

Grain and Live Stock in Canadian Northwest.

To the Editor "Farmer's Advocate":

Viewed from the standpoint of the agriculturist, the heading of this paper gives in a nutshell the present and the future of the Canadian Northwest, exclusive of British Columbia. The extent of the vast region possessed of high adaptation in both lines of production does not appear to be even known as yet to its utmost limits. Every year the production of both is pushing toward the pole. Long years will probably elapse, even in this progressive age, before it will be fully known how far north the plowman may turn his furrows with the confident expectation of harvest, and how far toward the pole the stockman can safely winter his flocks and herds.

This means that an immense empire of virgin soil lies open to the enterprise of the settler in this land that stretches away up toward the midnight sun. The soil, or at least very much of it, is of surpassing richness. While in some places there is, in some seasons, too little rainfall for the production of maximum crops, the country is, with the exception of limited areas, sufficiently watered. In no part, probably, do those downpours occur which are so potent a factor in rainy countries in washing fertility out of the soil. When we are inclined to murmur about scant rainfall, we do well to bear in mind that there is usually associated with it the blessing of unwasted fertility. In this fact rests our reason for the amazing fertility of much of the land that is found in semi-arid regions. When this great fertility is linked with the modest rainfall of this region, the conclusion is legitimate, that for years and years it will be capable of high production, even under a system of farming that may be termed relentless and absolutely unfair to the land. With the marked fertility in the soil, with the little waste, relatively, that is caused by excessive rains, and with the moderate temperatures that characterize the entire region at the time of the ripening of the grain, this great realm of productive power will grow good crops of grain for many years.

But will it grow these forever under a system of tillage that is forever taking away and putting nothing back? I met an old Scotchman at Qu'Appelle. His view on this question was, that the men who advocated mixed farming for the country around Indian Head were giving advice that was not good. They could grow just as good crops of wheat around Indian Head as ever they could. The chief danger they had to guard against was that of getting too much straw. I did not say to the honest and successful old farmer what I will say now, viz., that so surely will the lands around Indian Head, with all their fatness, cease to produce good crops of wheat, if managed in the future as they have been in the past. I did not say this at the time, as I felt it would be no use, for when an old Scotchman gets an idea into his head, like the Quaker's balky horse at the foot of the hill, it is there. It is useless to hurl reasoning and energy against such rock-like ideas. It is a thousand pities, all the same, to destroy or even to seriously impair the productive power of such land.

Can the productive power of the grain-growing lands of the Canadian Northwest be maintained? Unquestionably they can. If asked how, I answer, by growing fewer crops of grain and more crops of grass, and by keeping more live stock. The power that lies in the grass, "*Bromus inermis*," to provide grazing is being well brought out by Mr. S. A. Bedford, the eminently successful manager of the Experimental Farm at Brandon. Should it be objected that the Northwest is not a corn country—and this objection will be expressed by every would-be American settler—I answer that Ontario became famous for its stock before it gave much attention to growing corn. If asked, "Will the farmers generally take care of the fertility of their magnificent soils?" I answer, No, not generally, until they begin to feel somewhat seriously the pinch of failing crops through a waning fertility. It is not human nature to do so. The average farmer who can reap good crops from his land through a period of successive years does not think any more about the fertility of the future than the average grasshopper thinks about where his breakfast will come from to-morrow. Should he think seriously about maintaining fertility under such conditions? That depends upon how long he expects to live, whether his son is likely to till his land or not after him, and whether or not he has any love for his country.

The system of growing two crops in succession which many farmers in the Northwest have adopted, and then summer-fallowing the land, is a great improvement over that system which crops every year. The bare fallow cleans the land, and in proportion as it does it is beneficial. It also liberates fertility and increases the power of the soil for the time being to hold moisture, but it does not bring any fertility to the land, nor does it do anything toward increasing its supply of humus. The better and the more frequently, therefore, that land is summer-fallowed, the more quickly will it wear out, unless some renovating crop accompanies the summer-fallow. Can such a renovating crop be grown? I answer, Yes, various renovating crops can be grown. Those best suited for the purpose may not be the same for all sections.

In the judgment of the writer, therefore, the question of questions with the farmers of the Northwest is how shall they maintain an equilibrium in the soil. The term equilibrium as used here is intended to apply to fertility, to humus, to moisture, and to mechanical conditions generally. The phase of this question that should first receive attention relates to humus, and the growing of Brome grass in the rotation should go far toward the solution of this question. When this crop has been cut two years and pastured one, its roots furnish humus in their decay. They prevent lands from drifting, and greatly increase their power to hold moisture. This has been admirably brought out in the experiments of Mr. A. MacKay, the Superintendent of the Government Farm at Indian Head. The crop that shall bring fertility is not so easily found; but if needed, the common pea could in the meantime be used.

The interest shown by the railroads, and also by the legislative bodies in the Canadian Northwest, in the development of the live-stock industry is indeed gratifying. A rich harvest will assuredly result from such seed-sowing. The encouragement thus given to the introduction of good sires, in a measure at least, accounts for the relatively high grade of the cattle. The farmers are also wise in growing the bacon types of pigs, since they grow the grains that will produce bacon in fine form. His Honor the Lieutenant-Governor of the Territories is giving a fine object-lesson to the people in the success which is attending his efforts in tree culture on the grounds adjacent to the Government House at Regina. The Hon. Thos. Greenway has done a work for Manitoba in live-stock lines, the influence of which will be felt for long years to come, and the work that is being done by the experiment stations is beyond praise. But before the Government will have done its whole duty to the live-stock interests of the country, it will have established one or more agricultural colleges in the Canadian Northwest. I am glad to notice that the Government of Manitoba is already moving in this question. In establishing their college, may they see to it that it will not be so completely overcrowded by university interests that its usefulness will be crippled. This has happened in too many instances on our side of the line. (PROF.) THOS. SHAW.

