

# Agriculture Review

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- c. Subsistence farming
- d. Sedentary cultivation
- e. Shifting-field agriculture

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Why is the traditional classification of agriculture as a primary economic activity a problem when considering the geography of agriculture?

- a. Modern farmers are engaged in production, research, marketing, and some manufacturing of their products
- b. Agricultural employment is such a small fraction of the labor force in the industrialized countries that agriculture can no longer be thought of as a primary economic activity
- c. Unlike mining, forestry, and other primary activities, agriculture has not been affected by industrialization.
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# Hunters and Gatherers

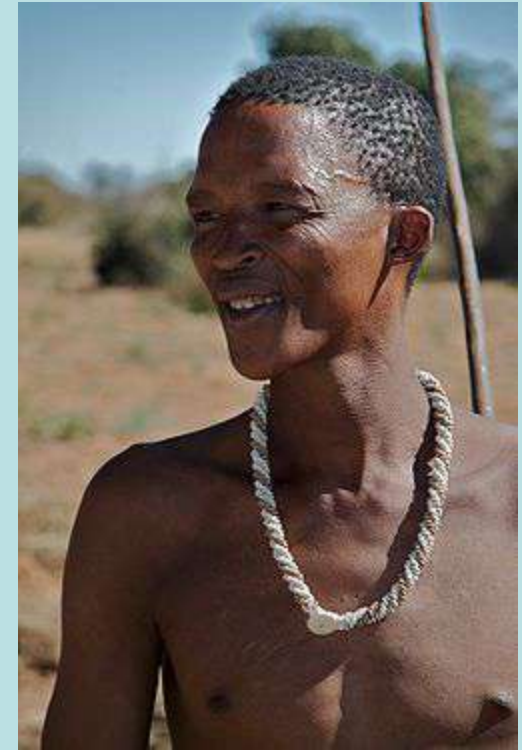
- Hunting animals, fishing
- Gathering fruits, nuts, berries, and roots
- Lived in small groups, nomadic





# Modern Day

- Isolated, .005% of population
- African Bushmen – Southern Africa
- Aborigines in Australia



# Agriculture

- When – 8,000-5,000 B.C.
- Before recorded history
- Agriculture – deliberate modification of the Earth to domesticate and cultivate plants and animals



Rice cultivation in Vietnam

# Types of Cultivation

- Vegetative planting– direct cloning from existing plants
  - Ex: cutting stems or dividing roots
- Seed agriculture – annual planting of seeds, most practiced today

