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### The First One Hundred Years of Agriculture in Aroostook County

The early agricultural history of Aroostook County has been a story of subsisting and flourishing, boom and bust, innovation and tradition. The County had, and still has, tremendous potential in the soil, climate, and natural resources, not to mention being the largest county east of the Mississippi River covering over 6,800 square miles. Though Aroostook County's population has never been large, the character of the people and of the land has made Aroostook agriculturally a county to be admired not only in Maine, but in the entire history of the United States.

Agriculture was first touched upon in what would be Aroostook County by the Native Americans who called this territory home. The two major tribes in the area were both Wabanaki Confederacy tribes, the Maliseet and the Micmac. However, generally speaking, the further north a tribe was in Maine the less that agriculture was practiced. With Aroostook County being the northernmost county in Maine, agriculture was not the primary source of sustenance. Much of the natives' diet consisted of fish and game, as well as gathered berries, nuts, and maple sugar (Day 1954, 18).

The Micmac tribe rarely grew any crops before the coming of the white men. Once Port-Royal was established by the French in Nova Scotia in 1605, the Micmacs essentially stopped growing crops off the land (1604 – 1860). The only exception to this may have been tobacco (Day 1954, 16). The Maliseets grew more in Aroostook than the Micmacs. The crops that were grown were beans, squash, pumpkins, and some corn, as well as tobacco. The natives would

plant the seeds in clearings about May and harvest the results in September (Day 1954, 20). All the work was done with wooden pick implements, crude stone tools, or by hand. However, all of these crops were grown to a lesser extent than if these crops were cultivated in more southern areas of Maine by other tribes. Also, tribes below the reach of Aroostook County grew a greater variety of plants, including melons, Indian wheat, and sweet corn. All in all, the agricultural impact on Aroostook County by the indigenous Native Americans was very minimal.

Aside from the French Acadian settlers of the Madawaska region in 1785, the first white settlers of Aroostook County arrived in the early 1800s. Whether from New Brunswick or the United States, as the U.S. and Provincial boundary in northern Maine was disputed territory (the United States claimed north towards the St. Lawrence River while the British claimed as far south as where Mars Hill is today (Day 1989, 19)), there was one main reason that settlers braved the great Aroostook wilderness. It was the vast untouched lumber that the area provided.

Indeed, the growing lumber industry was what brought the bloodless Aroostook War to a head. Many tons of lumber were floated down both the St. John River and the Aroostook River by both the British and the Americans (Green 1989, 70). After the controversy was passed with the 1842 Webster-Ashburton Treaty and the boundary being settled, lumber continued to remain the big business in Aroostook. However, some of the consequences of the Aroostook War were a boon to Aroostook County. Of the thousands of militiamen and federal troops that were stationed in Aroostook, such as at Fort Fairfield, many returned to make homesteads in Aroostook County, particularly in the central Aroostook Valley region. Also, decent roads were constructed inside Aroostook County, where previously there were only wintertime lumber trails. The Military Road was extended (built in 1832, it was the only road leading into Aroostook from the southern part of the state, but it only reached Houlton) and reached as far as Presque Isle and Fort

Fairfield in 1840. Another major road deemed the Aroostook Road was constructed from Molunkus to Fort Kent (Wiggin 1922, 132). These roads allowed much more access into Aroostook County for settlers and their families.

The year after Aroostook County became officially a county in 1839, the population of the entire county was just over 9,400 people. Many of the New Brunswick settlers of the Aroostook Valley and the northern part of the county were granted the right to obtain American citizenship since they were technically now foreigners, though many had been living on the land for years. The Maine state government encouraged the settlement of Aroostook by other Mainers. This was done by lowering the cost of land in unsettled lots in the county. Generally, the cost was \$1.25 per an acre (with the lots consisting usually of 160 acres and sometimes 100 acres). Most of the time, this was paid by spending 50 cents per acre in cash and the other 75 cents per acre being paid by building roads for the state in the township where the lot was located. This low price was even further reduced in 1849 with the help of Mark Trafton, who was elected to the Maine State legislature and had been previously living in Fort Fairfield. He was a big proponent of a law that reduced the cost of land in Aroostook County to a mere 50 cents and this could be completely paid in road labor for the state (Wiggin 1922, 199). These rock bottom prices stimulated the early growth of Aroostook County.

