

Live-stock Resources and Opportunities.

BY P. E. LIGHT.

What has already been written in the previous two issues will serve as a fair idea of the condition of the live-stock industry of the Dominion up to and at the present time. Upon the already accomplished, Canada must, to a certain extent, build for the future. Due, however, to ambition to establish a self-supporting empire, new interest has been directed toward Canada, as a lively source from whence to draw a large portion of the necessary meats for consumption in the United Kingdom. Our opportunity there is not new, but is larger, less obstructed and of a nature such as it is our duty to fulfill.

Fortunately, being part of the new world, we have one tremendous advantage over competitors for British trade; namely, millions of acres of the most fertile soil in the world, an excellent climate for the raising of vigorous, well-doing live stock, a well-watered country and unbeatable cropping possibilities, and last but of much importance, transportation facilities which are in a position to meet the requirements of the situation. It is well, however, to emphasize the necessity of developing our prospective increased trade in meats through a chilled meat service. It is chiefly through this method that we may hope to most successfully compete with countries not so favorably situated with respect to the British market.

Our Unlimited Acreage.

We have now to consider a subject already introduced, that of our resources in land. Exclusive of the Northwestern territory and the Yukon, Canada has a total area of 977,585,513 acres, of which it is estimated that 358,162,190 acres are suitable and available for farming purposes. It is significant that not more than 30.66 per cent. of the available land is at present occupied. It may also be of further interest to know that of the land suitable for farming purposes in British Columbia, 11.23 per cent. only is occupied, in Alberta 18.27 per cent., in Saskatchewan 30.65 per cent., in Manitoba 49.5 per cent., in Ontario 39.32 per cent., in Quebec 35.69 per cent., in New Brunswick 42.34 per cent., in Nova Scotia 65 per cent., in Prince Edward Island 95.66 per cent. In a word, of all the total available agricultural land in Canada there still remains unoccupied and unimproved 69.34 per cent.

The improved land amounts to 48,733,823 acres. Comparing this with the estimate of land which could be made suitable for farming in Canada, 358,162,190 acres, it will be found that only 13.6 per cent. of the farm land in Canada is being utilized for farming purposes. There are also districts in the Northwest territories and in the northern parts of the eastern and middle provinces, the possibilities of which for agricultural purposes, especially for live stock, are tremendous. Practically one-third of the total land area of Canada or 1,196,803,280 acres are situated in the Northwest territories.

Acres of Available Farm Land.

Province	Available Land for Farming	Occupied Land	Balance of Available Land Unoccupied
British Columbia.....	22,618,000	2,540,001	20,077,999
Alberta.....	97,123,000	17,744,372	79,378,628
Saskatchewan.....	93,458,000	28,644,877	64,813,123
Manitoba.....	24,700,000	12,226,500	12,473,500
Ontario.....	56,450,000	22,196,140	34,253,860
Quebec.....	43,745,000	15,612,590	28,132,410
New Brunswick.....	10,718,000	4,538,001	6,179,999
Nova Scotia.....	8,092,000	5,259,800	2,832,200
Prince Edward Island.....	1,258,000	1,203,402	54,598

Presenting the case from another angle the number of occupied acres per head of cattle, sheep and swine, is as follows:

Occupied Acres per Head of the Present Live-Stock Population in Canada.

	Cattle	Hogs	Sheep
British Columbia.....	10.31	63.81	56.08
Alberta.....	10.49	29.49	53.42
Saskatchewan.....	22.39	54.95	13.48
Manitoba.....	16.37	42.96	89.38
Ontario.....	7.72	13.40	22.82
Quebec.....	6.47	15.65	16.28
New Brunswick.....	15.82	56.85	32.41
Nova Scotia.....	12.91	77.08	20.24
Prince Edward Island.....	10.88	29.48	16.47

Estimated Number of Live Stock Canada could raise upon Available Lands not now Occupied, by Provinces, if there were sufficient population to care for them.
(Live Stock Population of Occupied Land used as a Basis for Calculation.)

