
Unit 5

Agriculture &

Rural Land Use

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This PPT has been created using the information from the *AMSCO Human Geography: Preparing for the Advanced Placement Examination* book.
Palmer, David. *AMSCO Advanced Placement Human Geography*. Perfection Learning, 2019.



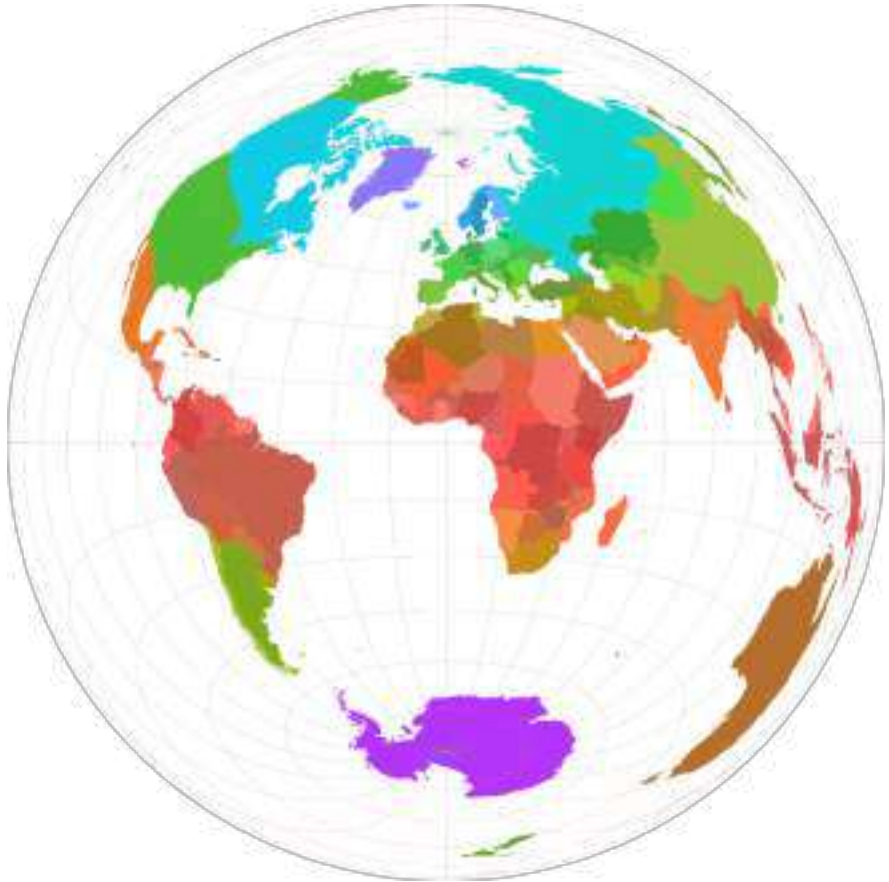
UNIT 5 – AGRICULTURE, FOOD, & RURAL LAND USE
CH 13: AGRICULTURAL REGIONS

“Without agriculture it is not possible to have a city, stock market, banks, university, church or army. Agriculture is the foundation of civilization and any stable economy.”



-Allan Savory, biologist and farmer, Zimbabwe

ESSENTIAL QUESTION



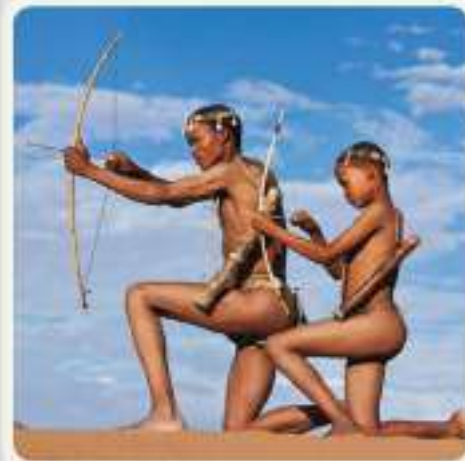
Why does agriculture vary
so greatly around the
world?

OVERVIEW

- Two forces that shape agriculture are **physical geography** and **climate**.
- Climate and landforms determine which crops can be grown and what animals can be raised (example: coffee in low latitudes)
- Economics, the workings of supply and demand, influence the competing use of land. Consumer demand influences what farmers will decide to grow.

