

The History of Agriculture (Farming) on Prince Edward Island

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The purpose of the program

This program has been designed to supplement the study of Prince Edward Island history. Agriculture, one of the Island's principle industries, has developed over three centuries and is a topic, due to its importance in the Island economy, and the lives of people that is very close to the heart of Islanders. While the original concept of the program was to enhance the Grade Six curriculum, the content of the material can be adapted to almost any grade from four upwards.

The content of the program

The materials that constitute this program are contained within a box for easy storage and portability. This manual provides the core information. There are various supplementary resources. A complete listing is given at the back of the manual.

Introduction

Agriculture is the science of growing crops from the land or raising livestock in order to produce food, feed, fiber, and fuel.

Agriculture or farming is believed to be approximately ten thousand years old. Prior to this time all people were hunter-gatherers. This means they filled the hunger needs of their bodies by killing wild animals for their meat and by gathering wild berries and edible plants such as wild grains.

Farming, like so many other things in our lives, was likely discovered by accident. Perhaps some grain seeds that had been gathered got wet and were thrown away. The seeds sprouted in the ground and began to grow. They formed many more new seeds than were planted. Man realized he could grow his food rather than try to gather it from the wild. He concluded that it was easier to stay in one place and grow food which he could also feed to domesticated animals, rather than following the animals from place to place and trying to gather enough food to feed a family.

Farming allowed people to settle in one area, which led to the development of communities, villages, and towns. The more certain supply of food enabled populations to increase. Farming also allowed different groups of people to form armies for the fighting of wars since farmers looked after the food supply.

It is believed that farming first started in the fertile areas of present day Turkey and the Middle East where silt brought up onto the land by yearly flooding provided rich soil for the growing of crops. Farming also started in other parts of the world with no influence from the Middle East. The two main areas were China and South America.

It is believed farming methods changed very little from the time of its beginning up until the 1700s. Societies were largely agrarian and much of the farming was subsistent, meaning people produced enough for their own needs. As farming methods became more advanced it took fewer people to supply food for the population. This resulted in many people being displaced and forced into new ways of earning a living.

The year 2008 is the first time in world history that more people live in urban centers than in rural communities. Not only is this changing how humans live and make a living, it is also changing their knowledge about how and where their food is produced. With the loss of connection to rural roots many young people think food comes from the supermarket. They don't relate to the original form of the food source. For example, the flour used to make pizza crust or bread for sandwiches started as small seeds of grain. Each seed planted in soil grew to look like a blade of grass, formed a seed head and ripened into golden wheat that was harvested by a combine and sent to a mill where it was ground into flour, bagged and transported to a store.

Early Farming on Prince Edward Island

The history of Prince Edward Island is closely tied to agriculture because the land has been, and continues to be, one of our primary resources.

The French first introduced farming or agriculture to Prince Edward Island. The native Mi'Kmaq people were not farmers. Rather they were hunters, fishers, and gatherers. They were mainly meat eaters – seal, beaver, rabbit, porcupine, moose, bear, deer, waterfowl, eggs, lobsters, clams, oysters, and eels – being included in their diet. They gathered wild fruit, berries, wild vegetables, wild potato, wild herbs, nuts and maple sap. They made tea from twigs of yellow birch, maple, spruce, hemlock, and wild cherry trees. The Mi'Kmaq did not taste grain until they interacted with the Europeans.

Jacques Cartier, the first known European to set foot on the Island, July 1st, 1534, said of the soil, “The soil, where there are no trees, is also very rich and is covered with pease, white and red gooseberry bushes, strawberries, raspberries, and wild oats like rye.” Cartier laid claim to the Island for his country of France and then sailed away.

For more than a century there was no European activity on Island soil. It was the building of Fort Louisbourg on Isle Royale, now Cape Breton, which turned the attention of the French back to Isle Saint Jean. While Isle Royale was the perfect location for the fortress to protect the French interests in the New World from the British, its rocky soil was considered unsuitable for raising the food that would be needed to feed the population of the fortress. However, just across the Northumberland Strait was Isle Saint Jean with its red fertile soil, which the French believed could grow crops in abundance.

On August 23, 1720 the first French settlement was started at Port LaJoie, across the harbour from Charlottetown. French settlers were joined by Acadians from what later became Nova Scotia and took up the challenge of carving from the wilderness a new settlement. When their ship approached the Island the landscape looked nothing like the

present day. What those settlers saw was forest covering the land that had never been plowed or tilled by a human hand. The trees were huge in size for they had grown since the formation of the Island. It was dark in the woods for the canopy was thick enough to shut out the sun and wild animals roamed about freely. No crops could be grown that first year and there was barely enough time to erect shelter for the coming winter.

