NORTHERN GAME HERDS SUBJECT OF INQUIRY

New Commission Will Prove Practicability of Utilizing Multitudes of Caribou and Musk Oxen in Economic Plan.

VAST GAME RANCH

Under the provisions of Part I of the Inquiries Act, Chapter 114 of the Revised Statutes of Canada, a commission has been appointed recently to investigate the possibilities of the Canadian Northland as a permanent meat and wool producing area. The commission is made up of Dr. J. G. Rutherford, chairman, Ottawa; Messrs. J. S. Maclean, manager Harris Abattoir Company; J. B. Harkin, Commissioner of Dominion Parks; and Vilhjamur Stefansson, the Canadian explorer. The commission, which is authorized to employ, with the approval of the Governor in Council, such assistants as its members may determine, shall receive no compensation except expenses. The commission is expected to report, with the least possible delay, upon the feasibility of the propositions mentioned in the memorandum which follows, together with recommendations in regard to the best methods to follow to bring about efficient development in case it is found that conditions warrant action on the part of the Government, as stated in the July number of the *Agricultural Gazette*.

THE MEMORANDUM.

"Special attention has recently been directed to the potentialities of the Arctic and sub-Arctic regions of Canada as a grazing country. It is represented that in these regions there is an abundant growth of vegetation in the summer which forms nutritious food for grazing animals in winter as well as summer. It is estimated that there are at least a million square miles of such grazing grounds in northern Canada. The winter climate of these areas is too severe for ordinary domestic cattle, but musk-ox and reindeer can graze there in the open the year round. The dimensions of the reindeer industry in Lapland and in Siberia and the great development of the reindeer herds of Alaska suggest that corresponding development can reasonably be anticipated with respect to northern Canada. In this connection it is pointed out that herds of barren land caribou aggregating, it is estimated, twenty to thirty million animals frequent northern Canada, and that biologically these animals are practically identical with reindeer.

"Vilhjalmur Stefansson, the Arctic explorer, is convinced that the musk-ox can be readily domesticated, and has urged that steps be taken in that connection with the object of developing herds for commercial purposes.

"The development of large reindeer and musk-ox herds in northern Canada will represent a very important addition to the meat production of the Dominion. The development of musk-ox herds will represent not only an addition to the meat production, but also to the wool production. The value and attractiveness of reindeer flesh for food purposes is well established. In regard to musk-ox meat, Mr. Stefansson claims it is practically indistinguishable from beef.

"The Arctic and sub-Arctic regions of Canada lie too far north to be included in the lands suitable for the profitable cultivation of cereals, and therefore may be regarded as permanent grazing areas.

"In view of the foregoing, the Minister considers that there are good grounds for believing that the Canadian North may become a great permanent meat and wool producing area and that a commission should be appointed for the purpose of making a thorough investigation into the subject from a business and national standpoint and to report their finding."

GREATER PRODUCTION ON PRAIRIE INDIAN LANDS

Energies of Department of Indian Affairs Have Proved Great Success in Securing Increased Live Stock and Grain Production.

During the past two years the Department of Indian Affairs has been bending its energies to secure increased production of grain and live stock on the Indian reserves in Manitoba, Saskatchewan and Alberta. The work has fallen into three classes, under the direction of Mr. W. M. Graham, and is as follows: Greater production farms; the encouraging of greater production among the individual Indians on the reserves; and the leasing of unused land for farming and grazing purposes.

First, as to the greater production farms on the Indian reserves.

On February 16, 1918, Mr. Graham was by Order in Council made Commissioner of Lands for Manitoba, Saskatchewan and Alberta and was entrusted with the work of speeding up the production of grain and cattle. For this work an appropriation of $300,000 was made. Complete equipments of all kinds necessary for the work were provided and as a result, 20,448 acres of land were broken on the reserves and made ready for this year's crop. The average cost of breaking was $5.60 an acre. Of this area 18,000 acres have been sown to wheat and the other 2,000 acres to oats.

