

Humble Dreams: An Historical Perspective on Yukon Agriculture Since 1846

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Abstract: Hudson's Bay Company traders grew the earliest Yukon agricultural crops as they tried to augment their insufficient supplies. Yukon agriculture went from meagre beginnings in the mid-1800s to peak production during the Klondike Gold Rush when farmers prospered by storing and marketing their produce through the late fall and winter. Until the mid-1950s, farms around Dawson City, Mayo, and along the Yukon River produced healthy crops of vegetables and hay, delivered economically by a fleet of sternwheelers. A change away from horse-drawn equipment and vehicles, the loss of the riverboat fleet, and a continued decline in population caused a reduction in the number of Yukon farms. The construction and continued improvement of the Alaska Highway made easily imported produce more economical, and the growth of Whitehorse settled the majority of Yukon's population an inconvenient distance from the best agricultural land. A small number of farms continued to supply central Yukon but the more populated south grew dependent on imported produce and farmers focused more on forage crops. Cool, short growing seasons remain an obstacle but northern crops have proven to be equal in quality and quantity to southern produce. However, a low territorial population and competition from southern markets has hindered the growth of Yukon's agricultural industry.

Introduction

The Yukon's Subarctic environment has not been the biggest barrier to viable agriculture. The history of Yukon agriculture shows that small farms and gardens have been successful in situations of unlimited patience and experimentation, and whenever given a carefully chosen location, the proper crop, and a little luck with the weather.

When fur traders, explorers, and prospectors started arriving on the upper Liard and Yukon watersheds in the mid-1800s, they met Yukon's First Nations populations who were living a semi-nomadic life in a search for sustenance. Extended First Nations families hunted caribou that provided food and clothing materials. Groups gathered to harvest the summer fish

migrations in the rivers, and to ice fish on lakes during the winter. Caribou liver, wild rhubarb, and other plants and berries supplied ascorbic acid and rounded out a healthy diet. The First Nations rarely suffered dietary deficiencies.¹ However, until about 1899, the non-First Nations population had difficulty in obtaining a nutritious diet and they brought in most of what they needed to survive.

Importing food was difficult as the supply lines were long and transportation was unreliable. In the late 1800s and early 1900s, imported vegetables and hay were either unavailable or very expensive and local produce found a ready market. Commercial gardens and ranches need a reliable transportation system and a large stable population within reasonable distance of fertile land. These conditions were met during and just after the 1898 Klondike Gold Rush. When the Yukon population declined after the early 1900s, so did the number of farms. The Mayo mining district became important in the 1920s and this region also had good agricultural land, but the small population did not support large commercial farms.

The White Pass & Yukon Route railway and sternwheeler fleet provided a reliable Yukon transportation system from 1900 to the early 1950s that benefited both local farmers and importers. The river steamers travelled past farms in the best agricultural land available. A simple network of rough wagon and winter roads between Whitehorse and Dawson City was augmented by the construction of the Klondike Highway in the early 1950s, but this ended the sternwheeler era. Farms that had flourished along the rivers no longer had a cheap and easy way to get their produce to the market. The capital and the population centre shifted to Whitehorse in 1953, eleven years after the construction of the Alaska Highway, and farming suffered due to a lack of nearby arable land. The roads continued to improve and goods from southern Canada and the United States became cheaper and easier to obtain. Low transportation costs acted to hinder the growth of the local agricultural industry. Without government subsidies and with many Yukoners preferring southern produce, Yukon's farms went into a decline and are only recovering now, fifty years later.

Hudson's Bay Company Farming Experiments

The Hudson's Bay Company fur traders were dependent on supplies from the firm's headquarters although each outpost was expected to be self-sufficient through hunting, fishing, and agriculture.² The company planted small plots to test for suitable crops, such as barley and potatoes, at the Frances Lake (1842–1849), Pelly Banks (1845–1849), and Fort Selkirk (1848–1852) trading posts.³ Robert Campbell was an experienced farmer and had managed the

Hudson's Bay Company's experimental farm in Red River, Manitoba from 1830 to 1834 before he was posted to the Yukon.⁴

Post records referred to poor food supplies and Campbell often sent letters back to headquarters, usually ignored, asking for larger and more regular shipments.⁵ The traders complained that the First Nations brought in few furs, meat, or fish.⁶ Frances Lake and Pelly Banks were located in high, cold country and the traders depended more on good hunting and fishing than agriculture. The Hudson's Bay Company employed First Nation hunters and Campbell established fish camps around the posts. Fort Francis was also abandoned during the winter of 1848/49 due to a lack of provisions and poor trading. A fire in the same winter burned most of the buildings at Pelly Banks but the traders there were already suffering from starvation.⁷ The experimental farm plot at this location was hit by a hard frost on 17 August 1846. A quart of potatoes was harvested but the largest were the size of a pigeon's eggs and some of the seed had not sprouted.⁸

Fort Selkirk was established at the confluence of the Yukon and Pelly rivers in 1848. On 2 June, the men built a cache and stowed their goods including seeds and seed potatoes. They cleared a spot to grow barley even before felling trees to build the fort.⁹ About one and a half to two gallons of potatoes were harvested on 27 September, the rest of the potatoes, about one and a half gallons, were dug up on 30 September and the turnips were harvested on 2 October after a hard frost injured them.¹⁰

In 1849, two fields of potatoes were sown at Fort Selkirk, some in an upper field on 17 May and the remainder on 30 May. More seeds were brought over from Fort Frances on 16 June but the records do not say if they were put into the ground.¹¹ By the end of May, one and a half gallons of barley had been sown and was up an inch. Thrashed and cleaned, it yielded a "keg" (a small wooden barrel with a capacity of about seven gallons) and the records note that there would have been more except for a heavy frost. A few potatoes were up by 25 June, although dry weather was not helping, and a killing frost occurred in early July.¹² The upper field gave them a low yield of small potatoes and the lower field harvest was "a keg and a half," or ten to twelve gallons, of larger potatoes.¹³ More than eight gallons were kept as seed potatoes but when they were brought out to cut for spring planting it was found that all but a pint had rotted although they had been packed in dry earth.¹⁴

The pint of small potatoes and a few garden seeds were planted on 16 May 1850.¹⁵ Campbell writes "fine farming weather" on 1 June.¹⁶ The story changes on 25 June when Campbell notes: "Our potatoes which were coming on beautifully have been frozen to cinders last night by a hard frost ... My

endeavours to rise [sic] a crop of Potatoes have been abortive. An unfortunate fatality has attended them at every turn for these three seasons."¹⁷ Campbell did not give up but noted on 12 July that "Our potatoes which were coming on finely for the second time have been blasted again for a second time by the frost last night and are now of course ruined."¹⁸ A very hard frost on 3 August froze the hardy Scotch Kale.¹⁹

In the winter of 1851/52, Campbell was absent from Fort Selkirk for two months. On his return, he found their few gallons of seed potatoes were frozen. This was the product of three years of patient cultivation starting with three or four potatoes that Campbell had taken from Fort Liard (210 km north of present day Fort Nelson). In his memoirs, Campbell notes that the indifferent success of all vegetables except lettuce was due to destruction by flies but that the little barley they sowed did ripen.²⁰

In August 1851, Campbell asked that two young heifers and a young bull be taken to Lapierre's House on the Porcupine River where his people could pick them up the next spring. He added that Fort De Liard, Fort Simpson, and Fort Good Hope had all promised him a supply of cattle and he wanted two large bells for them.²¹ Campbell requested the cattle after a trip to Fort Yukon, Alaska, the only other Hudson's Bay Company post on the Yukon River. The factor there, Alexander Murray, thought that domestic hay could be found for a thousand cattle without much trouble.²²

The original Fort Selkirk site was prone to flooding and the buildings were moved across the Yukon River in the spring of 1852. The new site was established just before rival Tlingit traders from the coast forced Campbell and his men out of their post. The day before and the day of the attack, Campbell and his men were at the old site harvesting hay.²³ The Hudson's Bay Company abandoned Fort Selkirk and did not return until the 1930s; and so ended Robert Campbell's farming experiments.

