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CANADIAN LIVE STOCK AND MEAT INDUSTRIES

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DOMINION OF CANADA
DEPARTMENT OF AGRICULTURE
PUBLICATIONS BRANCH

Canadian Live Stock

and

Meat Industries



PUBLISHED BY DIRECTION OF THE HONOURABLE W. R. MOTHERWELL,
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1924

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FOREWORD

THE rearing of live stock for meat production is carried on in Canada chiefly as a branch of general farming, with the average farmer limiting his herd or flock to such numbers as he can conveniently shelter, pasture and feed from crops grown on his own acres, supplemented by the by-products of the modern milling industry.

Live stock production constitutes the basis of the Canadian Slaughtering and Meat Packing industry, which is one of the leading branches of manufacture in the Dominion. Of an output valued at \$143,414,693 in 1922, \$88,208,961, or 62 per cent, was attributable to cured meats and other manufactured products, and \$55,205,732 to fresh meats. Products to the value of \$36,601,326 were exported.

No product of the meat industry intended for human food may be shipped to Great Britain or any other country without rigid government inspection culminating in a certificate issued by the Health of Animals Branch of the Dominion Department of Agriculture to the effect that the product is absolutely sound, free from disease, and that no deleterious matter has been used in its preparation.

The inspection of live animals entering or leaving Canada is also of a very thorough character. Every live animal destined for the United Kingdom must pass veterinary inspection and, before embarking, obtain a clear bill of health. The fact is noteworthy that for upwards of fifty years no contagious disease of a virulent nature has made its appearance among Canadian live stock. At the present time, the health of Canadian live stock is unsurpassed, and compares more than favourably with that of any other country.

FOREWORD

The purpose of this book is to provide a comprehensive survey of the history of the United States from the time of the first settlement to the present. It is intended for the use of students in the history of the United States and for the general reader who is interested in the history of the United States.

The book is divided into four parts. The first part is a general survey of the history of the United States from the time of the first settlement to the present. The second part is a survey of the history of the United States from the time of the first settlement to the present. The third part is a survey of the history of the United States from the time of the first settlement to the present. The fourth part is a survey of the history of the United States from the time of the first settlement to the present.

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CANADIAN LIVE STOCK AND MEAT INDUSTRIES

Live Stock Development

THE history of live stock on Canadian soil goes back to an early period. In 1667, at the beginning of the French regime, when the human population numbered less than 2,000 souls, the live stock holdings were estimated at 3,107 "horned cattle," 88 sheep and 1,000 swine.

Fifty-two years ago, or in 1871, there were in Canada 2,624,000 cattle, 3,155,509 sheep and 1,366,083 swine—a total of 7,145,882 animals. In 1923 there were 9,246,000 cattle, 2,750,000 sheep, and 4,405,000 swine—a total of 16,401,000 animals, and an increase of well over 100 per cent.

Live Stock Holdings

The holdings of farm live stock in 1923, by provinces, are given by the Dominion Bureau of Statistics as follows:—

Number of Cattle, Sheep and Swine, by Provinces, 1923

	Cattle, Number	Sheep, Number	Swine, Number
Prince Edward Island.....	130,578	83,933	42,011
Nova Scotia.....	271,048	258,537	44,034
New Brunswick.....	212,901	157,808	66,182
Quebec.....	1,781,751	822,997	797,726
Ontario.....	2,838,087	907,673	1,734,734
Manitoba.....	691,711	93,162	291,236
Saskatchewan.....	1,535,087	137,240	679,867
Alberta.....	1,520,924	239,174	706,681
British Columbia.....	264,144	53,336	42,845
Total.....	9,246,231	2,753,860	4,405,316

The following table gives the number of cattle, swine and sheep in the Dominion from 1914 to 1923:—

Numbers of Live Stock in Canada, 1914-1923

Year	All Cattle	Swine	Sheep
1914.....	6,036,817	3,434,261	2,058,045
1915.....	6,066,001	3,111,900	2,038,662
1916.....	6,594,151	3,474,840	2,022,941
1917.....	7,920,840	3,619,382	2,369,358
1918.....	10,045,867	4,289,682	3,052,748
1919.....	10,085,011	4,040,070	3,421,958
1920.....	9,572,196	3,516,678	3,720,783
1921.....	10,206,205	3,904,895	3,675,860
1922.....	9,819,869	3,915,684	3,263,525
1923.....	9,246,231	4,405,316	2,753,860

The five-year average value of the commercial live stock holdings in the Dominion from 1919 to 1923, inclusive, is approximately \$659,000,000, of which amount \$540,000,000 is credited to cattle, \$37,000,000 to sheep, and \$82,000,000 to swine.

CATTLE AND MEAT EXPORTS

Previous to 1871, not one head of stock had been shipped to Great Britain, but about the year 1880, an import demand for commercial live stock developed. In 1881, ten years later, 49,909 cattle and 80,222 sheep were marketed in that country. In 1901, over 119,000 cattle were sold to Great Britain, and in 1911 approximately 114,000. War conditions caused a diversion of Canadian live stock exports from Great Britain to the United States of America. From 1914 to 1923, the average of the annual exports of live cattle to the United States amounted to approximately 200,000 head. During the twelve months ended March 31, 1923, approximately 25,750 cattle were exported to Great Britain, 228,397 to the United States, and 4,280 to other countries, the aggregate value being \$9,000,000. During the calendar year 1923, Canada sold Great Britain 57,672 cattle, valued at \$6,058,507.

CANADIAN LIVE CATTLE EXPORTS

The following table shows the number, value and destination of Canadian cattle exported in five-year periods from 1890 to 1910 and every year thereafter:—

Fiscal Years	Great Britain	United States	Other Countries	Total	Total value
	No.	No.	No.	No.	\$
1890.....	66,965	7,840	6,649	81,545	6,949,417
1895.....	85,863	882	7,057	93,802	7,120,823
1900.....	115,056	86,989	3,479	205,524	9,080,776
1905.....	159,078	3,696	4,328	167,102	11,360,969
1910.....	140,424	12,210	4,752	157,386	10,792,156
1911.....	113,795	7,576	3,552	124,923	8,537,473
1912.....	47,868	9,807	3,842	61,517	4,098,179
1913.....	12,069	28,268	3,959	44,296	2,237,135
1914.....	9,788	206,446	3,615	219,849	7,906,794
1915.....		183,672	2,252	185,924	9,267,534
1916.....	1,752	227,202	12,581	241,535	12,625,760
1917.....		164,169	1,967	166,136	7,883,842
1918.....		189,229	2,130	191,359	14,136,944
1919.....		308,562	2,934	311,496	30,069,490
1920.....	479	500,216	14,830	515,525	46,099,553
1921.....	131	295,297	2,443	297,853	21,099,553
1922.....	35,418	172,981	5,105	231,504	8,538,051
1923.....	25,758	228,397	4,280	258,435	9,000,404

Bacon constitutes by far the largest item in Canada's export meat trade. In the fiscal year 1922-23, 101,590,100 pounds of bacon, valued at \$22,536,397, were exported. Of this amount 100,818,300 pounds were marketed in the United Kingdom. As a source of Great Britain's supply, Canada takes third place to Denmark and the United States.

EXPORTS OF PIG MEATS, 1914-1923

Fiscal Year	Bacon Exports	
	Pounds	Values
		\$
1914.....	23,859,754	3,763,196
1915.....	76,801,419	11,811,825
1916.....	144,918,867	25,710,767
1917.....	207,213,267	43,011,439
1918.....	199,957,475	57,995,116
1919.....	120,622,092	39,046,058
1920.....	223,642,600	70,123,580
1921.....	98,233,800	31,492,407
1922.....	99,208,000	23,012,480
1923.....	101,590,100	22,536,397
	Ham Exports	
	Pounds	Values
		\$
1914.....	1,890,182	269,911
1915.....	17,958,874	2,652,917
1916.....	8,732,857	1,379,346
1917.....	4,403,244	766,595
1918.....	7,875,523	2,087,377
1919.....	4,066,649	1,196,118

NOTE.—Hams included with bacons from 1920 onward.

	Pork (All)	
	Pounds	Values
		\$
1914.....	1,811,204	202,391
1915.....	21,288,226	2,599,844
1916.....	13,142,169	1,990,856
1917.....	13,987,460	2,522,926
1918.....	7,909,803	2,052,192
1919.....	37,318,106	11,711,024
1920.....	6,680,300	1,641,570
1921.....	3,125,700	802,472
1922.....	2,924,800	453,708
1923.....	2,670,500	451,682

Canada's contribution to Great Britain's imports of chilled and frozen beef, mutton and lamb is not important. A marked increase took place in Canadian beef exports during war years. From less than a million pounds in 1912, the quantity exported rose to 125 million pounds in 1918-19, since which time a drop has taken place each year. The record of Canada's beef and mutton exports from 1914 onwards is as follows:—

CANADIAN BEEF EXPORTS

Fiscal Year.	To United Kingdom	To United States	Other Countries	Total	Value
					\$
1914.....	190,787	12,772,291	654,629	13,617,707	1,127,911
1915.....	1,330,482	17,697,917	642,302	19,670,701	1,988,489
1916.....	13,912,771	9,456,290	25,354,504	48,903,565	5,994,833
1917.....	15,179,195	10,039,593	20,327,388	45,546,176	5,750,435
1918.....	32,768,400	12,672,602	41,124,102	86,565,104	13,016,378
1919.....	91,644,900	32,965,700	1,192,300	125,802,700	26,594,814
1920.....	28,730,500	34,418,000	40,751,000	103,899,500	19,637,656
1921.....	8,883,800	36,037,700	8,585,100	53,506,000	8,504,589
1922.....	5,797,300	21,647,800	911,500	28,356,600	3,324,037
1923.....	7,987,800	18,264,000	2,776,700	29,028,500	2,932,573