ENDURING UNDERSTANDING (5.B)

By the end of this section, you will *understand* that **major agricultural regions reflect physical geography and economic forces.**

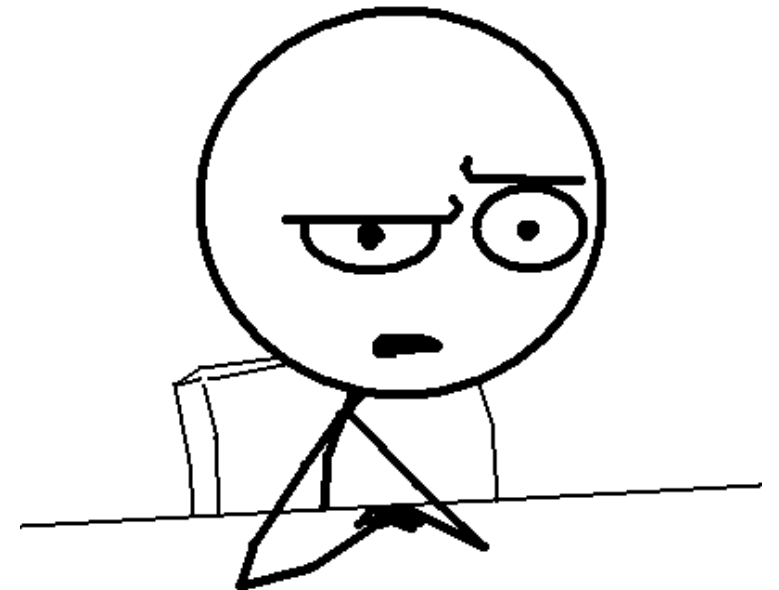


LEARNING OBJECTIVE (5.B.1)

By the end of this section, you will *be able to identify* **agricultural production regions associated with major bioclimatic zones.**