The following tables show the total acreage cultivated on the Government Greater Production Farms and the cost of operating.

Alberta.

Agency.	Acreage.	Operating Expenses.
Blackfoot	7,568	$45,018 06
Blood	4,880	25,538 71
Total		$70,556 77

Saskatchewan.

Qu'Appelle (Muscowpetung)	3,500	$22,831 86
Crooked Lake	3,500	13,056 27
Assiniboine	1,000	9,037 56
Total		$44,925 69

The results obtained from the effort to speed up production on the part of the Indians themselves have been very gratifying. These are set forth in the following recapitulation shown by provinces, the total increase in the acreage cropped, acreage broken and summer-fallowed by individual Indians:—

Alberta.

Acreage cropped by Indians: 1917, 14,792; 1918, 18,285.

Acreage broken: 1917, 1,525; 1918, 6,673.

Acreage summer-fallowed: 1917, 4,621; 1918, 3,608.

Increased crop acreage 1918 over 1917, 3,491.

Acreage increase, cultivation, 1918, 7,628.

Saskatchewan.

Acreage cropped by Indians: 1917, 19,191; 1918, 23,774.

Acreage broken: 1917, 2,732; 1918, 7,154.

Acreage summer-fallowed: 1917, 6,100; 1918, 5,584.

Increase crop acreage 1918 over 1917, 4,585.

Acreage increase, cultivation, 1918, 8,489.

Manitoba.

Acreage cropped by Indians: 1917, 6,302; 1918, 8,114.

Acreage broken: 1917, 436; 1918, 1,148.

Acreage summer-fallowed: 1917, 1,686; 1918, 2,316.

Increase crop acreage 1918 over 1917, 1,812.

Acreage increase, cultivation, 1918, 3,154.

Grand Total.

Acreage cropped by Indians: 1917, 40,285; 1918, 50,173.

Acreage broken: 1917, 4,693; 1918, 14,975.

Acreage summer-fallowed: 1917, 12,407; 1918, 11,508.

Increase crop acreage 1918 over 1917, 9,888.

Acreage increase, cultivation, 1918, 19,271.

The following statement shows the percentages of increase in the areas utilized on Indian reserves for cultivation and stock-raising as a result of the Greater Production campaign:—

Total acreage cropped by Indians: 1918, 50,173 acres; 1917, 40,285 acres.

Increase, 9,888 acres or 24½ per cent.

Total acreage cultivated by Indians: 1918, 76,656 acres; 1917, 57,385 acres.

Increase, 19,271 acres, or 33⅓ per cent.

Total acreage estimated to be cropped by Indians in: 1919, 66,483 acres; 1918, 50,173 acres.

Increase, 16,310 acres, or 32½ per cent.

Total acreage estimated to be cropped by Indians in: 1919, 66,483 acres; 1917, 40,285 acres.

Increase, 26,198 acres, or 65 per cent.

The third method by which greater production was secured was through obtaining the consent of the Indians to utilize unused land on the reserves and leasing it for grazing and farming purposes. The Indians are paid for these surrenders and the lands so surrendered are leased under specified conditions. The surrenders are only taken temporarily during the period of the greater production activities.

Cultivation by individual Indians, by Lessees and on Greater Production Farms:—

Total acreage estimated to be sown in 1919 is as follows:—

Acreage, fall and spring sowing, by Indians, 40,000 acres; broken by Indians, 1918, 14,975 acres; summer-fallowed by Indians, 1918, 11,508 acres; broken by leases, 1918, 10,416 acres; broken on Greater Production Farms, 20,712 acres; total 97,611 acres. Total acreage cropped by Indians, 1918, 50,173 acres.

Increase, 47,438 acres over 1918, or 94½ per cent.

Increase, 57,326 acres over 1917, or 142⅜ per cent.

Estimated acreage of open land in reserves Alberta, Manitoba and Saskatchewan, 1,933,138 acres.

