

11-D-02

C-9

DEPARTMENT OF  
TRADE AND COMMERCE



CANADA



**A FACT A DAY ABOUT CANADA**

**FROM THE**

**DOMINION BUREAU OF STATISTICS**

**AUGUST 1941**

**SEVENTH SERIES**

---

Published by Authority of the Hon. James A. MacKINNON,  
Minister of Trade and Commerce.

25 cents per annum



## Contents

- |                                    |                                  |
|------------------------------------|----------------------------------|
| 305. Canada's War Record           | 321. Canals in Canada            |
| 306. Swordfishing                  | 322. First Canadian Steamship    |
| 307. First Railway in Canada       | 323. Lesson in Soil Conservation |
| 308. More Eggs Wanted              | 324. Salt Production             |
| 309. Canadian Women's Army Corps   | 325. Storing Vegetables          |
| 310. Irish Moss                    | 326. Poland's Secret Presses     |
| 311. Banff Hot Springs             | 327. Planning a Perennial Border |
| 312. Holland Under the Yoke        | 328. Victory Week in School      |
| 313. Winter Green Feed for Poultry | 329. V - Victory! Vigour! Vim!   |
| 314. Canadian Apples               | 330. I - Intelligence            |
| 315. Belgians Train in Canada      | 331. C - Citizenship             |
| 316. Use of Air Photography        | 332. T - Teachers                |
| 317. Czechs Work for Freedom       | 333. O - Organizations           |
| 318. New Shrubs                    | 334. R - Reveille                |
| 319. Quahaugs                      | 335. Y - Youth Training          |
| 320. Culling the Poultry Flock     |                                  |
- 

James Muir,

Editor.





from the

Dominion Bureau of Statistics

No. 305 — Fri. Aug. 1, 1941 — Canada's War Record to Date

Canada entered the war after full and free debate and entirely of her own volition on September 10, 1939.

Canadian soldiers, sailors and airmen serving in British Isles ... Nearly 90,000.

Canadian soldiers, sailors and airmen voluntarily enlisted for service anywhere for duration of war and at present in Canada, in Canadian waters or in North American outposts ... About 210,000. Total on active service, 300,000. Number of men in Royal Canadian Navy, 20,000. Number of men in Canadian Active Army, 220,000. Number of men in Royal Canadian Air Force, 60,000.

Reserve Army trained for home defence (including men drafted for duration of the war), 170,000. Total at home and abroad, 470,000.

During the remainder of 1941 Canada will despatch overseas the 3rd Canadian division, the 5th (Armoured) Division, and other troops; increasing numbers of airmen, about 2,500 radio technicians, and naval reinforcements.

There are more than ten times as many people in the United States as there are in Canada. In terms of potential manpower, Canada's 300,000 on active service would be equivalent to a strength of about 3,000,000 in the United States' armed forces—without taking account of a reserve army for home defence.

Some hundreds of Canadians are attached to the Royal Navy, and many Canadians are serving in the R.A.F. and in the British Army.

The Canadian Navy has more than 200 vessels of all types, many of which are serving around the British Isles and elsewhere overseas. By March, 1942, it will have about 400 ships.

The Canadian Navy has assisted in convoying ships carrying more than 27,000,000 deadweight tons, sunk enemy submarines, effected rescues, captured several enemy vessels, and caused others to be scuttled.

The Canadian Corps in Britain guards a vital sector. It has recently been reinforced with a tank brigade. Canadian soldiers have done useful work in assisting bombed areas, removing unexploded bombs, building defence works and roads and repairing communications.

Canadian airmen in the R.A.F. and in R.C.A.F. squadrons have shot down a large number of enemy planes. Others have engaged in bombing and reconnaissance work. A considerable number of R.C.A.F. squadrons now operate in Britain.

The British Commonwealth Air Training Plan operated 68 schools out of 83 planned for September of this year. It has over 120 establishments of all kinds and operates about 100 air fields. Twice as many air fighters as originally planned for this time have turned out, and a very large number have already arrived in Britain. One thousand radio technicians have arrived in Britain from Canada. The estimated cost the Air Training Plan for three years is now \$824,000,000, of which amount Canada's

share will be \$531,000,000. Canada provides about 80 per cent of the students. The remainder are from Australia and New Zealand. British airmen also train in Canada.

About fifteen hundred Americans have enlisted in the R.C.A.F. and 600 Americans are acting as instructors. Seven thousand Americans have joined the Canadian Army. Many of these are already overseas.

More than 1,200 Canadian sailors, soldiers and airmen are now listed as dead or missing. Of these, 736 were killed, 285 died and 195 are missing. Three hundred and forty-five have been wounded. Many Canadians have been decorated or mentioned in despatches.

Canadian citizens' voluntary aid to Britain in the form of money and needed articles for the victims of enemy bombing and in the form of funds for the purchase of war planes, totals several millions of dollars. Blankets, clothing, first aid equipment, ambulances, mobile kitchens and other services have been provided. There are several Canadian hospitals in Britain staffed by Canadian doctors and nurses. Other Canadian civilians in Britain are rendering valuable service.

About 3,500 women are now being enlisted in the women's auxiliary services of the Army and Air Force.

Sailors, soldiers and airmen guard Canada's shores. Coastal and AA guns are in position, and naval and air bases are located at strategic points. Other air fields are being built, including a string intended to give military planes access to Alaska. Canadian soldiers helped to garrison Iceland for a year and others are now on duty in Newfoundland and in British West Indies. Canada is co-operating fully with the United States in hemisphere defence. Troops guard vital points throughout the country. Civilian defence and A.R.P. units are organized. Many cities have had blackout practices. The Royal Canadian Mounted Police guards against fifth column activities and sabotage. Canada has taken charge of a number of enemy prisoners of war. They are kept in internment camps.

Supplies which Canada has so far sent to Britain include foodstuffs, such as wheat, bacon, eggs, cheese and canned goods, raw materials such as base metals and timber, and war equipment such as machine guns, two-pounder guns, AA-gun barrels, shells, small arms ammunition, explosives and chemicals, airplanes, corvettes, minesweepers, small boats, mechanized transport and universal carriers. The value of such products being sent to Britain during the present fiscal year (April 1, 1941, to March 31, 1942) will be about \$1,500,000,000. Between the outbreak of war and March 31, 1941, Canada financed more than \$500,000,000 worth of British war purchases in the Dominion. By March 31, 1942, Canada will have provided Britain with nearly \$1,000,000,000 more for the same purpose.

Canada has put tankers and other ships at Britain's disposal. Canadian ship repair facilities are being stepped up to a maximum.

War materials now being turned out in Canada include corvettes, minesweepers, many types of small naval vessel, airplanes, tanks, machine guns, one type of field gun, several types of light gun, Bofors AA guns, anti-tank guns, rifles, mortars, explosives and chemicals, shells, small arms ammunitions, serial bombs, anti-tank mines, depth charges, various types of army vehicle, parachutes, gas masks, anti-gas clothing, radiolocators, naval stores, anti-submarine equipment, and minesweeping gear. Articles in production include naval guns, merchant ships and destroyers.



Nearly all of Canada's workers normally classed as "employable" are now at work, along with a considerable number who would not normally be working for salaries and wages. And it is estimated that about half the persons employed in manufacturing in the Dominion are now engaged more or less directly on production associated with war-time needs.

Canada produces large quantities of essential foodstuffs and raw materials -- wheat, dairy products, pork and other meat products, eggs and other important foodstuffs; timber, iron, nickel, aluminum, zinc, copper, lead and other metals and materials vital to modern war. Production of such commodities has greatly increased since the outbreak.

War equipment which Canada is able to export to the United States includes certain types of small arms, some guns and ammunition, certain explosives and chemicals, certain armed fighting vehicles, corvettes and minesweepers, aluminum and certain other metals and materials. There are in addition certain types of clothing and textiles, certain leather, rubber and timber products and certain secret devices in which Canada could probably make an important contribution if these were desired.

Canada's exports to the United States of important war materials such as nickel, aluminum, and other metals and minerals, have substantially increased since the outbreak.

Between September 10, 1939, and March 31, 1941, Canadians spent a total of about \$1,400,000,000 on their own war effort and on financial aid to Britain. In the present fiscal year they will spend considerably more than \$2,000,000,000 -- about 40 per cent of their total national income -- for war. In terms of the relative populations and incomes of Canada and the United States, this sum would be equivalent to an expenditure in the United States for defence and Lend-Lease aid to Britain of about \$35,000,000,000. Including the money required to meet the ordinary expenses of municipal, provincial and Federal governments, the amount with which Canadians will have to provide the country in the present fiscal year will amount to over half the national income.

