

Lesson 5

Student Handout 5.2—Importance of the Columbian Exchange

One American Crop Has an A-maizing Global Impact

The global spread of foods originating in the Americas has been staggering. Corn and potatoes fed a hungry Europe while Africa and Asia quickly adopted other American food plants. Maize, or corn, is a drought-tolerant food. It stores well and gives needed calories. Maize traveled to Morocco and West Africa in the sixteenth century. From there, it was adopted in Egypt and parts of the Ottoman empire. Maize spread to Africa in the seventeenth and eighteenth centuries and became an important food in South Africa. Maize continued its travel to Southeast Asia and China where it was used in peasant diets.



Steve Hurst @ USDA-NRCS PLAN

http://plants.usda.gov/gallery/pubs/zema_002_php.jpg

Caloric Cassava, or the Mighty Manioc

Cassava, also called manioc, is a tropical plant with edible roots. The root is tuber-like and similar to a potato when boiled. Cassava or manioc is a native of Brazil but grows in any tropical environment. When this food was transferred to Africa, it spread from Angola to West Africa and became a main food yielding important calories. Most of us who live in a temperate climate zone know of this food crop as “tapioca” and enjoy it as a dessert. However, manioc has become a vital food crop to those who live in the tropics. The manioc plant is a large shrub and is harvested when it reaches between five and twelve feet. The leaves can be eaten, but the roots, which can grow up to two feet long, are the most prized as a foodstuff. Poor and dry soils do not adversely affect this food, nor do pests that ruin other crops. In parts of the Congo, manioc will yield five tons per hectare of land that cannot support maize. Chiefly a starchy food, it contains vitamins and other important nutrients. It is bountiful and grows either in dry or rain-drenched lands.



Photo by David H. Byrne, Texas A&M University

<http://aggiehorticulture.tamu.edu/features/costarica/cassava.html>

The Potent Portable Potato

The potato, originally from the Andes Mountains, spread throughout the world as an important food crop, staving off famine in various regions. The potato became a mainstay in Ireland and Northern Europe and Russia. At first, Europeans regarded the potato with fear and dread. They believed, for example, that it could cause leprosy or that it might lead to “rot and gas.”¹⁰ But the Irish adopted the potato in the last years of the sixteenth century. The soil was favorable to its growth in Ireland. Living in poverty and malnourished, the peasantry regarded it as a “gift.” It would grow on a small amount of land and nourish a family quite well. While the potato became a staple in Ireland, it also caught on in England by the eighteenth and nineteenth centuries as the industrial revolution brought more people to the cities. It spread to France on the European continent, where it enjoyed new prestige and was even served at the royal table of Marie Antoinette.¹¹ The potato was adopted in Hungary after a famine in 1772 and became an important crop in eastern Europe. It was Catherine the Great, Empress of Russia, who promoted its adoption in Russia. After severe failures of other crops in 1838 and 1839, the potato gained in popularity. By 1900, Russia was one of the world’s top potato producers. It continues to be so today.



Photo by R. Dunn

What About the Rest of Us Foods? (We’re Not Chopped Liver!)

Other foods from the Americas also diffused throughout the globe. These include the sweet potato, peanuts, cacao, pineapple, squashes, beans, tomatoes, and several other plants. Africa, Indonesia, China, and Europe all benefited from these new foods.

What Old World Foods Went To The Americas?

Food crops that went from Afroeurasia to the Americas were part of the Columbian Exchange, but in the opposite direction. These included wheat, oats, barley, and citrus fruits. When grown on the immense plains of the Americas, these food crops transformed farming after the sixteenth century. Plantation owners also made huge profits growing Old World “[cash crops](#),” notably sugar, coffee, and cotton. Between the sixteenth and nineteenth centuries, slaves brought by force from Africa grew most of these commercial crops. The horse, an Afroeurasian animal, transformed life for plains Indians in the Americas, and cattle ranching spread across North America, Brazil, and Argentina.

