

A Living from the Land: Agriculture in Ogden before the tractor

In Ogden, at the turn of the 18th century, everyone farmed! For ninety-five percent of the New England immigrants, farming, or clearing woods to get to farming, was one's sole occupation. Even if you were a smithy, a miller, a joiner, a doctor, or even a preacher, you also farmed; you kept chickens and maintained a vegetable garden, and you probably had a milch cow.

The rhythm of the seasons in our northern climes fed a corresponding changing cycle of agricultural activity that allowed the hard-working farmer, if blessed with a small measure of luck, to sustain his family and build up his farm. This article chronicles the changing face of agriculture, and its remarkable resilience, into the 1940s. It is a story of evolving technology and external market pressures, weather and pestilence. More than anything it is the story of a diminishing and changing population of farmers who persevered and adapted, despite the challenges.

Survival then subsistence

In those early years, the priority was merely to survive! The following is a script, roughly followed by many early settlers of Ogden. There were, of course, many variants on this theme.

A would-be settler commonly made a reconnaissance visit, often with a friend or relative, to see the lay of the land, see what lots were still "apparently" available, and record the preferred lot's coordinates. Such a foray most typically would take place in the summer between haying and fall harvesting back home, and when the weather for such a trip might be more predictable. Travel time would vary (e.g. about nine days, one way by horse from southern New Hampshire), but the time spent on the new land was often short. The settler would likely blaze a convenient path to his preferred lot from the nearest primitive road. Some of these paths became very well-trodden, eventually transitioning themselves into roads.

As the original territory for most settlers (southern Connecticut to northern Vermont) was quite diverse, the prospective pioneers' agricultural experiences ranged widely, tempered by different crops, terrains, soils and climates. These specific prejudices aside, the settler would be looking for land with four important characteristics: 1) a protected locality with extended patches of near level land, and with a south facing exposure (e.g. an east-west oriented hillside), 2) an indication of good soils as provided by the presence of certain tree species like beech, chestnut and/or walnut 3) a source of year-round water, preferably a creek or spring, and 4) a good source of browse for livestock, such as a beaver

meadow, vital before the first hay crop was harvested.

Following this initial exploration, the settler would return early the following spring, to do preliminary clearing (one to two acres) and build a temporary shelter (a shanty) of felled logs. He would then return home for spring seeding. In late summer of the same year (August to mid-September) the settler might return and build a more substantial log or squared timber cabin, sufficient space for a family. He would then go home for one final harvest at the old homestead.

In early March of the following year, the entire family would move north on the snow by ox and sled. They would be bringing with them the necessary tools and seeds to start planting the land cleared previously, plus sufficient provisions to last the family until the crucial first harvest. Late winter, more trees would be felled, cut into manageable lengths, and hauled by ox into large piles ready to be burned.

Typical first plantings amongst the stumps would include maize, beans, peas, perhaps squash, plus vital root crops such as potatoes and turnips. Little to no wheat would be planted that first spring. The virgin soils would be remarkably productive. Hunting and fishing, and smoking or possibly salting the catch, would supplement the family's protein needs. Picking wild berries in season added needed calories and variety to rather a drab diet, consisting largely of salt pork and peas.

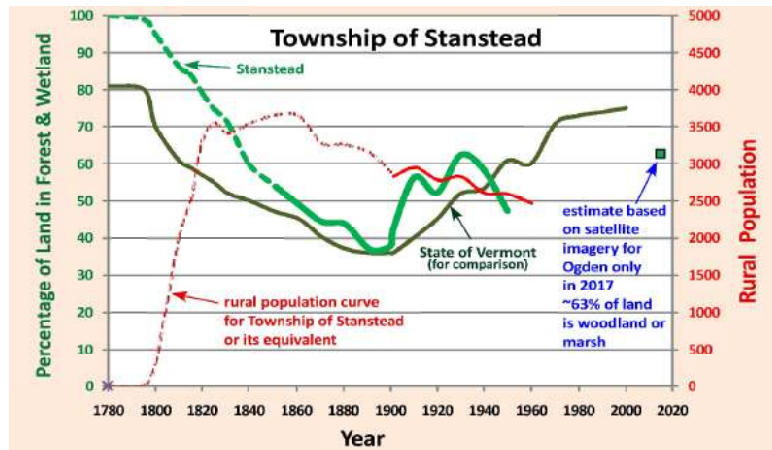


Drawing by Gael Eakin of a pioneer stump-ridden hillside farm in Ogden, 3 years after the "pitch" had been started. At left in the clearing is the original log shanty, and further right are the squared-timber cabin and squared-timber Three-Bay or English barn.