CANADIAN MUTTON EXPORTS, 1914-1923

Fiscal Year	To United Kingdom	To United States	All Countries	Value
	Lbs.	Lbs.	Lbs.	\$
1914.....	.....	53,571	65,167	10,804
1915.....	.....	1,029,021	1,064,963	124,087
1916.....	.....	45,973	99,593	14,360
1917.....	89,240	44,543	167,993	27,491
1918.....	184,513	589,625	855,517	192,224
1919.....	.....	.....	.....	.....
1920.....	320,800	4,658,600	6,140,100	1,314,573
1921.....	.....	6,242,100	6,405,500	1,595,111
1922.....	773,000	6,998,800	7,877,000	1,342,146
1923.....	.....	3,502,200	3,610,000	847,233

The following table gives the statistics, taken from British sources, of Great Britain's meat imports for the eleven years 1913-1923:—

GREAT BRITAIN'S MEAT IMPORTS

(In lbs., 000's omitted)

Total	Bacon	Pork	Beef	Mutton
1913.....	543,984	55,328	1,030,736	596,960
1914.....	570,976	96,432	990,528	581,840
1915.....	730,576	30,128	963,312	526,960
1916.....	832,730	32,816	790,272	407,232
1917.....	735,504	18,032	686,000	287,728
1918.....	1,172,976	11,088	681,856	233,632
1919.....	927,360	15,232	727,104	456,288
1920.....	628,432	56,672	1,104,432	717,584
1921.....	635,824	72,800	1,302,560	762,720
1922.....	664,384	74,928	1,210,272	654,976
1923.....	872,832	114,298	1,435,200	657,687

COMMERCIAL HERDS AND FLOCKS

Beef Cattle.—Canadian beef cattle conform closely to the type desired in the export steer. As a general rule, the herds are headed by pure-bred bulls of the recognized beef breeds, thereby developing the qualities desired in animals destined for the butcher's block. The relative standing of the three leading beef breeds is indicated by the average annual registration of pure-bred bulls during the past five years, as follows: Shorthorns, 19,149; Herefords, 3,690; Aberdeen-Angus, 2,926. The standard of the pure-bred herds is maintained by the introduction from time to time of imported British-bred animals.

The removal in the spring of 1923 of the British embargo against the importation of Canadian store cattle provided the British feeder with an opportunity to judge of the manner in which these animals respond when finished for beef on British pastures. In almost all cases, purchasers in Great Britain of Canadian store cattle have found them to be a profitable investment, as much as £11 per head of increased value having been secured after three months of feeding.

Sheep.—Sheep rearing in Canada is carried on as a branch of general farming, and many small flocks form the basis of the industry. Sheep ranching is confined to the western provinces, more particularly to southern Alberta, southern Saskatchewan, and to British Columbia.

Formerly, white-faced sheep of Leicester type were prominent, but with the introduction of the Down breeds towards the end of the past



Lady Broadhooks, grand champion shorthorn female at International Live Stock Show, Chicago, 1923; bred in Canada.

century, a gradual change took place in the character of the flocks. The use of Down blood has been further accentuated of recent years owing to the demand for lighter weight finished lamb carcasses, and to the higher price per pound commanded by the finer grades of wool. At the present time most of the sheep and lambs marketed carry Down blood.



Group of Canadian market lambs from car lot winning grand championship at International Live Stock Exposition, Chicago, Ill.

The ranch flocks, as is the case in Australia and New Zealand, are largely of the fine woolled breeds, but their mutton quality has been improved by Down, Romney Marsh, and Leicester crosses.

The following table showing pedigree registration indicates the relative standing of the breeds:—

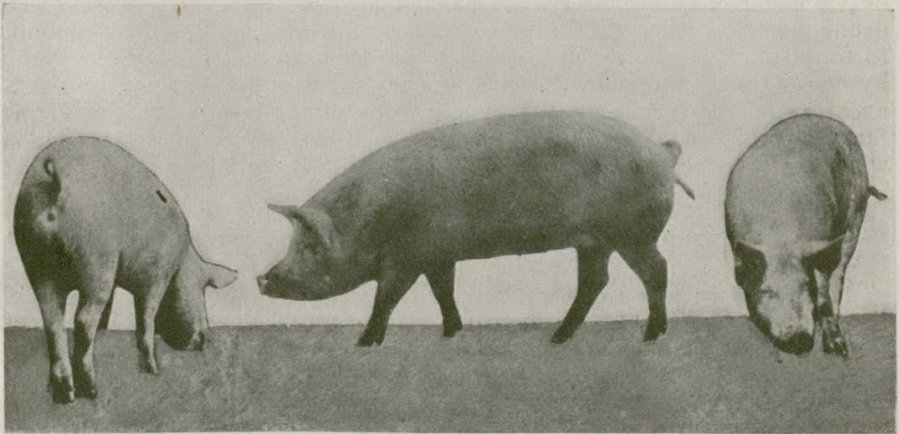
Number of Sheep Registered in Canada, by Breeds, 1919-1923

	Shropshire	Oxford	Leicester	Hampshire	Suffolk	Cotswold
1919.....	3,377	2,771	1,593	421	425	400
1920.....	4,743	2,285	1,271	666	290	299
1921.....	3,309	2,157	1,167	441	303	205
1922.....	2,935	1,870	923	462	404	258
1923.....	3,081	2,011	858	496	465	178
	Southdown	Dorset Horn	Ramb- ouillet	Lincoln	Cheviot	Romney Marsh
1919.....	271	378	263	161	254	136
1920.....	317	327	34	125	240	106
1921.....	293	172	355	198	137	182
1922.....	338	182	17	178	173	7
1923.....	415	218	26	130	140	11

Canadian breeders of pure-bred sheep have long been noted for the excellence of their flocks, and many of the leading flocks in the United States are founded on stock from the province of Ontario. In the breeding classes at the International Live Stock Show, Chicago, at World's Fairs, and elsewhere, Canadian sheep have repeatedly won the highest honours, including the premier prize at the Chicago International for the last two years in succession for the champion car-lot of wethers, while in addition, in 1922, the prize for the champion wether went to an Ontario-owned Southdown.

The wool clip of Canada is estimated at 13,000,000 pounds annually, twenty-five per cent of which is marketed co-operatively on the basis of grade.

Swine.—Upwards of thirty years ago, a movement was begun in Canada to introduce swine of a type suitable for the production of bacon of a class that would compete with the Danish product in the British



Hogs of the type, size and weight aimed at for Canada's bacon trade.

market. This step necessitated a departure from the short, heavy, over-fat or "lard" type, and the general introduction of the bacon breeds. The movement referred to, which began about 1890, is gradually meeting with success. About that date the packing companies began the importation and distribution of boars of the bacon breeds. Their efforts were seconded by government propaganda urging the adoption of this type of swine as necessary to the development of the export market and the profitable extension of swine raising. The Yorkshire, Tamworth and the longer type of Berkshire were the breeds favoured, and Canadian owners of pure-bred herds seconded Federal and Provincial Governments in introducing breeding stock of this class. The result has been to change to a marked extent the prevailing type of swine, so that to-day a considerable proportion of the output is identical in type with the Danish bacon hog. Evidence of this is seen in the fact that of 16,432 swine pedigrees recorded in Canada in 1923, 13,926 were of animals of the Yorkshire (10,000), Berkshire (2,200), and Tamworth (1,453) breeds.

A further stimulus has recently been given to bacon hog production by the payment of a ten per cent premium on all select bacon hogs

marketed at stockyards and abattoirs. In order to secure this advantage, hogs must conform to the bacon type in length, smoothness, and depth, and weigh from 170 to 220 pounds when unloaded at the yards.

STATE AID

The recognition of the value to the country of a well developed live stock industry has led to the institution by the Government of numerous policies to foster and develop this branch of farming. As early as 1867, an experimental farm system was inaugurated to study amongst other things the problems of the live stock and meat industries, and to conduct experimental work in relation thereto. The ascertained facts have been disseminated through the colleges and schools of agriculture, by the distribution of bulletins, and in other ways.

In addition, the commercial production of live stock is stimulated by numerous projects, conducted through the Live Stock Branch of the Dominion Department of Agriculture, and having for their object the development of the industry. The department assisted by the provincial departments, encourages the use of superior sires by lending male animals to farmers' organizations in districts where they are not readily available; by making grants to shows for prize money for specified breeds; by assistance to and the regulation of marketing; by giving instruction in judging farm animals, and by demonstrating approved practices in connection with the live stock industry generally.

SYSTEM OF LIVE STOCK MARKETING

The modern phase of the live stock industry supplies liberal material for a story of a notable development. Up to the beginning of the present century, the annual surplus of live stock was killed on the farm, or by local butchers, or exported alive from prairie and farm. Within the past twenty-five years, public stockyards have superseded the local market, and an organized packing industry has largely supplanted the slaughter of live stock at the place of origin. Centralized marketing and large-scale meat manufacturing are to-day the distinguishing characteristics of the Canadian meat industry.

The centralization of the industry may be attributed, first, to a rapid opening up within one generation by the railways of wide stretches of undeveloped lands in the far West, lying between lake Superior and the foot-hills of the Rocky mountains, and their use first as ranges and later for farms of smaller unit; and second, to the equally rapid growth of the meat consuming population, centred in the eastern provinces of Ontario and Quebec.

The steadily growing industrial centres of the Dominion provide an expanding outlet for all classes of food commodities, not the least among which are the products of the live stock industry.

In the older provinces, such as Ontario and Quebec, the massing of population came about with considerable rapidity. Twenty years ago, Toronto, on lake Ontario, had a population of about 200,000; it is now a city of 522,000 people. Montreal, on the St. Lawrence river, boasts of a population of 712,000. Other leading eastern centres of population are Hamilton, 114,151; Ottawa, 107,843; London, 60,959; and Quebec city, 95,193.

The development of the cities of Western Canada has been equally marked. Winnipeg, at the junction of the Assiniboine and Red rivers, once Fort Garry, to-day is one of the most modern cities of the New World, with a population of 191,908; Calgary's population is 63,305, and Edmonton's, 58,821. Vancouver, the leading port on the Pacific coast, comprises a population of 139,364.