Since the outbreak, Canadians have loaned their Federal Government about \$1,460,000,000 in return for war bonds and savings certificates. This is equivalent in comparable United States terms to defence loans totalling over \$20,000,000,000 by U. S. citizens and domestic financial institutions other than banks. Voluntary contributions by Canadian citizens of money for war services, civilian aid to Britain, purchase of war planes, etc., now total well over \$20,000,000. More than 6,000 British children have been given homes in Canada for the duration. It is estimated that, had circumstances permitted, about 100,000 would have been accommodated.

In the present fiscal year Canada's purchases in the United States will approximate \$950,000,000 -- nearly twice as much as in the year 1939. Nearly half this amount will purchase war supplies. Canada is not obtaining supplies under the lend-lease plan but pays cash for her purchases on her own account in the United States.

---

No. 306 -- Sat. Aug. 2, 1941 -- Swordfishing

Nearly 23,000 hundredweights of swordfish, those fine big food fish which carry their own weapon with them, were landed last year by Canadian fishermen from

Nova Scotia waters but where they came from is something else again. Where these sword-bearers are spawned is one of the questions which has been a puzzle to fisheries scientists and still is.

Studies carried on by scientists some years ago established that Messina Strait waters off the coast of Sicily are one of the places where swordfish breed but Sicily is a long way from North America and the European investigators were of the opinion that the Messina fish do not travel very far from their own part of the world. Where, then, do North American swordfish have their spawning grounds? The question remains a question.

Usually the swordfish is found in southern waters and numbers of small "swords" have been reported from time to time in the Gulf Stream off Florida and Cuba. Perhaps they had been spawned not far away. On the other hand, swordfish carrying partially matured eggs have been taken off Connecticut and at some other points on the United States coast. The annual run to Nova Scotia waters--principally to the areas off Louisburg, Cape Breton--is one of the heaviest concentrations of swordfish occurring off North America, but the fish don't spawn there. This run, by the way, apparently comes into the Nova Scotia area when the warmer offshore waters from southern currents strike inshore, or so some of the investigators explain the case. But the spawning grounds are still uncertain.

The swordfish is a big, swift, powerful creature, sometimes running several hundred pounds in weight. It is distinguished by a short, high dorsal fin and the flat sword which it thrusts out before it. Actually, the sword is a prolongation of the jaw and the fish can use it with great power, even driving it through the bottom of a fishing boat. In the Canadian commercial fishery, carried on off Nova Scotia only, the swordfish are usually taken by means of harpoons. Most of the catch is exported to the United States, packed in ice.

Scientific discoveries in comparatively recent years have added to the importance of the swordfish by revealing that, because of its vitamin content, the liver of the fish is valuable as a source of medicinal oil and in 1940 Canadian fishermen marketed nearly 500 hundredweights of the livers. A point of interest in this connection is that one Canadian research job carried on since the war showed the necessity of conserving and increasing the Dominion's vitamin output has indicated that the Vitamin A potency of swordfish livers is very much higher than that of cod livers.

One other fact which increases the importance of the swordfish to Nova Scotia is that the fish will give the angler a merry battle. Big "swords," or "broad-bills" as the fish are also known, have been taken with rod and line off Cape Breton on various occasions.

---

No. 507 -- Sun. Aug. 3, 1941 -- First Railway in Canada

On a track of wooden rails covered with sheet metal, Canada's first railroad made its opening official run from Laprairie to St. Johns, Quebec, on July 21, 1836. With a locomotive known as the "Dorchester," purchased in England, and two elaborately and tastefully upholstered passenger coaches purchased in New York, this forerunner of Canada's present vast railway systems made the momentous journey of sixteen miles in nearly two hours. A suitably inscribed bronze tablet, affixed to the railway station at St. Johns on the recommendation of the Historic Sites and Monuments Board of Canada, commemorates this historic event.



As far back as 1824 the construction of a railway to connect Lake Champlain with the St. Lawrence River was recommended with a view to expediting travel between Montreal and New York. A lengthy petition was subsequently presented to the Lower Canada Legislature and in 1832 a charter was obtained for the construction of the line. Work on the project began in 1835, and it was known as the Champlain and St. Lawrence Railway.

By 1852, this railroad was extended north to St. Lambert and south to Rouse's Point, covering a distance of forty-three miles, and connecting with United States railways. It ultimately became the Montreal and Champlain Railroad and shortly after Confederation was brought into the Grant Trunk System.

---

No. 308 --- Mon. Aug. 4, 1941 --- More Eggs Wanted

In order to bring the present efficiency program for increased egg production to its highest pitch, so as to meet the requests from Britain for millions of dozens more eggs and also to maintain Canadian requirements, officials of the Department of Agriculture urge upon poultrymen the importance of retaining all suitable laying yearly hens in full lay as long as possible and stressing the fact that the care and management of pullets during the month of September is of vital importance.

With regard to keeping over the yearly hens, the two-ounce eggs laid by those birds in September and early October of A Grade quality bring the highest price of any eggs during the year. When the birds start to moult, the moult may be speeded up by withholding the mash feed and cutting down the grain feed for a short time, then bringing the birds back on full rations after an interval of ten days or two weeks.

In the meantime, in order to get the greatest possible production and the highest possible quality, every poultryman should be encouraged to keep a full hopper of mash before the yearlings at all times; also plenty of clean, fresh water, which is as important as feed. The early hen is the laying hen. If that bird has a good feed of mash before it starts out on range in the morning, the urge to scavenge will be checked in part. This simple procedure will do much towards ensuring a higher percentage of Grade A eggs. The price return for eggs is such as to warrant every producer keeping a hopper of dry mash before the birds at all times.

The care and management of the pullets during September is a vital issue in the efficiency production campaign, necessitated by the needs of both Canada and Britain. In the fall of 1940 and in the fall of 1939, thousands of good early hatched pullets did not reach profitable production before December because they went into laying quarters in poor condition and underweight. This situation can be avoided now by encouraging the pullets to lay all the eggs they can. Let them start on range, feed them well, provide outdoor nests, help them to get into their full laying capacity on range and keep them at it.

Overcrowding in the colony houses and range shelters must be avoided and plenty of laying mash and fresh water provided. Pullets and yearlings should not be housed together in the same pen, nor young pullets with older pullets. The older birds drive the younger from the feed. Ample hopper space is essential because the birds will not lay well without lots of feed. In short, good condition and good body are imperative for maintained production.

Both Britain and Canada need eggs and efficiency in production will get them.

---

No. 309 -- Tues. Aug. 5, 1941 -- Canadian Women's Army Corps

Volunteers in the Canadian Women's Army Corps for which prospective recruits are now making application will be documented and will be assigned numbers the same as soldiers in the regular Army. They will have their own units in charge of Non-commissioned Officers, Warrant Officers and Commissioned Officers, and will come under military control and supervision although they will not be included in the Military Forces of Canada.

Officers Commanding Military Districts will be the final authority pertaining to personnel of the Corps in each district, where a staff officer of the Corps will be appointed in an advisory capacity.

Pay for Officers and other ranks will be two thirds of the per diem rate paid in the Army, and leave and furlough privileges will be equivalent. Medical and dental care will be provided and Army rations will be issued.

Where barracks or public quarters are not available, a living allowance will be granted. A group of 12 which will form a sub-section, with N.C.O. in charge, will be the smallest unit assigned to any station.

Officers on appointment will receive an allowance for uniform and equipment. Volunteers will receive an issue of clothing and equipment including uniform, shirts, tie, great coat, waterproof, rubbers, shoes, stockings, gloves and headdress. An initial allowance of \$15 will be made to cover underwear and toilet necessities, with an additional \$3 each quarter for this purpose. Clothing and equipment will not be issued until a recruit has completed probation and is enrolled as a volunteer.

Regulations require that cosmetics when used be inconspicuous, and that hair be dressed so as to come well above the collar line.

Five per cent of the daily rate of pay for both Officers and Ranks will be held as deferred pay until discharge. Volunteers on enrolment will sign up for the duration, and for service anywhere required.

