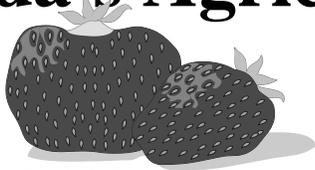


Florida's Agricultural Cash Receipts



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:

1. Identify the significance of agriculture to Florida's economy.
2. Interpret agricultural data to create line graphs and histograms (bar graphs).
3. Construct line graphs to show variations in livestock cash receipts.
4. Create a pie chart of livestock cash receipt percentages.
5. Choose the appropriate operation, multiplication or division, to complete the data of field crops.

Life Skills:

1. Problem Solving Skills
2. Understanding Systems
3. 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; absolute value; and

MA.A.3.3.2 - 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 task.

LA.A.2.3.6	- 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 an important industry in the United States. It accounts for almost one 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 more than 760,000 jobs with an economic impact of more than \$100 billion.



Florida is the eleventh ranked state in overall agricultural production in the U.S. Florida leads the nation in the production of oranges, grapefruit, tangerines, sugarcane for sugar and seed, fresh market snap beans, fresh market tomatoes, cucumbers for fresh market, squash, watermelon and sweet corn. It is second in the production of strawberries, bell peppers, and cucumbers for pickles. It ranks fourth in the production of honey. This led to farm receipts totaling \$7.7 billion in the sales of agricultural products in 2008.

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

<u>Time: Activity One:</u> 45 to 60 minutes
<u>Activity Two:</u> Two, 45 to 60 minute class periods
<u>Activity Three:</u> Two, 45 to 60 minute class periods

Preparation:

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

Impact on the Nation

Florida produced 71 percent of the nation's oranges, 68 percent of the nation's grapefruit, 52 percent of the nation's snap beans, 27 percent of the nation's tangerines, 51 percent of the nation's sugarcane for sugar and seed, 44 percent of the nation's fresh market tomatoes, 40 percent of the nation's bell peppers, 39 percent of the nation's cucumbers for fresh market, 29 percent of the nation's watermelons and 21 percent of the nation's sweet corn. Florida has been the nation's leading citrus producing state for more than 100 years. According to the USDA, seven Florida counties rank in the top 50 nationally in the value of the crops they produced. Palm Beach County ranked 26th nationally, with gross agricultural receipts of \$931,731,000. Florida exported more than \$1,965,900,000 in farm commodities in 2008. 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 processing plants 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.)

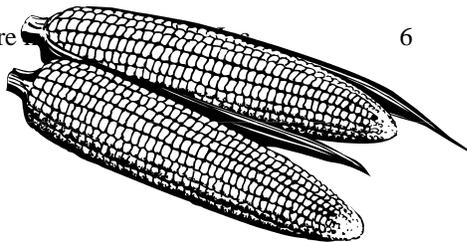
There are three economic legs on which Florida's economy stands and prospers. Do you know what they are? *(Tourism, Construction, Agriculture)*

2. Ask the class:

What is agriculture?

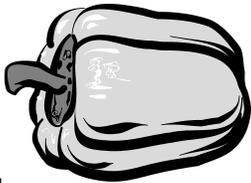
Have them give their thoughts and write them down on the chalkboard.

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 11th leading agricultural state, with annual farm cash receipts totaling \$7.7 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;

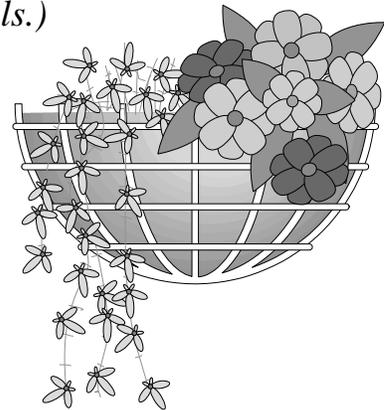
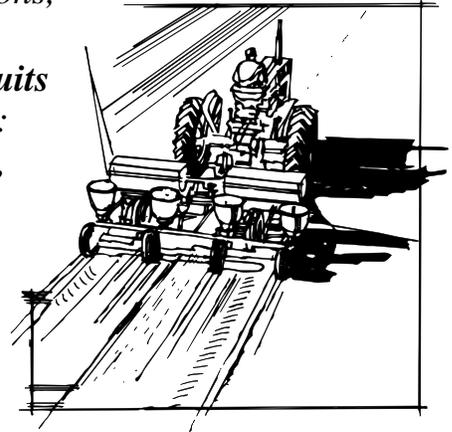
Other Fruits and Nuts:

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 32%)

By looking at your line graphs, describe the increases or decreases milk had in cash receipts from 1999 to 2008. *(Milk cash receipts had a high in 2008. Prices had been trending downward, except for a spike in 2004, but rallied in 2007 and were up again in 2008.)*

What did your line graph tell you about cattle and calf cash receipts for 2000 to 2008? *(Cattle and calf cash receipts hit a low in 2002, and increased steadily for three years to a peak in 2005. Receipts were lower in 2006, 2007 and 2008, but they remained higher than most of the years prior to the peak.)*

Since cash receipts were lowest in 2002, does that mean production was also lowest in that year? *(No, production, measured in pounds marketed, peaked at 497 million pounds in 2002. The lower cash receipts were due to declining market prices.)*

What does your graph indicate about the cash receipts of chicken and eggs from 1999 to 2008?
(Chicken and egg cash receipts jumped significantly in 2008, after several years of modest fluctuations, and significant declines in 2005 and 2006. Chicken and egg cash receipts bounced from a 15-year low of \$279,489,000 in 2006 to a 15-year high of 404,284,000 in 2008.)

What have the cash receipts for hog production done since 1999?
(After rallying in 2000 and 2001, cash receipts for hogs have generally declined, except for a strong peak in 2004, when prices increased by more than 45 percent.)

