



Oregon

Department
of Agriculture

APRIL 2014

Long before surveyed boundaries existed to create what has come to be known as Oregon, thousands of indigenous peoples, speaking scores of different languages, lived with nature here and practiced a totally different concept of what we call "agriculture." The Indians of the Oregon Country had developed a tried and true approach to hunting, trapping, harvesting, and preserving that seemed primitive and incomprehensible to the Euroamerican entrepreneurs, settlers, and missionaries. Attempts to "civilize" the native peoples ended in miserable failure.

All the elements of modern day Oregon's agriculture- from its diversity and abundance to its trade value and processing- were present in one form or another some 200 years ago when Meriwether Lewis and William Clark took that bold journey into the unknown west as part of an expedition that shaped the future of the United States. From the time the explorers first set eyes on the arid eastern part of the state to their overwintering at Ft. Clatsop on the Oregon coast, Lewis and Clark took great care to document flora and fauna of a region as well as the agriculture as practiced by the native tribes.

Their direction and inspiration came from an agrarian leader- President Thomas Jefferson, a farmer from Virginia.

"Jefferson loved farmers because they were truly independent", writes humanities scholar and author Clay S. Jenkinson- a noted expert on America's third president. "By growing their own food, building their own homes, and gathering their own fuel, they reduced their dependence on outside institutions to a minimum."



Jefferson was curious. One of the great purposes of the expedition, which began in 1804, was to find an agricultural paradise for a country that would eventually expand, according to Professor James P. Ronda, a well known author on the Lewis and Clark Expedition.

"Combined with Jefferson's almost naive faith in agriculture, which he envisioned as spreading gradually westward, this personal need to know the world of plants would one day be a further incentive to promote western exploration," writes Ronda.

Indeed, specific instructions given by Jefferson to Lewis in the summer of 1803 included information the president wanted regarding the people and land that existed west of the Mississippi:

"You will therefore endeavor to make yourself acquainted, as far as a diligent pursuit of your journey shall admit, with the names of the nations & their number, the extent & limits of their possessions, their ordinary occupations in agriculture, fishing, hunting, war, arts, & the implements for these, their food, clothing, & domestic accommodations, and articles of commerce they may need or furnish, & to what extent. Other objects worthy of notice will be the soil & face of the country, its growth & vegetable productions, especially those not of the U.S., the animals of the country generally, & especially those not known in the U.S..."

William Clark's personal list of questions focused on agriculture. Clark, originally a Virginia farmer like Jefferson, was to join the expedition from his Kentucky farm. Among his questions for the journey:

"Do they obtain by the Cultivation of the soil their principal maintenance? What species of grain or pulse do they cultivate? What are their implements of husbandry and in what manner do they use them? Have they any domestic animals & what are they? Do their men engage in agriculture or any other domestic employments?"

So as the Corps of Discovery began its journey up the Missouri River in search of a Northwest Passage, its members were taking notes on agriculture and its practices.

"They found a number of sedentary, permanent Indian villages larger than St. Louis or Philadelphia at the time," says Ken Karsmizki, past executive director of the Columbia Gorge Discovery Center in The Dalles and Lewis and Clark researcher. "The reason those villages existed was agriculture. The tribes didn't have to embrace the nomadic tradition of following the buffalo herd to feed themselves. They had domesticated food and crops."

That, of course, was important for Lewis and Clark as they were able to obtain food for their journey from the natives.

Any modern traveler retracing the steps of Lewis and Clark will see a lot of high, dry land along the way- whether it is part of the Dakotas, Montana, Idaho, Washington, or Oregon. When the expedition finally traversed the Rockies in late September 1805, they

saw the arid west after a hot, dry summer. They could not imagine the land east of The Dalles might someday be agriculturally productive.

"Had they know what would happen within 100 years with dryland farming, they might have looked at Eastern Oregon differently," says Karsmizki. "In the early 1800s, U.S. agriculture was at its easy stage. The country had not been populated for very long. Crop rotation was in its infancy. As land wore out, farmers would move to the next piece. The thought was that when everything east of the Mississippi wears out, people would move to the other side and keep on farming.

