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A FACT A DAY ASOUT CANADA

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James Muir,

Editor.

No. 184 - Non-Metallics in Alberta

Of all the provinces of Canada, Alberta is the largest producer of non-metallic minerals.

Non-metallic minerals consist of oil, natural gas, bituminous sands, coal, salt and so on. Last year development of these minerals reached the highest peak ever attained in the history of the Province. More than ten million barrels of oil were produced, not including the 10,000 barrels obtained from bituminous sands. This was an increase of over 234,000 barrels over the previous year. The fields outside the famed Turner Valley chalked up about 139,000 barrels which is approximately a one hundred per cent increase over the last year's output. The Vermillion and Taber fields head the list and look promising for 1943.

Last year Canada was in second place in Empire oil production, with 20.5 per cent of the whole. Of that amount Alberta produced 97.49 per cent. The British Empire in turn produced about $2\frac{1}{2}$ per cent of the world's total. The Northwest Territories made a notable advancement last year with oil production rising from 24,000 barrels in 1941 to more than 82,000 in 1942.

Salt is another non-metallic mineral found in Alberta, mainly around Waterways. Production last year reached record heights with 22,180 tons. Plants were running almost at capacity so it is doubtful if this year's output will show any noticeable increase. The potential reserves at Waterways, however, are estimated to be in the neighborhood of 30 million tons, or half a million tons to the acre. Analysis tests run from 98 to 99 per cent purity, the deposit having a depth of some 200 feet and starting at about 700 feet from the surface.

A disastrous fire at a bituminous sands plant at McMurray delayed development to a serious extent, but it is expented that with Dominion Government assistance work will be resumed and production bolstered.

The new Alaskan highway is expected to have a great effect upon the production of Alberta's natural resources. With its completion comes the question of maintenance. Alberta's products will doubtless play a great part.

No. 185 - Sugar Beets

The maximum amount of beet sugar that Canada can produce — that is the objective set by the Sugar Administration for 1943. Based on beet sugar factory espacity the provincial distribution of the proposed 90,000 acres this year would place 35,000 acres in Ontario, 30,000 in Alberta, 15,000 in Manitoba and 10,000 in Quebec.

Last year less than half the amount of seed required was produced, so to plant the 90,000 acres proposed will necessitate the importation of seed from the United States. It has been estimated that the sugar beet production of 1942 which amounted to 700,000 tons, will produce about 200 million pounds of refined sugar. However, this is only about a fifth of our normal consumption. During 1941 and 1942 the acreage declined considerably, the probable determining factor in the trend being the general awareness on the part of producers of the imminent labour shortage. The tardiness in announcing prices for the 1942 crop may also have had a bearing on the situation. Reserve stocks of cane sugar have been greatly reduced, which makes it more and more urgent that the supplies be supplemented by beet sugar to the largest extent possible.

In 1940 a new refinery was opened at Winnipeg and in that year the acreage was increased to 82,270 acres, which compared with the annual average of 51,300 acres seeded during the previous five years. The output of refined beetroot sugar in 1941 amounted to 201,677,900 pounds with a value at the refinery of \$10,807,000. Altogether there are 5 sugar beet refineries in Canada: 2 in Ontario, 2 in Alberta and one in Manitoba. One plant in Ontario recently closed down.

No. 186 -- Ladies in Retirement

A boy's best friend may be his mother but there's something intangibly real and touching about the affection the master and crew develop for their ship. To them she's alive, the personification of a trusted and faithful servant.

In this war we hear a lot about corvettes, battle ships and submarines engaging in fierce and bloody combat with the enemy, but these ships were built specifically for war and high water. And, assuming that a ship has a soul, from the beginning they knew what they would be up against. Our ocean fleets had been dwindling under the deadly U-boat campaign and something had to be done to get the tools of war to our troops overseas. The Admiralty turned its anxious eyes inland to the lakes. Peaceful old freighters were nabbed and pressed into service for their country. Time-worn and grimy, these ancient hulls submitted to riveting, and hammering and had their aged faces lifted. Though they had never carried a cargo more deadly than grain from the sprawling prairies, never tasted salt water, and would probably have shuddered from stem to stern at the report of a gun aboard, they answered the call with an obedient "Aye Aye, Sir!" and chugged out to sea.

Today along the Atlantic seaboard and North Atlantic trade routes more than a hundred Great Lakes and St. Lawrence River vessels are pushing their impudent barge-like noses through U-boat infested waters. Some have gone down but none without a struggle. They've dodged dive-bombers and surface raiders and beaten their way to port through heavy gales that have threatened to submerge the old veterans. One rusty hulled freighter that had plied up and down the lakes all her life now lies in a martyr's grave off the coast of German-occupied France, a silent tribute to the brave men who manned her, and a symbol of the great work being done by these fresh water grain traders.

She hailed originally from Toronto and was chosen by the Admiralty to play the part of the lamb on the sacrificial altar. For months U-boats had been raiding in-bound channel convoys from bases at a certain French harbor. Some ship had to be sacrificed to close the port and rid our precious cargos of the lurking menace. The old Great Lakes "granny" was selected. It was a memorable mission. When last seen afloat she was crewless and maimed but chugging doggedly on to keep her appointment. Defying a fierce blaze of enemy shells, she crept up alone to within a few feet of the planned spot. A sudden burst of flames lit up the French coast and the gallant little lake freighter went down with her cargo of cement and dynamite. So for months she has blocked that harbor entrance daring both submarines and surface craft to enter.

One of the greatest salvage undertakings of the war is the raising of sunken freighters from the bottom of the Great Lakes where they have lain for years after fighting losing battles with storms and squalls.

Figures on shipping come under the heading "Military secrets" and the real story of the part played by lake freighters and their crews will not be revealed

VIVIUS IA ABOUTE.

until after the war. But, it is known that they are plying the ocean with vital cargoes and helping to reinforce the "bridge of ships" to Britain.

No. 187 - Canadian Flax goes to War

In contrast with acreage trend during the First World War when expansion in the wheat area was desired and obtained, the policy in the present conflict has been designed to reduce the acreage seeded to wheat and increase the production of other crops needed more urgently in war-time programs. The results have been truly remarkable.

One of the crops to be increased is flax. Last year Canada's crop was the largest in thirty years, totalling about 15 million bushels. The acreage devoted to the growing of the plant actually increased 303 per cent over 1940. The Prairie Provinces have a virtual monopoly of flaxseed production and 1943 plans for this important product call for 20 million bushels, or a 67.6 per cent increase over 1942, the goal being set at 2,500,000 acres. Flax plantings in 1942 were, Manitoba 227,000 acres. Saskatchewan 1,056,000 and Alberta 183,000. The additional acreage planned for 1943 may not yield any more flax since last year's yields were twice normal. If the same output is attained this year, 92 million bushels will be required for Canadian needs, leaving 51 million for export to the United States. This figure corresponds to a recent review of United States import prospects but it is thought that she will probably take twice as much if Canada can supply it. In our own war program linseed oil plays a trememdous role. Every ship, every tank, every piece of ammunition, large or small, must have a suitable protective coating of which linseed oil is the base. Processes have been developed whereby this oil may replace castor oil in the manufacturing of lubricants and brake fluid. It may be used in the textile industry, in the manufacturing of insulating composition, and it is the base of many important plastics.