For the incoming settlers of Aroostook County, the most promising prospect for business was still the lumber industry, which would continue to be where all the money was in the county until the last few decades of the nineteenth century. Nonetheless to survive, settlers farmed their land and many had some kind of livestock that they raised. This then began the major theme of agriculture in Aroostook County, the continual shift from subsistence farming as a way of life to farming as a business for profit.

The first extensive assessment of the land of the Aroostook for agricultural purposes was done by none other than the “Father of Maine Agriculture,” Ezekiel Holmes. While ascertaining the possibility of a waterway into and through the region of Aroostook, Dr. Holmes extensively surveyed the land, geology, and agriculture of the territory. His comments are laudable on the climate and the soil of the area. “The large amount of good soil, which by proper attention will afford a surplus of produce for the use of less favored portions of the State” (Holmes 1839, 75). Of the many benefits of Aroostook that Dr. Holmes took note of was the bountiful yields of grasses. While Indian corn (corn in general being a very big crop in Maine at the time), barley and rye were seldom cultivated, they were very of good quality. Oats and buckwheat flourished and were planted throughout Aroostook and had good harvests as well. But Dr. Holmes was most impressed with the abundance and quality of the wheat grown in Aroostook the most. He even went as so far to say, “The staple crop of the Aroostook farms is, and ever must be, wheat” (Holmes 1839, 53). It is also interesting to note that Dr. Holmes speaks very little of the potato crop in Aroostook, because as of yet it is of little importance. While Dr. Holmes may have been wrong on the assessment of the future of wheat, at least in the long-term (as well as with his prophecy of the success and fortune of sugar beets in Aroostook), his glowing report of the area was critical in promoting the cause for Aroostook settlement and agriculture. He ends his report with a question and answer about the settling and the potential rewards of Aroostook.

Are you a young man just starting in life, but with no capital, save a strong arm, good courage, and a *narrow axe*? Go to the Aroostook; attend assiduously and carefully to your business; select a lot suitable for your purpose, and with the common blessings of providence, you will, in a very

few years, find yourself an independent freeholder, with a farm of your own subduing, and with a capital of your own creating (Holmes 1839, 78).

Farmers in Aroostook County for the better part of the nineteenth century farmed as way of living off the land. Almost everything that an Aroostook settler needed could be found on his farmstead. A varied array of crops were grown including wheat, other grains, some corn, potatoes, and peas among others. Generally speaking buckwheat was grown more in the north around the St. John Valley and regular wheat was grown in the central and southern portions of the county. The potato in the early times was the Christie potato, named after a settler who introduced the variety (Holmes 1839, 63). The average farmer also had some livestock. Usually there was a horse or two, but in the nineteenth century oxen were used much more frequently for farm work in Maine. Many farmers also had a small number of cattle for dairy purposes to make cheese and butter for the home, along with providing milk. There were also some sheep in Aroostook and the number continued to increase until Aroostook County was the leading county in the number of sheep by the turn of the century, many of which were bred and located in the northern St. John Valley area of the county. Most were common breeds that provided decent amounts of wool and mutton, rather than the popular Merino sheep breed known for its fine wool that was found throughout the state. Almost every farmer also had some chickens to provide eggs. There were also some pigs found in Aroostook farms. By no means did the average settler have all of this, but it does demonstrate that a farmer in Aroostook was well diversified in agriculture and husbandry.

