

Unit 5 Agriculture and Rural Land-Use Patterns and Processes

Name: _____ Period: _____ Date: _____

Definition	Question(s)
<p>agribusiness- highly mechanized, large-scale farming, usually under corporate ownership.</p>	<p>Describe an example of agribusiness.</p>
<p>agriculture- the cultivation of domesticated crops and the raising of domesticated animals.</p>	<p>What type of agriculture is found in west Tennessee?</p>
<p>aquaculture- the cultivation of aquatic organisms (as fish or shellfish) especially for food.</p>	<p>Describe an example of aquaculture.</p>
<p>bid-rent theory- theory that different users are prepared to pay different amounts (bid-rent or land-rent) for locations at various distances from the city center. The result is often a concentric pattern of land uses.</p>	<p>How is bid-rent theory related to the Von Thünen model?</p>
<p>biodiversity- a term used to describe the enormous variety of life on Earth. It can be used more specifically to refer to all of the species in one region or ecosystem.</p>	<p>What are the most biodiverse locales on the planet? What are the least biodiverse locales on the planet?</p>
<p>biotechnology- means any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use.</p>	<p>Describe an example of biotechnology.</p>
<p>carrying capacity- the number of people, other living organisms, or crops that a region can support without environmental degradation.</p>	<p>What is the carrying capacity for the earth? Why is the understanding carrying capacity important to know when discussing a unit on agriculture?</p>
<p>Columbian Exchange- the widespread transfer of plants, animals, culture, human populations, technology, diseases, and ideas between the Americas, West Africa, and the Old World in the 15th and 16th centuries.</p>	<p>What were the most important New World crops that were introduced to the Old World?</p>
<p>commercial agriculture- term used to describe large scale farming and ranching operations that employ vast land bases, large mechanized equipment, factory-type labor forces, and the latest technology.</p>	<p>Describe TWO specific examples of commercial agriculture.</p>
<p>commodity chain- a series of links connecting the many places of production and distribution and resulting in a commodity that is then exchanged on the world market.</p>	<p>Describe the commodity chain for any one product.</p>
<p>community-supported agriculture- a system that connects the producer and consumers within the food system more closely by allowing the consumer to subscribe to the harvest of a certain farm or group of farms.</p>	<p>Describe an example of community-supported agriculture.</p>
<p>conservation- a careful preservation and protection of something especially; planned management of a natural resource to prevent exploitation, destruction, or neglect.</p>	<p>Describe TWO specific examples of conservation.</p>
<p>deforestation- the clearing or thinning of forests by humans.</p>	<p>List FOUR reasons a forest would be cleared.</p>

Definition	Question(s)
desertification - the process by which fertile land becomes desert, typically as a result of drought, deforestation, or inappropriate agriculture.	Describe how the Sahel region in Africa is impacted by desertification.
domestication - the process of taming an animal and keeping it as a pet or on a farm; the cultivation of a plant for food.	List the main domesticated animals in North America.
economies of scale - the cost advantages that enterprises obtain due to their scale of operation, with cost per unit of output decreasing with increasing scale; cost advantages reaped by companies when production becomes efficient.	Describe a specific example of economies of scale.
extensive agriculture - an agricultural production system that uses small inputs of labor, fertilizers, and capital, relative to the land area being farmed.	Describe an example of extensive agriculture.
fair trade - trade between companies in developed countries and producers in developing countries in which fair prices are paid to the producers. How would one identify a <i>free trade</i> product?	Explain why fair trade is important for developing countries.
Fertile Crescent - an area of fertile land in the Middle East, extending around the Rivers Tigris and Euphrates in a semicircle from Israel to the Persian Gulf	What is the historical significance of the Fertile Crescent?
First Agricultural Revolution - the transformation of human societies from hunting and gathering to farming. This transition occurred worldwide between 10,000 BC and 2000 BC, with the earliest known developments taking place in the Middle East.	Describe the main impacts of the 1st Agricultural Revolution on world populations.
food desert - an area that has limited access to affordable and nutritious food, in contrast with an area with higher access to supermarkets or vegetable shops with fresh foods, which is called a food oasis.	Where in the United States are food deserts found? Where in Tennessee are there food deserts?
food insecurity - a measure of the availability of food and individuals' ability to access it. What world areas have the greatest concerns due to high food insecurity?	List three consequences for areas with high food insecurity issues.
genetically modified organisms - any organism whose genetic material has been altered using genetic engineering techniques. How would one know a food is GMO free?	List three pros for developing GMO foods. List three cons for not consuming or purchasing GMO foods.
global supply chain - a dynamic worldwide network when a company purchases or uses goods or services from overseas. It involves people, information, processes and resources involved in the production, handling and distribution of materials and finished products or providing a service to the customer.	List three examples of companies involved in global supply chains.
Green Revolution - a large increase in crop production in developing countries achieved by the use of fertilizers, pesticides, and high-yield crop varieties.	Describe the main impacts of the Green Revolution on world populations.