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)

How have the cash receipts for honey fluctuated over the 10-year period from 1999-2008?
(Honey value rose in 2008 after dropping to a 14-year low in 2007. The increase came entirely from higher prices, as production in 2008 was less than half what it was in 1999. Honey production is likely to continue to decline due to a steady drop in both the number of active bee colonies and the honey yield per colony.)

If you produced a pie graph for each of these years from 1999 - 2008, 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.)

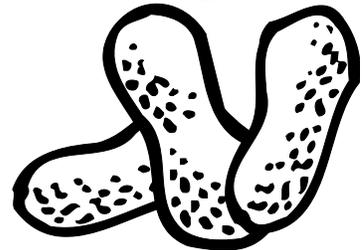
Do you know in what products soybeans are used?
(cooking oil, tofu, candy bars, soy sauce, high protein drinks and bars, etc.)

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.*)

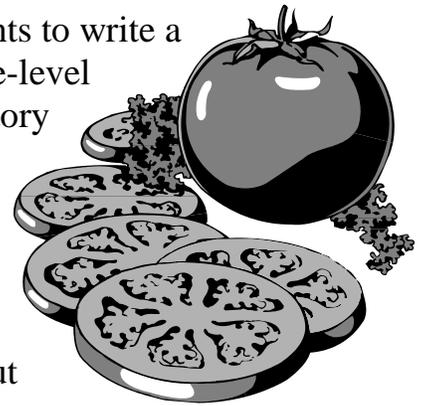
What did the graphs show you about the crop value of corn and the production of peanuts from 1999-2008? (*Answers will vary.*)

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.



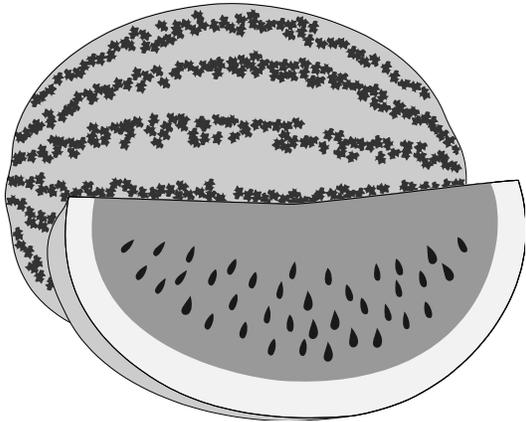
5. Have students research to find the field crops that are grown in their county and nearby counties and write a report, complete with graphs.

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. 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.



Florida Ag in the Classroom

Notes:

TM - 1

Agriculture in Florida*

**11th 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**

**7th Ranked State in the Production
of All Agricultural Crops**

**\$7.7 Billion Sales
of Agricultural Products**



Florida led the nation in the production of:

Fresh Cucumbers

Fresh Squash

Fresh Snap Beans

Fresh Tomatoes

Grapefruit

Houseplants

Oranges

Sugarcane

Sweet Corn

Tangerines

Watermelons

TM – 2

Florida Produced:

71% of the Nation's Oranges

68% of the Nation's Grapefruit

52% of the Nation's Snap Beans

51% of the Nation's Sugarcane

44% of the Nation's fresh market tomatoes

40% of the Nation's Bell Peppers

39% of the Nation's Fresh Cucumbers

29% of the Nation's Watermelons

27% of the Nation's Tangerines

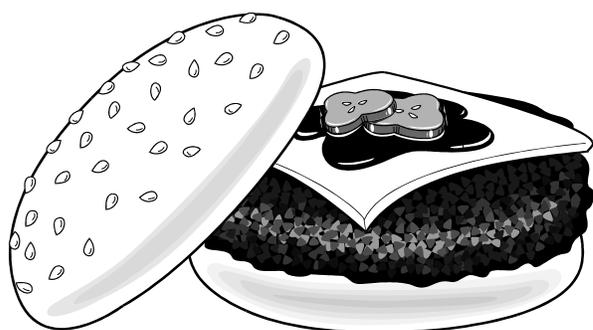
21% of the Nation's Sweet Corn TM - 3

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

Year	Total Crops	Total Livestock	Total Cash Receipts
2007	\$6,187,989,000	\$1,462,619,000	\$7,650,517,000
2006	\$5,900,642,000	\$1,283,688,000	\$7,184,330,000
2005	\$6,274,317,000	\$1,408,583,000	\$7,682,900,000
2004	\$5,621,849,000	\$1,456,914,000	\$7,078,763,000
2003	\$5,374,178,000	\$1,240,273,000	\$6,614,451,000
2002	\$5,157,002,000	\$1,239,055,000	\$6,396,057,000
2001	\$5,236,151,000	\$1,389,601,000	\$6,625,752,000
2000	\$5,470,458,000	\$1,315,908,000	\$6,786,366,000
1999	\$5,311,395,000	\$1,347,573,000	\$6,658,968,000
1998	\$5,689,172,000	\$1,390,238,000	\$7,079,410,000
1997	\$5,238,267,000	\$1,385,551,000	\$6,623,818,000
1996	\$5,100,235,000	\$1,312,154,000	\$6,412,389,000
1995	\$4,841,471,000	\$1,238,378,000	\$6,079,849,000
1994	\$4,815,127,000	\$1,296,603,000	\$6,111,730,000
1993	\$4,824,757,000	\$1,310,232,000	\$6,134,989,000
1992	\$4,956,706,000	\$1,263,874,000	\$6,220,580,000
1991	\$4,972,810,000	\$1,171,626,000	\$6,144,436,000
1990	\$4,438,082,000	\$1,258,961,000	\$5,679,043,000
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