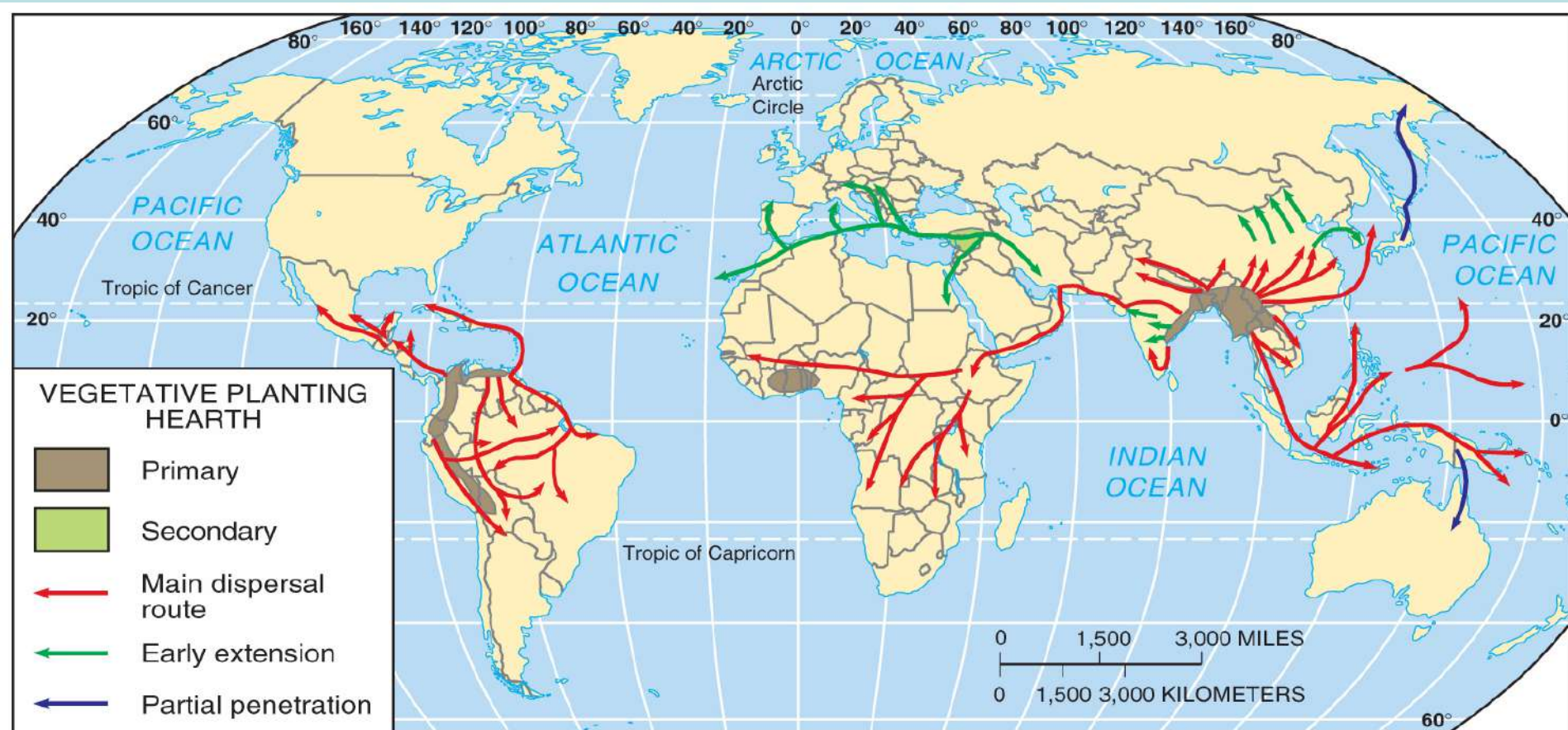


Sod planting,  
vegetative

# Location of Agricultural Hearths

- Multiple, independent points of origin, then diffused across the Earth
- First Vegetative Planting Hearths—  
Possibly SE Asia, West Africa, and NW South America

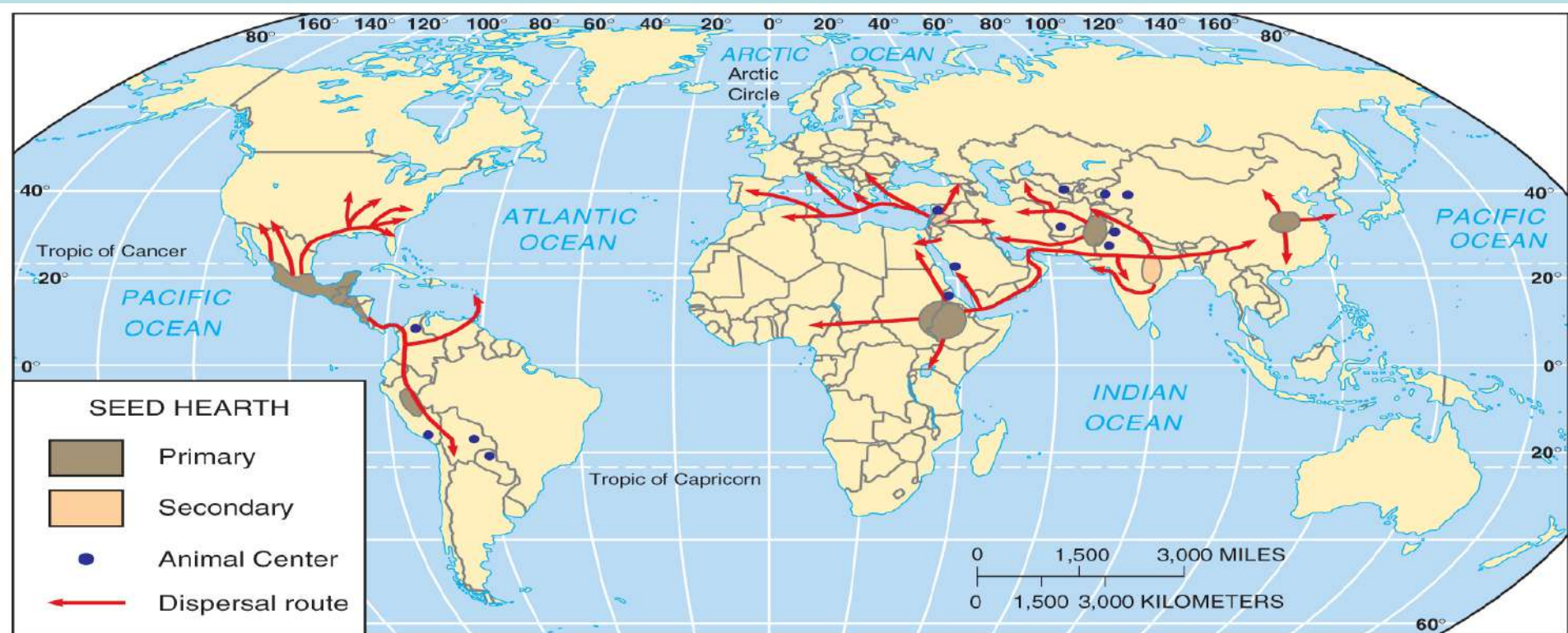
# Vegetative Planting Hearths



# First Hearths of Seed Agriculture

- 3 in Eastern Hemisphere: western India, northern China, Ethiopia
- 2 in Western Hemisphere: Central America, northern Peru