Even with the farmstead many settlers were also woodsmen, particularly in the winter, just as many coastal farmers in Maine were also fishermen. Since Aroostook County was also a developing frontier expanse there was very little hard currency circulating through the settled

towns. This led to a barter system in the county where the on hand stock was used as legal tender. For example, Fremont Plantation (later to become the current town of Easton) voted in 1862 that taxes in the township could be paid in buckwheat and cedar shingles at the market price that the commodities were in Fort Fairfield (Wiggin 1922, 245). This is a testimony of how undeveloped Aroostook County was in its earlier years. However, Aroostook settlers did export some goods out of the county. These included lumber and lumber products, buckwheat, grass and timothy seed, clover, and even a little bit of honey (Day 1963, 128). Before the coming of the railroads these products were either floated down the Aroostook or St. John Rivers, carted into nearby New Brunswick, or teamster driven south towards Bangor. A heavily laden horse team could take as long as twenty days to ride a round trip from Presque Isle to Bangor during these times (Collins 1922, 10).

While potatoes were briefly mentioned in Dr. Holmes' report in 1838, during the years before the first railway in Aroostook County in 1870 they were beginning to be cultivated on a larger scale. In 1840 Maine as a state was only behind New York as a potato producer (Day 1963, 117). There are many attestations to 400 plus bushel yields per acre during these years in Aroostook County, a tremendous amount at the time. For many farmers, the method was to cut down the trees in the desired field and then set a good burn to the felled trees to nourish the soil (commercial fertilizer was not common as of yet). This was done for many years in a row on separate parts of the farmstead since it produced good results and was generally easier to work with than replanting old fields. In 1870, the figures demonstrate the tremendous growth of agriculture in Aroostook County. 133,024 acres of land were improved upon on 3,209 farms. These farms grew 532,151 bushels of oats, followed by 380,701 bushels of potatoes, and 360,450 bushels of buckwheat among other crops (Day 1963, 127). However, the decade of the

1870s was a major turning point in the agriculture of Aroostook County and stimulated the growth of Aroostook into later becoming a “Potato Empire.”

The year 1870 brought the first railroad tracks into Aroostook County. An entire three mile span was built by The New Brunswick and Canada Railroad connecting Debec, New Brunswick to its adjacent town in Aroostook County, Houlton. In 1875, another line branches out and connects to the town of Fort Fairfield. Many branches soon connected by the New Brunswick Railroad and other rail companies to other towns in Aroostook including Caribou and Presque Isle (Collins 1922, 26). Aroostook farmers were now able to ship their potatoes abroad when before it had been very impractical to move large quantities of potatoes to market. However, the farmers of Aroostook still lacked what was deemed a “direct line” railroad to Bangor (though it was still reached by a very circuitous route) thus allowing them to easily reach southern American markets cheaply. Still, Aroostook farmers were now able to begin capitalizing on the tremendous potato crop yields by shipping them on the train cars.

However, railroads were not the only boon to Aroostook farmers in the 1870s. Another big catalyst for potato growth was the reemergence and spread of potato starch factories. While not a new creation, as they were attempted in the 1840s downstate in Maine and a handful were restarted in the 1860s, they were a first for Aroostook County (Day 1963, 130). Aroostook County’s first potato starch factory began operation in 1872 in Caribou. At the time it was considered the largest potato starch factory in United States. Presque Isle opened another factory two years later and their number increased dramatically soon afterwards.

Potato starch factories were extremely beneficial to Aroostook farmers and encouraged the production of potatoes. It guaranteed farmers a buyer for their crop, usually at 25 cents for a

bushel of potatoes that was delivered to the factory. A typical factory could manufacture around 1,000 bushels of potato every day into starch. At first many farmers sent all grades of their potatoes to the factories, but soon only culls or second rate potatoes were sent to the starch factories since lower quality potatoes produced the same manufactured starch. They also sent good table stock potatoes to the starch factories if there was a glut in the market or potato prices were low. The potato starch factories were so successful that by the year 1880, Aroostook County had seventeen of them. Starch barons emerged to dominate the industry, one of them being T. H. Phair who would eventually own fourteen of the sixty-two starch factories in Aroostook County in 1904 when only two other factories in Penobscot County existed in Maine then (Day 1963, 133).

