

meat factories after the repeal of the embargo, if they find it pays them better than to send them here alive?

PATRICK L. GRAY,
Secretary for Scotland.

The Home Importation Canadian Cattle Association of Great Britain.

Murrayfield, Edinburgh, Dec. 30, 1905.

[Editor's Note.—"The Farmer's Advocate" is not opposing embargo removal, but, by degrees is letting light into some rather thick craniums. All that our friend Mr. Gray has to do now is to press the Campbell-Bannerman button, and he can (if he will) do the rest, being firmly seated in the Government saddle.]

Strong Plea for the Dairy Shorthorn.

To the Editor "The Farmer's Advocate":

Concerning the Shorthorn cow for dairy purposes, combined with her present popular position amongst the beef breeds, I do not think Canadian breeders make the best of this strongest claim the Shorthorn cow has to popularity, the combination of milk and beef.

I think the English Shorthorn Society has the better plan for encouragement along these lines, in offering prizes, with a minimum limit of production to be eligible.

Much has been done by our Dominion Association, in a way, to encourage an exhibit of good milking Shorthorns at the Provincial Winter Fair, with the result that several Shorthorn cows at these exhibitions have made records which would be no discredit to any strictly dairy breed. But contrary to the trend of the times in the motherland, as well as in the United States, where greater efforts are made each year to give prominence to the deep-milking Shorthorn, at our last annual meeting a motion was carried cutting down the prizes at the only places in Canada where prizes are offered for encouragement of dairy qualities in Shorthorns—the Winter Fairs—and a corresponding decrease was noticed in the exhibit at Guelph in December.

Of course, we have never had an exhibit of dairy Shorthorns such as is seen at Smithfield, England. But we have not been trying to loaf. The Winter Fairs are pre-eminently the time and place to have prizes offered for dairy classes or tests. The larger fall fairs would necessitate the culling of the cows at a very unsuitable time of year, and often weather is not safe for pushing them to their best production of milk in the test. Even fairs held in September after, say, 25th, are too early, but might be utilized; yet all the more important and best attended exhibitions are held earlier.

A special record for milking Shorthorns, such as is proposed by the American Shorthorn Association, would probably not reach the class from which quickest and best results may be expected, the farmers or breeders who are now really using their cows for the dual purpose, developing the milking qualities, while retaining the highest excellence as beef animals; as a case in point, with the beautiful and almost unbeaten heifers, "Fair Queen" and "Queen Ideal," whose dam made a very creditable showing in the dairy test in connection with the Winter Fair at Guelph.

The procuring of these records, to have them authentic, would be costly to the owners of the cows, unless some cheaper method is found than has so far been devised, and few would take advantage of them.

Unfortunately, for many years a large portion of our most prominent breeders have scoffed at the idea of developing the milking qualities of the Shorthorns; and, to be sure, it is much easier to have the herd looking sleek and fat if a large flow of milk be successfully discouraged. But a large flow of milk is an inherent trait of the breed, and when reasonably careful methods are followed with that as one of the objects in view, there are comparatively few failures. Milking qualities are not monopolized by any one tribe or group of families. It has been asserted that there is no use looking for milk in Scotch families of Shorthorns, but one of the most remarkable sires of extra good milkers we ever used in our herd was bred by Mr. W. S. Marr from one of his favorite families, yet many ascribe dairy qualities to Bates families alone.

I am very pleased to note that, wherever Shorthorn cattle are known—and that means wherever any attempt has been made to improve the cattle stock—agitation is on in the line of recognizing properly, and improving and developing the deep-milking tendency of the breed. A. W. SMITH,
Middlesex Co., Ont.

Premiums Better than Expected.

Please accept my thanks for the valuable premium that you sent me. It was far above my expectations. I don't see how you can send out such beautiful premiums, and such valuable ones, too, for the paper is worth all you ask for it and even more. Again thanking you for your kindness and promptness, I remain,

WM. WILSON SMITH, P. M.