Applications for enrolment available from the Department of National War Services list 36 occupations for which women between the ages of 21 and 40, free of dependents, and British subjects with complete Grade VIII educational standing or its equivalent may apply. They must be of medical category "A" or "B". Classifications listed include: canteen helpers and stewards; cooks, drivers for light motor transport; laboratory and dental assistants; hospital attendants and maids; waitresses; typists, stenographers, secretaries and accountants; telephone and radio operators; radio-graphers; sewing women; V.A.D.'s; clerks; messengers; cleaners and general duty help.

---

No. 310 -- Wed. Aug. 6, 1941 -- Irish Moss

War's winds may blow some good to parts of Canada's Atlantic Coast by directing to them more of the attention of United States buyers of Irish moss, which, by the way, isn't moss at all, as the layman interprets the term, but a seaweed which grows in clumps below tide level, fastening itself to rocks by means of small discs or "holdfasts." One United States importing firm, indeed, has recently sent a representative to the Maritime Provinces with a view to obtaining supplies of the moss which, in pre-war days, had been mainly imported from France.



This particular type of seaweed, known to occur in apparently fairly large quantities on different parts of the Maritime Province coast, has numerous uses, running all the way from use in making blanc mange and ice cream to use in tanning leathers, clarifying beer, sizing textiles, and making glue. Some sales of moss from Nova Scotia have been made in the past to the United States but they were never very large. The United States users could obtain some Irish moss in their own country but not enough for their needs and most of their requirements were filled by importations from France. Nowadays, however, unfortunate France is not in a position to fill many orders of any kind and, hence, the possibility that increased moss business may be done by Canada.

Irish moss, varying in natural colour from reddish brown to light green and with leaves from two to five inches long, is harvested by means of long-toothed rakes operated from row boats. After being brought ashore it must be put through a succession of drying and washing processes until, when the final drying is over, it has been bleached to a light straw colour or almost white. After being passed through a rotating drum of wire netting, so that any particles of sand or other impurities that may have defied the washings may be shaken off, the moss is ready for baling and shipment. Of course, there are variations in the method of drying and bleaching -- sometimes, for instance, the moss is spread on canvas for drying, sometimes not, and sometimes, in large scale operations, the washing is done in mechanical tanks and rotating perforated drums -- but proper cleaning, drying and bleaching are the aims in any case.

---

No. 311 -- Thurs. Aug. 7, 1941 -- Banff Hot Springs

Increasing numbers of visitors are making use of the bathing and swimming facilities at the hot mineral springs in Banff National Park in the Canadian Rockies, reports the Department of Mines and Resources. During the month of June, 1941, a total of 13,459 persons passed through the turnstiles at the hot springs as compared with 8,287 in June, 1940, an increase of 5,172, or more than 60 per cent.

The hot springs of Banff rank among the most radio-active waters on the North American continent. There are four main springs -- the Upper springs, the Kidney springs, the Middle springs, and the Cave and Basin springs. The Kidney and Middle springs have not been developed but at the Cave and Basin and Upper springs magnificent outdoor swimming pools and bath-houses have been constructed. The bath-house and the pool at the Cave and Basin springs are usually open from May to September, while the Upper springs remain open the year round. Even in the winter months skiers and others engaged in winter sports take advantage of the opportunity to relax in the soothing waters. The springs issue from the rocks with temperatures from 85 to 115 degrees Fahrenheit, and the average flow of the four chief springs has been estimated to be in excess of 40,000 gallons an hour, or almost a million gallons a day.

By reason of their therapeutic qualities, these famous springs have attracted visitors from all parts of the world for more than half a century. It was their discovery in 1883 by railway construction engineers which prompted the establishment of Canada's first national park when an area of ten square miles surrounding the springs was set aside as Rocky Mountain Park.

---



No. 712 -- Fri. Aug. 8, 1941 -- Holland under the Yoke

Economically, politically and socially the Netherlands people have to bear the full weight of the ignominious Nazi yoke. After barely fifteen months of occupation they have been reduced from a very high standard of living to the brink of starvation.

The famous ports, once throbbing with life, appear dead. The wheels of industry have stopped, and only those factories which fit into the Nazi war machine can survive. Those fishing trawlers and coastal vessels which could not escape to England lie idle, or have to work for the Nazis, endangering the lives of our seamen in the service of the foe.

Agriculture suffers from the severe shortage of labour, fuel and fertilizers; dairy-farmers see their best cows slaughtered to feed the occupying army, or exported to the Third Reich. The Germans descended upon the fertile Lowlands like a cloud of locusts; shops have been emptied by the huge purchases made by German soldiers and officials; trainloads of agricultural produce have disappeared into the German maw. A large army of occupation has to be fed, clothed and housed.

As a result the National Debt is increasing at a rate ten times greater than that reached in the Great War. The Treasury is selling astronomical amounts of government paper and there is plenty of paper money in circulation despite huge semi-forced loans. But goods are scarce, prices are rising in spite of attempts at control, and the standard of living has rapidly declined.

Almost everything is rationed, but the rations are so small that in some cases labourers feel too weak to continue work after four o'clock in the afternoon.

Such is the economic condition to which our people have been condemned. All classes are suffering and complaining alike. Industrialists have been reduced to mere tools in the hands of the Nazis; farmers work hard and earn little; almost 150,000 labourers have been blackmailed into toiling in German factories and shipyards.

But there are things worse than merciless looting, the dread of inflation, the shortage of food, clothing and fuel. The political and cultural tyranny of the Nazi overlords strikes at the very root of the people's character; the love of their liberties won in century-long struggles. The despised agents of the Gestapo lurk in every cafe.

Thousands of patriots have been flung into overcrowded prisons upon the flimsiest pretexts. Hundreds are suffering in the notorious German concentration camps. The liberty of the press and of association has been suppressed. Broadcasting has been taken over by the Nazis. All political parties, with the exception of the numerically negligible National Socialist party, have been disbanded.

NOTE: This was written by Prof. P. S. Gerbrandy, President of the Netherlands Council of Ministers.

---

No. 313 -- Sat. Aug. 9, 1941 -- Winter Green Feed for Poultry

Here are some valuable notes that will be useful for those who have enlisted themselves in the campaign to produce more eggs and poultry:

When birds must be housed the importance of feeding green feed in some form should not be overlooked, but it frequently is. While it is a known fact that green feed is a necessary addition to a ration at any time, more especially is it the case during a long winter season.

On entering a poultry house about mid-winter after the birds have been confined from early October one can readily observe from their appearance whether any lack of proper feeding methods exists. Little or no supply of green feed is frequently the cause of a general lack of thrift in the birds and, if there is no likelihood of the birds being able to get outside before the end of the winter season, the sooner the deficiency is counteracted the better.

While there may be a fine point of distinction between green feeds proper and feeds which are valuable for their succulency only, the latter should be utilized if the former are not available. True green feeds are much higher in feeding value than are so-called succulent feeds, but the latter, as well as the former, are valuable in keeping the digestive tract in healthy condition.

Green feeds are available in two forms: green and dried. Alfalfa leaf meal is efficient green feed in the dry form and is especially valuable during winter. From the beginning of winter, however, until well after Christmas, depending on storage facilities, such crops as cabbage make satisfactory green feed. Furthermore, clover and alfalfa leaves, that can be gathered from the floor of barn or hay-loft, should be fed to the birds. The birds will certainly appreciate these and benefit accordingly.

In a distinction between green feed in the true sense of the term, which includes alfalfa, clover, etc., succulent feeds valuable only in keeping the digestive tract in healthy condition would include mangels, beets, carrots and even raw potatoes. While they should not be considered as actual substitutes for green feed they should, as already mentioned, be used when green feed is not available.

At a Dominion Experimental Sub-Station, ample use was made of cabbage during the current winter season from the time the birds were confined until the supply was exhausted. The birds devoured the cabbage ravenously. After the supply of cabbage became exhausted red carrots, also in the raw state, were fed and the birds disposed of the carrots with relish also. When the supply of green and succulent feed became exhausted alfalfa leaf meal was added to the ration in a quantity of about five per cent of the total ration. Undoubtedly, the supply of cabbage, carrots and alfalfa leaf meal tended to keep the birds in a healthy condition.

As cabbages and carrots can be grown successfully almost anywhere an extra supply over and above that reserved for the kitchen should be grown in the gardens and the extra effort involved would be amply repaid by the response from the poultry when fed these during the long winter season. An addition of alfalfa leaf meal after the supply of cabbage, etc., is exhausted would tend to continue to keep the birds in good condition.

