UNIT FIVE
AGRICULTURE:
PRIMARY ECONOMIC ACTIVITIES
ADVANCED PLACEMENT
HUMAN GEOGRAPHY

Session 2
MAJOR AGRICULTURAL PRODUCTION REGIONS
Agricultural practices vary widely across the globe.

The most basic distinctions in agricultural products are made between less developed countries (LDCs) and more developed countries (MDCs).
Subsistence agriculture is the production of only enough food to feed the farmer’s family with few or no surpluses to sell. It is most prevalent in LDCs.
Commercial agriculture is the production of food surpluses with most crops destined for sale to people outside the farmer’s family.

It is practiced primarily in MDCs.

Commercial farmers generally do not sell produce directly to consumers but to food processing companies.
Agribusiness occurs when big companies sign contracts with commercial farmers to buy their grain, cattle, pigs, chickens, and other products that they, in turn, package to sell through food outlets to consumers (e.g. grocery stores).

Agribusiness is found primarily in MDCs.
A Comparison... Percentage of Farmers in the Labor Force

Subsistence Agriculture

- **A high percentage** of people are engaged in farming.
- With **no surplus**, all people produce their own food to survive.
- **Example:** Many countries in Africa
  - 60% of citizens of citizens are engaged in agriculture.

Commercial Agriculture

- **A smaller percentage** of people are farmers.
- **Surplus** is available to sell.
- **Examples:** U.S. and Canada
  - Less than 2% of citizens are farmers.
Use of Machinery

- **Commercial Agriculture in MDCs**
  - Machinery is used to speed up production.
    - tractors
    - combines
    - planters
Use of Machinery

- Commercial Agriculture in MDCs

- Transportation is important to facilitate the ability to get goods to consumers.
  - Railroads
  - Highways
  - Rapid sea travel
  - Air travel
Use of Machinery

- **Commercial Agriculture in MDCs**
  - **Scientific advances** boost crop yields and the health of animals.
    - Fertilizers
    - Herbicides
    - News breeds of plants and animals
A Comparison... Farm Size

Subsistence Farms
- The farms are small in size.

Commercial Farms
- Commercial farmers have equipment that helps them to manage farms that are very large in size.

Commercial Farm
SUBSISTENCE FARMING:
SUBREGIONS
Subsistence farming varies according to adaptations to varying climates.
Subregions for subsistence farming include:

- intensive subsistence agriculture
- shifting cultivation
- pastoral nomadism
Intensive subsistence agriculture yields a large amount of output per acres through **concentrated farming** but still only provides a subsistence living for farmers.

Sometimes farmers may sell a little to others, but usually they **raise crops for their own consumption**.
Intensive subsistence farming is found in heavily populated areas of East and South Asia.

A little less than half of the world’s people are engaged in this type of farming.

Population densities are high.
**Intensive Subsistence Agriculture**

- **East and South Asia**
  - Wet, or low land, rice is dominant in many areas.
  - *Wet rice* is planted on dry land in a nursery and then moved as seedlings to a flooded field to promote growth.
  - The crop requires much attention and time but it can produce large amounts of food.
Labor intensive agriculture employs large numbers of people and requires relatively little capital to produce food.

Most work is done by hand.

Although the crops the farmers raise form the basis of their diets, they often link to other regions for specialized products.
Shifting cultivation is often referred to as “slash and burn” or swidden agriculture.

This farming method exists primarily in rain forest zones of:

- Central and South America
- West Africa
- Eastern and Central Asia
- much of southern China and Southeast Asia
Shifting cultivation still consumes a large percentage of arable land on the planet.

People who practice shifting cultivation generally live in small villages and grow food on the surrounding land.
Intertillage—the growing of various crops—is common with shifting cultivation.

Farming is done almost exclusively by hand, and plows and animals are generally used.

The main fertilizer is potash from burning the debris when the site is cleared.
Shifting Cultivation

- When nutrients are depleted from the soil after a few years, villagers identify another site and clear it.
- They allow the old site to return to its natural vegetation, although they do not entirely abandon it.
- Villagers return to the original site after a few years to resume their farming.
Shifting cultivation is best suited to rain forest regions, where farmers fertilize the relatively infertile rain forest soils by burning the undergrowth and using the ash to allow cultivation of crops.
Pastoral nomadism is characterized by following the herds, just as earlier hunters and gatherers did.

