

Unit C:

Usage of Graphics in

Agricultural Economics

Lesson 1: Understanding the Use of Graphics

Terms

- Bar Graph
- Correlation
- Cosmograph
- Line Graph
- Pie Chart
- Scatter Plot



Understand graphics and their purpose

- I. Graphics represent data by showing a visual picture to the reader and are used to show the relationship between two variables.
 - A. Almost any type of data can be described using a graphic. However, when the data have a weak *correlation*, or do not have a simultaneous change, text or a table explaining the data may be more effective.
 - 1. Examples of data may include results from a questionnaire, the number of agricultural products grown in a province, or profit made from an agribusiness for the past five years.

Understand graphics and their purpose

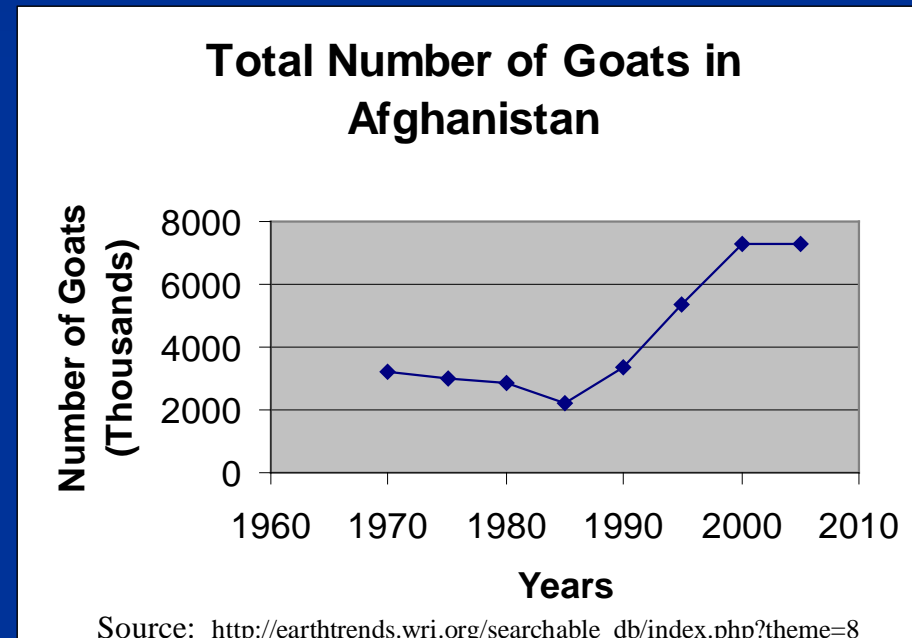
- B. The nature of graphics offers many benefits to understanding and dispersing data. Graphics are often used in addition to text given in a report.
 - 1. The visual picture provided by graphics helps readers to quickly identify patterns or trends.
 - a. By looking at a line graph, it is easy to see if the price of a particular commodity is increasing or decreasing.
 - 2. Graphics highlight the most important facts within the data.
 - a. Because graphics do not provide large amounts of information, they are used to demonstrate important points to the reader.
 - 3. Graphics assist readers in understanding the data. Data presented in graphics is typically easier to remember than data presented in text.

