

fat-stock shows. If you expect to meet the best demands of the beef-cattle men, you must produce bulls of this type, because high-class steers have never been sired by an inferior bull. These are the market demands, and no attention whatever is paid to the color of pedigree of the steer, provided his form meets with the approval of the eye, and his flesh the touch of the butcher. Will the type of Shorthorn you are breeding fill the bill? If not, and this is the market you are breeding for, you should either make a change for the better, else get out of the Shorthorn-breeding business.

The dual-purpose-cattle man demands an animal that combines in a very liberal way the ability to convert food into milk and butter-fat when used in the dairy, and to freshen rapidly when placed in the feed-lot, and whose calves will develop into very acceptable fat bullocks. The fact that an animal does not meet the demands of the beef-cattle man is no criterion that it is a dual-purpose animal. In the great majority of instances it is unmistakable evidence that it does not belong to any profitable class of animals. Just because some good milking animals are rather high-set, and do not possess all those characteristics essential in the make-up of the ideal beef bullock, is no guarantee that every animal which does not possess the approved beef type must be desirable from the standpoint of milk production. That there is a dual-purpose animal, cannot be successfully contradicted. That these animals are far too few in numbers for the best interests of the farmers of the Middle West, is to be regretted. That the breeder who attempts to perpetuate both beef and milk in the same animal has a most difficult task to perform, cannot be denied; but it can be done, and the man who does it will be well repaid for his trouble.

This is one of the lines of work which breeders of Shorthorn cattle must take up. No other breed can compare with the Shorthorn from the standpoint of beef and milk, where proper care has been used in the selection and mating of the animals. But you must give this matter more consideration. Shorthorn men, as a class, have been working the bluff game too long. The time is at hand when the Shorthorn cow must be more reliable from the standpoint of a milk-producer, if she is to retain the position which she has so nobly occupied for almost a century—the world's most famous beef-and-butter cow. It is up to the breeders of this breed to say whether or not she must lose her place, but one thing is certain, and that is, there must be more milk, else there will be fewer of the red, white and roans.

Having discussed the essentials which are and will be demanded of the Shorthorn cattle, another important point has been reached. How are we to improve the breed, maintain a high standard of excellence, and let those outside of our own fraternity know what we are doing?

There are, perhaps, many things which might be discussed in this connection. But two will be treated at this time. In the first place, no breed of animals has ever been brought to a high standard of excellence, and that standard maintained for any considerable length of time, where a vigorous process of weeding out the inferior animals and the retaining of only those animals of the desired type was not pursued. Even where the most rigid precautions in this direction are pursued, inferior animals among the offspring are always too much in evidence. Too much attention cannot be given to this phase of the work. Breeders must castrate more of their young bulls. This is not poor economy. It is much more profitable to produce a \$75 steer than a \$60 bull. Just so long as you produce \$60 bulls you are depreciating the value of Shorthorn cattle and emphasizing the strong points of the other breeds whose breeders are more aggressive and wide awake to their own best interests. There are many breeders of Shorthorn cattle at the present day who are advertising from six to twenty young bulls for sale who should be feeding more than half of that number of pure-bred Shorthorn steers in the feed-lot, not with the hope of topping the market, because they would be most fortunate at marketing time if they got within a cent or two cents a pound of the extreme top. It is the sale of this kind of bulls that sooner or later ruins any breed. When you commence castrating your bull calves, don't stop when you have picked out the off-colored ones, or the cock horned ones, but be sure and find every young bull that would not make at least a steer that would sell when fat for within a half a cent of the top of the market. Next year have a little higher standard, and, by continuing in this way, you will not only be benefiting yourself, but the entire community. Do not try to convince yourself, and then later on convince some new beginner in the business, that long legs, coarse shoulders, light bodies, flat ribs, cock horns and cat hams are sure indications of milking qualities in the young bull, especially if his dam did not have enough milk to half nourish him during the first five months of his life. Keep only those young bulls for breeding purposes which you would deem good enough to use at the head of your own herd, and then

you will be doing a noble and lasting work for the breed.

So much for the methods of improving and maintaining the same in the breed. The next step in our work is to demonstrate that we have the goods. How can this best be accomplished? There is a very true saying that "Nothing succeeds like success." Just apply this to the animals of the Shorthorn breed. The best way to demonstrate that the Shorthorn cow is capable of producing milk and butter is to keep a yearly record of the amount of milk and butter-fat she produces. Do this yourself, because no sane man will accept the calf's evidence of what the dam can do. The man who will keep such records, and who owns good producing cows will experience no difficulty in disposing of all of his bull calves at very remunerative prices as fast as they reach a serviceable age. There is a strong and growing demand for this class of Shorthorn cattle.

Shorthorn breeders must pay more attention to their exhibits at the various fat-stock shows. This is a feature which cannot be overlooked if the breed is to occupy a position in the very front rank of the beef breeds. These steer shows must be improved, both from the standpoint of the number of entries and the quality of the same. At the recent International Live-stock Exposition, the real good Shorthorn steers present could be counted on the fingers of one hand, and those possessing grand-champion requisites were conspicuous by their absence. Fully fifty per cent. of the steers brought into the judging arena were not good enough to be classed as good yard cattle, to say nothing of show-yard quality and condition. Such a condition of affairs must not prevail at future shows. The Shorthorn breeders of this country have the material to produce International grand champions, and it is up to them to show their colors.

It takes persistent and well-directed energy to win in any line of work. There is but one way for Shorthorn breeders to produce high-class steers, and that is to use the knife freely.

