual percents.)



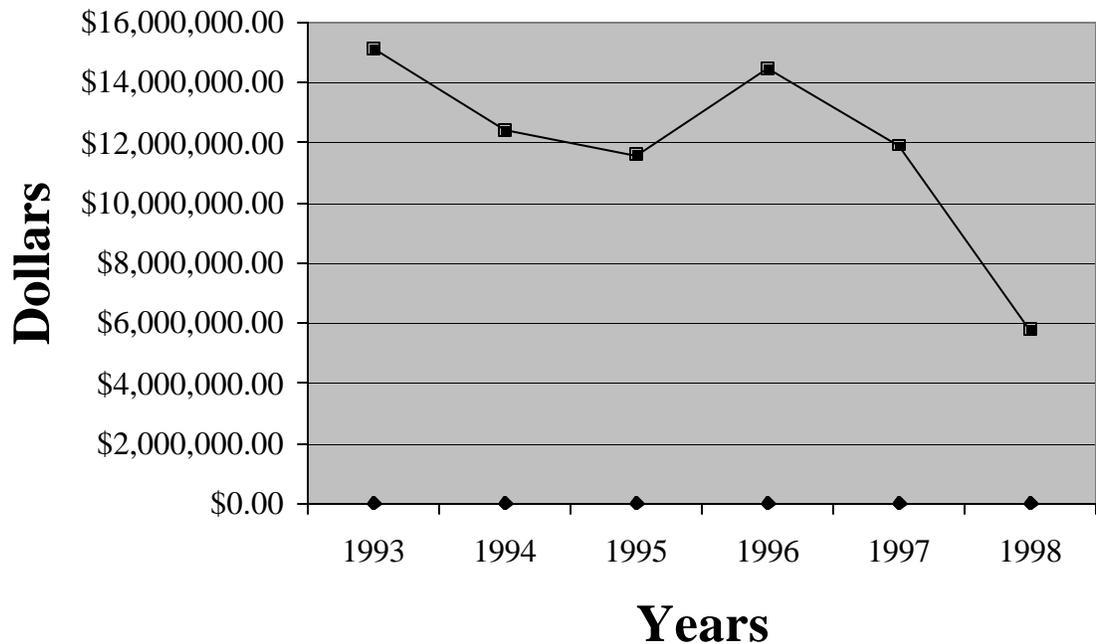
Florida's Livestock Answer Key



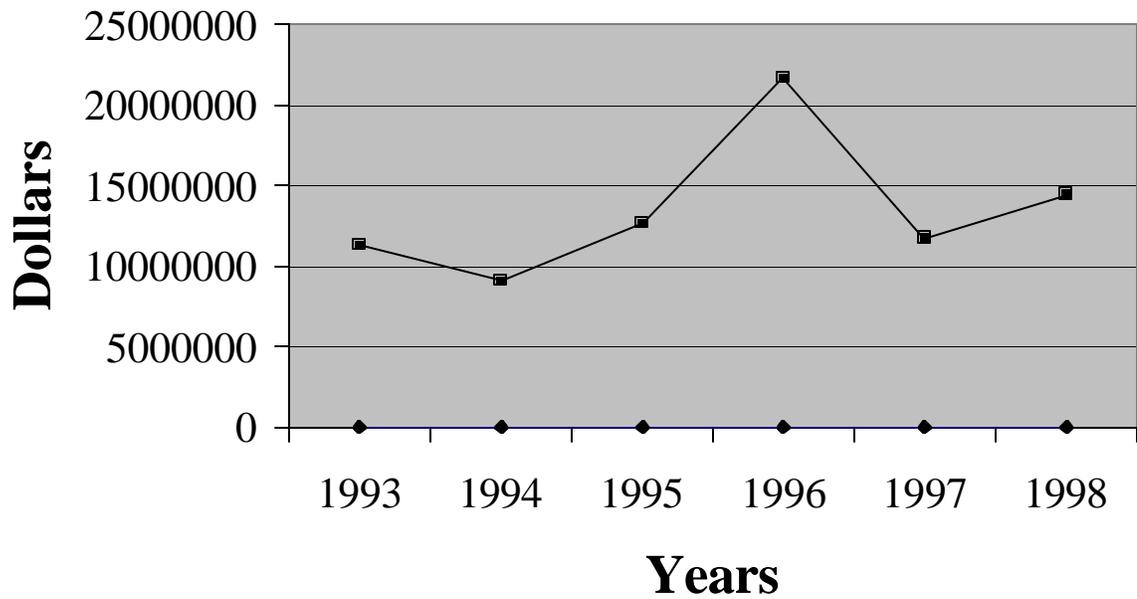
Value of Florida's Chickens & Eggs



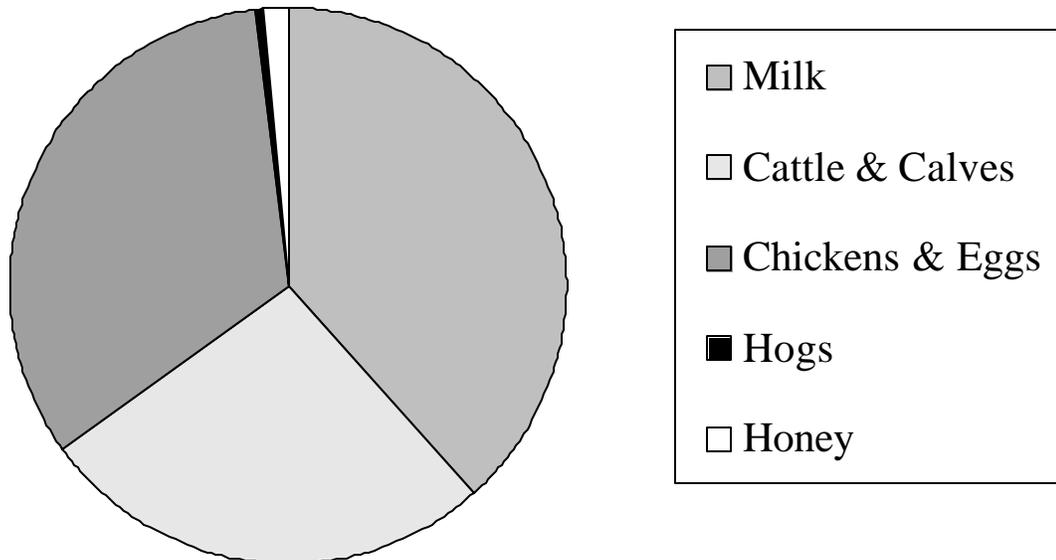
Value of Florida's Hogs



Value of Florida's Honey



Florida's Livestock



Florida's Field Crops

The tables below indicate the production of four of Florida's leading field crops. Each table is missing information. Determine what numbers you would multiply or divide to fill in the shaded boxes with the correct data. (Hint: [harvested acres X yield = production] & [production X value = crop value])

Peanut Production and Value

| Year | Harvested Acres | Yield (pounds) | Production (pounds) | Price Per Pound | Crop Value |
|------|-----------------|----------------|---------------------|-----------------|--------------|
| 1998 | 90,000 | 2,590 | | \$0.25 | \$57,343,000 |
| 1997 | | 2,715 | 228,060,000 | \$0.28 | \$63,857,000 |
| 1996 | 82,000 | | 236,160,000 | \$0.28 | \$66,361,000 |