The early southern and central Yukon Hudson's Bay Company posts were located for trading purposes at sites chosen for their proximity to First Nation camps, and not for their suitability as agricultural sites. Fort Frances and Pelly Banks were in cold, dry spots not ideal for agriculture and Fort Selkirk was subject to summer frosts. The traders were unable to receive adequate imported food and fell short of their goal of self-sufficient farming. In spite of this, Robert Campbell continued to experiment and, although the locations were not ideal for potatoes, he had some success with other crops and was pinning his hopes on livestock when he left the territory.

Farming Traders

The next farming experiments occurred in the 1880s at Fort Reliance, Forty Mile, and Fort Selkirk—posts supplied by the Alaska Commercial Company and staffed by semi-independent traders including Jack McQuesten, Al Mayo, Arthur Harper, and Joe Ladue. McQuesten, Mayo, and Harper came into the Yukon River drainage in 1873 and spent the early years trading for furs and prospecting in the middle and upper Yukon River drainage on tributaries including and between the Tanana River in Alaska and the Pelly River in present day Yukon.

In 1882, the coastal Tlingit allowed prospectors over the Chilkoot Pass and some stayed in for the winter at Fort Reliance on the Yukon River just downriver from the mouth of the Klondike. Their diet was poor as provisions usually consisted of flour, dry beans, bacon/salt pork, crackers, tea, salt, and tobacco supplemented by local meat and fish. The regular steamer failed to bring supplies in the summer of 1883, so those who had stayed left Fort Reliance and went downriver to Nuklukayet, in Alaska. Most of the men stayed healthy that winter except two who suffered from scurvy after a prolonged diet of dried meat, flour, and beans. Joe Ladue thought he avoided sickness by eating fresh rabbit meat while the other two had relied on bacon and “rusty” ham.²⁴ The most common food items shipped by the Alaska Commercial Company between 1880 and 1890 were flour, sugar, butter, coffee, tea, potatoes, onions, fruits, pork, beef, salt, and canned vegetables. Canned meat was added to the list around 1885.²⁵ Vitamin C is relatively unstable and does not survive heating, processing, or hydrating well, so a diet based on imported foods at this time was not the healthiest.

In 1885, prospectors mining gravel bars on the Stewart River were successfully finding fine gold in varying amounts. Sixteen men stayed at Fort Reliance and Belle Isle (near present-day Eagle, Alaska) that winter and more prospectors arrived the next summer after news of Stewart River gold reached Juneau. Coarse gold was discovered on the Fortymile River in the fall of 1886 and Forty Mile, a community of 100 to 200 people, was established at the mouth of the river. Between twenty to twenty-five men stayed at the mouth of the Stewart River eating biscuits and beans that winter and they suffered from scurvy. The supplies that arrived at the Forty Mile community included three-foot slabs of bacon (yellow), lumpy rice, fruit (green), and beans with plenty of rocks and gravel. This quality of shipped food was not to improve until 1893 when the North American Trade and Transportation Company (NAT&T) moved in to Forty Mile as competition to McQuesten and his partners.²⁶ Michael Cudahy, of Chicago’s Cudahy meat-packing company, was heavily invested in the NAT&T²⁷ and the company

was interested in supplying food as well as goods and transportation to the miners. The food may have improved but the NAT&T was not generous with credit and did not offer to grubstake the miners so many were still restricted to McQuesten's post.

In the fall of 1888, with no new gold strikes, many miners left the country and Joe Ladue moved to Fort Selkirk where Arthur Harper and his family were living. Harper was said to be the best farmer in the country and, during the summer of 1889, he and Ladue tried to grow potatoes, turnips, radishes, and cabbages. Their success matched that of Campbell's more than thirty years before; an early frost "nipped almost everything."²⁸ All of the traders were avid gardeners and some of McQuesten's turnips weighed seven pounds.²⁹ The miners and prospectors came to the trading posts for information and supplies and the traders sold their produce at the posts.

The winter of 1889/90 became known as "starvation winter." When news arrived that the supply boat had sunk and no provisions were coming that fall, the Harpers and Ladue, from Fort Selkirk, and about eighty men from Forty Mile travelled down to communities on the lower Yukon River.³⁰ This "starvation winter" coincided with a bumper crop of ten tons of turnips harvested from McQuesten's plot at Forty Mile.³¹ Hardy and nutritious but not deemed delicious as a winter's diet.

In 1890, Harper and Ladue returned up river as trading partners. Ladue established a post on an island at the mouth of the Sixtymile River (Ogilvie) and Harper and his family returned to Fort Selkirk. There were large gardens at both posts but the Ogilvie Island garden was in a better location, having fewer occasions of summer frosts. Harper bought quantities of heavy cotton material and covered his Fort Selkirk plants on clear nights when frost threatened.³² In 1892, Harper grew "potatoes of a fair quality, turnips, carrots, parsnips, cabbage, and a little barley and oats, with the former of which I have had a fair measure of success."³³ Harper would not have known of Campbell's similar success with that crop at Fort Selkirk.

The winter of 1892-93 was notable for the many cases of scurvy among the miners at Forty Mile. The Alaska Commercial Company sternwheeler *Arctic* arrived in the spring of 1893 but unfortunately carried more liquor than food. One of the miners, Ray Stewart, was only able to get two cases of dried fruit, a case of canned tomatoes, and a few oranges. Not enough supplies arrived to last the year and the miners were again faced with a choice of poling up the Yukon River in the fall or taking return passage on the *Arctic* in mid-summer and waiting at St. Michael for the United States government cutter *Bear* that usually arrived in mid-September. Many chose to mine for the summer and then go up the river and out over the Chilkoot Pass. There was

no boat service so they hired local First Nation men with canoes to take them from Skagway to Juneau. Having enough money for supplies, equipment, and food was critical to a successful summer of prospecting and the Juneau miners ideally worked until spring in the local mines and then returned to the Yukon interior with enough supplies for the season.³⁴

Fear of scurvy and the unreliability of the supply boats caused many Forty Mile miners to start garden plots.³⁵ Most of these were dug with a spade as every miner had a shovel, and Jack McQuesten had the only plough in the community. They started kitchen gardens and planted radish and leaf lettuce at the very least; the next most common crops were carrots and turnips. Fences were built to keep the rabbits out and sometimes the sled dogs were tied nearby as an added deterrent. Ray Stewart remembered there were “green vegetables” in abundance during the summer of 1893 and the miners also picked wild blueberries.³⁶ Stewart does not remember finding any raspberries in 1892 but by 1894 they were all over the country. Two men, working the upper end of Sam Patch Bar in the Fortymile River, brought in dried raspberries and the miners supposed that birds spread the seed over the country.³⁷

Canadian government surveyor William Ogilvie was on the Fortymile River in 1887 or 1888 and noted later that Sam Patch tried to grow potatoes by the Fortymile River, but they were killed by the frost before they matured. He then “sought a nook on the south side of the river where the sun did not get to them until towards noon. They were ... gently thawed out in the shade before the strong sun heat fell upon them, and thus survived the action of the frost.” There were other gardens with potatoes but the vegetables were watery.³⁸ Sam Patch was finally successful in growing produce as, by 1895, McQuesten’s Forty Mile store was selling his potatoes for a dollar a pound.³⁹ A Catholic missionary, Father Judge, was at Forty Mile between 1894 and 1896 and he reported Patch making a good living selling potatoes and turnips to the miners.⁴⁰ Patch was not the only successful grower and a traveller, passing through Forty Mile in 1895, was impressed by the comfortable settlement and the many gardens in evidence.⁴¹

