

special purposes. There is a demand every day for well-bred, smoothly-finished cattle weighing from 900-1,050 pounds. The packer has no particular choice as to breed, but his customers prefer meats from well-bred animals of beef quality with a rating probably as follows: Aberdeen-Angus, Shorthorn, Hereford, Galloway, followed by pure-bred and grade dairy types. For straight beef production Angus cattle are probably most desirable from a packer's and retailer's standpoint.

Cattle which are hornless, either naturally or from operation, feed better and ship much better than animals with horns. Cattle feeders have no conception of the immense loss in the packing house resulting from hooks and bruises inflicted by horns during shipment. During the past year particularly, Toronto market has received large numbers of young cows and heifers which should have been retained on the farms for breeding purposes. These cattle usually arrive thin, shrink badly, yield poorly, and do not furnish beef of high quality. With prospects so bright for beef production such cattle should not be slaughtered except where the sacrifice is absolutely necessary. If they must be marketed they should be put in better condition before shipping.

Many farmers and shippers lose money by sending forward cows and heifers in calf for slaughter. Animals in this condition are worth much less in the packing house, and as this is a condition which is easily prevented farmers should give it more attention.

SHEEP.—Eastern Canada probably produces a larger percentage of desirable lambs in proportion to numbers marketed than any other section of the continent. From the packer's standpoint the short-wool types are most desirable as they yield trim, tidy cuts of handy weights, and please consumers much better than cuts from the heavier long-wool types. The most desirable weights run from 75 to 90 pounds. Many farmers anxious to market as much weight as possible, carry their lambs late into the season when they will average over 100 pounds. It is a question for the farmer to decide whether he wants heavier total weight at slightly lower price or to sell and ship the kind that will command top prices at lower weights. Heavy wethers or old breeding ewes, either thin or fat, are not wanted on any market, usually handled under protest. It may seem unnecessary to add that the tails of all lambs for market should be docked and all buck lambs castrated early in the season.

SWINE.—"Choice Canada Pea-fed Bacon" has so long been recognized as the world's finest export bacon that little can be said in the way of suggestion for improvement. There is a tendency with farmers, when prices are high, to rush thin hogs to market. This has been specially true during the past season. A thin hog has nothing to recommend him either to the packer, the retailer or the consumer. While the farmer usually wants to get lots of weight on his hogs before shipping, most desirable weights from the packer's standpoint are 170 to 225 pounds. However, individual farm conditions should in every case control the time and weight at which the farmer markets his hogs.

TRANSPORTATION OF LIVE STOCK TO MARKET.

Every shipper should insist on the railroad supplying him clean, disinfected cars for moving his stock to market. Shippers should be particularly careful to know that cars which they intend loading have not come from districts where any live stock epidemic is prevalent without being thoroughly disinfected and inspected under Government supervision. Cars should be well bedded during the summer months, preferably with sand which is cool and sanitary. From November 1st to May 1st straw or coarse marsh hay are best. Clean, well-bedded cars improve the condition and appearance of stock on arrival at market, help prevent bruises and injuries, and undoubtedly favorably affect selling prices of the animal.

Shippers should insist, with transportation companies, on prompt handling of their stock in transit. Unreasonably long delays at shipping points, in transit or destination should be reported to traffic managers of the roads concerned. If improvement on the next run does not result the matter should be reported to the Railway Board, as every hour of unnecessary delay means direct financial loss to the shipper.

SELLING ON MARKET.

The best practice to-day recognizes the value of an experienced commission man as selling agent and representative of the shipper. He is on the grounds in daily contact with the packers' buyers; knows all the ups and downs of the market, and can handle stock with much greater advantage to the shipper than the shipper can handle it for himself. It is good practice for a shipper, whenever possible, to accompany his load of stock to the stock yards and follow them through with the commission men so that he may learn whether he is bringing in the kind of stock the market demands, and whether the prices he paid to the farmers are fair and reasonable, based on quality of the stock.