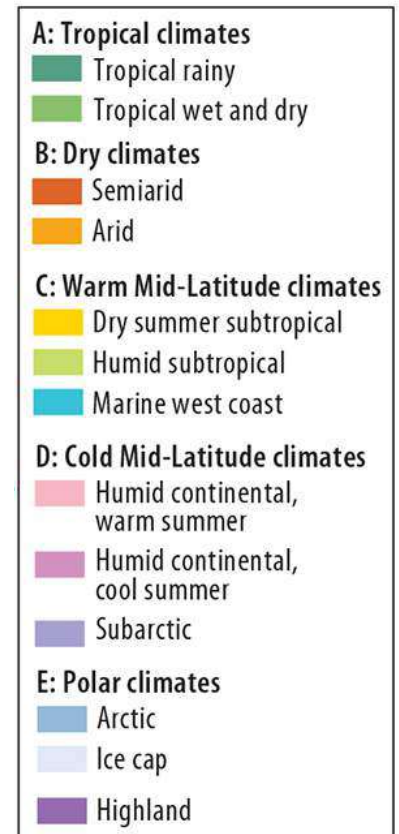
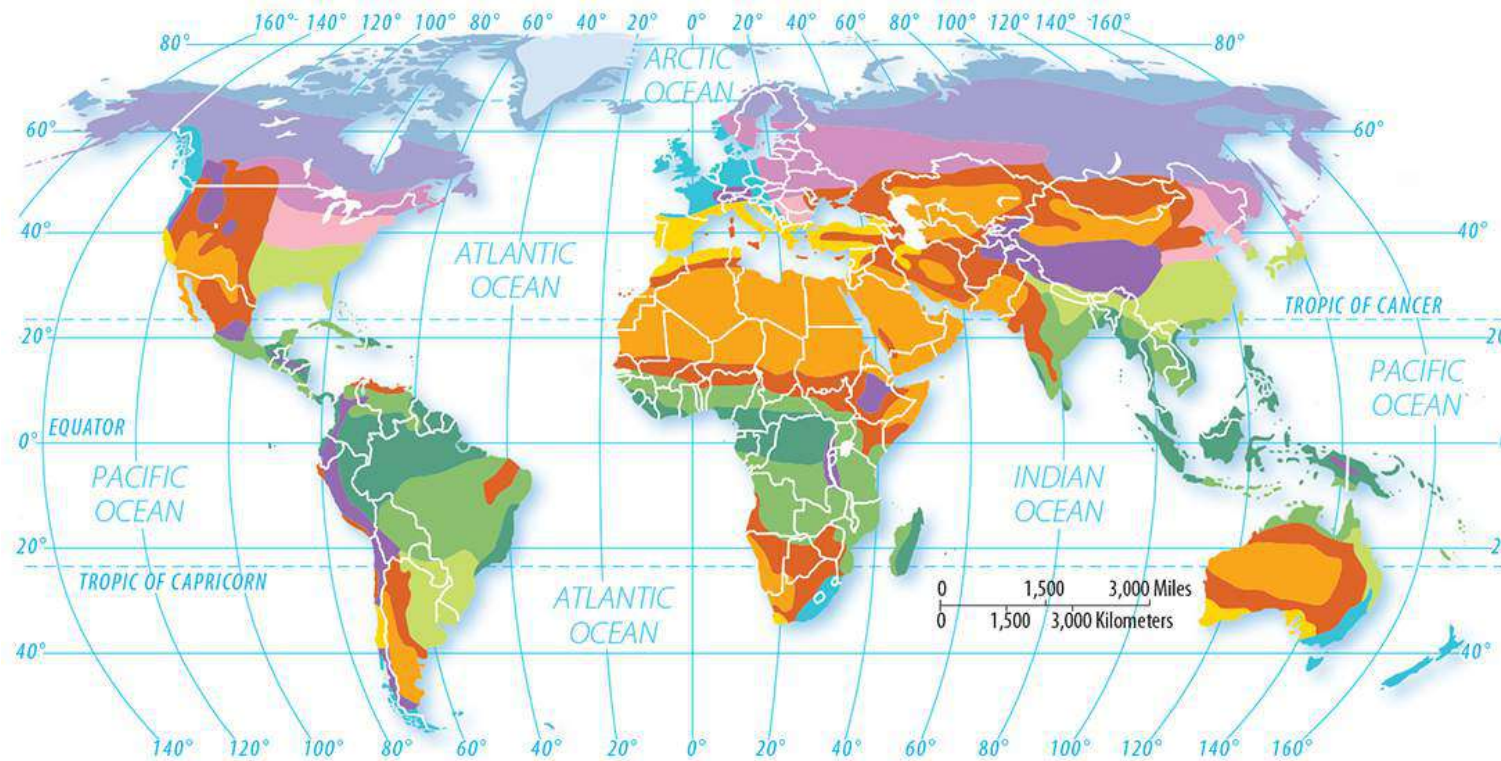


Wait, what?!



UNDERSTANDING THE TERMS

Agricultural production region simply refers to *where* agriculture is practiced. A **bioclimatic zone** is a broad zone of vegetation that corresponds to the average annual temperature at different latitudes and altitudes.



LEARNING OBJECTIVE (5.B.1)

So let's try this again...

By the end of this section, you will *be able to* **identify agricultural production regions associated with major bioclimatic zones.**

Students will know that:

- a. Plant and animal production is dependent on climatic conditions, including spatial variations in temperature and rainfall.
- b. Some agricultural regions are associated with particular **bioclimatic zones** (e.g., Mediterranean, shifting agriculture, pastoral nomadism).

CLIMATE AND AGRICULTURE (PG. 209)