¹⁰ Alfred W. Crosby, Jr., *The Columbian Exchange: Biological and Cultural Consequences of 1492* (Westport, CT: Greenwood Press, 1972), 182.

¹¹ Crosby, *Columbian Exchange*, 184.

Lesson 5***Student Handout 5.3—Contemporary Regional Effects of the Columbian Exchange***

What do the chief crops listed tell you about the Columbian Exchange? Answer the questions and do the activities listed below the chart.

AFRICA	MIDDLE EAST	CHINA	EUROPE	AMERICAS
Liberia	Iraq	China	France	Brazil
Capital: Monrovia Population: 3,225,837 Geography: On SW coast of W. Africa Chief Crops: Rice Cassava Coffee Cacao Sugar	Capital: Baghdad Population: 23,331,985 Geography: The Middle East Chief Crops: Grains Dates Cotton	Capital: Beijing Population: 1,273,111,290 Geography: Occupies most of the inhabitable mainland of E. Asia Chief Crops: Rice Cotton Potatoes Tea	Capital: Paris Population: 59,551,227 Geography: Western Europe Chief Crops: Grains Sugar Beets Wine grapes Potatoes Vegetables	Capital: Rio de Janeiro Population: 174,468,575 Geography: Occupies Eastern half of South America Chief Crops: Soybeans Coffee Rice Corn Cocoa Citrus
Nigeria	Jordan	Indonesia	Ireland	Costa Rica
Capital: Abuja Population: 126,635,626 Geography: Tropical West Africa Chief Crops: Cacao Corn Rice Cassava Yams	Capital: Amman Population: 5,153,378 Geography: Middle East Chief Crops: Grains Olives Fruits	Capital: Jakarta Population: 228,437,400 Geography: Equatorial Southeast Asia Chief Crops: Rice Cacao Peanuts Rubber	Capital: Dublin Population: 3,840,838 Geography: Northeastern Atlantic west of Britain Chief Crops: Potatoes Sugar Beets Turnips	Capital: San Jose Population: 3,773,057 Geography: Tropical Central America Chief Crops: Coffee Bananas Rice Potatoes
Zimbabwe	Saudi Arabia	Vietnam	Slovakia	United States
Capital: Harare Population: 11,365,366 Geography: Southern Africa	Capital: Riyadh Population: 22,757,092 Geography: Most of Arabian peninsula in Middle East	Capital: Ho Chi Minh City Population: 79,939,014 Geography:	Capital: Bratislava Population: 5,414,937 Geography: East Central Europe	Capital: Washington, DC Population: 278,058,881 Geography: North

Chief Crops: Tobacco Sugar Cotton Corn Wheat	Chief Crops: Dates Wheat Barley Tomatoes Melon Citrus	Southeast Asia Chief Crops: Rice Potatoes Soybeans Coffee Tea Corn	Chief Crops: Grains Potatoes Sugar beets Fruits	America Chief Crops: Cotton Wheat Corn Sugar Fruits
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Chart data source: *The World Almanac and Book of Facts* (New York: World Almanac Books, 2002)

1. Based on the chart above, what general statement can you make about the effects of the Columbian Exchange on the world today?
2. Is there a country (or countries) on the chart that has not adopted any crops from the New or Old World?
3. Is there one (or more) country on the chart that has adopted one or more non-native crops? If so, which crops?
4. If you were an official in a region near the Equator that is facing a food shortage owing to drought or poor soil, what crops might you recommend to farmers to grow? How would you persuade the farmers to change? (Refer to the Student Handout 5.2 for information.)

5. Research other countries in a variety of regions around the globe. Make a list of those countries whose chief crops appear to reflect no influence from the Columbian Exchange. Make a list of those countries that have been the most affected by crop diffusion because of the Columbian Exchange. What are their chief crops? Explain your findings.

6. Nominate a crop that, based on the information you have read, has provided important nutrients and calories to the world. Make a poster in which you draw the crop you select and advertise its benefits and effect on the peoples of the world.