The first cash crops

The first merchants and simple general stores quickly followed the settlers. For instance, we know that by 1805 a store had been established in Derby Line, and by 1817 in Georgeville. Although the roads were often in terrible condition, teamsters with their wagons, or sleds in winter, brought supplies into the stores, and agricultural products that had been bartered at the stores were taken away to external markets. The most valuable product derived from the first farms, were potash and pearlash, somewhat incidental by-products of the burning of cleared timber. The production of potash was generally confined to an “ashery”, where the competent expertise and hardware (a massive cast iron cauldron) resided. To the ashery, the farmer would transport his hardwood ashes. The ashes were subsequently leached and the resultant solution boiled and evaporated, then reheated to very high temperatures (with lime in the case of pearlash) to drive off any impurities. The resulting salts were then packed in barrels. The demand in England for these potassium salts was very high, as they were used to make dyes, glass, gunpowder, and in particular soft soaps used in the textile industry.

Another “value-added” product from the farm was potato whiskey (vodka). On Joseph Bouchette’s 1831 map, there were six such “distilleries” indicated in Stanstead Township, almost certainly an underrepresentation. Some of this whiskey may have been exported, but probably the vast majority was consumed locally, as whiskey, not water, was commonly consumed at every meal, at least until the Temperance Movement gained a foothold in the 1840s.



Graph illustrating the very rapid clearing in the 19th century of the primal forest in Stanstead Township. Potash was a by-product of this massive clearing. Data mostly come from agricultural censuses (solid lines) taken every decade, starting in 1851. Dashed lines indicate estimates. Note that both Vermont and Stanstead reach peak deforestation in 1890s, some 30 years after the population had reached its maximum.

Maple sugar, was also a relatively compact (hence transportable), tradable commodity. If the farmer had chosen land with a good maple bush (and most early farms in Ogden were so blessed), then with the assistance of the entire family, enough sap could be collected to produce a surplus of maple sugar. If it could reach urban markets like Montreal, Quebec or Trois Rivières, it could be sold profitably.

In the first half of the 19th century, the British government, for strategic reasons, encouraged farmers to grow both flax and hemp as farm products for export (shipped as thread, woven linens, or as hemp fibre), but it is unclear whether either crop was ever significantly embraced by Ogden farmers.

Wheat has its short-lived heyday

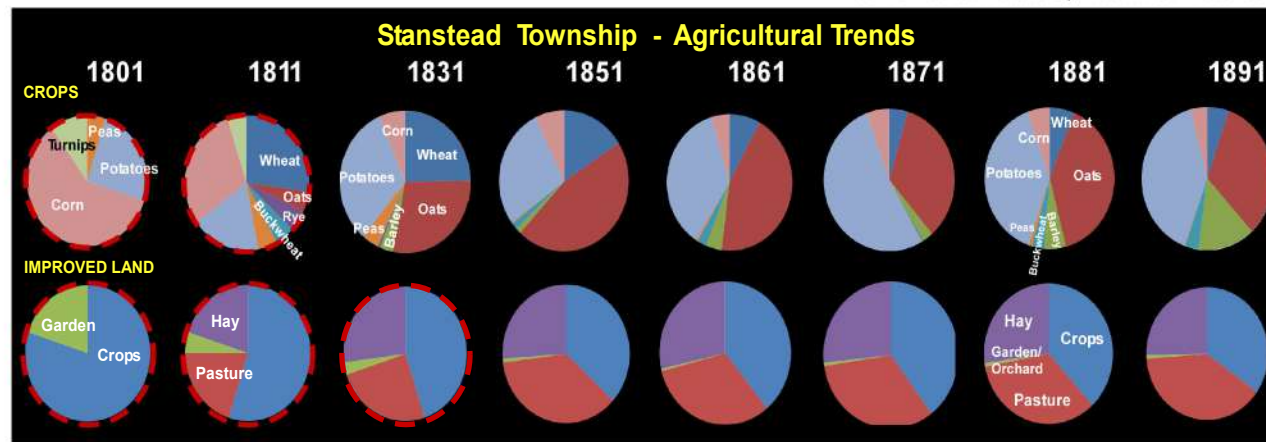
Wheat was the preferred crop once some of the stumps had been pulled, as this made the use of a sickle or scythe at harvest more practical. The undepleted soils were exceptionally productive for these earliest of Stanstead farmers, and wheat yields as high as 30 bushels/acre were recorded. More typical yields in that era from well-farmed soils would be less than half that. A portion of the harvested wheat grain served as seed for next spring’s planting. It could also be used as animal feed, although rarely due to its value as a food source. However, this required the grain to be ground into flour. Fortunately for the pioneer settlers, grist mills were built in Ogden very shortly after the first clearings had been started. The earliest known grist and saw mills in our area were constructed on the Tomifobia River, where the present village of Tomifobia lies. They were erected in 1802 by Caleb White and Simeon Glidden, and the work was supervised by Constant Wright a millwright from New Hampshire. James Bodwell built a second grist mill at Mack’s Mills (Comestock Corners), some time between 1804 and 1815. Grist mills were also operating in Kilborn Mills (Rock Island) by 1804 and in Derby by 1810.

