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# A FACT A DAY ABOUT CANADA

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James Muir,

Editor.

No. 124. -- Tues. Feb. 1, 1944 -- Where Have We been Getting Our Tea?

Tea is a very popular beverage in Canada and during the years immediately preceding the outbreak of the war an annual average import of 40 million pounds was required to meet the domestic demand. The imports came for the most part from British India and Ceylon -- the two great tea producing countries of the British Empire.

Throughout the whole of 1940 and most of 1941 the imports of tea were well maintained, but the outbreak of war between Japan and the Allied Powers toward the close of the latter year placed a heavier burden on our merchant fleets. Our imports of tea consequently declined during the next twelve months to 31 million pounds, or nine million pounds lower than our peace-time tea-drinking habits required.

In order to conserve the short supply, a system of rationing was ordered in August of 1942. This move assured an even distribution to the civil population and personnel of the armed forces stationed in Canada and abroad, as well as providing for shipment overseas in the form of parcels to prisoners of war. During 1943 shipping conditions improved and our imports of tea were increased to 38.5 million pounds and the individual ration was increased on September 2.

Imports of tea in 1942, the latest year for which details of the source of supply are permitted to be published were as follows, with the 1941 figures in brackets: British India, 21,753,000 (13,004,000) pounds; Ceylon, 8,619,000 (12,771,000); British East Africa, 462,000 (858,000); Japan, 208,000 (1,823,000); Netherlands East Indies, 56,000 (3,875,000).

An interesting point about tea is that early in the 19th century the centre of the industry shifted from China to India, Ceylon and the Netherlands East Indies. Chinese legend has it that its virtues were discovered nearly 4700 years ago. The earliest reference to it in European literature is found toward the end of the 16th century. First used as a medicine, it later became popular as a beverage. Today it serves both purposes.

There is no tea coming from Japan at present, of course.

No. 125. -- Wed. Feb. 2, 1944 -- Vitamins from Hips.

People who have been brought up in the country will recall the sweet morsels they garnered as youngsters from the dog roses, how they chewed the berries avidly--barring the seeds, of course. They didn't know it then, indeed very few scientists realized it, that these youngsters were absorbing Vitamin C. They were getting that tonic which does a whole lot of good to the skin.

That reminds us that our ancestors managed to get direct from nature much of what we, in our day, have to purchase over the counter. Yet they were healthy and strong, big and long lived.

Well, this awful war has created a shortage of some necessities of good life, amongst them Vitamin C which is obtained from fruit. Fruits became scarce. So a means had to be found to supplement the diet of the people with Vitamin C. Russian scientists set the pace and, amongst other plant materials, they studied the possibilities of rose hips. Studies were also made in Great Britain where wild roses are plentiful. Yugoslavia became busy also and so did Canada.



A dietary survey was made in Edmonton, as well as by some students of the University of Alberta which showed that there was a definite deficiency of ascorbic acid, or Vitamin C in the diet of Canadians except from June to September. The Alberta biochemists went all out on the subject of the Vitamin C of rose hips and evergreens. These are winter sources and are of great importance. They found that rose hips were not only richer in ascorbic acid than any other known natural source but preparations of them showed a remarkable stability of the vitamins. The Alberta scientists make this interesting remark which will appeal to every country boy and girl: "It should be mentioned that in addition to these facts the pleasant taste of the hip preparations should encourage their use in the diet."

Wild rose hips, or roseberries for those who like new-fangled names, have more Vitamin C than garden rose hips. The good in them is not lost by delay in drying. Will it provoke a retort if it is suggested that chewing hips by country lasses gives them a better complexion than the chewing of something else by their city cousins? That is too debatable a subject to pursue here.

Vitamin C, or ascorbic acid, can be used in the preparation of syrups, jams, jellies, dried powders, commercial extracts, tablets, confections and pastry. The hips are dehydrated and ground into a flour.

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No. 126. -- Thurs. Feb. 3, 1944 -- Canadian Anti-Gas Discovery.

The Canadian fighting man and consequently the Allied fighting man is somewhat better prepared in the event of the Nazis using gas than he was just prior to the recent discovery of a new, chemically treated arm band to be worn in battle. This has just been developed and perfected and now is in the process of large scale production. A long idle Ontario tannery is responsible for this invention.

In the presence of gas, the chemical substance impregnating this material changes in such a manner as to warn the soldier of danger. Also, a synthetic rubber-coated fabric is being produced which is said to be highly protective against mustard gas in particular. A garment of this butyl-coated material, which tests indicate to be more than ten times as effective as the oilskin cloth formerly used, will, it is said, soon be part of the equipment of most of the men of the Canadian Armed Forces.

This is only a minute section of the munitions and war supplies industry, which has been built up from scratch in Canada since 1939 and now assumes enormous proportions. It includes the manufacture of heavy and small-arm ammunition, depth charges, anti-tank mines, grenades, shell components and aerial bombs such as cart-ridge cases and fuses and scores of supplies for naval torpedoes, according to an official statement.

Ammunition of many types is produced, ranging from Sten ammunition weighing a couple of ounces to heavy howitzer shells weighing more than 300 pounds. To fill the shells, bombs and depth charges, to fire the bullets and to propel the ammunition, Canada turns out a wide range of explosives and a wider range of chemical intermediates and constituents.

There are more than 70 types of military pyrotechnics being made and Canada is increasing its production toward unlimited goals of the secret and most powerful explosive developed anywhere during the present war.

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No. 127. -- Fri. Feb. 4, 1944 -- Newfoundland Fisheries.

Newfoundland has been very much in the minds of Canadians during the war, and is perhaps closer to us in spirit than ever before. Many of our sailors and airmen in particular have come to know it intimately and everyone spoken to seems to like the country and its people very much. Young people who have lived there for a while like the climate. This is as it should be, for Newfoundland has become a very important place in air travel. Here are some things our trade commissioner in Newfoundland has to say:

The Newfoundland cod fishery is world famous. From the time that the Island was first settled, it has been the backbone of the country's economy, although in recent years the value of paper exports has exceeded that of fish exports. Other varieties of fish are caught in the waters surrounding the Island, but cod is now more important than all the others combined, not only with respect to exports but also as regards domestic sales of fish.

In early days the seal fishery rivalled cod fishing in importance, but this activity has all but disappeared in recent years. In 1851, for example, 323 ships manned by over 10,000 men, were engaged in the seal fishery; it is estimated that one vessel and about 100 men will go out this year.

The cod was singled out for particular attention, not only because it was plentiful and relatively easy to catch in large numbers, but because when cured it was an important item of international trade. However, some of the other types of fish that can be caught around the coast are undoubtedly capable of commercial development on a large scale. Herring, caplin, smelt, halibut, haddock, turbot, salmon and, in fact, all varieties found in the colder waters of the Northern Hemisphere are abundant.