Flax seed grown for oil and that grown for the fibre should not be confused. Canada grew 47,000 acres of fibre flax in 1942, while prior to 1939 production and processing of this plant was almost negligible. The bulk of the increase was assigned to Ontario and Quebec which two provinces together have about 97 per cent of the acreage of fibre flax of the Dominion. The Fats and Oils Administrator has estimated that 9.5 million bushels will be required in Canada during 1943, with 5 million to be utilized as crushers, 12 million going for seed and miscellaneous and about 3 million for stockpile.

No. 188 -- When School is Out

Maybe your boy is one of those city lads, eager, enthusiastic, impatiently waiting for the last day of school this term so that he can don overalls, and a straw hat and take a man's place on a farm for the summer. Let's take a look at the kind of home he will be pleased to call his own for the next few months.

Most farm homes in Canada are single dwellings, so he will be living in a house, not an apartment block. If he is living on the Prairies his new home will probably be constructed of wood but if he is working in the East chances of it being a stone or brick structure are greater, some of the country houses there dating back to the early days of the Dominion. However, over 90 per cent of farms across the nine provinces have frame buildings. The size of the house will also vary, depending upon the section in which he is living. In the Maritimes the

average farm home has 7 rooms, while out in the Western provinces 4 and 5 are the rule. Families follow a similar pattern, with Quebec and New Brunswick averaging 5 and 6 persons and British Columbia only 3.

The standard of living among farmers generally has risen steadily during the years. Many of the homes are heated by hot air furnaces, in Quebec and Ontario many use gas and electricity as their principal cooking fuel, although on the whole wood and coal are used to the greatest extent, both east and west. Electric lighting, powered from either central or private plants is installed in more than a third of Ontario and British Columbia farm houses, but in less than 10 per cent in Prince Edward Island and the Prairie Provinces. Johnny will miss the refrigerator because almost four-fifths of farm homes are without means of refrigeration. However, though away from the city it does not mean he need say goodbye to his favorite radio programes. Radios are high on the list of farm home conveniences reported by the last census, Alberta having the greatest proportion. After a day in the fields in the fresh air and sunshine, however, we doubt very much if Johnny will care much whether or not he listens to the radio after supper and the chores are over. He'll probably be nursing sore muscles and "hitting the hay" early in the evening, looking forward to another big day with plenty to learn about farming.

No. 189 -- Milk

So far old Bessie's war effort has been magnificent. In addition to supplying milk for Canada's large domestic market, she has stepped up production to meet the increasing demands of the men in service both home and abroad and also the British civilian populace. Last year there were 17,847 million pounds of milk produced in Canada. In 1943 the estimated production required to meet the requirements amounts to 18,500 million pounds, or approximately 5.7 per cent increase. The total requirements include milk in all its forms for civilians in Canada, the Army, Navy and Air Force, ships' stores, Red Cross, export commitments to the United Kingdom and probable exports to other Empire countries.

A fibre is now being made from milk casein. It is warm, soft, resilient and will drape well. It can be added to rayon and cotton to improve their adaptability. Most of the important uses of the new fibre made from milk are being employed in women's dress fabrics, shirtings, sweaters, and men's hosiery.

The greatest proportion of the increase in total milk is being asked for in the form of butter. The amount produced last year was about 283,000,000 pounds. The goal for 1943 is being set at 322,980,000 pounds. The greatest percentage of expansion is expected to take place in the Prairie Provinces. Last year Ontario produced the largest quantity with 80,970,000 pounds; Quebec came next with 72,200,000, then Saskatchewan, Alberta and Manitoba in order.

Of all the forms in which milk goes to market, that in the form of powder is expected to show the greatest change in volume. In fact the 1943 objective of 16 million pounds calls for a 41 per cent increase. This sharp rise is necessitated particularly by a sudden increase in the requirements for Red Cross and Service Club shipments to the United Kingdom. In the case of condensed milk, the loss of certain important markets in the Far East has resulted in a decrease in the total demand and a reduction of about 27 per cent from the 1942 output has been called for in 1943. The production of evaporated milk in Canada has been expanding rapidly over the past few years and with an expected increase in demand this year, a production goal calling for an increase of 5 p.c. has been set, which amounts to 190 million pounds.

No. 190 - East Coast Sentinel

Standing guard at the St. Lewrence Gulf is an island well known to all Canadians, and west. It is Newfoundland, the tenth largest island in the world.

Since its discovery by Cabot back in 1497 fishing has meant life for New-foundlanders. The Grand Banks have gained widespread recognition as the largest codfish area in the world. Cod fillets frozen in Newfoundland are now being exported to Canada, England and the United States. Last year production amounted to around 10,000,000 pounds, valued at well over a million dollars.

Salmon fishing is also carried on to a considerable extent. The war cut off the English market, which was a severe blow to the industry, but small quantities are still frozen and exported fresh to Canada and United States. In normal times several thousand cases of salmon are exported annually to Canada, but right now the number is comparatively small.

The cold storage business is particularly active in Newfoundland. Besides fish large amounts of blueberries generally make their way out of the country in the frozen state. The business has come to be regarded as a valuable industry. And with the progress of aviation it is hoped that fresh fruit from Newfoundland will be found on both Canadian and United States markets. However, for the duration of the war it would appear that the production of blueberries is going to be below normal, largely due to the lack of pickers. Last year only about 55,000 boxes were picked, which had an export value of some \$200,000. Systematic burning of the grounds is being carried out in the hope of improving both the quality and quantity of berries.

Refrigeration industries in Newfoundland have, like many others, been adversely affected by the war. Expansion has been slow because of the difficulty in obtaining necessary equipment. Increasingly large portions of the cold storage space available is being used for the storage of meats and other foodstuffs for the armed forces.

No. 191 --- A Product and its By-Products

The cutbreak of war immediately dislocated the Canadian coal and coke industry. For years Canada has been importing about half her coal requirements. Considerable quantities were coming from Great Britain, Belgium, Germany and the Netherlands as well as Indo-China, Russia and Morocco. War cut off all these sources except Great Britain which has continued to make shipments, although in reduced ratio. Due to this curtailment of imports from overseas and to the allocation of a large proportion of available coke supplies to war industries, active steps had to be taken to stimulate and facilitate larger imports of domestic fuels from the United States and to increase shipments of suitable western coals to the Ontario market.

In addition to its use as a solid fuel, coal is the source of such diverse products as tires, parachutes, sulfa drugs and explosives. The war has stepped up research work and chemists the world over are endeavoring to determine all its wartime uses. It was about eighty-seven years ago that coal was first used as a source of dyes. This use was discovered by a young British chemist named William Perkin. His findings were developed by German industry prior to the first World War, and when that war interrupted the supply of dye on the world markets American and English enterprises took up the industry.

Many of the materials now derived from coal are synthetics which are being

used as substitutes for materials cut off by the war which has become global in extent. The by-products of the basic process which leaves coke as a residue, include coal gas, ammonia, benzol and oluol which are all valuable elements in the manufacture of finished products essential to the continuance of the war effort. Such products as lucite from which airplane turrets are built; toluol, an ingredient of TNT, and sulfa drugs which have saved so many lives in this war, solvents, food preservatives, insecticides, fertilizers, paints, soaps and a variety of plastics, can all be traced back to coal.