Although flour had the potential to be exported, the transportation infrastructure (i.e. roads, rivers) was inadequate. In addition, the Stanstead population was growing at such a pace early on that whatever surplus existed was generally consumed within the Township or close by. The farmers of this region simply could not compete with the long-settled regions of Quebec or those portions of Upper Canada along Lake Ontario or the St. Lawrence, with their relatively easy access to markets, and generally longer growing seasons.

Worse yet, the wheat variants of the era were subject to blights and were not tolerant of even light frost. In 1816, the “year with no summer”, and again in 1817, the wheat and corn crops in our region and most of Vermont and New Hampshire (i.e. higher elevation areas) were lost, even for use as animal feed, due to early frosts. In the St. Lawrence Lowlands, there were also crop failures, and Lower Canada suffered from a subsistence crisis with drastic shortages of flour and milk.

In the 1820s, the opening of the mid-West and the building of the Erie Canal (1825) made the Eastern Townships even less competitive in the wheat trade. There were also regional crop failures due to periodic infestations of the European wheat midge, as well as the Hessian fly. Wheat remained a staple, but subsistence cereal crop in Stanstead, not part of the growing market economy. However, it was in decline and by the 1830s more bushels of oats were produced than wheat on the average Stanstead farm.

The gradual decline of wheat is shown by the following figures. In 1831 the Township of Stanstead produced 44,160 bushels of wheat (50,900 bushels of oats) from about 558 farms. In 1891 only 9,570 bushels of wheat were produced from about 690 farms. During this same period, more and more land was being utilized for either hay or pasture, as the emphasis slowly shifted towards livestock rather than wheat.



These pie diagrams illustrate the diminishing importance of wheat from 1811 to 1891, but also, due to a bias towards livestock, the significant amount of land devoted to hay and pasture. Dashed red circles indicate estimates as no census data are available.

The opening up of the American mid-west, and in the 1880s, the Canadian prairie regions, not only put an end to wheat as a viable cereal crop in the Eastern Townships, but it also induced many farmers from our region to go south and/or west for new opportunities, and with them went their hard-fought-for expertise in Stanstead Township agriculture.

Wheat production in Quebec currently represents less than 1 percent of the Canadian total, which is dominated by the western prairie provinces. Today in the Eastern Townships (or approximate equivalent) wheat is planted on 2,600 ha, representing only 4 percent of even Quebec's modest wheat planting. Current yields from this region average 3.12 tonnes/ha, or 46 bushels/acre, but this productivity is the result of evolved wheat variants (some of which are GMOs), on highly fertilized soils, and using very efficient seeding and harvesting methods.

Waterpower, woolen mills, and the rise of sheep

Compared to the St Lawrence Lowlands and much of Upper Canada, the Eastern Townships had an abundance of water power. In Ogden and the surrounding area, it is the Tomifobia River that has provided that power and numerous mill sites and villages have sprung up along its winding course from Baldwin's or Judge Mills (Judd's Mills), to Kilborn Mills (Rock Island) to Mack's Mills (Comestock Corners), to Smith Mills (Tomifobia) to Libby Mills (Boynton). To the first Ogden settlers, this initially meant the availability of grist mills to mill their grain into flour, and saw mills to convert their timber to dimensional lumber.

