

## The Food Supply of Canada.

ADDRESS BY PROF. ROBERTSON.

Professor J. W. Robertson, Dairy Commissioner of the Dominion of Canada, and Agriculturalist of the Government Experimental Farms, addressed a specially convened meeting of the members of the Home and Foreign Produce Exchange, at Hibernia Buildings, London Bridge, on Wednesday, the 21st, on "The food producing resources of Canada, and how they can be developed to the mutual advantage of the English merchants and the Canadian producers." There was a large attendance.

Mr. J. D. Copeman, president of the exchange, occupied the chair, and in the course of a few introductory observations, said it was only their duty to welcome any gentleman representing so large an interest as that which lay in Canada as regarded their business, and they were very happy to extend the right hand of fellowship to all engaged in their own particular trade in the great Dominion which was one of the largest appendages—if we might so describe it—of the crown.

Professor Robertson was warmly received on rising, and in the course of an address which evoked much interest, said:—

"I am very glad to have a chance of speaking to the members of this exchange upon a subject so important to you as the food-producing resources of Canada. I came to this country far more to learn than to try to teach, but I am glad to have a chance of communicating something concerning what we in Canada are doing to make your own business far more profitable to yourselves. You will recognize that there is an intimate interdependence of interests between the producers of food and those who are engaged in its distribution to the ultimate consumers.

### Canada's Food-bearing Capacity.

The object of all farming is to create wealth in food and clothing. Canada has vast areas of arable and pasture lands which are not yet occupied. As yet there are only some twenty-five millions of acres under cultivation, and about sixteen and a half millions of these bear a cultivated crop every year. Indeed, no five millions of people on the face of the globe in a national capacity are possessed of natural resources and sources of wealth in an equal degree with the people of Canada. The government of the Dominion has recognized that it can help the farmers with the highest efficiency by assisting them to reduce the cost of production, and to improve the quality of their products. A few years ago they established a system of experimental farms, with head quarters at Ottawa. In the widely-separated provinces, from Nova Scotia on the Atlantic coast, to British Columbia on slopes of the Pacific, these branch farms have been located and equipped. Their primary object is to investigate the varieties of grain which are best adapted to different soils, climatic conditions, and methods of cultivation. Already these institutions shed the kindly light of reliable and helpful information into the homes of the poorest, as well as into the lives of their wealthier and more favored brethren. An instance of the far-reaching influence of this work, it might be mentioned that last year over 15,000 sample bags of new and promising varieties of grain were distributed free. From the sowing of the contents of these sample bags upon well-prepared soil many farmers were able to obtain from the first crop as much as two bushels of a new and valuable variety of grain, at no cost to themselves. Last year varieties of grains to the number of 420, varieties of potatoes to the number of 135, and of

field roots to the number of 53, were tested and reported upon. No less than 621 varieties of large fruits (apples, pears, plums, etc.) and 343 varieties of small fruits (grapes, raspberries, strawberries, etc.) were grown under careful observation. Vegetables, such as tomatoes, cauliflowers, peas, beans, etc., were grown to the number of 293 varieties. Besides the work on the experimental farms proper, experimental dairy stations have been established in each of the Provinces which lie east of Manitoba. These are becoming centres of exact and authoritative information on the best methods of manufacturing cheese and butter. Through these we are trying to help farmers by showing them how to seek the market, how to suit it, and how to keep it for their own goods.

### Competition with Britain.

The British farmers have least cause to fear the competition of Canadian food products. A fancy Canadian cheese, which pound for pound is equal to the finest English Cheddar, tends to create a more general and active demand for good cheese. You yourselves know that it is the inferior quality of the perishable food products which tend to glut and depress the market, as well as to bring prices to a ruinously low point. In Canada we are also conducting experiments to discover how we may obtain food products of animal origin of the most wholesome and toothsome quality at the lowest possible cost. Canada is the natural home of cattle. With its fertile soil and bracing climate, it gives vigorous health to domestic animals, and freedom from all serious diseases of an infectious or contagious nature. If by some indefinable, supernatural, or subnatural agency the dreaded disease of pleuro pneumonia was found in cattle which came from Canada during the present year, it was quite certain that it was acquired after they reached these shores, because the disease is wholly unknown in Canadian herds.