# Seed Hearths



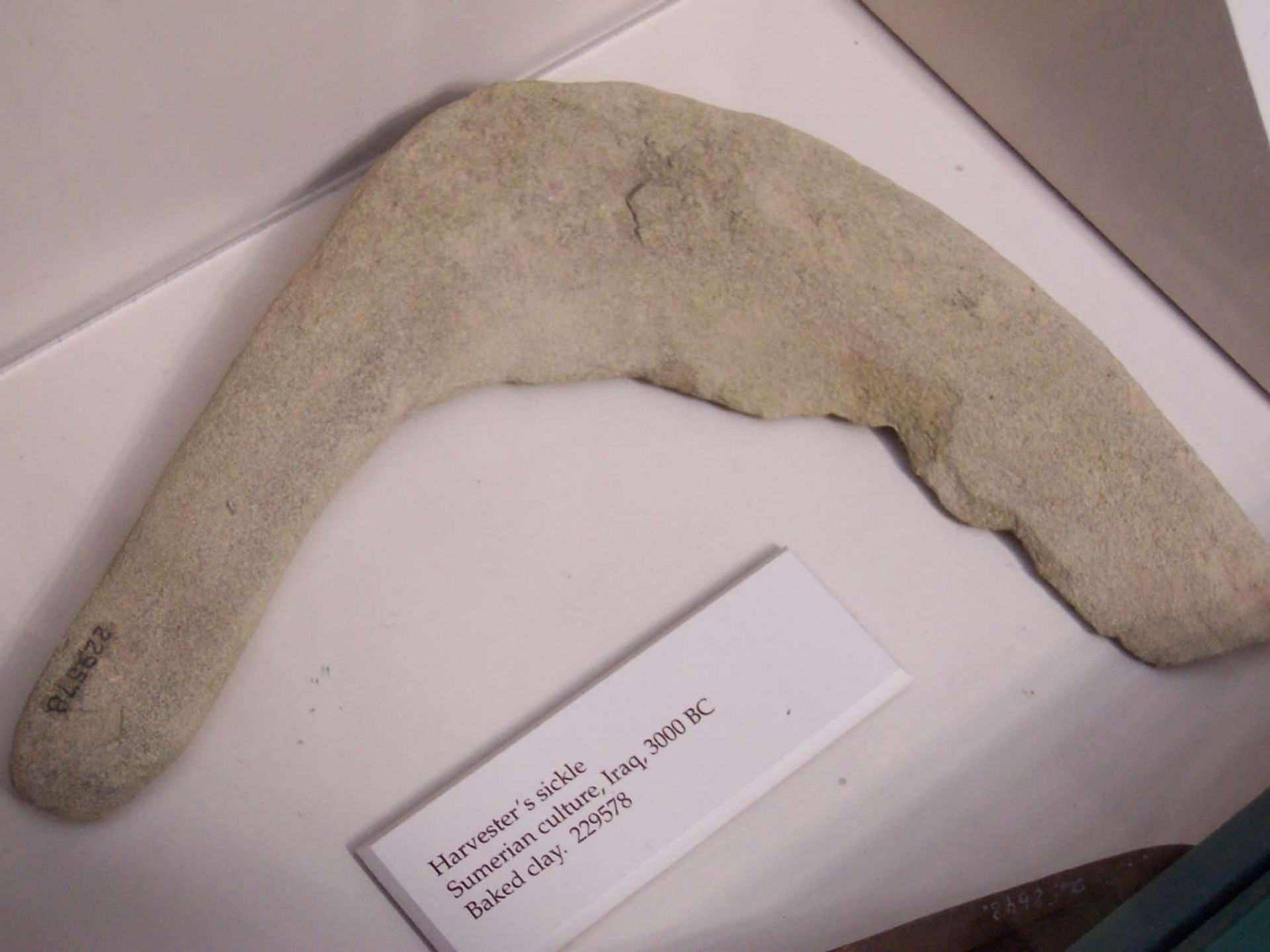
- Diffused quickly from western India to SW Asia where important advancements were made
- Domestication of wheat and barley and integration of domesticated animals



Barley







Harvester's sickle  
Sumerian culture, Iraq, 3000 BC  
Baked clay. 229578

229578

229578



An account of barley rations issued monthly to adults (30 or 40 pints) and children (20 pints) written in Cuneiform on clay tablet, written in year 4 of King Urukagina (circa 2350 BCE). From Ngirsu, Iraq. British Museum, London. BM 102081

# Thomas Malthus



**Thomas Malthus**  
**1766-1834**

- often regarded as the father of demography, the study of population.
- looked at the rate of population growth and concluded that **food production could not possibly increase fast enough** to be sufficient.