The Newfoundland cod fishing industry comprises the bank fishery, shore fishery, and Labrador fishery. Newfoundland's total annual catch of cod averages 1,500,000 cwt., of which about 200,000 are consumed locally. The shore fishery is the most important of the three, producing approximately 1,000,000 cwt. per annum; the bank fishery averages 100,000, and the Labrador fishery about 300,000.

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No. 128. -- Sat. Feb. 5, 1944 -- The Grand Banks.

The Grand Banks of Newfoundland, located from 50 to 300 miles to the south-east of the Island, comprise one of the most productive fishing grounds in the world. Ever since Cabot discovered the Island in 1487, vessels from Europe have crossed the Atlantic to participate in the Bank fishery, and at one time large numbers of vessels put forth from the West Coast of England for this purpose. This practice, as far as England is concerned, ceased some years ago, local schooners now being employed. Nevertheless, up to the outbreak of war, large numbers of vessels, including some trawlers with refrigeration equipment, came from France to fish on the Banks. Portuguese and Spanish fishermen, with modern refrigerator vessels, also participated, some continuing to operate throughout the war period.

The Newfoundland method has been to employ vessels of up to 150 tons, known as "bankers", each vessel carrying 20 to 24 men and 10 or 12 dories. The voyages are made to the Banks in the spring, early summer, and fall, the bait used being, in order of importance, herring, caplin and squid. The dories operate from the schooners, from which lines are put out, each line carrying up to 1,000 hooks.



The lines are lifted periodically, the fish removed, and the hooks rebaited. The "bankers" remain at sea about a month and during that period will land up to 1,800 cwt. per vessel.

The banking fleets have declined steadily in recent years. At one time as many as 300 were operating from various parts of the Island; in 1943 the figure was about 30, partly because vessel-owners received more money for freighting around the coast and partly because of more lucrative employment at base construction work on the Island. As the fish are taken on board the "bankers", they are cleaned, washed, split, and stowed in the hold in a heavily salted condition. On the return of the vessels to port, the fish are sold to merchants, either for export to foreign markets in "salt bulk" or for drying, curing and subsequent export to the world's markets.

The shore fishery accounts, on the average, for 75 per cent of the entire catch of Newfoundland cod. Operations are carried out all around the coast and never more than a few miles from the shore. A total of 15,550 men were engaged in this type of fishing in Newfoundland in 1943.

The most active season for the shore fishery comes in June, at which time the codfish move closer to land in pursuit of the caplin, a small fish which comes to the shores to spawn around the end of May. This method of fishing is more common than the others, principally because it can be undertaken with a minimum of expense and because the men engaged in it are able to conduct the operation within a mile or two of their homes. Only a small boat is required and, if trap nets are used, the use of bait can be dispensed with.

While this method accounts for the bulk of the fish caught, it is not as productive as it might be because it is not fully exploited. Almost invariably the shore fishermen dry and cure their own fish.

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No. 129. -- Sun. Feb. 6, 1944 -- Labrador Fishery.

Like Newfoundland, Labrador has come very close to us during these war years. There is a magnificent air port and it is a busy place. So a word or two about Labrador's main industry will be instructive.

Fishing off the Labrador Coast is conducted by about 800 families who live there all year round, and also by numbers of fishermen from Newfoundland who visit the Labrador Coast in the summer season. Fishing begins as soon as the ice has left the coast, generally in July, and may last as late as October. The catch varies from year to year, but in the pre-war period was about 300,000 cwt.

The method of fishing used is similar to that employed in the shore fishery of Newfoundland, although some of the schooners visiting the area from the Island are used as bases, the men operating from their vessels rather than from shore. Those operating from schooners generally clean, wash and split the fish, which, after being heavily salted, is stowed away and taken back to Newfoundland for curing and export. Those operating from the shore attempt to cure fish by the same method as is used in Newfoundland but, due to the lack of adequate timber, they sometimes improvise drying surfaces that do not permit of ideal curing. The result is that the Labrador fish is somewhat lower in quality than that from Newfoundland.

There has been dissatisfaction for many years with respect to the operation of the Newfoundland fisheries and the returns to those engaged in production. Prices

have varied widely, production tending to decline as prices fell off. In 1918-19, for example, the statistical value of a hundredweight of export salt codfish was \$13.60; in 1932-33 it was \$4.25. As a good catch for a shore fisherman would be about 30 cwt., his net income would not be more than \$127 per annum. As the gear required by these men is expensive, and gasoline and other charges have to be met, it is apparent that in the past the standard of living for those engaged in the industry has not been high.

Salmon are caught around the Newfoundland and adjacent coasts in the months of spring, but the run is short-lived.

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No. 130. -- Mon. Feb. 7, 1944 -- Some Uses of Asbestos.

As is the case with most metals and minerals, the war has opened up vast new horizons for Canadian asbestos. The mineral is positively fire-proof and it is this quality which has made its use so indispensable in the present "fire-proof" age. It performs a multitude of tasks and may be found in the most unsuspected places.

To mention only a few of its uses: in the manufacture of brake lining, clutch facings, respirator pads, Bren gun recoil pads, clothing, gloves, wrapping hot exhaust pipes on aeroplanes, blankets for boat boilers and steam pipes, hatchway blankets to ward off incendiary bombs, shell splinter blanks, electrical work, cement, shingles, wall board, thread, gaskets, bomb-proof board and as a liner for paper flower-pots. In its powdered form it is used in the treatment of heart disease.

Its value as an insulated material is by no means a recent discovery, for its use can be traced back to ancient times. The Romans wove the brittle fibres with linen threads to make burial cloths in which to wrap their dead in order to retain the ashes when the body was burnt on the funeral pyre. Plutarch records its use in the wicks of the lamps of the Vestal Virgins and Marco Polo noted the use of it in Serbia in the 13th century.

However, all knowledge of the mineral seems to have been buried in the past, for it was not until 1868, when it was rediscovered in the Italian Alps that it became known to the modern world. Even then it was not until 1878 when it was found in large quantities in the Eastern Townships of the Province of Quebec that any real progress was made in the industry. Production from this area has been continuous ever since and the reserves are said to be enormous.

Canada is the world's largest producer of asbestos, practically all of which is of the chrysolite variety. This type is by far the most important and widely used. Other countries which produce relatively large quantities are Russia, Rhodesia, Union of South Africa, Swaziland, the United States and Cyprus. Small shipments are made from Australia, Bolivia, China, India and Venezuela.

The great bulk of Canada's asbestos exports goes to the United States, but substantial quantities are also sent to the United Kingdom and Australia. Since September of 1939, asbestos exports have been under control of the Dominion Government. The production in Canada in 1943 amounted to 427,000 tons, valued at \$21,739,000.