Jack McQuesten and Arthur Harper started farming about acres on a “black mud flat” at Forty Mile but found the potato plants were generally hit by frost and the potatoes were small and watery. The turnips were tasty but also very small. They had better luck planting in heavier river bottom sediment or on a sunny slope. One year they tried to prepare the ground using two tame moose but ended up hiring a string of labourers to pull the plough.⁴²

By 1896, farming at Forty Mile was more ambitious. McQuesten was successful in raising potatoes, barley, oats, turnips, lettuce, radishes, and cabbage and he sold his produce to the miners for a good price.⁴³ Someone was experimenting with harder crops as well, as William Ogilvie reported that wheat grown at Fort Cudahy, across the Fortymile River, developed but frost killed it before the kernels formed.⁴⁴

By this time, the garden at Fort Selkirk was thirty square feet and contained rows of healthy potato plants, two rows of turnips, and a row each of radishes, onions, lettuce, and young cabbage.⁴⁵ Harper was so encouraged by his success at Fort Selkirk that he applied for a 160 acre homestead there in 1896.⁴⁶ "Buffalo" Pitts was tending the garden when he explained to a traveller that potatoes prevented scurvy and that the long strips of cotton spread over the small patch of potatoes were a precaution against the occasional frosts.⁴⁷ Harper may have been tending his old garden at the otherwise abandoned Fort Reliance that year.⁴⁸ A government official who passed through reported on the success of the cabbages and potatoes and also mentioned that the young plants had to be protected from the frost. He suggested that the soil on the hillside might be of better quality than the clay loam on the flat and thought that the land would be suitable for agriculture where the slopes were not too steep.⁴⁹ The traders knew through experience that land close to the water had a better chance against the occasional frosts. "Harper's vegetable ranch at Ogilvie Island, at the mouth of the Sixtymile, was long a source of wonder to all."⁵⁰

Even though there were successful gardens and small farms in this time period, farming was not the principal occupation of the traders. With the exception of Sam Patch, the miners had little spare time to spend on gardening when the small population would not pay them enough to abandon their mines. The miners needed the produce to improve their diet, hedge against the expense of store-bought goods, and protect themselves from the unreliable supply system. The traders grew produce to increase their stock for sale. The farms and gardens were grown in areas chosen for their proximity to trading posts and mines and were not necessarily in the best locations for growing.

Klondike Farms

In 1896, gold was discovered in the Klondike drainage, about seventy-two kilometres up the Yukon River from Forty Mile. Yukon gardens and farms were neglected during the first local gold rush, as everyone was busy mining. That winter there were no home-grown onions or potatoes in the Klondike.⁵¹ During the next two years, an international gold rush brought

tens of thousands of newcomers to the region and the majority settled around Dawson City, at the confluence of the Yukon and Klondike rivers. Residents were again forced to rely on supplies brought in from “outside” until farms were established. Sam Steele of the Northwest Mounted Police reported that, by the beginning of June 1898, more than 30,000 people had come over the Chilkoot Pass bringing in outfits that included thirty million pounds of solid food.⁵²

Although there were a few cattle drives and wild game was available, the bulk of the meat consumed during the Klondike Gold Rush was processed in the American west and midwest and delivered or carried north in cans. LaMont’s crystallized eggs were dehydrated in a St. Louis factory and marketed for the Klondike stampeders. Condensed-milk cans from New York and cans that once contained beans and other vegetables and fruits from California littered the route. Imported goods were in demand in Dawson City as well, and ten tons of dried fruit were shipped directly to the community in August 1897.⁵³

The Chicago Record’s guide on the Klondike quotes Joe Ladue on the high cost of flour, bacon, condensed milk, butter, and eggs, and adds his comment that a pound of dried apricots cost five cents a pound more than other kinds of dried fruit. Ladue’s list includes the staples sugar, rice, oatmeal, butter, beans, salt, and tobacco.⁵⁴ Many less-than-successful miners were living on the ubiquitous northern diet of bacon, bread, and beans and paying the price with their health. Prices remained high through 1898. Many discouraged stampeders were selling the food they had brought in for less than the going rate but freight costs from Dawson City to the mines were \$1.00 to \$1.10 a pound so food remained expensive for the outlying miners.⁵⁵ There were a dozen confirmed cases of scurvy in December 1898 and a local physician expected hundreds more to develop. The most common cure used in the Dawson hospital was spruce needle tea and raw potatoes.⁵⁶ The lime juice or citric acid included in many Klondike outfits was not as effective.

The Canadian government expressed an interest in Yukon experimental farms during the 1898 gold rush. Their only source of information was William Ogilvie, the Dominion surveyor, who reported on the history of growing potatoes and wheat at Forty Mile. This news was discouraging and the federal director of experimental farms recommended a variety of vegetable seeds developed for the North, or at least as far north as Ottawa. He prepared a test package of brome, three varieties of oats, four of barley, three of wheat, two of early peas, and some vegetable seeds, and the new Gold Commissioner, Thomas Fawcett, carried it to Dawson in 1897.⁵⁷

Truck farms established around Dawson City during and just after the 1897/98 Klondike stampede were trial and error ventures working to find good farming locations. Many of the men who tried Subarctic farming had experience in warmer climates but even the most cautious had trouble with frost. J. A. Acklan, of California, arrived during the winter of 1897/98 and spent the next summer growing vegetables on the Klondike River and both sides of the Yukon near Dawson. He found favourable locations "in the foothills" of the Klondike River for growing lettuce, radishes, onions, turnips, rutabagas, beets, green peas, carrots, parsnips, and even potatoes, and sold a large quantity. A small plot of barley and oats matured and this was considered significant, as hay was expensive in Dawson City. He decided the south side of the hills along the north bank of the Klondike would be the best farming location and prepared a large garden for the 1899 growing season.⁵⁸ Acklan planned to have ten acres under cultivation with a portion of this devoted to oats and barley. He put in an order for \$2000 worth of seeds and implements.⁵⁹ When his scow load of seeds and supplies arrived, it included a large consignment of greenhouse glass.⁶⁰ By 1901, Mr. Acklan had spent \$35,000 but was not pleased with his return. When gold was discovered on the Acklan land he formed the Potato Patch Group to mine the farm.⁶¹

Another early farmer, Henry Daum, had little experience in growing vegetables but was luckier in his choice of location. Brothers Henry and Frederick "Fritz" Daum emigrated from Germany where Henry had learned the florist trade and was an expert in greenhouse operation. He worked as a florist in New Jersey in the 1890s until he left for the Klondike where he and his brother had moderate success mining on the Klondike creeks. Miners around him were getting scurvy and this encouraged Henry to grow produce for the restaurants in Dawson. He shipped in glass and had wood frames milled for greenhouses. The Daums farmed on Klondike Island, eleven acres of land at the confluence of the Klondike and Yukon rivers, and augmented the already fertile soil with manure from the streets of Dawson. The farm produced twenty-nine-pound heads of cabbage and a variety of other greens and vegetables that sold well. Seeds were started early in flats in the greenhouse. Plants were first put in bench bins and pots, then into cold frames outside when the sun came out in the spring and finally into the fields when there was twenty hours of sunlight. The Daums worked their farm for many years until the mining syndicates brought in dredges and started mining the Klondike River⁶² around 1913.