Provinces	Available Land for farming not Occupied	Cattle	Swine	Sheep
British Columbia.....	20,077,999	1,947,429	314,652	358,024
Alberta.....	79,378,628	7,567,076	2,691,713	1,485,934
Saskatchewan.....	64,813,123	2,894,735	1,179,492	303,602
Manitoba.....	12,473,500	761,973	290,351	139,555
Ontario.....	34,253,860	4,437,028	2,556,258	1,501,045
Quebec.....	28,132,410	4,348,131	1,797,598	1,728,035
New Brunswick.....	6,179,999	390,644	108,707	190,682
Nova Scotia.....	2,832,200	219,380	36,743	139,930
Prince Edward Island.....	54,598	5,018	1,852	3,315
Total.....	248,196,317	22,571,414	8,977,366	5,850,122

This is the last of a series of three articles written by P. E. Light, of the Live-Stock Branch, Ottawa. Canada's position as a producer and exporter of live stock and live-stock products has been clearly depicted. In this article Mr. Light points out our live-stock resources and opportunities. At present our live-stock population per acre of arable land is very low compared with other countries. Although at a low point in production there are great possibilities. On the basis of some older settled countries, Canada should have millions of pounds of meat to ship to the British market. Read this article and note where Canada now stands, and where she may in the near future stand as regards live-stock production.

With this information before us the possibilities for future advancement in this direction are the more emphasized in the light of the comparisons indicated in the table below as regards the numbers of live stock in different countries per unit of area and unit of population. Canada will be seen as showing the smallest numbers of cattle from any angle of consideration, even showing fewer cattle per acre than the Argentine Republic.

Numbers of Cattle Per Square Mile, Per Capita, and Per Acre, of Available Farm Land in Principal Live-Stock Countries of the World.

	Per Square Mile	Per Capita of Population	Per Acre of Available Land
Canada.....	2.09	1.13	.029
United Kingdom.....	106.18	.264	.166
Argentina.....	22.12	4.688	.034
Australia.....	3.60	2.815	.005
New Zealand.....	16.93	1.736	.026
United States.....	21.00	.691	.032
Denmark.....	152.40	.830	.238
France.....	61.44	.320	.096
Germany.....	94.18	.308	.146
Belgium.....	13.10	.253	.020

	Per Square Mile	Per Capita of Population	Per Acre of Available Land
Canada.....	.97	.42	.001
United Kingdom.....	29.67	.07	.040
Argentina.....	3.08	.43	.004
Australia.....	.24	.16	.0003
New Zealand.....	2.96	.35	.006
United States.....	22.71	.67	.030
Denmark.....	127.25	.54	.190
France.....	21.46	.18	.033
Germany.....	12.48	.18	.010
Belgium.....	82.80	.38	.120

	Per Square Mile	Per Capita of Population	Per Acre of Available Land
Canada.....	.63	.25	.006
United Kingdom.....	277.37	.60	.350
Argentina.....	70.43	9.75	.110
Australia.....	26.69	17.46	.040
New Zealand.....	10.32	22.70	.010
United States.....	16.57	.48	.020
Denmark.....	46.01	.27	.070
France.....	78.24	.41	.120
Germany.....	16.26	.02	.020
Belgium.....	40.77	.08	.060

NOTE.—Figures for Belgium and Germany January 1st, 1913.

By way of comment upon the preceding statement there is one feature which appears as more than ordinarily significant. It is to be expected, of course, that Canada on the basis of per unit of area would compare unfavorably with other countries, particularly the older settled countries, such as the United Kingdom, Germany and Belgium. On the other hand, bearing in mind the congestion of population in these countries, it is remark-

able to note that, on the basis of per unit of population, the numbers of live stock in Canada make no very favorable showing. On this basis we are again at the bottom of the list as compared with such countries as the Argentine, Australia and New Zealand, these countries, as our own, representing the producing countries. The significance lies in the fact that while actually we are at the low point of production compared with other live-stock countries, potentially we have the greatest opportunity of them all, the very small numbers of live stock for so great an area of land suggesting our line of action.

