

## Agriculture and the Fur Trade

Popular and historical concentration on the dramatic horsemen of the plains has clouded the significance of agriculture in Indian history. When Indian agriculture received attention, most dismissed it as a form of gardening or horticulture and thus unworthy of further consideration. Ironically, even after feasting, on maize, squashes, pumpkins, and a variety of beans, most contemporaries and later commentators described all Indians as a hunting culture bound to the trail of the deer and buffalo. In some cases, the observation was correct, although before the horse revolutionized the Indian societies of the Great Plains, few Indians lived, exclusively by the hunt. In fact, agriculture pervaded the history of Indian-white contact.

From the earliest meetings between Europeans and Indians north of the Rio Grande agriculture played a fundamental role linking Indian and white destinies on this continent. Indian agriculture fed the first colonists at Jamestown and Plymouth and largely accounted for their survival. Indian crops and farming techniques sustained the early settlements and provided the United States and a good portion of the world with its most prolific feed grain. Agriculture was a vital ingredient in the fur trade. More often than not, frontiersmen (a euphemism for farmers), carried Indian agriculture into the woodlands farms of the Ohio and beyond.

Time and familiarity has reduced to quaint memory the crucial nature of Indian agriculture for white settlers on the Atlantic coast early in the seventeenth century. Every American school child can recite the story of Squanto and his service to the Pilgrims at Plymouth. It is a charming incident in our historical texts culminating in a grand feast of thanksgiving. The harsh reality of the time, as William Bradford well knew and recorded, inscribed a bleaker circumstance. Without the seed corn and beans Bradford's fellow adventurers unearthed in November 1620, survival of the colony was doubtful. Without Squanto to teach them the arts of New World agriculture the Pilgrims' future was likely to be short indeed. The settlers' failure to master Squanto's teaching forced the colony to rely on food supplies purchased from successful Indian farmers. Not until the second year did the Pilgrims' own fields produce in sufficient abundance to assure survival.

To the south, in Virginia, the Jamestown settlement had already benefited from Indian agriculture. On at least two occasions the imperial chieftain, Powhatan, provided Jamestown with sufficient food to stave off disaster. The Jamestown settlers and later commentators seldom understood Powhatan's motivation and apparent inconstancy toward the settlement. A broader view of the chief's effort to establish an empire in the Chesapeake area might shed some light on the seeming enigma, but for the Englishmen at Jamestown the fact that they came, and with food, was enough.

To the good fortune of Plymouth and Jamestown the coastal Indians produced food in quantity. The coastal tribes' ability to feed themselves and the white settlements belied the popular conception of Indian agriculture in that region as bare subsistence. Indeed,

where investigators have explored the question a different picture emerged. In southern New England at least, Indian agriculture accounted for over 65 percent of the native population's diet (hunting providing the rest), and surplus production for trade and storage was common. In any event, it did not take the Plymouth colony long to discover that their gift from the Indians had a value beyond feeding the settlement.

Within four years after their arrival at Plymouth settlers profited from Indian agriculture and entered into relationships that dominated Indian-white contacts for the next two hundred years and more. In the fall of 1625 Governor William Bradford sent a boatload of corn up the Kennebec River to trade with the interior tribes for furs. His men returned with a store of beaver and other furs that financed the colony's needs for the next year. In later years Massachusetts further developed its fur trade, raised its own corn for export, and purchased corn from the Indians for resale.