By the middle of July 1898, C. M. Bartholam was delivering fresh green vegetables around town from his garden on the Klondike River and people were prepared to pay a high price for six-week-old produce as well. A bunch

of onions was fifty cents, eight to ten radishes cost one dollar, and lettuce was twenty-five cents a bunch.⁶³ A local newspaper listed the “usual supplies” and their origin available in September 1898 as: “small imported trout and catfish; domestic grayling, salmon, and white fish; a variety of imported meat and fowl; domestic cabbage, radishes, potatoes and young turnips; imported cabbage, young onions, tomatoes, lettuce, and corn on the cob.”⁶⁴ In the fall of 1898, several additional acreages were applied for and surveyed in the Dawson area. F. Atkins applied for 14.3 acres. Napoleon Dupres applied for a 106.7 area at the mouth of Bonanza Creek. H. C. Gingg applied for thirty-two acres on an island at the mouth of Bonanza. In West Dawson, Johnson, Fortier and Morgan applied for 159.6 acres and B.C. Sprague applied for 79.5 acres and then another 12.4 acres adjacent to that.⁶⁵ By 1899, there were twelve market gardens selling their vegetables in Dawson City.⁶⁶

In 1901 there were notable farms around Dawson in four areas: Klondike Island, a string of farms in the Klondike Valley, some land across the Yukon River just upstream from the Klondike River at Sunnydale Slough, and some land at West Dawson across the Yukon River and downstream a little from the Dawson townsite. Many were small farms of four or five acres, a size that could be successfully run by two men. A thirty-square-foot plot on one farm grew ten crops of radishes in one season. Another farm sold \$6,000 worth of vegetables during the summer and stored twenty tons for the winter market and “a conservative \$6,000 more.”⁶⁷

There were two well-established farms on Klondike Island in 1901; John Fox had two acres and the Daums had one. Fox grew 5,000 head of cabbage, 1,000 celery plants, and had half an acre in potatoes. He also harvested a ton of carrots plus radishes, green onions, lettuce, and other small marketable greens and vegetables, and stored four tons for winter use. In the same year, Daums harvested 750 head of cauliflower, 4,000 cabbages, 500 bunches of celery, a ton and a half of potatoes, two tons of turnips, 500 pounds of rutabagas, and 1,500 dozen cucumbers. Even in this favourable location, the frost destroyed seventy-five of the Daums’ tomato plants before the fruit ripened.⁶⁸

The Klondike River was not easy to navigate, being swift and shallow, so the farms along the Klondike were located close to Dawson City and connected by an early wagon road system. Jolliceur’s Ranch was located about four kilometres above the upper ferry on the A.E. Trail to Bonanza Creek and twenty-nine kilometres from Flat Creek by the 1903 Hunker Creek wagon road, a portion of which Jolliceur constructed under a government contract.⁶⁹ The Klondike River islands were shaded by the hills behind Dawson but protected by the relatively warm and shallow river water. The

largest farm in the area, originally called the Pee Pate Farm, was on two islands located "near the upper ferry." Twenty acres were under cultivation in 1901 and all but a few acres were in oats with a few in turnips.⁷⁰ The best farm in the Klondike Valley was on Mosher's Island, a short distance below the Ogilvie Bridge over the Klondike. A *Klondike Nugget* newspaper article notes quite a bit of detail about this farm which follows:

"... The island is 20 acres in extent but much of it is rocky and unfit for cultivation but four acres which are utilized as a garden. This spring during the high water the Klondike ... ate away about half an acre from the south side of the island, carrying away also a large 16 foot water wheel which was used to pump water for purposes of irrigation during the dry weather in the summer. Messrs. Foichat and Nicodet are the proprietors of the ranch and during the past season [summer 1901] they have either successfully grown or experimented with nearly every variety in the vegetable kingdom. On the lower end of the island is their main garden about two and a half acres in size ... One of the most successful experiments of the year has been in the cultivation of strawberries. From a triangular piece of ground measuring ten feet each way and containing less than 50 plants, 15 boxes of luscious berries were gathered, large, firm and of excellent flavour. They sold for \$1 per box. In another bed there were 500 growing from which next year a splendid harvest is anticipated. A quarter of an acre containing 500 plants of rhubarb has been grown bringing in big returns. Tomatoes thrived and ripened but they require constant attention and at times some protection. Parsley and radishes grow in the greatest profusion in many different parts of the garden. A bed of sorrel 6x50 and one of endives 16x50 have thrived famously. Two long rows of Roman (sic) lettuce is just being marketed and a bed of celery 50 foot square that could not be excelled. Leeks occupy a space 5x50, chervil and chives each the same amount, parsnips just maturing cover probably an eighth of an acre. Three-quarters of an acre is devoted to carrots, there is quarter of an acre in beets, the same amount in rutabagos and turnips. Sugar peas and string beans took up a space 30x50 but they have long since been marketed and are now out of season. Scotch kale has a plot of ground 50x50, cauliflower and potatoes each have the same while huge cabbages cover a quarter of an acre. The blue Dutch cabbage has 10 x 50 to its own use and there is a bed of celery yak [celeriac], a favourite vegetable with the French, the roots alone being eaten. Alongside the later is a bed of chicory, tops being used the same as spinach and the roots when dried and ground often employed

as a substitute for coffee. There is also a bed of oyster plant 10x30 and one of thyme and rosemary (sic). Sweet corn was tried this year but the cool nights dwarfed the growth, the ears becoming but little larger than one's finger. Messrs. Foichart and Nicodet have recently built a large storehouse surmounting a frost proof cellar and will have between 25 and 30 tons of vegetables for winter use including potatoes, rutabagas, turnips, cabbage, celery, carrots, endives, parsley, radishes, parsnips, sorrel, kale, leeks and oyster plant. Mr. Nicodet is a horticulturist of 20 years experience and this year has devoted some time to experimenting with flowers. He has grown La France, Jacquimenot and Apollanaro roses in the open air and carnations thrive luxuriously.⁷¹

Mr. Daly's farm was located closer to Dawson on another Klondike River island just below Mosher's Island. In 1901, the highly productive farm did not have the variety of former years but ten tons of produce were stored away for the winter market.⁷²

In 1908, farmers were getting from five to ten cents a pound for potatoes at harvest. When potatoes could be stored, the winter price went up to between eight and ten cents a pound. A reporter for the *Alaska-Yukon Magazine* visited a root cellar at one of the island farms and reported that root cellars dug on the islands did not freeze and the one he visited was vented to keep the temperature at the required low of three degrees Celsius. The author saw bins of sound potatoes, turnips, carrots, parsnips, beets, and onions. Racks of solid cabbage heads would sell for a dollar each or about eight to twelve cents a pound. Turnips, carrots, and parsnips sold for eight cents a pound in the winter and onions brought twelve cents. This farm also grew "blue" cabbage, cauliflower, and celery.⁷³

A group of islands at Sunnydale Slough in the Yukon River, upriver from the mouth of the Klondike River, provided a winter shelter for Yukon River sternwheelers and an agricultural community grew up on the shore. In 1901, John Charlais had ten acres fenced and grew two acres of both cabbage and turnips, three acres of oats, and a half acre in carrots. He was able to store six tons of cabbage, eight tons of turnips, and one ton of carrots for winter use. Charlais' biggest success was in growing 1,000 heads of cauliflower, nearly half of which were about eight inches in diameter. Many of the cabbages and turnips weighed five to six pounds each and some of the cabbages grew to twenty pounds. One cabbage was so large that Charlais put it on display in Dawson. The leaves spread out for five feet and the head weighed about thirty pounds.⁷⁴ This region was so successful that it became the site of ten homesteads although their fortunes later declined with Dawson's.⁷⁵

The West Dawson agricultural community was connected to Dawson City by a cable ferry that operated across the Yukon River. Brockfelt Farm was about ten acres and produced from twelve to fifteen tons of vegetables for winter use in 1901. The Brown and Matheson eighty-acre tract was just downriver from the Brockfelt Farm and had about ten acres under cultivation as well. In 1900, five acres were seeded in timothy hay and oats which yielded about fifteen tons. In 1901, three acres of cabbages yielded about 20,000 heads, half an acre of turnips and one in potatoes yielded 200 bushels. Fifteen thousand celery plants were stored for winter use. A “quantity” of summer squash was grown, principally Hubbard, but there were no comments on the quality. The *Semi-Weekly Nugget* reported that Brown and Matheson’s hothouse tomatoes yielded very well and the farm produced about fifteen tons of cabbage, potatoes, carrots, and turnips.⁷⁶

As in the 1880s, the Klondike Gold Rush era farms were supported by a demand for a stable source of food, a need to fend off scurvy, and a desire to stretch the dollar. Unlike that earlier time period, a large population created more demand and larger farms could flourish as it was worth the time for those who had the skill. The farmers were able to pick the best locations for their crops and Harper’s experience at Ogilvie had taught that island locations gave the best protection against early frosts. The most fragile crops were grown in the Klondike Valley. More food was imported but it was still expensive. Farmers soon learned to store their produce and take advantage of higher winter prices when the last fresh vegetables brought by the sternwheelers were gone.