* Source: Florida Agriculture Statistical Directory 2009

1985	\$3,762,770,000	\$1,030,336,000	\$4,793,106,000
1984	\$3,638,231,000	\$1,098,092,000	\$4,736,323,000
1983	\$3,546,915,000	\$1,081,535,000	\$4,628,450,000
1982	\$3,326,155,000	\$1,020,062,000	\$4,346,217,000
1981	\$3,231,728,000	\$1,026,286,000	\$4,258,014,000
1980	\$3,103,833,000	\$978,525,000	\$4,082,358,000
1979	\$2,845,812,000	\$1,001,876,000	\$3,487,688,000
1978	\$2,579,409,000	\$849,213,000	\$3,428,622,000
1977	\$2,018,719,000	\$742,598,000	\$2,761,317,000
1976	\$1,901,292,000	\$672,709,000	\$2,574,001,000
1975	\$1,879,670,000	\$623,905,000	\$2,503,575,000
1974	\$1,601,213,000	\$544,200,000	\$2,145,413,000
1973	\$1,442,362,000	\$605,103,000	\$2,047,465,000
1972	\$1,219,359,000	\$468,397,000	\$1,687,756,000
1971	\$1,042,078,000	\$416,029,000	\$1,478,107,000
1970	\$916,291,000	\$403,604,000	\$1,319,895,000
1960	\$516,927,000	\$209,925,000	\$771,852,000
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) \$18,000 b) \$18 billion c) \$18 million d) \$1,800

- 2) Use graph paper to draw a line graph of the cash receipts for crops in the following years:
1970, 1975, 1980, 1985, 1990, 1995, 2000, 2002, 2005

- 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) \$300,000

- 6) Also in the table, what number was the cash receipt total for livestock closest to in 1980?

- a) \$950,000 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 2005.

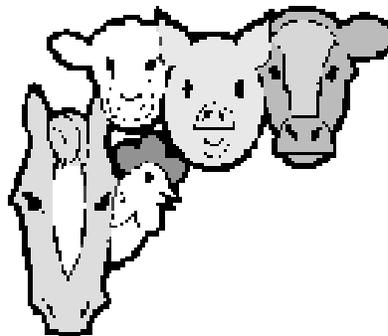
9) Which year, according to your graph, had the most livestock cash receipts?

_____ The least? _____

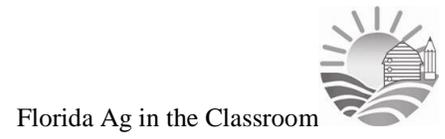
10) Referring once again to the table, in 1975 livestock cash receipts were just over \$600 million. In what year, during the 1970s, were livestock cash receipts at their peak?

11) What were cash receipts closest to during this peak year?

- a) \$1 billion b) \$100 million c) \$1 million d) \$100 billion

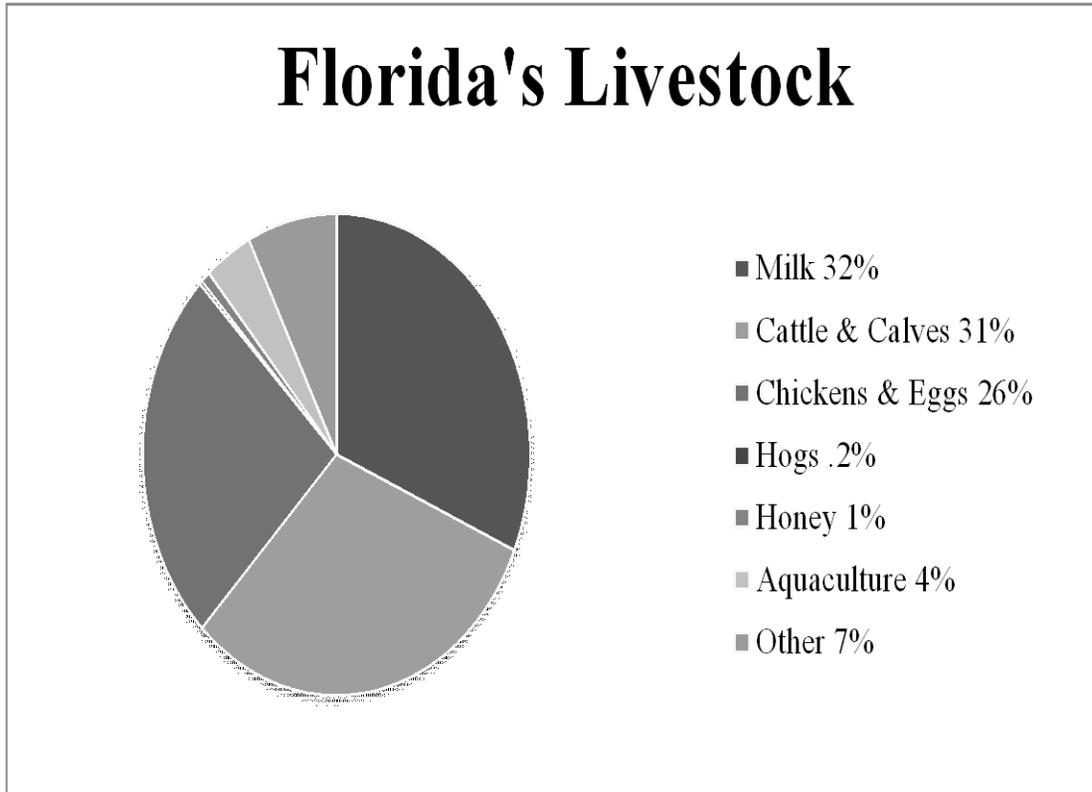


Notes:



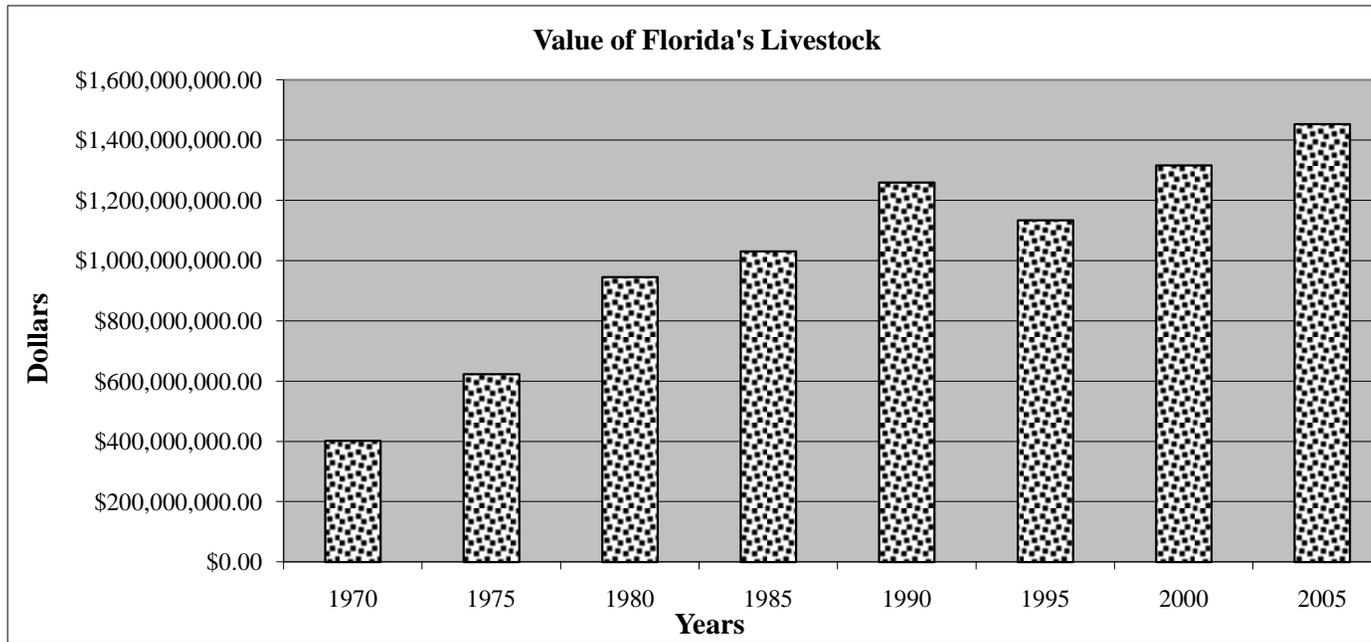
Florida's Agricultural Cash Receipts Answer Key

1) c
2)

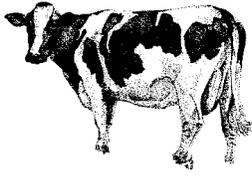


- 3) **2005**
- 4) **1970**
- 5) **b**
- 6) **d**
- 7) **b**
- 8)

- 9) **2000, 1965**
- 10) **1979**
- 11) **a**



Name _____



Florida's Livestock

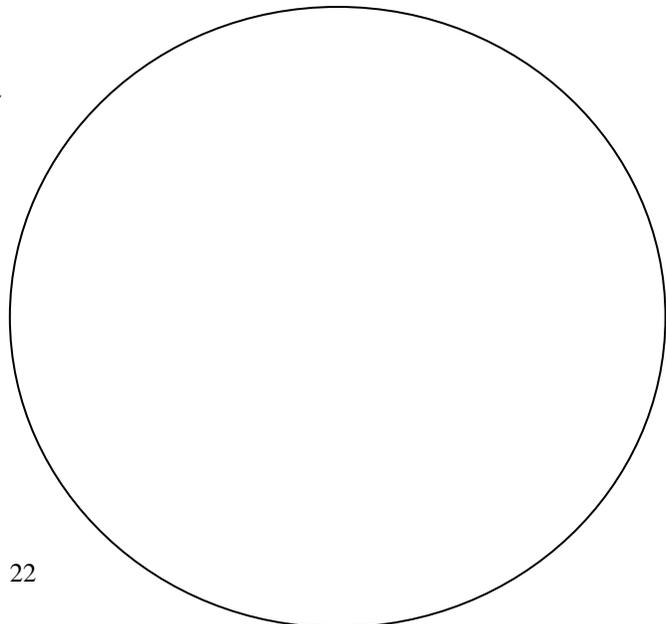


Livestock and Products Cash Receipts

Year	Milk	Cattle & Calves	Chickens & Eggs	Hogs	Honey
2008	\$464,204,000	\$405,124,000	\$404,284,000	\$3,226,000	\$15,405,000
2007	\$459,243,000	\$449,098,000	\$366,941,000	\$3,596,000	\$11,246,000
2006	\$344,235,000	\$344,235,000	\$279,489,000	\$3,643,000	\$13,908,000
2005	\$421,662,000	\$502,268,000	\$302,922,000	\$4,642,000	\$11,834,000
2004	\$431,616,000	\$451,857,000	\$369,018,000	\$6,362,000	\$20,090,000
2003	\$329,868,000	\$348,411,000	\$324,346,000	\$4,286,000	\$19,681,000
2002	\$352,237,000	\$333,413,000	\$305,101,000	\$4,923,000	\$23,324,000
2001	\$428,446,000	\$361,915,000	\$376,238,000	\$7,267,000	\$14,080,000
2000	\$383,604,000	\$367,857,000	\$335,487,000	\$7,144,000	\$13,154,000
1999	\$412,112,000	\$309,852,000	\$354,186,000	\$5,743,000	\$12,326,000
1998	\$424,424,000	\$291,182,000	\$367,313,000	\$5,772,000	\$14,426,000
1997	\$407,880,000	\$320,424,000	\$353,828,000	\$11,883,000	\$11,738,000

1. Use the data in the table above to draw 5 line graphs showing the variances in cash receipts from 1997 to 2008, 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.

