

Canadian Official Record.

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EXTRACT FROM ORDER IN COUNCIL No. 2206.

"The Committee of the Privy Council further observes that as this war is being waged by the whole people of Canada, it is desirable that the whole people should be kept as fully informed as possible as to the acts of the Government which are concerned with the conduct of the war, as well as with the solution of our domestic problems; and for this purpose an Official Record should be instituted to be issued weekly for the purpose of conveying information as to all Government measures in connection with the war and as to the national war activities generally."

PATENTS GRANTED IN CANADA DURING YEAR

The report of the Minister of Agriculture for the past fiscal year contains the following list of patents, issued to Canadian inventors during the year:—

The total number of patents granted to Canadian inventors was 973, and were distributed among the provinces of the Dominion as follows:—

Ontario	398
Quebec	220
British Columbia	83
Manitoba	91
Alberta	61
Saskatchewan	84
New Brunswick	14
Nova Scotia	18
Prince Edward Island	3
Yukon	1

Patents issued to residents of Canada, with the ratio of population to each patent granted:—

Provinces.	Patents.	One to every.
British Columbia	83	4,728
Manitoba	91	5,006
Saskatchewan	84	5,862
Alberta	61	6,142
Ontario	398	6,339
Yukon	1	8,512
Quebec	220	9,105
New Brunswick	14	25,134
Nova Scotia	18	27,352
Prince Edward Island	3	31,242

35,000,000 FEET OF SPRUCE CUT SHIPPED

Total Production for last year in B.C. over Billion and Half Feet

There were 35,000,000 feet of aeroplane spruce shipped during the year 1918 from British Columbia, according to a report to the Department of Immigration and Colonization, Winnipeg.

The 1918 value of the lumber output for British Columbia was \$54,162,523; almost double that of 1915 and 12 per cent greater than that of 1917. The total production for the year was 1,545,422,000 feet. The lumber cut has increased over 50 per cent since 1915.

An increase of \$3 per 1,000 feet in the price of fir and hemlock has been announced, making a total advance of \$6 per 1,000 within the past month.

SUMMARY GIVES CROP CONDITIONS AS FAVOURABLE

*In some Places According to
Latest Report Growth is
Strong and four and five
Inches above the Ground*

GRAIN SHIPMENTS

[Continued from page 1.]

Grain shipped by boat and rail since September 1, 1918: C.P. tracks, 56,266,643 bushels; lake front, 81,892,643 bushels.

Grain shipped by boat since opening of navigation, April 15, 1919: C.P. tracks, 12,625,657 bushels; lake front, 23,587,535 bushels.

Cars of grain unloaded at Fort William since September 1, 1918, 50,102; 1917, 69,067; 1916, 72,480.

During the week 562 cars of flour were shipped from various mills in the Prairie Provinces; last year, 484 cars.

The average number of bushels of various kinds of grain per car shown by out-turns at elevators on C.P. tracks at Fort William during the week were:—

	1919.	1918.
Wheat	1,272	1,183
Oats	1,874	1,853
Barley	1,512	1,207
Flax	1,202	1,070
Rye	1,120	

CROP SITUATION.

Manitoba.—Wheat seeding practically completed, and odd ends will be picked up during the next few days. Oats 50 per cent sown and barley 30 per cent. Much of the earlier sown wheat is up two inches, with good, vigorous growth. In the High Bluff district some fields have wheat standing four to five inches high. Pastures, as a result of favourable moisture conditions, are coming along well. Farmers are still complaining of a shortage of farm help.

Saskatchewan.—Wheat seeding is complete, except in some isolated districts. Oats 60 per cent sown, barley 45 per cent. In northern Saskatchewan high drying winds have lapped up the moisture, and rain is required. Damage occasioned by soil blowing will necessitate re-seeding at the following points: Mortlach, on the Swift Current subdivision, where 10 per cent of the seed was blown out; on Wilkie subdivision at Dunfermline, where 20 per cent of the seed was blown out; and at Rhyl and Keppel, where 10 per cent was damaged. There is little change in the labour situation.

Alberta.—Wheat all seeded, oats 70 per cent completed and barley 50 per cent. Wheat is sprouted and making good progress, the earlier sown being up three and four inches.

Strength Overseas of C.A.M.C.

In 1918, according to the official figures given in the report of the Overseas Minister of Militia, there were 1,451 officers, 1,886 nursing sisters, and 12,243 other ranks in the Canadian Army Medical Corps in France and England.

REPORT IS MADE ON OIL AREAS OF THE DOMINION

According to Expert Opinion there are Indications of
Large Field Varying from Twelve Miles in Width
to Three Hundred in Length

The following report on "Oil Prospects in Canada," by D. B. Dowling, of the Geological Survey, Department of Mines, has just been issued:—

"A large part of the area of Canada is made up of rocks older than the oil formations, and of the remainder a large part is broken and folded. Possible oil fields have, possibly, been destroyed in the building of the Rocky mountains, and both coal and oil fields have been broken up and largely destroyed in the area to the east of the St. Lawrence valley.