# Thomas Malthus



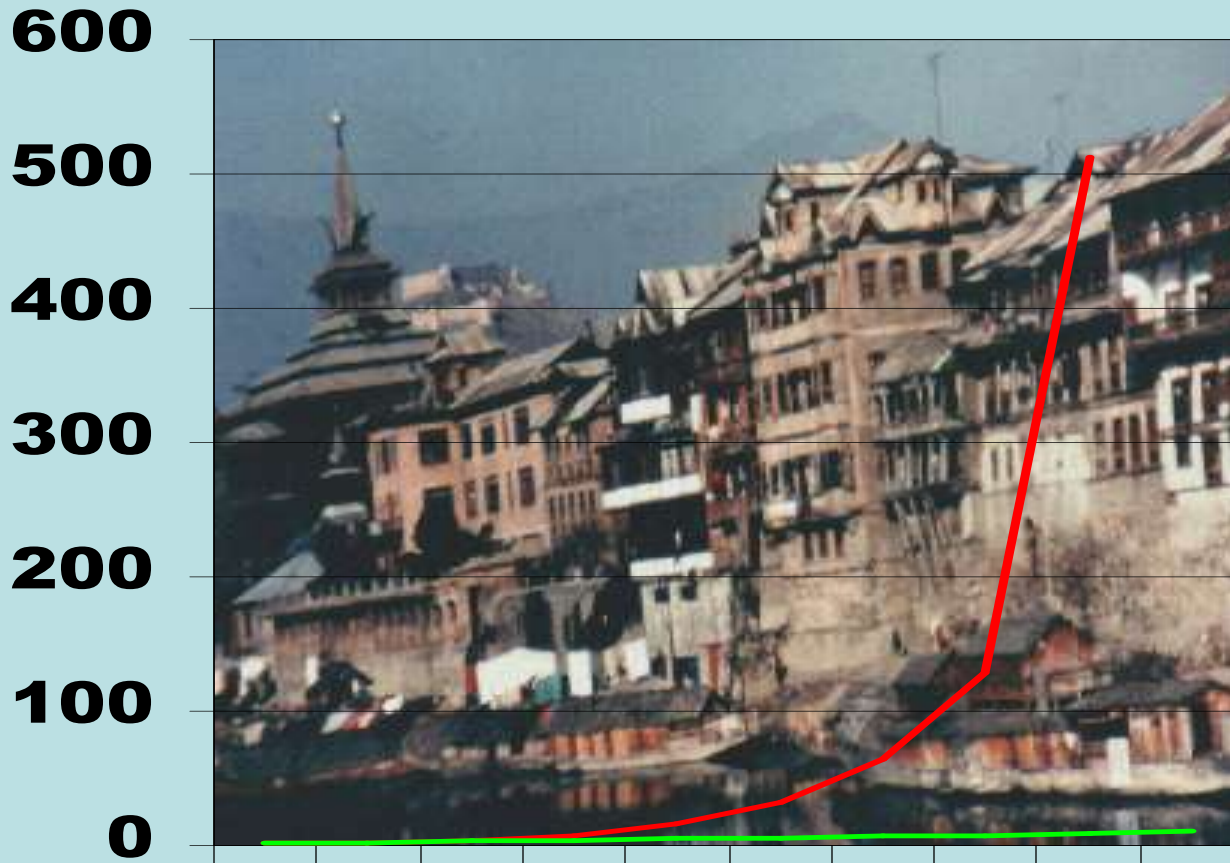
- From his assessment of population growth, he concluded that, if allowed to grow unchecked, populations rose at a **geometrical rate.**

**(1, 2, 4, 8, 16, 32, 64, 128, 256, 512, etc.)**

z He believed food production only increased arithmetically.

**(1, 2, 3, 4, 5, 6, 7, 8, 9, etc. )**

# Thomas Malthus



The gap between population numbers and food production produced “misery”.

The shape created by the population line is referred to as the “J-curve.”