The combination of railroads and starch factories were influential in transforming Aroostook farmers out of subsistence farming to live off of into for-profit farmers in a land where potato was king. In 1869 before either of these innovations had an impact on the county, 380,701 bushels were grown. Twenty years later after the growth and expansion of both starch factories and the railroads in Aroostook County, 2,746,765 bushels of potatoes were harvested (Day 1963, 131). Yet, this was still before a so called “direct line” railway was constructed to give Aroostook County a direct rail connection to Bangor, which was achieved in 1894 (Collins 1922, 50).

Even though the potato had reigned supreme now in Aroostook County, other crops were being grown as well with mixed success during the same time period. In between the years of 1870 and 1890 the amount of farms in Aroostook County doubled in quantity. Besides potatoes, farmers were also growing more and more hay and oats on their farms to great success. However, not everything grown in Aroostook took a firm hold. Apple orchards, which had been

continually grown on a small scale in Aroostook, at least compared to the rest of the state, had practically gone by the wayside except for home use. Hops were tried, but they were soon forgotten in a shaky market. Sugar beets, of Dr. Ezekiel Holmes fame, were tried for the first time. Surprisingly, Aroostook farmers were successful in growing good sugar beets. The problem laid in the refining of the beets, which was far away in Portland and proved to be too problematic to be continually successful (Day 1963, 131). Other agricultural industries were beginning to flower in Aroostook County as well, though they never reached the level of the crop farmer. Fort Fairfield, Presque Isle, and Houlton each had cheese factories and A. P. Bennett of Linneus in Aroostook County built opened the first butter factory in the state of Maine in 1878 (Day 1963, 54). Houlton and Presque Isle also later constructed their own butter factories. This type of manufacturing was able to be accomplished successfully due to the southern portion of Aroostook County having a successful dairy and cattle market.

Before the year 1890, there was little technology regarding cultivating potatoes. All that was used was the farmer, his yoke of oxen or horses, and a horsehoe (which was a horse-drawn machine that covered the seeds at hoeing time). Aroostook farmers, like the rest of the state, suffered at the perils of the late potato blight which hit the state hard beginning in 1844 (the same disease that caused the Irish Potato Famine) as well as the Colorado potato beetle, which fully permeated the state by 1877. Despite these devastating hazards and lack of technology, there was a decent yield of 170 bushels of potato per acre and in some extreme cases some yields could reach higher than 400 or even 500 bushels per acre.

Still, to retain the “Potato Empire” that Aroostook County had begun to establish, new innovations were needed. Commercialized fertilizer began to be widely used by farmers in Aroostook and the rest of the state. After beginning using it conservatively with only a couple

hundred pounds of fertilizer per acre, farmers easily saw the benefits of fertilizer and the practice quickly became to use one ton of fertilizer per acre of potatoes grown (Day 1963, 132). Many tons of fertilizer had to be continually shipped into Aroostook County each year and this commodity became one of, if not the most expensive farm expense each year for the average Aroostook farmer. However, the cost was more than paid back with the continual increase in potato crop yields. New technologies were also making potato cultivation more profitable as well. The Hoover digger was invented and aided in the harvest of potatoes, decreasing the manpower needed. Sprayers, both horse-drawn and handheld, with chemical mixtures were used to combat and prevent the late blight in potatoes. A cultural landmark of Aroostook County was also developed during this time. Advances in potato storage led to the widespread creation of potato houses throughout the area. This was a profitable enterprise for farmers because even after paying storage related costs, potatoes usually demanded a higher price once the winter had passed and gave way to spring and summer when potatoes were few. Aroostook County also decreased the amount of oxen that they had traditionally been using in favor of western draft horses, which were sturdy and had great endurance for farm work. Crop rotation also began to be widely used to slow the rate of depleting the quality of the land, especially since the time of the slash and burn method was outdated. These new technologies and methods increased the efficiency and lowered the cost of raising potatoes. When this was combined with a generally healthy United States economy that suffered only minor disturbances, Aroostook County was solidified as a champion potato growing county. In 1890 Aroostook County had 16,641 acres devoted to potatoes and by 1900 it expanded to 41,953 acres (Day 1963, 132). By then Aroostook County grew more than half of Maine's potatoes.

