

that these interests are protected. The only way it can be sure it has done its full duty in this respect is to see that the tariff gives these large concerns no margin by which they can do this.

Talk about investigation under the new act, but who, in many instances, is going to institute proceedings? And in the meantime, the pursuance of a waiting policy is simply parrying with the inevitable conflict, while the enemy obtains the opportunity to complete the deep encroachments of such an opposing force.

Huron Co., Ont.

THOS. McMILLAN.

Ireland's Native Breeds.—II.

By Emerald Isle.

SHEEP.

The Roscommon.—If our native cattle are conspicuous by their smallness of size, the exact opposite must be said of the Roscommon sheep, which holds sway over the great central plain of Ireland, an important tract of rich, fertile grass land, over limestone. Massive, great-boned sheep the Roscommons are, with broad, deep, lengthy bodies, obviously of robust constitution, and fine, upstanding animals that attract and fill the eye in any ovine company. This long-woolled, white-faced breed has had an ancient record in Ireland, and has been bred by families for generations, while there are well-authenticated evidences of systematic improvement of type by individuals during the middle of the 18th century. Fully 40 years ago, the Royal Dublin Society recognized the variety for special provision at their shows, and a great fillip was given to the breed by its triumph in winning the championship, open to all long-woolled breeds, in the year 1895. The following season witnessed the appearance of the first volume of the Roscommon Flockbook, started by a number of enthusiastic patrons and admirers.

For the production of fat lambs, either pure or cross-bred, the big, deep-milking Roscommon ewes enjoy a great reputation, and they always transmit bulk to their progeny, no matter what sire is used. Roscommons, of course, run the risk of becoming unpopular should the public ever refuse to buy big joints of mutton, but the demand for hotels and large boarding establishments is very likely to remain constant, especially as the meat of our native breed is choice in quality, and well "grained" in texture. On the score of early maturity, the Roscommon has to yield the palm to some of its rivals in the matter of early lambs, but it possesses compensating advantages. As showing the remarkable size to which typical specimens grow, some records by me are very striking. One three-shear ram, which headed his class at Ballsbridge some years ago, sealed the great weight of 32 stone 4 pounds, and when slaughtered, he showed so little waste that he dressed 288 pounds, or 72 pounds per quarter. A first-prize pen of three lamb rams at a show in the same place weighed on an average 13 stone 2 pounds each; a pen of ewe lambs averaged 12 stone, and shearling ewes 16 stone 4 pounds each. Then, again, to glance at a couple of carcass returns, a pen of grass-fed hogget wethers, which weighed alive were 7 cwt. 6 qr. 1 lb., dressed 4 cwt. 1 qr. 9 lbs., an average of 161 2-3 pounds each; and a pen of hogget ewes, 6 cwt. 1 qr. 12 lbs. alive, dressed 3 cwt. 3 qr. 27 lbs., an average of 119 pounds each. As a wool-producer, the Roscommon gives an excellent fleece, of great length, and it can be bred to the finest texture; but, for climatic reasons, it is essential, more or less, to maintain a good thick coat on outlying sheep in exposed places, and this militates to some extent to the obtaining of the highest market prices for the finest staples.

Roscommons should do well abroad, and representatives that have gone to South America and Australia have been well thought of by the importers. At this year's great exhibition at Buenos Ayres, a fine lot of typical Roscommons are to be exhibited, being specially sent across the ocean from the home of the breed, and this speaks well for the enterprise and push of its admirers in Ireland.

PIGS.

Last September I had a pretty detailed account to give of the Irish swine industry, and in the course of my remarks, to which I would refer the present reader, the newly-established Large White Ulster breed was dealt with specially. It is making headway in the North of Ireland, and also in other parts, where its thriftiness is standing well to it. Of course, there are old, unimproved local types of pigs throughout the country, but they are not among the "recognized." Indeed, the constant use of Large White York blood has stamped the bulk of the Irish pig stock in most districts with the stamp of this variety.

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G. S. BENT.

Price, Edward Co., Ont.

THE FARM.

A Rotation Question.

I am trying to start a short rotation here, and would like your opinion on the one I have in mind. I was thinking of a four-year rotation, as follows: First year, clover; second year, grain; third year, cultivated crops; fourth year, grain seeded with clover. If I couldn't use up all the ground with a cultivated crop, would it do to sow peas on the sod, followed by winter wheat?