Bruce Co., Ont.

The Dairy Shorthorn.

1. Is the mission of the Shorthorn cow in Canada to make beef only, or beef and milk?
2. If beef and milk, is she fulfilling that function as fully as she might?
3. If desirable to improve her milking qualities, how can it best be done?
4. Is the establishment of a special record for milking Shorthorns desirable?

Ans.—1. Both, but, unfortunately, purchasers, while they ask about milking qualities, will accept nothing unless of an entirely beef type, hence breeders are obliged to cater to their wants, and very often at the expense of one might almost say—the eradication of milking qualities.

2. No, for reasons given above, milk is a secondary consideration.

3. By educating purchasers to allow any animal due credit for milking qualities, and not look upon them as food for the block only. Heavy milkers scarcely ever look as well as the beef type, and are consequently ignored by visitors to a herd, with the quite natural result that the breeder tries his best to supply the animal most admired by the purchasing public.

4. I think it would improve the standing of milking Shorthorns to have a special record, as it would draw particular attention to them and encourage the breeder of such to persevere in his good work. Besides, it would be something of a guide for those looking for or particularly interested in milking Shorthorns.

Bruce Co., Ont.

W. D. CARGILL.

THE FARM.

The Agricultural Forest Problem.

Part II.

From a paper read before the Canadian Forestry Convention at Ottawa, January, 1906, by E. J. Zavitz, Lecturer in Forestry, Ontario Agricultural College.

The small landowner or farmer is interested in two classes of land in relation to forestry—the farm wood-lot, and the waste portions of the farm. There is considerable written in agricultural journals concerning the usefulness of the wood-lot to the farmer. The wood-lot, or bush, as it is frequently called in Ontario, is the result of no particular plan in its relation to the economy of the farm—it just happened. The land was gradually cleared, and it was what was left over, being usually at the rear end of the farm. Wood-lots can be found in almost all stages and conditions. I occasionally find one in the old, settled parts of Ontario having the condition of the original forest. In Durham County I examined a wood-lot in which it was claimed a tree had never been cut, and the owner used to be considered a crank on this point. No doubt he was a crank, and timber has gone to waste that could have been utilized to the advantage of the remainder of the stand. However, the usual condition of the wood-lot is at the other extreme, and both extremes are wrong for silvicultural and economic reasons.

Estimates of the percentage of remaining woodlands in Ontario are frequently made, and are of interest in this connection. The following figures are based upon the township assessment returns to the Bureau of Industries, and are for the counties of the older part of Ontario. These figures must necessarily be somewhat inaccurate, but they have considerable value and interest. In 1884 there was reported, for this part of Ontario, 32 per cent of woodland; in 1894, 23 per cent; and in 1904, 15.6 per cent. In 1896 there was for the forty-three counties of Old Ontario, 18 per cent of woodland and 13 per cent of waste land, with eleven counties having less than 10 per cent, and forty-four townships having less than 5 per cent of woodland. When stating that these figures must be to a certain extent inaccurate, I would like to draw attention to certain relations where errors probably exist. The township assessor is told by the owner that he has twenty acres of woodland. What does this twenty acres represent? There may be twenty acres fenced off, but perhaps two-thirds is woodland and the rest slash. This last year an attempt has been made to overcome this error, and a division has been made between woodland and slash. Taking the County of Lambton, we get some interesting figures. In 1904 the assessment gives this county 136,000 acres, or 20 per cent, of woodland. Last year we find from the assessment returns that Lambton only had 61,000 acres of woodland, or only about 10 per cent., while the rest of the reported woodland for 1904 has gone in as slash. One township in Welland County, whose local conditions I am well acquainted with, gives twelve acres of slash, which is a ridiculous figure. There is little doubt but that our percentage of woodland is far below 15.6 per cent., as given for 1904.