| 1995 | 81,000 | | 193,590,000 | \$0.27 | \$52,463,000 |
| 1994 | 84,000 | 2,470 | | \$0.28 | \$58,302,000 |
| 1993 | 84,000 | 2,320 | 194,880,000 | | \$57,684,000 |
| 1992 | 77,000 | 2,630 | 202,510,000 | \$0.28 | |
| 1991 | | 2,370 | 279,660,000 | \$0.26 | \$73,551,000 |
| 1990 | 100,000 | 2,340 | 234,000,000 | | \$70,200,000 |

Corn (Grain) Production and Value

| Year | Harvested Acres | Yield (bushel) | Production (bushel) | Value (bushel) | Crop Value |
|--------|-----------------|----------------|---------------------|----------------|--------------|
| 1998** | | 62 | 3,410,000 | \$2.30 | \$ 7,843,000 |
| 1997* | 75,000 | | 6,000,000 | \$2.90 | \$17,400,000 |
| 1996 | 112,000 | 88 | | \$3.80 | \$37,453,000 |
| 1995* | 60,000 | 90 | 5,400,000 | | \$17,280,000 |
| 1994 | 80,000 | 85 | 6,800,000 | \$2.40 | |
| 1993 | 100,000 | 65 | | \$2.55 | \$16,575,000 |
| 1992 | 110,000 | | 8,250,000 | \$2.30 | \$18,975,000 |
| 1991 | 75,000 | 68 | 5,100,000 | \$2.60 | |
| 1990 | | 71 | 5,325,000 | \$2.70 | \$14,378,000 |