A. M. B.

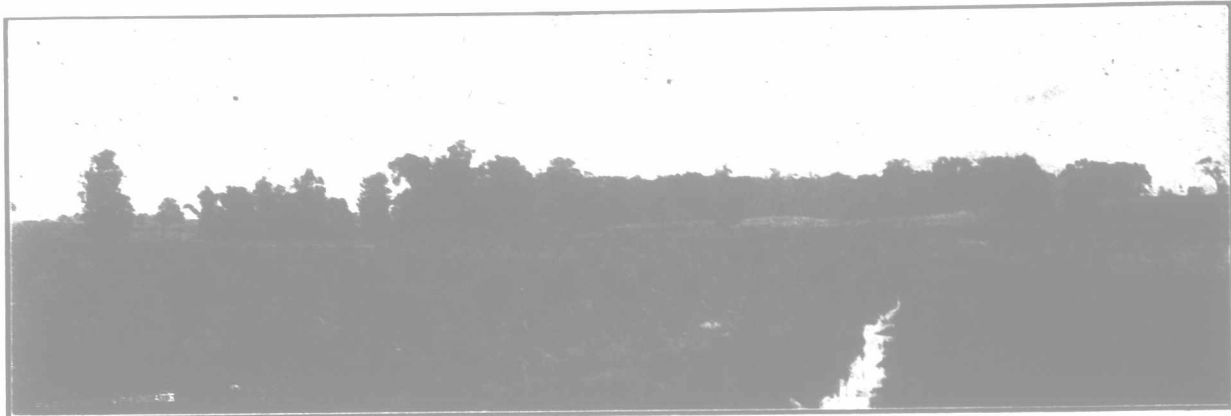
The proposed rotation is commendable in certain respects, and it is pleasing to know that you are studying this important question. The plan, however, comprehends one common feature

will do very well indeed after a well-prepared clover sod.

Another objection to your plan is that it keeps the land three years out of grass or clover, which is too long for best results. Neither is it the best way to circumvent damage by white grubs and wireworms.

Then, again, unless you have some permanent pasture available, you will be short on meadow.

In view of all these points, we would suggest, as an improvement, a three-year rotation of clover followed by corn, roots and peas, or some fodder crop, with grain the third year, seeded to clover, with a little timothy to insure against failure to catch. Spring grain should follow the hoed crop, while fall wheat is admirably adapted to succeed peas. As an alternative rotation, we would strongly commend the one followed at the Ontario Agricultural College, viz., corn, roots, etc., second



Benefits of the Municipal Drain.

A big crop of corn on land last year that never before grew anything but wilows and swamp grass. On the farm of S. Walker, Middlesex Co., Ont.

that is seriously open to criticism, namely, the putting of grain after sod. This is the place for corn and such crops. Few crops are so little adapted as grain to make the most of the virtue in a decaying sward the first season after plowing. For one thing, its period of growth is pretty well over before the sod has had time to decompose and its plant food to become available. Corn and such crops, having a longer season of growth, make fuller and much more advantageous use of the sod in the first summer after its being plowed down. Then, again, the vegetative crops, such as corn and roots, those prized for their growth of stock or root, are particularly in need of the nitrogen and potash resulting from the decay of sward. Grain crops, on the other hand, demand a fine state of tilth. And what nitrogen and potash they require are chiefly needed early in the season. Later on they require a liberal quantity of phosphorus to make seed. Favorable conditions for a grain crop are provided by working up well a piece of land that has been plowed out of alfalfa or clover sod, manured well, planted the first season to corn or roots, and then worked up for grain the next. Such land has been, or should have been, pretty well cleared of weeds by the cultivation given the hoed crop, it has plenty of decomposed nitrogenous humus for the grain crop to get a good start on, and the fine state of tilth tends to the liberation of phosphorus which will be available when the seed-forming period arrives. Spring grain, sown on fresh-plowed sod, generally does not find the best physical conditions, and certainly does not find abundance of available nitrogen and potash at the season when these are needed most. True, grain sometimes does fairly well after clover sod, because clover is a good preparation for almost any crop, but the best utilization of the sod virtue consists in putting corn and roots on sod, followed by grain seeded down. Some object that roots will not do well after sod. They will not after an old, tough sod, but they

year grain seeded down with clover and grass seed, third and fourth years hay and pasture. Either of these rotations, if rightly handled, will give excellent results. Our choice is the three-course one, which we have tried successfully, and have seen tried by many, with the best of satisfaction.

Crop Rotation Cleans Land.

Weed eradication has long been a subject of experimentation at the Minnesota Station. Spraying with sulphate of iron has been practiced, with more or less beneficial results, proving, however, a better retarder of weeds and of weed-seed development than an actual exterminator. The best results in destroying weeds have come from rotation of crops, according to an article by Prof. A. D. Wilson, Superintendent of the Division of Extension and of Farmers' Institutes, at the Minnesota Experiment Station. Two one-tenth-acre plots have been cropped under differing systems of cultivation over a period of sixteen years. One plot was cropped to a five-year rotation system of corn first year, grain second, grass third and fourth, and grain fifth year. The other plot was devoted to wheat each year, the land being plowed early in the fall, carefully disked and prepared for seed. The rotated plot is now substantially free from weeds. The wheat plot is infested with wild oats, though the Station has practiced careful hand-pulling of weeds over the several years of experimentation. The two years that the rotation plot grew grass, the hay has been cut so early that weeds had no chance of maturing seed. When the plot was in corn, thorough stirring of the ground was practiced, and weeds were killed before they ripened.



Roscommon Sheep.