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No. 131. -- Tues. Feb. 8, 1944 -- Tempered Men and Tempered Steel.

The temper of Canadian men and steel has been tried on most of the major battlefronts throughout the world and both have measured up as of yore. Ships,



planes, tanks and guns made from steel produced in Canadian mills have been hammering and will continue to hammer at the enemy until he has been submerged and peace once more rules supreme over the world.

Today the Dominion's mills continue to produce steel at a rate that was undreamed of before the war, and now Canada has become the fourth greatest steel producer among the United Nations. Her production is exceeded only by the United States, Russia and Great Britain. Production in 1943 amounted to almost three million tons, or nearly double the best pre-war tonnage. At the beginning of 1940 our steel furnaces were capable of turning out 2,300,000 tons but new installations during the last four years have increased this figure to 3,600,000.

Most notable new expansion has been in connection with alloy steels and steel plates. For alloy steels, the production capacity and output have been multiplied six times, making this country practically independent in providing alloy steels of the types used in the manufacture of guns, armour plate and machine tools. Before the war, the Dominion Foundries and Steel Limited at Hamilton, Ontario, was the only maker of steel plates in Canada, but in 1941 the new mill of the Steel Company of Canada, in the same city, came into operation in time to provide much needed plates for the shipbuilding program and for tanks, guns and carriers. In 1942 the Dominion Steel and Coal Corporation Limited at Sydney, Nova Scotia, reopened its plate mill which had been idle since the war of 1914-18. Output of steel plates is now nearly six times that of 1939.

The three major steel corporations that constitute the core of the Canadian industry are self-contained in that they process iron and steel from the ore through to the semi-finished and finished articles. In addition to these larger concerns, there are 31 other steel makers which use electric or open-hearth furnaces to produce steel from pig-iron and scrap. In all, there are 122 steel furnaces in Canada, including 50 open-hearth units, 69 electric units and three converters.

#### No. 132. — Wed. Feb. 9, 1944 — Synthetic Rubber in Canada.

Canada's huge synthetic rubber plant at Sarnia, Ontario, has been completed. Covering an area of almost 185 acres, construction was finished in a year and a half, although the original estimate called for three years. This remarkable feat required the service of five thousand men and women who were employed by five engineering and four contracting companies. The plant was the result of long hours of study by engineers from the Dominion, the United States and England.

One particular incident in the construction of this plant was the transportation of the 165 foot butylene concentration tower over a distance of 500 miles. The tower is more than twelve feet thick, weighs 150 tons and when laid on its side, stretches over three flat cars. Throughout its journey it was held in place by steel bands, and it never travelled more than 15 miles an hour. It required a 200 horse power engine as well as a tractor to swing this enormous piece of equipment into position.

The plant uses large quantities of coal, petroleum, benzine, together with soap, acids and other chemicals. At capacity, its yearly output is estimated at 38,000 tons of vital rubber. Actually the plant is a self-contained village, including a hospital, fire station, general store, bowling alleys, post office, police department, cafeteria and dining halls.

An interesting scientific fact is that the precise chemical formula of rubber is unknown. The formula,  $C_5H_8$ , if actually produced will not result in synthetic



rubber, although rubber is a combination of carbon and hydrogen. However, it is possible to take petroleum, benzine, water, soap, acid and a number of other chemicals and produce a substance which, to a certain degree, possesses the qualities of natural rubber.

The two kinds of synthetic rubber manufactured, namely Buna-S and Butadiene make tires, automobile and airplane parts, belting, certain types of hose, wire and cable coverings, water-proof footwear and hot-water bottles, as well as hospital sheetings, flotation equipment, anti-gas clothing and masks and about 90 per cent of present-day rubber footwear.

No. 133. -- Thurs. Feb. 10, 1944 -- Where Have We Been Getting Our Coffee?

During the last fifteen years or so the chief source of our supply of coffee has been British East Africa. The new coffee plantations of that country were coming into their own. The lands lie adjacent to Abyssinia where coffee grows wild. Prior to that our chief source of supply was Brazil.

Before the war a total import of about 40 million pounds was an ample supply for Canadians and of that amount approximately  $12\frac{1}{2}$  million came from British East Africa. That does not appear to be a very large total when compared with pro rata United States needs, but whereas the Americans are coffee-drinkers in the main, Canadians are tea drinkers.

Our total imports in 1940 were close to 42 million pounds but in 1941, to meet the needs of the Armed Forces and the Red Cross, etc., the imports rose to 55 million pounds. That appeared to be adequate, but the war on the oceans became more intense and merchant tonnage was difficult to obtain with the result that our imports dropped to about 45 million. Of the ten million drop, nearly six million was the reduced import from British East Africa alone.

Something had to be done at once to relieve the situation, so the rationing of coffee came into force on August 3, 1942. That measure solved the problem.

Import figures for the years 1941 and 1942 make clear where Canadians get their coffee. The amounts that follow are for 1942 in pounds, with the 1941 totals in brackets: British East Africa 10,802,000 (16,258,000), Salvador 11,447,000 (7,380,000), Costa Rica 8,685,000 (4,139,000), Guatemala 5,083,000 (5,007,000), Jamaica 4,100,000 (4,007,000), Brazil 3,077,000 (9,733,000).

The smaller amounts came from British South Africa, British India, Trinidad and other British West Indies, Colombia, Hayti, Mexico, Netherlands East Indies, San Domingo, Hawaii and Venezuela. There was none from Abyssinia in 1941 and 1942 and only 831 pounds in 1940.

No. 134. -- Fri. Feb. 11, 1944 -- Canada Aviation-Minded.

A far cry perhaps from the great mediaeval painter Leonardo da Vinci to our modern fighter-bomber, the Mosquito, which has attained a speed of 350 miles an hour and is recognized as the fastest fighter aircraft in the world today. Yet da Vinci was the first of whom we have any record to conceive the idea that it would be possible for man to travel by air in heavier than air machines. Jules Verne conceived the helicopter in his thrilling book, "The Clipper of the Clouds".

Cayley, Walker, Henson, Stringfellow and Phillips, all 19th century figures struggled with their own ideas, working from conclusions arrived at by study, and in contemplation mainly, of the birds in their flight. Sir George Cayley, an Englishman did draw up plans to substantiate his theories, although he never put them into practice. The sum and substance of their deliberations resolved itself into the realization that their battle would be won and the enigma solved if they could find some way of incorporating a mechanical power into the service of flight. It remained for those who came a century later to do just that. The internal combustion engine enabled the dream to be realized.

It is interesting to note that this discovery was made in four different countries at approximately the same time and within a period of ten years.