* Storm damaged crops

** Drought damaged crops

Cotton Production and Value

| Year | Harvested Acres | Yield (pounds) | Production (pounds) | Value (pound) | Crop Value |
|--------|-----------------|----------------|---------------------|---------------|--------------|
| 1998** | 80,000 | | 39,120,000 | \$0.54 | \$21,203,000 |
| 1997* | 99,000 | 577 | | \$0.65 | \$37,388,000 |
| 1996 | | 637 | 62,592,000 | \$0.68 | \$42,938,000 |
| 1995* | 109,000 | 472 | 51,456,000 | | \$41,165,000 |
| 1994 | 68,000 | 735 | 49,980,000 | \$0.73 | |
| 1993 | 53,500 | 696 | | \$0.57 | \$21,231,000 |
| 1992 | | 701 | 34,699,000 | \$0.56 | \$19,469,000 |
| 1991 | 49,000 | | 36,600,000 | \$0.55 | \$17,519,000 |
| 1990 | 36,000 | 640 | 23,040,000 | \$0.68 | |

* Storm damaged crop

** Drought damaged crop

Sugarcane Production and Value

| Year | Harvested Acres | Yield (ton) | Production (ton) | Price Per Ton | Crop Value |
|------|-----------------|-------------|------------------|---------------|---------------|
| 1998 | | 40.1 | 17,925,000 | \$26.34 | \$472,303,000 |
| 1997 | 440,000 | | 16,236,000 | \$28.74 | \$465,950,000 |
| 1996 | 438,000 | 33.1 | 14,498,000 | \$29.40 | |
| 1995 | | 34.6 | 15,122,000 | \$30.60 | \$462,730,000 |
| 1994 | 444,000 | 33.6 | | \$30.40 | \$457,010,000 |
| 1993 | 444,000 | 34.1 | 151,152,000 | | \$460,620,000 |
| 1992 | 443,000 | 33.2 | 14,707,000 | \$29.80 | |
| 1991 | 443,000 | | 15,461,000 | \$31.00 | \$479,291,000 |
| 1990 | | 35.5 | 15,407,000 | \$31.50 | \$485,321,000 |

Florida's Field Crops

The tables below indicate the production of four of Florida's leading field crops. Each table is missing information. Determine what numbers you would multiply or divide to fill in the shaded boxes with the correct data. (Hint: [harvested acres X yield = production] & [production X value = crop value])

Peanut Production and Value

| Year | Harvested Acres | Yield (pounds) | Production (pounds) | Price Per Pound | Crop Value |
|-------------|-----------------|----------------|---------------------|-----------------|---------------------|
| 1998 | 90,000 | 2,590 | 233,100,000 | \$0.25 | \$57,343,000 |
| 1997 | 84,000 | 2,715 | 228,060,000 | \$0.28 | \$63,857,000 |
| 1996 | 82,000 | 2,880 | 236,160,000 | \$0.28 | \$66,361,000 |
| 1995 | 81,000 | 2,390 | 193,590,000 | \$0.27 | \$52,463,000 |
| 1994 | 84,000 | 2,470 | 207,480,000 | \$0.28 | \$58,302,000 |
| 1993 | 84,000 | 2,320 | 194,880,000 | \$0.29 | \$57,684,000 |
| 1992 | 77,000 | 2,630 | 202,510,000 | \$0.28 | \$57,918,000 |
| 1991 | 118,000 | 2,370 | 279,660,000 | \$0.26 | \$73,551,000 |
| 1990 | 100,000 | 2,340 | 234,000,000 | \$0.30 | \$70,200,000 |