Next to lucite, the most promising member of the coal-derived plastic family is polyvinil butyral. It was formerly used as the centre layer in shatterproof glass, but is now being employed in waterproofing raincoats, water bags and other war equipment. In this way tons of vital rubber are replaced. Nylon which used to go places in the form of stockings, dress goods, and brushes of all kinds, now appears in the form of parachutes, tire cords, paint brushes and rope of high tensile strength. Atabrine is another coal product, which is doing a good job of pinch-hitting for the Japanese held quinine stocks. A peacetime cleaning fluid known chemically as trichlorethylene, but appearing on the market under various brand names, is a non-inflammable fluid now used as a solvent for cleaning the metal parts of ordnance. Anti-freeze solutions, ammonium sulfamate and flotation agents used to extract minerals from low-grade ores are other coal products with war-time industrial uses.

Coal, which is one of the earth's most plentiful minerals, and once only used as a solid fuel, is now believed to have even yet vast, untapped potentialities. In 1942 around 19 million tons were mined in Canada, an increase of nearly 500,000 tons over the previous year. Production from the mines of Nova Scotia, New Brunswick and Saskatchewan was less, but output increased in Alberta and British Columbia. Towards the close of the year the fuel situation became more acute, labour shortages were being reflected in a lower monthly output when compared with the previous year, and arrangements were being made for the return of some coal miners from the armed forces to the coal mines on a temporary basis only.

No. 192 - Schools and the War

Canada's man-power problem has been felt even in the schools. Enlistments and voluntary transfers to other pursuits that were more remunerative, or that seemed more directly concerned with the war effort, have left the schools under-staffed. Secondary schools reported an abnormal exodus of students before the end of the spring term and in general opened several weeks later than usual in the autumn to allow students to assist with the harvest. A greatly increased number of short intensive technical courses has been added to train or retrain personnel for the Armed Forces and industry.

To meet the teacher shortage the provinces have temporarily relaxed their requirements for diplomas, offered accelerated or short courses leading to interim certificates, and encouraged ex-teachers, especially married women, to return to their former work. School boards have in many cases offered higher salaries and the average is up noticeably in most provinces. In spite of these measures, however, some rural schools were unable to open in September last year, or were obliged to engage teachers without professional training. The children in such cases will generally be assisted by the provincial correspondence schools.

The indiscriminate exodus of older pupils from the schools during the school year 1941-42 has given cause for official concern. Many of them accepted relatively unskilled work, whereas continuance in school for a limited period might have equipped them to make a more skilled contribution to the war effort and to insure their own future. It seems not unlikely that plans to control this movement may be introduced in the current year. Temporary employment at the beginning of the term, mainly on farms, has been provided for by varying regulations in the different provinces.

This year more and more calls are going out for school age boys to spend their summers on farms to help relieve the acute labour shortage. This plan has a three-fold advantage as far as the young worker is concerned. First of all the training he receives is worthwhile and may be put to important use later on. His summer is spent out-of-doors, away from the over-crowded city and he gets healthful body building food and exercise. The wages he earns may be smaller than those received in a munitions factory, but the working conditions for growing boys are not to be compared and he could not be employed in a more vital war industry than agriculture.

No. 193 -- Canadian Herring to Britain

Approximately 53 million pounds of canned fresh herring put up during British Columbia's 1942-43 herring season are going overseas to help meet the food needs of the United Kingdom, and if that isn't as much herring as was shipped to Britain from the Pacific coast's 1941-42 output it is a good deal of fish just the same. Expressed in terms of the standard containers used in shipping British Columbia canned fish, the shipments of herring to the British people will total about 1,-105,000 cases. In value they will be equivalent to some \$5,135,000, and even in these days that's a lot of money.

Canada's output of canned fresh herring comes mainly from British Columbia but there is also production in Atlantic provinces, principally New Brunswick, and Atlantic fish as well as the Pacific product is being supplied to Britain under arrangements made between the Ottawa and London authorities. Supervision of all the arrangements, east and west alike is handled by the Dominion Department of Fisheries.

The 53 million pounds of Pacific fish going to the British people came from the production of the British Columbia season which began last September and came to a close early in March. The 1941-42 season extended over, roughly, the corresponding autumn-winter period of a year ago.

Shipments to Eritain from '42-'43 production will not be as large as those made from the previous season's output for the very good reason that the total pack decreased. The '41-'42 production turned out to be even larger than had been thought possible and several different factors stood in the way of so large a pack being put up from the past season's operations. Even at that, of course, 53 million pounds make up a quantity many times the size of the annual pre-war pack on the Pacific coast and, for that matter, many times the average size of annual pre-war pack on both coasts of the Dominion combined.

All of the canned fresh herring processed in British Columbia in the 1941-42 season, or "canned round herring", to use the name commonly applied by the fishing industry to herring prepared in this market form, went to the United Kingdom. This year, however, it is going to be possible to release some of the past season's

output for domestic sale. Just how large a stock will be available for the Canadian market is not yet quite certain but, in any event, it will all be in one-pound "tall" tins, as distinguished from the oval cans in which most of the herring for Great Britain has been packed. Some of the fish will be in tomato sauce and some has been packed "plain", or without sauce.

Of course, all of the herring, whether destined for the United Kingdom or for use within Canada, has been inspected by the Pacific Canned Fish Inspection Laboratory operated by the Dominion Department of Fisheries. It is an interesting fact, and important, and to the credit of the British Columbia herring industry, that out of the total 1942-43 production only 50 thousand cases or so were found by the scientific staff of the laboratory to be of Grade B or second quality and there were only a trifling number which failed to measure up even to Grade B standard and were therefore rejected as unmarketable. All of the others, say 1,200,000 cases though that figure is not exact, were certified by the laboratory as of approved quality.

No. 194 -- Bumper Potato Crop

A production goal of 70 million bushels of potatoes has been set for 1943. Taken on the basis of a five-year average, (1936-40) yield of 125 but to the acre, 560,000 acres is required to meet this objective.

Ideal seed potatoes may be defined as potatoes that are of good type and pure to variety, produced from healthy, vigorous, heavy yielding plants grown under favourable climatic conditions, harvested somewhat immature, reasonably uniform in size and shape, firm and sound, and with the first sprouts beginning to develop at planting time. Seed of this character is now obtainable in quantity from growers who have specialized in the production of certified seed.

In every province provision has been made for the inspection and certification of potatoes which will qualify to the rigid requirements of good seed. The service is provided free of charge to seed growers to encourage seed production sufficient for prospective demands. It is intended as an aid to table potato growers, to counter diseases which are carried over in the seed principally, and to stimulate production of good yields of high quality table potatoes at reasonable cost.

The importance of using good seed cannot be over emphasized. The practice of using what is left over from a crop after disposing of the best of it is decidedly not a good practice. Maximum yields of high quality potatoes are never obtained from inferior seed, nature does not work that way.

Certified seed necessarily commands a reasonable premium over table potatoes but is worth it. The extra cost is small for the quantity needed for plenting, compared with the increased yields and better quality which may be expected from the use of good seed and the crop insurance it affords.

When changing seed change to something better. Plant only certified seed identified as such by the official tag. No other potatoes should be accepted as seed. All seed and feed stores can obtain supplies of certified seed. Lists of carlot growers and dealers are supplied on request by the Dominion Department of Agriculture, Ottawa.

