

SECOND EDITION

# Agribusiness

FUNDAMENTALS & APPLICATIONS

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## Chapter 1

# Agriculture and Agribusiness

# Essential Questions

- What is an agribusiness?
- How has agriculture evolved?



# What is Agribusiness?

- According to Merriam-Webster, an agribusiness is “an industry engaged in the producing operations of a farm, the manufacture and distribution of farm equipment and supplies, and the processing, storage and distribution of farm commodities.”
- In other words, it is a chain of industries directly or indirectly involved in the production, transformation, and provision of food, fiber, and chemical, and pharmaceutical substrates.



# Agribusiness: The Big Picture

- Agribusiness can be divided into three sectors:
  - The input sector provides supplies to the production agriculturalist.
  - The production agriculturalist produces food and fiber.
  - The output sector is run by agribusiness companies that process, market, and distribute agricultural products.



# Life before Agriculture

- Early man spent most of his time searching for food by hunting or gathering nuts, berries, and other naturally occurring foods.
- These people had to travel great distances, following the yearly migratory paths of herds.
- Two important developments would eventually lead to agriculture: fishing and fire.
- With these developments, people were more inclined to settle in one area.





# Early Agricultural Development

- People began to raise crops and domesticate animals.
- This allowed tribes to settle in one area and begin to develop better ways of living (due to extra time).
- Farming methods began with simple tools (such as sticks) and continued to evolve throughout both the Bronze and the Iron Ages.



# Evolution of Agriculture in America

- The first Americans had to learn through trial and error in a new land/climate.
- The earliest crops included corn, which Pilgrims learned to grow using fish as fertilizer.
- One of first marketed crops was tobacco, sent to England in 1613 from Virginia.
- America was built on economic growth from such export crops.



# Agriculture after the American Revolution

- After the American Revolution, people went west and developed new ways to produce foods and fibers:
  - Surveying of land used to separate property
  - Cotton gin invented by Eli Whitney
  - Vaccines used to prevent disease
  - First one-piece, cast-iron plow
  - Interchangeable parts so that equipment could be fixed





# The Industrial Revolution

- Occurred during the 1800s and spurred growth in both production agriculture and agribusiness.
- Advent of the steam engine, railroads, and sewing machine.
- Farms began to commercialize and specialize, growing in size.
- Marked the switch from animal power to mechanical power.



# Major Developments: Industrial Revolution

- Automobiles (invented by Ford)
- Crop Rotation (Charles Townsend)
- Livestock Breeding Advances (Robert Bakewell)
- Seed Drill (Jethro Tull)
- Mechanical Reaper (Cyrus McCormick)
- Stationary Grain Thresher
- Barbed Wire
- Gasoline Powered Tractor
- Genetics (Gregor Mendel)



# Major Advances: 1900–1950

- Transportation was further developed and made more widely available.
- This allowed farmers to get their food to more people.
- The Panama Canal opened for shipping.
- Federal Land Banks gave credit to farmers.
- U.S. government established the Bureau of Forestry.
- Hybrid seeds produced better crops.



# George Washington Carver

- An African American, known for his work with peanuts, sweet potatoes, and cotton.
- Science professor at Tuskegee Institute.
- One of the first to teach crop rotation.
- Learned to extract oils, sugars, and starches from peanuts (to make oil, cheese, milk, and margarine).
- Also made paper and rugs from cotton.



# The Great Depression

- Agricultural Factors:
  - Farm prices dropped.
  - Farmers were forced out of work.
  - Drought in the mid-west brought on the Dust Bowl.
  - Land was overused and, thus, soil was blown away.
  - As farms lost money, other portions of the economy followed.



# Major Advances: 1950–2000

- Artificial Insemination more widely used.
- New technologies increased productivity.
- Use of electric fences.
- Disc plows become widely used.
- Chemical fertilizers and pesticides widely used.
- Futures trading is used to control risk.
- Computers become agricultural management tools.





# Success of American Agribusiness

- One American farmer can now supply enough food for 150 people.
- Americans spend less of their income on food than any other people in the world.
- Agribusiness in the United States supplies its people with close to 1,500 pounds of food annually (while still producing exports in mass quantities).