---



No. 314 -- Sun. Aug. 10, 1941 -- Canadian Apples

In the apple, Nature has achieved a masterpiece. Beauty of form and colour, appetizing aroma, crisp texture, and delicate flavour combine to produce perfection. Complex chemical processes are involved in the production of this King of All Fruits. Subtle combinations of sugar, acid, tannin, pectin, and many other chemical products give apples their wide appeal, make them good to eat fresh and in a hundred culinary dishes. Some knowledge of the structure and composition of this favourite fruit will enable one to enjoy it to the full.

Each apple is enclosed in Nature's own incomparable wrapping. The skin of an apple not only contributes beauty, but also serves to protect the fruit from the attacks of rot-producing fungi. If this natural protection is broken through careless handling, decay soon sets in, but provided the skin remains intact apples are remarkably resistant to rots. The skin also contains a waxy substance which checks loss of moisture from the fruit. Nevertheless it is advisable to keep apples in a damp atmosphere to prevent them from shrivelling.

The flesh of an apple consists of millions of tiny cells cemented together by thickened cell walls. During the time that an apple is growing on the tree these cells are being filled with such products as sugar, starch, acid, and tannin. As the fruit nears maturity some of the starch is changed to sugar. Changes also take place in the acid and tannin making them less pronounced. But even when an apple reached ideal picking condition there are still large amounts of starch and acid contained in its cells. This is especially true of late maturing varieties such as Winesap and Newtown which require several months after picking to reach ideal eating ripeness.

Even with earlier maturing varieties, such as McIntosh and Delicious, newly picked fruit contains too much starch and acid to suit most palates. After being harvested, apples are still alive and chemical processes continue to take place within them. More of the starch is changed to sugar, the amount of acid is reduced and the flesh becomes softer in texture due to changes in the pectin materials contained in the cell walls. During this ripening period certain volatile products called esters are given off by the fruit. It is these esters which give each variety its characteristic aroma. Apples also generate small quantities of that mysterious gas ethylene which stimulates ripening in other fruits exposed to it.

Most people like to eat apples when the flesh is still firm and crisp. At this stage biting into the fruit ruptures a large number of cells releasing the juice which gives the distinctive flavour of the variety. If a comparatively soft apple with plenty of flavour is desired, McIntosh will answer the purpose. If apples containing very little acid are preferred Delicious may be tried. On the other hand, if one's taste runs to tart fruits, Jonathan and Newtown will meet the requirements. To attain maximum enjoyment in eating fresh apples, keep them in a cool moist place until they are served.

---

No. 315,-- Mon. Aug. 11, 1941 -- Belgians Train in Canada

In a combination symbolic of the free world's fight against German tyranny, the tricolor flag of Belgium is flying today beside the Union Jack. A unit of the Belgian Army, small, but with the fire of patriotism burning fiercely in the heart of each soldier, is training at Joliette, Quebec, to do its bit in the job of



smashing the Nazi grip upon its Fatherland and other oppressed countries of Europe.

It is an army mustered from the ends of the earth. This writer saw, standing side by side on the parade ground, one recruit from the Peace River district, in Canada's Far North, and another from the little island of Terra del Fuego, lying off Cape Horn, the southernmost tip of the Americas.

It would be hard to find a more oddly assorted group of men called together in a single purpose. Most have been away from their homeland a long time, some have never seen it. Serving as privates in the ranks are engineers, students, scientists, planters, bushmen from the Canadian North and even a Belgian nobleman.

The Belgians wear the same uniforms as those of Canadian soldiers and are issued the same equipment, all of which is paid for by the Belgian Government. The Belgians share their camp with a French-Canadian unit.

In Canada they are given primary training only. They will receive more advanced instruction when they arrive in England, where they will join the main Belgian force. Already Belgian soldiers have fought at the side of the British and Free French in Africa. Belgium's Congo troops helped rout the Italians from Abyssinia and received the praise of General Sir Archibald Wavell.

With the purpose of preparing them to fit in at the side of the British forces, officers of the Joliette Camp give the soldiers their orders in English and the drills are the same as those practised by Canadian soldiers. A Canadian officer is attached to the unit as a liaison man between the two armies.

Included among the Belgian troops are a number of stalwart veterans who fought with the heroic Belgian forces during the first Great War. They were among the first to leave their families and jobs in all parts of the world to serve their little country through its new ordeal.

The unit was recently addressed by M.C. Gutt, Minister of Finance and National Defense in the Belgian Government. Said Mr. Gutt:

"Our Army of Belgium, after eighteen days of hard fighting, were forced to lay down their arms. I spoke to them on the air a few weeks ago, and told them that in our hearts, when we were thinking of them, there was only grief and pride: grief for what they are undergoing, pride for what they have done.

"But thanks to you and our men in England, in the front of the troops which will, when the day comes, bring freedom to our beloved country, there will be a Belgian Army and there will be Belgian colors. I thank you for it.

"Long live Canada! Long live Great Britain and her Allies! Long live Belgium!"

---

No. 316 -- Tues. Aug. 12, 1941 -- Air Photography

Air photographs now play an important part in the administration and conservation of Canada's forest resources. Slightly more than one-quarter of Canada's total area, or 950,000 square miles, has been photographed from the air, largely by peacetime operations of the Royal Canadian Air Force, and the Dominion Forest Service now has on hand forest maps prepared from these photographs covering 113,000 square miles,

including 19,000 square miles on which timber estimates are shown in addition to the usual demarcations of forest types.

Making a forest survey or taking an inventory of timber stands on the ground is an arduous and expensive undertaking, but by the utilization of aircraft, practically every locality is made readily accessible for observation and photographing, and from air photographs good maps can be supplied in a small fraction of the time and at much less than the cost of ground surveys. Some idea of the value of this new method can be gained by bearing in mind that an area of two or three hundred square miles necessitating a whole season's work by foresters in the field can be surveyed by the aerial camera in the course of a few hours.

From air photographs it has been found possible to classify forest types, and furthermore methods of determining the heights of trees have been developed by measuring their images or shadows in the photographs, which with the density of the forest provides the basis for surprisingly accurate estimates of the volume of standing timber. Information of a general nature for forest inventory purposes can be secured from air photographs without resorting to actual field work. Where more specific data are required supplementary measurements in the form of ground checks are necessary, but in no case does the amount of ground check approach the work involved in the old method of ground surveys.

The technique employed in interpreting the air photographs and the manner of showing the resultant information is of value not only to Canada but also for application in other countries. Accurate knowledge of forest resources is essential to the wood-using industries, and this simple and inexpensive method of taking forest inventories from the air is a definite contribution to the future economic development of the forests.

---

No. 317 -- Wed. Aug. 13, 1941 -- Czechs Work for Freedom

M. Jan Masaryk, the Foreign Minister of Czechoslovakia, has described his country as "a nation without quislings" - a proud boast, but one which is fully justified. Although Czechoslovakia has been under Nazi rule longer than any other country (Austria of course excepted) the opposition to the German authorities is stronger than ever today.

To understand what this means it must be realised that during the past twenty-seven months tens of thousands of Czechs have passed through the Gestapo torture chambers: thousands have been executed or tortured to death. The ancient castle of Spilberg in Brno holds hundreds of Czech patriots in its mediaeval dungeons.

It is believed that there are now something like three million patriots working in the cause of freedom within the frontiers of what was Czechoslovakia, yet in 1938 the total population including Germans and Slovaks and Ruthenes was only 15,000,000.

Attempting to strangle the fierce patriotic spirit of the Czechs, the Nazis disbanded the Legions. The Legionaries, veterans of the great fighting trek which the Czech Army made across Russia at the close of the Great War, were thrown into concentration camps. More recently the Sokol organization was broken up, its property confiscated, and its leaders sent to join the Legionaries in prison. Faced by this sadistic oppression, the Czechs reverted to the traditional methods of underground warfare which had broken the Teuton before.



In a recent article published in the Prague German paper, Der Neue Tag (The New Day), the writer complained that even the Czech cows yield less milk than German cows; Everywhere agricultural production is dwindling, stock disappearing; the land yields only enough for the farmer's basic needs, not one turnip more. The Czechs know well enough that the appetite of the Nazi pilferers is insatiable.