SHRINK AND FILL.—It is the aim and purpose of every honest farmer and shipper to get as much feed and water into his animals before they leave home as they can possibly carry. The value of this practice to the shipper is questionable, as stock over-filled do not handle well, do not travel well, and often arrive at destination in a very unattractive condition. The usual feed before leaving home is desirable. We hesitate to say much about the relative merits of selling weighed off cars as against selling fed and watered, as both practices have ardent champions at Canadian markets. However, we feel free to say the time is come when a single standard might well be considered. Large photographs were on view illustrating leading commercial grades of beef, mutton and pork. These were explained in detail to give stockmen an understanding of the relative value and desirability of the different kinds at public markets.

A FEEDER'S VIEWPOINT.

Mr. McMillan pointed out that the shipping and marketing of live stock involves fattening and fitting. In his belief animals should be let out for exercise each day for several days before going to market. Without exercise the animals may cripple. The ability of the cattle to stand shipment depends upon the feeding just before they are loaded. It is never good policy to gorge them before sending to the station, and it is always well, where at all possible, to deliver early in the morning, to avoid over-heating. Where cattle are marketed directly from the grass, they should be taken off pasture and fed hay just previous to shipping, as this will prevent too great loss in shrinkage. The cattle should be weighed as soon as delivered, as they will shrink from 30 to 60 lbs. per hour if left standing after being driven some distance. Under no consideration should the animals be abused, and the cars should be comfortably loaded, not too full nor yet to slack. Some cattle shipped from pasture direct showed a shrinkage of 80 lbs. each, while others taken from the pasture and fed hay, under the same conditions, showed only 35 lbs. shrinkage each. In shipping, the cattle should always be graded according to quality, as this means 10 to 20 cents per cwt. more on the market. Baby beef production is, in Mr. McMillan's opinion, most profitable, as cheaper gains are made.

Canada's Live Stock Markets.

Our live stock markets was the subject of one of the best addresses of the series, given by Prof. H. S. Arkell, Assistant Live-Stock Commissioner, Ottawa. Mr. Arkell estimated the value of the live stock in Canada at approximately three-quarters of a billion dollars, which represents the capital of the farmers invested in stock and does not really estimate the actual product marketed annually, but in live animals, dressed meat, milk, butter, cheese, or eggs, a very considerable proportion of this total amount is annually turned in. A contrast is immediately suggested between the price obtained for the product as it leaves the farm and the price paid when it reaches the consumer. This problem is really the cost of distribution, which includes the legitimate services rendered by the commission man in selling the product, by the packers in transforming it into marketable meat, by the railway companies in carrying it, by the banks and financial transactions, together with all speculative profits attributable to the business of distribution and which result in depressing the price to the producer and increasing it to the consumer. It must be recognized at once that distribution cannot be carried on without the banks, railway companies, packing firms, commission agents and all legitimate services rendered, but the question arises: is the toll taken in distribution too great, and to what part of the business must the excessive cost be charged and what is the remedy? These questions cannot be satisfactorily answered. In Mr. Arkell's belief speculative profits are frequently taken without reasonable compensation or service being given therefor. These are frequently offset, however, by losses, about which the public knows little. Rates are sometimes high, but Mr. Arkell believed it wrong to directly charge, as a body, the people engaged in the different phases of the business, either with dishonesty or extortion. However, an investigation is necessary, as the problems connected with the cost of distribution have increased with the growth of civilization.

The problem of distribution from the farmer's point of view is simply the problem of marketing. Mr. Arkell cited the case of the egg circle movement in Prince Edward Island, where, at the present time, there are 66 egg circles with 6,000 farmers as members and half the area of the Province is covered by their operations, a movement which has led to such improvement in production and quality that keen competition between firms in Montreal and Boston has resulted for these eggs, and the prices paid are commensurate with the value of the eggs. Last year these circles did a business of a quarter million dollars, this year they will do between three and four hundred thousand dollars worth of business. This movement, undertaken by the farmers them-

selves, has done wonderful things for egg production. The sale of wool has also been revolutionized, which is a result of two years' work. Different grades of wool have been standardized throughout the Province, and an increase in price of from 3 to 5 cents per lb. has been realized by the members of the association, and the wool product of Canada has been able to secure satisfactory markets. Mr. Arkell believed that many losses not directly attributable to the financial houses, transportation companies or the packing industry could be averted without impairing the profits of any of those engaged in the business, and to the great advantage of the farmer.