In Canada the laurels go to William Wallace Gibson, a man who worked entirely on his own. Having reference to no text or model, he proved in 1904 beyond question the ability of his model to fly. His was a biplane, entirely original in design and incorporating many of the fundamental principles of aviation. On February 23, 1909, Douglas McCurdy successfully flew his Silver Dart at Baddeck, N. S., in the presence of Dr. Alexander Graham Bell. The Wright Bros., had already demonstrated in 1903 in the United States that man could fly. Further experiments were successfully made in 1908, 1909, 1910 and 1911 in England and Europe. In 1911, Bleriot crossed the English Channel in a monoplane.

But with the establishment of the fact that man definitely could fly, development in aviation momentarily stalled, receiving little impetus for a number of years until the outbreak of the First Great War, and industrial aviation none at all until some years after the cessation of hostilities.

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No. 135. -- Sat. Feb. 12, 1944 -- Commercial Aviation.

After the close of the First World War, many of the aviators who had been trained during the war years **struck out** on their own as "bush" pilots, eventually forming a patrol service which grew into the enormous freighting operations which has put Canada in the aviation forefront among the nations of the world. They played a magnificent part in the opening up and development of the North country and were finally incorporated into the different airline companies.

Imperial Oil and Laurentide Air Service Limited pioneered commercial aviation in Canada, being inaugurated and commencing operations in 1921 and 1922. Western Canada Airways followed in 1927. Trans-Canada Air Lines and Canadian Pacific Air Lines lead Canada's commercial aviation business, the latter having consolidated ten privately owned air companies. By 1929, air operations had spread all across Canada from the McKenzie River to the Eastern Provinces.

A few of their principal duties have been the servicing of the fur trade and mining centres from the oil wells just one hundred miles south of the Arctic Circle to the radium mines at Great Bear Lake, the mercury mines in Northern B.C. and the gold and copper mines of Manitoba, Ontario and Quebec.

They have also played a most important role in assisting in the successful completion of great engineering projects like the Alaska Highway and Shipshaw Power, both having been accelerated through its service. It has assisted materially in cutting down the hazard of forest fires throughout the Dominion and has met a very pressing need in aerial survey and mapping.



Employment in the aviation industry in Canada has risen in wartime from one thousand to seventy-five thousand and there is every possibility that this figure may be retained. Diversion to peacetime projects can be made quite capable of assimilating great numbers of employees. To quote: "The great land areas of the universe radiate from the North Pole like the spokes of a wheel and the Dominion's Arctic lands form the aerial crossroads of the world. In other words the ultimate Northwest Passage is an aerial one and it passes through Canada."

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No. 136. -- Sun. Feb. 13, 1944 -- That Poultry Campaign.

Readers of the Fact a Day will recall that one of the most interesting campaigns which was begun after Canada entered the war was launched by the Department of Agriculture. It was to raise more chickens and eggs. The eggs for export to Britain were sent across the Atlantic in dried form to save space and for greater convenience in transport. Prior to the war most of the dried eggs we used in Canada had come from China, but the war years have made that item of commerce almost impossible.

The result of the campaign has been highly satisfactory and greater success is in prospect. School children in many parts entered into it with zest. Here is what has been accomplished. Never mind the eggs, but think of the chickens, for without chickens you can't get eggs.

In 1939, towards the end of which war was declared and just before the campaign for the increase in poultry began, there were approximately 40 million hens and chickens on Canadian farms. That was as at December first in that fateful year. Four years later, that is on December 1, 1943 there were just about 58 million, which was an increase of well on to fifty per cent. Every province had responded well, for the increase had spread from the Atlantic to the Pacific.

Included in the poultry increase campaign was turkeys. Besides having a Christmas turkey at home as usual we all wanted to know that our brave Canadians overseas were fixed up with a real turkey dinner on the day of all days.

In this respect the campaign was, also very successful. On December 1, 1939 the number of turkeys on farms was about two million, while on December 1, 1943 there were more than three million.

Very soon now Canada's great poultry industry will be busy raising chickens and the hope is expressed that the result of this year will be far and away beyond what has been done in the past.

Perhaps a little note about the hatchability of eggs will be helpful to those who are not yet very well versed in chicken raising.

Eggs with sound, strong shells hatch better than those with weaker shells. All eggs should be tested when not more than 24 hours old, either in the evening of the day they are laid, or early the next morning. Quite a number at a time can be placed in the solution for testing, but do not leave them in for more than a minute or two.

Remove those that float, rinse them in clear water and keep separate for market or home consumption. Rinse the "sinkers" also in clear water and place on racks to dry after which they can be stored for incubation. Experiments on thousands of eggs show that their hatchability can be improved about five per cent by setting only those passing this test.

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No. 137. — Mon. Feb. 14, 1944 — St. Valentine's Day.

St. Valentine was a Roman christian martyred in the third century. In pagan Rome the Lupercalia, feasts in honour of the god Pan and goddess Juno, were celebrated around the middle of February. On this occasion, amidst a variety of ceremonies, the principal one was that of placing the names of young men and young women in a box from which they were drawn by the men as chance directed, the choice being their partner for the celebrations.

With the advent of Christianity an attempt was made to stamp out all pagan superstition. Due to public sentiment, however, this was not always possible. Most of the ceremonies were known by the name of the god or goddess in whose honour they were held and wherever possible the names of Christian saints were substituted for those of the pagan deities.

In this particular instance, since the celebration fell on the day of St. Valentine's death, it was considered appropriate that it should bear his name. Hence St. Valentine's Day.

Similarly in the ceremony of the selection of a partner, names of saints were again substituted and accepted as an ideal to be emulated throughout the ensuing year. The aim was to imitate the virtues and invoke the special intercession of the holy Valentine.

But this interpretation didn't meet with the wholehearted approval of the people at large, so it was changed again. The names used in the lottery were those of the young men and young women about town. When the former chose their partners they quite frequently favoured them with considerable attention and gifts. This is the form in which it appears in Chaucer's and Shakespeare's time. Both eulogized it in verse.

The day has been observed with varying degrees of interest according to the prevailing dictates of fashion. At times descending to the ridiculous and obnoxious, more often it assumed a pleasing and delicate expression of consideration and esteem participated in by young and old alike.

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No. 138. — Tues. Feb. 15, 1944 — Padding Down the Snow.

Our farm folk, and more especially those who live miles from the nearest highway, are quite often, during the course of the winter months confronted with transportation problems. They have on numerous occasions looked out of the window after a heavy snow storm and tried to find the spot where the road should begin and all they could see was an unbroken stretch of snow.