---

No. 518 --- Thurs. Aug. 14, 1941 --- New Shrubs

Home-makers who may be concerned about adorning their home grounds would do well to put first emphasis on shrubs. The shrubbery border serves throughout every one of the twelve months of the yearly round, writes an Experimental Farm Superintendent in the Prairie Provinces. Annual and perennial herbaceous flowers are fleeting and even the most persistent among them add gaiety and charm to the scene but for a few short weeks. In contrast, recall the widespread native shrub, the Pembina, or the Highbush cranberry. In early spring red plump buds show up against the clear creamy bark from which they spring. In May the large heads of white blossoms are distinctive. The large, oval, green fruits colour in late August to a bright scarlet and hang on even to spring, thus making winter toned with summer, and warranting the contraction of the Indian words, meaning Summer-berry, known now as Pembina.

There are several hundred newly acquired shrubs that seem adapted to sheltered gardens in prairie Canada. A few are here given slight comment, in hope that visitors to Experimental Farms will study the demonstration shrubberies.

February Daphne, different to the Rose Daphne, is deciduous. It blooms in late April on bushes about eighteen inches high. The fragrant bloom may be white, pink, or dark carmine.

Verna Barberry is heavily spined, has yellow flowers and many neat narrow leaves of various sizes. The long clusters of scarlet berries sometimes cling to the bush until the following spring.

Spiny Caragana is of medium stature. Its spines are up to two inches long. The leaves are smaller and the flowers larger and darker than the common caragana.

Sweetberry Honeysuckle is an attractive shrub growing to five feet, with purplish-green foliage and young dark and bearing blue-black edible berries about the size of a navy bean.

Korean Golden-Bells is an unusually hardy Forsythia. Its bright yellow flowers liven the bush from bottom to top in late April before the leaves appear.

Cherry Prinsepia is the earliest exotic shrub to leaf out in some districts. It grows to about six feet, sometimes four feet taller. Prinsepia branches plume over and the numerous yellow flowers are succeeded by red cherries.

New hybrid ornamental cherries include Skinner's hybrids between Sand cherry and Manking cherry, between Russian almond and Ussurian cherry, and Morden Number 800 cherry, being a hybrid between Sand cherry and Siberian apricot.

Taller shrubs of distinction meriting attention include Manchurian Angelica-tree with its spines and its three to four feet long foliage, Amur Maackia with pinnate leaves and spikes of white flowers marked with yellow, Chinese Hawthorn with numerous red fruits the size of small crab apples, Manchurian Aralia with



its heavily prickled bark and unusual leaves, and the *Prestoniae* Lilacs with huge, late flower trusses with colours from the flushed white of Swanee to the red of Hiawatha and the dark purple of Royalty.

---

No. 319 -- Fri. Aug. 15, 1941 -- Quahaugs

Here's another example of the way in which the Dominion Department of Fisheries sometimes has opportunity to help some branch of the fishing industry, and makes the most of it.

Not so very long ago an inquiry came to a departmental office from a large company which wanted to know where it could obtain quahaugs, or hard-shelled clams, a substantial quantity of them, for use in making soups commercially. The inquiry was dealt with promptly and the soup people were brought into contact with a group of northern New Brunswick fishermen who had been wondering where they could find outlets for the quahaugs they knew they could land in increased quantity if there were chance to sell them. Net result? The company negotiated with the fishermen for two carloads of quahaugs, with an order for a third in prospect. The probability is, too, that there will be other orders from the soup makers later on.

The quahaug (*Venus mercenaria* when dignified with its scientific name) is quite abundant on certain parts of Canada's Atlantic coast, with sections of New Brunswick and Prince Edward Island the principal producing areas. Part of the annual catch is canned but most of it is marketed fresh. Incidentally, the quahaug will live longer out of water than its cousin, the soft-shelled clam, (*Mya arenaria*), and therefore can be shipped to more distant markets. The total annual Canadian catch of the soft-shelled chaps, however, is much larger than the catch of quahaugs.

---

No. 320 -- Sat. Aug. 16, 1941 -- Culling of Poultry Flock

Every poultryman has to face the problem of keeping the flock on a profitable basis at this season of the year. Many birds may cease to lay while others continue in production under the same feeding conditions. In order to keep the non-layers down to the lowest number it is advisable to cull thoroughly and remove all the birds that are unprofitable boarders.

Summer culling is easy, as most birds capable of laying a profitable number of eggs throughout the year are still in production at this season. Those that are not laying are doubtful performers and should be handled and examined. Only by so doing can a definite opinion be formed of body condition, and unless the birds carry a fair amount of flesh they will not continue to lay throughout the year. Thin breasted birds, and those in poor feather, should be removed from the flock.

It is unlikely that the good layer of the yellow skin breeds will possess much pigment at this season; that is, the yellow colour in beak, skin, and legs will have mostly disappeared. The attractive bird showing much new feather and with bright yellow legs and beak should come under suspicion as of poor laying ability. Those that cast their feathers early in the season are nearly always poor layers.

Eggs are going to be in greater demand and every effort should be made to keep the flock in profitable production. The mash hoppers should be kept filled with a good, balanced ration in which the meat and fish meal should form fifteen to twenty per cent of the whole contents. Scratch grains should not be fed too heavily, or the consumption of mash will be less than is necessary to keep up production.

It may be advisable to feed a little of the usual mash slightly moistened with skim milk or buttermilk, and it is well to remember that the whole flock may be thrown out of production at this season by the lack of clean, cool water or succulent green feed or the presence of mites or lice.

---

No. 32 -- Sun. Aug. 17, 1941 -- Canals in Canada

The Great Lakes and St. Lawrence River form one of the busiest waterways in the world. In 1929 traffic through the Sault Ste. Marie canals totalled almost 93 million tons, more than through the Panama and Suez combined.

Before 1850 and the development of railways and the growth of automobile traffic, canals played an important part in the transportation activities of the country. Although many of them were constructed mainly for military purposes, the primary reason was to eliminate long, laborious and wasteful portages necessary in those early days of travel up the St. Lawrence, Great Lakes, and the Ottawa. The Lachine canal is believed to be the first, begun in 1700 by the early French settlers.

While the development and rapid improvement in railway and motor traffic transportation facilities have minimized the importance of canals in the commerce of the Dominion, there are six systems at work, which are connected with the Atlantic ocean by navigable routes. These are (1) between Fort William and Montreal (2) from Montreal to the International Boundary near Lake Champlain (3) from Montreal to Ottawa (4) from Ottawa to Kingston (5) from Trenton to Lake Huron (6) from the Atlantic ocean to Bras d'Or in Cape Breton. By slightly more than 500 miles of canals 1,890 miles of waterways have been opened to navigation, connecting the Atlantic with the greatest expanse of inland lake and river in the world.

There are no tolls charged for the use of the canals in Canada but each vessel going through must make a detailed report to the officer in charge, giving vessel tonnage, draught and cargo, etc. The St. Lawrence canals have a depth of 14 feet which is reduced in period of low water, so that ocean vessels, except those of very small tonnage cannot sail up into the lakes. There are a few such vessels of small tonnage that have been bringing over cargoes from European ports for years.

One of the world's greatest locks is at Sault Ste. Marie Canal, 900 feet long, 60 wide and has a depth of water measuring 21 feet.

The new Welland Ship Canal, officially opened in 1932 is 27 miles long, and has a drop of over 325 feet. though the ultimate capacity will be 820. There are 8 lift locks, including the largest in the world. There are 21 bridges and it takes a ship about 8 hours to pass through the canal.

The new St. Lawrence waterways project under consideration provides for deep water navigation from Atlantic ocean to the head of the Great Lakes. This would also allow for the development and harnessing of a larger proportion of the vast potential power available in the St. Lawrence and connecting rivers. If and when



this project is undertaken, new locks will be required at several points including Lachine and Sault Ste. Marie.

Although no longer used extensively for passenger travel, canals still play an integral part in the great commercial life of Canada, and, in all probability the day will dawn when ocean-going vessels bearing cargoes from all the ports of the world, will be sailing into the very heart of our Dominion, -- thanks to an efficient system of canals.

---

No. 322 -- Mon. Aug. 18, 1941 -- First Canadian Steamship

From the earliest days of navigation in Canada it became apparent that water carriage presented the cheapest and easiest manner of transporting merchandise from place to place. Canoes were first used for this purpose but with the growing trade in furs, timber, and agricultural products these were superseded from time to time by bateaux, sailing vessels, and steamships.

