

Ohio

**(Historical Essay on Agriculture and
Rural Life)**

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OHIO

The Iroquois Indians called it "O-he-yo", which means "the beautiful river." But when the first explorers and traders, and later the first settlers, came to the Ohio territory they discovered more than the beautiful river that forms the southern boundary of Ohio. They found a virgin forest covering the area and some of the richest soil in the young frontier.

The Ice Age had a profound impact on the agricultural viability of the State thousands of years later. Two great ice sheets coming down from Canada covered three-fourths of the State. In the northeast, western and central regions, as the glaciers slowly moved over the land, they deposited rich soil to a significant depth; they rounded off the tops of the hills, making the terrain smooth and gently rolling; they filled the valleys, creating great level plains. In the northwest area, known as the Lake Plains, the glaciers dammed the rivers making lakes. When the water receded, it left behind a flat lake bottom of richly fertile soil. This flat area was poorly drained and, consequently, was the last area of the State to be developed until "The Black Swamp" was drained in the mid-1800s. The southeastern quarter of Ohio, the unglaciated area of the Allegheny Plateau, while not possessing the fertile soil of the glaciated region, nevertheless held many valuable mineral resources, especially coal and clay that would be important for the economic development of the State. The topography of the unglaciated area remained hilly and was less suited to typical crop farming, but supported fruit culture and the raising of cattle.

In addition to the richness of the soil, the climate helped ensure that Ohio would be an agricultural state. The climatic conditions are relatively uniform throughout the State. Adequate rainfall and a reasonably long growing season made it possible to grow most temperate crops.

One natural resource that could not be commercially exploited was the vast forest. The Native American inhabitants had cleared small areas where they grew corn and other crops, but for the most part, the territory was covered with virgin timber. Instead of being a marketable commodity, the forest was an obstacle to the pioneers: it covered the land they needed for crops, it was shelter for wild animals, and it hid hostile inhabitants who were threatened by the invasion of their lands. The first task of the earliest settlers was to clear the land in order to erect shelters and to plant their crops. The preferred method was to girdle the trees and let them stand among the crops until after a few years the trees died and fell. The trees were also felled to provide the much-needed raw materials for constructing buildings, but once that need was met, there was neither local market nor a way to transport the wood to other markets; so much of the excess timber was burned. In these ways, much of the primeval forest in Ohio was eliminated.

Unlike the colonists who first came to the New World in search of religious freedom, the pioneers who migrated to Ohio were enticed there by the desire for land. Ohio was part of the frontier known as the Northwest Territory, land to the west of Pennsylvania and north of the Ohio River that was originally claimed by the 13 eastern states and eventually ceded to the federal government for sale and settlement following the Revolution. The Ordinance of 1785 and the Northwest Ordinance of 1787 laid out the plans for surveying

the territory, selling the land, and setting up a territorial government. The latter ordinance prescribed the processes that would eventually lead to statehood for the new territories. The surveys were significant in that they systemized the division of the lands into townships and sections and were useful in describing lands for the purpose of making claims and rendering titles. Ohio was the first land in the territory to be so surveyed. The Northwest Ordinance holds great significance in our country's history as it laid out many of the foundations of our government, barred slavery in the new territory and reserved land for the purpose of public education.

Prior to the organized settlement brought on by the Northwest Ordinance in 1787, Native Americans from several tribes occupied the Ohio land. They maintained an agricultural system that was very similar to that employed by the white farmers who came later. The Indians peacefully coexisted with the European traders and the missionaries, but were eventually displaced through war and encroachment by the white settlers. The first organized settlement began when the Ohio Company, representing a group of land speculators, negotiated with the federal government for the sale of the first land in the Ohio territory and was actually responsible for prompting the Congress to act on the Ordinance of 1787. In 1788, Marietta was the site of the first settlement located along the Ohio River and was soon followed by more settlements along the river. The Treaty of Greenville in 1795 brought peace between the Native American tribes and the white settlers and made it possible for immigration to proceed rapidly. By 1800 the population was sufficient for the territory to apply for statehood and in 1803 Ohio became the 17th state to be admitted to the Union.

Agriculture in the young state often reflected the origins of the settlers and the lay of the land. Corn and wheat were grown in the flat plains in the west and the central "Backbone" counties, along the glacial boundary, which had been populated by settlers from Pennsylvania and Virginia. Dairying was common in the northeast area known as the Western Reserve, which had been settled by New Englanders who brought dairying and cheese making with them to the region. The hilly area in the southeast was less amenable to crops and consequently became an area for raising livestock.