Corn (Grain) Production and Value

| Year | Harvested Acres | Yield (bushel) | Production (bushel) | Value (bushel) | Crop Value |
|---------------|-----------------|----------------|---------------------|----------------|---------------------|
| 1998** | 55,000 | 62 | 3,410,000 | \$2.30 | \$ 7,843,000 |
| 1997* | 75,000 | 80 | 6,000,000 | \$2.90 | \$17,400,000 |
| 1996 | 112,000 | 88 | 9,856,000 | \$3.80 | \$37,453,000 |
| 1995* | 60,000 | 90 | 5,400,000 | \$3.20 | \$17,280,000 |
| 1994 | 80,000 | 85 | 6,800,000 | \$2.40 | \$16,320,000 |
| 1993 | 100,000 | 65 | 6,500,000 | \$2.55 | \$16,575,000 |
| 1992 | 110,000 | 75 | 8,250,000 | \$2.30 | \$18,975,000 |
| 1991 | 75,000 | 68 | 5,100,000 | \$2.60 | \$13,260,000 |
| 1990 | 75,000 | 71 | 5,325,000 | \$2.70 | \$14,378,000 |

* Storm damaged crops ** Drought damaged crops

Cotton Production and Value

| Year | Harvested Acres | Yield (pounds) | Production (pounds) | Value (pound) | Crop Value |
|---------------|-----------------|----------------|---------------------|---------------|---------------------|
| 1998** | 80,000 | 489 | 39,120,000 | \$0.54 | \$21,203,000 |
| 1997* | 99,000 | 577 | 57,168,000 | \$0.65 | \$37,388,000 |
| 1996 | 98,200 | 637 | 62,592,000 | \$0.68 | \$42,938,000 |
| 1995* | 109,000 | 472 | 51,456,000 | \$0.80 | \$41,165,000 |
| 1994 | 68,000 | 735 | 49,980,000 | \$0.73 | \$36,077,000 |
| 1993 | 53,500 | 696 | 37,236,000 | \$0.57 | \$21,231,000 |
| 1992 | 49,500 | 701 | 34,699,000 | \$0.56 | \$19,469,000 |
| 1991 | 49,000 | 719 | 36,600,000 | \$0.55 | \$17,519,000 |
| 1990 | 36,000 | 640 | 23,040,000 | \$0.68 | \$15,667,000 |

* Storm damaged crop

** Drought damaged crop

Sugarcane Production and Value

| Year | Harvested Acres | Yield (ton) | Production (ton) | Price Per Ton | Crop Value |
|-------------|-----------------|-------------|-------------------|----------------|----------------------|
| 1998 | 447,000 | 40.1 | 17,925,000 | \$26.34 | \$472,303,000 |
| 1997 | 440,000 | 36.9 | 16,236,000 | \$28.74 | \$465,950,000 |
| 1996 | 438,000 | 33.1 | 14,498,000 | \$29.40 | \$426,241,000 |
| 1995 | 437,000 | 34.6 | 15,122,000 | \$30.60 | \$462,730,000 |
| 1994 | 444,000 | 33.6 | 14,937,000 | \$30.40 | \$457,010,000 |
| 1993 | 444,000 | 34.1 | 151,152,000 | \$30.40 | \$460,620,000 |
| 1992 | 443,000 | 33.2 | 14,707,000 | \$29.80 | \$438,269,000 |
| 1991 | 443,000 | 34.9 | 15,461,000 | \$31.00 | \$479,291,000 |
| 1990 | 434,000 | 35.5 | 15,407,000 | \$31.50 | \$485,321,000 |



Florida's Field Crops

1. Create a histogram showing the crop **values** of corn from 1993 to 1998.
2. Create a line graph comparing the **production** of peanuts from 1993 to 1998.
3. Create a histogram showing the crop **values** of cotton production from 1993 to 1998.
4. Create a line graph comparing the **production** of sugarcane from 1993 to 1998.

Section C

1. Which of the four field crops has the largest crop value in 1998?
2. What does your line chart say about peanut production from 1993 to 1998?
3. Was there an increase or decrease from 1994 to 1995 in the average yield per acre of peanuts? (refer to your table)
4. Did the average yield per acre of cotton increase or decrease from 1994 to 1995? (refer to your table)
5. What do you think could have affected the average yield per acre of peanuts and cotton?