Lewis and Clark essentially wrote off Eastern Oregon as a place for agriculture. Much of the grasses had burned from lightning strikes. As they proceeded west, things began to change. They saw more trees and animals. In general, every mile west of The Dalles translates into an additional inch of annual rainfall. Finally, the explorers could envision a more suitable place for agriculture.

Once again, the local people cultivated the land and helped sustain the travelers.

"Coming down the Columbia River, Lewis and Clark did not hunt for food, " says Karsmizki. "It was more efficient to buy it from the local farmers, who happened to be Wasco, Wishram, or Chinook Indians. It's very much like today's consumers. Most of us don't grow our own food, we buy it from somebody who has cultivated and harvested that food."

A supply of berries and a potato-like root crop called wapato provided the nourishment needed to keep the expedition moving westward. Another significant commodity along the Columbia was salmon, still harvested today by descendants of those native people who helped feed Lewis and Clark 200 years ago.

Lewis and Clark began to observe quality pasture land. They were not just on the lookout for crops, they were thinking about livestock.

"The expedition also looked for potential commercial centers- where was the water and where could you build the mills?" says Karsmizki. "If farmers were going to grow wheat, they would need mills powered by water."

All along the way, they continued writing in their journals, cataloguing the best places for agriculture. They specifically found areas in the Columbia Gorge that sustained fruit production. Today, those areas are teeming with pear, apple, and cherry orchards. Farther west, the berries they found might have indicated a future haven for grapes made into wine.



Lewis and Clark also experienced an early day version of value-added agriculture, so important to Oregon today.

"They wrote about how the food was preserved including the drying of salmon and berries," says Karsmizki. "In some cases, berries were added to the bread prepared by the Indians. Lewis and Clark documented food processing and preservation techniques."

The expedition reached Ft. Clatsop, near present day Astoria, on December 7, 1805, with chapters of important information about the kind of agriculture that could exist in Oregon.

A soggy, cold winter on the Oregon coast made for an anxious return to civilization for Lewis and Clark. In late March 1806, the expedition started moving back across Oregon by paddling up the Columbia River. However, before they left, they witnessed an early form of agricultural distribution and marketing.

"Most of the best wapato fields in Oregon were near present day Portland," says Karsmizki. "But during the winter at Ft. Clatsop, the expedition was provided wapatos that were transported from the Portland area by Indians to the coast and sold. Lewis and Clark experienced first hand the marketing of Oregon agriculture."

It's interesting to note that within five years, Ft. Astoria was built by American fur trader John Jacob Astor. Two years later, the fort was used as a trade post for the Hudson Bay Company and needed a supply of food. Knowing that farming was better in the Portland-Vancouver area, the company established satellite farms, which kept alive the infant fur trade on the Oregon coast.

Meanwhile, as Lewis and Clark made their way up the Columbia, they unknowingly passed the mouth of the Willamette River, just as they did the previous fall. Apparently, an island blocked their view of the river's mouth. By the time the explorers reached the

Sandy River, local Indians told them what they had missed. A brief return downriver gave them an opportunity to explore the Willamette up to about the point of the falls at Oregon City.

"They went back to explore the Willamette partly because of the agricultural potential of the valley," says Karsmizki. "They kept asking the Indians how far the river went and got the sense that it was a good valley for farming."

Today, the Willamette Valley represents the most productive agriculture in the state.

When the expedition made it back to The Dalles in April, they found the Columbia River too hard to paddle because of too much water. Lewis and Clark had come down the river in the dry season, they were going back up following the wet season. They knew that livestock was available and traded for horses to expedite the trip home.

The expedition officially ended when the travelers returned to St. Louis in late September, 1806.

President Jefferson was anxious to receive the journals of the expedition, knowing they would be powerful in encouraging a western migration. Lewis, in one of his letters to Jefferson, essentially said if America did not aggressively settle the west, it was going to be lost to others- perhaps the French, the Spanish, or the British. Jefferson thought it would take several hundreds of years to settle and populate this huge piece of land. He didn't realize that in less than 90 years, the frontier would essentially vanish.

Meanwhile, the course was set for the growth of Oregon's agriculture industry.