Today, domesticated herds consist of:

- sheep
- goats
- cows
- reindeer
- camels
- horses
Nomadism is the practice of moving frequently from one place to the other, as dictated by the need for pasture for the animals.
This life style first developed across the grassy plains of central Eurasia and nearby desert areas of the Arabian Peninsula and Sudan.
The animals provide subsistence for the herders with:

- milk
- cheese
- meat
- hair, wool, and skins for clothing and shelter
The herds follow *seasonal availability* of pasture.

*Extended stays* by herders are neither possible nor desirable.
Both shifting cultivation and pastoral nomadism are referred to as extensive subsistence agriculture.

They involve large areas of land and minimal labor per land unit.
A major issue for subsistence farmers today is the need to intensify farming because of rapidly growing populations.
Boserup was an economist who believed that subsistence farmers intensify production by leaving land fallow for shorter periods. adopt new farming methods.
In order to farm land more efficiently,

- plows must be used.
- more weeding must take place.
- more ditches for irrigation must be dug.
The increase in population provides more people for weeding and digging ditches, so yield per acre increases, and land may be left fallow for shorter periods of time.
Commercial farmers are part of a large, complex economy that includes industrial and service sectors as well.
Commercial Agriculture: Categories

Intensive Types
- Dairy farming
- Truck farming

Extensive Types
- Large grain farms
- Livestock farms
Mixed crop and livestock farming is the most common form of commercial agriculture in:

- the United States west of the Appalachian Mountains.
- much of Europe from France to Russia.
Farmers **grow crops and raise livestock** on the same land spread, with most of the crops fed to animals rather than people.

**Most income comes from the sale of animal products such as:**
- beef
- milk
- eggs
Most farmers practice crop rotation where each field is planted on a planned cycle.

Different crops take different nutrients from the soil.

Commercial farmers make efficient use of soil.
At any given time, commercial farmers will have almost half of their fields planted but with different crops from previous years.
Example of crop rotation:

- One cycle might consist of cereal grains (e.g. oats).
- A second cycle might feature a root crop (e.g. turnips).
- A third cycle would be a “rest” crop such as clover. It restores the field but may be eaten by cattle.
- Then the farmer can start over with a cereal grain.
Dairy farms must be closer to market than other products because milk spoils quickly.

A ring of milk production called a milkshed surrounds a major city.
Today refrigerated rail cars and trucks have extended the reach of the milk sheds so that nearly every farm in the U.S. Northeast and Northwest Europe is within the milk shed of at least one urban area.
Dairy farms also produce butter and cheese, with many specializing in one product or another. Since cheese and butter keep fresh longer than milk, farms further away from urban centers tend to favor these products over milk.
A Look at New Zealand...

- New Zealand is the world’s largest producer of dairy products.
- New Zealand farmers devote only a small share of their work to liquid milk because they are too far away from North America and Western Europe to hold the milk market.
Dairy farmers usually do not sell their products directly to consumers but to wholesalers or to butter and cheese manufacturers.
The number of dairy farms has decreased significantly since 1980.

Dairy farmers cite long work and too little profit as reasons for giving up their farms.

HOWEVER, overall dairy production has risen, indicating that farms still in existence are producing more.
A disadvantage of dairy farming is the expense of feeding cows in winter.

Dairy farmers must purchase all feed, making it less likely that they will make a profit.

Dairy farming is also labor intensive. For example, cows must be milked twice daily.
The most important grain-producing areas in the world are in three regions in the United States.
Region One: winter wheat area

- Kansas, Colorado, Oklahoma
- The crop is planted in the autumn, survives the winter, and ripens the following summer.
Region Two: spring wheat area

- The Dakotas
- Montana
- In this region, winters are too severe for winter wheat.

Region three: the Palouse Region

- Washington state
Commercial Farming: Grain Farming

- Other grain-producing countries:
  - Canada
  - Australia
  - Argentina
  - France
  - United Kingdom
Large-scale grain production, like other forms of commercial agriculture, is heavily mechanized on large farms.
Much wheat finds its way into the international market, where it serves as the world’s leading export crop.