6. Did the value per pound of cotton increase or decrease from 1993 to 1998?
What was the amount of that change?

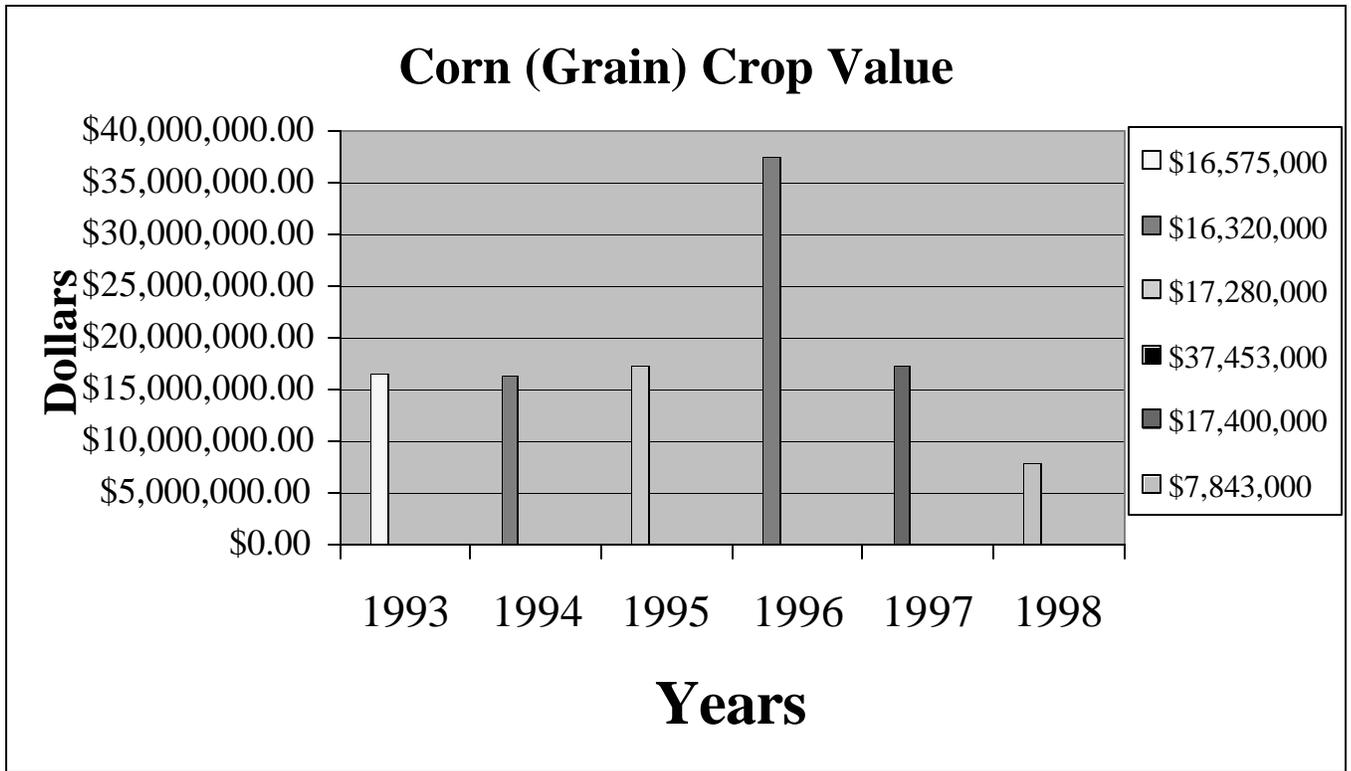
7. What year or years was/were the price per ton of sugarcane below \$30 dollars?