In 1824, the Hudson's Bay Company established Ft. Vancouver, under the direction of Dr. John McLoughlin. The Fort, in an effort to be self-sustaining, commenced farming operations that included the planting of grain and orchards, and raising sheep and cattle. Within a year of its establishment, supplies of seed corn, barley, oats, peas, potatoes, and wheat arrived. Pigs, chickens, and other livestock had come in by land from other Hudson's Bay posts, or by sea from California. On Sauvie Island, a complex of dairies was created to supply needed milk, butter, and cheese. As Hudson's Bay employees retired, land was given to them to farm, especially in the French Prairie area of the Willamette Valley.

From the early success of Ft. Vancouver's farming efforts, thousands of Americans and Europeans arrived in search of land and an unlimited array of farming opportunities. Although most crops and livestock could be successfully raised in the new Oregon Country, it soon became apparent to the pioneer farmer that due to the varied climates of the region, a certain amount of experimentation and adaptation would be necessary.

Unlike conditions in the eastern states and territories, the Oregon land West of the Cascade Mountains was found to be heavily forested, with a mild maritime climate. Here, with the exception of natural prairie areas such as the Willamette Valley, the farmer

needed to first expend a considerable amount of time and energy creating a clearing to plant crops.

East of the Cascades was an entirely different picture--here the infrequent rainfall meant less water for irrigation and less timber, but it also dictated a more cautious, challenging farming technique. At first, the bunch grass growing on the rolling hills of Eastern Oregon provided a natural grazing area for cattle, horses, and sheep. The area was naturally suited towards a livestock economy. Then, it was discovered that wheat would do fairly well in the area in spite of a scarcity of rainfall.

Between these two extremes--the rain forests on the coastal range averaging 150 inches per year, to the vast stretches of arid land in eastern portion of the state--the pioneer farmer found numerous micro-climates to reckon with, creating unexpected challenges, hard work, and a need for liberal use of imagination and creativity to successfully grow crops and raise animals.



The pioneer farmer traveling to Oregon brought the most rudimentary farming techniques that dated back hundreds, sometimes thousands of years. Land clearing, plowing, sowing, and harvesting were all tediously performed by hand, with the occasional help of a beast of burden. Marketing was an entirely different set of challenges, depending on proximity to waterways or dirt road conditions.

The early stages of the Oregon Trail movement began in the 1830s. Agriculture was the main attraction to those willing to move all of what they had to the west. Interstate commerce of agriculture exploded in 1849, when gold was discovered in California. Large farming operations in Oregon fed the miners down south.

"Everyone in California seemingly gave up the plow and took up the pick," says Karsmizki. "More people got rich feeding the people who were trying to get rich. The

commodity of food was getting scarce in Northern California because so many people jumped from the farms to the mines."

As the 19th century moved on, a revolutionary change in technology took place, involving both intensive use of the horse to replace man power, and the mechanization of farming operations to take the place of the horse. Steam power, gasoline engine tractors, and electricity took over many of the labor intensive jobs of mowing, harvesting, threshing, and cleaning the grain.

These developments, slow to move West, and slower still to be adapted, nevertheless captures the interest and imagination of some mechanically-minded Oregonians who temporarily turned their attention from the land to the invention of machines to help reduce the amount of back-breaking and time-consuming chores of farm life. For example, in the late 1860s, Nathaniel P. Slate of Tangent teamed up with Daniel Best, an Albany machine shop pattern maker, to design and manufacture a combine harvester, steam powered tractors, and a hay-baler. His other inventions included a steam driven river boat designed to tow logs down the Calapooia River to his sawmill, and digging and earth moving equipment.

De Lafayette Remington of Woodburn, who had a foundry and machine shop, was fortunate enough to acquire Slate's first steam tractor in exchange for debt. In 1888, after a period of experimentation, Remington patented a tractor that was able to work in soft, wet ground. Nicknamed "Rough and Ready," the tractor was used broadly for field work and stationary power, such as logging equipment.

For Oregon's Centennial of Statehood in 1959, the Oregon Historical Society created a program to honor families who have maintained a working farm continuously for 100 years or more. Known as the Century Farm Program, more than 1100 farms in Oregon have now been enrolled.

Although only a small percentage of the population is engaged in farming today, agriculture still plays a major role in the state's economy.

Oregon's farmers, and the generations of descendants who comprise Century Farm families, retain the same sense of pride and spirit of determination of their adventurous pioneer ancestors.