It is interesting to note that the first steamship in Canada, the "Accommodation," was built in Montreal by the Hon. John Molson and was launched in 1809. She was a vessel of eighty-five feet in length and originally was provided with berths for twenty passengers. A steam-engine of English manufacture propelled her open double-spoked, perpendicular side-wheels. Her maiden voyage was from Montreal to Quebec on November 3, 1809, which distance was covered in sixty-six hours.

During the war of 1812-14 this ship rendered notable service between Quebec and Montreal.

The Historic Sites and Monuments Board recognizing this as an event of national importance in the industrial progress of the Dominion recommended its commemoration and a suitably inscribed bronze tablet has accordingly been affixed to the front of the building at 1670 Notre Dame Street East, Montreal.

---

No. 323 -- Tues. Aug. 19, 1941 -- Lesson in Soil Conservation

The need for soil conservation in Prince Edward Island is probably greater than in any of the other provinces of Canada. It is true that most of the island is undulating, with only moderate slopes. There are, however, several ranges of hills with fairly steep slopes, many of which would be much better left in woods or made into improved pasture lands.

The formations of soils in Prince Edward Island consist largely of sandstone and shales with limited quantities of red limestone. The subsoil is largely particles of red sandstone with brick clay and the surface soil at one time was classed as sandy and clay loam. At the present time, there are few clay loam soils, with limited areas of loam, the great bulk of the surface soil being sandy loam with areas that are light sandy loam.

In several sections there is a considerable quantity of water-worn, hard gravel, usually on the hill tops, but most of the farm land of P.E.I. has little stone or gravel in the soil. For this reason, soil conservation is necessary as red land is greatly injured by sheet erosion which carries the finer particles of the soil down the hillsides.



One of the most wasteful farm practices, common throughout several districts of Prince Edward Island, and a lesson to many other parts of Canada, is that of making the rows of cultivated crops run directly up and down the slope of the fields. This has caused an ever increasing amount of waste of the most valuable particles which contain most of the fertility in the soil. Melting snow and spring, summer and autumn rains carry these particles to lower levels or wash them into the streams and out into our rivers and bays.

Suggested methods of soil conservation that might be undertaken immediately are as follows:

Just as soon as the potato crop is harvested the land could be worked and seeded to fall rye which would form sturdy plants in the autumn which lie flat on the ground and would hold the soil against autumn rains and spring freshets. The rye could be ploughed under for the following crop of grain and would thus add humus to the soil.

All cultivated crop should have the drills made along the contours of the land so that heavy rains would be held back and soak into the soil. This would prevent a great deal of the present washing which takes place between the drills of such hoed crops as potatoes and turnips.

Wherever there is a considerable flow of water in the spring, the land should be in permanent grass and the water-way so formed that it would carry a large flow without erosion.

Steep hillsides should either be planted out to forest trees or sown out to permanent pasture.

In order to establish a sod, barnyard manure or commercial fertilizer may be required to get a good catch, but once established with wild white clover and natural grasses, these pastures should be among the most valuable areas of farm lands.

---

#### No. 324 -- Wed. Aug. 20, 1941 -- Salt Production

The market for salt in Canada is steadily expanding, and the industry is in a sound condition. Domestic production, except for small exports, is sold principally to the dairy, meat curing, and canning industries; to fisheries; to highway and transport departments for soil stabilization; to the chemical industries and as table salt for household use.

Soil stabilization with salt and clay for the foundations of highways has greatly increased in the past few years. The development of soil stabilized bases for runways at Canadian airfields has also opened up a new market for salt. Salt has also been used to facilitate winter automobile travel during recent years. The salt is mixed with sand which is piled each fall at regular intervals along the main highways, and it has been found that even in the coldest of weather the sand in piles which have been so treated remains loose and free flowing, thus permitting easy distribution on icy roadways.

Almost forty per cent of Canada's salt production is used in the form of brine in the chemical industries for the manufacture of caustic soda, liquid chlorine, and other chemicals. The demand for salt for the chemicals industries may be expected to increase as, with the exception of caustic soda, soda ash,

sodium sulphate, sodium silicate and acid sodium sulphate, practically all of the sodium compounds used in Canada are imported.

Canadian salt production continued to increase in 1940, amounting to 465,000 tons valued at \$2,823,000 as compared with 424,600 tons valued at \$2,487,000 in the preceding year. The greater part of the output came from wells in southwestern Ontario, which have been in continuous operation since 1866. Salt was also produced at Malagash, Nova Scotia; at Neepawa, Manitoba, and at Waterways, Alberta.

---

No. 325 --- Thurs. Aug. 21, 1941 --- Storing Vegetables

All vegetables intended for storage during the winter should be grown to full maturity, otherwise they cannot be expected to keep well. For the storage of onions, a cool dry cellar, with the temperature not over 40 degrees at any time, is ideal, and when the onions are not piled to any great depth, shallow slatted crates or shelves will be found satisfactory. Particularly in districts where the growing season is short, onions may require some help to ripen. As soon as the tops of a few plants fall over, all the tops should be bent down. This checks the flow of sap and causes the bulbs to ripen. A few days later the plants should be pulled, and if the weather continues fine, the onions should be turned over occasionally until the tops are fairly well dried. They should then be cut off and the onions spread in the open or in slatted crates. When dry, they may be placed in storage for the winter.

With regard to squash and pumpkins, on no account should they be exposed to the least frost. As soon as the rind is firm enough to prevent piercing by the finger nail, the fruit may be taken from the plant. Pumpkins and squash should be stored in a dry place at a temperature of from 40 to 50 degrees. At all times they should be handled as carefully as eggs. The slightest bruise, even though not noticeable, is likely to cause decay in storage. When large quantities are to be stored, slatted shelves should be used so that the fruit may not be piled on top of one another.

For storing cabbage, all the outer leaves should first be removed and the heads handled carefully to prevent bruising. A dry day when there is no rain lodged in the heads should be chosen for storing in a dry cool place. If there is good circulation in the store-room, the heads may be piled in several layers. Small quantities may be pulled without cutting off the heads and suspended from a joist in the cellar. The roots may be left on but all the outer leaves should be removed.

Carrots, beets, and parsnips should be kept very cool, and be well dried before storing. Potatoes keep well in a dry place with the temperature between 30 and 40.

---

No. 326 --- Fri. Aug. 22, 1941 --- Poland's Secret Presses

One of the first things the Nazis suppressed in Poland was the Press. Pre-war Poland had 2,200 periodical publications, among them 190 daily papers. To-day, in German-occupied Poland, there are only sixteen publications in the Polish language and they are all published by the Nazis. But alongside this Nazi controlled Press there is a network of illegal publications, a network amazing in its richness.



The full number of these illegal publications is not known, but it is probably not less than twenty-eight, and their range is extremely wide.

First of all there are the daily papers; roneo-typed sheets which give the foreign news on the basis of the B.B.C. broadcasts -- one must remember that the Poles had to surrender all their wireless sets -- and inside information from Poland.

Then come the weeklies, normally printed. They contain precious inside information from Poland, foreign news and editorials. The standard of these editorials is unusually high. They deal not only with the analysis of the present situation, but also with the construction of the future. A regular feature of these weeklies is the analysis of important articles in the British Press. Some of these papers are illustrated, so that one may find in one of them, say, a photograph of Winston Churchill and General Sikorski inspecting the Polish Army.

There exist also monthly and quarterly reviews which contain synthetic analyses of the war situation. These reviews carry as many as thirty-two pages.

Special papers are produced for the peasants, for the youth, for the children. There is even a humorous paper, with anti-German cartoons and jokes. And in the Warsaw ghetto there is a Yiddish paper.

Scores of thousands of copies are thus issued, and it can be asserted that this illegal press reaches practically the entire population. Proof of this statement is provided by the fact that the whole population obeyed the order, conveyed by the papers on September 1, 1940, to stay indoors during the afternoon. It was also by means of the papers that the Polish petty officials were instructed, in order to avoid repression, to take the oath demanded by the German authorities.

Apart from these regular publications there are also occasional leaflets, short pamphlets and quite longish publications, one of which deals with the post-war reconstruction of Europe.

All these publications entail printing presses -- probably concealed in the woods of Poland -- well over a hundred editors and contributors, and hundreds of thousands of readers. Every person involved risks his life, for death is the penalty not only for working on an illegal paper, but even for reading it.

