

is marvellous. The total cash receipts for the year were \$7,810.70, and the total cash disbursements, which include labor, feed purchased, stock purchased, and general expenses, were \$6,365.18, leaving a balance of \$1,445.52. The amount of capital invested was placed at \$13,000, thus showing a profit of over eleven per cent. on the investment. Mr. MacPherson believes thoroughly in keeping up the fertility of the soil, and in all his farming operations makes that his first object. He believes that for every dollar's worth of fertilizing value added to the land he can get one dollar's worth of increased crop the next year. In 1897 he spent \$2,180.50 in hard cash for feed, his contention being that by putting the fertility to be gained by feeding this extra feed on the farm into the soil, he could largely increase its productive power the following year. In other words, by practising a system of farming that will put more fertility into the soil than is taken out by the season's crop, the productive power of the land will go on steadily increasing year after year.

This is quite different from the system of farming practised by the average Canadian farmer. The trouble is that too many of our farmers are working too much land, and the consequence is that a great deal of the land is not half worked. In the older provinces like Ontario, where the land has either lost its original fertility or is gradually losing it, a better system of cultivation is necessary, and a system of farming that will not only preserve the fertility already in the soil, but will increase it. Of course a system of farming that has these objects in view must pertain largely of stock farming. For the older provinces stock farming is necessary if the farmer wishes to compete with settlers in the newer districts where grain farming is the mainstay.

#### The Canadian Hog on Trial in Chicago.

The following extract from *The Breeders' Gazette* in relation to Armour & Co.'s experiment re Canadian bacon pigs will be of interest to our farmers. Though the results obtained were not sufficient to warrant the importation of dutiable pigs for the American bacon trade, they show clearly that the Canadian bacon pig is far ahead of the American corn-fed hog for this particular purpose. It will be in the interests of the Canadian breeder if the American hog raiser clings to his corn-fed pig as the most profitable hog for him to produce. For the Canadian export trade a typical bacon hog is a necessity if we are to hold the market and further develop it. Our breeders cannot go too far in this particular. The sooner they adapt themselves to the changed condition of things the better, and the more profit will there be in the business of hog raising for them:

In December last Armour & Co. purchased in Canada a shipment of 150 York sires "bacon pigs," paid duty on them, and made them into bacon at their packing plant in this city and sent the product abroad to test the market for such bacon as compared with the cured product from the corn-fed hog of the West. Complete returns have been received from the venture and Mr. S. S. Conway, superintendent of the Armour packing-house, authorizes us to state in brief that the result proved that it was not profitable to import pigs from Canada and pay the duty in order to manufacture export bacon. The bacon from the experimental lot of Yorksires was entirely satisfactory and commanded a premium in the English market, but that premium was not sufficiently large to offset the increased cost of preparing it from imported dutiable pigs.

It now remains to be seen whether the premium commanded by the product from the bacon pigs will warrant packets in paying a premium to farmers sufficient to cover the enhanced cost of producing such pigs. That they can be produced in the States does not admit of doubt. It will probably take selection as well as feeding to do it, but we see no reason for going outside of the breeds now in possession of our farmers to produce this type if the market will warrant the growing of the bacon pig. Certain it is that nothing in the present or probable future conditions warrants breeders in setting about the undoing of the past half-century of work in swine-improvement by the introduction of the blood of the wild hog or his semi-civilized cousin.

#### Agriculture in the Public Schools.

In this issue we publish an address by C. C. James, M.A., Deputy Minister of Agriculture, on this important subject. It should be carefully read by everyone interested in the advancement

of the agricultural interests of this country. Mr. James shows very clearly the necessity of teaching the principles which underlie the science of agriculture in the public schools, and especially in the rural schools, and of directing the young mind at an early age to a study of the nature around it. As he points out, in order to teach agriculture successfully it is not necessary to teach practical farming. What is wanted is not a training in how to farm, but a system of instruction that will create in the young mind a love of nature and a liking for agriculture and agricultural pursuits. The young mind is very plastic, and capable of being moulded in almost any direction, and impressions made at an early age will be remembered in after years. So the kind of instruction in agriculture we want in our public schools is a system that will so impress the young mind with a love of the country and of the nature around it, that will induce its possessor to take up agriculture as an occupation not because he has to, but because he has such a love for the farm and the farmer's calling that he cannot do anything else. We believe that one strong reason why we have so many unsuccessful farmers to-day is because they have no particular love for their calling. They have been induced to farm owing to circumstances, perhaps, over which they had no control, and have been working on year after year in a kind of hur-drum fashion, with no particular interest in their work other than that it enabled them to make a living.