Aroostook County had essentially transformed into a single cash-crop county, with the potato being the chief form of business. However, Aroostook County's tremendous agricultural output was not limited to just the potato. Wheat was still a large crop though it was on the decline. During the years of World War One wheat was in high demand and had a resurgence to provide for the military, but it declined as soon as the war had passed. On the other hand oats continued as a strong crop for Aroostook County. In the harvest of 1910 Aroostook County harvested more oats than the whole rest of the state. Still, both potato acreage and potato yield in the county were ever increasing. In 1910 75,738 potato acres were grown producing 17,514,491 bushels of the crop (Day 1963, 132). Aroostook potatoes were well known throughout the United States and were sold at various markets in the country. Just as important was the seed stock that Aroostook had sold, which had steadily been increasing since the beginning of the railroad era. Tons and tons of Aroostook seed were sold and shipped out of Aroostook County to other farmers to grow Aroostook stock all along the eastern seaboard and even as distant as Texas (Day 1963, 133). With table stock, starch, and seed all as avenues for selling potatoes, it would seem that Aroostook's "Potato Empire" was unstoppable.

Unfortunately with a one-crop system in Aroostook County there are drawbacks as well. The main one being that farmers were at the mercy of the potato crop for an income that they now needed to live off of rather than living off the land. This led to many years of feasts and famines in the worth of the potato industry that were generally out of the control of the Aroostook farmer. Many factors went into whether an Aroostook potato farmer would have a solid income on any given year, and many were also at the national rather than the county or even state level. One of the most dangerous was that there was a lack of other income for the potato farmer. This forced farmers in poor potato years to go to the banks on credit to borrow

capital to make it through to the next season and many farms were eventually foreclosed because of too much debt. These poor years could be caused by a multitude of reasons as well. Aroostook County farmers could over produce potatoes lowering their price, but at the same time, potatoes as a whole at the national level could also dramatically increase the supply forcing the price of potatoes down whether or not Aroostook farmers over or under produced. Also, national fluctuations in potato prices based upon other factors such as market regulations and international trade were beyond the reach of the Aroostook farmer's control.

The next thirty years, from 1910 to 1940, demonstrates the volatility of the potato booms and busts in Aroostook County. In 1912 Aroostook County had an average potato yield, but at the same time the United States had the biggest potato year in its history at the time. The price of a barrel of potatoes in Maine averaged about \$1.37, an amount that was a little below a decent price. In 1916, during World War One, a major boom was reached in Aroostook County because the national crop was down. The average state price for a barrel of potatoes was \$5.23, but many Aroostook farmers were able to achieve \$10 per barrel of potatoes, and incredible amount during the time (Day 1963, 135). The prices continued to be solid and in 1919 another year where some Aroostook potatoes were being sold at \$10 per barrel was achieved. These amazing profits allowed farmers to pay off bank debts as well as begin to buy some of the luxuries of the day such as small far trucks and tractors which were beginning to become widely used, but were far too costly to buy in an average year.

The roaring twenties delivered a shaky market for Aroostook farmers. By this time, Aroostook County was growing the majority of Maine's potatoes and Maine was the leading state in potato yields. However, after the great incomes during World War One and 1919, the post-war depression came just as fast. The first three years brought much reduced prices. After it

seemed that the downward spiral had bottomed out, the 1924 harvest value was the worst of all. The next year, many farmers were able to bounce back and pay off the debts that they had been accruing with a good potato value. This trend then continued for the rest of the 1920s, but the decade as whole was very tumultuous for the potato farmer in Aroostook even though the annual crop at the end of the decade was more than twice as much being harvested at the beginning. In a low year the county may have shipped only around nine million barrels out of the county while on a good year it would have been around fourteen million. Dismal years such as 1924, brought the average price of a barrel of potatoes to a mere 81 cents, but a good year such as 1925 prices climbed to \$5.35 per barrel (Beck et al. 1936, 3). The starkest statistic of the 1920s is the range in the yearly potato crop value of the entire county. The greatest year brought a potato value of \$48,272,000, yet the lowest year brought only a paltry \$8,079,000 (Beck et al. 1936, 3). However, an even greater challenge needed to be met as Black Tuesday (October 29, 1929) at the end of the decade ushered in the worst calamity in Aroostook's agricultural history, the Great Depression.