Water power had another indirect, but ultimately more profound impact on Ogden farmers. The industrial revolution made its start through the mechanization of certain tasks by machines in the textile industry. In the Eastern Townships

wool carding or scribbling "mills" were set up in Kilborn Mills (Rock Island) by Otis Warren in 1815, and at Mago by Ralph Merry around 1818. These would have been water-powered but very small operations. The first integrated woolen "factory" was built at Mago by Joseph Atwood in 1826, and through the 1830s and 1840s, several water-powered carding and fulling mills were built along the numerous rivers of our region. Certainly, by 1863 there was a woolen factory at Smith's Mills (Tomifobia).

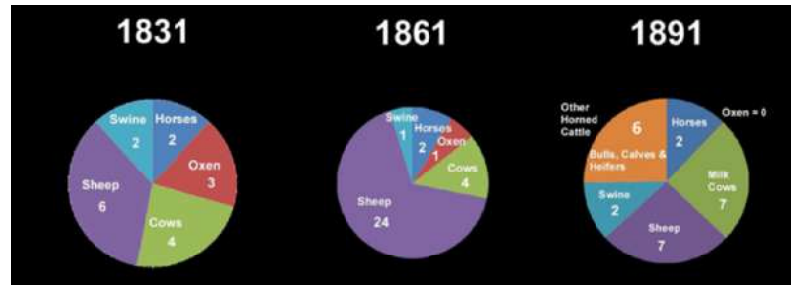
Like the proverbial chicken and egg problem, it is difficult to ascertain which came first, an increase in sheep stock, or the building of woolen factories, but both endeavours were mutually reinforcing.



Woolen factory at Sherbrooke in 1836 (inset: a Merino sheep). At right, Woolen Mills at Way's Mills on the Niger River in Barnston.



The introduction of the hardy and well-fleeced Merino breed of sheep made the raising of sheep less risky for farmers. The American Civil War also had its impact. The Union naval blockade of Confederate ports, cut off the principal source of cotton, and manufacturers of clothing turned to wool. According to the agricultural census of 1861, in the Township of Stanstead, farmers had embraced sheep-raising in a major fashion, with sheep numbers increasing fourfold from thirty years previous.



Charts showing the changing proportion of livestock in the Township of Stanstead over three decades. Numbers in white indicate the number of sheep (and other livestock) held by the "average" farm. Obviously the variation in actual herd size would be considerable between different farms.

Oxen yield to horses, and the scythe gives way to the sickle bar machine

Up until the 1860s, nearly all the farm work was done by hand. The slow trust-worthy ox may have turned the sod in spring, and was indispensable for pulling stumps and working the woodlot in winter, but all the seeding, planting, weeding, cutting, picking and harvesting was done laboriously by hand. However, a revolution was in the works courtesy of human inventiveness. Horse-drawn or powered equipment, such as mowers, dump rakes, hay tedders, sulky plows, reapers, seed drills and mechanical threshers were being patented and factory mass-produced. Gradually the price of such equipment fell, their durability and performance increased, and the cautious Stanstead farmer of average means could invest in them, greatly reducing the man-hours required to operate his farm. This allowed the farmer to realistically improve more of his land for hay or field crops. In order to keep up with the efficiency of his peers, he had no choice but to invest. Much more could be done in less time, which gave farmers a fighting chance to break even, maybe profit from their toil. The transition to horse-farming occurred over the space of a decade in the 1860s.



Dairy comes of age

Of course, butter had long been a cash or barter product from the farm but before refrigeration, its shelf life was quite limited, and its quality ranged widely coming from the kitchen of one farm to the next. Plus the butter churn was far from an implement of mass production, so its commerce remained very local. It helped sustain the family and surplus butter from the farm paid a few bills, but in the early to mid 19th century, dairy was not a commercial enterprise.

The expanding number of Ogden farmers who focussed on dairy, starting in about 1885 but truly accelerating in the 1890s, was the result of several phenomena: creameries/cheese factories, winter silage, hand cream-separators, better breeds, and refrigerated rail cars.