The speaker then illustrated what the business resulting from the production and sale of live stock meant to the financial status of the Dominion. Between 1890 and 1905 Canada exported stock in large numbers to Great Britain and the United States. From 1905 to 1910 and 1911 this export fell off until in the latter year mentioned there was practically nothing, but again in 1913 we started to export and these exports have increased in 1914 and 1915. Before 1905 Canada was little known except as an agricultural country, but from that time on immigration increased with commercial enterprise, and labor employment went from the farm to other industries and consumers increased more rapidly than producers. Conditions at the present time force us to increase our exports in order to preserve our national credit. Prices of foodstuffs have gone above the ability of the consumer to pay for them, and consumption is cut in two. With the curtailment of consumption at home larger quantities are available for export abroad. The Hon. W. T. White has stated that the export of munitions and of agricultural and animal products has saved the credit of Canada. The manufacture of munitions will cease when the war ends, but the manufacture and export of foodstuffs may continue so long as the world market demands it. This means that the attention of the nation financially and industrially is being turned toward the importance of agriculture as the source of national wealth and that agriculture has an opportunity to come to its own in Canada. It is, therefore, the business of governments both Federal and Provincial, to give to agriculture better facilities for carrying out its business than had hitherto been provided. In 1911-12 agricultural exports amounted to 53 per cent. of the total export business, in 1912-13 to 58 per cent., in 1913-14, 54 per cent., while for the last ten months of the war to October 31, 1915, they amounted to 47 per cent., and exports exceeded imports by the amount of \$35,600,259.

By building up a live-stock trade we shall add definitely to the wealth of the country. The world does not want gold it wants food, and Canada is in a position to help produce it.

In Canada there has been a surplus of cattle for export. Feeding cattle have gone to the St. Paul market, butchers' cattle to the Chicago market, 10,679 head have gone to France, and a moderate number of high-class export cattle have been sold into the kosher trade on the local market with a number of cutters and canners. We exported in canned beef 9,620,882 lbs., and dressed beef to the amount of 21,753,672 lbs. The Department has made great effort to secure the sale of Canadian beef in Britain, and is hopeful that further contracts may be secured. Canada now has an opportunity to establish an export dressed meat trade such as she may not expect to obtain were operations delayed. If Canada lags other countries will step in and secure the trade. The former Minister of Commerce in France estimates that his country will need to import annually at least 200,000 tons of cold storage meats from the present until some years after the war ceases. The destruction in all these European countries requires little comment; meat will be required from outside in all of them. Great Britain has already taken all the surplus from Australia and has purchased heavily in the Argentine, which will have the effect of raising the world's price. The regular sources of supply of meat are apparently unable to meet the demands, so that it seems to be Canada's opportunity to get her share of this business. If Canada supplies an exportable surplus she must expect, then, to receive an export trade, and competition must be met from other sources of supply. When time again admits surplus and demand the price in Canada will naturally fall, but this will not be for some years.

Some interesting figures were given in regard to the pig market. Prior to the war Denmark was killing 60,000 pigs a week. It is now estimated that she is only killing 30,000 a week. To the end of October, 1915, Denmark killed 700,000 fewer pigs than in the same period in 1914. This is due to the fact that Denmark cannot get American corn or Russian barley and to the proximity of war. By a Danish Government regulation one-third the supply must be sent to Great Britain, one-third retained at home, and the other third likely goes to Germany. The Germans are now paying 40 cents a pound for Danish bacon. It is easily seen that part of Great Britain's supply is cut off. The other immediate source of supply is Ireland. To the end