The conditions outlined made it necessary that live animals should be transported by carload and by trainload to large slaughtering centres. Centralized marketing and slaughtering followed as a matter of course. Hence the trade from the first had to be one of comparatively large units.



Winners of Prince of Wales' special prize for best three beef animals, any breed, age or sex, at Provincial Winter Fair, Guelph, Ontario, 1922.

The first step in marketing would be taken where a group of farmers combined to send their stock to market by making up carload lots, for broken lots are generally less profitable. More and more, to-day, in the better feeding districts, the drover or cattle dealer, buying direct from the producer, gathers his cattle in carload lots and forwards them to market. In almost every case these large markets, known in the Dominion as public stockyards, are at centres of population, and adjacent to the abattoirs and packing-houses.

Owing to their carcasses being convenient units for smaller dealers, the Canadian trade in swine, sheep and lambs differs somewhat from that in beef animals. A larger percentage of the live animals is taken by small packers and by wholesale butchers. More hogs and sheep than cattle are slaughtered on farms either for family use or for sale at country markets. Hence the turnover of the public stockyards is not quite so accurate a measure of the total trade in pork, mutton and lamb as it is in the case of beef.

Naturally, long distance railway transport presented its own problems, and these had to be solved before the trade could flourish. For example, at convenient places, such as between Winnipeg and Toronto, a distance of over eight hundred miles, there are three or four well equipped feeding stations where the cattle or other live stock must be detained for a short time to allow them feed, water and exercise. The time limit over which animals may be confined in cars without such a break is thirty-six hours.

Stockyards

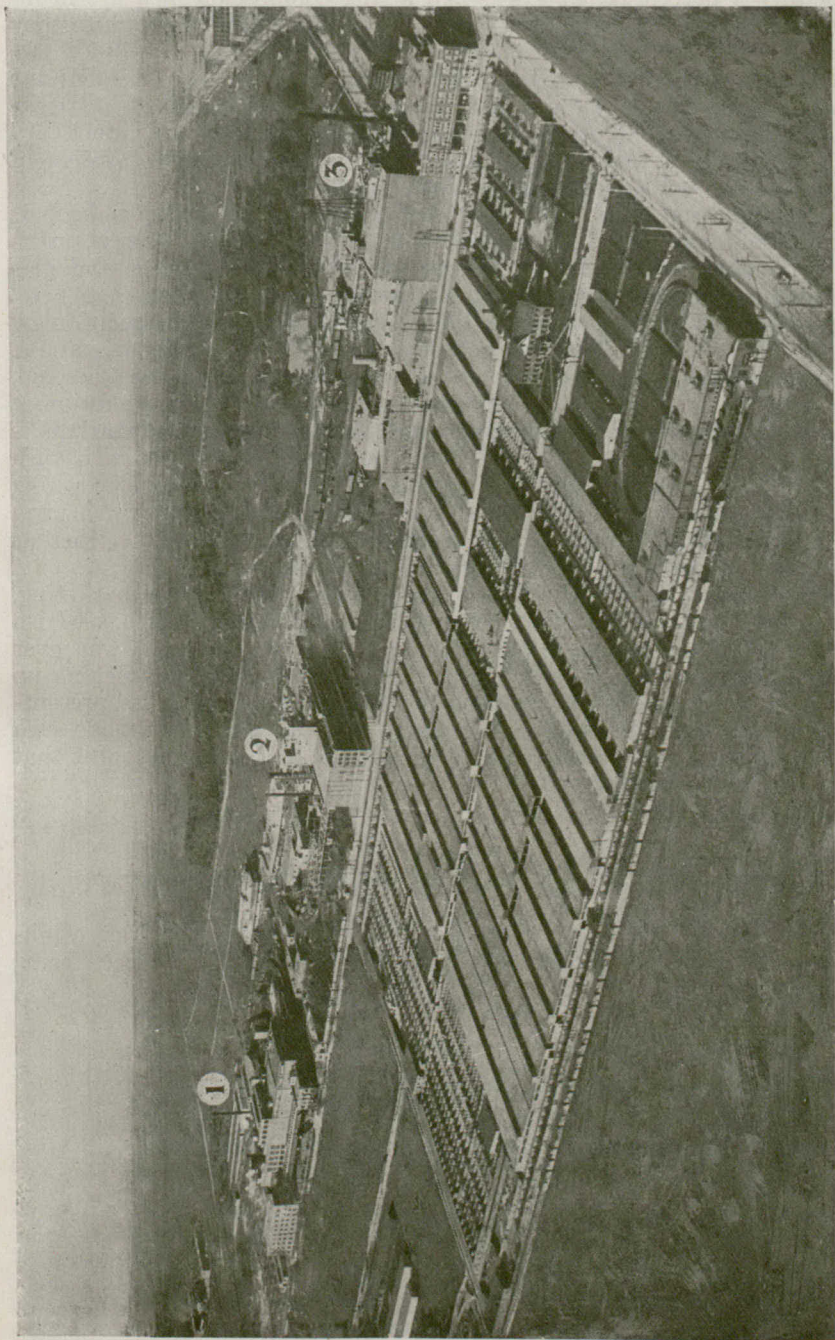
When the live stock thus shipped reaches its destination, it is unloaded directly at the public stockyards. These are situated at Toronto, Ont.; Montreal, Que.; Winnipeg, Man.; Calgary, Alta.; Edmonton, Alta.; Moose Jaw, Sask.; and Prince Albert, Sask. All those in use are modern in plan, and well equipped with open and covered pens for cattle, sheep and swine. The pens are generally arranged on a chess-board system with alleyways twelve to twenty feet wide running between. The holding capacity of Canadian stockyards varies from 1,500 to 10,000 cattle, 1,000 to 6,000 sheep or lambs, and from 1,000 to 8,000 hogs.



Prize winning Canadian junior yearling steers at the International Live Stock Show, Chicago, Ill., bred and fed in the province of Alberta.

The ownership of stockyards differs; some belong to the respective provincial governments, others to specially registered companies, and one or two are owned by railway companies. They must be adequately fitted to receive, hold and care for all animals, according to the provisions of the Live Stock and Live Stock Products Act. Their operation is in all instances under the inspection and supervision of the Dominion Minister of Agriculture.

Meat-yielding animals, by carlot or mixed carlot, are usually consigned to commission men, or selling agents, who act for the farmer or



View, from an airplane, of the Toronto Stock Yards, covering thirty acres, and the largest in Canada. In 1922, 363,162 cattle, 86,396 calves, 343,385 swine, and 231,603 sheep and lambs were sold on these stockyards. Adjacent, marked by figures, are three of the large meat packing houses. Their combined cold storage capacity is 17,000 beef carcasses.

drover. As the name implies, they work upon a commission basis, which is generally a percentage of sales. All acting commission men are members of the recognized local Live Stock Exchange, under whose rules they work.

The principle buyers on the public stockyards are employees of the various packing-houses, though there are also many so-called small packers, local butchers, exporters, etc., whose competition on any stockyard in the aggregate is highly important. A strictly competitive system of buying obtains, and prompt cash payment is the rule.

Buyers go around the pens, and after inspecting the stock, make bids to the commission men. All live stock is sold by weight, that is, at so much per pound. The weighing is done independently on public scales as a part of the service rendered by the stockyards company. Every "ticket" or record of sale is made out in triplicate and is open to examination by anyone. This system, after long experience, appears to satisfy all parties. The only factor of importance that alters from day to day is the price bid, which naturally depends on the market demand, quality and condition.

A small part of the live stock handled through the central markets is bought again by commission men, acting on behalf of farmers who wish to feed for future marketing. This buying for "country shipment," taking the place of the old-time monthly fair, is one of the ways in which farm stock is renewed in Canada. Live stock purchased for export, either as stockers and feeders, is dealt with in the same way.

The foregoing is, in outline, the Canadian method of cattle marketing. Incidentally it may be said that nothing like the English, Scotch, or Irish weekly markets, to which cattle may be driven on the hoof, was ever possible in Canada, except in a few places. Even before the opening up of the western provinces, which gave the live stock industry its present-day distinctive characteristics, conditions in the older provinces made such small markets difficult or impracticable, owing to the great distances that animals had to be transported.

SLAUGHTERING AND MEAT PACKING INDUSTRY

In 1922 there were eighty-three slaughtering and meat-packing establishments in operation in Canada, their distribution by provinces being as follows:—

Prince Edward Island.....	5
Nova Scotia.....	2
New Brunswick.....	7
Quebec.....	22
Ontario.....	27
Manitoba.....	7
Saskatchewan.....	2
Alberta.....	6
British Columbia.....	5
Total.....	83

The following table shows, by decades since 1871, the number of plants and the value of the product of the Canadian slaughtering and meat-packing industry:—

Year	Establishments	Value of Product
1871.....	193	\$ 3,799,000
1881.....	203	4,084,000
1891.....	527	7,125,000
1901.....	57	22,217,000
1911.....	80	48,527,000
1921.....	84	153,136,000
1922.....	83	143,414,693

The decrease in the number of plants was brought about by the centralization of slaughtering and packing, and coincided with the expansion of export trade.