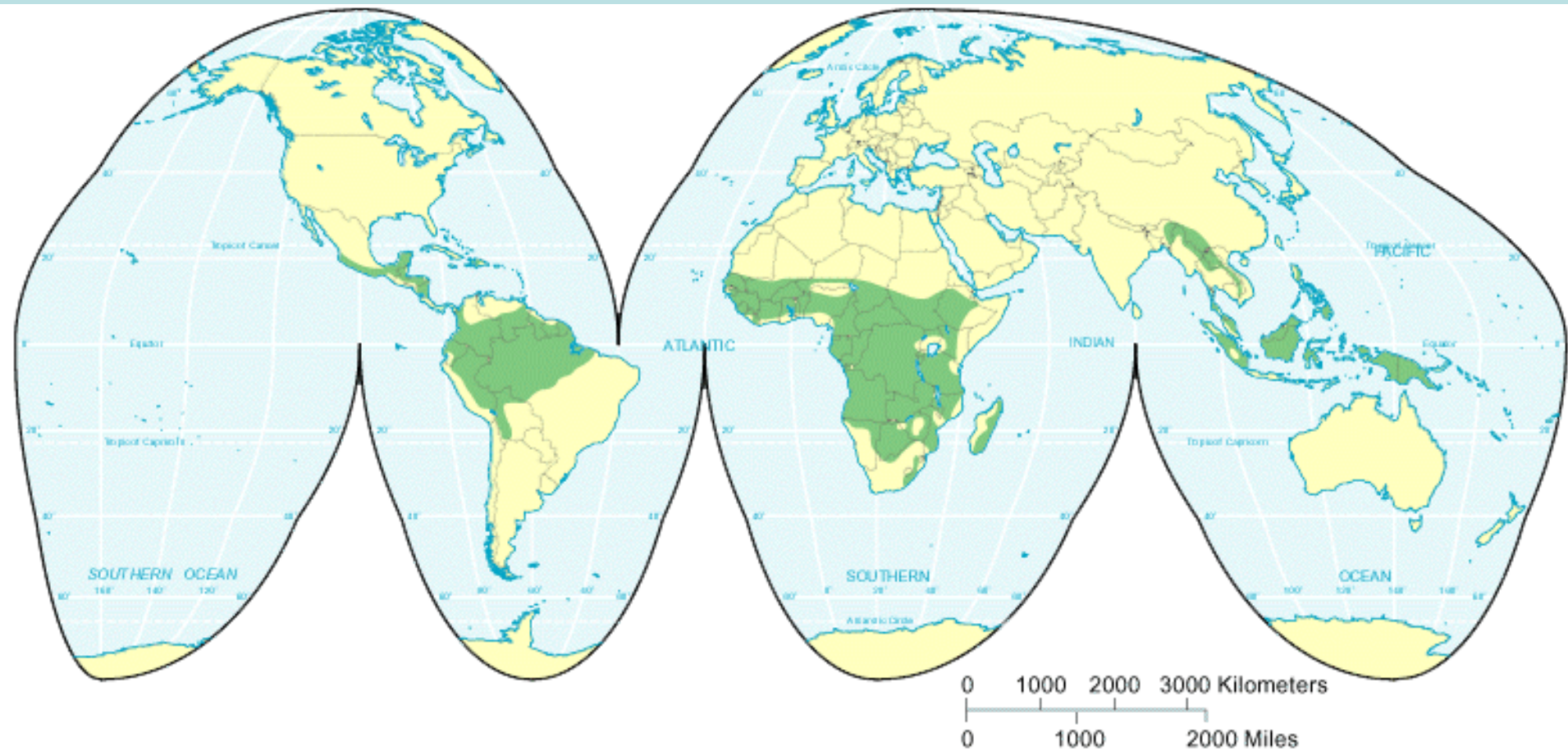
# One critique

- Possibilism – people will “figure it out,” they have the ability to change course of action in response to circumstance



# Classifying Agricultural Regions

- LDCs – Subsistence agriculture
  - Production is primarily consumed by farmer's family
- MDCs – Commercial agriculture
  - Production's primary use is for sale off the farm



**WORLD REGIONS OF PRIMARILY SUBSISTENCE AGRICULTURE**

In the shaded areas, subsistence crop farming is the leading way of life. In an average year, little surplus can be sold on markets.



# Purpose of Farming

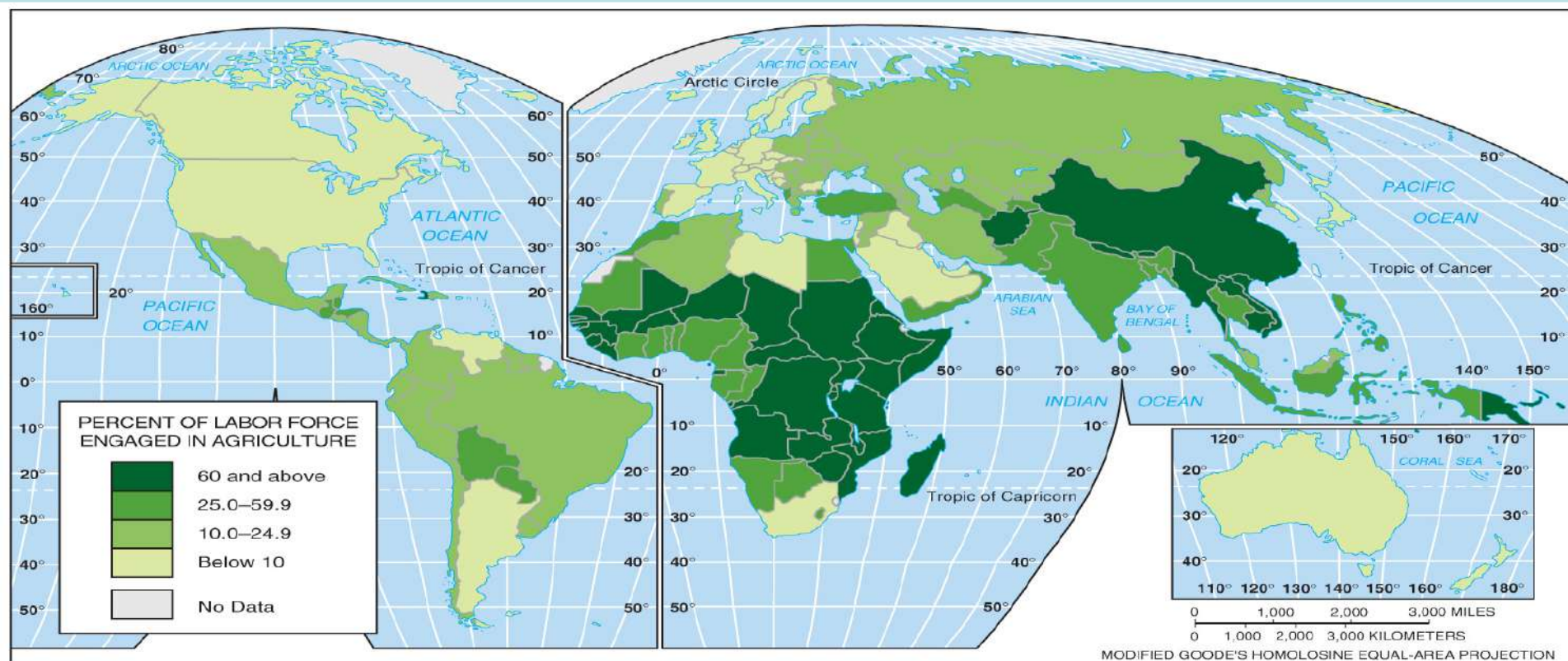
- LDCs – For personal consumption, though some may be sold in surplus years
- Commercial farming – production usually sold off of farm to food-processing companies rather than consumers