Canada has a tremendous area of land suitable to live-stock production, that has not yet been occupied, and, furthermore, the land is fertile and moderate in price. From a productive acreage point of view, the Dominion has well recognized advantages over the other chief meat-exporting countries of the world.

According to the foregoing calculations, if our population were to increase to 25,000,000, and the ratio between rural and urban remain constant the same proportion of land occupied, we could anticipate a live-stock population as follows:

Cattle, 32,622,281 head; sheep, 8,902,870 head; swine, 13,267,048 head. With such an increase, and, considering that the exportable surplus remains in the same ratio, we could supply approximately 600,000,000 lbs. of bacon, 270,000,000 lbs. of beef and 48,000,000 lbs. of hams and pork.

We are moving in the right direction, for the live-stock industry of Canada is making steady growth under the influence of a marked turning from straight grain to mixed farming in the Western Provinces, while in the older parts of the country the scrub sire is slowly but, fortunately, surely disappearing. By ceasing the practice of exporting our good quality breeding stock, we should shortly be in a position, both quantitatively and qualitatively, to supply a generous part of the United Kingdom's import requirements of meat.

In addition to cattle imported as meat into Great Britain, we must not forget the 189,229 head sent to the U. S. A. last year. If a reasonable proportion were shipped for finishing in Great Britain, it would add a very great deal to the out movement.

Whereas the calculation did not consider any improvement in the quality or increased numbers per acre, there is undoubtedly the greatest immediate field in this direction, because every pound of extra finish on cattle being marketed means a gain without too great an amount of extra labor, and each additional animal per acre means added productive power to the soil.

Comparisons with the Argentine, New Zealand and Australia indicate that we can readily increase our numbers on the present acreage, and, further, it is absolutely necessary if we are to secure and hold a portion of the trade in the face of such competition.

During the fiscal year ending March 31st, 1918, Canada exported approximately ten per cent. of the normal annual beef requirements, and one-tenth per cent. of Great Britain's annual mutton requirements. Comparing the volume of our export meats in connection with our extensive land acreage, our vigorous climate, transportation facilities and comparative freedom from trust control, it is at once apparent that Canada's live-stock future is before her, and that the filling of a very large percentage of the meat requirements of Great Britain is something that we may well be able to accomplish within the next twenty-five years.

Canada exported less chilled and frozen meats during the period of the war than any country doing business in that class of meats. As Great Britain imports her meats in a frozen and chilled state, and as Canada's geographical position in relation to her overseas market makes a chilled meat service a necessity, it is imperative that we at once provide facilities for such a service.

The following table gives Great Britain's import requirements of meats during normal time. Surely we are in an excellent position to fill a large portion of the needs of the Motherland if we put forth the necessary effort.

Food Supply of United Kingdom.

Average of Five Years, 1909-1913, inclusive.

Commodity	Home Grown	Imported
Beef and veal.....	1,808,100,000	1,082,655,000
Mutton.....	650,034,000	408,340,005
Lamb.....	79,821,000	184,779,000
Bacon.....	176,400,000	511,830,569
Hams.....	44,100,000	102,050,749
Pork.....	670,320,000	74,914,560
Meat Offal.....	13,230,000	
Poultry.....	90,405,000	30,780,000
Eggs (dozen).....	191,554,954	191,554,954
Butter.....	251,370,000	456,435,000
Cheese.....	66,150,000	257,985,000
Margarine.....	132,300,000	129,213,000
Condensed Milk.....		121,716,000
Lard.....	198,450,000	198,450,000
Pork and Lard.....	890,820,000	887,245,878

It is not likely that the United Kingdom will require as heavy a volume of imported meats as before the war, owing to the progressive domestic policy pursued under the shadow of starvation during the years of 1917 and 1918. Her requirements will, however, still continue tremendously heavy. Word from representatives of Canadian agriculture in the United Kingdom indicates that there exists a particularly favorable outlet for