Klondike Livestock

Livestock destined for the Yukon market arrived over two routes before local farms started raising animals. There was a relatively easy cattle drive on the Dalton Trail that started at the port of Haines, Alaska and followed what is now the southern Haines Highway corridor to Dezadeash Lake and then a series of drainages to the Yukon River. At this point, the cattle were either loaded live onto scows and barges or butchered and shipped to Dawson City as meat.⁷⁷ A much more difficult trail for livestock started at the port of Skagway and went over the White Pass through the Coast Mountains to the sternwheeler landing at Lake Bennett. The route became more popular after the railway was completed between Skagway and Whitehorse in 1900 and cattle and sheep could be loaded onto stock cars.

E. Pearson brought some cattle to Dawson City in the fall of 1897.⁷⁸ C. W. Thebo travelled over this trail in August 1898 with 1,000 head of cattle and 150 horses. He reported the trail to be in excellent condition and the stock

found “ample” to eat along the route. They made eight to ten miles per day and arrived at the river in good condition. The pasture was good around Fort Selkirk and Thebo planned to hold the stock there until they were needed or until winter when the animals could be slaughtered and frozen.⁷⁹ Most of the stampedeers coming into the country by land followed the trails from Dyea or nearby Skagway and E. Pearson brought in a big flock of sheep over that route in the summer of 1898.⁸⁰

H. L. Miller, the best known driver, brought nineteen steers and the first milk cow into Dawson at the end of June 1898. Milk was a prized commodity in Dawson City and the first meagre offering was noted in the local paper when a gallon of milk brought \$30 in gold dust. Her owner, now named “Cow” Miller, expected she would bring in \$100 dollars a milking after she was settled as “she comes from a good family.” There was little feed at this time and she survived on flour and packing hay.⁸¹ By the middle of July, several hundred beef cattle could be seen browsing along the banks of the Klondike River.⁸² The cattle were sold in small lots to those who owned butcher shops in town.⁸³ Miller soon returned to the coast for more cattle and he also planned to bring in a drove of pigs.⁸⁴ Two scow loads of the first live hogs in Dawson arrived in mid-September 1898 and were butchered right away.⁸⁵ Miller earned himself the title of “Banner Klondike Stockman” for his unusual success. Banking on more success, Miller left immediately for the United States, hoping to get out before ice blocked the river. It was hoped that he would return again with turkeys and more meat for the Thanksgiving and Christmas markets.⁸⁶ By the middle of October, nearly a dozen rafts with slaughtered cattle were anchored along the Yukon River. Meat was more plentiful in Dawson than in many other communities.⁸⁷

The demand for meat in Dawson City created business opportunities for wholesalers and retailers. Mr. Faron was credited with bringing in several hundred head of sheep and in September 1898, he bought the businesses and buildings of the Arctic Meat Co. started by G. G. Berg.⁸⁸ Chris Bartsch, in the firm of Bartsch & Foley, also drove sheep and cattle into the Yukon. He had an interest in a Dawson store, the Portland Market, which W. Rudio purchased in September 1898.⁸⁹ That same month, the Portland Market was advertising fresh pork, poultry, game, and high-grade meat at “popular” prices.¹

The growing number of horses and livestock in the Klondike created a demand for feed crops and the price gradually fell. Hay was selling for \$400 a ton during the winter of 1897/98 and thrifty owners fed their horses flour (at six dollars per fifty-pound sack) and packing-case straw for roughage.⁹¹ Some hay was selling for \$300 per ton in 1898.⁹² The *Klondike Nugget* reported

in September 1898 that local hay was arriving in Dawson from hundreds of miles around and proving a profitable investment at \$250 per ton. Not all of this hay was grown by the cutters and anyone could apply for a permit to cut grass by paying a royalty of one dollar per ton.⁹³ Wild grass on favourable land was growing five feet high. The royalty was put in place to encourage cultivation but the policy backfired as few wanted to clear brush and stumps on their twenty to twenty-five acre allotments if anyone could pay a dollar to cut a crop. In September 1898, the Dominion Land agent brought in a new policy to grant yearly and renewable leases. The newspaper predicted a grand future for Yukon farming.⁹⁴

This rosy outlook was given a setback when the ocean steamers, riverboats and White Pass & Yukon Route railcars were fitted with liquid ammonia refrigeration.⁹⁵ Hundreds of tons of fresh meat and poultry were delivered into the Yukon in 1899 and the cost of dressed meat fell to rival that of local moose and caribou.⁹⁶ The problems of northern animal husbandry outweighed decent financial return although hay remained a valuable crop. Fresh local produce may have lost some of its edge as well after Dawson's first brick building was constructed to store perishable imported goods.⁹⁷

During the summer of 1899, horses were imported into the Klondike in great numbers and 1,200 of them were used to transport men and supplies between Dawson and the goldfields that winter. Horses soon replaced dogs as the main freighting animal as a good horse could pull a ton of goods over the smooth winter roads in comparison to twenty dogs pulling three sleighs. Working dogs thrived on dried salmon but working horses needed hay and oats. Horses pulling wagons and drays were everywhere in 1899 and the wharves were piled high with compressed hay brought from outside. Vacant lots in Dawson City were filled with bales of hay weighing 100 pounds each.⁹⁸

In the fall of 1899, the *Klondike Nugget* reported that hay, cut in August and September, was arriving at Dawson's waterfront, brought down the river on rafts and carried over the ice at the water's edge. Hay rafts lined the shore for half a mile. This "wild slough" hay sold for twelve cents a pound un-baled. One lot of tame hay was from the only hay farm in the country, "taken up years ago by Chris Sonnicksen" and it sold for fifteen cents a pound. The wild hay was native red-top or blue-shan, cut on the banks of the Yukon River above Fort Selkirk. It was packed to the river bank, tramped into a hay press and tied in 150-pound bundles. The *Nugget* reported a total crop of 350 tons of hay and enough horses in Dawson to consume ten times that amount.⁹⁹

During the gold rush, the first cattle, sheep, or pigs to reach Dawson in the spring or early summer got the best price. Before refrigeration was available, slaughtered stock was sold immediately at any price but live herds could wait for a better price if feed was available. The safest return for the effort of bringing in stock was from dairy cows. The introduction of refrigeration systems gave the importers an advantage and no cattle ranches were established during this time. As horses replaced dogs in the transportation system, the need for hay rose to consume all that farmers could produce although local grass successfully competed with farmed hay until the government policy on royalties and leases was revised.