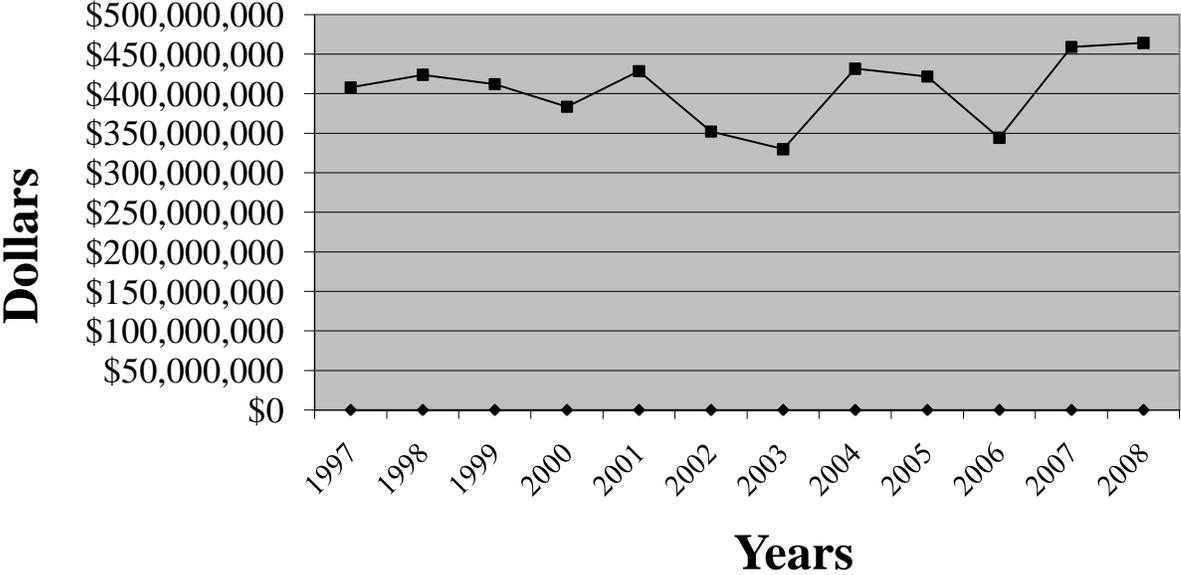
2. Use this circle to create a pie graph showing what percent milk, cattle & calves, chicken & eggs, hogs, and honey are of the total livestock cash receipts for 2008. (Note: you must find the total cash receipts for 2008 before you can determine the individual percents.)