As a result, the prairies of North America are often referred to as the “world’s breadbasket.”
States like Wyoming and Nebraska that lie between regions often are able to produce both winter and spring wheat.

Major Grain-producing Regions of the U.S.
Ranching is the commercial grazing of livestock over an extensive area.

It is often practiced in arid or semi-arid regions where climate conditions make crop production impractical.
Cattle ranching extends over much of the western United States, where the patterns of life associated with it have shaped the popular image of the West through stories of cowboys, round-ups, and trail-herding.
By the late 19th century, cattle ranching became more sedentary as more railroads covered the landscape and farmers claimed more western lands.
In **South America**, a large portion of the pampas (prairie) of Argentina, southern Brazil, and Uruguay are devoted to grazing cattle and sheep.
The shaded area on the map shows where livestock ranching is prevalent in South America.
Ranches in the following places are more likely to raise sheep than cattle:

- Australia
- New Zealand
- Middle East
- South Africa
Irrigation has allowed conversion of ranch land to crops, with the remaining ranches experimenting with new methods of breeding, feeding, and watering in order to stay profitable.
While livestock raised in the U.S. is sold primarily in the domestic market, livestock raised in other areas is more likely to be exported to high consumption developed countries.
Mediterranean agriculture is practiced in the following places:

- lands that border the Mediterranean Sea
- California
- Central Chile
- southwestern part of South Africa
- southwestern Australia
These areas share a similar physical environment.

They:

- border seas.
- are on the west coasts of continents.
- have moisture provided by prevailing sea winds.
- have moderate winter temperatures.
- have hot and dry summers.
Horticulture is the growing of fruits, vegetables, and flowers.

Horticulture forms the commercial base of Mediterranean agriculture.
### Commercial Farming: Mediterranean Agriculture

<table>
<thead>
<tr>
<th>Mediterranean Sea</th>
<th>California</th>
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<tbody>
<tr>
<td>The most important cash crops for this region are:</td>
<td>This region produces grapes, (wine), citrus fruits, and tree nuts.</td>
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<tr>
<td>- olives</td>
<td>- This region produces a wider variety of crops because of the extensive use of irrigation.</td>
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<tr>
<td>- grapes</td>
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<td>Two-thirds of the world’s wines are produced here.</td>
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</tbody>
</table>
Commercial gardening and fruit farming predominate in the **U.S. Southeast**, a region with a long growing season and humid climate.

- The region also has accessibility to the markets of the Northeast.
This type of agriculture is often called truck farming.

“Truck” originally meant “bartering” in the English language.

Truck farms usually rely on:
- machinery
- fertilizers
- migrant workers
Products from truck farms include:

- apples
- asparagus
- cherries
- lettuce
- mushrooms
- tomatoes

Some produce is sold fresh to consumers but most is sold to large processors for canning or freezing.
A plantation is a large farm that specializes in one or two crops and is found today in:

- Latin America
- Africa
- Asia
Almost all crops are raised for export to high-consumption developed countries.

These exports are called cash crops because they are raised to make money for their owners.
Crops that are usually grown on plantations include:

- cotton
- sugarcane
- coffee
- rubber
- tobacco
Plantations are colonial legacies that persist in poorer, primarily tropical, countries along with subsistence farming.

Until the 19th century, slave labor was employed, but today the workers are paid, although their room and board constitutes a large part of their salaries.
Today many plantations in former colonies are still owned by Western corporations or individuals.
Key Terms to Remember from this Session

- Less developed countries
- More developed countries
- Subsistence agriculture
- Commercial agriculture
- Agribusiness
- Intensive subsistence agriculture
- Wet rice
- Labor intensive agriculture
- Shifting cultivation
- “slash and burn”
- Swidden agriculture
- Intertillage
- Potash
- Pastoral nomadism
- Nomadism
Key Terms to Remember from this Session

- Extensive subsistence agriculture
- Intensive commercial agriculture
- Extensive commercial agriculture
- Mixed crop and livestock farming
- Crop rotation
- Dairy farms
- Milkshed
- Grain farming
- Livestock ranching
- Mediterranean agriculture
- Horticulture
- Truck farming
- Plantations