Farms and Transportation

Until 1902, when the Whitehorse to Dawson Overland Trail winter road was constructed, the main transportation route into the territory was along the Yukon River. After 1902, the Yukon's population was either seasonally nomadic or grouped in nodes along the road and rivers at roadhouses, wood camps, and mining settlements. At the two largest nodes, Dawson's population was about 5000 people and Whitehorse's population ranged from 200 to 800 depending on the season. Goods and people arrived in Whitehorse over the White Pass & Yukon Route railway, and were then dispersed by sternwheeler during the summer, and horse and wagon or sleigh during the fall and winter. Importing goods was expensive but, in May 1902, local produce in Dawson City was still averaging twelve cents a pound and restaurants found that tinned goods, probably brought in the summer before, were more affordable.¹⁰⁰ The high prices that fresh produce brought during the gold rush no longer seemed reasonable.

There were many gardens in Whitehorse during the summer of 1902 and some of the produce was good enough to present at outside fairs. The police barracks in town produced a fair crop of peas, lettuce, cauliflower, cabbage, turnips, radishes, and carrots although beans and beets were not a success. The garden was a reliable source of only the most easily grown salad vegetables. The police complained that the 1902 seed, received from Ottawa, was not as good as the seed the year before, and planned to use local seed in the future as those who did so in town obtained better results. Yukon potatoes were declared cheaper and better than those shipped from Vancouver.¹⁰¹

Roadhouses were located along the Dawson to Whitehorse trail at intervals of about thirty kilometres. They offered meals and rooms to travellers and a change of horses. The owners or proprietors often had a garden and an oat field, and the small farms supplied some hay for the

horses working that section of the trail.¹⁰² Most of the feed was delivered to the roadhouses at the beginning of the winter. In 1905, "Menard & Grenier," of Pelly Crossing, advertised to cattlemen and others that they would deliver first-class oats at posts #8, #9, #10, #11, and #12 on the winter trail to Dawson in 1.5 ton lots at five cents per pound.¹⁰³

Regular sternwheeler traffic allowed successful farms to exist farther away from the larger communities as they provided reasonably priced transportation to the markets. There was a penalty paid for being off the main Yukon River route however. In 1916, freight costs from Dawson to the mouth of the Stewart River (110 kilometres) were three-quarters of a cent per pound while freight costs up the Stewart River to the Maisie May farm (155 kilometres) were a cent and a quarter per pound.¹⁰⁴ In 1903, a Fort Selkirk farmer reported a clear profit of \$3,000 on a crop of hay and potatoes sold in Dawson. His success encouraged others to leave prospecting for agriculture.¹⁰⁵ The 1907 growing season was a good one as all vegetables thrived and some local potatoes were considered better than the imported variety. Five homesteads were granted and another dozen were applied for, generally by men who cut wood along the river for the sternwheelers during the winter and raised crops in the summer.¹⁰⁶

Lewis Cruikshank had one of the most successful farms along the Yukon River. He raised hay and oats at his 160-acre homestead on Ogilvie Island (Harper and Ladue's old location near the mouth of the Sixtymile River) and sold produce to the stores in Dawson. Cruikshank had a wonderful rhubarb patch and made rhubarb and cranberry wine.¹⁰⁷ By 1918, he had twelve acres under cultivation. In 1926, he said he had been there for twenty years and the longer he stayed the poorer he got. Although this is a typical farmer's lament, farming along the Yukon River was not easy. Cruikshank was burned out completely in 1923 and in 1925 a flood washed away his buildings, fences, wood pile, chickens, and a horse. Still, Cruikshank was a gardener of some repute and successfully grew wheat, alfalfa, brome grass, and potatoes until the 1940s.¹⁰⁸

In the days before the gold rush, farmers grew their crops close to the communities and sold their produce in the local stores, or customers made their way to the farm. Roads improved in the years after the gold rush but they were mainly winter routes and carried first class mail and small amounts of freight. Sternwheelers were the main means of summer transportation and were capable of carrying tons of freight. This was a great benefit to the farmers as the best farming land was in the river valleys. The sternwheelers could stop at the farms as they travelled between the largest

Yukon communities of Dawson City, Whitehorse, and Mayo and over the Yukon border into Alaska.

The Golden Age of Agriculture

Yukon's population fell from over 27,000 people to around 8,500 between 1901 and 1911.¹⁰⁹ Less food was imported and between 1900 and 1915 there was a steady increase in acreage under cultivation. By 1915, twenty-seven Crown grants had been issued covering 2,155 acres.¹¹⁰

Not all of the farm produce was destined for the Dawson market. A 1904 gold strike in the Kluane Lake region brought the first prospectors and miners into that region and a First Nation Elder remembered that "when Louie and Gene Jacquot first came [to Burwash Landing] they showed our people how to put in a big garden and everybody worked in that big garden and shared what they grew. They grew carrots, turnips, potatoes, cauliflower, parsnips and all other kinds of vegetables."¹¹¹ In 1915, Daniel Cadzow had a 350 acre farm on the right limit of the Porcupine River near his store at Rampart House.¹¹² That small Yukon community was extremely isolated, receiving most of their expensive supplies via the Porcupine River from Fort Yukon, Alaska.

By 1906, almost all the turnips, carrots, beets, and celery in Dawson City were locally grown.¹¹³ The 1908 farms around Dawson were successful and progressive. The potato crop was over 200 tons, about five of which were grown from about 275 pounds of seed potatoes by the McClusky brothers at their Clear Creek farm downriver from Dawson. They crossed Rochester Rose and Golden Coin varieties one season, and the following season crossed the result with Golden Coin. The first cross sent up two shoots, one yielded a pink, and the other a white potato. The second year, the pink potato was crossed with the Golden Coin and resulted in a dark blue potato. One potato, weighing three pounds, was cut into thirty-two pieces, for seed, and yielded 150 pounds. Even so, potatoes comprised about 15 percent of all the freight coming into the Yukon.¹¹⁴

About 200 acres of land was under cultivation near Dawson by 1911. This was more than during the Gold Rush era as the declining population was actually purchasing more local produce. The farms were producing 350 bushels to the acre, or about 450 tons of potatoes, almost enough to supply the local demand.¹¹⁵ A West Dawson farmer was expecting his root crop would total more than 200 tons. Several tons of tomatoes ripened "within a mile of Dawson" and 150 tons of other vegetables such as beets, celery, cauliflower, turnips, and cabbages were grown locally.¹¹⁶ The Paddocks' greenhouses in

West Dawson were successful enough to be featured on postcards of the day.¹¹⁷

Animal fodder was still in demand for the many working horses of the region. Timothy hay matured about 1 August, grew to over four feet in height and farmers could raise two crops if the weather held. Farmers continued to experiment with new crops. Alsike and white clover grew abundantly but red clover proved too susceptible to frost. Yukon timothy and clover hay compared favourably with outside hay and brought the same price—from \$80 to \$100 a ton. Oats and barley successfully sown about 1 May were harvested by the middle or end of August.¹¹⁸ Oat crops were running as high as fifty bushels to the acre.¹¹⁹ The Yukon superintendent of works and buildings sent some feed outside the Yukon to test it for quality in 1911. The returned analysis of the local Dawson brome grass and some poor quality imported timothy showed the brome to be more nutritious. The brome contained more protein and less fibre than the timothy and therefore was more digestible although the analyst noted a slight laxative quality not desirable for hard-working horses.¹²⁰

By 1915, forty-eight homesteads, over 4,500 acres, had been taken up under term payment plans. Most of these were within sixty-five kilometres of Dawson and most of the land was under cultivation. Yukon farms ranged from twenty to 320 acres in size. Hay averaged over one and a half tons per acre with crops like wheat, oats, barley, and alfalfa maturing in less than ninety days. A few farms had horses, cattle, sheep, and hogs. Poultry and fresh local eggs were in high demand in Dawson.¹²¹ New owners of the Pelly Farm brought in short-horn cattle and raised hay to feed them. They also brought in horse-drawn equipment and were successful in growing grain, grinding the wheat into saleable flour.¹²²