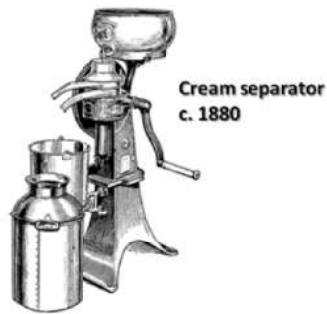
Unlike butter, cheese remained preserved and palatable for much longer and could be shipped, even without refrigeration to more distant urban markets. As a consequence, small cheese factories became quite common. Most small farms in the Township of Stanstead in the 1890s had only 4 to 10 milch cows, so creameries and/or cheese factories had to be conveniently located relatively close to a large number of these small farms, allowing the farmers to deliver whole milk, the critical feedstock for butter and cheese. These small enterprises paid cash, finished the product (butter or cheese), and took care of its marketing and wholesale. It was a system that worked quite well and allowed farmers to enlarge their herds with some degree of confidence. According to Lovell's 1898 directory of Eastern Township businesses, there was a single operating cheese factory in Ogden at the corner of Lamarche and Marlinton. It was owned by Warren B. Bullock, destined to become Ogden's first mayor. Another cheese factory had been in operation on Chemin Davis previously, and there were cheese factories at Fitch Bay and Cassville.

A small cheese factory near Richmond, typical of the small cheese producers in the Eastern Townships at the turn of the century.



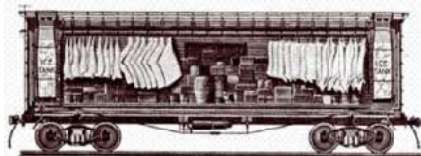
At left, an early type of silo.

Winter silage, and the building of air-tight silos to store silage, allowed cows to remain productive year-round. Unless their feed was supplemented by grain or silage, cows fed only hay would go dry after their pastures were covered in snow. Grain was too expensive, but green silage was not, requiring mostly just time and labour to harvest. External silos adjacent to the barn, our iconic image of the farm, only started to become common in the 1890s.



The widespread adoption of hand cream separators significantly reduced the logistics (volume of liquids) of delivering to the creameries. Eventually however, it was the creameries that took the responsibility of picking up whole milk from the farmers. They had large efficient centrifugal separators, and eventually also the ability to pasteurize and homogenize, and then market the fresh milk to a growing urban market.

Not all cows produce milk with the same butter-fat content or in the same volumes. By the 1890s importation of European stock over the decades and successful cross-breeding had produced “grades” of Holsteins and Jerseys that were improved milk producers. The following are figures from the U.S. but the trends were almost certainly similar in Canada. In 1850 the average annual yield per cow was 2,371 lbs of milk. By 1900 the average cow was producing about 3,600 lbs of milk per year. By 1955, this figure had risen to 5,800 lbs.



Refrigerated rail cars were first introduced on some American lines as early as 1867, using sawdust insulation and metal tanks filled with ice, but their widespread use in Canada did not happen until 1895 when the Dominion government provided subsidies for refrigerated cars for Canadian lines. Overnight this opened up the potential for supplying more distant urban markets, like Montreal, with “fresh” milk and cream. Creameries, and the farmers who supplied them rushed to meet this demand.

Fresh did not necessarily mean safe, and starting in 1907 strict regulations were adopted in an attempt to stamp out bovine tuberculosis, which could contaminate milk and be fatal to humans. The culling of infected herds, meat inspections, substantially improved dairy barn hygiene, and of course mandatory pasteurization (not implemented until 1925), all played roles in allaying the public’s mistrust of dairy, in broadening its market, and in Ogden as elsewhere, making dairy the most significant agricultural enterprise.



Sketch by Gael Eakin of the same Ogden farm shown previously, but in 1891. Field crops are quite secondary to hay fields and pasture and the farm is focussed on dairy.

Farming in Ogden in the first half of the 20th century

Notwithstanding quarry, mill and railroad operations and a very limited seasonal tourist business, Ogdenites still earned their living in the first half of the 20th century by farming and woodlot work. The face of agriculture was changing and so was the language. By the 1840s arable land in the St. Lawrence River valley had reached its limit.