For the early Ohio farmers, transportation was a major issue. Getting products to markets in the East or South was hindered by difficulties in reaching the Mississippi River and the route to New Orleans, or Lake Erie to reach the eastern markets. The need for access to these important waterways prompted the Ohio legislature in 1822 to begin building a number of canals that would eventually connect the interior of the state to the Ohio River and to the Erie Canal. By 1850 there were 1,000 miles of canals crossing Ohio. At the same time, construction of the National Road from Cumberland Maryland to the west was underway and created an overland passage to the east. By the time it reached the western edge of the state in 1834, Ohio had a way to drive cattle and hogs to the east by an overland route. Prior to the railroad, these two means of transportation opened up the rest of the country as a market for the agricultural goods and livestock from Ohio.

Fertile soil, a way to transport goods to market, and a population of farmers soon led Ohio to become the chief agricultural producer in the growing country. Prior to the Civil War, Ohio led the country in the production of cereal grain, wool, pork, and dairy products. These raw products created the basis for the industry in Ohio: milling of flour, meatpacking, and distilling. However, this dominance in agriculture would begin to decline as the agricultural states to the west began to grow. The National Road that took the produce to eastern markets also carried the frontier further west. In 1840, 75% of Ohio's population was involved in agriculture, but by the Civil War this had dropped to 50% and by 1880 to 40%. The population in Ohio was moving to the cities and agriculture was moving west to the plains states.

By 1846 the State Board of Agriculture was created by the legislature at the urging of county agricultural societies, which had been active as early as 1818. The mission of the Board was to tend to the agricultural interests of the state, collect census data, and hold an annual state fair. However, from its inception, the Board exerted an important influence on agricultural education in the state. The Board held farmers' institutes and distributed educational leaflets, but as early as 1848 urged the establishment of a university for the teaching of agriculture and experimental farms for research. Over the years, the members of the Board included an ex-governor, the publisher and staff of leading agricultural publications, and educators, all of who were influential in advancing the cause of Ohio agriculture and especially the founding of the land-grant university. The activities of the State Board of Agriculture are documented in the *Ohio Agricultural Report* (1846-1913), which also records the agricultural events at the county level.

The provisions of the Northwest Ordinance supported Ohio's early commitment to education and by the 1860s there were already a number of higher education institutions in the State. The teaching of agriculture had been attempted at a couple institutions, but was not successful. In 1862, the Morrill Act granted federal land to the states for the purpose of establishing a college "...to teach such branches of learning as are related to agriculture and the mechanic arts...", but it wasn't until 1873 that the Ohio Agricultural and Mechanical College was opened in Columbus. However, during the early years the agricultural teaching mission was not supported with staff and resources by those who desired a broader, more classical educational institution, and in 1878 the name was changed to the Ohio State University, much to the displeasure of the State's farmers.

Though university land was set aside for agricultural research, little was accomplished by the lone agricultural professor until 1882, when an independent experiment station, patterned along the lines of the Rothamsted Station in England, was established. Despite this difficult start, Ohio was the 5th state to have an experiment station for agricultural research, 5 years before Congress established one in each state as a result of the Hatch Act.

Ohio also led the way in establishing the third leg of the land grant mission. Seeing a need to convey to Ohio farmers the agricultural knowledge emanating from the university, the organization of agriculture students began a series of informational programs that they took throughout the state. To broaden this program, in 1905, A. B.

Graham was named to be the Superintendent of Agricultural Extension at the university, the first such post in the United States. Graham was an obvious choice to lead this department for he had already planted the seed that would become the 4-H organization when he started a Boys and Girls Club through which he hoped to teach the future farmers about such issues as testing for soil fertility. The early *Extension Bulletins* (1905-) and *Circulars* (1915-) were written by the faculty of the college and conveyed useful information aimed at children, farmers, and women. The bulletins covered topics such as tillage and cultivation, home management and food preparation, centralized schools, and even poems and songs. Largely through the efforts of William Oxley Thompson, president of the Ohio State University, the Smith-Lever Act was passed in 1914 that established a plan for the Extension Service similar to that, which already existed in Ohio.

The Smith-Lever Act, followed by the Smith-Hughes Act (1917) and the Purnell Act (1926) also brought federal funding to support extension, teaching and research in the area of home economics. The University had already begun programs to teach rural women about home management, the preparation of food, and the care of children through activities in conjunction with the Farmers' Institutes and through home demonstration agents. Hughina McKay and Mary Brown Patton, faculty members in the Department of Home Economics, received national recognition for their 1920s and 1930s research into the basal metabolism of young women and the food consumption of rural families. The Ohio Agricultural Experiment Station *Bulletin* (1888-1948) and *Bimonthly Bulletin* (1925-1946) published this early work. Extension bulletins of the period covered subjects such as clothing construction and care, home gardening, recipes, and laborsaving devices for the farm and home made possible by electrification. As a result of the Rural Electrification Administration, Ohio led the nation in the number of farms and rural customers receiving electricity.

