

## Commission of Conservation

CANADA

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CONSERVATION is published the first of each month. Its object is the dissemination of information relative to the natural resources of Canada, their development and the proper conservation of the same, together with timely articles covering town-planning and public health.

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## FOREST PROTECTION IN CANADA

According to press reports, Sweden proposes to cut off the export of chemical pulp to Great Britain. Naturally, all eyes are immediately turned to Canada to supply the threatened deficiency.

The Commission of Conservation has just issued a report on "Forest Protection in Canada, 1913-14," which is of particular interest in this connection. It contains much information respecting the work of the provincial forest services and of the federal departments intrusted with the care of our forests.

Forest fire protection is assuming a large place in public attention. It is obvious that, if Canada is to continue as a wood-producing country, she must conserve her resources of this natural product. The report treats exhaustively of the fire protection of forest lands along railway rights-of-way.

Through co-operative action, great headway has been made in securing the reduction of forest losses through fires traceable to railway causes.

The forests of British Columbia and on Dominion lands in the West have been dealt with in reports containing the results of special studies conducted by Dr. C. D. Howe and Mr. J. H. White. The Trent watershed in Ontario, has also received special attention, in a report of an investigation by Dr. C. D. Howe in the townships of Burleigh and Methuen. This district is important in that, while of very little value as an agricultural area, it is being repeatedly overrun by forest fires and the little remaining merchantable timber destroyed. It is suggested that the area be placed under the control of the Dominion Forestry Branch for protection from fires and for reforestation.

## Social Conditions on the Farm

### Rural Churches can Largely Assist in Keeping Young People on the Farm

During the year 1915, the Commission of Conservation conducted an agricultural survey on 400 farms in Ontario. The survey included 100 farms in each of the Counties of Dundas, Waterloo, Northumberland and Carleton. Various phases of farm life were investigated, and some interesting conditions presented.

Social conditions, and other incentives to keep the young people on the farms are to a great extent neglected, as may be seen from the following report of the survey.

Ten per cent of the farmers visited have had boys leave and go to the city. Seven per cent have sons married who are farming. Nineteen per cent stated that they were following some form of book-keeping, but only one man was following a complete method. Sixty-seven per cent take agricultural papers, seventeen per cent take story magazines, and seventy-seven per cent take a daily paper.

In 53 per cent of the families visited there were young people over 14 years of age while 31 per cent had a horse and buggy or an automobile for the young people. Sixty-one per cent of the farmers attended some kind of community event or events during the past year, chiefly church socials and picnics.

Here it may be stated that the rural churches have a great opportunity to develop the social side of their activities, to reach more of the young people in the country and interest them in clean amusements, sports and recreations. The local fairs also are prominent among the community events attended by the farmer. In Dundas and Carleton counties no organized clubs for water was met with, while in Waterloo, 13 reported a football club, and in Northumberland, six reported baseball clubs. Only one of the 400 farmers visited mentioned attending a literary society. Twenty-five per cent of the homes had no musical instrument of any kind; 39 per cent had pianos.—F.C.N.

## Farm Labour Conditions

### Solution of Farm Help Problem in Farmers' Own Hands

Of the 400 farmers visited last summer in connection with the survey conducted by the Commission of Conservation, 15 per

cent employ male help by the year; 11 per cent by the month; 31 per cent by the day; the balance employing it in various ways. Sixty-four per cent employ Canadian born help; 13 per cent British born help, while two per cent employ help of alien birth. A large majority report the labour satisfactory, while four per cent report labour unsatisfactory. Fourteen per cent employ married men but only ten per cent have a house on the farm for the hired man. Unfortunately many of those who have houses are employing single men and only a few cases were found where the farmer employing a married man had a house for him to live in.

It is the general opinion among the farmers who have little or no trouble in securing satisfactory help that the solution of the farm help problem is largely in the farmer's own hands, in wages, treatment and hours.—F.C.N.

## Musk-Ox Pelts Highly Esteemed

### Rare Northern Ruminant Following Buffalo to Extinction—Protection Urgently Needed

Robes made from the skins of musk-oxen are very valuable. As the musk-ox inhabits high latitudes, it has a coat capable of withstanding cold. At the base of its long, flowing hair is a thick coat of wool, thus making a pelt which is both beautiful and warm. Musk-oxen are not plentiful and as they inhabit the desolate barren lands of the north, the supply is very limited.

The musk-ox is not difficult to kill, as it is not dangerous and does not seek safety in flight. If hunted with dogs, the herd will stand at bay as with wolves, presenting an invincible front of horns to their animal foes, but an easy mark for the man with a gun. As a result, musk-ox robes promise to become as rare as buffalo robes to-day.

The question of the protection of musk-oxen is an important one, in view of their diminishing numbers, the ease with which they may be shot and the high market value of their skins. If it is not to be completely exterminated, the Dominion Government must do as it has done with the buffalo, namely, provide a reserve within which musk-oxen will be absolutely protected at all times. Such a reserve would serve to maintain a nucleus herd, from which the surrounding country could be restocked.

Musk-oxen form an important item in the food and clothing supply of the Eskimos, and we owe it to our northern people, who live in a country where nature is niggard of her resources, to see that they are not deprived of necessities that our wealthy classes may add to their luxuries.

## Depletion of Plant Food

### Continuous Cropping Removes Enormous Quantities—Fertilizer Must Be Used.

In 1914 the wheat production of Canada amounted to 158,223,000 bushels—the average yield per acre being about 15.37 bushels. Allowing two pounds of straw as removed for every pound of grain, and taking the average analysis of wheat and straw, the following amounts of plant-food were removed from the soil during that year by the wheat crop alone. Nitrogen . . . . . 300,000,000 pounds Phosphoric acid 95,000,000 " Potash . . . . . 137,000,000 "

While the virgin soils of western Canada and especially the very deep rich soils of Manitoba, continue for years—and in some cases for many years—to produce heavy yields even under continuous cropping, they are by this process gradually depleted, and as the supplies of plant food become reduced, the signs of exhaustion will be manifested in decreasing returns. As a matter of fact this depletion is already manifesting itself.

To maintain fertility, the valuable constituents taken from the soil must be returned to it. Of these, as has been mentioned, the most important is phosphoric acid.

In 1913 there were 16,726,400 acres of land under cultivation in the three Prairie Provinces and the depletion per acre annually may be taken as equivalent to the phosphoric acid contained in 60 pounds of high-grade phosphate rock. At this rate 501,890 tons of high-grade phosphate rock would be required each year simply to offset the depletion of the land already under cultivation in Manitoba, Saskatchewan and Alberta.—W.J.D.

## Will Investigate Fire Causes

### Municipal Action which Should be Copied by other Cities and Towns

Kenora, Ont., has taken a firm stand in the matter of investigating the causes of fires, and at a recent meeting of the town council the following resolution was adopted:

"Whereas several fires of unknown origin have recently occurred within the town of Kenora resulting in the destruction of considerable property; and whereas it appears to be in the interests of the citizens generally that such fires be investigated; therefore, be it resolved that this Council is of the opinion that fire inquests should be held with respect to all fires of unknown origin."