Those first French settlers faced overwhelming odds in beating back the woods to make way for fields that could grow crops of food, barns to house livestock, and homes for the people. They took on the huge trees with axes and saws that had to be powered with their own strength, oxen, and fire. Imagine cutting through the base of a tree over six feet in diameter with an axe. Once it was felled it still had to be limbed and hauled into the clearing and cut into proper sizes for building log homes or barns. These trees were also the source of firewood for cooking and heating. The forest undergrowth and tree limbs were got rid of by burning. These set fires often got out of control and burnt acres of good woodland, and later in the settlement of the Island, crops and homes.

Once the trees were dealt with, the massive stumps were left in the ground. The roots were woven well into the earth with no plans of easily letting go. The settlers would dig around the stumps and cut roots with shovels. Then a chain or rope would be wrapped about the stump and hooked to an oxen or horse in an attempt to pull it out. Gunpowder was sometimes used to try and blow the stumps out, and many were set on fire and would smolder for days. Once a stump was removed it left a huge hole in the ground that had to be filled with soil and leveled. Some stumps just couldn't be removed and were left until they rotted. The saying "I'm stumped" is derived from the circumstance of not being able to solve a problem.

Since the removal of stumps was such a slow and painstaking job, crops were often planted around them. Grain was sown by spreading the seeds by hand and both the seed heads and straw was harvested with a sickle. It would be gathered and bound together in stooks and piled in barns. During the winter the grain seeds and straw would be separated by a process referred to as threshing.

As the French regime established more settlements, they clustered them along the coasts and along riverbanks for ease of transportation and to take advantage of the natural pastures and hay fields of the marshy areas. There are still signs of dyking done by the French on the Island in certain marshlands. A dyke is a wall made from soil or other materials to protect land from water. Dyking marshlands to supply hay crops was easier for early settlers than trying to clear farmland.

The book *The French Regime in Prince Edward Island* gives a description of a typical settlement family. "Paul Boudrot, Ploughman, (farmer) two years on the Island, wife, two sons, three daughters, father and mother. Had in livestock five oxen, four cows, one sow and four pigs. The land on which they are settled is situated on the Riviere des Blanc, it has been given to them verbally by M. de Bonnaventure. They have made a clearing on it of 5 arpents (0.85 of an acre) in extent where they have sown 7 bushels of wheat, and 8 bushels of oats."

Those early settlers were often forced to survive on shellfish and codfish as they struggled to build farms and successfully grow crops. But officials did not encourage the fishery because they didn't want the people to neglect the cultivation of the land.

Fields and gardens had to be fenced in to keep wild animals and the settlers' livestock from destroying the crops. Small trees were used to build snake fences. A snake fence is a rail fence built by overlapping the ends of logs or rails in a zigzag pattern. A snake fence is fast to build because only a few support posts have to be dug into the ground. It was the dominant type of fence as there was plenty of wood for building them.

Wheat and peas were the two principle grain crops of the French settlers. Turnip and cabbage were the two main vegetable crops grown in the gardens. The settlers had to save enough seed from the harvested crop in the fall to plant the next crop in the spring. This often meant that not the very best of seed was planted, a situation that resulted in poor crop yields. It also meant going hungry at times to ensure enough seed for the next growing season. By 1726, it was reported that Port LaJoie yielded a grain crop of two thousand bushels made up of wheat, barley, oats, peas and rye.

One of the biggest threats to the early Island French settlers was one they might never have imagined. It was mice. Between the years 1724 and 1738, three invasions of field mice caused great devastation for the people. The year 1738 was the worst because every French settlement was struck and the people faced starvation. "Those rodents were so numerous and their appetite was so voracious that after devastating the cultivated crops they swarmed down the grassy flats bordering the rivers and hurried on devouring all vegetation in their path and rushed headlong into the streams meeting a watery grave." The people of Isle Saint Jean had to depend on the Fortress of Louisburg, the place they were to provide food for, to get them through those desperate years. Fortunately the years of 1739 and 1740 were abundant for all settlements on the Island.

It was not an easy task to bring live animals to the Island. They had to be brought by ship from France or from Acadia. The passage from France would have been long and difficult and the conditions for feeding and housing them on arrival were poor. Livestock were not fenced into pastures, but rather fenced out of the crop fields and left to forage for themselves in the woods and open areas during the summer months. As a result, the cows, pigs, and sheep were small in size. Also, the free roaming made it impossible to control breeding in order to bring out the best genetics. The livestock were wintered on harvested marsh hay called fodder, which was prized for its content of salt, a mineral needed by the animals. Grain would be kept for the people and the horses. By the time the grass had grown again in spring many of the cattle, due to inadequate diets, would be so weak they would not be able to stand.

The number of French settlers to the Island grew slowly. Many of them had limited knowledge of agriculture, making it difficult for them to prosper. Those who came from Acadia found farming on the Island quite different from what they had learned on the rich marsh lands around the Bay of Fundy and being faced with clearing land on the Island

was a daunting task. History states that those early French people “were satisfied with a simple way of life and were highly principled.”