True it was beautifully white and gave the landscape an almost ethereal, fairy-like appearance, but nevertheless, it made communications with neighbours or the nearest village more difficult. Those who live in the city know quite well what a snow storm can really do to city traffic, but with the high powered snow removal equipment, together with workmen armed with shovels, things are soon back to normal.

But on the back country roads it is a different matter. A solution to the problem was presented by a farmer up Bruce County way in Ontario. He had, together with a number of others in the district, shared the use of a snow plough, but found it expensive and not entirely satisfactory. Suddenly an idea dawned — why not roll the road? Use a steel land roller pulled either behind a sleigh or better still, a



tractor on rubber. That's exactly what he did and the result was excellent. It worked as well as the rollers that used to be used on city streets in Canada to pad down the snow.

This was done every time there was a soft spell and the roller was weighted down with heavy iron. As soon as it turned cold it was quite possible to drive the car out without any trouble. All that was necessary was to keep the edges of the road well packed down, drawing the roller a little to one side. And there was an end to road troubles for the winter. In fact this makes an exceptionally fine road for both cars and horses with no high banks to drift. Which meant that the road was kept open all the winter instead of being closed half the season and the expenses incurred amounted to a little fuel for the tractor and the time spent.

Since in some places the snow was more than six feet deep there are a few districts in Canada where this plan wouldn't be practical, according to the old timers.

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No. 139. -- Wed. Feb. 16, 1944 -- Carbon Paper.

The individual who invented carbon paper is one of the world's unsung heroes, and to him the business world, and more especially the office worker, owes a debt of gratitude. We should like to know who he was. Most people who have worked in an office know what carbon paper does for us. It makes duplicate copies of letters, documents or other transactions.

As an aid in speeding up office routine, carbon paper has perhaps no equal, especially when considered from the point of view of the stenographer or typist, whose task it is to type out the correspondence. It would be impossible to estimate the time and money saved through its application, because modern business demands that copies of all letters and official papers be retained. If carbon paper had not been invented, instead of typing a letter once it would be necessary to do it over again in order to obtain a copy for reference purposes. But if three or four copies were required the task then would be made much more labourious.

Carbon paper is very thin. It is coated with colouring, and, as the name implies, usually with carbon. It is generally coated on one side only but for certain special purposes it is coated on both sides. For typewriting duplication, which is its chief usage, it is of course, coated on one side only. The paper from which it is manufactured is made from fibres such as rag, chemical wood, manila and jute. It is so strongly coloured and of such durability that a sheet may make at least 12 first carbon copies that are clear and legible.

Up to the present time, after the carbon paper had been used several times, it was of little value, but a method of reconditioning sheets of used carbon paper has been discovered in the United Kingdom. This is done by means of passing the uncoated side over steam. The composition on the coated side is melted and re-spreads itself evenly. Reportedly, the carbon paper is then as effective as when new.

It is not known whether or not this system of reclamation has been adopted in Canada. However, figures tabulated by the Dominion Bureau of Statistics show that almost 82,000 reams of carbon paper were produced in Canada in 1941. The value was \$996,000. This is a lot of carbon paper when it is recalled that a ream of paper contains 480 sheets.

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No. 140. — Thurs. Feb. 17, 1944 — Important Labour Legislation.

A new Labour Code for Canada has been formulated and made public. It is of great importance and has been endorsed by the outstanding Canadian labour leaders. It is estimated that it will apply to two and one-half million of the three and one-half million industrial workers of the country.

A provision in the code enables any province to pass legislation making the code applicable to all workers in provincial jurisdiction. The main points in the code are:

1. Establishment of a Wartime Labour Relations Board comprising a chairman, vice chairman and not more than eight members.
2. Certification by the board of bargaining agencies representing the majority of employees in affected industries.
3. Compulsory negotiation between employers and certified bargaining agencies.
4. Conciliation procedure if negotiations for an agreement fail.
5. Prohibition of strikes during the selection of a bargaining agency, negotiation of an agreement, conciliation proceedings if necessary, and the life of the agreement after it is adopted.
6. A definition of unfair practices by employers, employees and unions.

Penalty clauses include:

1. An employer who causes an illegal lockout — a fine of not more than \$500 for each day of the lockout.
2. An employee who strikes illegally — a fine of not more than \$20 for each day on strike.
3. A union or other organization authorizing an illegal strike — fine of not more than \$200 for each day of strike.
4. Persons or organizations contravening any section of the code for which specific penalties are not provided — a fine of not more than \$100, against an individual; a fine of not more than \$200 against a corporation or organization.
5. Persons offering bribes to those charged with administration of the code or officials who accept a bribe — a fine of not less than \$500 and not more than \$5,000, or imprisonment for not less than six months and not more than five years, or both, fine and imprisonment.

No. 141. — Friday Feb. 18, 1944 — Strawberries All Season

One of the very inspiring requests we got a year or two ago was from the headquarters of the Educational Services of our Canadian Armed Forces in the United Kingdom to send copies of the Fact a Day for the use of the instructors in the splendid work they are doing for our young men.

Another suggestion which came to us was to make a note of any new developments in farming, because a great many of the lads had the ambition to own a bit of land, farm it well and make on the great open spaces a comfortable and progressive homestead. So we have tried to do this, which is why we so often talk about beans and peas, hens and horses and whatnot.

Well there has just come to the Bureau a batch of information from the Department of Agriculture which is particularly interesting. It tells of two things that are new. The first one is that recently developed varieties permit picking strawberries in a Prairie Garden almost continuously from late June until freeze-up.



This is accomplished apparently by growing both June-bearers, in the usual manner, and ever-bearers.

The second important finding is that the cost of producing a sugar beet seed crop was very considerably reduced when it was found that the young plants could be wintered in the open, thereby saving all costs in harvesting and pitting the roots and planting them to the field the following spring.

These are important additions to our store of knowledge which the busy scientists have brought us and those who want rounded-out information about them should write to the Publicity Branch of the Department of Agriculture, Ottawa, and their wants will be supplied.

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No. 142. -- Sat. Feb. 19, 1944 -- Where Have We Been Getting our Cocoa?

The story of cocoa is one of the great romances of agriculture, much like rubber transplantation. Cocoa is indigenous to Equatorial America and the Incas are credited with its development. The first transplantation in the West Indies was made by a Spaniard who took a bag of seeds from Fernando Po to Trinidad in 1525. Trinidad was then a Spanish colony. It is said that Columbus took some cocoa home with him.

However, we have the definite knowledge that when the Spanish soldier Cortez conquered Mexico in 1519, he found the people of that country very fond of a drink called "chocolatl". It was served to their ruler, Montezuma, in a cup of gold. The roving Spaniards introduced the drink into their own country. Its preparation was kept secret, and so cocoa was not used in European countries outside Spain for a long time and was expensive.