This year largest production increases are called for in areas of commercial production in proximity to large consuming centres and processing plants. In 1942

Ontario and Quebec were the largest producing provinces with New Brunswick, Saskatchewan and Prince Edward Island in order.

No. 195 - Magdalen Fisheries

Under an arrangement recently made between Ottawa and the provincial government of Quebec the administration of the fisheries of the Magdalen Islands, in federal hands for some twenty years past, has been transferred to the province. The effect of the transfer is to bring all Quebec fisheries under provincial administration since officials of the province have already been the administering authorities everywhere cutside the Magdalens.

The present change was sought by the provincial government and effect was given to it, on the federal side, by an order in council which was passed several weeks ago. The terms of the order have since been accepted by the province. The arrangement under which the Dominion handled the fisheries in the Magdalens has been in effect since 1922.

While Cuebec fisheries inspectors carrying on administration under the Fisheries Act, the Fish Inspection Act and those parts of the Meat and Canned Foods Act relating to fisheries will be provincial employees, their salaries paid by the province, they will be required to possess the qualifications deemed necessary in this regard by the Dominion Department of Fisheries. Such provincial officers as have been determined by the Dominion department to be so qualified will be appointed by the governor in council, on recommendation of the Dominion Minister of Fisheries, as officers under the acts. The particular reason for this condition, of course, is that it is necessary that the same standards be maintained in the inspection of fish products, no matter who the administering authorities may be, and therefore all inspectors, even though some work under one jurisdiction and others under another, must possess the same qualifications.

In the Magdalens the most important fisheries are those for cod, lobster and herring. In 1941—the final figures for 1942 are not complete—the total marketed value of the islands' fish production was \$707,129. The number of men carrying on fisheries from the islands during the year was 2,848.

No. 196 -- Annual Hay Crops

In the event of perennial grass and legume mixtures having failed to "catch" or due to failure as a result of severe winter conditions or other causes, and a shortage of hay is threatened, it is necessary to resort to annual forages.

Best results with annuals for hay are obtained by seeding the crop at a fairly heavy rate per acre. Oats alone seeded at three bushels per acre are the most commonly used. Better quality of hay may be obtained by seeding oats at 2 bushels and Sudan grass at 20 pounds per acre.

Sudan grass alone at 25 to 30 pounds per acre seeded about the same time as corn or soybeans makes very good hey if cut when in bloom.

The heaviest yields of hay, however, may be obtained by seeding Empire millet at 20 to 30 pounds per acre. This crop may be seeded later than oats or Sudan

grass and will make good hay if cut just as it is heading out.

There are other crops that may be used for hay. Among them is the soybean which is one of the few annual legumes suitable for production of hay. Under suitable conditions good yields of high quality hay comparable in feeding value to alfalfa are produced.

Some of the species mentioned above may be used when seeding the field down to hay and pasture mixtures, but the rate of seeding the nurse crop should be somewhat reduced.

Oats seeded alone at 2 bushels or $1\frac{1}{2}$ bushels of oats and 15 pounds of Sudan grass per acre will make good hay if cut when the oats are in the milk stage. Sudan grass alone at 20 pounds may be used as the nurse crop. It should be remembered, however, that Sudan grass should not be seeded any earlier than corn and that it will not thrive on cold, poorly drained or heavy soil. Millet alone should not be used as a nurse crop when seeding hay or pasture mixtures.

No. 197 - Cheese Bites

With the invasion of France, Belgium, Holland, Denmark and Norway in the spring of 1940 the food situation in Britain changed considerably. Supplies higherto available, particularly from Denmark, were cut off, but accumulated stocks of certain foods were large and these had to be worked off before additional supplies were required from overseas. Subsequently arrangements were made to ship larger quantities of certain products from Canada. One of these was cheese.

Exports of cheese during the ten—year period 1929-38 represented over 67 per cent of the total production. In 1940 the export quota was placed at 78,000,000 pounds, while last year it was 125,000,000 pounds. Actual shipments, however, have greatly exceeded these quotas.

Canadians are not heavy consumers of cheese, but it is interesting to observe that the per capita consumption moved up from a little over three pounds in 1940 to more than four in 1941, and a still further increase is expected during 1943. However, stocks on hand at the beginning of the year are abnormally high and although the amount needed for export and other military requirements will be slightly higher, no increase in cheese production is considered necessary in 1943.

Lately considerable study has been given to a substitute for the veneer used in making cheese boxes. Since large quantities of this are being used in making certain types of airplanes, the possibility of a shortage has arisen. The most satisfactory substitute discovered so far seems to be a kind of pressed board or heavy paper that is used by trunk manufacturers. Around 200 boxes of cheese in this kind of container have been shipped to Britain on trial and proved so succesful that an additional 10,000 boxes were requested.

The 1943 objectives call for the maintenance of cheese production at the 1942 level in all provinces except New Brunswick where provision has been made for a reduction of 15 per cent. Last year about 202,000,000 pounds were produced in the whole of Canada, more than 60 per cent coming from Ontaric.

No. 198 - Live Stock Feed

The feed situation always has a definite effect on the production of live stock and live-stock products. Experience has shown that when feed ratios stay above the average, live-stock production increases, while, if they fall below average for any protracted period, production decreases.

The hog-barley ratio is probably the best known of the ratio barometers. It simply indicates the number of bushels of barley equal in value to 100 pounds of live becon hog, as at Winnipeg. Over a number of years, this ratio has averaged 17.4 or in other words 100 pounds of hogs is worth a little over 17 bushels of barley. The experience of past years has indicated that, if this ratio falls much below 20.0, hog production is liable to decrease within a year or so. In February, 1943, the hogbarley ratio stood at 21.5, compared with 21.4 in January, and an average of 20.9 in 1942.

During the present war to date, the highest point reached by the hog-barley ratio was 32.2 in August, 1940, and lowest point 17.6 in March, 1941. In March, 1943, hog prices reached the highest levels in over a decade but grain prices have also advanced, and as a result the ratio is not as highly favourable as would be suspected. However, the Government feed grain freight assistance policy as well as certain other Dominion and Provincial subsidies and bonuses, all of which do not show up in hog and barley price quotations, tend to make feeding of live stock a little more prefitable than indicated by the ratio. Similar ratios can be worked out in the case of eggs, dairy products, and beef.

At present all these feeding ratios are favourable to the producer who is protected against unfavourable changes in the feed ratios by the ceiling prices for grains and commercial feeds. Live-stock prices are likely to be strongly maintained because the demand for meat, dairy products, and eggs in all probability will remain strong for some time. To provide further for the continuance of a favourable feed situation, the 1943 production program calls for increased plantings of coarse grains, with the payment of certain benefits to the farmers of Western Canada for diverting acreage from wheat to feed crops.

In this way, with comparatively good returns now going to producers of meat animals, dairy products, poultry and eggs, farmers who market the feed they produce through live stock will not only be turning their resources into most profitable channels, but will be making a valuable contribution to the food supply of the United Nations.

No. 199 -- Canada's Wool Needs

To take care of the needs of the armed forces and the civilian population Canada required about 125 million pounds of wool annually. We don't produce anything like that amount ourselves, for definitely Canada is not a sheep country as sheep countries go. In that respect we are not in the same class as Australia and New Zealand.