The 1740 census reported that Isle Saint Jean had a French population of 890 people, 166 oxen, 337 cows, 402 sheep, and 14 horses. The bushels of sown grain numbered 819. Twelve years later the census of 1752 showed considerable progress. There were 98 horses, 2050 cattle, 1,230 sheep, 1,295 hogs, 2,393 hens, 304 geese, 90 turkeys, and 12 ducks. The inhabitants has sown 1,490 bushels of wheat, 129 bushels of oats, 181 bushels of peas, 8 bushels of barley, 8 bushels of rye, 1 bushel of buckwheat, and 1 bushel of flaxseed. By 1754, those numbers had increased again and the population was 2,969 people.

A planted crop is not always harvested because nature can be unforgiving. In 1749, the mice again destroyed the crops, and because of this a man lost his life. The superstitious people believed the mice had come because of evil spirits working against the Island. They singled out the evil as the work of one man whom the natives put to death for them. They buried the body on an island off Charlottetown Harbour. In 1750, legions of locusts destroyed the crops, and in 1751, the wheat crop was totally scalded.

During this time the settlers also had to deal with the constant threat of what might happen between the British and the French in the area. It made it difficult for them to have faith in a future and keep trying to build the farming industry. Nature refused to cooperate. For the several years prior to the deportation of the French in 1758, the crops were a failure and the obedient settlers suffered hard times for they were ordered by government officials not to eat their livestock. Had they known what was to come they should have indeed fed themselves on the animals rather than leave over 6000 head for the British to seize.

The British finally conquered the French and took over their holdings in eastern Canada. Isle Saint Jean was part of the settlement. Even though the Island settlers promised allegiance to the British they were rounded up for deportation in 1758, and their years of work went up in flames at the hands of the British soldiers.

Approximately thirty families, who make up the foundation of the current day Island Acadian population, escaped the deportation by hiding in the woods until the British ships had left. For many years they kept themselves barely alive by gardening, fishing, and fowling. They were not able to obtain from the British permanent leases on their land to resume farming and thus many turned to the fisheries.

Farming under British Rule

When Samuel Holland surveyed the Island for the British between 1764 and 1766, he found that the French settlers had cleared 12,915 acres of land for the purpose of farming. Holland surveyed the Island into sixty-seven lots of approximately twenty thousand acres each. The British gave sixty-five of the lots away in a lottery for aristocrats to whom the crown owed a favor. These landowners were instructed to establish settlers on the Island as tenants from whom they could collect rent.

This method did not prove successful. In fact, it stunted the growth and development of Prince Edward Island for decades to come. Many of the landowners didn't wish to invest in bringing people to the Island and settling and developing their lots. They wanted to sit on their land as a real estate investment and wait for an offer of purchase. As well, many people seeking a life in the New World were not interested in coming to a place to end up as tenants when they could own land in other parts of North America. It was a very slow process settling the Island.

The nationalities of the majority of settlers who came under the British domain were Scottish, Irish, British, and United Empire Loyalists. The Loyalists were American settlers who remained loyal to the King of England during the American War of Independence, and were forced to flee to the northern British colonies.

Many of the settlers had no background or education in crop farming. For example, Scottish Highlanders were familiar with grazing sheep but not in working the soil and planting crops. Other settlers came from a city or village background where they had been displaced from their occupations mainly by the Industrial Revolution. Those settlers who had the most immediate success in farming on the Island were the Lowlanders of Scotland and Britain who were used to dairying and crop planting and the United Empire Loyalists who had been successful farmers in the United States.

The early days of farming under British rule were basically a continuation of the French settlers' experience. The settlers had the backbreaking labour of clearing the land and then trying to work it with only the crudest of tools, many of which were wooden. Imagine trying to work the land to plant a crop with only a hoe. Settlers faced the continual difficulty of getting good quality seeds for planting crops. The practice was to save enough seeds from the harvest for the next crop, and quality suffered. In those early days of British rule the majority of settlers were subsistent farmers, meaning they could produce only enough to keep their own families alive. Even paying the land rent was difficult.

The outlook for a new settler was described in the following way, "When a new settler begins without capital [money], it is as much as he usually can do to clear two acres per year; at the end of four years when his rent is sixpence an acre he may have eight acres cleared, say two in potatoes and turnips, two in wheat and two in hay."

A Scotsman named Walter Johnstone came to the Island in 1820 to start Sunday Schools and on his travels he wrote about life on the Island. This is how he described the clearing of land: "On first coming to his lot of land, the settler or the Islander who was making a new farm cut down the trees as fast as possible until a few square yards of the blue sky could be seen above. With the fallen trunks he made a log hut covered with a bark roof. Roots and branches lying on the ground were set on fire and sometimes the forest caught fire and hundreds of acres of timber were burned." The British settlers to the Island discovered, as had the French before them, that the Island had a very short growing season although very rapid. The short season put intense pressure on farmers.

