The Agricultural Revolution

The Agricultural Revolution, the unprecedented increase in agricultural production in Britain between the mid-17th and late 19th centuries, was linked to such new agricultural practices as crop rotation, selective breeding, and a more productive use of arable land.

- The Agricultural Revolution was the unprecedented increase in agricultural production in Britain due to increases in labor and land productivity between the mid-17th and late 19th centuries. However, historians continue to dispute whether the developments leading to the unprecedented agricultural growth can be seen as “a revolution,” since the growth was, in fact, a result of a series of significant changes that took place over a long period of time.
- One of the most important innovations of the Agricultural Revolution was the development of the Norfolk four-course rotation, which greatly increased crop and livestock yields by improving soil fertility and reducing fallow. Crop rotation is the practice of growing a series of dissimilar types of crops in the same area in sequential seasons to help restore plant nutrients and mitigate the build-up of pathogens and pests that often occurs when one plant species is continuously cropped.
- Following a two-field crop rotation system common in the Middle Ages and a three-year three field crop rotation routine employed later, the regular planting of legumes such as peas and beans in the fields that were previously fallow

became central and slowly restored the fertility of some croplands. In the end, it was the farmers in Flanders (in parts of France and current day Belgium) that discovered a still more effective four-field crop rotation system, using turnips and clover (a legume) as forage crops to replace the three-year crop rotation fallow year.

- The four-field rotation system allowed farmers to restore soil fertility and restore some of the plant nutrients removed with the crops. Turnips first show up in the probate records in England as early as 1638 but were not widely used until about 1750. Fallow land was about 20% of the arable area in England in 1700 before turnips and clover were extensively grown. Guano and nitrates from South America were introduced in the mid-19th century and fallow steadily declined to reach only about 4% in 1900.
- In the mid-18th century, two British agriculturalists, Robert Bakewell and Thomas Coke, introduced selective breeding as a scientific practice and used inbreeding to stabilize certain qualities in order to reduce genetic diversity. Bakewell was also the first to breed cattle to be used primarily for beef.
- Certain practices that contributed to a more productive use of land intensified, such as converting some pasture land into arable land and recovering fen land and pastures. Other developments came from Flanders and the Netherlands, the region that became a pioneer in canal building, soil restoration and maintenance, soil drainage, and land reclamation technology. Finally, water-meadows were utilized in the late 16th to the 20th centuries and allowed

earlier pasturing of livestock after they were wintered on hay.

Key Terms

- **crop rotation**: The practice of growing a series of dissimilar or different types of crops in the same area in sequenced seasons so that the soil of farms is not used to only one type of nutrient. It helps in reducing soil erosion and increases soil fertility and crop yield.
- **Industrial Revolution**: The transition to new manufacturing processes in the period from about 1760 to sometime between 1820 and 1840. This transition included going from hand production methods to machines, new chemical manufacturing and iron production processes, improved efficiency of water power, the increasing use of steam power, the development of machine tools, and the rise of the factory system.
- **Agricultural Revolution**: The unprecedented increase in agricultural production in Britain due to increases in labor and land productivity between the mid-17th and late 19th centuries. Agricultural output grew faster than the population over the century to 1770 and thereafter productivity remained among the highest in the world.
- **common field system**: A system of land ownership in which land is owned collectively by a number of persons, or by one person with others having certain traditional rights, such as to allow their livestock to graze upon it, collect firewood, or cut turf for fuel.