8. Although the value per bushel of corn was lowest in 1992, the crop value was the second highest. How?

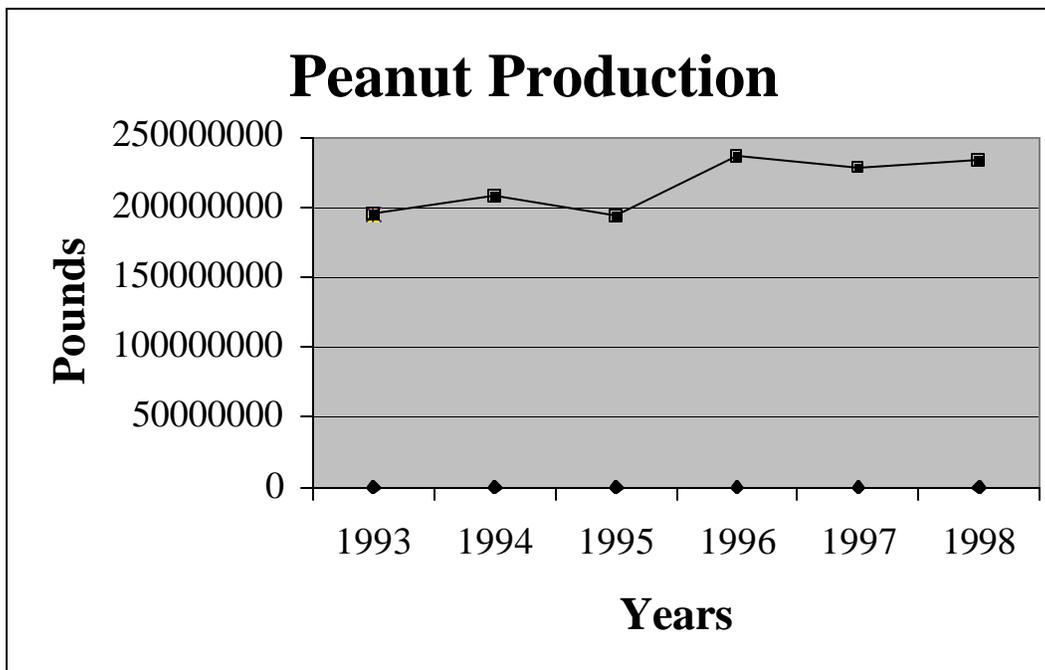


Florida's Field Crops

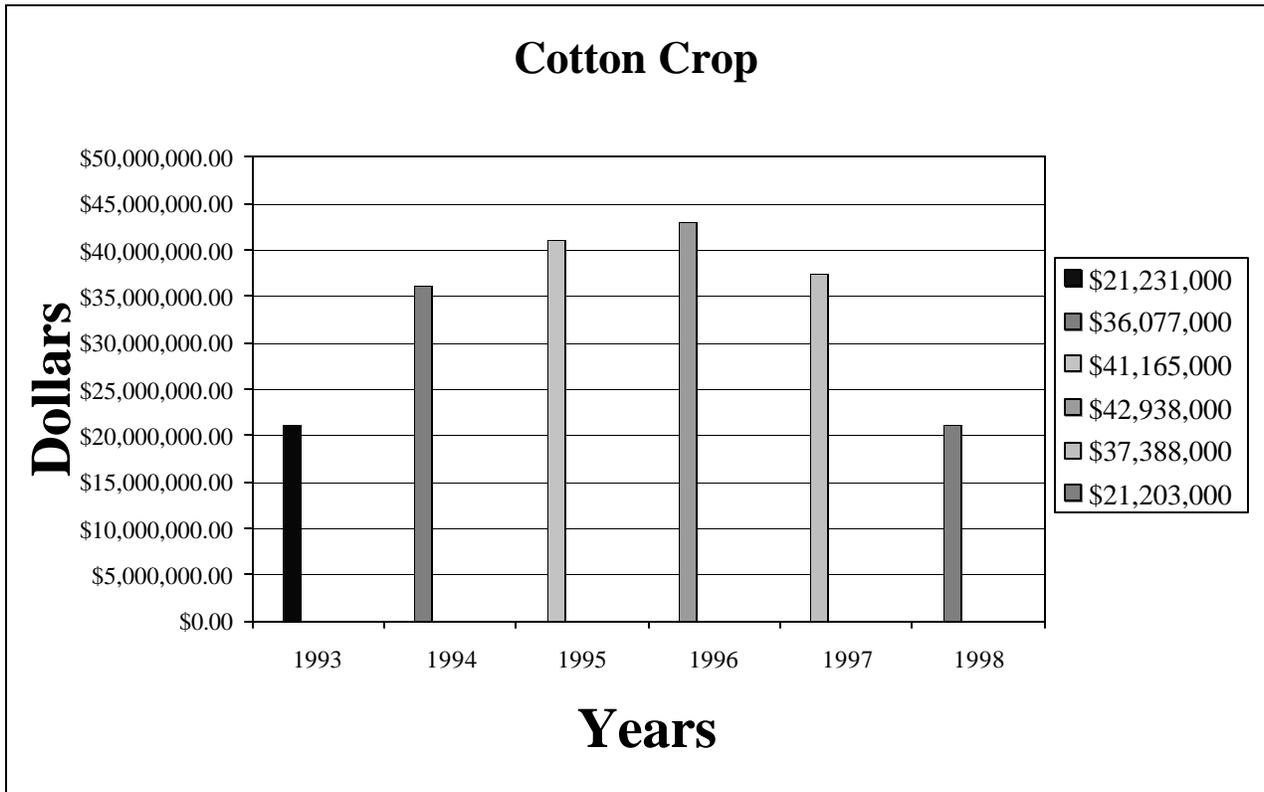
1. Create a histogram showing the crop values of corn from 1993-1998.