The lack of knowledge about the science of farming and husbandry quickly became a real handicap for many of the early farmers. When the original fertility of the soil was depleted by the planting of crops year after year, they didn't know how to build it up again. They just kept planting seeds and getting a smaller harvest each year.

They also did not understand the importance of crop rotation. Certain crops take more nutrients and fiber from the soil while others will add it back. For example, a good rotation would be potatoes one year, grain the next, and hay the next several years. This would help keep the land fertile and the fiber content high enough to prevent soil erosion caused by wind and water. Crop rotation also helps cut down on disease and pest problems in plants.

The British introduced the potato to Prince Edward Island. It had been brought to Europe from South America. In the light sandy soil of the Island even inexperienced farmers could grow it with ease. Thus, it quickly became the diet staple. Potatoes were also one of the first products to be exported. As early as 1827, potatoes were being shipped from Charlottetown to Bermuda. Some early varieties were Irish Cobblers, Green Mountains, Early Rose and MacIntyre Blues.

Like the early French settlers, the early English settlers inexperienced in farming didn't understand that their livestock could be improved by breeding better quality animals to weaker quality animals. They too allowed their animals to roam free.

Farming as a Way of Life

Farming for the early settlers was a family affair. Everyone was required to help in order to ensure survival. Women and girls had to help with the outdoor work as well as do the indoor chores. Men and boys weren't expected to help in the house. However, a man without a female in his house faced a hard lot. Women and girls not only helped plant, tend, and harvest the crops but they looked after the gardens and the drying and storing of the produce. They cleaned and carded the wool after the sheep were shorn and spun the yarn before weaving it into cloth to make necessary clothing or knitting it into socks, mittens, hats, sweaters and even underwear. They churned the butter and made the cheese and collected the eggs. A good woman was worth her weight in gold on a farm.

A farming settler had different chores depending on the time of year. Winter would have been the slackest season. Livestock was fed, given water to drink, and cleaned daily. The farmer watered the livestock by herding them to a stream or brook or by hauling the water to the animals in buckets. The rest of the day would be spent in the woods clearing land, and separating lumber from firewood. Neighbours would gather together to hold frolic parties or working bees to help each with tasks such as chopping firewood, building a barn, or tanning leather. When the work was done for the day a party would be held in the evening.

Depending on the year the planting of crops would begin by the end of May and into June. The vegetable garden would also be planted. The moon was an important guide

for knowing when to plant crops. The settlers couldn't afford to have a tender crop destroyed by a spring frost. The summer days would be spent hoeing the crops to keep down the weeds, putting up or storing produce, and picking fruit that grew in the wild. The cutting and drying of grass to make hay to feed the animals would begin in late July.

Early fall brought the harvest of the grain crops such as wheat, oats, and barley. The straw, which is the stock that the grain seeds grow on, would be cut low to the ground using a sickle. The cut grain would be tied into circular arrangements called stooks. The stooks would then be transported to a barn or granary until the quieter days of winter when neighbours would gather for the threshing. Threshing was the separating of the grain seeds from the straw. In the early years of farming it was done by hand but over time technology developed winnowing and threshing machines. In today's world a machine called a combine separates the grain and the straw as the crop is being cut in the field.

In early October the potato crop would be harvested. If it was not sold right away it was stored in a root cellar under the house or barn where the temperature was cool but didn't go below freezing. In late October the turnip crop was harvested. A slight frost on the turnips gave them a much sweeter taste. The same cycle of chores per season went from year to year.

A setback hit in 1845, when potato blight, a disease that causes sudden wilting and dying of plant tissue, struck the Island for the first time ever. It spread quickly and caused great hardship because the local population heavily depended on the vegetable and the potato was by now one of the Island's chief exports. Over time it was discovered that blight could be controlled by mixing bluestone (bluish-gray sandstone) with lime and water and spreading it on the potato plants. When the Colorado potato beetle arrived on the Island and began to attack the potato plant it was controlled by hand picking it off the plants. Later Paris Green, a mixture of copper arsenate and copper acetate, was applied to the plants to kill the beetle. Cold winters with lots of frost also helped cut down the numbers of the potato pest. At harvest time, farmers who couldn't wait for the potatoes to go dormant, or for the frost to kill the potato tops, used a light application of course salt to kill the tops. This was necessary for the potatoes to last the winter in storage

Due to the importance of the potato crop for Island farmers, the Island was given the nickname of Spud Island. S.P.U.D. was the acronym given to a world society called the Society for the Prevention of Unhealthy Diets. The society believed that potatoes were not fit for human consumption.