It will pay, on the average farm, to keep and improve the present wood-lot as a permanent investment. The fact that farm land annual rental in Ontario is \$2.49 per acre, is a good argument, for it can be easily shown that such soil for wood-

crop production can be made to give as good if not better rental. It is also probably true that in the settled parts of the Province the individual farmer has as much land cleared as can be properly cultivated and managed.

The average wood-lot has no definite boundary, but has become very much thinned out on the borders by wind and cutting. Defective and over-mature trees are taking up valuable space and suppressing new growth. Inferior species have been given the advantage, owing to the cutting of the more valuable ones. Gaps have been allowed to develop in large openings, which have become so filled with grass and weeds that new growth cannot start. Grazing has been allowed, so that reproduction could not take place, and it is needless to say that stock must be kept out if proper growth is desired. Time will not allow a detailed silvicultural description of the condition and needs of the Ontario wood-lot. Neither would it be possible to give such a description, as each individual case requires its own treatment.

However, general suggestions may be given, and there is little doubt but that our intelligent farmers will become careful silviculturists as they come to realize the importance of the woodlands as a part of the farm. The wood-lot, first of all, should be given a definite boundary, and this boundary should have a coniferous belt or hedge of trees. In this way the woods, as a whole, would more nearly approach forest conditions, which is not the case in hardwood stands of small area. Defective and over-mature trees should be gradually removed. Gaps and open spaces should be filled with young growth, either by planting or dibbling in nut seeds. The relation between coppice and sprout growth and that of seedling origin should be better understood. Operations such as these can be carried on by the farmer at a very low cost, and will give definite results.

The second class of land which is related to forestry is the waste portions of the farm. Steep hillsides, sandy or gravelly fields, rocky formations and swamp lands could be planted with trees, so as to become a source of revenue rather than an unattractive waste. There is scarcely any condition of waste land on the farm that would not produce wood crops, and this absolute forest soil is what the forester most desires to reach and improve.

It is the policy of the Ontario Government to assist and co-operate with the farmer in bringing about improved conditions. The Department of Agriculture, by means of the Agricultural College, Experimental Union, Farmers' Institute, and specially trained men, is ready to give assistance and advice in improving the wood-lot and redeeming waste lands. Forest nurseries have been established to provide cheap planting stock at a nominal cost, with instruction as to methods of care and planting. It is hoped, by organization, that we shall gradually improve the present conditions in the Province of Ontario. If we can clearly demonstrate the practicability of replanting on waste lands in older Ontario, it will create public sentiment in favor of more extensive forestry methods for the denuded areas which exist in other parts of the Province. We will also have learned many silvicultural facts regarding native species which will be of great value where more intensive management is required in the forestry reserves of the Province.

In these days of scientific agriculture, when the farmer asks the how and why of things, there are improvements developing in nearly all branches of the farm. The individual cow has to prove her value for dairy purposes by producing a quantity and quality of milk, which is determined by scientific records. Special market requirements call for a certain type of hog, and the farmer aims to produce it. Farm work is being done with definite results in view, and we are gradually introducing rational business methods into the art of agriculture. Farm management in Ontario to-day calls for a better division of the soil. Most farms are made up of three divisions of soil—absolute agricultural soil, relative agricultural soil, and absolute forest soil. No arbitrary rules of division can be laid down, because it is very difficult to say what is and is not non-agricultural land, for it must ever be a relative term. The proper division of a farm in this respect must be left to the owner to settle, with regard to local requirements and conditions. In the early settlement of this country, we find steep hillsides or other less valuable land denuded, and the wood-lot left on the most fertile part of the farm. We find men wearing out their lives on rocky soils, or on farms so sandy that the deed cannot hold them, when, within a few miles, fertile soils are lying untouched. At first thought it might be imagined that the settler would use discretion, and not tie himself down to poor land. However, cases of this kind may be found all over America. The strangest part of it is that it is frequently impossible to make the settler on such poor land believe that he is not well located. He is influenced by his environment, and becomes a shiftless and worthless citizen.

Settlers in new lands being opened should be directed and educated to avoid the mistakes of the past, and such education is a very legitimate