Climate Conditions and Agricultural Production

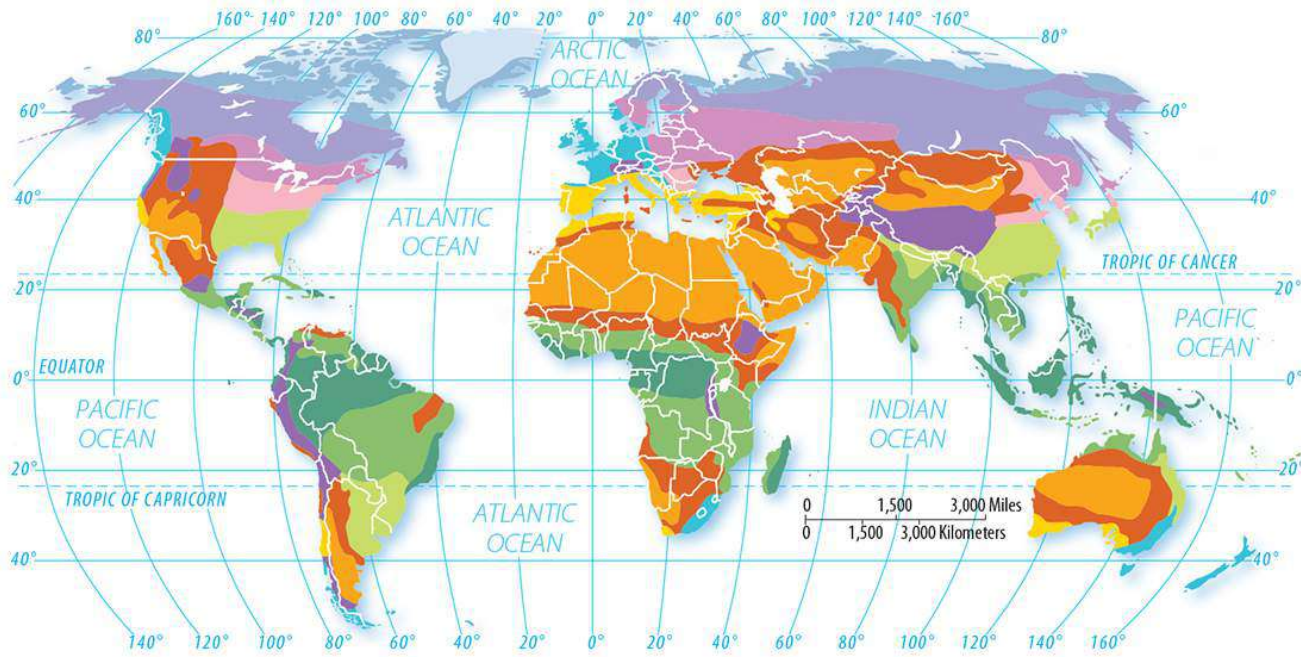
- Most of the earth's land surface supports some type of agricultural activity.
- Exceptions: high latitudes around the north and south poles and high altitudes like the tops of mountains.
- **Derwent Whittlesey**
 - In 1936, Whittlesey identified *eleven* main agricultural regions.



CLIMATE AND AGRICULTURE (PG. 209)

Climate Conditions and Agricultural Production

- Compare the two maps on the next slide.
- Do the agricultural regions match the climate regions more closely in the developed regions of North America and Europe or in the developing regions of Latin America, Africa, and Asia?



AGRICULTURAL REGIONS

Agricultural Practice	Climate	Locations
Pastoral Nomadism	Drylands	<ul style="list-style-type: none"> • Southwest, Central, and East Asia • North Africa
Shifting Cultivation	Tropical	<ul style="list-style-type: none"> • Latin America • Sub-Saharan Africa • Southeast Asia
Plantation	Tropical/Sub-Tropical	<ul style="list-style-type: none"> • Latin America • Sub-Saharan Africa • South and Southeast Asia
Mixed Crop/ Livestock	Cold and Warm Mid-Latitude	<ul style="list-style-type: none"> • Midwestern United States and Canada • Central Europe
Grain	Cold Mid-Latitude	<ul style="list-style-type: none"> • North Central United States • South Central Canada • Eastern Europe

Commercial Gardening	Warm Mid-Latitude	<ul style="list-style-type: none"> • Southeastern United States • Southeastern Australia
Dairy	Cold and Warm Mid-Latitude	<ul style="list-style-type: none"> • Northeastern United States • Southeastern Canada • Northwestern Europe
Mediterranean	Warm Mid-Latitude	<ul style="list-style-type: none"> • Southern coast of Europe • Northern coast of Africa • Pacific coast of the United States • Southern tip of Africa • Chile
Livestock Ranching	Drylands	<ul style="list-style-type: none"> • Western North America • Southeastern South America • Central Asia • Southern Africa
Intensive Subsistence	Warm Mid-Latitude	<ul style="list-style-type: none"> • South, Southeast, and East Asia • Near large populations
None	Polar	<ul style="list-style-type: none"> • Arctic • Antarctica

CLIMATE AND AGRICULTURE

Climate Conditions and Agricultural Production

- Climate influences agriculture.
 - **Example:** animal herding takes place in drier climates (western U.S., North Africa, Southeast Asia)
- However, economics can influence animal herding too.
 - **Pastoral nomadism** in the developing world – people travel from place to place with their herds of animals.
 - **Ranching** in the developed world – livestock graze over large areas while the owners stay in the same place.