PRINCIPAL STATISTICS OF THE SLAUGHTERING AND MEAT PACKING PLANTS IN CANADA

(Summary of Dominion Statistician's Report)

Number of plants.....	83
Capital.....	\$ 56,710,481
Number of employees.....	9,800
Salaries, etc.....	12,366,896
Cost of animals and materials.....	\$115,154,525
Sales value, all products.....	\$143,414,693

SLAUGHTERINGS OF LIVE STOCK AT INSPECTED PACKING PLANTS IN CANADA

Cattle

	1921	1922	1923
At Toronto.....	343,059	380,653	361,859
Elsewhere in Ontario.....	1,527	1,608	1,585
In Quebec.....	191,321	237,375	229,786
In Manitoba.....	91,459	116,654	120,922
In Saskatchewan, Alberta and British Columbia.....	87,226	94,984	97,890
In Maritime Provinces.....	721	427	100
Total.....	715,313	831,701	812,142

Swine

	1921	1922	1923
Toronto.....	715,164	801,595	973,650
Ontario.....	284,413	301,449	275,613
Quebec.....	293,507	294,711	367,301
Manitoba.....	132,783	206,055	272,871
Saskatchewan, Alberta and British Columbia.....	188,704	307,357	350,487
Maritime Provinces.....	21,818	16,045	16,552
Total.....	1,636,389	1,927,212	2,256,474

Sheep

	1921	1922	1923
Toronto.....	295,385	239,277	193,525
Ontario.....	527	332	211
Quebec.....	190,537	189,273	186,833
Manitoba.....	55,559	52,014	36,127
Saskatchewan, Alberta and British Columbia.....	91,686	90,457	68,612
Maritime Provinces.....	13,256	15,050	14,437
Total.....	646,950	586,403	499,745

Marketed at Stockyards

The number of animals marketed at the eight chief stockyards of the Dominion during 1921 and 1922 is given as follows:—

	1921	1922
Cattle.....	673,484	842,909
Calves.....	209,768	257,924
Sheep.....	576,317	541,175
Swine.....	653,596	800,991

ABATTOIR METHODS

CANADIAN BEEF

Most of the packing-houses and abattoirs have been built on sites close to existing stockyards. As soon, therefore, as the buyer has had his cattle weighed, they are driven the intervening distance to the slaughter-house. This is often only a stone's throw, though, occasionally, factories are so situated that a short railway run is required. If necessary, the cattle are reclassified so that steers of one type and quality pass together to the killing floor.



Interior of municipal abattoir. Killing floors on right; cold storage rooms on left.

It is claimed for the meat-packing industry that large scale slaughtering under the factory system is perhaps the most efficient and economical link in the chain from farm to table. The animals pass one by one along a narrow alley, and are stunned by a sharp blow from a four-pound hammer by a skilled worker. As the beast falls, the side of the pen automatically lowers it to the floor, where it is promptly despatched by gangs of men so arranged that, as soon as one beast is disposed of, another at once takes its place. When bled and partly flayed, the carcass is raised by mechanical hoist until it hangs in the well-known manner by the tendons of the hind legs. It is then hitched to a forward-moving chain on an overhead rail, and starts on a journey that is the height of efficiency in butchering. Every process is rapidly and neatly done while the carcass steadily moves forward. One man takes but one operation and performs it on each carcass, never leaving his allotted space of two or three feet.

As one carcass is finished, he turns to receive the next, leaving all other processes to be done in turn by men who stand farther down the line. The continual performing of the same operation leads to great skill and expedition, and the output under such a system is both standardized and economical.

The government inspection service, more fully described hereafter, is one of the best organized features of the Canadian meat-packing industry, and only under a system of centralized marketing, slaughtering and manufacture would it appear to be practicable.

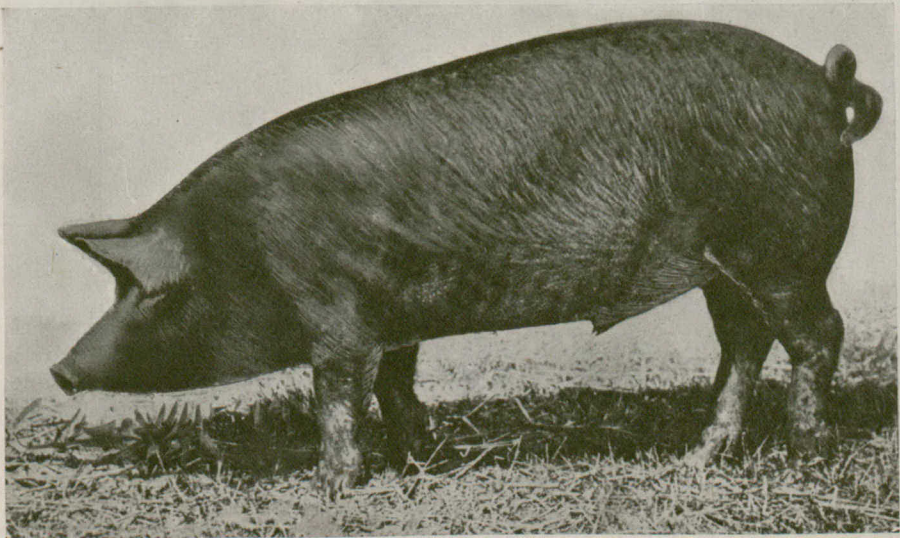
When the carcasses are passed and marked "Canada Approved," they proceed by the same endless chain to the cooling room, where they are held either until sold to the domestic wholesale trade or are shipped for export.

An excellent adjunct of the Canadian meat trade is the refrigerated railway car. By means of an ice-cooling arrangement, the air can be regulated and maintained at a uniformly low temperature so that meat can be kept in the best condition. Carcasses are always hung from ceiling hooks. For the overseas trade, these cars are run alongside the ocean-going vessel at Montreal, Halifax or St. John, and the carcasses are transferred direct to the cold storage on board.

CANADIAN BACON

The successive steps of the Canadian bacon hog from farm to ship-side are of interest.

But first a brief digression on definitions is desirable. Throughout Canada the old term "hogs" (of Celtic origin, traceable in Welsh and Erse to-day) is used in the general sense of all swine comprehended in the



Tamworth hog of the type for making select export bacon.

term "pigs" (a word of Dutch origin) in Great Britain. When "pigs" are mentioned in Canada, the word is usually employed as "piglets" is in England; when "hogs" is the word used it is in no way restricted, as the

sense sometimes is in England, to castrated males, for which the common Canadian equivalent is barrows. "Pigs," of course "is pigs," but in Canada they're hogs.

Marketing and Grading.—Hogs are usually sold by the farmer-producer to a drover, who gathers the lots at the country railway station where he makes up a carlot or railway wagon load, a number that may run from sixty-five to ninety.

Under a system of government grading, all hogs on stockyards are classified as to their suitability for bacon production, and payment is made on the basis of grade, the object being to encourage farmers to breed animals of the bacon type. Should the drover sell to local butchers, no grading is necessary, but the product can enter domestic trade channels only. Once the carlot is consigned to the public stockyard or direct to the packing house, it must be graded by independent officials, appointed by the Dominion Government.

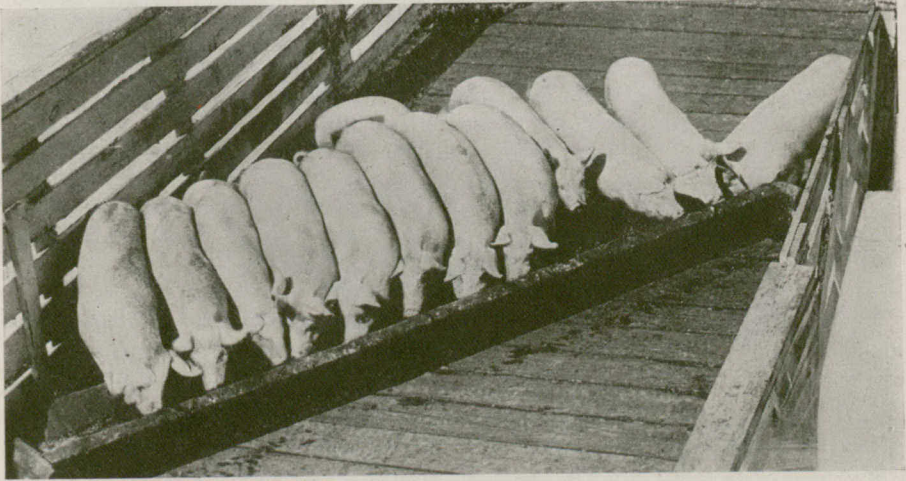
Slaughter and Inspection.—At almost every Canadian packing-house a part of the hog supply is delivered direct by farmer's car or motor truck. The limit range of collection seems to be about twenty-five miles. Owing, however, to the occasional severity of the Canadian winter, the state of the roads is often a factor of more importance than the actual distance.



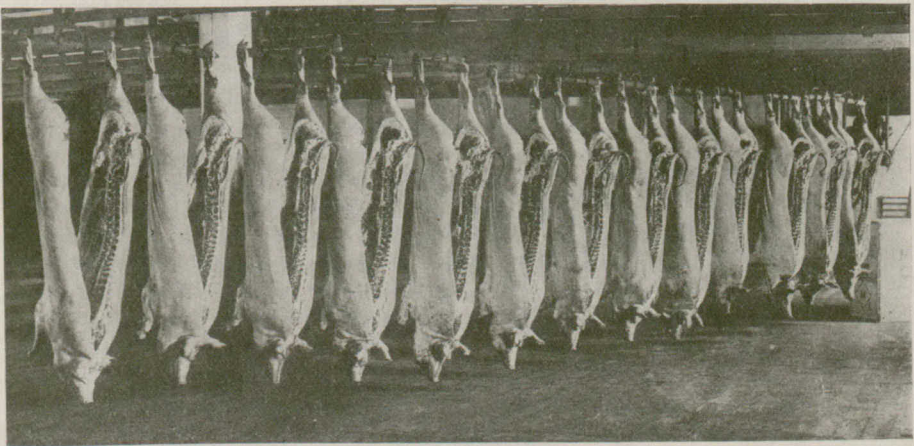
To make the high class bacon demanded by the British consumer, the pig must not only be of the right type, but must be correctly fed. Milk products are almost essential as part of the ration.