As in Bradford's first effort, agriculture was a key element in the fur trade and the recognition of its role may throw light on some darker recesses of intertribal warfare. In the seventeenth century, French and Dutch traders dominated the fur trade in New York and the Great Lakes region. A steady stream of furs passed through trading stations at Montreal and Fort Orange. By 1630 the major trading system in the northeast came under the domination of the Huron Indians based in Canada. The Huron trading empire extended for hundreds of miles into the interior. The route of the Huron traders passed through the eastern Great Lakes, turned north to James Bay, and back to Montreal. Much has been made of the Indians' dependence and desire for European trade goods, but agricultural products lubricated the system. The Huron trading empire rested on securing the surplus production of two dependent agricultural nations situated on the first leg of the trade route. Located above Lake Erie, the Petun and Neutral Nations furnished the Hurons with a major item in their trading scheme. Huron canoes transported stocks of maize and tobacco into the interior to trade for furs with the hunting tribes. The Hurons found the fur trade so profitable and Petun and Neutral agriculture so reliable that they abandoned their own agricultural labors. The Hurons jealously guarded the Petun and Neutral Nations from contact with French traders in Montreal. Recognizing the importance of their agricultural source to the success of the trading system, they were determined to retard potential competition from the French or other Indians. The Indians of the interior coveted European trade guns, kettles, and knives, but Huron furnished food was no less demanded.

Agriculture also sustained the Hurons' great rival to the south, the Iroquois Confederation. Although many theories exist to explain the great confederation that fascinated early observers and later writers alike, probably the Iroquois commitment to an agricultural life offered the most reasonable answer. Not only did their agriculture demand relative peace with close neighbors in the Confederation to ensure the safety of their crops, but successful harvests encouraged the Iroquois to range far beyond their New York domain.

Certainly the Iroquois envied the wealth the Huron trading empire accumulated. Rivalry in the fur trade undoubtedly explained the furious attacks the Iroquois mounted against

the Hurons in 1649. Terrorized by a midwinter invasion, the Hurons starved and became nearly extinct. Perhaps the Iroquois were simply bent on acquiring additional hunting grounds of their own or maybe they wished to establish themselves as masters of the northern fur trade. The latter explanation seems more plausible when later events are noted. Since agriculture played a central role in the Hurons' trade, it might also explain the Iroquois determination to eliminate the agricultural tribes no longer under Huron dominance and protection.

The dispersment of the Hurons created a vacuum of power that other ambitious tribes attempted to fill. The Ottawa Nation moved quickly to replace the Hurons in the fur trade and presented a formidable obstacle to Iroquois ambitions. Unlike the Iroquois, who produced foodstuffs in abundance, the Ottawa required the productive efforts of the Petun and Neutral Nations. Very likely frustrated in their drive to subdue the Ottawa by force of arms, the Iroquois chose to destroy the Ottawa's source of agricultural trade goods. With ample supplies of their own the Iroquois did not need outside sources of food. Indeed, the existence of outside sources invited competition and diminished the accomplishment of their own plans.

A similar explanation probably accounted for the Iroquois's extraordinary war against the Illinois tribes in 1680. By the late seventeenth century the fur trade had moved farther into the interior with French trading stations at Sault Ste. Marie and Prairie du Chien. Agricultural tribes in the area provided the vital food supplies that brought the hunting tribes to the French trading stations. Still bent on dominating the fur trade and unsuccessful in their earlier efforts, the Iroquois chose to follow the same course they had taken against the agricultural people of Lake Erie.

While Indian agriculture failed to gain much notice in historical texts, the subjects of those texts were well aware of its importance. Much of the conflict between Indians and whites on the frontier revolved around the agricultural year. French invasions of Iroquois lands in New York coincided with the early harvest when troops could wreak the greatest damage on Iroquois fields. In 1779, General George Washington ordered John Sullivan to march on the Iroquois and specifically noted the need to destroy their growing crops at a time when it was too late for replanting. Kentucky frontiersmen nearly made it an annual event to attack the Shawnee along the Wabash in the late summer, sure in the knowledge that if they did not destroy Indian cornfields, the Shawnee would attack them when the harvest was in. Persistent destruction of Indian fields reduced many tribes to relying almost exclusively on the hunt and conforming to a life whites insisted the Indian savages represented. Debilitated and destitute tribes became an easy prey to the land-grabbing schemes of frontier governors who insisted that the Indians made no use of the land. Engrossment of Indian lands to make way for white farmers remained the most tragic circumstance in which agriculture linked Indian and white destinies.

## Three Sisters

The Three Sisters are the three main agricultural crops of some Native American groups in North America: squash, maize, and climbing beans.