---

No. 327 -- Sat. Aug. 23, 1941 -- Planning a Perennial Border

In a small garden perennials are grown in borders with the different species and varieties in mixture in order to have a display of flowers over as long a season as possible. The position of the border depends on the available space but as a general rule it should be along the boundary of the garden or on each side of a walk. A heavily shaded place or ground full of the roots of trees or shrubs, is not suitable as the roots take up the food and moisture from the soil. Still another position to be avoided is one where the water lies in spring. Good drainage is necessary for most plants.

Any good garden soil will grow perennials, but, as the border will be a permanent thing, thorough preparation of the soil is advisable. This is done by trenching in the following manner. Mark off a strip across the bed, about one and one-half feet wide, dig out the soil about the same depth and remove this soil to

the far end of the bed. Break up the soil at the bottom of the trench and then put in a thick layer of well rotted manure. Mark off the next strip of ground and fill up the trench with the soil. Continue this process until the end of the bed is reached when the soil that was removed from the first trench is used to fill up the last one. If manure is not available then leaf mould or some other form of humus should be used. The surface should be left rough so that the frost can penetrate as deeply as possible into the soil. If the trenching is done in fall and the bed left over winter it should be in good condition for planting in spring. If no manure was used a complete chemical fertilizer should be scattered over the soil before it is dug over.

If the place where the bed has to go is covered with grass, the sods should be taken off and placed in the bottom of the trench grass side down. These will decay and supply the humus that is needed. If the natural soil is very heavy clay sand or coal ashes will help to lighten it and make it easier to work. As soon as the ground is dry enough in spring it should be dug over and raked level ready for planting, which can be started in April or May according to the district. If it is desired to plant the border in fall then it should be prepared in August or a month before planting time. The size of the bed will depend on the size of the garden. Six to eight feet is a suitable width for a small border of mixed plants.

As a general rule the tallest growing plants are planted at the back of the border, the medium tall in the centre and the dwarf in front. To prevent a stiff appearance some of the tall plants are planted towards the centre and medium sized ones near the front. Care must be taken so that late blooming plants are not hidden by earlier blooming tall ones. The date of bloom and height of plants varies according to climate and growing conditions but approximate dates and heights as well as the colours of the flowers are given in catalogues.

---

No. 328 -- Sun. Aug. 24, 1941 -- V... Victory Week in School ...-V

V for Victory.

Readers of the Fact a Day will have observed that for two years or more a great deal of stress has been laid upon items of information that would help to strengthen the hands of Canada in the march towards Victory. There have been all sorts of advice about raising food -- gardens, poultry, eggs, etc. Much of this advice has been obtained from the very useful articles which come to us from the Publicity Branch of the Department of Agriculture. These tell us how almost everyone, young and old, can do something towards increasing our stocks of food.

It is all part of the vast and criss-cross system of education that has been developed in Canada, and the Education Branch of the Dominion Bureau of Statistics, has been very active in playing a part in furthering the general effort to spread knowledge.

It is not usual for the Bureau of Statistics to give the names of individuals who prepare matter for public consumption, but in this special case it is worth noting that a very enterprising young lady of the Education Branch, Miss Sadie Feeley, has written a series of seven Vees for Victory. These follow, one each day for seven days V - I - C - T - O - R - Y.

It might be mentioned at this time, in order to illustrate what many people in the Public Service do, apart from their official duties, to promote knowledge



and understanding, that two or three years ago Miss Feeley visited the Scandinavian countries and made a particular study of dairying in that progressive country of Denmark. What we could learn from Denmark to assist the dairying folk in Canada was her main purpose. As a daughter of the farm she was no novice. Her reports, both by word of mouth and by the written word, have obtained considerable circulation.

This work was her personal contribution to the farming community and the country folk from whom she gained her heritage and ideals of christian citizenship.

---

No. 329 -- Mon. Aug. 25, 1941 -- V...- Victory Week in School ...-V

V is for Victory! Vigour! Vim!

Have you had those tonsils out? Did you visit the dentist during the summer holidays? Or must the school nurse check those same bad teeth and cavities as she counts the freckles on your nose? Must she meet again those "quisling" tonsils as you open your mouth and say ahhhh?

School nurses, doctors and dentists examined more than 528,000 children in the academic year 1939-40 and found that about 80 per cent of them had defective teeth.

The records of 18 cities with regular school medical inspection show that of 200,000 children examined, 72,000 had physical defects other than teeth. Defective tonsils or defects of the nose were found in 37,000; 17,000 were underweight and two thousand boys and girls could not join in strenuous physical training exercises or athletics because of heart conditions. Other defects range through a goodly line-up of the medical dictionary of diseases including tuberculosis.

At the beginning of the school year the medical doctors of urban schools, assisted by some three hundred nurses, will examine all children who are entering school for the first time; those who are under regular observation and supervision; and as many of the other grades as the programme permits.

Less than ten per cent of the gross enrolment in country schools will receive medical inspection. The statutes of two provinces -- New Brunswick and British Columbia -- provide for compulsory inspection at least once a year but for other provinces these services are available for rural school children, for those municipalities where several sections amalgamate into a unit, or where, socialized medicine is practised.

The children of northern districts may travel miles to have their tonsils out, or a tooth pulled, in a railroad car fitted as a clinic or the ambulance car and trailer may visit their section on its yearly visit to the unorganized districts.

Details of these services are given in the Bulletin on Health Education and Medical Services in Canadian Schools issued by the Education Branch of the Dominion Bureau of Statistics.

---

No. 330 -- Tues. Aug. 26, 1941 -- V...- Victory Week in School ...-V

I is for intelligence and it is smart to be intelligent.

The intelligent folk of the province of New Brunswick have succeeded in securing compulsory school attendance for the whole province at the last session of

the Provincial Legislature. Previously there had been a system of local option.

This is right and good. We need education. The boys in the army know! It is the boy who went to "tech" or to high school that is selected for the special jobs. And as for the boy with a "yen" to get up among the clouds, he just has to be educated.

Special schools and courses have been established for all defence forces where young men may continue their education or take refresher courses. Early this year more than 20,000 such boys had enrolled in the correspondence courses of the Canadian Legion Education Services and the number studying in the training schools is immeasurably satisfactory. Canadian boys are smart -- they look ahead.

The school doors are opening to some two million boys and girls on September 2. Not all of them will be in their places on the opening day for many are on national service, harvesting the fruit and vegetables from which the canning companies will make tin bundles for Britain. Especially the tomatoes. Old timers know that a tin of tomato juice has saved many a man's life on the desert and we shall send tons of it to the Near East along with our Canadian tanks. Doctors tell us that fruit and vegetables are good for the nerves, we have even read that carrots help you to see in the dark. So the boys and girls who worked on the farms this year know they helped the people of Britain and the men on active services.

What is your I.Q? -- intelligence quotient if you shouldn't know. Have you played games and answered quizzes for the psychologist in your school? It isn't silly, it is scientific. It may be the means of keeping a boy or girl who should become an aeroplane designer from studying to be a lawyer, or one who could be a great musician or artist from becoming an iron monger or a salesgirl. To follow the advice of the psychologist is just another method of being intelligent; to select the right type of vocational training is smart.

---

No. 331 --- Wed. Aug. 27, 1941 -- V...- Victory Week in School ...-V

C -- that is for Citizenship

We might have said civics but that is such a tight, smug little word. It keeps our eyes focused on our town, our province, our "city fathers" or our government.

But citizenship -- that is a grand word -- big, comprehensive, up and doing. It makes up want to take part in what is going on. We have a feeling of belonging to our country and through it to the world.

We study "civics" in school. We have mock parliaments; we learn to conduct elections but we seldom learn the real meaning of citizenship -- that is the duties and relationships of the individual within his group, the relationship of the group to the whole country and Canada to the world. It is the way we cooperate with the small group or the larger group, that marks us as a good citizen or a careless citizen.

When the man "with the iron legs" had to jump from his plane in France, every spitfire in his squadron circled around him and protected him from the guns of the enemy all the way down. One spitfire or two could not have protected him



but all together they could. Each pilot in each place co-operated with the others in his group to do a job that mattered to all of them. That is the true meaning of citizenship.

The war has brought a challenge to each citizen of democratic countries. We realize that we could lose our freedom and our privileges. That our "rights" would not be considered under other forms of government. It is also teaching us to act in groups for a common purpose.

Now is the time to educate for citizenship; to convince democratic citizens that the same type of united service on the part of all social classes, as that used in our war effort, can be applied to our problems of reconstruction -- to translate the little word civics into citizenship.