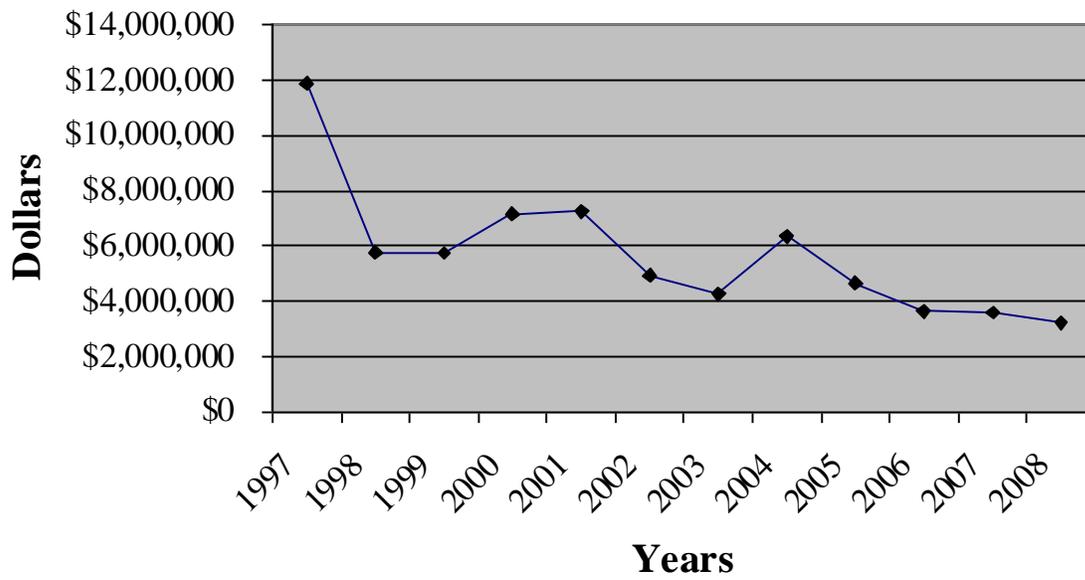
Florida Ag in the Classroom

Florida's Livestock Answer Key

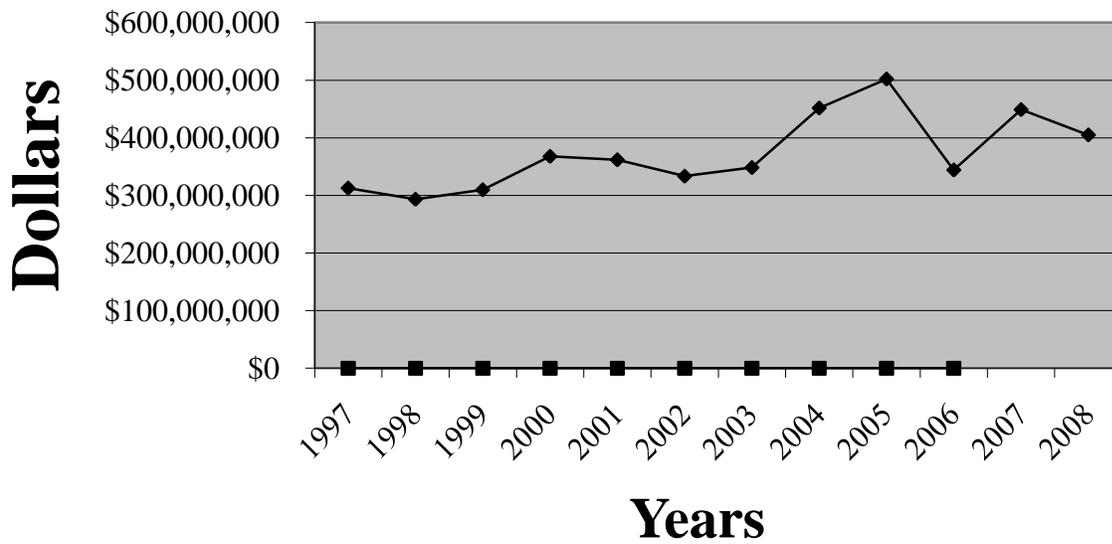
Value of Florida's Milk Production



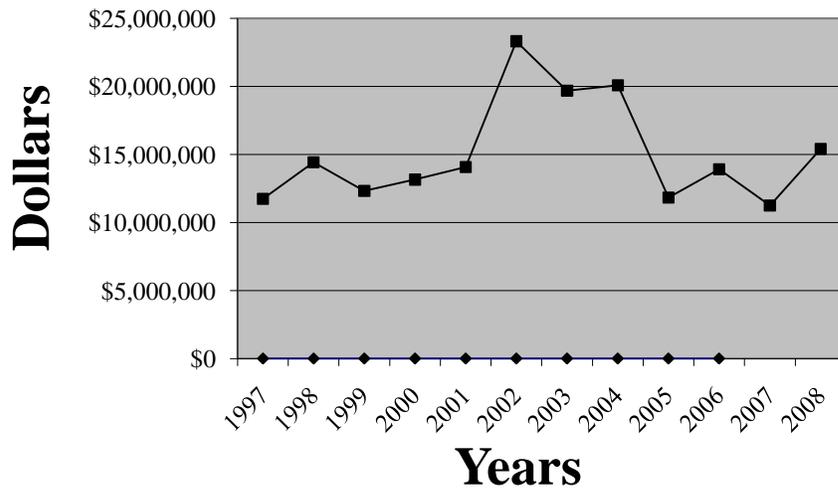
Value of Florida's Hogs



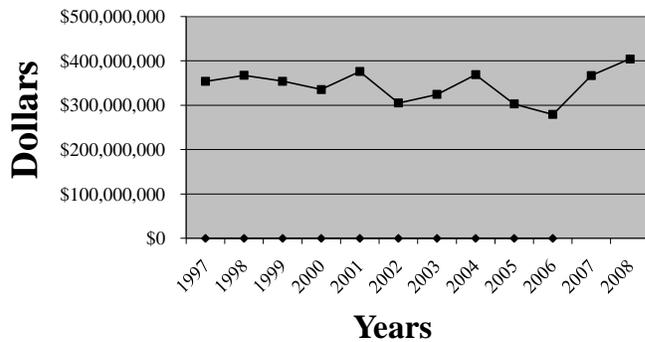
Value of Florida's Cattle & Calves



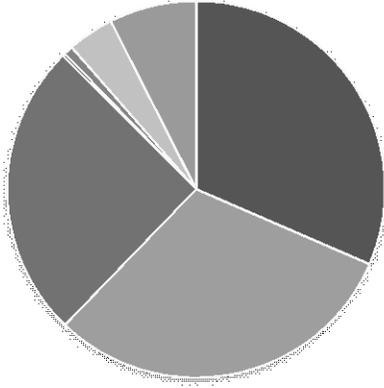
Value of Florida's Honey



Value of Florida's Chickens & Eggs



Florida's Livestock



- Milk 32%
- Cattle & Calves 31%
- Chickens & Eggs 26%
- Hogs .2%
- Honey 1%
- Aquaculture 4%
- Other 7%

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
2008	140,000	3,200	448,000,000		\$99,008,000
2007	119,000	2,700	321,300,000	\$0.19	\$59,762,000
2006	120,000	2,500	300,000,000	\$0.17	
2005		2,700	410,400,000		\$68,537,000
2004	130,000	2,800	364,000,000	\$0.18	\$65,884,000
2003	115,000	3,000	345,000,000	\$0.19	
2002	86,000	2,300		\$0.18	\$35,208,000
2001	82,000	3,050	250,100,000	\$0.22	\$53,772,000
2000			213,710,000	\$0.30	\$64,113,000
1999	94,000		260,380,000	\$0.23	\$60,408,000

Corn (Grain) Production and Value

Year	Harvested Acres	Yield (bushels)	Production (bushels)	Price per Bushel	Crop Value
2008		105	3,675,000	\$4.50	\$16,538,000
2007	35,000		3,150,000	\$4.00	\$12,600,000
2006	30,000	82	2,460,000		\$ 6,888,000
2005		94	2,632,000	\$2.00	\$ 5,264,000
2004	32,000		2,880,000	\$2.30	\$ 6,624,000
2003	39,000	82	3,198,000		\$ 8,155,000
2002		96	3,264,000	\$2.60	\$ 8,486,000
2001	26,000		2,262,000	\$2.25	\$ 5,090,000
2000	25,000	75		\$2.24	\$ 4,200,000
1999	40,000	93	3,720,000	\$2.32	

Cotton Production and Value

Year	Harvested Acres	Yield (pounds)	Production (pounds)	Price per Pound	Crop Value
2008	65,000	916		51.9¢	\$30,891,000
2007		687	55,679,000	58.0¢	\$32,294,000
2006	101,000		79,680,000	46.2¢	\$36,812,000
2005	85,000	762	64,800,000	48.0¢	
2004	87,000	601		46.4¢	\$24,276,000
2003		610	56,160,000	65.5¢	\$36,785,000
2002	105,000		46,080,000	44.0¢	\$20,275,000
2001	124,000	612		29.5¢	\$22,373,000
2000	106,000	480	50,880,000	56.5¢	
1999	106,000	516	54,720,000		\$23,256,000

Sugarcane Production and Value

Year	Harvested Acres	Yield (ton)	Production (ton)	Price per Ton	Crop Value
2008		33.1	13,255,000	\$30.10	\$398,975,000
2007	393,000		14,177,000	\$31.60	\$447,993,000
2006	400,000	35.9	14,346,000		\$446,161,000
2005	401,000	31.8		\$28.00	\$356,888,000
2004		35.2	14,281,000	\$30.30	\$432,714,000
2003	438,000		17,231,000	\$31.55	\$549,916,500
2002	461,000	38.3	17,653,000		\$559,600,000
2001	465,000	35.1	16,338,000	\$31.70	
2000	454,000	37.5		\$28.60	\$487,373,000
1999		35.0	16,100,000	\$27.20	\$437,920,000