In a technique known as companion planting, the three crops are planted close together. Flat-topped mounds of soil are built for each "cluster", about 30 cm (1 ft) high and 50 cm (20 in) wide, and several maize seeds are planted close together, in the very center of each mound. When the maize is 15 cm (6 inches) tall, beans and squash are planted around the maize, alternating between beans and squash.

The three crops benefit from each other. The maize provides a structure for the beans to climb, eliminating the need for poles. The beans provide the nitrogen to the soil that the other plants utilize and the squash spreads along the ground, monopolizing the sunlight to prevent weeds. The squash leaves act as a "living mulch," creating a microclimate to retain moisture in the soil, and the prickly hairs of the vine deter pests.

In parts of the Atlantic Northeast, fish or eel were often planted with the maize seeds, to act as additional fertilizer where the soil was poor.

From Cornell News:

Traditional Iroquois way of growing works for today's farmers, providing valuable ecological lessons, says Cornell researcher

SEATTLE -- Most agronomists look to their laboratories, greenhouses or research farms for innovative new cropping techniques. But Jane Mt. Pleasant, professor of horticulture and director of the American Indian Program at Cornell University, Ithaca, N.Y., has taken a different path, mining her Iroquois heritage for planting and cultivation methods that work for today's farmers.

Mt. Pleasant studies what traditionally are known as the "three sisters": beans, corn and squash. These staples of Iroquois cropping are traditionally grown together on a single plot, mimicking natural systems in what agronomists call a polyculture. Though the Iroquois technique was not developed scientifically, Mt. Pleasant notes that it is "agronomically sound." The three sisters cropping system embodies all the things needed to make crops grow in the Northeast, she says.

She presented her work today (Feb. 15) at the annual meeting of the American Association for the Advancement of Science (AAAS) in Seattle. The talk, "Polycultural Cropping Systems From an Indigenous Perspective: Using Iroquois Worldview to Understand the Three Sisters," was part of a symposium on research methods in native science. This is the second year that such a symposium has been held at the AAAS.

Corn and beans are used throughout the Western Hemisphere, said Mt. Pleasant. "Both do better when they are grown together." Corn provides protection from weeds and insects and acts as a scaffold to support twining bean plants. The beans, in turn, produce nitrogen, essential for plant growth. Adding squash to the mix also controls the growth of weeds, and recycling crop residues (the "leftovers" of a harvest) back into the soil promotes fertility. A monoculture, in which only one crop variety is grown on a plot of land, is a relatively recent agricultural technique, noted Mt. Pleasant. Though it is suited to high-yield mechanized harvests, it leaves crops vulnerable to disease and insects. A polyculture reduces the risk of an entire harvest being wiped out in this way.

The role of the three sisters in the Iroquois diet is mirrored by the crops' place in Iroquois worldview and culture, where they are visualized as three siblings with very different personalities. Corn is austere, standing straight and tall; shy Beans clings to her legs; Squash is the "wild and impish" troublemaker. In the Iroquois creation story, they are the seeds that issue life on Earth, and they are woven into the laws that bind the Iroquois Confederacy. The three sisters are thanked for the sustenance they provide in the Thanksgiving Address recited at the beginning and end of ceremonial Iroquois meetings.

Indigenous culture holds broader lessons for our relationship with our environment as well, said Mt. Pleasant. Iroquois people have always recognized that they are part of an ecological system, she observed. "As we watch a lot of the ecological problems coming," like global warming and water contamination, "we recognize that we have a contract" with the Earth, "not domination" over it.

This realization, she said, has fueled an upsurge in interest in native science. "More and more young native people are ... questioning conventional science" as tribal colleges include native teachings in their curriculums, said Mt. Pleasant. She noted, however, that only a few non-Native American scientists attended last year's AAAS symposium on the subject.

As scientists begin to recognize the connections between systems they formerly studied in isolation, Mt. Pleasant hopes they will see what indigenous peoples have known all along: "We're all in this web, and when you pull on one part and it breaks, the whole web falls apart."