Slaughter is machine-like in its method. As a rule the actual killing place is on the top floor of the abattoir. The advantages of this will be indicated. Some firms keep all hogs of one grade apart from others, but practices differ. Pig after pig comes forward on automatic conveyers and passes before the killer. In a few minutes bleeding is completed and the carcass—one advantage of starting on the upper floor—is slid down the chute into the scalding vat, and thence to the dehairing machine, where the bristles are slapped off by quickly revolving flappers or beaters. When it emerges, it is again hitched to a chain and drawn up through a vertical pipe-like tube, on the inner surface of which are jets of gas flame which

singe off any hair that may have escaped the beaters. This gives a thin, delicate rind to the bacon. There is also a certain chemical action caused by heat on the outer skin which is of considerable importance for the retention of the juices in the bacon at the rind. Following the singeing, the carcass is scraped clean and washed by men handling flexible scrubbing brushes through which shoot jets of water. Here begin the various cutting up processes, removal of the head, viscera, and so on.



A litter of thirteen, all graded as Select Canadian Bacon Hogs.



Carcasses on the packing house rail of the thirteen Select Bacon Hogs shown alive in the accompanying picture.

At every step in a well-conducted abattoir the advantages and economy of having the slaughter performed on the top floor are apparent. As each part is removed from the hanging carcass, it is placed upon a travelling table, 30 to 40 feet long, and is scrutinized by the inspector as it passes steadily forward. When approved and passed, each part is

dropped through a different chute into its respective place on the story beneath, and is dealt with according to trade needs. The carcass, with head removed and split down the back-bone into two halves, passes into the cooling room. Indeed, from the moment it came out of the scalding or singeing machine until ready for the brine cellar, it has been hanging on the same hook, carried around by an overhead endless chain, each workman doing successively his allotted job as it moved onward.

Curing.—The sides are sorted into classes according to their suitability for domestic or export trade. Those intended for Canadian home consumption are dissected into somewhat different "cuts" from those customary in England, but the sides suitable for London and Liverpool are trimmed into "Wiltshire" cuts. These are branded with the firm's trade designation and processed, giving enough pickle to permit the sides being transported to the seaboard and across the Atlantic, eventually to English smokehouses.

Comparative figures showing the killings of hogs in Canada, Denmark and Ireland, over a series of years, are given in the following table:—

Yearly Hog Killings, Canada, Denmark, Ireland

Calendar Years	Canada	Denmark	Ireland
1912.....	1,650,966	2,084,786	1,416,490
1913.....	1,564,246	2,215,850	1,181,285
1914.....	2,255,479	2,654,041	1,266,620
1915.....	2,616,461	1,960,065	1,376,063
1916.....	2,313,389	1,534,011	1,277,900
1917.....	2,086,009	1,000,000	967,475
1918.....	2,259,736	* 638,000	730,177
1919.....	2,332,387	* 650,000	878,465
1920.....	1,785,235	* 1,100,000	904,289
1921.....	1,636,389	1,400,000	.....
1922.....	1,927,187	1,880,000	.....
1923.....	2,256,474	2,800,000	.....

* Estimated.

CANADIAN MUTTON AND LAMB

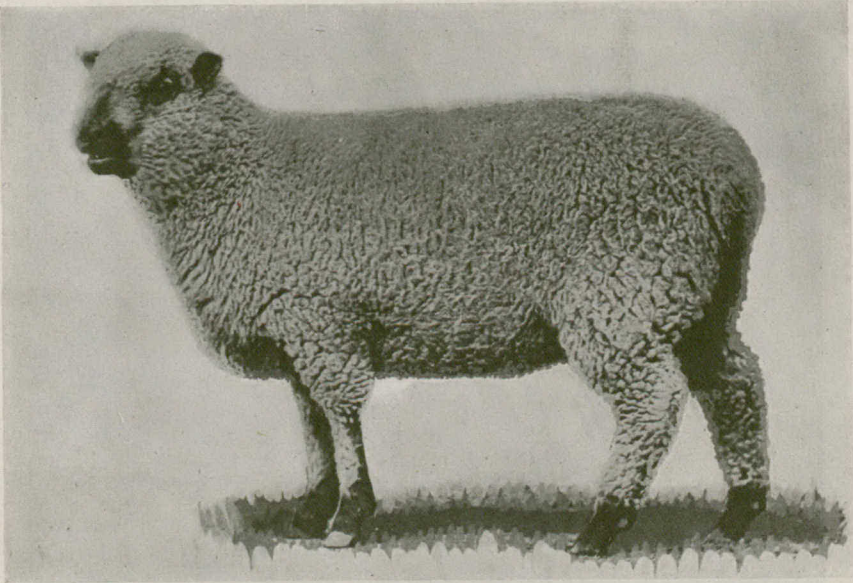
For sheep and lambs much the same method of slaughter obtains, except that there is no compulsory grading system. Nor is there scalding or dehairing, the pelt being removed by men assigned to the work as the hanging carcass passes before them. Inspection for wholesomeness is made, as with other classes of meat, by Dominion veterinary officials.

The per capita consumption of mutton and lamb in the Dominion is about one-third that in Great Britain, though in fresh pork, due largely to climatic conditions, consumption is far larger.

BY-PRODUCTS

Little need be said here of an outstanding feature of the packing-house system—the utilization of by-products, or in other words, the turning to profitable account of those smaller parts of the carcass, edible and otherwise, which in the old-fashioned butchering days were openly wasted. Everything tangible is used. Over one hundred and thirty different by-products can be obtained from cattle and swine. These are used for all sorts of purposes, from sausage casings to elaborately worked up phar-

maceutical and cosmetic preparations. These economies have resulted in benefit to farmer and consumer alike, as they tend to increase the price to the live stock producer and to lower the price of meat to the consumer, the difference being covered by the sale of valuable by-products.



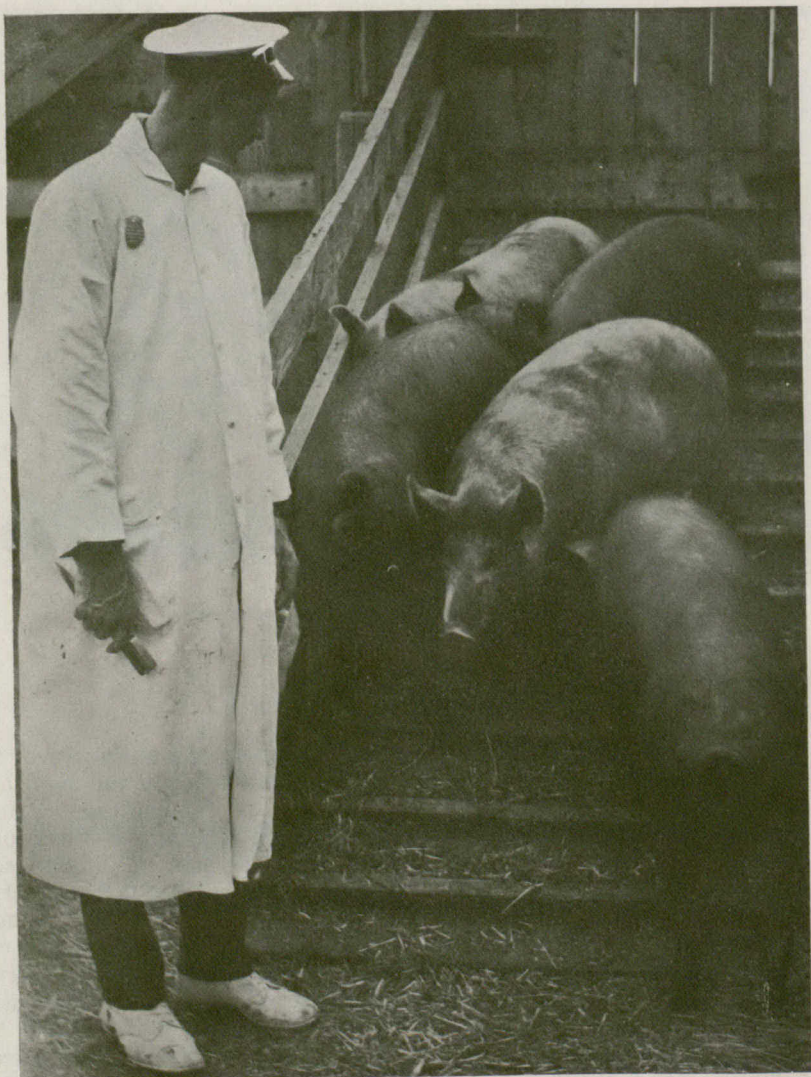
Perfect type of 80-pound Canadian-bred market lamb.

CANADIAN MEAT INSPECTION

Meat inspection in Canada is maintained under the authority of the *Meat and Canned Foods Act*. This Act is administered by the Health of Animals Branch of the Dominion Department of Agriculture. Briefly stated, the object and intention of the Act and the Regulations thereunder is to insure that meat and meat food products destined for human consumption are sound and wholesome. This is accomplished by preventing diseased or otherwise dangerous meats from entering consuming channels; by seeing that their handling and preparation is in accordance with modern sanitary science; by preventing the use of harmful dyes, preservatives and chemicals, and by requiring that all products be honestly labelled.

The Meat and Canned Foods Act specifically controls exports from and imports into Canada. The establishments coming within the operations of the Act are those that are engaged in shipping meats from one province to another, or whose products enter into export trade. The Act and Regulations are rigidly enforced, and no meat or meat food products may leave the Dominion unless they have complied fully with requirements.