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
2008	140,000	3,200	448,000,000	\$0.22	\$99,008,000
2007	119,000	2,700	321,300,000	\$0.19	\$59,762,000
2006	120,000	2,500	300,000,000	\$0.17	\$51,900,000
2005	152,000	2,700	410,400,000	\$0.17	\$68,537,000
2004	130,000	2,800	364,000,000	\$0.18	\$65,884,000
2003	115,000	3,000	345,000,000	\$0.19	\$63,480,000
2002	86,000	2,300	197,800,000	\$0.18	\$35,208,000
2001	82,000	3,050	250,100,000	\$0.22	\$53,772,000
2000	86,000	2,485	213,710,000	\$0.30	\$64,113,000
1999	94,000	2,770	260,380,000	\$0.23	\$60,408,000

Corn (Grain) Production and Value

Year	Harvested Acres	Yield (bushel)	Production (bushel)	Price per Bushel	Crop Value
2008	35,000	105	3,675,000	\$4.50	\$16,538,000
2007	35,000	90	3,150,000	\$4.00	\$12,600,000
2006	30,000	82	2,460,000	\$2.80	\$ 6,888,000
2005	28,000	94	2,632,000	\$2.00	\$ 5,264,000
2004	32,000	90	2,880,000	\$2.30	\$ 6,624,000
2003	39,000	82	3,198,000	\$2.55	\$ 8,155,000
2002	37,000	96	3,264,000	\$2.60	\$ 8,486,000
2001	26,000	87	2,262,000	\$2.25	\$ 5,090,000
2000	25,000	75	1,875,000	\$2.24	\$ 4,200,000
1999	40,000	93	3,720,000	\$2.32	\$ 8,630,000

Cotton Production and Value

Year	Harvested Acres	Yield (pounds)	Production (pounds)	Price per Pound	Crop Value
2008	65,000	916	59,520,000	51.9¢	\$30,891,000
2007	81,000	687	55,679,000	58.0¢	\$32,294,000
2006	101,000	789	79,680,000	46.2¢	\$36,812,000
2005	85,000	762	64,800,000	48.0¢	\$31,104,000
2004	87,000	601	52,319,000	46.4¢	\$24,276,000
2003	92,000	610	56,160,000	65.5¢	\$36,785,000
2002	105,000	439	46,080,000	44.0¢	\$20,275,000
2001	124,000	612	75,841,000	29.5¢	\$22,373,000
2000	106,000	480	50,880,000	56.5¢	\$28,747,000
1999	106,000	516	54,720,000	42.5¢	\$23,256,000

Sugarcane Production and Value

Year	Harvested Acres	Yield (ton)	Production (ton)	Price Per Ton	Crop Value
2008	401,000	33.1	13,255,000	\$30.10	\$398,975,000
2007	393,000	36.1	14,177,000	\$31.60	\$447,993,000
2006	400,000	35.9	14,346,000	\$31.10	\$446,161,000
2005	401,000	31.8	12,746,000	\$28.00	\$356,888,000
2004	406,000	35.2	14,281,000	\$30.30	\$432,714,000
2003	438,000	39.3	17,231,000	\$31.55	\$549,916,500
2002	461,000	38.3	17,653,000	\$31.70	\$559,600,000
2001	465,000	35.1	16,338,000	\$31.70	\$517,915,000
2000	454,000	37.5	17,025,000	\$28.60	\$487,373,000
1999	460,000	35.0	16,100,000	\$27.20	\$437,920,000



Florida's Field Crops

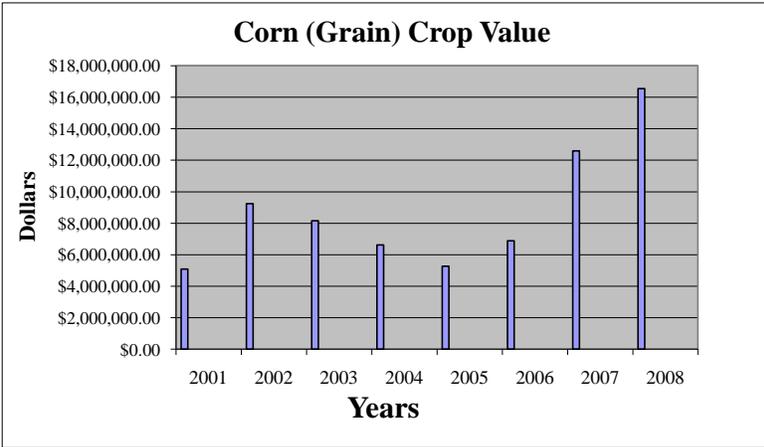
1. Create a histogram showing the crop **values** of corn from 2001 to 2008.
2. Create a line graph comparing the **production** of peanuts from 2001 to 2008.
3. Create a histogram showing the crop **values** of cotton production from 2001 to 2008.
4. Create a line graph comparing the **production** of sugarcane from 2001 to 2008.