Definition	Question(s)
<p>intensive agriculture- expenditure of much labor and capital on a piece of land to increase its productivity. List three example of intensive agriculture.</p>	Describe how intensive agriculture is different than extensive agriculture.
<p>irrigation- the application of controlled amounts of water to plants at needed intervals. Irrigation helps to grow agricultural crops, maintain landscapes, and revegetate disturbed soils in dry areas and during periods of less than average rainfall. Where in the USA is irrigation most important?</p>	How was the Aral Sea impacted by irrigation?
<p>local-food movement- aim to connect food producers and consumers in the same geographic region, to develop more self-reliant and resilient food networks; improve local economies; or to affect the health, environment, community, or society of a particular place.</p>	Describe a specific example of the local-food movement.
<p>long lots- distinct regional approach to land surveying found in Atlantic Canada, Quebec, Louisiana, and Texas whereby land is divided into narrow parcels stretching back from rivers, roads, and canals.</p>	Describe a long lot.
<p>market gardening- the relatively small-scale production of fruits, vegetables and flowers as cash crops, frequently sold directly to consumers and restaurants. It is distinguishable from other types of farming by the diversity of crops grown on a small area of land, typically, from under one acre (4,000 m²) to a few acres, or sometimes in greenhouses.</p>	<p>Where in Europe is market gardening important?</p> <p>Where in the United States is market gardening important?</p>
<p>mechanized farming- the process of using agricultural machinery to mechanize the work of agriculture, greatly increasing farm worker productivity. In modern times, powered machinery has replaced many farm jobs formerly carried out by manual labour or by working animals such as oxen, horses and mules.</p>	Explain how the grain industry is an example of mechanized farming.
<p>Mediterranean agriculture- accounts for virtually all olive oil produced worldwide, 60% of wine production, 45% of grape production, 25% of dried nuts (mostly almonds, chestnuts, and walnuts), 20% of citrus production, and about 12% of total cereal production.</p>	Where in the world will one find Mediterranean agriculture?
<p>metes and bounds- a British system of land surveying that occurred east of the Appalachian Mountains. It is a system that relies on descriptions of land ownership and natural features such as streams or trees. Because of the imprecise nature of this surveying, the U.S. Land Office Survey abandoned the technique in favor of the rectangular survey system.</p>	Explain the drawbacks to using metes and bounds.
<p>mixed crop/livestock system- the production of animals and crops on the same farm, or the use of animals to help produce crops and vice versa. Animal waste can be used as fertilizer for the plants, and in return, the plants help supply the animals with food.</p>	List what crops and livestock are common with mixed crop/livestock agriculture.
<p>monocropping/monoculture- the agricultural practice of growing a single crop year after year on the same land, in the absence of rotation through other crops or growing multiple crops on the same land polyculture. Corn, soybeans, and wheat are three common crops often grown using monocropping techniques.</p>	List potential concerns with long-term monocropping.
<p>nomadic pastoralism- a form of pastoralism when livestock are herded in order to find fresh pastures on which to graze. True nomads follow an irregular pattern of movement, in contrast with transhumance where seasonal pastures are fixed.</p>	Where in the world is this common? What is the environmental impact of nomadic pastoralism?
<p>plantation agriculture- a form of commercial farming where crops are grown for profit. Large land areas are needed for this type of agriculture. Countries that have plantation agriculture usually experience tropical climate with high annual temperatures and receive high annual rainfall.</p>	Where in the world is this common? What is the environmental impact of plantation agriculture?

Definition	Question(s)
ranching - the activity of running a large farm, especially one used for raising cattle, horses, or sheep.	Where in the world is this common? What is the environmental impact of ranching?
Second Agricultural Revolution - also known as the British Agricultural Revolution, took place first in England in the seventeenth and early eighteenth centuries. From there it spread to Europe, North America, and around the world. It involved the introduction of new crop rotation techniques and selective breeding of livestock, and led to a marked increase in agricultural production. It was a necessary prerequisite to the Industrial Revolution and the massive population growth of the last few centuries.	Describe the main impacts of the 2nd Agricultural Revolution on world populations.
shifting cultivation - an agricultural system in which plots of land are cultivated temporarily, then abandoned and allowed to revert to their natural vegetation while the cultivator moves on to another plot.	Where in the world is this common? What is the environmental impact of shifting cultivation?
slash and burn agriculture - a widely used method of growing food in which wild or forested land is clear cut and any remaining vegetation burned. The resulting layer of ash provides the newly-cleared land with a nutrient-rich layer to help fertilize crops.	Where in the world is this common? What is the environmental impact of slash and burn agriculture?
soil salinization -a major process of land degradation that decreases soil fertility and is a significant component of desertification processes in the world's drylands; often caused by inappropriate irrigation practices.	List three specific locales that have been impacted by soil salinization.
subsistence agriculture - occurs when farmers grow food crops to meet the needs of themselves and their families. In subsistence agriculture, farm output is targeted to survival and is mostly for local requirements with little or no surplus trade.	Where in the world is this common? What is the environmental impact of subsistence agriculture?
sustainability - focuses on meeting the needs of the present without compromising the ability of future generations to meet their needs. The concept of sustainability is composed of three pillars: economic, environmental, and social—also known informally as profits, planet, and people.	What are THREE examples of sustainable practices being used today in the world?
terrace farming - when farming is done on manmade terraces that have been built into slopes.	Where in the world is this common? What is the environmental impact of terrace farming?
township and range - township: 36 sections arranged in a 6 by 6 system, measuring 6 miles by 6 miles. Sections are numbered beginning with the northeast-most section, proceeding west to 6, then south along the west edge of the township and to the east; range is assigned to a township by measuring east or west of a Principal Meridian	Why was township and range the preferred way to divide the land in much of the USA?
transhumance - a seasonal periodic movement of pastoralists and their livestock between highland and lowland pastures.	Where in the world is this common? What is the environmental impact of transhumance?
urban farming - the practice of cultivating, processing and distributing food in or around urban areas. Urban agriculture can also involve animal husbandry, aquaculture, agroforestry, urban beekeeping, and horticulture.	Describe a specific locale where urban farming is occurring.
value-added specialty crops - A change in the physical state or form of the product (such as milling wheat into flour or making strawberries into jam).	List FOUR examples.
Von Thünen's model - an "isolated state" that had no trade connections with the outside world; possessed only one market, located centrally in the state; and had uniform soil, climate, and level terrain throughout. He created this model to study the influence of distance from market and the concurrent transport costs on the type and intensity of agriculture.	Explain the importance of distance and costs as it relates to the model.