"The interior fields between the two mountainous areas, the Cordilleras and the Appalachians, supply the major oil derived from the Cretaceous and Palaeozoic rocks. The newer oil rocks of the Tertiary occur on the Pacific coast.

"Small areas in the Maritime Provinces remain between the major broken and crushed zones, but these are fractured and suggest the possibility of great loss of liquid material from the beds. One of these areas that has been prospected with small success and practically abandoned is in Gaspé. It seems to prove that the beds have lost nearly all their store of petroleum. Where the beds are fine-grained and can retain petroleum by capillary attraction less loss would be expected, so that for these broken areas the oil shales give more promise than oil sands. In New Brunswick there are 17 square miles known to be underlain by oil shales in which quite thick beds contain enough oil to invite a commercial trial at distillation. In Nova Scotia seams of coal and oil shales overlie the coal seams, and for these there is a great hope as a basis for an industry in the production of oil.

"In the great central field a small portion of the southeastern basin extends into Ontario, and the narrow peninsula between the lakes has been the principal oil-producing area of Canada. Lately a closer study of the contour of the beds has been made, and indications of favourable structure shown. This has led to the testing of new areas, and several new fields are now producing. Oil has also been discovered in lower formations nearer the margin of the basin—that is, to the northeast. As this possible horizon would permit of exploration in the Manitoulin islands, the added prospecting ground is considerable.

CENTRAL BASIN.

"The central basin, lying west of the Manitoba lakes, is a deep depression and differs materially from those to the south in this respect, so that but a narrow rim for each oil formation in it can be expected. In the older beds no opportunity to test them, except where they outcrop high above sea level, is offered, and it is feared that the possible oil fields are deeply buried. In the rocks which fill the basin the strata are conformable, so that the different beds repeat the basin form and occurrences of oil follow the same rule, that is, around the edge of the basin and above the water that may be in the deeper parts.

"In the eastern part no oil has been found, but some oil shales occur in positions that may be commercially favourable provided the shales are rich enough. Those tested so far do not show as high an oil content as those of New Brunswick, but the amount of shale seems large.

"In the western part heavy oil appears in sands at the base of the Cretaceous. These sands underlie the Alberta portion of the basin, and, as may be expected, are deeply buried and probably invaded by water for the major portion of the province. The areas that show the sands to be within

reach of the drill and probably above the ground water include the outer foothills, a small upraise in the south and along the northeastern margin.

IN THE FOOTHILLS.

"The foothill area, as a whole, is badly fractured, and little oil has been found in the fault blocks. The edge of the central basin where the Lower Cretaceous can be reached by the drill yields gas containing the lighter petroleum vapours. At the small field south of Calgary the edge of the basin is turned downward to the foothill fault and seems to have been adapted as a natural retainer for the oil brought upward with the gas as vapour from the deeply buried oil rocks in the basin. The area of this oil field is restricted and the wells are deep, but the oil produced is of a high grade. There are at present five producing wells. One is flowing, three are being pumped, and one is intermittent, the oil being driven up by gas pressure as it accumulates. The last is nearly pure gasoline and the oil from the other wells averages about 60 per cent gasoline. The output is limited to the capacity of the stills that are installed, which is about 80 barrels per day.

"The northeastern margin of the basin shows 200 feet of oil-soaked sands on Athabasca river—a heavy oil with asphalt base. Tests show the sands to contain 20 per cent of heavy oil. Rail communication is very near the deposits at present.

"These sands have been reached at Peace river at a distance from the outcrop and the oil is there thinner and will flow slowly into the wells. The depths of the wells at Peace river are slightly over 1,100 feet. Care has to be taken there to exclude the ground water from the oil sands. The oil belt as tested appears to be about 1½ miles wide. Its extension in either direction has not yet been determined, but in some overlying sands small showings of oil have been found at Viking, 300 miles to the southeast. If the oil band can be traced that far a very large field is indicated.

THE NORTHERN BASIN.

"The northern basin, or the part from lake Athabasca to the Arctic ocean, depends for its oil prospects on beds of Middle Devonian age. These are found to underlie a strip of country from Great Slave lake to the Nahanni mountain to the west, and a narrow strip along the Lower Mackenzie. Oil shales and porous dolomites give forth oil springs on Great Slave lake, and prospecting with the drill is expected this summer. Oil shales are found on the Lower Mackenzie, and oil springs, supposed to be on the western edge of the basin, occur on Peel river.

"Tertiary beds in British Columbia are being examined at the mouth of Fraser river and in the valley of Flathead river, with but a small measure of success, the conditions of deposition being evidently not similar to those of the Tertiary beds of southern California."

Canadian Beet Seeds.

Testing out of approved varieties of sugar beets carried on at the several farms, stations and sub-stations of the Experimental Farm system during 1917 has shown that beets produced from Ontario-grown seed were fully equal in sugar content to beets grown from the best imported seed, according to the last report of the Dominion Experimental Farms, issued by the Department of Agriculture. Among the varieties experimented with were the following: Klein Wanzleben and Vilmorin's Improved (seed from Vilmorin, Andreux et Cie, Paris), Russian, and Ontario-grown seed.