You cannot produce such an animal from inferior parents. You cannot produce him from large, coarse parents. This animal, when produced, will be low-set, wide, deep, good at both ends and in the middle, and as smooth as an egg from every viewpoint. Such is the type of steer demanded, and none other will fill the bill. A steer of this conformation need not be overly large, as from 1,650 to 1,800 pounds, at from two and a half to three years of age, is ample weight. It is type, condition and quality that wins, and not pounds of flesh; but the more weight the better, so long as the other requisites are present. Steers of this conformation and finish are most generally produced from the medium-sized sire and the rather undersized dam, but both sire and dam must be right in conformation, possess unusual quality, and carry an abundance of natural flesh.

FORMALIN IN CALF SCOURS, AGAIN.

The Maryland Experiment Station, after testing formalin for calf scours, announces that it has found 1 part of formalin in 4,000 parts of milk will almost invariably destroy the organisms in the bowels of the calf that produces scours. Dissolve half an ounce of formalin in 15½ ounces of water and add a teaspoonful of this liquid to each pound of milk fed the calf.

We have previously called attention in these columns to the formalin treatment for calf scours, pointing out, also, that to prevent that fatal disease of young calves known as white scours, the best treatment is to wash the navel of the newborn animal several times a day for two or three days in a solution of one part formalin in ten parts water. This should always be done as a precaution whenever there has been any abortion around the stable, or when a case of white scours has indicated the presence of the germ. It is believed that contagious abortion and white scours have something to do with each other; at any rate, where abortion occurs, it is well to be on the lookout for scours.

As for the internal administration of formalin, it is important to remember that it will not cure all cases of scours. Those due to overfeeding, irregular feeding, feeding cold milk, filthy quarters, or to mechanical irritation of any kind, can be treated only by removing the cause and by the administration of a mild purgative of castor oil, say two to four tablespoonfuls, according to age. The formalin treatment is useful only when there is a germ to destroy.

EXPERIENCE WITH ILL-TEMPERED HOGS.

In answer to J. G. L.'s question in issue of March 7th, re slaughter-house hogs worrying one of their number, I have, in twelve years' experience, had two cases of pigs worrying one in the bunch fed at my slaughter-house. I thought the reason was that they got too much blood and flesh or that I had too many in one pen. My remedy was to divide them up into smaller lots of about four in a pen. I thought that it was only "bunch" hogs that worried one of their

number, as I had never heard of any farmers' hogs doing it. FARMER BUTCHER, Peel Co., Ont.

THE FARM.

MUST WALK BEFORE WE RUN.

Editor "The Farmer's Advocate":

I have attended the annual meeting of the Farmers' and Dairymen's Association of New Brunswick off and on for the last twelve or fourteen years, and am grieved to notice a gradual and increasing decline in the attendance, and a general want of interest in these meetings, which should be of the greatest importance to the farmer. Of many reasons given, I am afraid the one that has done most harm is the stand taken by our Department officials in regard to dairying. They have always held that dairying would be found the best-paying branch of farming by the New Brunswick farmer; and, until lately, that corn in a green state, or from the silo, was the principal feed for the dairy cow, after grass; and that if the farmer could not see this, or failed in growing corn, it only proved that his education along these lines had been neglected. To remedy this deficiency, gentlemen from a corn country were brought to these, and Institute meetings to instruct us how to grow corn, build silos, breed and feed dairy cows, etc., were held. They would not admit that the climate was unfavorable to a thrifty growth of corn; the trouble was all with ourselves, who must have failed to go about it in a proper manner. They could not see why we did not tile-drain our land, get sufficient vegetable matter in our clay land, as humus, to prevent the frost throwing out our clover; build up-to-date barns, with concrete basements, which only cost a few thousand dollars, or supply ourselves with the best time-saving machinery. I tell you it took the conceit out of some of us—the thought of who should own the farm before these improvements were well commenced. These things will come in time, but it will take years—in new settlements a lifetime, and in most of our Province agriculture is new. Meantime we have to get along somehow, as best we can. But anyone with only a little knowledge of our climate and conditions should know that such advice was neither practicable nor possible of being followed. Nevertheless, we owe thanks to these gentlemen for many good ideas in connection with these matters. I suspect they owe it to their fathers, that costly improvements give them so little thought. But of late we have had men who did not claim to understand our conditions, and confined themselves to general principles, and were highly appreciated.

For local men, it was natural that the most successful dairymen should be chosen as speakers at the Association and Institute meetings. But these men were generally from favored localities, more or less sheltered from the chilling vapors which envelop the greater part of the Province for days at a time in early summer. Besides, their farms were, in general, handy to some center of industry where milk and butter, carefully handled, brought extra prices. The experience of men so situated could not be expected to agree with that of men whose only market was the country store, where they had to take such barter as they could get. Beef cattle, lambs and hay were the only articles of produce which brought money, away from these centers. During the last few years there has been a great improvement in this direction. Money is paid for almost all classes of produce, and each year brings greater competition, and, of course, better prices. The cold winds which retard and often stunt such crops as corn and mangels, are healthful and bracing, and go far towards the making of the sturdy men, women and children common to our Province. I remember two summers that our friends the cool breezes deserted us; they are known as "the years of sickness." Corn thrived and ripened, but there was much sickness amongst all classes, and many deaths amongst the young and the aged. We can grow such crops as are grown in the north of England, in Scotland, and in Ireland, and I think it will be allowed that farming pays in these countries, even after paying ten dollars per acre per annum for the use of the land; and that they make lots of very good butter and cheese without corn, but largely off turnips, which we can grow just as well as they can.

A good many followed the instructions given to grow corn, and persisted in it for years, but with very little success. Cheese and butter factories were built and operated. In favorable districts they are doing well; in others they were short-lived. In this neighborhood, those who went strongly into dairying, after giving it a fair trial, found themselves poorer than under the old system of mixed farming, and gave it and corn up together, wishing confusion to all theorists. This was under the system of collecting the whole milk. I believe it might give better satisfaction