CLIMATE AND AGRICULTURE

Climate Conditions and Agricultural Production

- Technology can overcome climate.
 - **Example:** Iceland and Greenland are cold but farmers can grow crops in greenhouses.
 - **Example:** tomatoes, once grown mostly in Florida and California, are now grown in Canadian indoor facilities.
- Culture can shape economic activity.
 - **Example:** consider food – southwest Asia is good for raising hogs but the region is mostly Muslims and Jews who object to eating hogs.

CLIMATE AND AGRICULTURE

Agricultural Regions Associated with Bioclimatic Zones

- Crops and livestock thrive best in specific bioclimates.
 - Pastoral nomadism
 - Shifting cultivation
 - Plantation agriculture
 - Mixed crop/livestock farming
 - Grain farming
 - Commercial gardening (truck farming)
 - Dairy farming
 - Mediterranean agriculture
 - Livestock ranching

CLIMATE AND AGRICULTURE

Pastoral Nomadism

- A form of subsistence agriculture practiced in the developing world
- Arid and semi-arid climates
- **Nomadism:** a way of life of peoples who do not live continually in the same place but move cyclically or periodically.
- Rely on animals – cattle, camels, reindeer, goats, yaks, sheep, and horses provide meat, milk for food, and hides for clothing and shelter.
- Nomads travel and trade meat for crops with other subsistence farmers.
- Regional animals: south central Asia and east Africa (cattle adapt to hot climate); deserts of the Middle East (camels survive without water); northern Siberia (reindeer thrive in cold weather)

CLIMATE AND AGRICULTURE

Shifting Cultivation

- Subsistence agriculture where farmers in tropical climate regions move from one field to another.
- Also called **slash and burn** or **swidden** agriculture
- Clear the land with fire (enriches nutrient-poor soil by adding nitrogen to it), plant and harvest crops, and when the soil is less fertile, they move to another location and repeat the process.
- Rice in SE Asia
- Maize (corn) in South America
- Millet and sorghum in sub-Saharan Africa
- One field, usually communal, is used for a variety of crops.



CLIMATE AND AGRICULTURE

Plantation Farming

- Biproduct of colonialism
- Large commercial farm that specializes in one crop
- Usually in low latitudes (the tropics) in hot, humid climates with a lot of rain.
- Labor intensive and often exploit cheap labor in nearby villages
- Processing may occur near plantation to reduce transportation costs.
- Crops include coffee, cocoa, rubber, sugarcane, bananas, tobacco, tea, coconuts, and cotton.

Tea plantation



CLIMATE AND AGRICULTURE

Mixed Crop/Livestock Farming

- An integrated system common in *developed* regions, such as the Midwestern United States, northern Europe, and Canada but has diffused to the developing world.
- Majority of crops raised are fed to livestock fattened for eventual slaughter or fed to dairy cows.
- Animal manure is used as fertilizer.
- Owners of land and animals may be different but there is a strong interrelationship between the two.
- Most common in the United States: soybeans and corn



CLIMATE AND AGRICULTURE

Grain Farming

- Regions too dry for mixed crop, farmers often raise wheat
- Prairies and plains
- Top producers: China, India, Russia, and the United States
- Type of wheat reflects climate
 - **Spring wheat** – planted in early spring and harvested in the fall; cold regions like North Dakota, South Dakota, Montana, and parts of Canada
 - **Winter wheat** – planted in the fall and harvested in early summer; warmer regions like Kansas, Oklahoma, and Colorado



CLIMATE AND AGRICULTURE

Commercial Gardening

- In the United States, commercial gardening and fruit farming is known as **market gardening** and is found mostly in California and the Southeast (long growing seasons)
- Also called **truck farming** as products were traditionally driven to urban markets to sell.
- Today, most products are sold to companies for canning or freezing.
- Most common in United States: lettuce, broccoli, apples, oranges, and tomatoes.



