

tion works specially for his or its own personal interests, let us examine what array we have against the township exhibitions or the real farmers' interests. The large importers and breeders of live stock will be in opposition so long as there is room for speculation in prizes and pedigrees. The manufacturers will continue to act aggressively so long as it will be easier to bring Mahomed to the mountain than the mountain to Mahomed. The railway companies will not co-operate with the farmers so long as it remains more profitable to bring the people to the exhibitions than the exhibitions to the people. Pleasure-seekers will follow in the train so long as the sensation continues to form the most prominent feature of the shows. If the show is to be a circus, why not call it by its proper name?

We have not yet mentioned the greatest blow which the annihilation of the township exhibitions would bring upon the farmers. These exhibitions are usually the outcome of farmers' clubs, and if they were weakened or destroyed, the farmers would have less incentive to unite, which would eventually lead to the total abolition of farmers' organizations.

But it must not be inferred that we are opposed to the existence of Provincial shows so long as they do not clash with the farmers' interests. If there is to be a conflict of wealth and influence against numbers, the only chance for justice on the part of the farmers is for them to unite, discuss, agitate, petition, and use every other legitimate means to force the aggressor to know and feel that their rights are not to be trifled with.

Judging Breeds by their History.

There is too much attention paid to the judging of cattle by points and pedigrees, and too little is known concerning their history. It is true that pedigree is history in part, applied to the performances of the noblest strains of a race; but where a breed is the offspring of long and uniform improvement, under the same natural conditions, whereby the highest degree of eminence is attained in the beefing or in certain lines of the dairying qualities, under a systematic process of breeding from the best and weeding out the worst, the history of such a breed is the best index to its character and to its consequent desirability for the object sought. Many a breed has depreciated in repute by a sudden transition from its native conditions, so that an historical knowledge becomes more essential to the expert than a knowledge of its performances at the pail or on the block. The first care of the breeder should therefore be to preserve these native conditions as far as possible, making the adaption to different management and climate as gradual as possible.

Let us illustrate an example. Take the Holstein which is at present talked so much about both for the dairy and as a means of building up other breeds for dairy purposes. Holland, the home of the Holstein, possessing a climate somewhat akin to our own, should have a greater attraction for our stockmen than any other country famed for its stock, supposing other conditions to be equal. Above all other countries in the world, Holland is moreover renowned for its grass and its cheese. There is a close relationship existing between the natural grasses of a country and the character

of its breeds of cattle. The natural permanent pastures are rye grasses and different varieties of fescue; and there being little grain raised, it is marvellous how any breed could be brought to such a high repute on the grasses alone. In winter the food is exclusively hay, and the haying season being usually wet, the quality is frequently inferior. The improvement of the Holstein is the breeding ingenuity of upwards of twenty centuries, the ultimate object being the perfection of skim-milk cheese. We have seen farmers who objected to cows that were great consumers, and yet the encouragement of consumption has been the chief means of establishing the excellency of this breed—not in that gorging manner which has characterized the weakness of the Shorthorns, but it has constantly received that unpampered plenty which is one of the main secrets of breed building. Even the calf that never sees its dam only enjoys new milk for a few days, the subsequent rations being whey and hay-tea; and it is forced to shift for itself on the grass at the age of six weeks. From these conditions it will be seen that the Holstein is not a grazer, that is, it cannot flourish on scanty, hill-side herbage, like the Ayrshire or the Devon, nor will it stand pampering like the Shorthorn, nor straw-stack exposure like our native, it being accustomed to complete shelter from wintery blasts.

Notwithstanding the grand performance of the Holstein at the pail, the beefing qualities have not been entirely neglected. The Dutch, although they live well, are not a flesh eating people, and have not that delicacy of palate which characterizes the English, so that the flesh of the Holstein, when the animal is slaughtered young, is much relished by the Dutch. The cows are slaughtered in their seventh or eighth year, and the bull calves not requiring to be raised for service, are slaughtered for veal. The percentage of cream is not so high as in some other breeds; but the quantity of milk is so great that the aggregate quantity of butter is excelled by no other breed except the Jersey. The Holstein is a notable example of breeding to secure a certain end, and yet, if the beefing and butter qualities had been entirely neglected, the already extraordinary results with regard to the dairy would have been still more striking.

The production of cheese being far more exhaustive to the soil than the production of beef or butter, the question may now be asked, How do the farmers maintain the fertility of their land? The answer would be a deviation from the scope of this article, but the hints would be so valuable to our farmers that we purpose giving a few.

The liquid manure is collected in capacious tanks, and then sprinkled over the pastures. The solid voidings being unmixed with litter do not require fermentation, and are mixed with alternate strata of earth, forming huge, wedge-shaped mountains of compost heaps, built in such a manner as to ward off the rain. Just think what an immense quantity of labor such a system of dairying demands, about eight or nine laborers for every hundred acres of land, and yet this is the only way in which money can be made. In Friesland the average rent amounts to \$28 per acre, besides high taxes, the land being worth \$600 to \$700 an acre. But

what of that so long as the carrying power of the land is sufficient to produce a handsome profit? A hundred acres will carry a hundred head of cattle and about twenty sheep, besides two or three horses, and when it is considered that the average price of dairy products is not much higher than in Canada, it will be readily seen what may be accomplished by science in farming.

Mistakes About Dairy Breeds.

In a recent tour through several dairy districts we had an opportunity of examining various herds and their comparative milk records, as exhibited in the books of the factories. In most localities it is difficult to find a herd which is not to some extent graded. Although accurate accounts are kept with regard to the yield of milk, yet farmers have not yet sufficient data upon which they can act intelligently in the improvement of their herds. Their ideas with regard to feeding and management are so wide asunder that it is difficult to draw any accurate conclusions from their own statements. For example, one farmer whom we visited has a fine herd of Ayrshire grades, producing on a daily average, since May 1st, 28 lbs. of milk per cow. He believes in breeding for dairy purposes only, feeds nothing in winter but straw and turnips, and has his heifers drop their first calf at two years old. His neighbor has a herd of Shorthorn grades yielding an average of 31 lbs. per cow during the same time. He is a believer in supplementing milk with beef, finds it necessary to feed liberally in winter, and has no cows under three years old. Both keep their cows as long as they are able to masticate their food, which they say is until their thirteenth or fourteenth year. These men are the champions of their neighborhood so far as the product of their herds is concerned. The owner of the Shorthorn herd contends that there are no cattle so well adapted to the dairy as Shorthorn grades, but confesses that for profitable purposes there is a danger in grading too high. The Ayrshire man stakes his reputation on Ayrshire grades, but admits that they are too small, and has commenced to use a Shorthorn-grade bull for the purpose of increasing the size of his cows.

These herds having had corresponding records in previous seasons, the sympathy of the neighborhood appears to be strongly in favor of the Shorthorn grades. A more erroneous impression could not possibly be gathered from these data. The milk is sent to the factory only during six months, so that the quantity of milk per milking season is not ascertained, but it is a well established fact that the Ayrshire milks a much longer season than the Shorthorn. A liberal system of feeding in winter has probably more to do with a liberal yield of milk in summer than any other cause, no time being lost in recuperating the loss in condition. Another important item for consideration is in the percentage of cream. It is more than probable that the milk of the Shorthorn grades has a higher percentage of cream, which would make the production more valuable, although the profit to the owner is not any greater on this account. For cheese, it is therefore advisable to breed for quantity of milk, not for quality. In all matters pertaining to dairy cows the question is, What yield can be obtained