Cocoa and chocolate are products of the seeds of a small tropical tree called cacao. When fresh the beans are white and when dry they are brown. It soon spread all over the West Indies and in 1834 was tried out in Ceylon, but the most spectacular transplantation was made by an enterprising planter who took a bag of beans to the Gold Coast in 1879. From that bag of beans has grown one of the largest native industries ever to have been developed on one continent.

The chief source of our supply of cocoa nowadays is the Gold Coast. The main imports for 1941 and 1942 in hundredweights present the general picture clearly. The 1941 figures are in brackets: Gold Coast 300,000 (260,000) cwt., Nigeria 11,000 (85,000), Jamaica 50,000 (45,000), Trinidad and Tobago 10,000 (40,000), Other British West Indies 8,000 (39,000), Brazil 14,000 (1,000), Ecuador nil (194), Guatemala nil (80).

French West Africa produces 50,000 tons annually, principally in the Ivory Coast and prior to 1942 supplied the Axis countries with 40,000 tons a year. However, the situation has been altered following the successes of the Allied Expeditionary Forces in French Africa.

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No. 143. -- Sun. Feb. 20, 1944 -- We are Buying More Jewellery

There has been a decided increase in the production of jewellery and silverware since the outbreak of war in 1939. This to the extent of some ten million dollars. We have had a lot more engagements and many more weddings.

Now, let us halt for a moment and think back half a century or more, just to get a comparison between the jewellery of today and yesterday. Last century, right up to the end of it and into the beginning of the present span of one hundred years, jewellery was not so much in evidence as it is today. It was pretty expensive.

Mere man contented himself with a gold watch and chain, a gold ring, a jewelled tie-pin such as Sir Wilfrid Laurier wore in his red scarf, gold cuff links and a plain gold or jewelled studs for his expanse of dress shirt front. A vast number of designs were in evidence for a great deal of this costly jewellery had been handed down from father to son. He might have a very thin gold chain for his pince-nez.

The ladies had a much greater variety. One of the events in a family was when the oldest daughter, drawing near to the "coming-out" age of eighteen had to have the lobes of her ears pierced in order that she might wear earrings. Pride in the promised adornment overcame the pain. A gold watch with a long chain round the neck was a sign of affluence. There were no wrist watches then. Ladies wore several rings on their fingers and to pull the tight-fitting kid gloves over them required time and skill. Mothers always had "keepers" for their wedding rings. A lorgnette was emblematic of dignity and bearing. Silver buckled shoes were an adornment.

Ladies had a variety of brooches for different occasions. The cameo from Italy was much in evidence, but the designs were endless. Silver bangles brought from India by a sailor brother were worn on the wrists. A reception, particularly when royalty was present, was a rare sight. Rich ladies had tiaras over their hair, and sometimes diamonds glistened from every curl. Necklaces of gold and jewels abounded. Imitations of the real thing were few and were considered "declassé". Even the baby had to have a special gold brooch with the date engraved on the back.

That brings us to the present. We have now gone full on on costume jewellery, and any young girl with very little money in her purse can rig herself out as blaringly as a duchess of old -- and look like a young duchess too. Women and even men of all races and climes like to fix themselves up a bit. And why not?

The factory output of costume jewellery in 1942 as around two million dollars at factory prices and the total jewellery production was twelve million, which is about one dollar for every man, woman and child in this broad Dominion.

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No. 144. -- Mon. Feb. 21, 1944 -- Where Have We Been Getting Our Salt?

The reference in the Bible, "Ye are the salt of the earth: but if the salt have lost his savour, wherewith shall it be salted?", reminds us that salt has always been an important article of commerce. Salt taxes and monopolies formed part of the Oriental system of taxation. Cakes of salt have been used as money in Abyssinia, Africa, Tibet and other countries, and it played a part in the development of the Mongol Empire. In the Roman Army a special allowance was set aside for salt.

Canada's natural resources in salt are abundant and the production is one of the Dominion's oldest non-metallic industries. Nova Scotia, Ontario, Manitoba and Alberta are the producing provinces. The new Malagash salt field in Nova Scotia has made a valuable contribution to the industry. Production in Canada has been increasing in recent years and last year established a new high record at 700,000 tons. As a consequence our imports have been declining. In 1930 the imports



amounted to about 178,000 tons, coming mostly from the United States, the United Kingdom, Spain and Germany. By 1942 the total had fallen to 69,000 tons, being supplied for the most part by the United States, United Kingdom, British West Indies and Newfoundland.

Fifty per cent of the salt produced in Canada in 1943 was used by manufacturers of chemicals. In addition to its popular appeal as a condiment it is employed as a preservative in the meat packing, fish curing, dairy and pickle industries as well as for curing hides and in refrigeration. Soil stabilization with salt and clay for the foundation of highways and for a surface veneer for gravel roads is now firmly established. The development of soil stabilized bases for runways at Canadian air fields is well known. The use of salt for mixing with sand, piled each fall at intervals along main highways, has increased greatly during the past few years, as it has been found that even in the coldest weather, the sand so treated remains loose and free flowing, thus allowing easy distribution on the icy roadway.

Commercial salt is manufactured from the natural brine and from rock salt and it is the art of the salt maker to produce grades suitable for the particular use for which it is intended. In France, Portugal, Spain, Italy, India and China, salt is produced from sea water by solar evaporation, while in India, Russia and the United States, it is produced from the natural brine of salt lakes. The Dead Sea is estimated to contain approximately eleven billion tons of salt.

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No. 145. — Tues. Feb. 22, 1944 -- Portuguese and French Possessions in India.

The Canadian Trade Commissioner in India writes from Bombay: The unusual situation exists in India, wherein there are several foreign possessions in different parts of the country. These areas are limited in number and extent but continue as colonies of both Portugal and France -- a reminder of the early initiative of these two countries in extending their trade to the East, as well as of the amicable relationship between them and Great Britain, which has permitted their Indian possessions to remain in existence during the many years since their establishment.

The Province of Goa was acquired by the Portuguese in 1510, the territory of Daman and the small island of Diu. These three Portuguese Indian colonies are ruled by a Governor-General and a Lieutenant-Governor under whose direction the colonial administration maintains the usual police communication, customs and similar services. Relations with the Indian Government which are particularly of local concern, are carried on through consulates in the respective countries, whereas, matters of greater importance are arranged between Lisbon and London.

French possessions in India resulted from private efforts to establish trading posts in the country. They finally secured the colony of Pondicherry in 1697 from the Dutch by the Peace of Ryswick. This province was originally acquired in 1683. Five colonies altogether including the possessions of Chandernagore, a small settlement on the Hoogly River; as well as the settlements of Mahe on the Malabar coast, Karikal on the coast of the northern Circars, constitute the total French Indian possessions. Their population is 325,000, mostly Indians.