We use about 125 million pounds for clothing to keep us warm, but our production last year was only about 18 million pounds or 14 per cent of our requirements.

A campaign has been under way to increase the number and size of the flocks of sheep that we already have and it is now estimated that this year there will be a 30

per cent increase in the number. That, of course, will help a lot, but will not fill the bill and imports will still have to come along on a great scale.

The same applies to lamb and mutton. Last year the marketings of lambs totalled about 800,000 head and it is expected that this year there will be 900,000 head marketed. However, in view of the shortage of meats generally there will be a ready market in Canada for all the mutton and lamb that can be produced.

No. 200 - Where are you Stopping?

There are about 5,645 hotels in Canada but now, with so many people on the move, we'll wager a pound of sugar to a gallon of gasoline that at this very minute you couldn't rent a room in half of them. In fact some cities are so congested you're almost obliged to make reservations in advance for a preferred spot on a park bench or the station waiting room.

The idea of hotels, of course, is not new. Houses for the accommodation of travellers and pilgrims have been in existence for centuries. During the early days when roads were poor and stage transportation slow and uncertain many public houses sprang up along the main lines and at junctions and crossroads. Usually these inns bore such names as "The King's" or "The Queen's". Even today in most of the larger cities you can ferret out at least one Queen's hotel.

In the early days if a guest house had twenty rooms it was considered an elaborate establishment, and a dollar a day a "good round price". Rooms were comfortably but plainly furnished with good strong bedsteads, a wash stand with basin and pitcher, and perhaps a hand woven rag rug on the floor. Guests were summoned to dinner at an appointed hour by the viscous ringing of a gong, and you were expected to respond promptly. The bill of fare was simple but substantial and palatable. Meat dishes predominated and wild game appeared frequently, attracting no comment. No extra charge was made for wines. Decanters often stood on the table and a guest "bent his elbow" as often as he felt inclined to do so — no extra charge.

Compare these accommodations with the palatial hotels today, with private baths, radios, telephones, elevators, barber shops, and beauty salons, telegraph offices, public stenographers, messenger service, laundries, diffused lighting, and elaborate devices for the prevention of fire and scores of other conveniences for hundreds of casual guests as well as the permanent residents.

About two years ago a survey was made of hotels in Canada. In that year there were about 129,000 guest rooms, not counting the accommodation provided by cabins, etc. Total receipts for the year amounted to about \$148,000,000. More than 46,000 employees attended the needs of the traveller. Ontaric has the greater number of hotels, boasting 1,762; Quebec is next with 1,556. Over half the receipts represented the sale of alcholic beverages.

Regulations regarding the sale of alcoholic beverages are not uniform for all provinces. They are not sold at all in hotels in the Maritimes. Beer and wine by glass or open bottle is sold in premises in Quebec licensed as hotels or inns, and hard liquor is sold in hotel dining rooms. Ontaric regulations permit the sale of beer or wine with meals in hotel dining rooms and beer without meals in authorized beverage rooms. On the Prairies and in British Columbia you may buy beer at licensed hotels only.

Of the total number in Canada about 4,845 hotels operate full time and around are open only during certain months, usually May to September.

No. 201 - Protein Feed Supply

Although the position with respect to feed grains in Canada is still favourable, there is a serious shortage of high protein feeds and the demand for these exceeds the current or prospective supply. Increased live-stock numbers and the objectives set for the 1943 production of poultry, eggs, bacon, and dairy products are pressing on this supply and the Feeds Administrator has moved to remedy this shortage where methods are available. Fish meal produced on the Pacific Coast has been diverted from export markets and a recent order has limited the protein percentages in commercial mixed feeds to ensure an equitable distribution of the supplies available.

Another order calls for the coarser grinding of alfalfa meal and mineral feeds, and a subsidy of \$3 per ton will be paid to processors of alfalfa meal for meal ground and ready for use. This policy is designed to encourage the production of meal while maintaining the ceiling price, thus contributing to the protein supply.

Where prepared commercial feeds or concentrates are not available in sufficient quantities as chick starters, home mixed feeds should be used. There is an ample supply of suitable feed grains, and chicks can be successfully started on ground grains, supplemented by home produced protein feeds.

Hard boiled infertile eggs mixed with bread crumbs or ground grains have given a start to many fine broods of chicks. Sour milk curd treated in the same way makes an excellent feed and even where the supply of milk is too limited to permit making curd, the milk may be used to moisten the grains, and a supply kept at hand for chicks to drink. Animal or fish offal may be boiled and the soup and solids may be mixed with ground grains to carry the chicks over the starter period, after which they can get along on grains and good green range.

When it is necessary to follow these methods, care should be taken to feed only what the chicks can eat in a short time; any feed left after half an hour's feeding should be removed. With this method of feeding, chicks should be fed four to six times daily. Chicks should be allowed outside where they can get all the green feed and sunshine possible. Farly in the season, vitamin fish oil should be included in the ration.

The poultry industry of Canada during the next 12 months will be faced with the greatest demand for eggs and poultry it has ever known. At least 100,000,000 dozen eggs will be required for export alone to several countries. In addition, the requirements of the armed forces have doubled since the first year of war and the civilian domestic situation is demanding more and still more eggs.

No. 202 -- Canned Vegetables Increase

The pack of canned vegetables in 1942 was 16,547,776 cases compared with the six-year average (1936-41) of 9,084,529. One of the main factors for last year's large pack was the big quantity of peas canned—3,671,436 cases, apparently a record for all time in Canada. The corn pack also increased from 1,746,950 cases in 1941 to 1,810,991 in 1942. Owing to poor weather conditions and lack of help both to the grower and to the canner, there was a considerable drop in canned tomatoes and

tomato juice from 3,339,498 cases of cannod tomatoes in 1941 to 2,228,247 in 1942; and from 2,538,684 cases of tomato juice in 1941 to 2,014,172 in 1942.

The 1942 fruit pack, in view of the fact that canned apples and apple sauce were not packed due to container restrictions, was exceptionally good, the preliminary estimate placing it at 1,815,000 cases. It is slightly below the six-year average (1936-1941) of 1,901,268. In 1942 a total of 185,000 cases of fortified apple juice was packed for the armed forces.

Shortage of fruit pulps, particularly strawberry and raspberry, resulted in a lower production of pure jam in 1942.

Due to the restriction on tin plate the pack of ready-to-serve soups was prohibited. This resulted in a drop of about 1,000,000 cases in 1942, the product packed being condensed soup. Only small quantities of beets, carrots, and baked beans were canned in 1942, and these were destined for army, navy and air force cantenns.

No. 203 - Giddap Dobbin!

This is a mechanical age — or it was before gasoline and rubber shortages combined to start our anxious glances wandering in the direction of Old Dobbin. There he was, calmly munching away in the fields, content to let the horseless carriages stream by in a roar of needless haste. He figured, and so did the metarists, that his hey day was past and he was planning to graze away his old age in passe. But they both figured without the war and its confoundings.

Again has been rooted out of retirement, given a new pair of shoes, a slap on the back and once again is "being seen in the best places." Again he is drawing bread wagons, milk wagons, and drays and carting goods to and from warehouses and freight trains. In the biggest and busiest cities he clop clops about his business, unperturbed by surrounding motor vehicles and all their din. With equal unconcern his driver preserves a calm and unruffled mien in the midst of the most confusing traffic jams. And that's more than can be said for a good many motorists who honk impatiently at the slightest delay in their rush to get no place in particular for no particular reason.