Section C

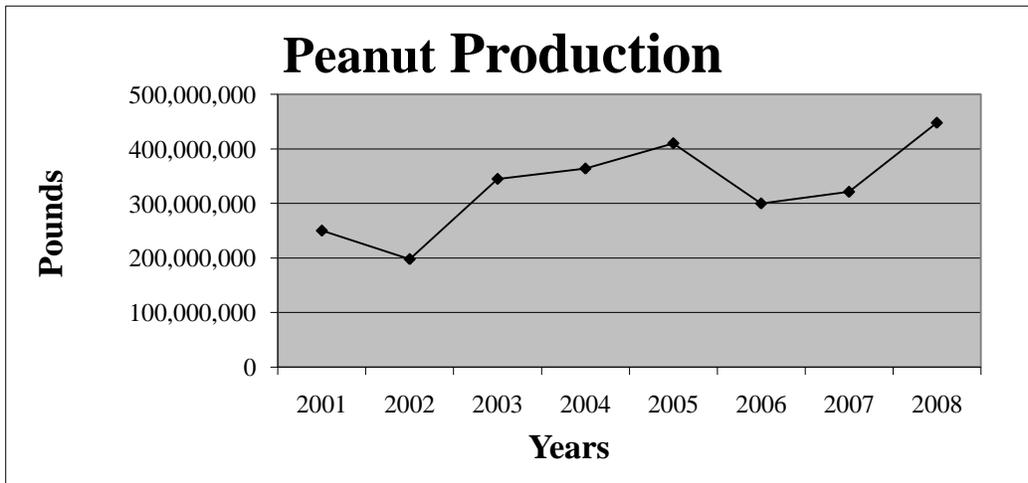
1. Which of the four field crops had the largest crop value in 2002?
2. What does your line chart say about peanut production from 2001 to 2008?
3. Was there an increase or decrease from 1999 to 2000 in the average yield per acre of peanuts? (refer to your table)
4. Did the average yield per acre of cotton increase or decrease from 1999 to 2000? (refer to your table)
5. What do you think could have affected the average yield per acre of peanuts and cotton?

Florida's Field Crops

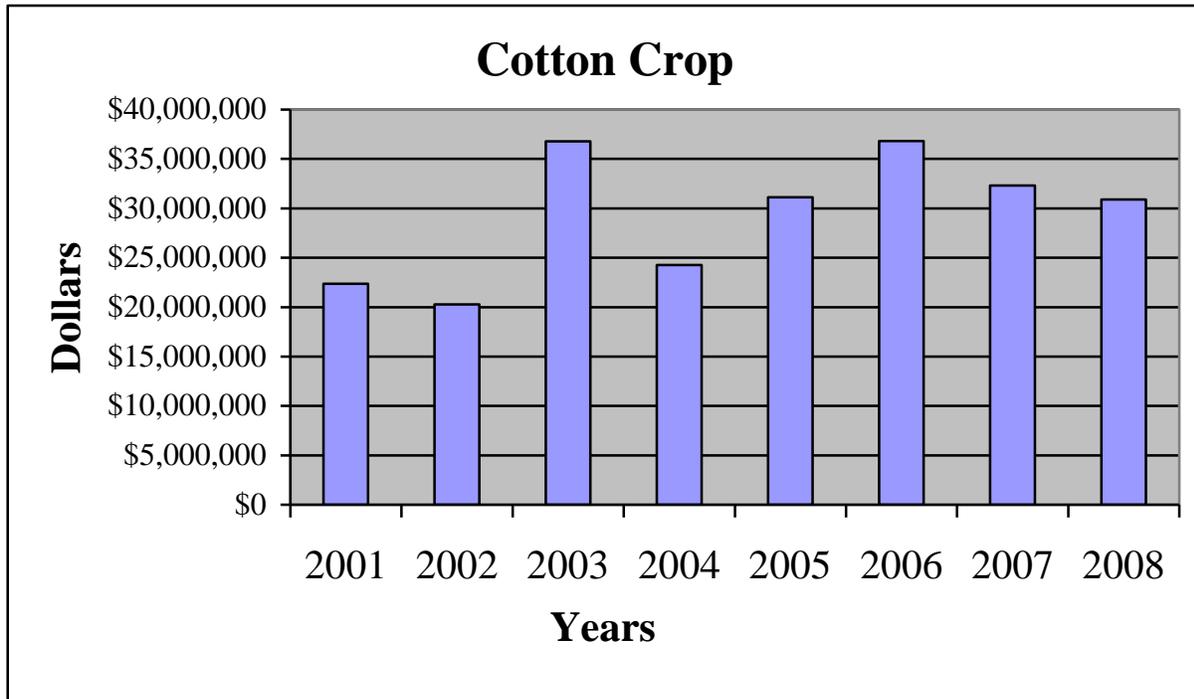
1. Create a histogram showing the crop values of corn from 1998-2008.



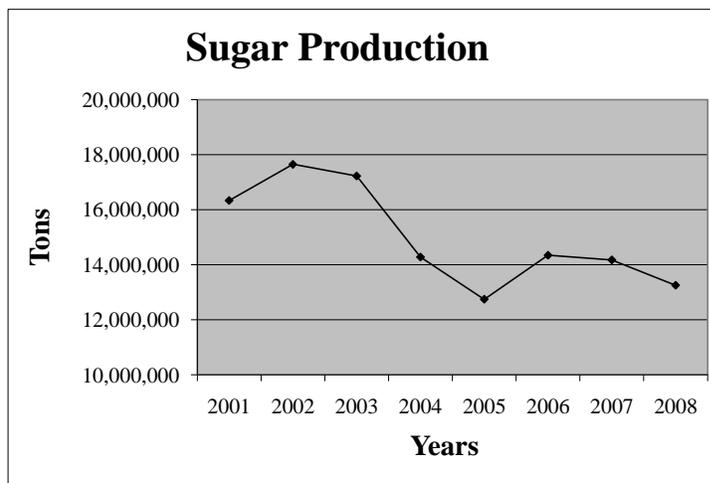
2. Create a line graph comparing the production of peanuts from 1998 to 2008.



3. Create a histogram showing the crop **values** of cotton production from 2001-2008.



4. Create a line graph comparing the **production** of sugarcane from 2001 to 2008.



Section C

1. Which of the four field crops has the largest crop value in 2002?

Sugarcane

2. What does your line chart say about peanut production from 2001 to 2008?

It has an up and down pattern from year to year, with a large increase from 2002 to 2003, and again from 2007 to 2008.

3. Was there an increase or decrease from 1999 to 2000 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 1999 to 2000? (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. If hurricanes and tropical storms hit one year, it could lead to a reduction in the per-acre yield of many crops. Note that it also happened again in 2005, the year of Hurricane Katrina.

6. Did the value per pound of cotton increase or decrease from 2001 to 2008? What was the amount of that change?

It increased by 22.4 cents per pound.

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

2001, 2002, 2003, 2004, 2006, 2007, 2008