The French Indian colonies are administered by a governor, whose headquarters are at Pondicherry, assisted by administrators and the necessary departments. These are of comparatively little economic importance and their value as trading centres is negligible. Normally, Pondicherry is a port of call for French vessels plying to the Far East and a port of export for such southern India produce as ground nuts and oil as well as other oil seeds, while Karikal is a centre for rich exports to Ceylon and the Straits Settlements.

No. 146. -- Wed. Feb. 23, 1944 -- Glass Manufacture.

Glass making is an ancient trade. Although there is no definite record of where it was first manufactured, it is thought that the art originated in Syria or Egypt, as the oldest examples of glass work came from the Egyptian tombs of some four thousand years ago. The invention of glass blowing came with the advent of Christianity.

There were glass works in Europe from the second to the fourth centuries and the art was introduced into England about the same time. Some of the better known glasses were Byzantine, Venetian, Bohemian, and Silesian. Much glass cutting was done by hand, using a diamond pointed instrument up until the 19th century. Since that time it has mostly been done by machinery, cutting and grinding lathes. The industry is said to have reached its highest degree of perfection in Germany, Italy and Czechoslovakia.

About the beginning of the 20th century it was introduced into America. Later it was started in Canada. Since then there has been considerable research work done in the development of new types, and many new uses for it have been found. Today there is non-shatterable glass, sometimes known as laminated or composite glass. There is a type known as vita glass which permits the passage of ultra-violet rays, and fabrics woven from glass threads are replacing other cloths for certain technical and military purposes.

Glass is a combination of silicic acid with an alkali, the former being prepared from sand as pure and as free from iron as possible. The less iron content the higher quality glass. Flint and quartz may also be used in place of sand. As the necessary ingredients are seldom found in their pure state, manganese and arsenic have proved satisfactory neutralizing agents.

The production of glass has increased steadily in Canada. The only material which we need to import is silica sand and this comes from the United States. In 1942 we imported some 150,000 tons and produced glass to the value of about 25 million dollars; this was an increase of 17 per cent over 1941, which in turn was an increase of 46 per cent over the 1940 total.

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No. 147. -- Thurs. Feb. 24, 1944 -- Huge Explosives Production.

No phase of Canada's great industrial expansion has been more important or more spectacular than the explosives and chemicals program. Before the war the explosives industry in this country was occupied almost entirely with commercial requirements, and the chemicals industry at the time was in no position to feed a large-scale munitions output. However, shortly after the outbreak, machinery was put in motion in order to expand explosives production and to place the chemicals industry on a parallel course of development.

Since the fall of 1939 great plants have sprung up in every part of the Dominion. Capital expenditures for new factories in this field have amounted to the staggering sum of \$125,000,000 and further expansion is under way by the addition of several new plants, which, when completed, will make a total of 40 projects.

Now in operation are some 34 units, of which 18 are classed as major undertakings. Three of these are making explosives, three are mammoth shell-filling plants, two are large fuse-filling undertakings and the others make chemicals of



various kinds, some of which are new to Canadian industry. Of the 13 smaller projects, eight are making chemicals, one makes fuse powder and four are making or filling smoke bombs.

Production of special war chemicals and explosives, including the cost of shell-filling but excluding shell components, has increased from \$2,000,000 in 1940 to \$50,000,000 in 1941 and \$120,000,000 in 1942. In 1940 Canada made only three types of small arms ammunition. There are now 20 types.

With war production at such high levels, it is not surprising to note an increase of 55 per cent in the value of production of the chemicals and allied products group of industries in 1942 as compared with 1941. Output in the former year totalled \$471,000,000 as against \$304,000,000 in the latter. The bulk of the increase was, of course, in special chemicals and explosives, but most other lines showed substantial gains also.

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No. 148. -- Fri. Feb. 25, 1944. -- Canada Looks North.

The Northwest air route network and facilities is to become an all-Canadian project. Ultimate cost is estimated at \$59,000,000. United States interest in the route will be taken over.

Pioneered by Canadians a quarter of a century ago, the Northwest air route, with its chain of airports from Edmonton to Alaska is now operated by the R.C.A.F. It is the main artery for air traffic between the United States and Alaska and beyond Alaska to northeast Asia. It was built and developed by Canada with the co-operation of United States Army engineers and workmen.

"The route is one of the most important in the world," says a ministerial statement, "both in relation to the war against Japan and, subsequently, as part of an international air route. In arranging for the post-war use of this air route, the Government of Canada will pursue a liberal policy of cooperation with other nations. We hope that the right to use the route will become part of a general scheme of international cooperation in air transport matters which will provide greater freedom of movement of aircraft and of air traffic within a suitable international framework.

"The Canadian Government has recently informed the United States Government that it will not expect payment from the United States Government for the construction of any permanent facilities or improvements, which have been carried out by the Canadian Government at the request of the government of the United States and for the account of latter government.

"Further, it has been decided that the Canadian Government will reimburse the United States Government for its expenditures on construction of a permanent nature, carried out and paid for by the United States Government, on air routes in this area.

"The decision to pay the United States for all permanent improvements built by that government also applies to the fields and landing strips on the Mackenzie river route, and all other airfields, landing strips, and permanent air route facilities constructed by the United States Government in northwest Canada, in accordance with arrangements made from time to time, between the two governments, for the joint defence of this continent."

No. 149. -- Sat. Feb. 26, 1944 -- Kapok.

Kapok has now gone to war and has been placed on the high priority list of materials reserved for military use. It has five times more buoyancy than cork. When compressed for use in life jackets, portable pontoons and buoys supporting flares to guide ships or planes, it supports in water about thirty-five times its own weight. A portable pontoon containing ninety pounds of kapok has a carrying capacity of about three hundred pounds.

The kapok fibres are silky-cotton in texture and are obtained from a tree which is indigenous to the tropical regions of Latin America and Southern Asia, particularly the Netherlands Indies, Java and the Philippines. It makes an excellent filler for mattresses, cushions, sofa pillows, upholstery, and is a valuable insulator for refrigerators on trains and trucks and for sound-proofing in walls of film studios, auditoriums and hospitals.

In Alaska and on the battlefronts of Italy and Russia, a sleeping-bag lined with Kapok is a valuable part of the soldier's equipment. Its insulating and water-repellant qualities also make it superior insulation for planes flying in subzero temperatures; it makes an excellent lining for gloves for handling dry ice and surgical dressings for wounds, particularly in the tropics, where cotton dressings absorb moisture.

Java and other areas that normally supply about 90 per cent of the world's kapok needs are temporarily under enemy control. This fact, coupled with the importance of filling military requirements, means that new sources of this strategic material must be developed.