Tronically enough, we measure mechanical power in terms of horses, and we've been smiling with a superior attitude at the old grey mare out in the pasture. But it has turned out that the laugh is on us. Right now our cars are at home, ignominiously perched up on blocks while we clutch the reins with the frantic fluster of inexperience and bark orders into the knowingly patient ear of Old Dobbin. To him this is all old stuff.

The horse population on farms in Canada last year was estimated to be about 2.816,000 and up to November there had been around 4,400 exported. Fuel and rubber shortages have increased the use of horses in agriculture and urban transportation, and will probably continue to do so to the extent that vehicles and harness are available. Post wer requirements for horses in Canada or for foreign markets are difficult to estimate, but it is desirable that our present horse population should be maintained so we'll be in a position to supply any demand which may develop in the next few years.

No. 204 -- Where's the Pied Piper?

When a man bites a dog, it's news.

When a cat sleeps with a canary - that's news.

But when that same cat turns up its nose at a delicate morsel of mouse on the hoof it's high time the situation was looked into.

And that IS the situation in many parts of the Prairie Provinces this spring. Unusually bad weather last Fall made it impossible in certain sections for threshing operations to be completed before winter actually blew in to stay. So a lot of grain has been standing in the stock through blizzard and chinock, making life for the field mice one big happy holiday. They've held house parties, entertained guests for the weekend, put on banquets and feasts — without one thought for ration cards or coupon books. All the grand daddy mice agreed as they sat around and munched, that they hadn't seen such an easy winter in years. No since the late 1920's in fact. Their traditional enemies the cats, have had fresh mouse so often during the winter that their taste for them has disappeared. Now they never flicker a whisker when one saunters nonchalantly down the street. And saunter down the street they do! In one small Alberta town over 150 mice were caught on a single Saturday night — in shopping for the weekend, no doubt.

Though they eat many insects and worms they really relish juicy corn stalks and crunchy kernels of wheat. Damage to the grain in the West has been extensive. Rabbits too are doing their share of eating into the farmers' pocketbooks. However, spring harvesting operations are now well on the way to completion and farmers have been pleasantly surprised at the way their crops have threshed out. Wheat has been grading very satisfactorily, considering it spent the entire winter in the field.

What particular one of the world's 300 species of mice is most active on the Prairies is not clear, but they have proved themselves more harmful than beneficial and have worn out their welcome. Mice, originally inhabitants of Asia, are now cosmopolitan. There is a species that utters a peculiar haunting sort of music, in a series of tiny squeaks. Who knows, maybe the mice out West are the musical type? Where's the Pied Piper?

No. 205 - Flax Rust

The cool moist weather characterizing the growing season over much of southern Manitoba and Saskatchewan in 1942 was very favorable for the development of the flax rust disease.

The disease causes reduction in yield by premature defoliation of the flax plants. Observations made during the past year at the Dominion Experimental Farm, Brandon, indicate that where infection was severe many blossoms failed to set seed and that bolls already formed often dropped prematurely.

The most striking symptom of the disease is the bright orange spots that develop at or around flowering time on the steams and leaves of the flax plants. Later in the season these spots turn black because of the formation of brownish colored spores which represent the winter stage in the life cycle of the fungus. It is noteworthy that flax rust differs from stem rust of wheat in that it is capable of overwintering on the stubble and debris of the hest plant to cause new infections the following spring. For this reason the Dominion Plant Pathology

Division recommends that in the case of a susceptible variety the flax field be located at some distance from where the crop was grown the previous year. Other precautions recommended include the plowing under or destruction of all flax stubble and debris, and the thorough cleaning of flax intended for seed in order to remove bits of infected steams.

Rust resistant varieties offer the best means of combatting the disease. All of the available seed of the resistant Royal Variety will be sown this year thus assuring ample supplies for the 1944 seeding requirements. Many new hybrid rust resistant selections have been included in tests across Canada. A number of these are relatively early maturing, stiff strawed types showing excellent oil quality in preliminary tests.

What are the prospects for rust this year? The answer is that it is definitely a threat but whether or not it assumes epidemic proportions depends upon the weather. The unfavorable autumn of 1942 gave farmers little opportunity to plow under infected stubble. This means that there is probably an abundance of inoculum to start infection. It is known, however, that the disease may readily be checked by a period of hot dry weather.

No. 206 -- Egg Cartons Help British Paper Shortage

There is an interesting sidelight on the packaging of Canadian dried egg powder for Britain. The war is the cause of a paper shortage in Britain, and the most urgent part of that shortage is the lack of new pulp to mix with waste paper in making reclaimed stock. At the request of the British Government, a pure kraft board is used for the 14-1b. cartons and for all master shipping containers made in Canada. This pure kraft, because of its long fibres, is the equivalent of virgin pulp. All cartons and shipping containers of Canadian dried egg powder bear special salvage instructions identifying the material as 100 per cent kraft. Not only does every shipment of Canadian dried eggs provide Britain with a vital food but the containers eliminate the necessity of using valuable cargo space for an equivalent weight of wood pulp.

Much thought and scientific research went into the evolution of the two packages now used for the export of the dried egg powder. Britain has two major wartime uses for dried eggs — for use in the homes and public eating places, and for the bakery trade. As the common unit in Britain for distributing eggs to householders was one dozen, it was decided after consultation with the British Food Ministry that a five-ounce package, the equivalent of one dozen eggs, was the most suitable unit for household rationing. This sells to British housewives at about 33 cents, and only Grade A powder, Canada's top product goes into it.

A larger container was obviously required for distribution to the restaurant and bakery trades. A unit to serve the purpose of the standard 30-dozen-case of shell eggs appeared to be desirable and the Canadian suggestion that this should be one stone the familiar British weight, or 14 lb. was accepted by Britain. This is equivalent to about 45 dozen eggs. All shipments are analysed at a central laboratory of the Dominion Department of Agriculture, before leaving the plant and are graded according to the standards devised by the Canadian authorities.

No. 207 - Value of Agricultural Production

The gross value of agricultural production in Canada in 1942 reached the highest point since the inflationary year of 1919. Estimated at \$2,078,934,000, the 1942 total is almost \$650 million of 45 per cent above the 1941 estimate. An increase of more than \$460 million in the value of field crops in 1942 was mainly responsible for the increase which took place in the gross value between the two years.

Record yields of all grain crops, particularly in the Prairie Provinces, as well as moderate increases in prices, were responsible for the great expansion in the value of field crops. The gross value of production of all of the other main farm products, except fibre flax and clover and grass seed, showed substantial gains in 1942 as compared with 1941. These gains were particularly marked in the case of farm animals, milk production, and the value of poultry products.

Gross value of agricultural production by commodities was as follows, figures for 1941 being in brackets: field crops, \$1,145,778,000 (\$683,889,000); farm animals, \$409,192,000 (\$339,305,000); wool, \$3,283,000 (\$2,571,000); milk products, \$272,-421,000 (\$206,543,000); fruits and vegetables, \$74,340,000 (\$69,494,000); poultry products, \$131,273,000 (\$89,009,000); fur farming, \$6,697,000 (\$5,539,000); maple products, \$6,716,000 (\$3,561,000); tobacco, \$19,873,000 (\$18,614,000); fibre flax, \$2,155,000 (\$3,118,000); clover and grass seed, \$3,721,000 (\$5,165,000); honey and wax, \$3,505,000 (\$3,315,000).