Early sources of fertilizer used by farmers were animal manure, black mud from swamps, seaweed or kelp, and lobster bodies. Herring was often planted between the potato sets as fertilizer. Mussel mud was dug in winter through the ice from river bottoms as a source of lime for the land. The many shells contained in the mud would slowly decompose over the years adding nutrients to the soil. The farmers looked for plenty of earthworms in their soil as a sign that it was healthy.

Government Intervention Improved Agriculture

The colonial government eventually turned its attention to improving the farming practices of the early English settlers. In 1827, Lieutenant Governor Colonel John Ready recommended Agricultural Societies be formed across the Island to help farmers improve their lot in life.

Between 1827 and 1842, a number of societies were formed and given the following objectives:

- To teach good farming practices and distribute information
- To promote the principles of good livestock breeding and management
- To encourage the growth and importation of seed grains and grass seeds
- To encourage production of good wool for carding and spinning
- To teach the importance of fertilizing the land with manure or other natural fertilizers and to promote crop rotation
- To encourage fencing of pasture lands for better control of livestock
- To import, at cost, farm implements such as iron plows, winnowing machines, dung forks, hayforks, hoes and wheels to sell to farmers so they could improve their efficiency. These imports were often used as patterns for local blacksmiths and machinists to make their own machinery. However, over time many of these people became experts in designing and producing their own machinery, which they not only sold to Island farmers, but exported as well.

Lieutenant Governor Colonel Ready also imported purebred cattle, swine, sheep, and horses to use for breeding stock. This gradually improved the genetics of Island livestock and in turn the productivity. County and provincial agricultural fairs to exhibit grain and livestock were started as a form of entertainment and competition to encourage farmers to improve the industry. Ploughing matches were another good way for farmers to get together to demonstrate and discuss working the land

The improvements implemented by the agricultural societies paid off. By the mid-1800s the Island agricultural community could feed its own people and was exporting the surplus produce to Newfoundland, Nova Scotia, New Brunswick, and Britain. In 1849, the United States opened their markets to free admission of Island produce. Access to such a large market that could be reached by sea greatly improved the Island agricultural economy.

But even though markets were good and farming methods were improving the land issue was seriously hampering the progress of settlement and farming on the Island. Many of the original landowners never even came to the Prince Edward Island to look at their lots nor did they do anything to invest in the development of them. They simply waited for improvements to be made in other areas of the Island, thus increasing the value of their real estate. Landowners who did invest and bring out settlers were often taken advantage of by those same people. Many settlers were not interested in improving land they could not own and thus farmed it until it was depleted. They also exploited the woodlands by selling off the lumber. Many refused to pay their rent even when they could. Other

settlers who worked hard and honestly to improve their farm buildings and land often had their rent raised or the landowner take the farm from them and give it to someone else who was willing to pay more rent. Many of the land agents that worked for the absentee landowners were dishonest and kept collected rents for themselves. There was often violent confrontation between land agents and tenants.

In the 1840s, the Island government was able to buy out some landowners. Tenants were then able to buy their farms. However, the money for this endeavor was quickly spent leaving no change in the other lots. To add to the conflict, early settlers who had been tenants for years saw the United Empire Loyalists arrive and be granted large segments of land for their loyalty to the King. The system was not working for any of the parties involved and as a result was keeping the Island a very underdeveloped, backward place. The problem raged on for decades.

It would take Confederation with Canada in 1873, to finally solve the land issue. The Federal Government of Canada, as part of the terms of union, put up the money to buy out the remaining landlords and settlers were given the opportunity to purchase their land. By 1891, the majority of Island farmland was held as freehold land. The right of ownership greatly influenced the attitude of settlers who now saw their labours as being for their own benefit.

Moving into the Twentieth Century

Around 1896, Lt. Governor Howlan called Prince Edward Island the Million Acre Farm. The importance of agriculture to the Island economy was becoming very evident. The popularity of the agricultural societies was beginning to wane as problems arose around the issues of personalities and favoritism for the better-off farmers. In order to ensure the growth of the agricultural industry the concept of societies was replaced in 1901 by the first ever government Department of Agriculture.

The popularity and necessity of mixed farming remained strong for most of the century, but gradually the concept of specializing in one type of agriculture began to take hold. Consider the following examples of dairy farming, fruit farming and fox ranching.

Most of the early farmers only kept a few milking cows to meet their own needs and make a little surplus cash. Up until 1883, butter and cheese was produced right on the farm and used by the farm family itself with surpluses sold to local stores and dealers in turn for items not available on the farm. The first creamery was opened in 1887, followed over the next several decades by a number of cheese factories across the Island. The MacDonald Diary, which can be viewed on the *Island Register* website, makes references to community meetings being held to determine interest in setting up a cheese factory. The pasturelands of the Island were found to produce good quality milk that made desirable dairy products and the industry grew. Over the period of the 20th century many of the smaller cheese and butter factories joined together and today Amalgamated Dairies Limited dominates the Island industry. Due to organized marketing of dairy products and a quota system that controls the amount of milk that can be produced in Canada, dairy farming is currently one of the most stable and profitable forms of farming.

