Crops that Grew the World

By Bennett Sherry

The Long Purée: Blending Plants and Cultures

Crops have traveled around the world for as long as humans have. Ancient hunter-gatherers dropped seeds as they searched for new hunting grounds. From the eighth to thirteenth centuries, the Arab empires connected cultures from the Atlantic to the Indian Ocean. This "Islamic Green Revolution" created a remarkable exchange network. Agricultural techniques and crops like sugar, coffee, and citrus fruits spread across their empire.

Arab botanical treatise, twelfth century CE. Arab scholars produced many books on cultivation, animal husbandry, and irrigation.

Global agriculture changed more when Christopher Columbus stumbled upon the islands of the Bahamas in 1492. This connected the Eastern and Western Hemispheres for the first time in at least 10,000 years. History often focuses on the Spanish **conquistadors** who violently destroyed the Aztec and Inca Empires. But environmental historian Alfred Crosby says the biggest effect of these conquests was not political. It was biological.

The story of plants is often lost in the story of **colonization**. Humans brought Afro-Eurasian plant species to the Americas, while American plant species were brought to Afro-Eurasia. Afro-Eurasia refers to the continents of Africa, Europe, and Asia.

Conquistador: A Spanish conqueror in the 16th century

Colonization: The process of establishing colonies governed by a distant country

American plants became staple crops, or the most important foods, in Afro-Eurasia, and transformed Eurasian agriculture. Crosby called the exchange of crops between the Americas and Afro-Eurasia the "Columbian Exchange." This exchange reshaped the size, health, and wealth of global populations.

The spud that could: Potatoes and populations

Why was the Columbian Exchange so important? Let's start with the potato. Native to Peru, the potato provided Western and Northern Europe with a new source of calories. It fed both European people and the armies that extended European empires into Africa and Asia.

A portrait of the French scholar, Antoine Parmentier, who made it his life's work to promote the potato as a staple food in France. Pictured here holding crops from the Americas, including maize and the potato flower.

Crops from the Americas saved millions of people in Afro-Eurasia from starvation. Potatoes, maize (corn), and other American crops provided more nutrition than other foods. This caused the world's population to rise after 1500.

How did potatoes and other crops like maize do this? Potatoes are rich in calories and can be grown in difficult conditions. This includes places that are too dry for rice and or too wet for wheat.

At first, people in Europe and China did not think potatoes looked very tasty. Later, rulers discovered that a field of potatoes could feed three times as many people as a field of wheat. European governments then encouraged farmers to grow potatoes. By the beginning of the nineteenth century, potatoes were a staple in Northern Europe. In China, potatoes were used to feed armies and settlers, helping the Chinese empire to nearly triple in size.

A map of the Qing Empire expansion, after the arrival of the potato in the seventeenth century (green and pink).

Growing money: Cash crops, plantations, and global trade networks

Staple crops, like potatoes and maize, helped to increase global populations. But **cash crops** were another type of crop that changed the world. *Cash crops* transformed how goods were made and sold.

> **“A FIELD OF POTATOES COULD FEED THREE TIMES AS MANY PEOPLE AS A FIELD OF WHEAT.**

Unlike staple crops, cash crops are grown to be sold for as much profit as possible. Europeans turned American plants like tobacco and cacao into cash crops. European

colonists learned that the best way to make a profit was to farm huge numbers of the same species of plant, which is called ***monoculture***. Then, enslaved people were forced to farm the land for free. This was called the plantation system.

Europeans also created global trading networks. They made large amounts of money selling cash crops in Asian and European markets. These merchants often brought new crops like potatoes and maize with them. This helped new foods spread around the world even faster.

Cash crop: A crop grown for selling on the market for profit rather than for food or personal use

Monoculture: Cultivation of a single crop or plant species in a given area

Talking turkey: Biological and culture exchange

The Columbian Exchange forever changed cultures around the world, especially in the kitchen. Imagine Italian food without tomatoes or Indian food with no chili peppers. Since 1500, much of the world's diets have been shaped by the Columbian Exchange. People quickly made new foods a part of their culture. Soon, it seemed as if those foods had always been there. To see just how quickly the Columbian Exchange changed culture and language, let's talk turkey.

In the English language, there is a bird called the turkey. It has that name because the British thought the bird was from a place known as Türkiye, which they referred to as Turkey. The Turks, however, called the bird hindi because they thought it came from India. The Dutch also believed the turkey came from India. So did turkeys come from Turkey or India?

> **"HOW DID BIOLOGICAL EXCHANGE CHANGE COMMUNITIES?**

The answer is neither because the turkey is actually from Mexico. The English assumed the birds were Turkish because they bought them from Turkish merchants. In reality, the Turkish merchants had bought the birds from Spanish merchants, who brought the birds from what is now Mexico.

This misunderstanding about one bird symbolizes the Columbian Exchange. The turkey is an example of how quickly and how far these changes spread. When a new species was introduced to Afro-Eurasia, it took only a few decades before people assumed it had always been there.

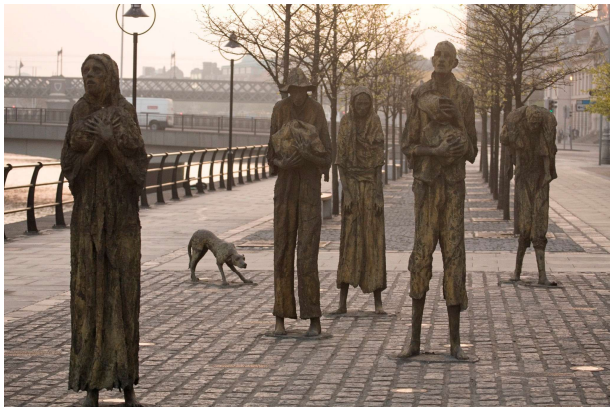
Disaster: Community and environmental disruptions

During the Columbian Exchange, the Americas gave and Afro-Eurasia took. Staple crops from the Americas helped Afro-Eurasian empires to grow, while cash crops made European colonizers rich.

Indigenous: Having origin in a country or locality; may refer to the peoples who lived in a place prior to colonization or to native plants and animals

The crops that Europeans brought to the Americas devastated local ecosystems and cultures. European animals, especially cattle, destroyed the **indigenous** plants that were native to the area. The Spanish replaced indigenous crops with wheat and other grains. European plantation owners destroyed the food and habitat of indigenous animals to make farmland.

The Columbian Exchange wasn't all good news for Afro- Eurasia. Many European populations soon depended on the potato. But if one disease wiped out entire fields of the crop, a major food source for millions of people was gone. The most famous example of this happened in the Irish Famine of 1845 when millions of Irish starved after a disease destroyed the potato crop.



The Famine Memorial sculpture in Dublin, Ireland.

Conclusion

The global biological exchange that started in 1492 continues today. Today's technology allows us to continue bringing new plants to new places, often with harmful effects on

indigenous species. Of course, we also benefit from these exchanges. Go to the nearest grocery store, and you'll find food made from plants that started out on a different continent.