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Continuous Growth in Live Stock.

If all who keep live stock knew better the value of continuous growth in the young animals, more attention would be given to maintaining such growth. The problem is plain. Every day that a young beast makes only half growth, half the food of maintenance is lost. Every day that it makes no growth all the food of maintenance is lost. If a calf, for instance, stands still for a month after it is weaned, because the food is unsuitable, the food eaten by the calf for that month is entirely lost. If a young cattle beast makes no gain for a whole winter, as is frequently the case, no return whatever comes in from the food consumed. Boarding animals for nothing is a very poor business. The careful, thoughtful man will not do it. He will try and so feed his animals that they will continuously improve during every day that they are on his farm and have to be provided for by him. It is curious how years ago this fact was not more recognized. Since, for instance, young cattle were kept until eighteen months old, and were not much heavier at that age than they are now at less than half the age, they were kept over winter and had to be fed as a rule during that period without making much gain. This was a mistake. Somewhat similar was the mistake of keeping steers to the age of three and four years that ought to have been marketed at two years. The constant aim of the stock keeper should be to avoid to the greatest possible extent the boarding of animals for nothing.—(Minnesota Farmer.)

In reporting the score of butter at London Fair, an error was made in the 50-lb. lot, put up in tubs or boxes (creamery). The Ayton creamery scored 96½ on that lot, which gave them second place.

A Herdbook for Dairy Shorthorns.

It appears that one of the English professors has been advocating the addition to the already long list of herdbooks of another for the registry and records of dairy or deep-milking Shorthorns. Mr. Richard Stratton, of Wiltshire, a well and widely known Shorthorn breeder, and one who values highly the milking propensity in the breed, and whose herd is noted for this quality, fails to see the necessity for or the wisdom of the proposal, and tersely states his views in the following sentences in the London Live Stock Journal of recent date, from which we quote:

"I have read the letters under this heading with considerable interest, and, while attaching the highest importance to the milking properties of Shorthorns, I have no hesitation in giving my opinion against the scheme proposed by Professor Long. The objections to starting a second register for Shorthorns are, I think, much greater than the advantages to be derived from such a proposal, and I think a great fallacy underlies the idea that registration of milk yields insures continuity of milking properties. There is, of course, no doubt that 'like' tends very strongly to breed 'like,' but in Shorthorns good milking qualities depend quite as much upon the manner of rearing the females as upon their breeding, and whatever may be the milking antecedents of the parents, unless the offspring is reared to be a milker the chances are that it will not become one; it is not therefore entirely (or nearly so) a question of breeding. The objections to having two herdbooks are so obvious that I need not point them out; suffice it to say that the difficulty of obtaining really reliable milk yields must be very great, also the expense. Then, it must be remembered that milk yields depend very much on feeding, the nature of the land, etc. Then, a large yield may not necessarily be more valuable than a small one, provided the former is poor and the latter rich. The whole thing appears to me to be too complicated to be workable, and, while fully appreciating the objects of Professor Long—viz., the improvement of the milking properties of pure Shorthorns, and the demonstration of their capacity in this respect, which I contend is equal to that of non-pedigree Shorthorns—any attempt to establish another herdbook I should strongly oppose. It appears to be a common idea that a deep-milking Shorthorn is not one that will readily lay on flesh. This is entirely opposed to my experience. On the contrary, I find, generally speaking, the best milkers are the most regular breeders, last longer, and when dry lay on flesh faster than bad milkers; therefore, looked upon from any point of view, milking properties should be steadily kept in view by all Shorthorn breeders, and our agricultural societies should impress upon their judges the importance of this point."

The Breeding Sow.

As the time for the selection of breeding sows for next year's litters is now at hand, the following hints by a writer in the Farmer and Stock-breeder, of London, England, are opportune, and will commend themselves to farmers generally:

To start successfully in the breeding of pigs, care must be taken to see that the sow comes from a mother which is an easy feeder and a good nurse, and care should also be taken to see that she has not been stunted in the earlier stages of her growth for want of enough to keep her in comfort. These points are absolutely essential. What breed to work on will depend mainly on individual taste and judgment. She should not be bred from so early as to injure her own growth or the vitality of her offspring. If her first litter is fairly numerous—say, from seven to ten good pigs—and she nurses them well, that is a sow to retain as long as she is fit to breed. Such a sow, properly managed, will bear and nurse twenty pigs in a season, and pay her way with a good profit on all the skill and food she gets. If she does not keep up to her heredity, is a poor breeder, or a poor nurse, she may have another trial, and should that also prove unsatisfactory, she cannot too soon be made into pork. No matter how good she looks, she has failed in the main purpose of her existence. Heredity and selection by a man who knows at the same time how to manage his stock are the foundation principles of the work of pork-raising for profit. In a year or two, by careful management, a splendid breeding herd can be established, and all the cheaper products of the farm can by this means be readily turned into good money. Pigs are able to make much more effective use of the foods with which they are supplied than any other class of farm animals. Experiments have shown that, while the pig is capable of laying on flesh at the rate of 1 lb. for every 5 lbs. to 7 lbs. of dry food which it consumes, cattle require to eat from 10 lbs. to 12 lbs., and sometimes from 14 lbs. to 15 lbs., of dry food for every 1 lb. of increase in weight that they show.