In 1898, the first Fruit Growers Association was formed on the Island. The British had brought out apple trees from the homeland. Unfortunately they were cider trees unsuitable for the Island climate and for many years it was assumed a good apple couldn't be grown here. However, new varieties were introduced and an industry got underway. In its first annual report the Fruit Growers Association reported, "apart from apples the Island grows most successfully plums, pears, cherries, strawberries, raspberries, blackberries, currants, gooseberries, and cranberries." The Association felt the quality of the Island fruit could overcome the disadvantage of being so far from markets. Practically every farm on the Island planted an orchard big enough to at least meet the farm family needs. Winter apples were popular varieties as the apples gave settlers a good vitamin source during the long winter months.

In the early part of the century, Prince Edward Island developed a new farming industry that put it on the world map. Two men, Charles Dalton and Robert Oulton, had successfully learned how to breed and raise silver foxes in captivity. They were getting huge sums of money for the pelts that were being secretly shipped to London, England. For many years six men controlled the industry, but over time the Big Six Combine was broken and breeding stock was sold. Fox ranches sprang up all over the Island and made a great deal of money for many people. During the hard years of the great depression in the 1930s, the fox industry was the source of a stable income for many farmers.

By 1921, ninety percent of Prince Edward Island land was cleared for farming and of this amount ninety-seven percent was in actual production. The majority of Islanders lived on the 12,230 recorded farms that consisted of fifty to one hundred acres. However, the trend was beginning to change for several reasons. Between 1880 and 1930, many Island young people begin to migrate to other areas of Canada and the New England States that offered more varied and plentiful employment. Others headed to the newly formed Prairie Provinces to take up homesteading. Many farms were abandoned when the children of aging parents did not remain in Prince Edward Island. Some of the poorer quality land was allowed to revert to second growth forest. As technology improved efficiency and output on the farm, some farmers began to buy up more land, which led to the creation of bigger, but fewer farms.

By the early 1950s, tractors had pretty well replaced horsepower on the farm enabling farms to grow still bigger. Potatoes, grain, and hay became the main crops. In livestock farming, dairying continued to grow in importance as did the hog industry, which was proving to be a good cash crop. The importance of sheep gave way to pigs because sheep didn't bring in as much money.

Most farms remained mixed farms, meaning they grew several crops, kept cattle and pigs, and maybe some other type of livestock or poultry. Mixed farming usually resulted in a more reliable income for farmers because if one farm commodity was having a bad year another one might be doing very well. Mixed farm families were basically self-sufficient. They had their own meat, potatoes, vegetables, eggs, milk, and grain that could be ground into flour, bran, and shorts.

Following World War II, chemical fertilizers such as potash, super phosphates, and nitrogen were introduced into the market. They yielded bigger crops with less work because they were put on the land when the planting was done rather than being worked into the soil separately. Limestone replaced mussel mud. Chemical pesticides and herbicides also started to be manufactured and distributed.

The importance of the potato crop continued to expand with the passing years. Prince Edward Island specialized in growing seed potatoes and because of their high quality was able to sell them to markets all over the world. Seed potatoes are the potatoes that are planted to grow other potatoes. High quality seed will produce a high quality crop.

The Comprehensive Development Plan introduced by the Liberal government of Premier Alex Campbell in 1969 changed the face of farming and rural communities in the province. The government set about to modernize the Island. Farmers were encouraged to improve their efficiency and incomes by specializing in one area of farming such as dairy, beef, or potatoes, and by improving their training. As well, the government encouraged people to leave the industry so that those remaining could have better returns. The decade of the 1970s was good in many ways for Island farmers who tapped into the many government resources offered to them.

While some would say the Development Plan was a great success in the modernization of the farming community, it failed to solve the problem of stable income and a fair and honest return for investment and labour for Island farmers. Competing in world markets and the reality of government cheap-food policies has taken its toll on Island farm families. Free trade enables an Island consumer to find beef from Argentina on the store shelf next to Island beef, perhaps even at a better price. Many world governments, including Canada, have policies to insure that food prices are kept low for availability to the masses.

Farming in the Twenty-First Century

There are many current issues facing the farming industry in Prince Edward Island. The ones mentioned in this section would be good topics for discussion.

One-crop farming causes soil erosion and water table problems. Fifty-three percent of PEI farms in 2006 were growing potatoes. However, the number of potato farmers is growing smaller each year as the struggle continues to make it a profitable occupation. How can farmers be good stewards of the land and yet make a living?

Urban centers are gradually encroaching on agricultural land. As more people want to live in rural areas, the number of acres available for farming becomes less. Cottage developments are also eating away at the shore fields. These changes in land use lead to increased land prices and complaints about windblown soil and the odor of manure.