The Canadian Department of Agriculture took an interest in Yukon farms and in 1917 a co-operative experimental substation was set up at the already established farm of J. R. Farr at Swede Creek, on the west bank of the Yukon River less than ten kilometres south of Dawson.¹²³ Before the farming experiments began, there were three years of soil improvement and a variety of tests for grains, grasses, and vegetables. Because of the early frost, ploughing in green crops did not materially improve the soil condition until the second year. During those three years, the test plots yielded as high as sixty bushels of wheat, over 134 bushels of oats, sixty-six bushels of barley, and twenty-one bushels of peas, per acre. Wheat had been grown at this location for ten successive years and, when selected seeds were used, the earliest varieties matured well. Varied tests were then conducted under a three-year rotation: first year hoed crop, second year grain seeded to clover,

and third year hay with the aftermath ploughed under. Of the wheat tested: Ruby yielded fifty-four bushels and Prelude over forty-one bushels per acre, and the quality was excellent. The other varieties, Marquis and Huron from local seed, were a failure. Barley yielded as high as over forty-two bushels per acre and oats as high as one hundred. Small fields were sown in forage crops including: a mixture of alsike, red clover, and timothy; sweet clover; a mixture of oats, peas, and red clover; rye and buckwheat; and corn and sunflowers. The growth of all except buckwheat was excellent although winter kill was severe in the spring of 1923.¹²⁴ Good crops of wheat and barley matured in most years if there was no early frost. Timothy and alfalfa proved moderately successful although the latter did not ripen to seed.¹²⁵ A variety of crops were grown successfully with yields and quality comparable with those in southern Canada. The experimental substation suffered from a lack of direct technical supervision and it closed in 1925.¹²⁶ The Swede Creek farm continued to produce vegetable crops and potatoes until 1945.¹²⁷

In the 1920s, an increasing use of mechanical equipment and a low population caused a declining market for feed grain and fodder and many farms were abandoned. The farms that continued were doing very well with vegetables being the most successful crop in the Dawson area. In 1924, wheat seeded on a farm near Dawson on 27 April was harvested within three months. Brome, timothy, and western rye (slender wheatgrass) thrived in various places. One ranch in the Indian River valley, thirty-two kilometres up the Yukon River from Dawson, was producing 100–150 tons of hay annually. Carcross farms were supplying the local need for crops and beef and, by 1928, vegetable and hay production was extensive in the Mayo region.¹²⁸

By 1941, the area under cultivation was down to 511 acres on twenty-six farms although gardens still flourished in the Dawson, Mayo, and Klucane Lake regions. Only two of the farms exceeded 300 acres in size and the others were each less than 200 acres. These multi-purpose farms grew field crops, tubers, vegetables, and livestock. The largest crop was in brome grass with yields from one to two tons per acre. Smaller areas were sown in wheat, oats, barley, alfalfa, and potatoes. Grain crops were grown for green feed although they usually matured. Wheat matured and was harvested around Dawson in eighty-seven days. Farm income was largely derived from sales of milk, butter, beef, pork, and, to a lesser degree, vegetables. In 1941, two farms were classified as stock producers although others maintained horses, cattle, pigs, and some poultry. In the larger communities, home gardens supplied most of the demand for vegetables.¹²⁹

The number of farms and the amount of land under cultivation increased until at least 1915 and farmers experimented with crop diversification. When

the use of horses declined in the 1920s, hay farms were reduced in number but it was still a fairly sheltered and comfortable time for most small farms. However, the Yukon was poised for the biggest change in its demographic and transportation system since the gold rush. The construction of the Alaska Highway would again bring in thousands of people for a short period of time, briefly disrupt existing supply lines, redistribute population centres, and remake the transportation grid. The new road would allow southern farms to ship their produce north quickly and cheaply.

Southern Yukon Experiments

The construction of the Alaska Highway pioneer road in 1942 drew the federal government's attention north and the idea of a self-sustaining frontier was reborn. In 1944, the Experimental Farms Service established a new Yukon Experimental Substation. Prompted by a Northwest Territories and Yukon Affairs resolution, Dr. A. Leahey, Field Husbandry Division, Ottawa, led a party of three looking for a location with adaptable soil, water in abundance, and highway frontage. They followed the Alaska Highway west from Whitehorse for 160 kilometres and eventually chose a site at Pine Creek, near present-day Haines Junction, for the substation. The challenging site was supposed to prove the case for other, more sheltered areas.¹³⁰ This unlikely location was just miles from the sixteen highest mountains in Canada but it was thought that returning soldiers would want to settle along the newly constructed highway.¹³¹ Leahey and his party deemed the land closer to Whitehorse unsuitable for agriculture.

A field tractor and brush breaker, a disk and drag harrow, and various small tools were landed at the railhead at Dawson Creek, British Columbia. A two-ton truck delivered the equipment, trailed by a passenger car carrying the three other staff members. They arrived at the site on 4 October 1944, a little late to establish the outpost but it was difficult to acquire equipment in the war years. During the winter, more equipment was obtained including a D4 Caterpillar tractor and blade. In 1945, about twenty acres were cleared and the ground broken for crops.¹³²

In 1946, several varieties of early-maturing cereals were planted at the Pine Creek Substation. The field test plots, each being one-twenty-fourth of an acre, grew four varieties of wheat, three varieties of oats, and four varieties of barley. Some of these were still being grown in 1951 along with substitutions. Some of the vegetables tested matured in garden plots including beets, cabbage, cauliflower, carrots, parsley, early green peas, lettuce, potatoes, radish, rhubarb, Swiss chard, turnips, and one variety of parsnip. Broad beans achieved occasional maturity and Brussels sprouts

were generally productive. Asparagus, cucumbers, corn, pumpkins, squash, and wax and green beans were not productive in garden plots. Onions did not mature to commercial size in garden plots and spinach bolted. Celery made good commercial bunches when transplanted into cold frames with southern exposure. Muskmelons, tomatoes, and peppers grew successfully under glass. Red, white, and black currants were introduced in 1946 but no plants had grown to healthy bush status by 1951. No success was achieved by gooseberries or a variety of raspberries but Saskatoon berries slowly established themselves. Plums failed and apples and “crabs” remained at bush status. In 1947, facilities for chickens were added to the substation and “excellent” coarse grain and forage feeds had been raised on the farm for seven successive years.¹³³ Winter wheat and rye grew better than spring wheat at the Substation and few clovers were hardy enough to survive the winters.¹³⁴

Spring wheat had been grown successfully at Dawson and other areas since 1900.¹³⁵ Substation staff travelled around the territory in 1947 and planted small plots of cereals and forage with encouraging results. Mature wheat, oats, and barley were harvested at Mayo, the Pelly and Stewart river valleys, and the Klondike. Most of the forage grasses proved hardy and adaptable. An old farm in the Stewart River valley had been sown in brome grass in 1917, harvested as horse feed for three years, and then abandoned. When examined in 1947, the brome crop was lush and with some poplar and willow incursion. Oats, wheat, and barley had successfully matured on the 400-acre Pelly River Ranch since its establishment there in the 1920s. By 1952, the Pelly Ranch and the Masie-Mae Ranch, on the Stewart River, were largely inactive although the Pelly Ranch still had a small herd of cattle with brome grass as the principal forage.¹³⁶

A foundation herd of shorthorn cattle was introduced to the substation in 1948 but the herd was subsequently diagnosed with Brucellosis and destroyed. Three young females and one male replaced the first herd in 1951 but the herd only increased by one in 1952. The Pine Creek staff looked enviously at the Pelly Ranch where horses, cattle, and hogs had been successfully raised for over thirty years.¹³⁷

In 1956, the twelve-year-old substation at Pine Creek had 130 cleared and tillable acres. The farm was testing crops that did well in the Klondike during the gold rush and introducing, breeding, and testing new crops that might become adaptable to southern Yukon conditions. Staff had determined the biggest obstacles to agricultural production were soil infertility, unseasonal frosts, and lack of rainfall. A report concluded that local agricultural production was not a profitable endeavour due to high

transportation costs and a small local market but the region could be as self-sufficient as most areas of Canada if these problems were overcome. Cattle production and livestock feeds could produce a financially sound northern agriculture if their imported components were kept to a minimum.¹³⁸ After all the experimentation and modest successes in other crops, brome grass was the hardiest grass tested and was recommended as the best for hay and pasture.¹³⁹ This was the same conclusion reached in the Klondike by 1911.