No. 208 -- Religions in the Prairie Provinces

What a variety of religious affiliations we have in Canada! The Prairie Provinces are typical.

The population of the three Prairie Provinces combined in 1941 totalled 2,421,-905 as compared with 2,353,529 in 1931, an increase during the ten-year period of 68,476. Manitoba's population increased to 729,744 in 1941 from 700,139 in 1931, Alberta's to 796,169 from 731,605, while that of Saskatchewan declined to 895,992 from 921,785. The following were the religious denominations with the 1931 census figures in brackets:

Manitoba, Saskatchewan and Alberta combined: United Church, 618,160 (596,455);
Roman Catholic, 490,502 (443,641); Anglican, 356,029 (368,201); Lutheran, 237,560 (242,979); Presbyterian, 166,839 (195,743); Greek Catholic, 147,834 (148,439); Greek Orthodox, 93,467 (73,327); Mennonite, 83,944 (69,979); Baptist, 64,995 (66,592);
Jewish, 26,843 (27,903); Pentecostal, 21,765 (12,066); Adventist, 9,266 (8,491);
Brethren and United Brethren, 2,698 (3,178); Confucian and Euddhist, 4,462 (4,206);
Christian, 3,687 (3,708); Church of Christ Disciples, 5,341 (3,988); Christian Science, 4,450 (4,911); Evangelical Association, 9,548 (4,474); International Bible Students, 4,004 (6,720); Mormon, 16,689 (15,020); Protestant, 2,266 (5,144); Salvation Army, 5,955 (6,305); Other Sects, 34,423 (32,062); No Religion, 7,443 (7,321); Not Stated, 3,715 (2,604).

Manitoba: United Church, 194,001 (176,240); Roman Catholic, 137,525 (123,022); Anglican, 125,076 (128,385); Greek Catholic, 65,734 (66,671); Lutheran, 48,213 (46,892); Presbyterian, 43,073 (55,720); Mennonite, 39,336 (30,352); Greek Orthodox, 20,777 (15,774); Jewish, 18,715 (19,193); Baptist, 13,267 (13,483); Adventist, 1,059 (897); Brethren and United Brethren, 638 (698); Confucian and Buddhist, 777 (793); Christian, 661 (367); Church of Christ Disciples, 1,326 (1,136); Christian Science,

1,623 (1,797); Evangelical Association, 1,253 (307); International Bible Students, 966 (2,316); Mormon, 364 (228); Pentecostal, 5,020 (3,441); Protestant, 708 (1,479); Salvation Army, 1,886 (2,266); Other Sects, 5,319 (5,525); No Religion, 1,335 (2,629); Not Stated, 1,092 (528).

Saskatchewan: United Church, 230,495 (243,399); Roman Cathelic, 200,912 (189,712); Anglican, 117,674 (126,837); Lutheran, 104,717 (113,676); Presbyterian, 54,856 (67,954); Greek Cathelic, 42,822 (44,267); Greek Orthodox, 37,699 (31,126); Mennonite, 32,511 (31,338); Baptist, 19,460 (22,613); Adventist, 3,510 (3,381); Brethren and United Brethren, 1,014 (1,164); Confucian and Buddhist, 1,513 (1,319); Christian, 1,654 (1,098); Church of Christ Disciples, 1,912 (1,601); Christian Science, 1,114 (1,039); Evangelical Association, 4,130 (2,034); International Bible Students, 2,028 (3,152); Jewish, 4,079 (5,047); Mormon, 1,365 (1,607); Pentecestal, 8,294 (4,970); Protestant, 641 (1,734); Salvation Army, 1,966 (2,015); Other Sects, 17,422 (17,145); No Religion, 3,022 (2,504); Not Stated, 1,165 (1,053).

Alberta: United Church, 193,664 (176,816); Roman Catholic, 152,065 (130,907); Anglican, 113,279 (112,979); Lutheran, 84,630 (82,411); Presbyterian, 68,910 (72,069); Greek Catholic, 39,278 (37,501); Greek Orthodox, 34,991 (26,427); Baptist, 32,268 (30,496); Mormon, 14,960 (13,185); Mennonite, 12,097 (8,289); Adventist, 4,697 (4,213); Brethren and United Brethren, 1,046 (1,316); Confucian and Buddhist, 2,172 (2,094); Christian, 1,372 (2,315); Church of Christ Disciples, 2,103 (1,251); Christian Science, 1,713 (2,075); Evangelical Association, 4,165 (2,133); International Bible Students, 1,010 (1,252); Jewish, 4,052 (3,663); Pentecostal, 8,451 (3,655); Protestant, 917 (1,931); Salvation Army, 2,103 (2,024); Other Sects, 11,682 (9,392); No Religion, 3,086 (2,188); Not Stated, 1,458 (1,023).

No. 209 -- Drop in Herring Catch

British Columbia herring made up more than half of the recent landings from Canada's sea fisheries, but, even at that, not nearly as many Pacific herring were taken as in the same period of 1942, and that is the explanation of a big decrease in the Dominion total of sea fish and shell-fish landed early this year. Aggregate Dominion landings in February for example, a little more than 360,000 hundredweights, were smaller by 689,500 hundredweights than a year ago and of this reduction more than 677,000 hundredweights came in Pacific herring landings.

There was decrease, too, in the value of the total catch to the fishermen, as landed, but, thanks to greater firmness in prices, not in the same ratio as on the production side. The fishermen received in landed value about \$709,500, or approximately \$238,000 less than a year ago.

In British Columbia men were at work in more than a dozen fisheries during February, but only in the herring fishery were operating on a big scale. (Both east and west, of course, February is always more or less of an off month in the fisheries.) When herring landings on the Pacific coast dropped from more than 886,000 hundredweights, the quantity taken in February, 1942, to slightly less than 209 hundredweights, a big decrease in aggregate British Columbia catch for February, 1943, was inevitable. As a matter of fact, the aggregate was less than 260,000 hundredweights, a reduction of about 705,000. In the case of landed value there was a decrease of nearly \$437,500 in the provincial total, which brought the figure for the month down to \$239,200.

So far as the drop in herring catch is concerned its explanation is simply that the fishermen of the northern area of the province were less successful than

a year ago in locating the runs, with unfavourable weather a serious adverse factor. For all man knows the fish may have been present in as great abundance as in 1942, but the fishermen did not happen to find them in such quantity.

No. 210 -- Buckwheat in Wartime

As a farm crop in Eastern Canada, buckwheat is entitled to a place of considerable importance among the coarse grains. Generally speaking, it is prized for its ability to yield at least fair returns when sown on relatively infertile soils as well as on fields which cannot be prepared in time to be sown to cats or barley with hope of obtaining satisfactory returns. The ability to sow buckwheat late — even up to the middle of July — also enables the farmer to spread his labour. Buckwheat is extremely resistant to attacks of soil insects. Consequently, it provides a later seeded crop of value which can be used in replanting after crops like wheat, barley, oats or corn have been so thinned or damaged by insects that a profitable yield is impossible.