The challenge has been accepted, study groups are forming all over Canada and the United States within the organizations of citizens who devote their time to the education, welfare and leadership of the public.

The Canadian Council of Education for Citizenship was established in November 1940. Its specific objective is to provide programmes which will stimulate in the minds of all Canadians a greater appreciation of the meaning and implications of democratic citizenship, of the problems of reconstruction and to act as an integrating medium for the problems and projects submitted by affiliated and associated bodies.

Its charter membership is representative of provincial educational authorities, universities, Canadian teachers and organizations whose programmes include educational propaganda.

In war; victory: for victory; citizenship.

---

No. 332 -- Thurs. Aug. 28, 1941 -- V...- Victory Week in School ...-V

T -- Teachers, of course!

Schoolmarm and Domini: "prof" and "doc"; Reverend Sister and Reverend Brother; all returned to their duties this week. Some in tricky hats, some in British tweeds, many in their religious habit, but all with the knowledge that their work has increased and their responsibilities become heavier as the war progresses.

National Service, for the duration wears the insignia of honour. It is graced by the elite, supported by the humblest, and honoured by the King. But national service every day, in peace or war, depression or victory, as carried out by some seventy-five thousand teachers under provincial control, receives no medals for heroism, no ribbons of seniority and small measure of the world's gratitude.

When the leaders of the totalitarian states undertook to destroy democracy, they first muzzled the teachers; conversely when the democratic countries accept that challenge of "democratic decadence" we turn to our teachers for help.

They are well qualified. In spite of their low salaries, they have increased their academic standing by taking summer courses in lieu of holidays and buying expensive reference books for extra-mural study during the winter.

The bulletin on teachers' salaries and qualifications recently released by the Education Branch of the Dominion Bureau of Statistics reveals that Canada's basic profession -- "teaching" like Canada's basic industry "farming" -- is sorely in need of some vitamin B (complex) -- a supplemented diet of "lucre" and a rejuvenating treatment of "hope".

The median salaries of all teachers (exclusive of Quebec Province) is under \$625 for four provinces -- the Maritime Provinces and Saskatchewan. British Columbia and Ontario with favourable urban salaries have the highest rating but many rural teachers receive inadequate salaries.

The remaining two provinces, Alberta and Manitoba, are slightly above \$850 and \$700 respectively.

"An apple for the teacher"; be it Adam or Eve; depends upon more than the fruit of the tree or the serpent of "taxes": it requires co-operative citizenship within the perennial garden of national service.

---

No. 333 -- Fri. Aug. 29, 1941 -- V...- Victory Week in School ...-V

O -- Oh, Organizations!

There are so many we can't consider them all.

Previous to the twentieth century there were only two of nation-wide scope for Canadian educationists. Since the last war there has grown up more than a dozen. We learned the potential strength and influence of organization in the last war; we hope that this war may teach us how to direct that organized strength toward a common goal through co-operative effort.

The two "originals" have now become the National Conference of Canadian Universities and the Canada and Newfoundland Education Association.

The latter association has just concluded a conference in Ottawa in which problems related to collaboration by provincial educational authorities on the national task of "Victory in War" and the stimulation of citizen-morale were included. One of the most encouraging topics of discussion from the point of "Victory for Citizenship in Reconstruction" was that of "guidance". The Association also gave its benediction to the projects in education research undertaken and proposed by the new Canadian Council of Education Research -- the latest offspring of the Canada and Newfoundland Education Association and the Canadian Teachers' Federation, the "accouchement" of which is being assisted financially by the Carnegie Corporation of New York.

That will be plenty about adult associations this time. But what of the under-twenties and the co-eds?

Within, without, around and about, school-age children and young Canadian adults there is a complexity of organizations, clubs and extra-curricular activities that rivals the intricacies of the nervous system -- and plays "high jinks" with it on many occasions. All with high aims and worthy objective; all offering opportunity for constructive citizenship.

From the Cubs and Brownies to the University Students' symposia they teach high ideals and democratic attitudes. From tooth-brushes and clean-living habits



to the "Supreme Sacrifice" they practise what they preach.

The Boy Scouts and the Junior Red Cross Societies are, at this time of individual and national testing, making sacrifices, preventing waste and helping at every task to which nimble fingers and active restless bodies may be directed.

Shall we let the children put us to shame in Citizenship!

---

No. 334 -- Sat. Aug. 30, 1941 -- V...- Victory Week in School ...-V

R --- Reveille!

"It's time to get up; it's time to get up!  
Come to the cook-house door, boys!  
Fall in! Shoulder arms! March!  
Boots, Boots, Boots,  
Stand at ease!  
Come to the cook-house door, boys!  
Day is done, all is well,  
Safely rest."

The rookie's time-table with time out for fun and cigarettes. Pill-box, Scottish tam and forage caps askew they study, and play for thirty days, for four months, for the duration, nearly 400,000 of them.

School boys of last year and their teachers -- on equal footing now with blisters and aching muscles -- are united with men of every occupation and social class to protect our way of life, our freedom from tyranny -- and we are proud of them!

The Royal Canadian Navy 20,000 strong with more to come have proven that Canadian boys are worthy of the best traditions of the sea. Canadian ships with the "red duster" flying have helped to convey troops, feed Britain, carry supplies and clean the seas of Hitler's vermin and vultures.

Scores of thousands of Canadian boys are now overseas lending their assistance to the men and women of Britain in their magnificent resistance to an enemy of almost over-whelming strength.

And what of the air-force? Sixty thousand men in blue. They have proven that the "jitterbugs" of the air are much more than a match for any three of Germany's best.

They have learned these Canadian boys that the British Commonwealth of Nations is not just a name, that the "Great Charter" of Rynnymede and the "Charter of the Atlantic" are one; one in freedom or liberty; that people of other democratic countries have the same kindly hospitality for strangers, the same reverence for religious beliefs. Into every part of Britain they have poked their inquisitive noses. They have come to love the green grass, the ancient trees and tiny lakes of England; the wind-swept hills, the eerie glens of Scotland and the blue, blue water of Loch Lomond. With Scottish folk they are at home for the true Scot loves fun and mischief. The "wisecrack" of the Canadian is a joy to the Aberdonian with his jokes against the Scot; while his reverent love for his kirk, and the shrine to Scottish courage -- Canadians, too -- touch a chord of homesickness and memory in

the heart of every Canadian.

---

No. 335 -- Sun. Aug. 31, 1941 -- V...- Victory Week in School ...-V

Y -- Youth Training

Victory in war; victory in reconstruction; victory in citizenship; all dependent in a large measure on the training of our youth.

The Dominion-Provincial Youth Training scheme established in 1937 to train unemployed youth of needy circumstances in skills and trades met with such success that the scheme has been broadened and adapted to meet the need of skilled workers for war industry and the armed forces. Certain revisions regarding age were made under the War Measures Act and now youths from 16 to 60 may receive training for the war industries at the expense of the Dominion Government. (Youths over 30 must have had previous experience). The report of the Dominion Supervisor of Training issued under authority of the Minister of Labour states that for the fiscal year 1940-41 more than 10,000 trainees were placed in employment in war industries and several hundred enlisted in the armed forces where their training will be continued. The new objective is 50,000 per year.

In addition to the courses in home science and handicraft, undertaken by some 17,000 women in 1940-41 under the original youth-training programme, the war emergency programme has included training in specific occupations, such as power sewing machine operation for women.

But of all the projects for youth training none has aroused the blazing enthusiasm of adolescent youth like the recently authorized air cadets: recruits for the Air Cadet League -- from 15 to 18 years years of age -- are calling for sponsors, waiting for adult leadership and instructors; for the schools or the men's organizations to coordinate their courses of study with those needed for air-defence and to concentrate their shining eyes and impatient energy on the stars. Teachers, look into this "force" and direct it scientifically!

Youth training does not begin or end with Government training, well-equipped schools and competent teachers and instructors. The co-operation of the parents and the home are vital factors. That the modern parent is "wise" to this situation is proven by the increased interest taken by them in Home and School Clubs, in Adult Education, Vocational Guidance, and the efforts of the parents to retain their contacts with youth for parenthood is the most responsible citizenship of all.

The "Royal Road" to Victory -- Youth Training.





STATISTICS CANADA LIBRARY  
BIBLIOTHEQUE STATISTIQUE CANADA



1010690909

2