Island farmers, like their counterparts in other provinces are aging. In 2008 the average age of an Island farmer is 51.6 years old. Many young people look at the cost of getting into farming combined with the low returns and chose an easier way to make a living. The 2006 census showed 1700 farms remain on Prince Edward Island as compared to 2200 ten years before. Farmers currently represent 4.5 percent of the population.

Some types of farming are in trouble because of low prices. In 2007, the hog industry, which was once such an important part of the Island agriculture landscape, took a major blow. The price being paid to farmers for a pig ready for market was far lower than what it had cost them to raise the animal. The killing facility in Charlottetown was closed and hog producers now have to ship their pigs to a killing facility in Nova Scotia.

Government investment in the farming industry has been cut back in the last few years. The agricultural portion of the provincial budget has dropped from 3.42 percent in 2001 to 2.05 percent in 2008. Farming still generates over 2.5 billion into the Island economy. Will less government assistance prove to have heavy consequences?

Businesses that depend on farming to buy their products are now starting to be affected and some, such as the Summerside Co-op Feed Store, have closed (July 2008). How far into the economy will the impact be felt?

Global warming has caused a drop in agricultural productivity of five to twenty-five percent in major production areas across the world. Will climate shifts lead to major changes to farming in our part of the world?

With cheap food being available from far-off places, will farmers in Canada be able to produce food and make enough to stay in business? Will future generations of Islanders be eating food grown by their neighbours or will it be imported from other countries? Will food continue to be readily available? Food production is everybody's business.

Questions for Critical Thought and Ideas for Further Exploration

Introduction

- Why do people desire to live in urban rather than rural areas?
- How would growing food rather than hunting and gathering, change a person's lifestyle? What would it be like to go back to hunting and gathering? What would have to change?

Early Farming on Prince Edward Island

- What struggles did early farmers encounter on Prince Edward Island? What might have been their biggest complaint?
- What made the beginning of farming on P.E.I. significant? Had these settlers ever farmed before?

Farming under British Rule

- Why did the British use a landowner system? Who did it benefit? For whom was it a disadvantage?
- Explain why early settlers looked to farming for survival even though they had no experience or knowledge of this type of work. How did they learn? What frustrations might they have faced?

Farming as a Way of Life

- Farmers often worked together, helping each other in what was known as working bees.
- Is this common in urban job settings? If not, what causes this difference?
- Why might the S.P.U.D. society have believed the potato to be unfit for human consumption?
- Did farmers have a good quality of life? Why or why not?
- What would be some advantages of being a farmer? What would be some disadvantages?

Government Intervention Improved Agriculture

- Why were farmers not content with renting their land from landowners?
- In which ways did the government help farmers? How does this compare to how they are helping farmers today?
- Were the societies formed to assist in improving Island farming beneficial? How would their objectives impact farmers? How would farming have to change?
- Why would exhibitions and fairs encourage farmers to improve the industry?

Moving into the Twentieth Century

- Government formed a Department of Agriculture to manage agricultural affairs. How would this improve situations as opposed to being directed by societies?
- Compare mixed and specialized farming. What are some of their benefits, downfalls, challenges, etc.?
- How would the Island be different today if it was still ninety percent farmland?
- The Island gradually moved into having fewer, but larger farms. What were some of the benefits of this change? What were some of the downfalls?

Farming in the Twenty-First Century

- How will the government's decrease in funding to farmers impact Island farms? How will it in turn impact Islanders?
- Many farmers are struggling to make a living, and with tough economic times, many people are struggling to find enough money to buy their food. What are some of the causes and consequences of this issue? How might it be resolved?
- Why are the struggles and issues experienced by farmers, problems for all Islanders?

Suggestions for Activities

1. Have students keep track of what they eat and drink for one day and record what farm products went into the making of these foods.
2. Introduce the identification game included in the program kit. Can students identify the animal or plant that was the source of a food product?
3. Have a class discussion about how much each student's family supports Island farmers in their buying habits. Do they make a conscious effort to support local or even Canadian producers?
4. Plan a classroom lunch that has to be made up entirely of locally produced food.
5. Discuss the impact the primary industry of farming plays in creating other sector jobs. Here is an example: A dairy farmer with a herd of sixty cows can directly or indirectly affect other jobs the following ways. A herdsman can make a living as a farm worker. A mill worker produces feed for the animals. A truck driver delivers the feed to the farm. An office worker prepares the invoice for the feed. Labourers build the mill and mill equipment. Factory workers build the milking machines and storage milk tanks. Salesmen sell the milking equipment. Technicians install the equipment in the farmer's barn. Veterinarians care for the animals. Dairy workers produce the milk products. Store clerks handle and sell milk. The list can be continued. We are all interdependent.
6. Have a local farmer come into the classroom and talk about farming on the Island and some of the challenges.
7. Take a class tour of the Pioneer Farm in Glenwood owned by Judy and Jim Bertling to experience what farming was like when a family grew its own food and sold the excess. The phone number for the Pioneer Farm is 859-2228.
8. Read the book *The Biography of Tomatoes* to discover how the changing technology of farming and the production of food are affecting the very quality of what we eat.
9. Suggest *The Farming Game* as a means of learning about the economics of farming.