Identify types of graphics

II. Several types of graphics exist to easily represent varying types of data.

A. A *line graph* is a graphic that compares changes over time.

1. Line graphs easily show the increase or decrease of the item over time by using a continuous line.

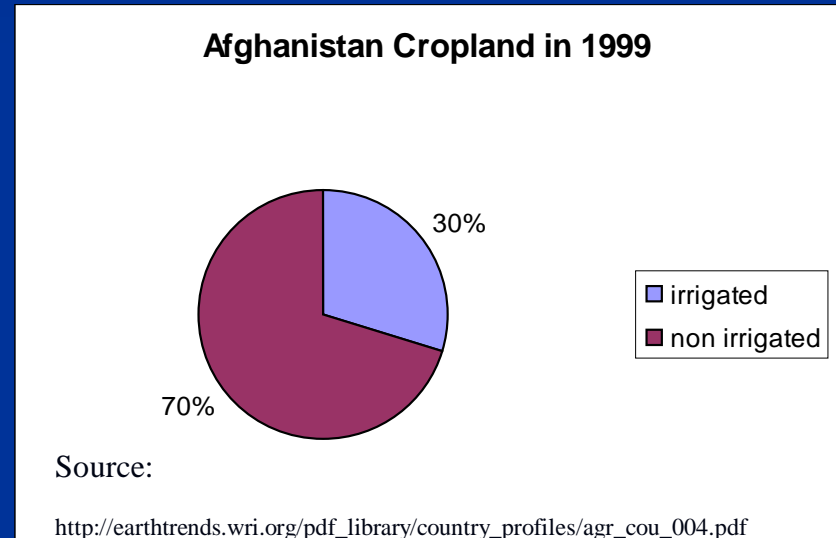


Identify types of graphics

B. A *pie chart* is a graphic that shows parts of a whole.

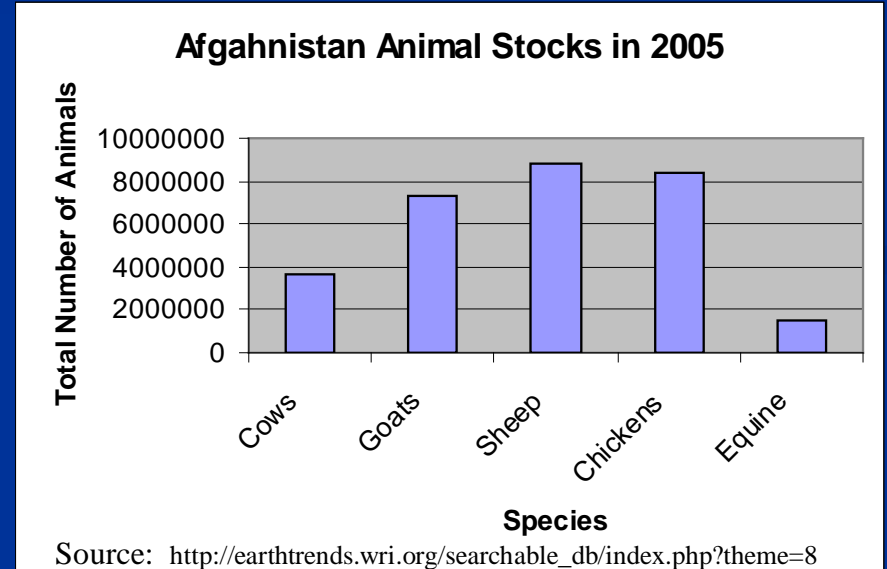
1. Pie charts show fractions of different parts pertaining to one item using a circular chart.

a. The circular chart is divided into representative portions that make up the whole.



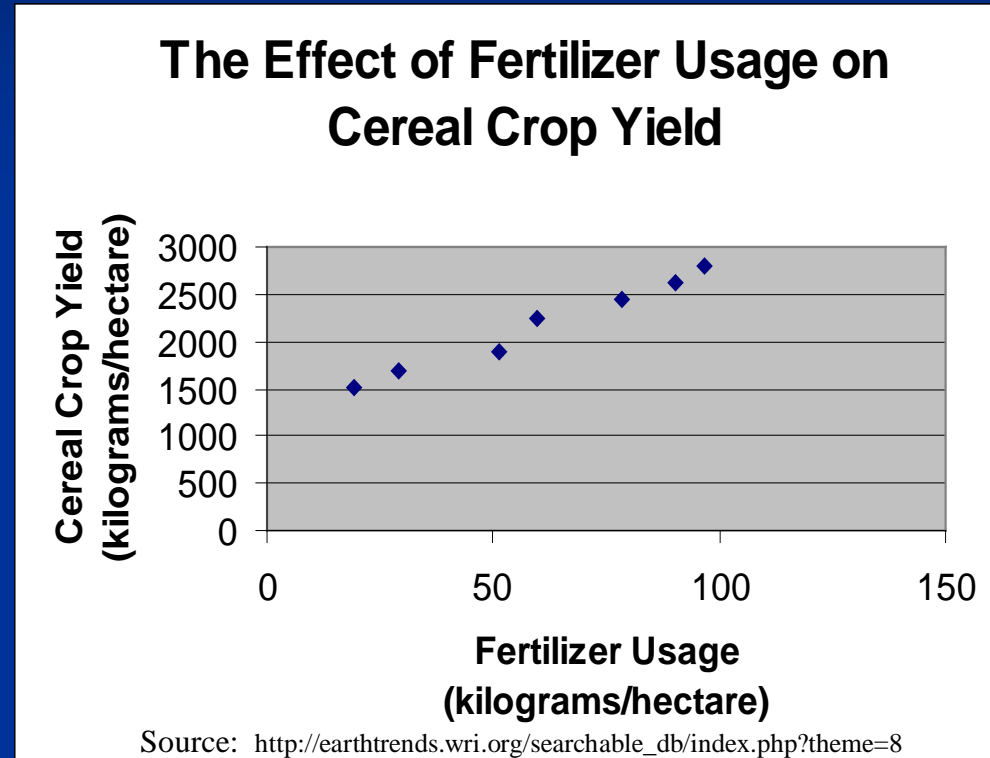
Identify types of graphics

- C. A **bar graph** is a graphic that compares things between different groups or changes over time.
1. Bar graphs utilize shaded bars, or thick lines, to compare items.
 2. A double bar graph can be used to compare two specific categories while also comparing things between different groups.