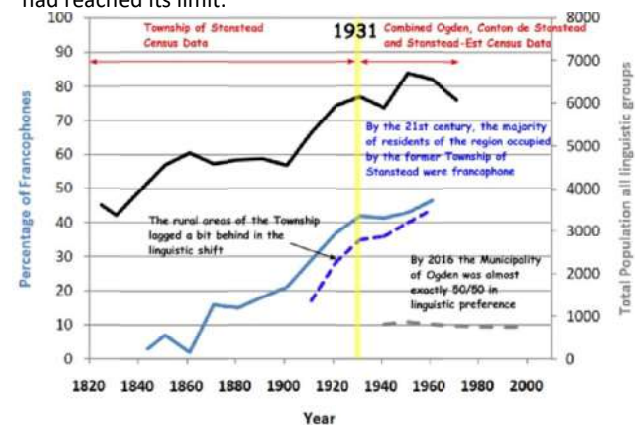


Chart showing the total population trend for the Township of Stanstead (black line) or after 1931, the equivalent region by combining Ogden, Canton de Stanstead and Stanstead East. The blue line represents the proportion of francophones, the dashed blue represents rural areas, and the dashed gray is Ogden's population.

“La revanche des berceaux” resulted in two phenomena. Firstly there was a significant exodus of French-Canadians from the farm to more urban settings, both big cities and smaller mill towns, within and beyond the province. Secondly, there was a steady migration of French-Canadian farmers towards the Eastern Townships, progressing over time from north to south. Stanstead Township being furthest south, experienced this linguistic/religious demographic shift later but by about 1900 fully 20 percent of Stanstead residents were francophone. At about the same time a growing contingent of anglo farmers was contemplating pulling up stakes on their small, often marginal farms, to tempt their fates further west or with city work.

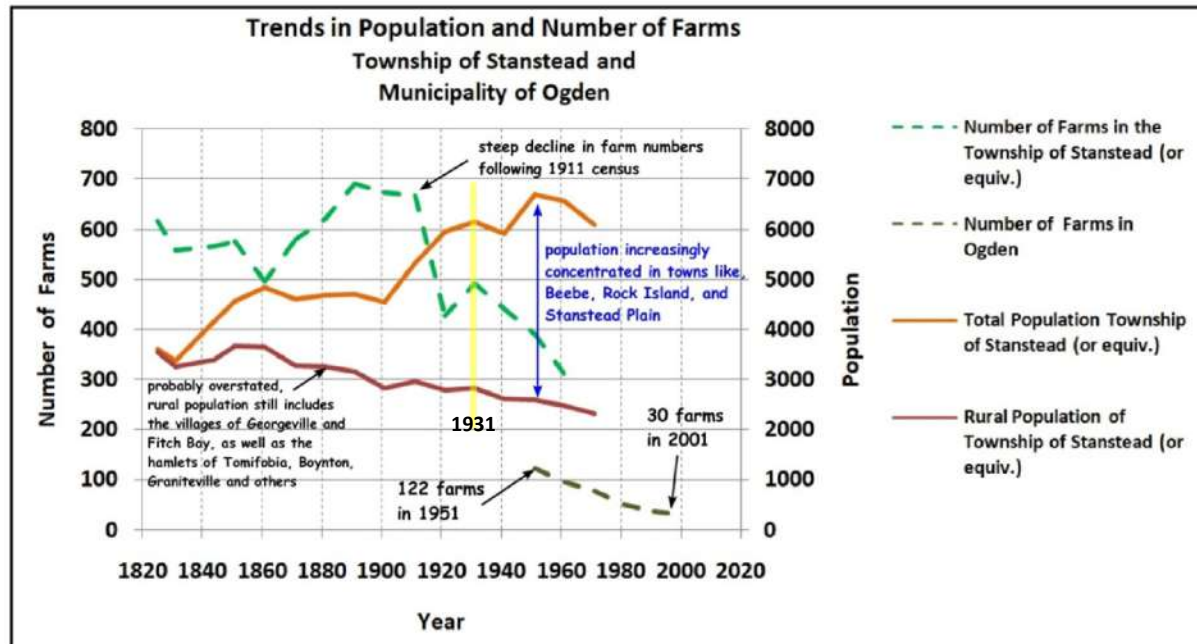
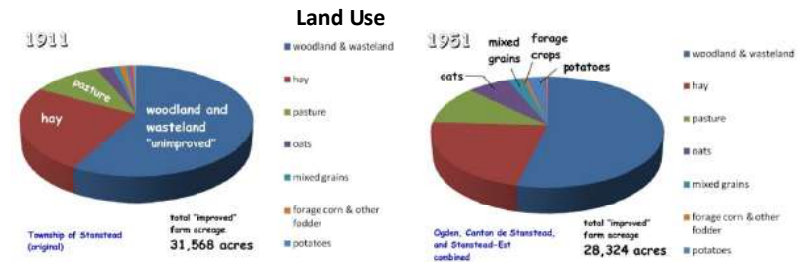