Some farmers choose to sell directly to consumer at organized locations such as a farmer's market

# Percent of Farmers in Labor Force

- MDCs – Less than 5%
- LDCs – 55%



# Use of Machinery

- MDCs utilize greater technology and machinery on the farm
- Better transportation options to market
  - Ex: heavier cows

Cattle drives everyday at the Fort Worth Stockyards





*Scientists are helping to develop technology that can not only track cattle with a Global Positioning System (GPS) but may allow their movements to be controlled across a landscape--and even be remotely rounded up into a corral.*

# Farm Size

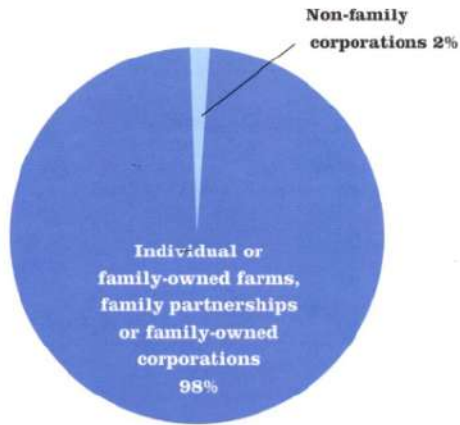
- Large in commercial farming
  - Avg. of 435 acres (175 hectares)
  - Most are still family owned and operated – 98%



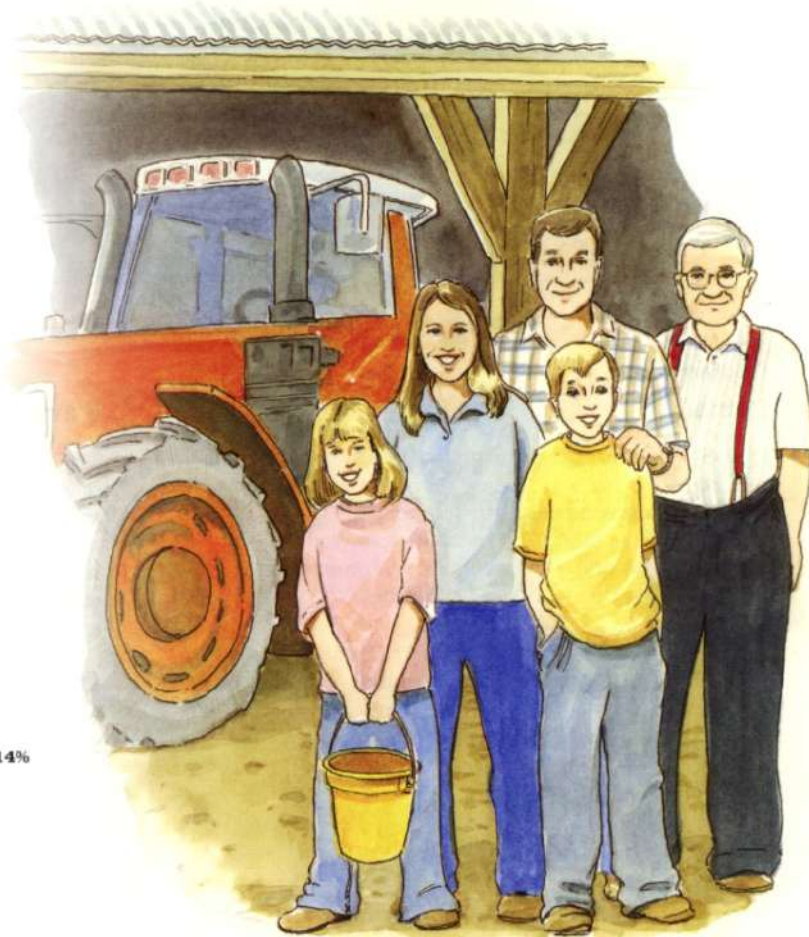
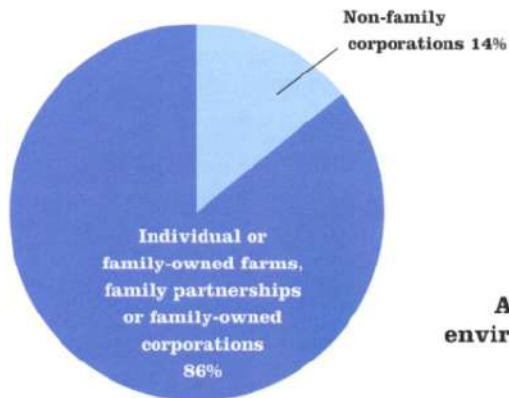
Most American farms are still family farms! Today **98 percent** of all U.S. farms are owned by individuals, family partnerships or family corporations. Just **2 percent** of America's farms and ranches are owned by non-family corporations.