Soil fertility has been a recurring theme throughout Ohio's agricultural history. The soil that was turned and deposited by the glaciers was so productive and in such abundance that the Native Americans and the early farmers gave little thought to such issues as conservation or crop rotation. The cost of soil improvement exceeded the price to purchase new acreage, so once the soil was exhausted and used up, they simply moved on to another fertile plot. As W. A. Lloyd described the situation in *The Agriculture of Ohio* (1918), "The pioneer farmer was a conqueror--a fighter; and fighters and conquerors have never been noted as conservationists." Charles E. Thorne, the first director of the Ohio Agricultural Experiment Station, considered the scientific study of the maintenance of soil fertility to be one of the major lines of work to be conducted by the experiment station. Through his research, Thorne became one of the leading authorities on soils and soil fertility and began one of only a few long-term studies on rotation and continuous culture in the U.S. Thorne brought together his years of research into his work *The Maintenance of Soil Fertility* (1930) and much of his fundamental research is recorded in the *Bulletins* (1888-1948) and *Monthly Bulletins* (1916-1925) of the Ohio Agricultural Experiment Station. Later in the 20th century, novelist and farmer, Louis Bromfield, would also demonstrate and write about soil conservation methods on his Malabar Farm in central Ohio, in such works as *Pleasant Valley* (1945) and *Malabar Farm* (1948).

Thorne's second mission for the experiment station was to expand knowledge about orchard care to aid the fruit industry. Many old apple orchards existed in hilly areas of southern Ohio and also along Lake Erie. It is part of Ohio folklore that an itinerant named John Chapman, more popularly known as "Johnny Appleseed," traveled around the State, planting seeds and starting apple orchards. However, Johnny Appleseed's varieties tended to be inferior and not of market quality. Exceptional market varieties were developed from varieties brought by settlers from New England. Ohio's 'Rome Beauty' became a leading apple for export along the Mississippi. Later the 'Melrose' and other varieties were developed in Ohio and became extremely popular commercial apples.

The Ohio River Valley was important in Ohio horticultural history, for it was here that Nicholas Longworth cultivated the Catawba grape used in making wine. The area around Cincinnati seemed favorable for grape growing, and by 1860 Ohio became the largest producer of wine in the "West", largely from southern Ohio vineyards. Longworth's efforts earned him the appellation of "Father of American Winemaking." After 1850, the Lake Erie shore also became an important site for Ohio grape growing, largely due to the more level land and more favorable climate. Longworth was also responsible for widely sharing the pistillate and staminate nature of strawberries, having learned this "secret" from a gardener employed by a successful strawberry grower. Longworth's "directions for the cultivation of the strawberry" were published as an appendix to Buchanan's *The Culture of the Grape, and Wine-making* in 1852.

Animal industries were also important for Ohio agriculture. Dairying was prominent in the Western Reserve area and contributed to a large cheese-making industry. With the opening of the National Road, beef cattle and hogs were driven back to the east for market, which encouraged the growing of feed crops along the way. Hogs were commonly raised in the early settlements. The swine industry flourished around Cincinnati, fostering a large pork-packing industry to the extent that Cincinnati became known as "Porkopolis". However, the swine industry was not limited to southern Ohio and from 1850 to the mid-twentieth century, Ohio has ranked among the top producers of hogs. Charles S. Plumb, professor of animal husbandry at The Ohio State University, was responsible for assembling a major collection of animal breed registries, which he described in *Registry Books on Farm Animals: a Comparative Study* (1930). From the settlement at Marietta, when the first wheat was planted, to the post-Civil War period, Ohio was unsurpassed as an agricultural state. However, as the states to the west--Illinois, Iowa, Kansas, California--began their journey to become great agricultural producers, Ohio's preeminence waned, though the progress achieved through education, research and persistence would continue to assure Ohio a place among the leaders in agriculture.

We estimate that the universe of literature from Ohio within the project's scope will encompass around 550 monograph and 150 serial titles, representing 1500 volumes. Some interesting examples of the rich literature from Ohio include:

- *Recollections of life in Ohio: From 1813-1840* (Cincinnati, 1895) is a delightful memoir written by newspaperman William Cooper Howells, father of renowned writer William Dean Howells.
- A classic of Ohio horticulture and entrepreneurial spirit is *Livingston and the Tomato* (Columbus, 1893). The book was brought to life by A.W. Livingston, the Reynoldsburg tomato seedsman who was the best-known developer of tomato varieties in the United States in the 19th century.
- Annual reports and scientific publications from the Ohio Agricultural Experiment Station (now OARDC) illustrate the development of agricultural research in Ohio and its contributions to the state's economy since 1882.
- There was much buzzing in Medina, the center of beekeeping in Ohio, in the late 19th and early 20th centuries. Numerous books published by the pioneering A.I. Root Co. are a testimony to the industry's pinnacle at the time.