Chart from census data and other estimates showing the rapid decline in the number of farms after about 1911. There is a corresponding reduction in the population of farmers and their families even though the overall population of the Township of Stanstead was generally increasing. The graphed rural population (brown line) should not be taken as equivalent to the farming population. For example, in 1951 the rural population was slightly above 2,500, whereas the farming population, by census, was counted as 1,830. The census year 1931 is highlighted because that was just one year before Ogden was created.

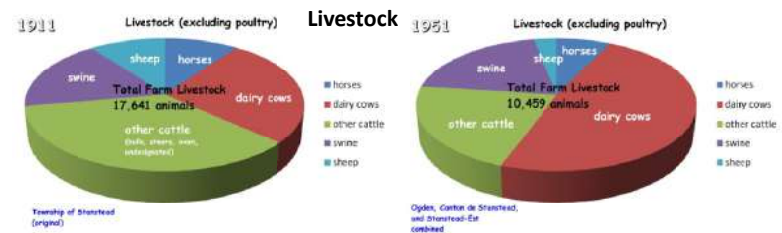
It is interesting to compare agricultural census data from 1911 and 1951. In 1911 farming was near its peak in the Township of Stanstead, whereas in 1951, following two world wars and the Great Depression, farming was in decline in terms of the number of farms and persons occupied with agriculture, although overall agricultural productivity remained relatively high due to gains in efficiency.



In 1911 there were 820 farms with 405 farms of 50 acres or more, and with 314 farms of less than 10 acres. By 1951 there were only 390 farms of which about 350 were 50 acres or larger and only seven were less than ten acres.

Despite the loss of smaller farms the reduction in "improved" (crops, hay, or pasture) acreage was only 10% (31,568 to 28,324 acres). Farm acreage dedicated to different usage remained largely the same, but by 1951 proportionately more field crops were being planted (although no wheat whatsoever), and potatoes had risen in importance.

There were somewhat more dramatic changes in livestock with numbers dwindling by 41 percent. Obviously, with the introduction of the tractor, the number of horses kept on the farm went down, and a greater percentage of cattle were being designated as milkers. Sheep raising by 1951 was almost non-existent in the immediate region.



These developments only accelerated into the 21st century. In 1991 Ogden had 122 farms. By 2001 this number had shrunk to 30, and not all of these remaining farms would be deemed commercial, but certainly, a number of the surviving farms were (and still are) successful dairy, beef, or specialty crop operations.

The decline of horse-power and the end of an era

Ponderous steam-driven traction engines (i.e. tractors) were being produced in small numbers by the 1870s but made little impression in the Eastern Townships whose modest farms and hilly terrain made them entirely unusable.



However, the more practical gasoline-fuelled tractor, relatively nimble and light-weight, came into its own in 1917 with the mass production of the Fordson tractor by Henry Ford.

The 1917 Ford Fordson tractor

Ford was responding to a very practical need on the farm, indeed an agricultural crisis, as tens of thousands of farm labourers were conscripted in the U.S. for the Great War, and huge numbers of farm horses were also requisitioned. Mechanization and the internal combustion engine were the answer. As with the automobile, there was a marked rise in mechanical reliability of tractors through the '20s and '30s. There were also significant improvements like power take-offs, three-point hitches and rubber tires, and by the early 1940s for the Ogden farmer, the tractor became a desired and almost affordable acquisition. Post-war incentives, like the Veterans Loan Act, served as a tipping point as new farmers (returning soldiers) purchased such models as the Canadian-made, red-coloured Massey-Harris 22 or more powerful 30, or the American-made International Harvester Farmall, or Ford 8-N, or the Irish-designed, Detroit-built Ferguson TE-20

Early 1950s one farmer's hybrid solution!