In addition, **86 percent** of U.S. farm products sold are produced on farms owned by individuals, family partnerships and family corporations. Non-family corporations account for only **14 percent** of U.S. farm product sales.

### FARM OWNERSHIP



### FARM PRODUCTION



**American farmers are business people, community leaders, environmentalists, animal caretakers, and family men and women.**

# Relationship of Farming to other Businesses

- Commercial farming is tied to other businesses
  - Agribusiness – there are many other business involved in the food-production industry



John Deere factory  
Waterloo, IA



# Mapping Agricultural Regions

- Related to climate and culture
  - Some crops need certain conditions
  - Hog production virtually nonexistent in Muslim regions

# Shifting Cultivation

- High temp/rainfall, low latitude
- Slash-and-burn – used to clear land for farming, fertilize ground with ashes – called **swidden**



- Fields are tended by hand
- Low integration of technology





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**Shifting cultivation by the Trio tribe in the rainforest of Southern Suriname**

# Pastoral Nomadism

- Based on the herding of domesticated animals
- Located in dry climates where crops struggle
- N. Africa, Middle East, Central Asia
- 15 million sparsely occupy 20% of Earth's land area

# Masai - Kenya

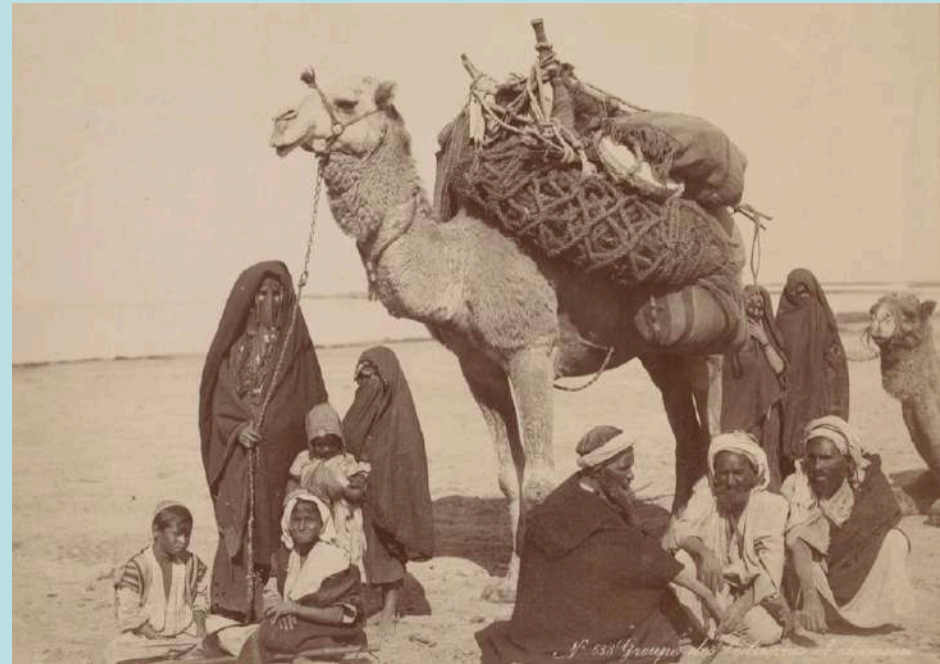


# Bedouins – Saudi Arabia / N. Africa



# Choice of Animals

- Camel most common in N. Africa/Middle East
  - Sheep, goats next
- Central Asia – Horse



Bedouins near the Nile



# Intensive Subsistence –Wet Rice Dominant

- Intensive = lots of work, aims for efficient use of land because of large populations
- Wet Rice – plant on dry land, move to flooded field



# Process

- Prep field with plow and animal power
- Flood the field – sawah not paddy
- Works best in river valleys and deltas



