

# AGRICULTURE & CIVILIZATION

A CLOSER LOOK AT FARMING IN SOME OF THE EARLIEST AGRARIAN CIVILIZATIONS



9000 BCE	6000 BCE	6500 BCE	6500 BCE	3500 BCE	3000 BCE
APPROXIMATE YEAR AGRICULTURE BEGAN					
The Fertile Crescent	Indus River Valley	Yellow & Yangtze River Valleys	Papua New Guinea	Mesoamerica	Andes
The Fertile Crescent was a wide expanse of land along the Tigris and Euphrates rivers, stretching from the Persian Gulf to the Mediterranean Sea, and even into the Nile River Valley by some definitions. These river valleys, known as the "cradle of civilization," had rich soils in which crops flourished. Civilization first emerged in Mesopotamian cities like Babylon, Sumer, Ur, and Uruk in modern-day Iraq and in Jericho to the west. Egyptian civilization emerged in the Nile River Valley a bit later. By around 3200 BCE, civilizations in the Fertile Crescent were using the wheel and had developed the earliest known system of writing.	Agriculture emerged in the Indus River Valley when foraging Harappan communities settled in the lush lands between the Himalayas and the Hindu Kush mountains in present-day Pakistan. Fertile soils and a steady water supply supported the cultivation of crops, and the river also provided transportation, enabling commerce. Eventually cities like Harappa, Lothal, and Mohenjo-Daro became centers of trade. The Indus River Valley civilization is thought to be among the first to develop a standardized system of weights and measures, including the use of finely calibrated rulers as early as 2400 BCE.	The Yellow (or Huang He) River stretches nearly 3,000 miles across China, while the Yangtze River is almost 4,000 miles long. Both rivers flow east from the Tibetan Plateau and the Himalayan Mountains. The first farmers in China cultivated grasses in the vast floodplains and fertile river valleys formed by the Yangtze and the Yellow in eastern China. Chinese agriculture is known for its sericulture, the rearing of silkworms for the production of raw silk to make fine fabrics. Eventually, demand for silk from China would help connect all of Afro-Eurasia in a system of trade routes called the Silk Road.	The first human inhabitants of Papua New Guinea are thought to have arrived from Southeast Asia more than 40,000 years ago. The Pacific island receives plentiful rainfall and contains incredible biodiversity. Scientists estimate that between 5 and 10 percent of all of the planet's species live on Papua New Guinea. Human communities on the island were equally diverse, some taking on agriculture and some sustaining themselves solely as foragers. The region's first farmers (in the Western Highlands) used terraces with complex irrigation systems and practiced crop rotation to increase their yields.	Domestication of wild teosinte (which became maize, and eventually corn) may have begun as early as 7000 BCE but the first organized agricultural villages emerged thousands of years later. Several different civilizations rose and fell in this region including the Olmec, which flourished from about 1600 BCE to 400 BCE; the Maya, which flourished from about 250 CE to 900 CE; and the Aztec, which reached its height just before its people were conquered by Spanish conquistadores in 1520. These Mesoamerican cultures developed complex irrigation systems and produced skilled astronomers and poets.	The first agricultural communities to emerge in South America populated the regions around the Andes Mountains. Diverse geography and high-altitude settlements supported beans, potatoes, and a hearty protein-rich grain called quinoa. Alpaca and llamas were domesticated as work animals and for their wool, which was woven into textiles. By the beginning of the 16th century, the Incas had established a vast empire with tremendous architecture such as Machu Picchu. Within a century, Spanish conquistadores led by Francisco Pizarro had conquered Inca society.
barley flax wheat	barley rice rye wheat	millet rice wheat	sugarcane	amaranth maize (corn) ramón (breadnut)	quinoa
chickpeas lentils peas	cotton lentils peas	soybeans	bananas sago taro yams	beans cacao chilies papaya squash tomatoes	beans coca potatoes
cows dogs goats sheep	chickens dogs pigs	chickens goats sheep	dogs pigs	dogs ducks turkeys	alpacas guinea pigs llamas

## Wheat

GENUS: *Triticum*  
NUMBER OF SPECIES: 16  
1st DOMESTICATION: Southeastern Turkey

REGIONS OF WHEAT PRODUCTION  
Wheat is grown in more countries and on more land than any other cereal crop

## Rice

GENUS: *Oryza*  
NUMBER OF SPECIES: 23  
1st DOMESTICATION: Eastern China

NUTRITIONAL VALUE OF RICE  
Almost half of the world's population depend on rice as a primary food source

## Maize

GENUS: *Zea*  
NUMBER OF SPECIES: 1  
1st DOMESTICATION: Mesoamerica

U.S. MAIZE (CORN) USAGE  
Of every 10 ears, humans consume 2, livestock consumes 4, and ethanol production uses 4