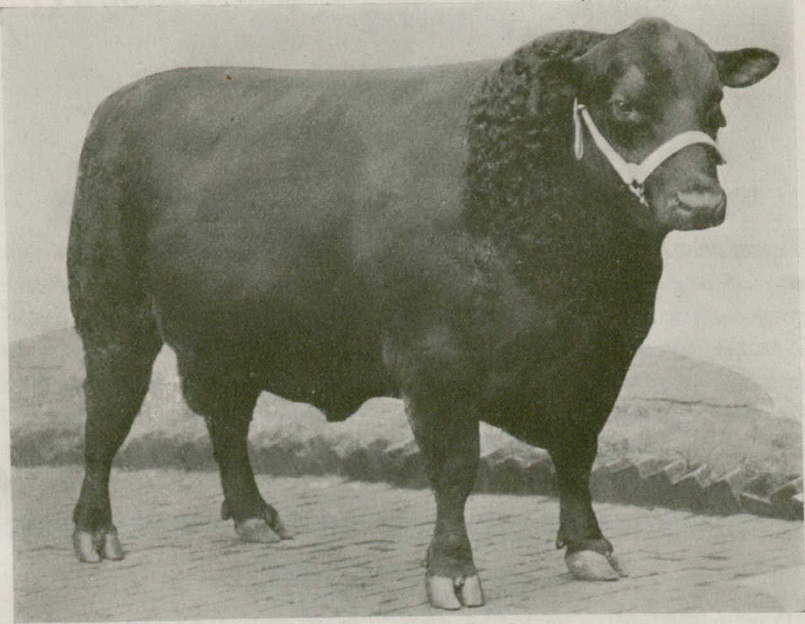
The first requirement, before inspection is granted to establishments of the class mentioned, is that the plant must be sanitary as regards construction, equipment and maintenance. When this requirement is fully



Dominion Government Veterinary Inspector making examination of Canadian bacon hogs previous to slaughter.

met, inspection is granted, an official number is assigned to the establishment, and trained inspectors are detailed for duty at the premises, under the direction of the inspector in charge.

Under the inspection system, a complete and continuous check is kept upon the minutest detail. The yards, pens, stables, in fact the entire premises, no matter how large or to what use they may be put, are continually and entirely under the control of the department's officers. No operation, whether performed by day or by night, is permitted except under supervision.



Espoir Marshall, 18156, prize-winning Canadian bull of the Aberdeen-Angus breed.

The actual work of inspection begins the moment the animal enters the premises under inspection. The first examination, known as ante-mortem inspection, is carried out in the yards, pens, or stables. At this stage veterinary examination takes place for evidence of disease or other abnormal conditions.

If the appearance of an animal is other than normal, it is segregated and is marked "Held" with a numbered metal ear-tag, and a full report of the suspected condition is made out. This report is placed in the hands of the post-mortem inspector, who, after the animal is slaughtered, makes a minute examination of the carcass and decides as to its condition.

Animals that are not held on ante-mortem inspection go forward for immediate slaughter. From the time the animal has bled out, it is constantly under inspection. The examination is minute, thorough and efficient, and includes every portion of the animal—skin, all organs, viscera, glands, and flesh. Every abnormal condition is carefully scrutinized and incised. Should disease or any abnormal condition be found, a complete system of checking and tagging enables every part of the animal to be immediately located, identified and held. It is then taken to a special

compartment where a further searching examination is made, and decision rendered as to its fitness for food. If the conditions warrant condemnation, the entire animal is placed in tanks under government seal, and eventually destroyed. If no evidence is found to warrant the carcass being held, it is marked with the Canadian Government Inspection Legend, "Canada Approved," which guarantees its soundness and freedom from disease.

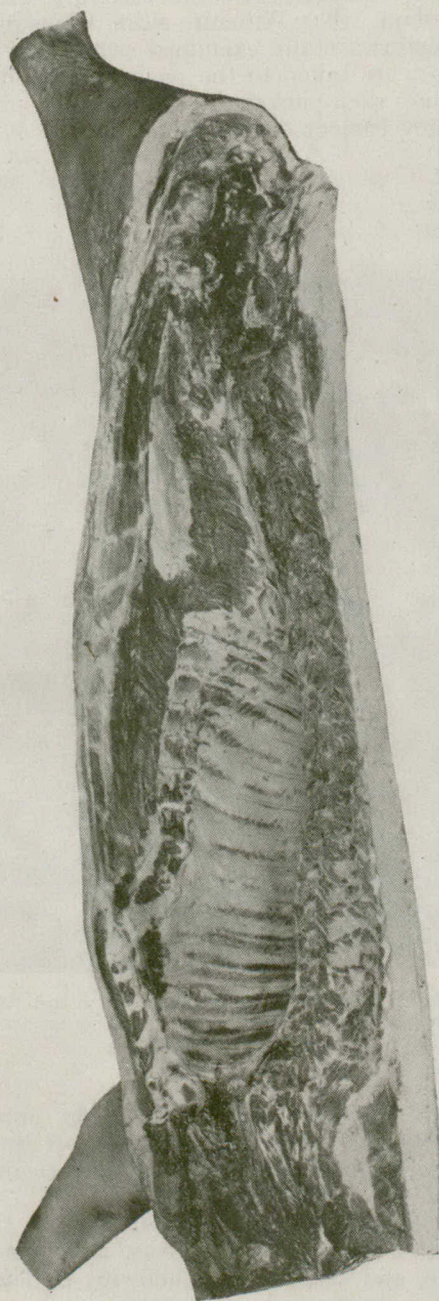


Government Export Stamp.

During the entire period of slaughter, the sanitary conditions of the slaughter room are under close observation, even to the clothing of the employees.

After passing inspection, the dressed carcass proceeds to the cooling room, and the viscera to the offal department. The cooling rooms are bright, maintained at proper temperatures, and kept perfectly clean. The carcasses of beef are held in the coolers or freezers until sold. They are then cut into the well-known trade portions, well wrapped, properly labelled, and shipped from the plant. All these operations are conducted under the supervision of the inspection staff. Should a carcass or a portion thereof become contaminated for any reason so as to render it an impure food product, it is immediately condemned, placed in the tanks and destroyed.

Pork carcasses, not sold as such, go to the cutting room where they are made into the different cuts, and properly trimmed. From there they are sent to the curing cellars and placed in pickle or dry salt. The pickle and dry salt are regularly analyzed and tested at government laboratories, in order to ascertain their purity. No preservatives of any kind are permitted at this stage, other than common salt, sugar, saltpetre, wood-smoke, spices, and refined sodium nitrate. A continuous check is kept on all these materials, and their purity is assured.



A side of Canadian Export Bacon

When the pork portions are removed from cure, they are washed and cleansed; some are smoked; others are carefully wrapped, labelled and shipped from the plant. The Wiltshire sides, when removed from pickle, are drained, and again carefully examined as to their wholesomeness, and if for foreign export are taken to the packing and shipping room, where an inspector examines each package to see that it is properly marked, and labelled with the government export stamp.



Filling a trench silo with sunflower silage to provide succulent winter feed for live stock. This form of silo has proved to be a satisfactory and reliable method of feed storage, particularly for Indian corn (maize), and is being widely adopted in Western Canada.

When an export shipment is complete, upon application from the management, the inspector issues the official export certificate, and after the cars have been scrutinized to see that they are clean and sanitary, the shipment is permitted to go forward.

The export certificate gives full particulars as to the contents of the shipment, identification and shipping marks, name and address of consignor and consignee, and contains the following declaration:—

“ This is to certify that the meat or meat food products herein described were derived from animals which received ante-mortem and post-mortem veterinary inspection at the time of slaughter, and that said meat and meat food products are sound, healthful,

wholesome and otherwise fit for human food, and have not been treated with and do not contain any preservative, colouring matter, or other substance not permitted by the Meat and Canned Foods Act and Regulations, and have been handled only in a sanitary manner in this country."

Various portions of the carcass, such as trimmings, after the different processes of cure, are taken to the process room, where they are manufactured into sausage, bologna, or other cooked meat food products. The employees, rooms, and the different machines are kept perfectly clean, and every operation is closely supervised until the product has been prepared for entry into domestic or export trade.

It is impossible to adequately describe inspection operations or the completeness of the control exercised by the Government inspection staff. This requires to be seen in order to be fully appreciated. The work is, however, extremely thorough, and enables the Government, with the fullest confidence and assurance, to place its official mark, "Canada Approved," on all meats and meat food products leaving Canada, and to guarantee to every consumer of Canadian meat and meat foods, the official Government certificate as to the healthfulness and wholesomeness of the product, its sanitary handling, and its labelling in a manner that honestly and truly describes the product.