10. Investigate the following websites to see how some foods are produced.

<http://www.freepatentsonline.com/7108878-0-large.jpg>

<http://www.neighborlyfarms.com/process.html>

11. Read the book *In the Barn*. Have students compare early farm implements to those made with modern technology.

12. Read the article in the box about digging for mussel mud.

13. Take a field trip to the International Fox Museum and Hall of Fame located in the Armoury Building, 33 Summer Street, Summerside. Tour information available from Wyatt Heritage Properties at 432-1298.

14. Look at the archival pictures in the box and have a class discussion on how things have changed.

Items in the suitcase

Besides the written material contained in the binder a number of other materials have been gathered for the suitcase that will increase the student's understanding of the agricultural industry and how it has evolved over time.

In The Barn: Written by Bobbie Kalman, this book is part of the Historic Communities series published by Crabtree Publishing. It tells the story of the barns built by pioneers to house their animals and crops. It describes the chores of the different seasons and explains how the barn played a part in the social lives of people. The book is filled with colourful photographs and illustrations.

The Biography of Tomatoes: Written by Adrianna Morganelli, this book is part of the series How Did That Get Here? published by Crabtree Publishing. It tells the story of tomatoes including what they are, how to grow and harvest them, the different varieties that exist, pests and diseases that affect them, and their future. This book is filled with colourful photographs and illustrations.

The Biography of Wheat: Written by Jennifer Lackey, this book is part of the series How Did That Get Here? published by Crabtree Publishing. It tells the story of wheat including what it is, where it is grown, what helps and hurts its growth, its history and future. This book is filled with colourful photographs and illustrations.

The Farming Game (board game): This educational game, produced by the Weekend Farmer Co., is used in schools around the world to teach students some of the ins and outs of farming. Students can decide between different types of farming, including cattle, grain, fruit, etc. They will learn the finances involved by trying to eliminate debt, and also discover the nature of planting and harvesting.

The Farming Game (PC version): This educational game, produced by the Weekend Farmer Co., gives students the chance to give farming a try via computer. All the challenges and lessons of the classic board game are found in this updated computer version.

Find Your Food: For the first time in history, more people are now living in urban rather than rural areas. Because of this, many students are unaware of the origins of many of the foods they consume. This matching game teaches students where they get the foods they consume. Students will learn to link cucumbers with pickles, potato chips with potatoes, jam with strawberries, eggs with chickens, hamburger and cheese with cows, bacon with pigs, ketchup with tomatoes, etc. This game consists of colourful laminated photos.

Articles: The binder containing the written program *The History of Agriculture on Prince Edward Island* also contains many articles, advertisements, and journal excerpts relating to the agricultural industry. This allows students to learn, from original sources, some of the struggles farmers faced over time. It helps students see the influence of technology on the development of farm equipment such as the potato grader, mowers, cream separators, etc. Many articles look at the Island's main export crop, the modern agri-tourism popularity, and the various dairies that have been here over the years including The Ideal Dairy Ltd., Purity Dairy Ltd., Maple Leaf Dairy Ltd., and Amalgamated Dairies Ltd. Also included is a publication by David E. Weale entitled "The Mud Diggers."

Photographs: The binder also includes numerous pictures related to the agricultural industry: farm scenes from the early 1900s; 1930s photographs of Perfection Dairy; an early milkman doing deliveries; pictures relating to fox farming; the PEI Bag Company; Island Farm Equipment, etc. These pictures provide students with a visual representation of how the industry has developed over time.

Photo CD: All of the photographs are also provided on a CD for easy classroom viewing.

Resources Used to Compile this Project

The Story of Prince Edward Island, by P. Blakeley and M. Vernon. J. M. Dent and Sons (Canada) Limited, 1963

The French Regime in Prince Edward Island, by D. C. Harvey, M.A. Yale University Press, 1926

Journeys to the Island of St. John, 1775-1832, by D. C Harvey. The Macmillan Company of Canada Limited, 1955

Three Centuries and the Island, by Andrew H. Clark. University of Toronto Press, 1959

Past and Present of Prince Edward Island, by MacKinnon & Warburton. B.F Bowen and Company, Charlottetown, circa 1906

If You're Stronghearted; Prince Edward Island in The Twentieth Century, by Dr. Edward MacDonald. Prince Edward Island Museum and Heritage Foundation, 2000

"The Agricultural Societies of Prince Edward Island," by Elinor Vass. Island Magazine, Number 7, Fall-Winter 1979

<http://historylink101.com/lessons/farm-city/story-of-farming.htm>