Many farmers kept their horses for a while out of caution and affection, and the realization that in some specific instances the horse was still better at the job. Some horse-drawn machinery could be adapted, but others could not, resulting in additional expense for the farmer. However, by the mid-1950s virtually every working farm in Ogden had a tractor.

Work horse of the new era, a Ferguson TE-20. Ogden farmer Alan Bullock bought this model as his very first tractor in 1952 for \$800, a considerable sum for those days.



One of the oldest farms in Ogden, and certainly one of the most picturesque, is that owned by Diane Lamarche. From the top of Pudding Hill, there is a magnificent view of Lake Memphremagog.

This hill farm was originally cleared by Ira Miller from Marlow, New Hampshire in 1803, and held by descendants of that family until 1908. It was subsequently owned by Jean Trépanier who in turn sold it in 1919 to Diane's grandfather Victor Bourque (1880-1956). Victor was originally from Ham Sud, but like so many French-Canadians had emigrated to the States where he worked as a mill worker in Manchester, New Hampshire. There he met and married Regina Beaudoin and they decided to return to Quebec. He purchased the farm without telling his city-raised wife, and it came as quite a surprise! Victor worked the farm, rebuilt the farmhouse which had burned in 1922, and also worked as a railway maintenance worker. The gable entrance bank barn seen just beyond the farmhouse is quite old and likely dates from the 1840s.

The Bourques had three children, and the youngest, Rita, and her husband Hector Lamarche (1910 - 1982), took over the farm in 1956. The family cultivated vegetables, and sold eggs and cream to the nearby summer cottagers. The farm itself, like so many small farms in Ogden, was insufficient to entirely sustain the family, and so Hector took on additional outside work as a carpenter. Diane and her brother Simon acquired the farm in 1984 and in that same year started experimenting with growing strawberries and greenhouse tomatoes, a sideline that Diane has turned into a thriving business on her other farm in Compton (since 1987) where she and her partner Jacques Pouliot grow hydroponic tomatoes and lettuce.



The beautiful old farmhouse owned by Jean Paré dates from the 1840s or 1850s and was probably built by Samuel Pinkham's youngest and tenth child Abijah, who was born in Stanstead Township in 1802. Image courtesy of Jean Paré

The land in the above oblique panoramic aerial view has been farmed for over 220 years! The view is towards the northwest and includes the junction of Laflamme and Laperle roads. In 1800 Samuel Pinkham, as a 40 year old, first started to clear this land when he gained title to Lot 11, Range 9 of the primitive cadastral survey. The "old" lot boundary on the south is Chemin Laperle, and on the north, the edge of the fields in the middle distance. Field crops planted in 2021 are shown.

Samuel Pinkham (1760 - 1830) was originally from Thornton in New Hampshire. In 1788 he was living in Danville, Vermont, but in 1800 he and his wife Dorothy and their then nine children moved across the border to a wilderness lot in Canada. He chose wisely! Eventually the property was subdivided amongst Samuel's sons, but then reforged into a single farm by Abijah, the youngest son. Abijah died in 1886, and by 1888 the farm (~200 acres) was sold to Amos Curtis. Under different subsequent owners (McNally, Fluette, Bernier, Laperle, Young) the farm remained whole until 1966.

The cultivated fields from the original lot are currently owned and farmed by members of the Fauteux family. However, the immediate farmhouse property on the corner, which likely occupies the site of the original Pinkham homestead, is owned by Jean Paré. He and his wife Michèle Côté purchased the property in 1992, and lovingly restored the old farmhouse. Many others from urban areas have followed a similar path to find their particular spot in paradise, and for the Parés it was "childhood memories" of the

region that inspired them. For Michèle, "the Eastern Townships landscape was synonymous with vacations and happiness".

It seems very fitting that Pinkham's fields still yield to the plough, and the old farmhouse still remains a cherished home.

At left, a view to the southwest towards Bear Mountain lying at the western edge of Lake Memphremagog. The rolling landscape is typical of Ogden farm country.



Image courtesy of Jean Paré



Harvesting grain on the old Pinkham farmstead.
Image courtesy of Jean Paré