CLIMATE AND AGRICULTURE

Dairy Farming

- Traditionally, dairies and creameries were local and supplied to customers in small geographic areas; currently in LDCs.
- Late 1900s, improvements in refrigeration and transportation expanded the **milk shed**, geographic distance that milk is delivered.
- Large corporate dairy operations replaced smaller family-owned farms (decreased farms but increased milk production).
- Most commercial dairy farms are in the US, Canada, Europe, and other highly developed countries near urban centers and transportation corridors.
- Some countries (Argentina, Brazil) saw an increase in a demand without an increase in consolidation, leading to more dairy farms.



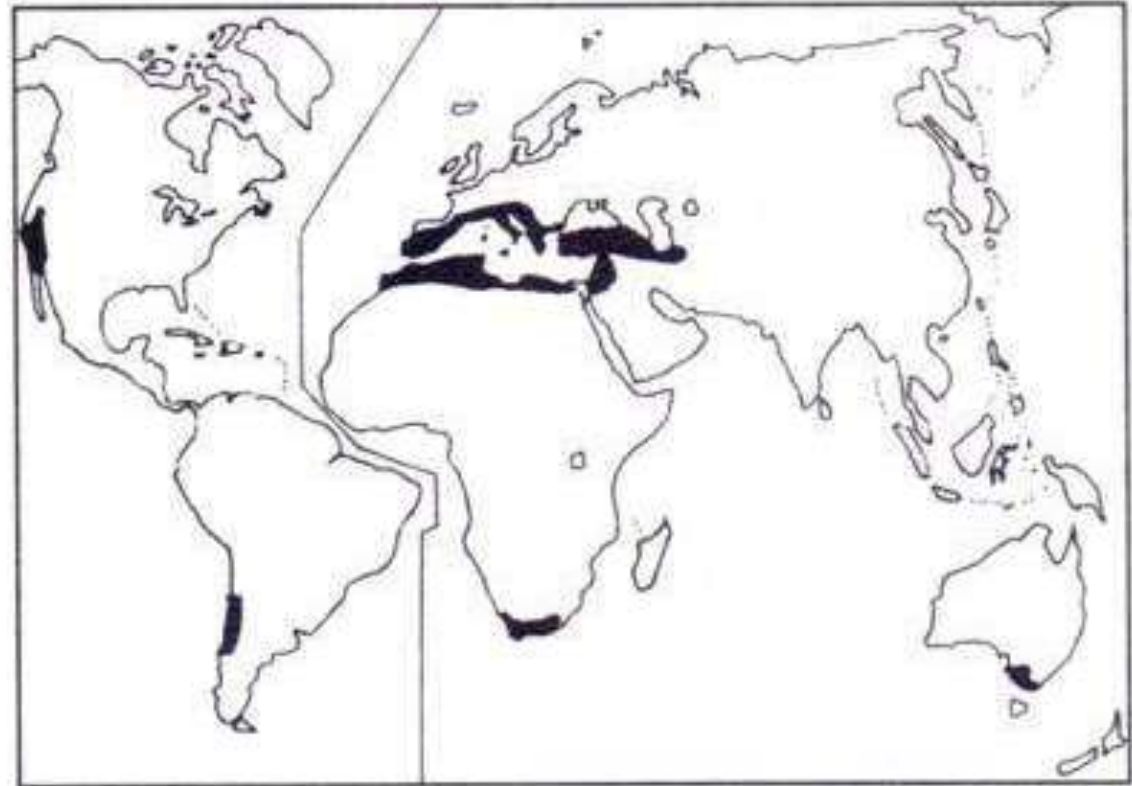
CLIMATE AND AGRICULTURE

Mediterranean Agriculture

- Regions with hot-dry summers, mild winters, narrow valleys, and often some type of irrigation system.
- Examples: southern Europe, northern Africa, southwestern Africa, southwestern Asia, southwestern Australia, California, and central Chile.
- Crops: figs, dates, olives, and grapes
- Herders practice **transhumance**, seasonal herded of animals from higher elevations in the summer to lower elevations in the winter.
- Principal livestock: goats and sheep (due to rugged terrain)



Areas of Mediterranean agriculture in the world



CLIMATE AND AGRICULTURE

Livestock Ranching

- Commercial grazing of animals confined to a specific area.
- Regions that are too dry for growing crops in large quantities
- Prevalent in the western United States, pampas of Argentina, southern Brazil, Uruguay, parts of Spain and Portugal, China, and central Australia.

