

international reputation, and yet a pittance only now finds its way annually into outside markets. There is, besides, a big Canadian Market to which they might cater, to say nothing of the advantages secured to them through cheap water transportation in building up an exceedingly profitable trade in foreign countries. The mixed farming areas of Prince Edward Island and the grazing grounds on the hills and in the valleys of New Brunswick and Nova Scotia are capable of supporting four and five times the present sheep population, and such an expansion of the industry is in line with the natural development of the country.

In the Province of Quebec buyers are now unable to obtain a sufficient supply to meet the local demand. One large packing firm which has depended for a part of its business upon the output of a certain district, a section especially adapted to sheep-raising, is now finding itself faced, not only with curtailed production on the farms, but with deterioration in the quality and finish of the stock. Such, in fact, is representative of conditions prevailing in the Province. Introduction of new blood to improve the breeding stock is greatly needed. In part, this need is being met through the efforts of the Quebec Sheep Breeders' Association, but even with everything favoring the movement, it may scarcely be expected that Quebec will be able within the next few years to produce a sufficient quantity of lamb and mutton to meet the requirements of its own markets. This is to be regretted, since sheep are badly needed as a corrective agent in many sections of the Province, while in others sheep-raising can be made naturally an exceedingly profitable industry.

A few years ago large shipments of lamb were made annually from Ontario to Buffalo. In 1907 these shipments reached the considerable total of 180,817 head. During the fiscal year ending March 31st, 1912, notwithstanding the duty, there were imported for sale on the Toronto Market 21,800 head. The statement of these facts will best serve to illustrate the relation at present existing between production and consumption in this Province.

In Western Canada the situation as regards supply and demand needs little comment. A very large percentage of the imported mutton, alive and dead, is brought into this country for consumption in the Western Provinces. Although the inferiority of the Australian frozen article is admitted, the big produce firms are obliged to make use of this available supply and are finding it to their advantage to do so.

That an extensive and elastic market is assured in the Prairie Provinces and in B.C. needs no proof. The urban population east of the Rockies is increasing to such an extent that the supply is becoming a question of no mean importance. West of the Rockies the cities of Vancouver and Victoria and the development work in the North and in the Yukon constitute a market of such dimensions as to now exert a very powerful influence on the trade in Alberta meat, it being found more profitable to ship west to Vancouver than east to Winnipeg. The demand for lamb throughout the whole Western market, and particularly that of the Far West, where a very large number of English people are finding homes, is becoming more and more a feature of the dressed meat trade.

Notwithstanding these facts, sheep-raising is very slow in attaining its rightful place in the agriculture of the West. The number of sheep on the range is decreasing owing, on the one hand, to the inroads of the homesteader and, on the other, to the difficulty of securing a permanent lease. There are, however, large areas which, it would seem, can most profitably be utilized by grazing sheep upon them, and it is to be hoped that means may be found whereby, upon such areas, stability may be secured for the ranching industry, and whereby in part it may be relieved of the disabilities under which it is at present carried on. If this can be realized, an immense stimulus will be given to sheep-raising in Southwestern Saskatchewan, Southern Alberta, and along the foot-hills of the Rocky Mountains. Following the growing of alfalfa in the irrigated districts of Alberta, extensive fattening and feeding grounds there and on the delta land of the Fraser River Valley in British Columbia will become available by means of which, as in Colorado, market sheep may be given a flesh and a finish which would not be possible upon the range.

A careful study of conditions in Western Canada reveals the fact that, in time, the great grain-raising areas may be expected to maintain a large sheep population. The value of sheep on grain land is gradually becoming recognized, and, while years may be spent in the process, the time may come when sheep will be reared as one of the most valuable assets and by-products of the grain farm.

The decline in the sheep industry cannot be explained by the losses sustained by dogs, by the difficulties and cost of fencing, nor by the alleged

charge that sheep are hard on pasture. There are economic reasons to which this decline is due, even as there are economic reasons for the shortage of beef cattle. A solution of the problems with which we are presented will involve an improvement in the system of marketing both wool and mutton, an effective distribution of high-class breeding rams at moderate prices, better facilities for transportation, particularly in Western Canada, laying the foundation for a foreign meat trade and a change in economic conditions which will force people back again upon the land. The movement having for its object the building up of a great sheep industry in Canada, is a comprehensive and ambitious undertaking, but it is



Mangels Fertilized with Potash.

matched by the faith of all Canadians in the future of this country. That the Dominion is obliged to import a considerable proportion of her supply of lamb and mutton is a reflection, not perhaps so much upon the enterprise of our farmers as upon our system of farming, and we must admit that it is in line with natural progress that sheep-raising should become again a distinct commercial asset in the development of Canadian agriculture.

### Supplying Meat for the Farm.

According to Andrew Boss, Agriculturist at the Minnesota State College, an old animal properly fattened and in good health would be preferable to a young one in poor condition for slaughtering purposes.



Mangels Unfertilized.

The meat of the young animals very often lacks flavor.

The best meat will be obtained from cattle that are thirty to forty months old, though they may be used at any age if in good condition.

A calf under six weeks of age should not be used for veal, and is at its best when about ten weeks old and raised on the cow.

Hogs may be used at any age after six weeks, but to be profitable should not be over twelve months old.

Sheep are at their best before two years of age.

On butchering healthy animals, the writer says:

There are a few essential points that should be observed in selecting animals to butcher on the farm. The first consideration should be given to the matter of health in the animals to be used for food. No matter how fat an animal may be nor how perfect its form, if it is not in perfect health, the best quality of meat cannot be obtained. If the animal is suffering from fever or from any serious derangement of the system the flesh will not be wholesome food. Flesh from animals that have been ill before slaughter

is not likely to cure well, and is very difficult to keep after curing. Bruises, broken limbs or like accidents all have the same effect on meat as illness, and unless the animal can be dressed immediately after such accidents it is best not to use the meat for food. This would be true especially if there has been a rise in temperature of two or more degrees. Such a rise in temperature just previous to slaughtering is likely to result in stringy, gluey meat and creates a tendency to sour in curing.

Animals that are in poor flesh will not yield first-class meat. While the

texture may not be bad in such meat, it is essential that a reasonable amount of fat be present to give juiciness and flavor to the flesh. The presence of large amounts of fat is not essential and, in fact, it is often wasteful. It is far more important that the animal be in good health than that it be extremely fat.

## THE FARM

### Fertilizers on Mangels.

Editor "The Farmer's Advocate":

Will you kindly allow me space in your columns to report the result of an experiment with fertilizers on mangels, which, I think, may interest your readers. The experiment was conducted during the past season by myself in co-operation with the German Potash Syndicate of Toronto.

Three adjoining plots, each one-quarter acre in area, were selected for the experiment. A medium dressing of barnyard manure (about 10 tons per acre) was equally distributed over all the plots.

Plot 1 received no fertilizer.

Plot 2 received an application of 80 lbs. acid phosphate, 30 lbs. muriate of potash, 25 lbs. sulphate of ammonia.

Plot 3 received the same amount of acid phosphate and sulphate of ammonia as plot 2, but no potash, the idea being to observe the effect of omitting this ingredient.

Plot 1 (no fertilizer) yielded 510

bushels per acre.

Plot 2 (complete fertilizer) yielded 842 bushels per acre.

Plot 3 (without potash) yielded 591 bushels per acre.

These figures clearly show the beneficial effects of the fertilizing, and throughout the growing season the difference was distinctly noticeable. The potash and phosphate were applied to the land before seeding, the sulphate of ammonia