# Intensive Subsistence –Wet Rice Not Dominant

- Areas where climate prevents rice production, summer precipitation too low or winters too cold
- Interior India and Northeast China
- Wheat, barley, etc is more important



# Plantation Farming

- Form of commercial agriculture generally located in LDCs
- Tropics and subtropics
- Owned by Europeans and North Americans for sale in MDCs



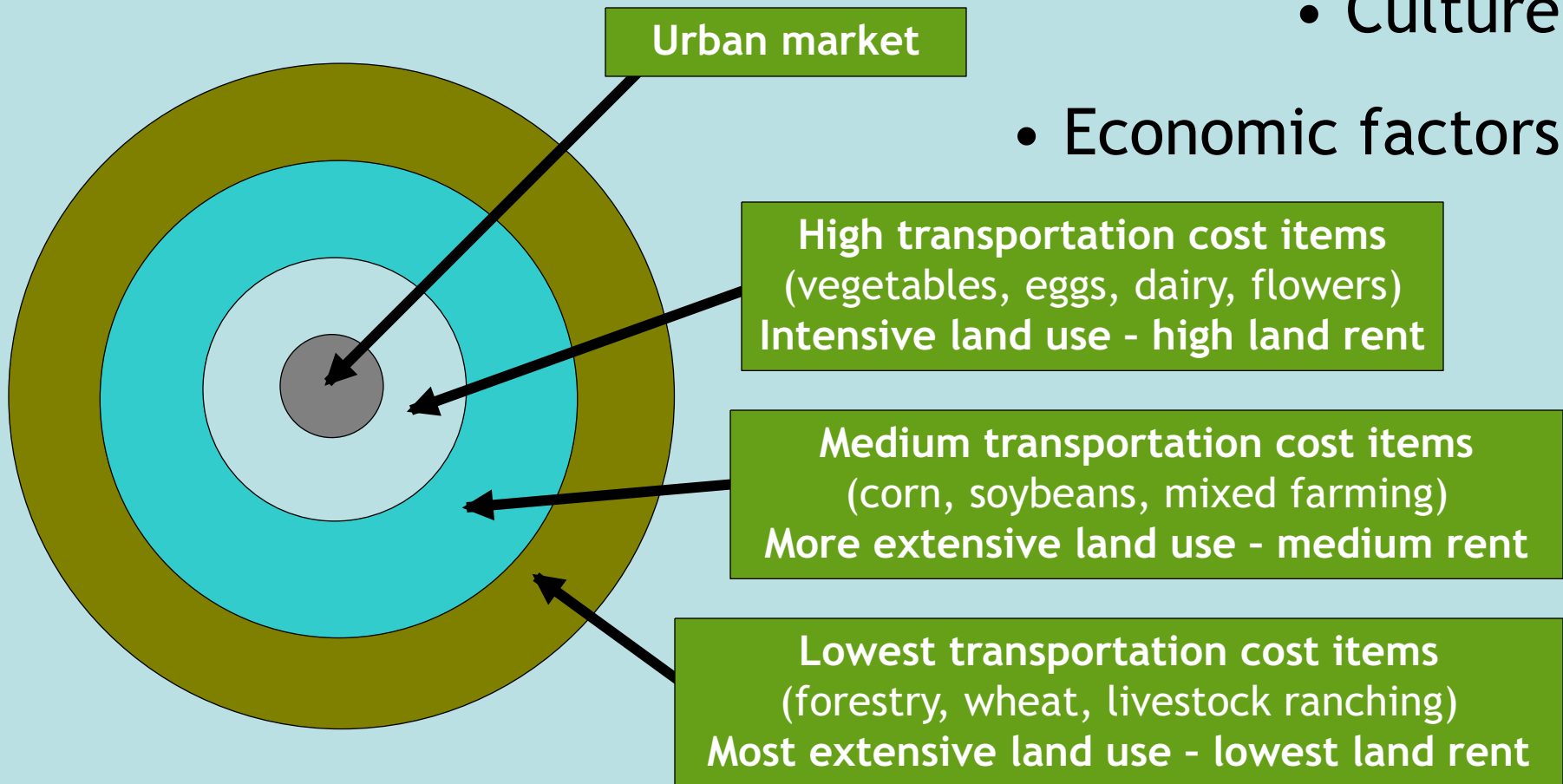
- Large farm that specializes in one or two crops
  - Cotton, sugarcane, coffee, rubber, tobacco, tea, cocoa, bananas etc.
- Pre-Civil War in the US

# Commercial Farmers

- Access to markets
  - Purpose is to sell and make profit
  - Must consider distance from farm to market, longevity of product, and profitability

# Factors influencing location of agriculture

- Climate and natural environment
- Culture
- Economic factors



Simplified von Thünen model of agricultural land use (1826)

# Check on these terms

- Primogeniture
- Long-lot survey system
- Green Revolution
- Desertification
- Enclosure
- Intensive vs. extensive agriculture
- Milkshed
- Winter wheat area