**PRODUCTION OF SLAUGHTERING AND MEAT PACKING ESTABLISHMENTS, CANADA,
1920, 1921 and 1922**

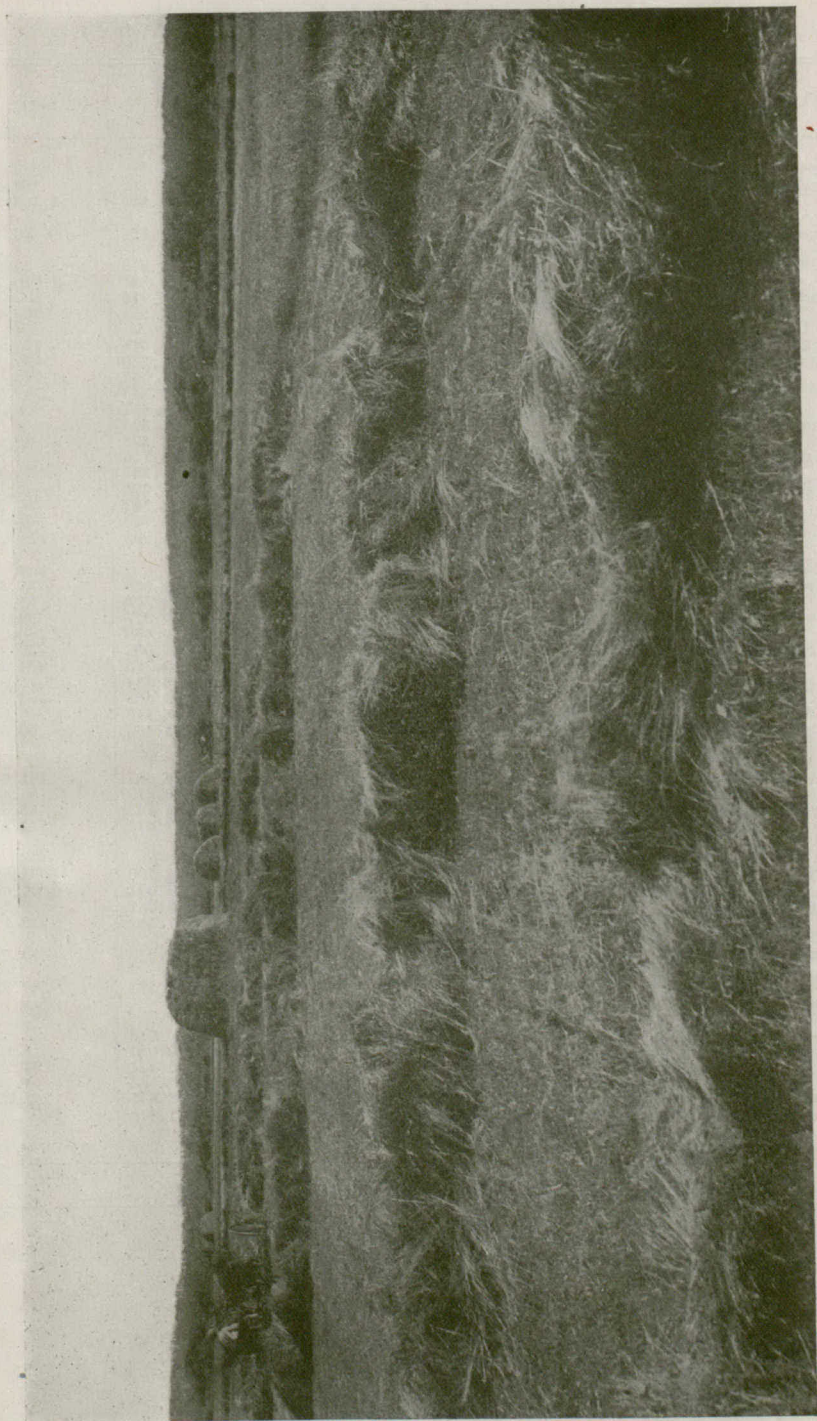
Kind	1920	1921	1922
MEATS SOLD FRESH—			
Beef.....lb.	297,297,955	264,356,063	292,945,201
\$	55,239,777	35,636,366	28,240,355
Mutton.....lb.	46,941,632	34,043,637	32,512,028
\$	10,297,988	6,693,557	5,973,139
Pork.....lb.	75,686,123	77,668,607	89,948,380
\$	21,669,071	16,601,197	16,691,166
Veal.....lb.	22,571,511	19,535,961	27,490,961
\$	4,592,955	2,950,410	3,375,827
Other.....lb.	10,563,374	5,069,370	8,000,208
\$	2,095,773	790,823	925,245
MEATS CURED—			
Beef, salted or cured.....lb.	8,977,202	563,564	2,956,599
\$	1,679,524	73,310	274,985
Pork, salted.....lb.	45,170,076	40,843,257	34,573,593
\$	13,276,170	9,147,740	7,334,710
Hams.....lb.	44,392,002	19,707,184	24,751,907
\$	15,801,386	6,316,990	6,452,580
Shoulders.....lb.	32,799,091	55,735,498	19,385,422
\$	10,131,900	13,685,897	3,714,678
Bacon and sides.....lb.	96,128,042	55,436,782	66,366,742
\$	36,772,497	17,381,025	17,424,984
Other cured meats.....lb.	10,015,800	10,650,154	43,875,012
\$	3,244,753	2,756,795	9,366,306
Sausage, fresh and cured.....lb.	28,547,527	23,045,178	24,456,021
\$	6,353,749	4,274,777	3,815,190
Sausage casings.....\$			746,552
Canned meats.....lb.	6,396,305	7,457,028	5,386,571
\$	1,591,447	1,451,856	1,028,905
Cooked meats.....lb.	11,800,363	14,237,793	13,657,643
\$	5,189,585	6,006,393	5,065,946
Lard.....lb.	54,451,386	72,151,773	49,338,784
\$	14,950,621	11,751,806	7,670,130
Lard compound.....lb.	**	**	15,733,230
\$			2,145,929
Shortening, other.....lb.	**	**	17,743,822
\$			2,518,317
Tallow.....lb.	14,051,223	13,996,919	13,436,257
\$	2,031,904	868,243	1,004,172

* Included with all other products.

** Lard compound and other shortening included with lard.

Kind	1920	1921	1922
Oleo.....lb.	2,631,050	5,538,080	2,407,950
\$	1,720,777	1,075,292	238,909
Other oils.....lb.	*	*	7,011,971
\$			774,399
Oleomargarine.....lb.	10,565,055	3,024,625	2,326,986
\$	3,673,072	755,053	435,784
Stearine.....lb.	9,371,518	645,891	91,765
\$	2,347,516	75,669	10,557
Animal tankage.....tons	12,171	14,068	13,630
\$	607,358	366,838	480,807
Bones, raw, ground, etc.....tons	5,699	2,784	8,843
\$	480,864	104,377	314,131
Complete fertilizers.....tons	7,370	6,322	2,595
\$	573,656	238,768	145,107
Glue.....lb.	29,379		2,549
\$	8,042		445
Glue stock.....lb.		379,278	
\$		7,645	
Hides.....No.			552,744
\$	10,561,070	2,827,309	4,190,944
Skins, sheep.....No.	607,937	647,435	496,316
\$	1,270,488	405,258	517,914
Skins, calf.....No.	121,685	155,114	254,180
\$	445,445	230,233	391,193
Wool.....lb.	450	161,585	17,550
\$	67	59,203	460
Hair.....lb.	2,357,802	1,689,391	1,010,200
\$	174,440	94,735	42,438
All other products.....\$	13,748,422	10,445,539	11,923,540
Amount received for custom or contract work.....\$	14,393	63,185	178,949
Total Value of Production.....\$	240,544,618	153,136,289	143,414,693

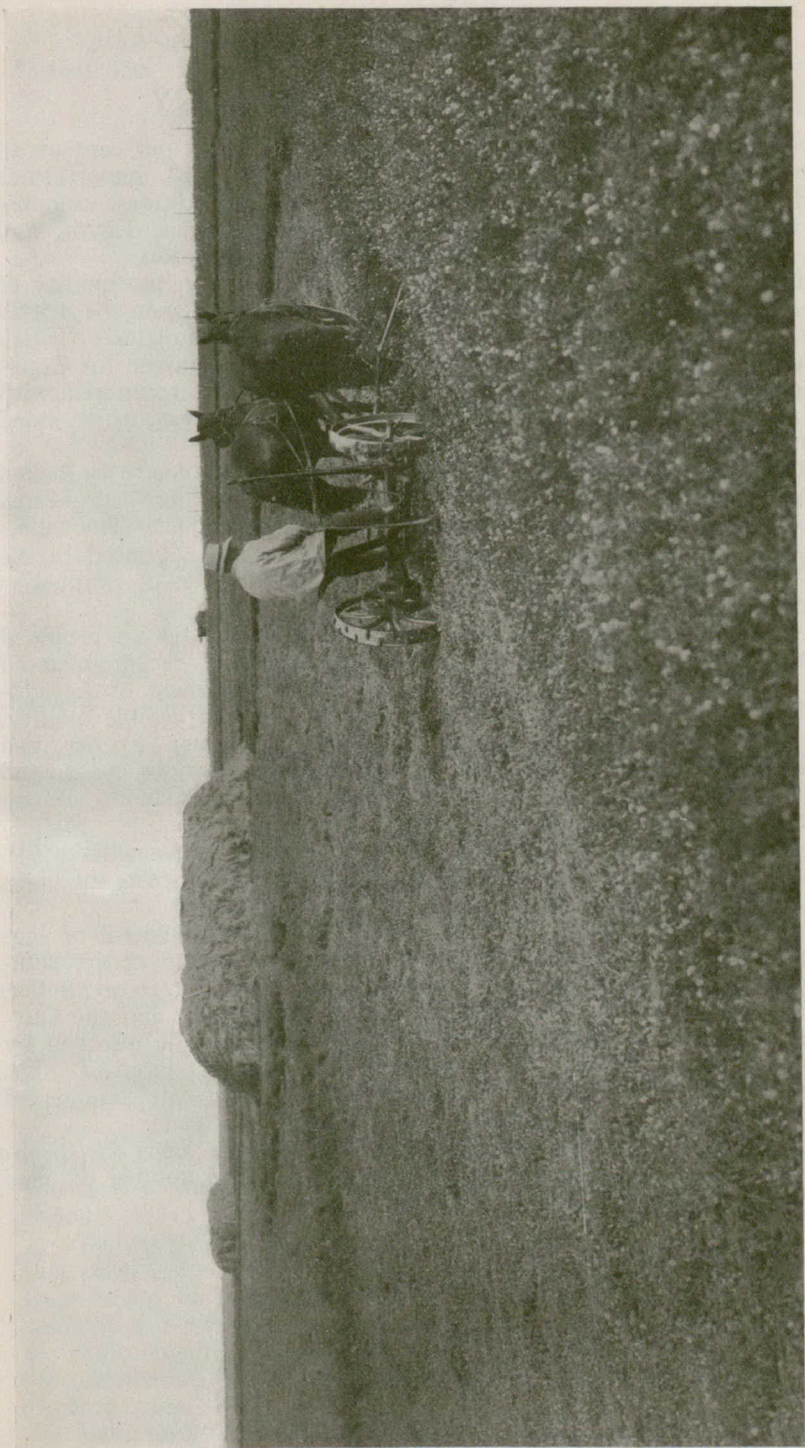
* Other oils included with oleo.



A heavy crop of hay from native prairie grass.