Identify types of graphics

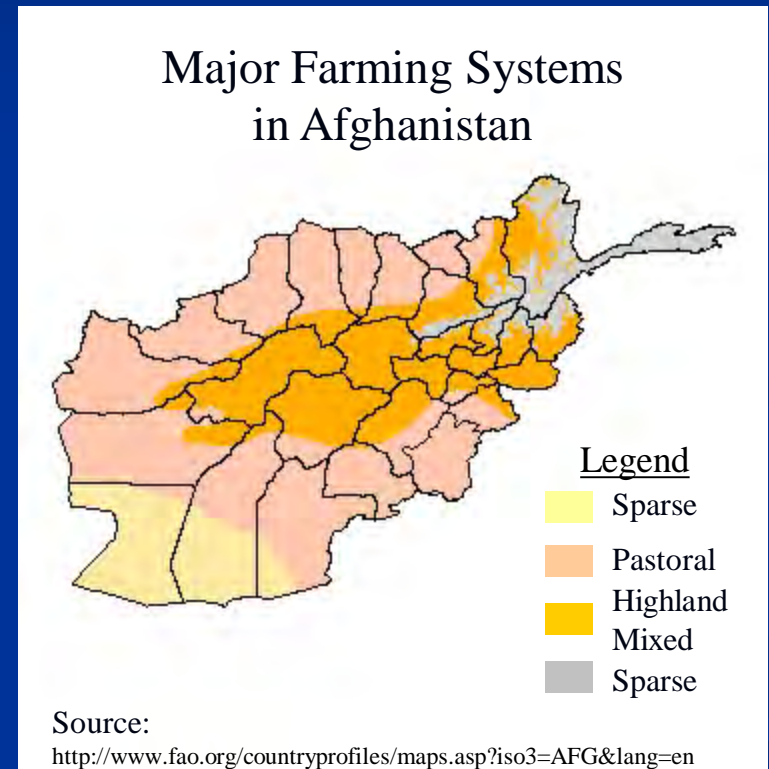
- D. A *scatter plot* is a graphic that shows how two things relate.
1. The scatter plot shows the change in one item because of the change of another item.
 2. A scatter plot utilizes points, or dots, to show the relationship of one item to another.



Identify types of graphics

E. A *cosmograph* is a graphic that uses a picture to show parts of a whole.

1. The most common type of cosmograph uses a map to illustrate differences among regions.



Explain the use of graphics in agribusiness

- III. Graphics are used in the planning, development, and improvement processes of agribusinesses.
 - A. When an individual or group is considering establishing an agribusiness, the current market and environmental conditions must be considered. Data provided in text and graphic format can be obtained from organizations.

Use of graphics in establishing an agribusiness

1. Cosmographs can provide information regarding environmental conditions such as temperature.
2. Pie charts may illustrate the foods that are most commonly grown in a particular region.
3. Bar and line graphs may show the commodities that have been produced in the past in addition to the price that producers receive for the commodities.
4. The most important graphic to consider may be scatter plots which describe how the price of a commodity is affected by the change in the total production of that commodity.

Explain the use of graphics in agribusiness

B. Graphics can also be used to improve agribusinesses. As records have been prepared over time for an agribusiness, graphics may be developed to compare many variables. The following are only a few examples of how graphics may be used to analyze and improve a business.

Use of graphics in improving an agribusiness

1. An agribusiness which has more than one enterprise may develop a double bar graph to compare the profitability of each enterprise on an annual basis.
 - a. From this graphic, business owners may decide that more cash should be invested in the more profitable enterprise to increase business profits and efficiency.
2. A line graph may show the change in the value of the net worth, total assets, and total liabilities since the business began.
 - a. By looking at this graphic, business owners may decide that profits should be spent on paying off debts instead of investing in more assets.

Review

- What is the purpose of graphics?
- What are the types of graphics?
- How are graphics used in agribusiness?