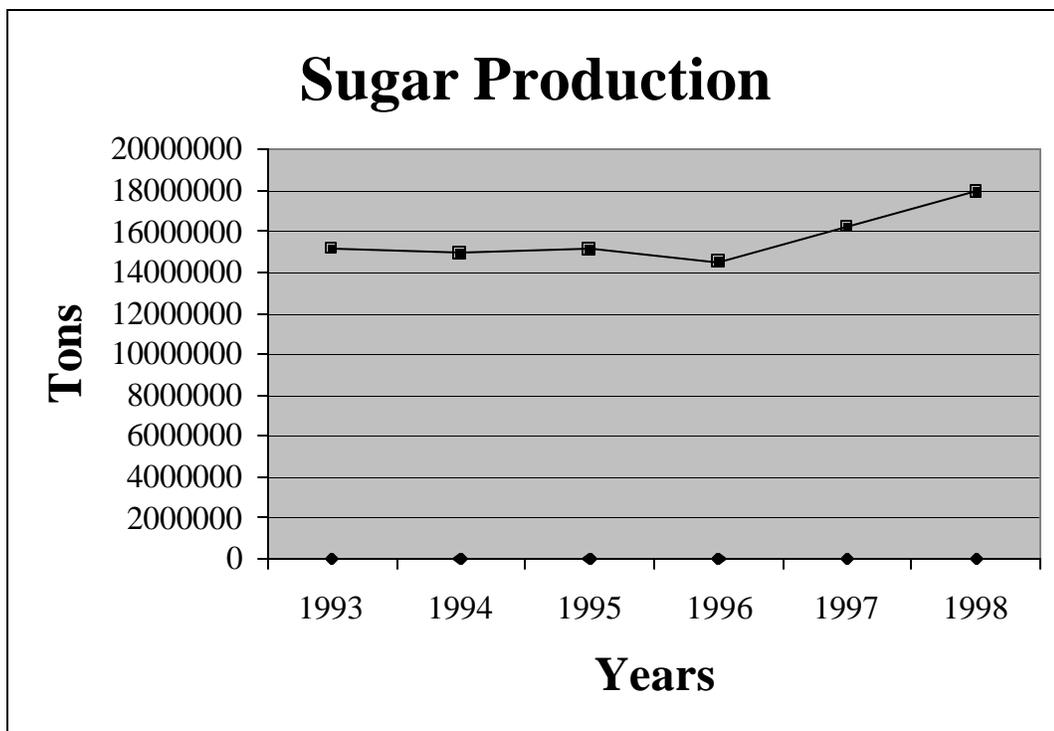
2. Create a line graph comparing the production of peanuts from 1993 to 1998.



3. Create a histogram showing the crop **values** of cotton production from 1993-1998.



4. Create a line graph comparing the **production** of sugarcane from 1993 to 1998.



Section C

1. Which of the four field crops has the largest crop value in 1998?

Sugarcane

2. What does your line chart say about peanut production from 1993 to 1998?

It is generally increasing, although not smoothly, each and every year.

3. Was there an increase or decrease from 1994 to 1995 in the average yield per acre of peanuts? (refer to your table)

decrease

4. Did the average yield per acre of cotton increase or decrease from 1994 to 1995? (refer to your table)

decrease

5. What do you think could have affected the average yield per acre of peanuts and cotton?

Weather can play a significant role. A series of hurricanes and tropical storms in 1995 led to a reduction in per-acre yield of many crops.

6. Did the value per pound of cotton increase or decrease from 1993 to 1998? What was the amount of that change?

It decreased by \$.03 per pound.

7. What year or years was/were the price per ton of sugarcane below \$30 dollars?

1996, 1997, 1998

8. Although the value per bushel of corn was lowest in 1992, the crop value was the second highest. How?

The yield per acre was very high.