In his address Mr. James advises teaching agriculture in the town and city school as well as in the rural school. This is sound advice. While it is advisable to make the study of agriculture compulsory in the rural school, it might be made optional in the city school. At any rate we think the pupil of the city school should be given an opportunity to study the subject if he so desired. Many claim that this is not needed, and that if agriculture is taught to the pupil in the rural school all the needs of the situation will have been met. We do not look upon it in that way. If, as many contend, the tendency of our present educational system is to direct the rural youth to a professional calling or a life in the city, then ever since we had an educational system the girls and boys in the country have been educated away from the farm. If this be true, and it has many conscientious believers, is it not time for a change, and should we not begin right away to educate the youth of our towns and cities to make farming their life calling? The cities surely can stand such a depletion of their ranks. In fact it would be one of the best things that could happen the overcrowded professions, business establishments, and manufacturing industries, if 25 per cent., or even 10 per cent., of the children now being educated in our city schools could be induced to engage in the business of farming. So let us have a system of agricultural instruction in the public schools that will reach both the city and country pupils alike. Then if the city pupil has no inclination to become a farmer, he will know how a large share of the food he consumes every day is produced, which must be a distinct advantage to every consumer.

#### The Export Cattle Trade.

According to Mr. Hunnisett, of the firm of Crawford & Hunnisett, cattle exporters, who has just returned from a trip to England, Canada is likely to be outdistanced by South America in the cattle export trade. South American cattle of good quality are being shipped to the British markets, and are becoming competitors with Canada and the United States for that trade. One shipper from South America reports that no less than forty steamships laden with cattle from that country are on the ocean bound for the British markets. The South American dealers are bound to be at the top of the export cattle trade of America, and in order to improve their cattle the ranchers make it a practice to visit England annually to purchase the very best Shorthorn bulls obtainable for their herds. They do not use any of the progeny of these bulls or sires, as they claim that in

doing so their herds would become degenerated and produce lanky, long-legged, lean cattle, instead of the low-set, chunky animals with lots of flesh, such as the English trade demands.

This point is worthy of note by Canadian breeders. Though we would not go so far as to advise the use of only imported sires, still there is room for improvement along that line. We cannot hope to produce beef suitable for the English trade unless we have good stock to begin with, and to get this good stock our breeders will frequently have to go back to the original source of all good stock, viz., the live stock herds of Great Britain. There is, however, every indication of an improvement along this line, since the removal of the too stringent quarantine regulations a few months ago, and the allowing of importers to bring in animals on the certificate of an English veterinarian that no disease exists in the importation, and we may look for a great improvement in the quality of cattle produced for the export trade during the next few years. Our breeders and feeders cannot be too strongly impressed with the fact that only the finest types of beef cattle are suitable for the English trade. If they are not prepared to supply these they had better direct their energies towards developing some other side of the export trade. If we do not supply the right quality, other countries, such as South America, will, and will replace us in the British markets.

Mr. Hunnisett is also of the opinion that there is something wrong with the dead meat trade, either in the cold storage system or in the manner of killing or handling, as a good deal of the Canadian beef and some of the American arrives in bad condition. Our dressed meat trade is only beginning, and it may be that those operating it do not thoroughly understand its working yet. If the plan outlined for cold storage facilities has been fully carried out there should be no difficulty on that account. We understand that some of the shipments of dressed beef sent forward last year were not as neatly dressed and finished as they might have been, and consequently did not bring as good results. If every little detail is looked after in preparing and finishing the carcass and in providing cold storage facilities on board of the cars and boat, there should be no difficulty in developing the export trade in dead meats, providing, of course, that the right quality of stock is to be had to begin with. If the people of Australia and New Zealand can successfully ship dressed meat to England, surely we, who are much nearer the market, can do so. There is a general feeling among many cattlemen that their shipments must be more carefully handled, and that other and better arrangements than those at present in force must be adopted, both in England and Canada, before the export cattle trade will be a success.

Mr. Hunnisett points out that Canada is away behind in the quality of mutton, New Zealand having outdistanced us in quality and quantity. New Zealand ships large quantities of yearling lambs of good quality in cold storage, which arrive in England in extra good condition. On the other hand, Canada only ships bucks and ewes that have been fattened for the purpose. Englishmen prefer the juicy meat of the New Zealand lamb to our fat mutton.

This is something for our farmers to think of. Our market for lambs outside of Canada has been the United States. It is a question whether it would pay to devote some attention to preparing lambs for the British markets. It may be that our farmers would not be able to compete with the cheap mutton from New Zealand and Australia. At any rate, the question of sending Canadian lambs to England may be worth looking into.

#### The Outlook for Cheese.

The outlook for cheese has greatly improved during the past few weeks. Recent reports from England indicate a largely increased consumption. The consumption of cheese in Liverpool alone during the month of March amounted