EXPORTS OF PRODUCTS OF THE CANADIAN MEAT INDUSTRY, 1920-1922

Article	1920	1921	1922
MEATS—			
Beef, chilled, fresh, and frozen.....cwt.	644,120	322,562	262,251
\$	10,702,829	4,057,958	2,861,131
Game.....\$	27,626	42,852	40,595
Mutton and lamb, fresh, chilled and frozen.....cwt	86,595	69,910	46,884
\$	2,127,185	1,182,848	1,046,564
Pork, fresh, chilled and frozen.....cwt.	15,760	10,916	7,352
\$	462,697	280,563	169,451
Poultry.....\$	542,009	794,618	721,454
Bacon and hams, shoulders and sides.....cwt.	1,052,433	1,021,230	991,411
\$	34,288,497	25,613,052	22,796,641
Beef, pickled.....cwt.	26,162	783	1,158
\$	292,248	10,441	8,314
Canned meats.....cwt.	5,551	1,323	2,646
\$	286,426	193,393	86,242
Pork, dry salted.....cwt.	18,484	13,746	3,282
\$	444,862	471,587	55,000
Pork, pickled.....cwt.	6,966	5,038	6,175
\$	118,206	58,752	59,186
All other meats.....cwt.	131,233	63,782	64,528
\$	1,445,900	681,903	530,242
OILS, FATS AND GREASES—			
Neat's-foot and other animal oils.....gal.	24,004	101,650	81,822
\$	68,621	113,308	85,006
Grease and grease scraps.....cwt.	20,513	39,317	32,167
\$	145,115	160,460	140,353
Lard.....cwt.	25,173	56,658	30,933
\$	621,420	849,396	454,024
Lard compounds and substitutes.....cwt.	2,300	8,234	25,876
\$	57,425	109,805	338,397
Tallow.....cwt.	17,542	16,515	9,818
\$	205,009	83,438	60,073
HIDES AND SKINS—			
Cattle—(including calf) hides and skins.....cwt.	296,334	324,307	441,045
\$	7,901,534	3,270,079	5,144,444
Sheep hides and skins.....cwt.	38,674	35,743	46,816
\$	885,163	313,676	524,876
BONES, HORNS, ETC.—			
Bones, crude.....cwt.	111,250	42,590	71,021
\$	263,741	73,892	99,060
Bone dust, meal, etc.....cwt.	60,027	7,381	7,741
\$	105,259	7,362	5,172
Horns and hoofs.....\$	35,127	16,837	13,976
Hair.....\$	297,408	122,571	239,836
OTHER ANIMAL PRODUCTS—			
Glue.....cwt.	1,285	915	866
\$	12,086	9,933	8,881
Glue stock.....cwt.	42,434	42,434	31,797
\$	127,014	132,166	61,798
Tankage.....cwt.	261,110	246,847	295,038
\$	729,276	301,418	471,351
Sausage casings.....\$	586,840	505,062	579,259
Total value.....\$	62,779,523	39,157,370	36,601,326



Five tons of alfalfa hay per acre in the irrigated districts of Southern Alberta is not exceptional. Under irrigation, this country will produce an abundance of feed, and is capable of supporting many more dairy cows, beef cattle and sheep than exist at present.

CANADIAN EGGS AND POULTRY

According to British trade returns, upwards of forty per cent of all eggs consumed in Great Britain are imported. In 1923, importations totalled 200,486,830 dozen, the countries contributing the largest amounts being, in the order given, Denmark, Netherlands, France, Egypt, and China. Canada stood eighth on the list with 3,777,590 dozen.

Although Canada's egg exports are small in quantity, the quality of the product is such as to command the highest average price on the British market in open competition with the eggs of other countries. British trade statistics indicate that in 1923 the average price obtained for Canadian eggs was 19s. 9½d. per long hundred (10 dozen), compared with 16s. 6d. for United States eggs and 16s. 2½d. for Danish eggs, which stood second and third respectively.

These figures demonstrate that Canadian eggs have come to be looked upon as an excellent article in Great Britain. To Canadian egg-grading may be attributed the fine reputation secured for this product. The Canadian system of egg-grading is claimed to be the most advanced in the world, and is likely to lead ultimately to great extension of production and export.

The Regulations for the Grading and Marketing of Eggs are provided under the *Live Stock and Live Stock Products Act*, and are administered by the Egg Inspection Service of the Dominion Department of Agriculture. Eggs are graded for market according to their (a) edible quality, as determined by what is termed the "candling" process; (b) size, and (c) cleanness and soundness of shell. The standards apply to export and interprovincial shipments, to imports of foreign eggs into Canada, and to eggs marketed locally for domestic consumption.

The method employed in inspection is to draw a representative five per cent sample. If this confirms the grade marked on the case, the Government mark is placed thereon and a certificate issued.

No person may ship or accept for shipment any consignment of eggs for export unless the regulations as to inspection and grading are complied with. The system provides a guarantee for both buyer and seller. To the buyer the quality is guaranteed by the grade mark and the Government certificate of inspection; to the seller protection is afforded by the fact that inspection is made at the time and place of shipment. The method adopted, by establishing confidence in the product, has commended itself to the British importer as well as to the domestic trade.

The development of the poultry industry in Canada since the beginning of the present century has been considerable. The number of head of poultry of all kinds is given by decades as follows:—

1901.....	17,922,658
1911.....	31,793,261
1921.....	50,325,248

Of all descriptions of farm poultry, the total value in 1923 is \$39,840,300. Numbers and values are as follows:—

POULTRY, ALL CLASSES, NUMBERS AND VALUES

1923

Class	Number	Value
		\$
Turkeys.....	41,356,119	4,459,100
Geese.....	2,105,483	1,919,300
Ducks.....	961,203	1,064,200
Fowls.....	1,046,487	32,397,700
Total.....	45,469,292	39,840,300

Particulars as to the production and value of eggs from farms, based upon the estimated number of egg-laying fowls, the average production per hen, and the average price per dozen eggs as recorded by farmers, are given in the following table:—

PRODUCTION AND VALUE OF FARM EGGS, BY PROVINCES, IN CANADA,

1922 AND 1923.

Province	Egg-producing Hens		Eggs produced		Value	
	1922	1923	1922	1923	1922	1923
	No.	No.	doz.	doz.	\$	\$
PrinceEdward Island.....	586,309	570,273	3,420,136	3,326,593	752,430	698,585
Nova Scotia.....	667,116	606,241	3,891,510	3,536,406	856,132	742,645
New Brunswick.....	876,464	639,584	5,112,707	3,730,907	1,124,795	783,490
Quebec.....	4,588,293	4,572,510	26,765,043	26,672,975	7,494,212	7,201,703
Ontario.....	9,555,633	10,441,293	67,685,734	73,959,159	20,305,720	21,448,156
Manitoba.....	2,438,243	2,219,416	15,239,019	13,871,350	3,047,804	2,635,557
Saskatchewan.....	5,778,826	5,997,651	36,117,662	37,485,319	7,223,532	7,122,211
Alberta.....	4,066,274	4,393,170	25,414,212	27,457,313	5,082,842	5,216,889
British Columbia.....	1,388,326	1,576,951	10,412,445	11,827,133	2,603,111	2,838,512
Indian Reserves.....		47,903		319,353		83,032
Total.....	29,945,484	31,064,992	194,058,468	202,186,508	48,490,578	48,770,780

In value of eggs produced the province of Ontario leads with nearly half the total. Quebec is second, followed by Saskatchewan, Alberta, British Columbia, and Manitoba in the order named.

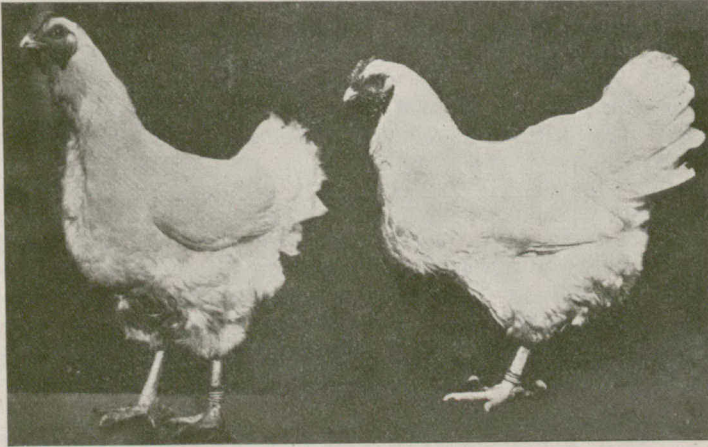
Pedigree breeding of poultry has been given official recognition in Canada through the Record of Performance for Poultry and Poultry Registration. The Record of Performance is based upon trap-nesting, certificates being granted for records of 150 eggs or more in fifty-two consecutive weeks, and advanced certificates for 225 eggs or more in the same period.

To qualify for registration, a bird must lay 200 eggs or more in fifty-two consecutive weeks in one of the laying contests conducted by the Department of Agriculture at its Experimental Farms. Certificates of pedigree are issued by the Canadian National Live Stock Records, and the birds officially banded and tattooed. Through the National Records, the registration of poultry is put upon the same plane as the registration of other types of live stock.

Experimental Work.—The Poultry Division of the Dominion Experimental Farms is located at the Central Farm, Ottawa, under the super-

vision of the Dominion Poultry Husbandman. There is an adequate and up-to-date poultry plant on practically every one of the branch Experimental Farms and Stations in Canada.

The experimental work carried on relates to breeding, incubation and brooding, feeding, housing, care and management. Poultry diseases are



Two noted Wyandotte hens, bred at the Dominion Experimental Station, Vancouver Island, British Columbia.

studied. Demonstrations of a practical nature for the benefit of farmers and poultry keepers are held, and at least one egg-laying contest is conducted on a branch Farm in each province, as well as a national contest at the Central Experimental Farm at Ottawa.

EXPORTS OF CANADIAN EGGS

Calendar Years 1921, 1922 and 1923.

To United Kingdom.....	Doz.	4,944,270	3,155,910	2,550,830
	\$	2,539,652	1,253,744	905,376
" United States.....	Doz.	332,017	290,404	141,761
	\$	138,758	98,144	49,499
" Newfoundland.....	Doz.	136,996	145,063	185,790
	\$	63,877	54,633	67,429
" Other Countries.....	Doz.	30,731	27,979	21,730
	\$	15,700	10,966	8,156
Total.....	Doz.	5,444,014	3,619,356	2,900,111
	\$	2,757,987	1,417,487	1,030,460