The experimental substation did devise clever ways to modify the effects of the harsh environment such as the use of plastic to increase soil moisture and temperature. A new design of plastic shelter suitable for home and commercial use was created at the farm. Another meaningful experiment used a sprinkler system to prevent frost damage to horticultural crops. From 1946 to 1966, the Pine Creek substation evolved from a frontier establishment to a small, modern research complex. Even so, in 1965, it became part of a regional complex and the projects and staff were drastically reduced. Resident technicians maintained existing research projects following instructions from agricultural scientists located elsewhere in Canada and research activity declined. Agricultural research money was reduced in 1970 and all but one northern station, near Beaverlodge, Alberta, closed.¹⁴⁰

The Pine Creek substation, although reasonably successful, was too far from the population centre of Whitehorse where its defined problems of high transportation costs and a small market would have been minimized. Soil infertility, summer frosts, and a lack of rainfall remain the same in both locations. Cattle production and livestock feeds were a reasonable choice for a financially sound agricultural industry considering that brome grass can be successfully grown in south and central Yukon.

Conclusion: Agriculture Then and Now

The establishment of Yukon's first gold rush town, at Forty Mile, created a market for local produce that reached its peak during the Klondike Gold Rush. Farms along the large river valleys continued to be viable until the collapse of the British Yukon Navigation Company and the once reliable sternwheeler transportation system in the 1950s. A decline in population and a population shift to southern Yukon, where good farm land was rare, was accompanied by the continued improvement of the Alaska Highway, and the construction of the Klondike Highway to Dawson, that facilitated the delivery of reasonably priced meat and produce from southern Canada. Since 1970, there have been no events that radically changed the population numbers or shifted the locations of population centres. The Yukon has grown

slowly but transportation into the region has improved with consequent lowering of freight charges for imported goods.

In 1947, the Canadian Department of Mines and Resources was not encouraging agricultural settlers and had concluded that the future of Yukon agriculture would be closely linked with the development of other resources and mining for the profitable disposal of farm produce.¹⁴¹ The history of Yukon agriculture between 1942 and 1982 was one of diminishing expectations.

A Dawson resident recalls that his neighbours stopped buying local potatoes because the only producing farmer refused to wash them and the imported variety "was easier to deal with."¹⁴² A long established greenhouse in the centre of Dawson went out of business in the 1960s.¹⁴³ A census of Yukon cattle counted 222 in 1961 and farms totalled only fifteen in that year and nine in 1966. In the 1970s, hay remained the biggest crop with oats a far second and potatoes an even further third. Hens and chickens were the largest group of livestock with cattle as a far second and horses leading milk cows. There were only twelve Yukon farms in 1971 and they were cultivating a total area of 2,271 acres. Most of the farmers had other sources of income and only three farms had annual sales of \$2,500 or more. Fragile vegetables did find a market. A successful two-acre greenhouse operation at McCrae, near Whitehorse, grew bedding plants in the spring followed by tomatoes and cucumbers.¹⁴⁴

Between 1975 and 1985 the Department of Indian and Northern Affairs declared a moratorium on developing new Yukon agricultural lands due to the lack of an agricultural policy and the First Nations land claims process. In 1982, commissioner's land was opened up for agriculture and a territorial Agriculture Development Council was appointed. Applications for agricultural land were accepted in 1984 and by 1985 more than 4,000 acres were in production, over 90 percent in forage.¹⁴⁵

In the mid-1980s, industry goals set for the next fifteen to twenty-five years were ambitious. It was hoped that local agriculture could replace about 85 percent of the then imported hardy vegetables, poultry, dairy products, red meat, and livestock grain; replace 90 percent of imported forage products; supply a further 25 percent of produce for summer tourist needs for vegetables, eggs, and some dairy products; and supply 40 percent of greenhouse-grown vegetables and make them available throughout the year. This was to be done by increasing agricultural land to 70,000 acres or 28,328 hectares (fifteen to twenty times that of 1985 levels) and selling to domestic and neighbouring northern markets.¹⁴⁶

Fifteen years later, we are far from achieving those goals. The number of farms increased from thirty-eight in 1986 to 160 in 1996 but had only gained by another five in 1999. Only 10 percent of the farms were operated by full-time farmers and the majority of farms were less than seventy acres in size.¹⁴⁷ Twenty-two farms shut down from 2001 to 2006 and reduced agricultural land by almost 15 percent.¹⁴⁸ In 2009, approximately 13,500 hectares of land is devoted to Yukon agriculture. Forty percent of this is cropland and 20 percent is under agricultural development for future use.¹⁴⁹ The agricultural industry has grown significantly in the past five years although it still captures only 1–2 percent of the whole market.¹⁵⁰

Does the history of Yukon agriculture tell us what to expect in the future? The Yukon has proven itself capable of agricultural self-sufficiency but a relatively small population largely located in a relatively unfertile landscape provides major difficulties for commercial growers. A successful agricultural industry depends on strong market demand. We now have comparable population figures to the just over 27,000 people that allowed profitable Yukon agriculture in 1901. Easily accessible “outside” products and high internal transportation costs are being somewhat allayed by strong and growing support for local produce. Cool, short growing seasons are an obstacle; however, northern crops are equal in quality and quantity to southern produce due to long summer days and the lack of disease and pests. The Yukon Agriculture Branch continues to research and provide advice on crops, techniques, and technology and, since 2003, has published their annual findings in a series of readily available “Agricultural Research and Demonstration” reports.¹⁵¹ Farmers are working together in a Yukon Agricultural Association to solve storage and preservation problems in order to cut costs for individual farmers and increase product availability past the summer season.¹⁵²

Some Yukon farmers are looking to niche markets and sophisticated tastes. There are several certified organic farms and some growers, like the Drury’s farm west of Whitehorse, have diversified into wild game ranching. Brian Lendrum raises dairy goats for making cheese in the Yukon’s only certified cheese kitchen. There is strong support to keep the Yukon a genetically-engineered-crop free zone.¹⁵³

Most farmers rely on the farm gate market and many Whitehorse area farmers participate in the Fireweed Community Market. The recent success of a commercial potato farm near Whitehorse is spectacular for its uniqueness. The Yukon Grain Farm started out growing feed grain but after four years of operation, the owners, Steve and Bonnie MacKenzie-Grieve, researched the local market for potatoes. By 2008, the farm had thirty acres devoted to

that crop. During the summer, the couple and their one full-time and three part-time employees harvested, inspected, bagged, and delivered a ton of potatoes every day to Whitehorse stores and restaurants.¹⁵⁴

Today's industry goals are much more reasonable: environmentally sustainable growth in high quality products for local consumption.¹⁵⁵ However, the old Hudson's Bay Company goal of self sufficiency is not a totally impossible one. As stated in the introduction, traditional Yukon First Nations populations seldom suffered dietary deficiencies (although starvation was sometimes an issue), and poor land can be improved to produce quality and quantity for all. We just need to store the bounty past our short growing season and curb our desire for exotic foods such as bananas and oranges.

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