Two types of buckwheat are grown, the smooth-hulled type and the type characterized by a rough hull. The two most common varieties belonging to the smooth-hulled type are known as Silverhull and Japanese. In the rough-hulled group Rye and Rough are most popular. Both types are used for food for livestock but only the smooth-hulled varieties are used for the manufacture of buckwheat flour.

The varieties of the rough-hulled type mature slightly earlier than those of the smooth-hulled type but also incline to shatter more. They are considered to be more able to withstand periods of high temperatures and drying winds which when they occur at blossom time, cause buckwheat flowers to become "blasted" and produce no grain. However, they have never become generally popular.

As a food for livestock, buckwheat is regarded as almost interchangeable with barley. Where barley cannot be grown successfully, buckwheat makes an excellent substitute.

The practice of adding other grains to buckwheat is followed in some districts, chiefly for the purpose of reducing the difficulty often experienced in harvesting a copy of buckwheat when sown alone. Experiments indicate that a mixture of barley and buckwheat is most likely and wheat and buckwheat the least likely to give a profitable return per acre. Combination of six pecks of barley with two to four pecks of buckwheat seeded in the latter part of May are recommended. Though little will be gained from the standpoint of yield the mixture will have the advantage over buckwheat grown alone in producing a surer crop which will be easier handled and more nutritious.

No. 211 - Looking for Metals

In the light of the war prospecting has assumed a new and vital importance. A big drive is going to get underway this year with strategic minerals, base metals and petroleum receiving chief attention in the geological and topographical field work of the Mines and Geology Branch, Department of Mines and Rescurces, Ottawa. Principal aim of the work is to obtain information that will be of aid in increasing the production of these important war minerals. The completion of the Alaska highway has opened up virgin territory. The vastness of completely unknown areas which contain apparently everything from oil to gold hold promises for a rich future in

Canadian mining.

Thirty-one geological and nine topographical parties are being assigned to field work in the Dominion by the Government. The former will map and investigate areas in every mining province in the Dominion and in Yukon and the Northwest Territories. One geological party will operate in Yukon, one along a portion of the Alaska Highway in Yukon and British Columbia, nine in British Columbia, six in Alberta, one in Saskatchewan, three in Manitoba, two in Ontario, one in Ontario and Quebec, three in Quebec, one in New Brunswick, two in Nova Scotia, and one in the Northwest Territories. Seven of the topographical parties will operate in Alberta, one in Manitoba, and one in Nova Scotia.

With most of the young men who would ordinarily make up part of the prospecting crews, now in the armed forces or war industries, any man who knows the country is in demand by the private companies. There's practically no age limit. As a result it's the old timers who are leading the rush into the northern mining areas.

Antimony, tungsten, chrome, manganese, molybdenum, mercury, mica and quartz are some of the minerals discovered so far in surprising quantities.

No. 212 - Food for Britain

Canada's vast contribution during 1942 to the larder of the United Kingdom was described in the House of Commons recently. Exports of agricultural and vegetable food products were valued at \$101,775,618; tobacco and its products, \$3,203,198; and animal and fish products, \$158,646,000.

High in the list were 90,086,714 bushels of wheat valued at \$77,518,820 and 4,666,781 barrels of wheat flour worth \$20,742,992. Oat meal and rolled oats exports of 272,141 hundredweight were worth \$1,086,486.

(The price paid by the British Cereal Import Committee for Canadian wheat has not been revealed by the Dominion. On the basis of the above figures, which may not cover British purchases for future delivery, the price is slightly more than 86 cents a bushel.)

Exports of bacon and hams totalled 5,249,519 hundredweight with a value of \$99,723,878, and 738,518 hundredweight of canned salmon was worth \$13,860,849. Cheese shipments were 1,313,740 hundredweight worth \$24,558,965.

Dried eggs shipments were 7,661,817 pounds, worth \$7,733,195; and 4,374,640 dozen eggs in the shell were worth \$1,367,900. Canned meats shipments were 5,681,-112 pounds worth \$1,491,462.

Moccasins, in the form of Indian slippers, were shipped to a total of 66,755 pair worth \$105,829, and 53,823 pair of boots, shoes and slippers of other manufacture were worth \$159,526.

Exports of leather gloves and mitts were worth \$459,636.

No. 213 -- Canada's Merchant Marine

Canada has in sight a Government-owned merchant fleet of some 200 cargo ships

if the present shipbuilding program is carried out.

The present policy is to continue building slower ships which are more economical for war transport service, but plans are being studied to convert some of the present shipbuilding capacity to faster ships after the war.

While some 70 to 75 Canadian-built ships have been sold to the United States to obtain United States dollars, the exchange situation now has been eased and it is hoped it will not be necessary to sell more. Canada retained the ownership of ships placed at the disposal of the United Kingdom under mutual aid.

The Government is retaining all the ships which can be manned but there is a shortage of crews which cannot be fully met by the merchant training schools.

With sales to the United States stopped the remainder of the ships will be retained either to be manned by Canadian crews and operated for Canada or chartered to the United Kingdom. Ships so chartered will be reclaimed after the war when it is hoped they can be manned with officers and sailors from the Canadian Navy.

It is expected, therefore, that the Government Merchant Marine will be a substantial source of employment in the post-war years and will be of real benefit to Canadian post-war commerce.

On ship construction the Government's policy is to build all ships possible. When construction was started the urgent need was for small naval vessels, corvettes, and the program was directed to that end. It took time to assemble a personnel for shipbuilding and when production was under way in 1941 and the need for cargo ships became pressing a start was made on that type of construction.

By the end of 1941 four or five cargo ships had been built. In addition to ships sold to the United States and transferred to the United Kingdom, Canada has 16 or 17 new ships in the mercantile marine.

No. 214 -- Exports to Latin America

Effective June 1, 1943, Canada will participate with the United States in a plan which is designed to transfer to the Latin American countries concerned the responsibility for selecting and recommending the priority of shipment of those imports from the United States and Canada which are essential to their own economy. In announcing Canada's participation in this plan, Honourable James A. MacKinnen, Minister of Trade and Commerce, stated that agreement was reached as to the details in discussions which took place in Ottawa recently between officials of the United States Department of State and Board of Economic Warfare and the Canadian Departments of External Affairs and Trade and Commerce.

Limitations of shipping tonnage and shortages of many commodities essential to the war effort have made it necessary, for some time past, to regulate exports from both the United States and Canada. In the case of exports to Latin American countries, the export controls imposed by government agencies in Ottawa and Washington have been operated in close collaboration. The present plan is to carry this a stage further, largely in the interests of the importing countries. While it is essential that final decisions as to what commodities may be exported must rest with the exporting countries, it is recognized that importing countries should

designate the commodities and the quantities of each which they wish to receive.

The United States Board of Economic Warfare has made an exhaustive study of the needs of Latin American countries and has devised a decentralized control plan, the object of which is to regulate the issuance of export permits according to available shipping tonnage for forward periods and thus enable each country to obtain those imports to which it attaches most importance.

It has now been decided that Canada should actively participate in this plan through its control agencies in Ottawa and representatives in Latin American countries who will co-operate closely with corresponding United States agencies as well as with the import control agencies established by Latin American Governments.