Up to the present time the kapok trade of Latin America has been about equally divided between Ecuador and Brazil, with smaller quantities being exported from Costa Rica, the Dominican Republic, Cuba, Mexico and Peru. Kapok is not a textile fibre and therefore does not compete with cotton for yarn or woven fabrics.

Kapok trees grow fifty feet high or more and the base, just above the ground sometimes occupies an area of 20 feet in diameter. Two or three years after it starts to produce, one tree will yield annually about 600 pods containing a total of about six pounds of fibre and at least twelve pounds of seed.

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No. 150. -- Sun. Feb. 27, 1944 -- Broadcasting Stations.

In addition to the Canadian Broadcasting Corporation, there were 97 private commercial broadcasting stations operating in Canada in 1943. The CBC, however, operates under the Canadian Broadcasting Act which gives it regulatory powers over all broadcasting stations and its network gives effective coverage to almost the entire population.

Since November, 1936, when the CBC succeeded the former Canadian radio Broadcasting Commission, many changes in radio-listening habits throughout the Dominion have been noted. Audiences have grown steadily, as reflected in the increased revenues from licence fees. There is much less listening to stations located outside of Canada than there was a few years ago, while program selection, rather than station tuning, as such, is steadily becoming more prevalent. In the more isolated areas, radio has come to represent the main source of entertainment, of spot news, of adult education and, indeed, in many communities, of cultural development.



The progressive step of setting up a publicly owned broadcasting organization grew out of a national necessity. The extension of coverage to embrace the vast rural, as well as urban, areas was vital. This has been brought about by the erection of more powerful stations and by extending land lines to numerous other stations. Regular interchanges have been established with the British Broadcasting Corporation and the United States networks, so that today CBC listeners enjoy much of the best from six great networks.

During 1943, the CBC's total program production amounted to 15,700 hours and 51,672 individual programs, representing the highest peak yet reached in terms of individual programs and hours of operation. The primary reason for this growth is the trend towards a more complete and comprehensive service to each of the five geographical time zones with emphasis being placed on the presentation of specialized programs directed to specific audiences at the most appropriate time for listening.

Such programs as farm, educational, children's and women's come in this category and show a marked increase over the past few years.

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No. 151. --- Mon. Feb. 28, 1944 --- Peat Moss Helps Growth of Apple Trees

Apple trees too often make weak growth the first year planted and this failure of apple trees to get off to a good start has become a problem of increasing concern to apple growers. The use of granulated peat moss or granulated sphagnum moss mixed with the soil in the hole at planting time has given very beneficial results at Ottawa. The growth from trees planted with a mixture of peat moss has been greater at the end of the first growing season than where trees have been planted with soil alone. This early strong growth has more than justified the extra expense involved.

The peat moss should be well soaked before using and is mixed with the soil at the rate of one part to four parts of soil by volume. The more thorough the mixing of the soil and peat moss the better the results. It is preferable to fill the hole from bottom to top with this mixture rather than place it in the bottom of the hole around the roots as this provides a more or less open soil from the surface to the roots.

The benefits from the use of peat moss are many. First, it provides better aeration and the roots are able to get more oxygen in the early part of the season, which makes for more rapid root development. Second, the peat moss is more retentive of soil moisture than soil and the roots are assured of a plentiful supply of soil moisture after planting. Third, the porous nature of the soil around the roots permits easier penetration of rain water to the area occupied by the roots and less run-off of surface water. Fourth, due to porous type of soil, roots can develop more readily. Because of the boost that peat moss gives to apple trees following planting, all growers are urged to make its use a standard orchard practice.

The production of peat moss in the Dominion during 1942 showed a remarkable increase over the previous year, when commercial shipments totalled 58,000 tons as compared with 28,000. Production in 1942 was reported from bogs located in New Brunswick, Quebec, Ontario, Manitoba, Alberta and British Columbia. Of the total tonnage shipped, 53 per cent originated in British Columbia, 24 per cent in Quebec and 18 per cent in Ontario.

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No. 152. -- Tues. Feb. 29, 1944 -- Leap Year.

This is the day that brings us Leap Year, and in checking the origin of this particular calendar year, there will be found a humorous theory that Old Father Time, instead of following his accustomed route during that period, takes an extraordinary leap to the extent of one day more.

Another is that at first the extra day in the fourth year and the day previous were one in the eyes of the law. Accordingly the regular day was regarded as one and the additional day, though civilly held as a day, was legally not so. It was missed or leaped over altogether. Thus the legal year as opposed to the civil was in reality a leap-year.

March 1 was the Roman New Year, and marked the observance of the ceremony of rekindling the perpetual fire in the temple of Vesta, goddess of the hearth. This could be done only by the Vestal Virgins who were sole keepers of the temple. Legend has it that since an extra day had to be accounted for, it was thought wise to place it here, just before the lighting of the new sacred fire, at the culmination of the old and commencement of the new year. Julius Caesar decreed the 365 day year, except one year in every four, and this one year in each four became what we know as "leap year". A reason for giving February an extra day was because it was a short month.

The true year is 365 days long and almost a "quarter of a day", which when added up for four years amounts to one full day.

As for the origin of the gallant and delicate privilege extended in Leap Year to the fairer half of creation, mythology refers it to St. Patrick, who, while walking along the shores of Lough Neagh after having driven the frogs and snakes out of Ireland, was stopped by Saint Bridget, who informed him that some dissension had arisen among the ladies of her nunnery over the fact that they were debarred the privilege of "popping the question". St. Patrick agreed to grant them this privilege once every seven years, but that wasn't enough for the venerable mother. Bridget wasn't at all satisfied. Finally St. Patrick was forced to give in and granted her once in every four.

Suddenly her own unwedded state occurred to her whereat she popped the question herself. But St. Patrick having taken the vows of celibacy, had to soften the jar as best he could. This was accomplished with a kiss and a fine silk gown.

History on the other hand records a law passed in 1288 in Scotland ordaining that "ilk mayden ladye of bothe highe and lowe estaite shall hae liberte to bespeake ye man she likes". The chosen was only able to extricate himself on presentation of adequate proof of previous betrothal, or the paying of a certain sum commensurate with his monetary status.

A year later a similar law was passed in France. Shortly before Columbus sailed for America, a law was enacted to the same effect in Genoa and Florence. Curiously enough no record has been kept of any fine imposed, nor statistics kept of any number of spinster who took advantage of the privilege.

England regarded it more or less as an unwritten law, that a maiden should thus have the privilege of delicately revealing her inmost affections. And, indeed, whosoever treated her proposal with levity or with other than the grace befitting should be deprived the benefit of clergy. Should he decline her proposal, he must soften the disappointment with the presentation of a silk dress.





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