Aroostook County was hit hard just like most other areas around the world during the Great Depression. Even though Aroostook County alone provided 15.3% of the entire potato crop in the United States by 1934 and the huge majority of Maine potatoes, the first five years of the 1930s had caused debt in Aroostook County to rise to a level worth more than half of the value of all the farm real estate in the county (Beck et al. 1936, 3). The profit of Aroostook potatoes plummeted, even farther below than during the shaky 1920s. In 1935, the average price for a barrel of potatoes was 42 cents and the total value from the potato crop was about \$5,500,00 (Beck et al. 1936, 5). It was a total disaster for Aroostook potato farmers.

There were many factors that played into this calamity other than the Great Depression. First, Aroostook County production was tremendous likely creating a glut in the market with an overabundance of potato supply. Aroostook County had always had extremely high potato yields per acre and was always at the top if not number one in the United States in this regard. The yields had been climbing consistently since the beginning of the century averaging in the area of fifty-five barrels per acre of potatoes in Maine in 1904, to about ninety-eight barrels per acre in the first years of the 1930s (Beck et al. 1936, 6). Also at the same time, in the United States white potato consumption was down per capita for the past generation or so. This was mostly due to two factors. First, refrigeration and transportation allowed many foods to be kept year round increasing competition and second, many more types of foods were promoted with advertising and the consumer was choosing other foods over the white potato (Beck et al. 1936, 12). Some other minor factors also contributed to low potato prices or lower potato profits for Aroostook farmers. They were being out marketed by other potato producers, such as in Idaho. They also damaged many potatoes, such as with bruising the potato, based on outdated harvesting methods and transportation before the potatoes were sold. Domestic potato starch manufacturing was also on the severe decline in the United States, one of the major sales outlets for Aroostook potato growers. In 1904, 27,709,400 pounds of potato starch were produced in the United States, much in Aroostook County's many starch factories. However, by 1933, only 9,283,000 pounds were produced in the country, but foreign potato starch imports reached more than 13,000,000 pounds (Beck et al. 1936, 35). While many suggestions were put forward, there was little to be done to aid the Aroostook farmer. Attempts were made by the Maine State Legislature by enacting some regulations to aid in the sale of potatoes. In 1935, the Potato Branding Law was passed to regulate quality and grades of potatoes to promote better handling

of potatoes. Also, in 1937, the Potato Tax Act was passed and levied a one cent and later on a two cent tax on barrels of potatoes. The revenue went towards potato advertising and research by the state.

The real cure as it would seem for the disastrous potato market would be the coming and duration of World War Two. The late thirties began to show improvements for the potato market. In 1939, six Aroostook County towns all grew more than one million bushels of potatoes; they were Caribou, Easton, Limestone, Mars Hill, Presque Isle, and Fort Fairfield (having the most with 3.9 million bushels of potatoes (Day 1963, 139). During World War Two, many Aroostook farmers became freedom farmers and grew their potato crop for the federal government and military. This guaranteed them a large buyer for their crop, along with a decent price for what they sold. Acreage and production continued to increase during the length of the war and was beneficial to Aroostook farmers.

The first one hundred years of agriculture in the County of Aroostook of the state of Maine is a history of the shift of the average farmer living off the land into a booming cash-crop farmer. From humble beginnings of subsistent oriented farmsteads of many crops, Aroostook farms became potato powerhouses that dominated the industry. It is no wonder why Aroostook farmers prevailed as potato champions, as currently Aroostook County still has over 300,000 acres of prime farmland, the highest grade soil under the U.S.D.A. (Maine Department of Agriculture 2005, 2). Through thick and thin Aroostook farmers persevered through many obstacles to continue on the potato legacy that still lives on today.

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