### Indian Corn Fodder.

We have conducted extensive experiments in the fattening of steers, and have been able to show the Canadian farmers that by the growth of Indian corn fodder and the making of ensilage from the same they will be able to produce beef of the most excellent and luscious flavor and quality at a reduced cost to themselves. The cost of feed consumed in the case of calves was rather less than 2½d per pound of increase in live weight; while the cost of feed consumed in the case of two-year old steers was rather less than 3½d per pound increase. Canada has come into this market also to increase her output, and to please the British public with the quality of her bacon and hams.

### Cattle and Swine Feeding.

Feeding experiments, in which pigs of similar breeding and age were in one case fattened exclusively upon Indian corn, and in another case upon mixed grains and by products from the dairies, have demonstrated the great superiority of the bacon from the feeding of mixed grains and skim milk, buttermilk, or whey. Our experiments have also brought to light the fact that 15 lbs of increase in the live weight of swine can be obtained per bushel of inferior wheat which has been fed. At this juncture, when there is a great outcry in England about the low prices of wheat, it occurs to me that the English farmer, with the best of wheat at 26s to 28s per quarter, might turn it into fresh pork with advantage to himself and the consumers, who would thus obtain a quality of lean and nutritious flesh much superior to the lardy bacons which comes from foreign countries, where Indian corn is the staple and almost only food. On the experimental farm at Ottawa we have an extensive poultry department. Our trade with England in the exportation of eggs and poultry is a growing one, and it should be capable of great extensions, as I find that you imported of these two items to the value of £3,362,501 last year. Let me offer you a few brief remarks upon the food-producing resources of Canada by Provinces.

### Cheese and Butter Factories.

Prince Edward Island has a size of about 2,000 square miles. Its population is comparatively dense for Canada, although it reaches only 54.5 persons per square mile. It is now beginning an export trade with Great Britain in cheese and eggs, and this will doubtless be followed in a few years with butter and bacon. It is a most beautiful and fertile province, and bears the well-deserved title of the Garden of the Gulf of St. Lawrence. There is a very small percentage of waste or unclaimable land in it. The Dominion Government have established an experimental dairy station at New Perth, and the product from that station is expected at this point some time during the present week. The island is capable of supporting at least fifty large co-operative cheese and butter factories, the product of which will ultimately find its way into this market. The comparatively cool climate in summer gives the farmers very exceptional advantages in manufacturing the finest quality of both. Nova Scotia, like old Scotia, has a most diversified surface aspect. You can see there the majestic beauty of rugged mountains joined in happy union to fertile valleys. The Annapolis Valley is really a stretch of over fifty miles of orchards, whence come the high flavored and brilliantly colored apples which are so much appreciated in this country. I am informed on this side that the apple trade with Canada is a satisfactory one, inasmuch as, unlike the manner of carrying it on in other countries, the small ones are found on the top of the barrels. (Laughter.) There is a branch experimental farm at Nappan in Nova Scotia, where similar work is carried on to that which is conducted at the Central Experimental Farm at Ottawa. In this Province there are condensed milk factories. From these we hope to send quantities of this wholesome food, for which the demand seems to be increasing. In the Antigonish Valley, which has given to Canada its present Premier, Sir John Thompson, there are numbers of cheese factories, which are being enlarged and increased in number every year. Products from these Provinces will soon find their way here in larger quantities. The province of New Brunswick is best known in England as a lumber-producing district. However, it has large stretches of arable and fertile soil.

### Dairying in New Brunswick.

Dairying, the cattle industry, and fruit growing are being extended on all sides. The Dominion government have established an experimental dairy station, and the butter from it has gone to London, where it has met with a favorable reception. The Provincial government of New Brunswick last year made a grant of £2,000 to promote the extension of the dairy industry, and to support travelling dairies, which have gone to all sections, giving illustrations and instruction on the best methods of making butter. We have found the farmers in these maritime provinces most susceptible to educational and instructive influences, and, owing to the educational opportunities afforded by the government, the silver medal and second prize for the finest cheese at the Royal Liverpool, Manchester, and Lancashire Exhibition during the present season, went to a New Brunswick factory. Quebec is a province whose inhabitants are people full of hope, courage, and optimism. Educational agencies for the benefit of the farmers and the development of the food-producing resources of the province are being promoted by both the federal and provincial governments. Very great improvements in the quality of the cheese from these provinces have been effected during the past few years. Many cheese factories and butter factories now turn out a quality of product quite as good as the best from those in Ontario. I have been surprised to observe that a committee of the Bristol Provision Trade Association have accepted a resolution which reflects upon the quality of the cheese from a particular district in Quebec. Cheeses from the French district of Quebec are now made in large quantities, in syndicates of cheese factories which are under