Acreage utilized previous to 1918:—

For Indian cattle, estimated, 225,840 acres; for Indian horses, estimated, 115,000 acres; Indian crops, 1917, 40,285 acres; Indian breaking, 1917, 4,697 acres; Indian summer-fallow, 12,407 acres; total, 398,225 acres, or 20 per cent. Leaving 1,534,913 acres.

Acreage utilized 1918:—

For Indian cattle, estimated, 225,840 acres; for Indian horses, estimated, 115,000 acres; Indian crops, 1918, 50,173 acres; Indian breaking, 1918, 14,975 acres; Indian summer-fallow, 1918, 11,508 acres; leased for grazing, 226,980 acres; leased for farming, 17,493 acres; breaking on Greater Production Farms, 20,712 acres; total 682,581 acres or 35⅓ per cent. Leaving 1,250,457 acres.

Percentage of increase, land utilized in 1918 over 1917, 71⅜ per cent.

The following figures show what has been done in promoting the raising of live stock among the Indians:—

Cattle.

No. Steers sold.	Value Received.
Alberta, 243	$39,094 72
Saskatchewan, 590	71,673 42
No. Cows.	**Value Received.**
Alberta, 99	$ 9,897 30
Saskatchewan, 153	11,304 75
No. Animals Beefed.	**Value.**
Alberta, 350	$21,984 70
Saskatchewan, —	No record.

Greater Production.

File Hills—Number steers sold, 329; average price, $112.38; value received, $39,975.35; number of cows, 47; average price, $90.67; value received, $4,261.60.

Total animals sold from Agencies, 1,085, Value received $131,970.19.

Total animals beefed in Alberta where sales not held, 350. Value received, $21,984.70.

Total animals, 1,435; total value, $153,954.89.

Greater Production, animals 376; value received, $44,236.95.

Grand total: animals, 1,811; value, $198,191.84.

RULES FOR EFFICIENT FURNACE MANAGEMENT

Suggestions Drawn up by Fuel Testing Division

The Fuel and Fuel-Testing Division, Mines Branch, Department of Mines, has issued the following suggestions for the guidance of householders in the proper operation of house-heating apparatus:—

1. Do not overheat your house.
2. Prevent air entering through cracks by means of weather stripping or other device. Use storm doors and double windows and do not open them unnecessarily.
3. Use as few rooms as possible; seal up and cut off the heat from those not in use.
4. Cover up hot water radiators, or shut off hot air supply to bedrooms at night when the windows are open.
5. Keep the furnace working as evenly as possible; do not let the fire burn too low and then burn coal rapidly to warm the house again.
6. Regulate the air supply over the fire to suit the air supply through the fire, except just after charging fresh coal, when a larger supply must be provided to burn the coal gas.
7. Control the rate of combustion in the furnace by the turn damper in the flue pipe as much as possible. Care must be taken, however, in using this damper to see that it does not unduly cut off the draft which would cause the gases, some of which are poisonous, to pass up into the house.
8. Use those dampers as sparingly as possible which operate by admitting air into the flue or above the fire. It will, however, be dangerous to substitute the turn damper for the air damper where the flue passes close to unprotected wood or other combustible material.
9. When it is impossible to reduce the rate of combustion in the furnace by the damper use smaller coal, or cover the top of the fire bed with small size coal.
10. Prevent air from leaking into the gas passages of the furnace.
11. Remember that any device introduced into the space above the fire bed of the furnace for evaporating water for humidifying the air, or for heating water for general purposes, uses heat which would otherwise be used for heating the house. Use water heated by this means, therefore, as sparingly as possible.
12. Keep the gas passages in the furnace clean.
13. Where a hot air furnace is installed, take no air into the system from outside.
14. When the basement is warmer than is necessary, cover the furnace and pipes with asbestos, magnesia, or other insulating material.

Circulation of Labour Gazette.

During the fiscal year 1917-18 the average monthly circulation of the *Labour Gazette*, published by the Department of Labour, was 11,951 copies, as stated in the report of the Department of Labour.

War Savings Stamps not only save money but earn it.