

food to another is made gradually, one next to never hears of such a thing as "burned-out" cattle. So far, then, as the method of feeding long-keep steers is concerned, we feel quite certain that our experiments are reliable, and that our conclusions are quite in accord with what one would naturally expect.

We have now commenced another series of experiments upon a very important subject; but it is going to take a number of years before anything like definite conclusions can be obtained. One of the great problems facing the farmer is whether he should buy long-keep or short-keep steers. The long-keep steers can be bought at a lower price per pound, but, as already pointed out, they must be fed for a longer period, and made to increase considerably more in weight than the short-keep steers. The problem is, therefore, "how much more per pound can a farmer afford to pay for short-keep steers than for long-keep steers, and come out equally well financially." So far as we have gone our experiments indicate that the long-keep steers will make somewhat cheaper gains than the short-keep steers; but there is another phase of the question, which must not be overlooked. In fattening steers, especially with the present prices prevailing for foods, it is impossible to produce a pound of gain in weight for the price which that pound of gain is worth on the market. In other words, if finished cattle are worth 5c. per pound, we could not put on the necessary gain in weight at a cost of 5c. per pound. The chances are that each pound of gain in weight would cost between 8c. and 9c. There would, therefore, be a loss of between three and four cents on every pound of increase in the weight of the cattle, and the only way in which this loss can be made up is by increasing the value of the original weight of the animal. Thus, if a steer weighed 1,000 pounds when purchased, and had to be increased 300 pounds in weight before he was ready for market, and if it cost 9c. to produce a pound of gain, the cost of producing 300 pounds gain in weight would be \$27.00. If the selling price of cattle is 5c. per pound, this 300 pounds would sell for \$15.00, or a net loss of \$12.00 on the 300 pounds increase in weight. Now, if the purchaser had paid 5c. per pound for the 1,000-pound steer, then twelve dollars would represent his total loss on the steer. If, on the other hand, he had paid 4c. per pound for the steer, and sold him at 5c. per pound, there would be a profit of \$10.00 on the original weight of the steer, to balance against the \$12.00 loss which was incurred in increasing his live weight by 300 pounds. From this, it will be seen that the smaller the increase in live weight necessary to make a steer fit for market, the smaller will be the loss to be made up by increasing the value of the original weight of the steer. This is the reason, therefore, why short-keep steers command a higher price per pound than long-keep steers, because the feeder can accept a smaller margin between the buying and selling price per pound, and come out equally as well as in the case of long-keep steers. As already intimated, this line of work has merely been commenced, and as yet we have no definite recommendations to make. It is an important problem, however, and we trust that in the course of two or three years we may have something more or less conclusive to offer the public. The explanations regarding the advantage possessed by the short-keep steer are offered in the hope that they may help to clear up a point which is but imperfectly understood by the average feeder, and the problem we have set out to solve in our experiments is just how great an advantage the short-keep steer possesses.

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Prof. Grisdale's Steer-feeding Test.

To the Editor "Farmer's Advocate":

Sir,—To all cattle feeders, Prof. Grisdale's experiment, as reported in the "Advocate" of May, 26th, is interesting reading; but without more information I cannot rest satisfied. To get full benefit from the experiment, we must know more about it. The point on which we need to be informed is, "How was the feed used valued?"

If valued at market prices, less the cost of hauling to market, it is a remarkable showing.

If valued at what the feed cost to produce it on the farm, then it is a different story.

I think in order to know whether fattening cattle is profitable, and what the real profit is, the market values of feeds must be charged to the bullocks.

It is an easy matter to figure up a profit, if we charge only cost of production values. For instance, in reckoning cost of fattening, turnips or mangels are usually valued at six cents per bushel, whereas they can frequently be cellared at three cents per bushel, and sometimes at less. Supposing a bullock is fed a bushel per day for six months, to figure on cost, the roots alone would be \$5.40; but if we figure on their market value, we make it \$10.80. Carrying out the calculation in figuring on hay, grain and ensilage, we readily see how easy it is to make a large profit appear, if the profit resulting in growing the different feeds is credited to the steers.

To me it seems the fair and intelligent method is to know what profit we first get from the crops we grow, and after ascertain how much increase of value we can obtain by disposing of said crops, in the line of fattening steers on other lines of farm manufacturing. I trust you will place in the "Advocate," from Prof. Grisdale, full particulars of his excellent experiment.

JOHN CAMPBELL.

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Sheep Profitable Stock.

The evidence of farmers who keep sheep almost invariably is that, considering the cost in labor and feed required, there is no class of stock more profitable in the long run. And yet no class of stock has been more neglected by Canadian farmers in recent years than sheep. While twenty years ago few farmers were without a flock, now comparatively few have any. This is accounted for in many districts by the fact of dairying being made a specialty, and the pasturage being reserved for cows, in which case there is some show of reason in the decision to discard sheep, which bite close and are supposed to be specially severe on the pasture. But, even in this case, injustice is done the gentle sheep, as it is known they reject the rankest grass, choosing the short nibble, and eat with a relish many weeds and herbs that cattle disdain to consume, or which, if they do, are hurtful to the flavor of milk, and are better out of their way. Sheep, therefore, serve a good purpose in clearing the farm of weeds and keeping it clean, and in many cases can be kept in summer largely on land not suitable for pasturing cattle, while in winter they may be kept in inexpensive buildings, require little labor in their feeding or care, and will do well on cheaply-grown foods. The ewe flock more than doubles its numbers yearly, besides paying an extra dividend in the fleece produced, which, even in these times of low prices for wool, is generally worth enough to pay for their winter's keep. And the outlook for a rise in wool values in the near future is now bright with promise. Lambs bring good prices in the fall and winter months, and, considering cost of production, no other class of meat is as profitably raised; while even ewes that have passed the profitable age for breeding may quick-

ing around a bunch of pure-bred ewes may be secured at little more than the cost of grades, in which case it will be good policy to buy the former.

An Old Country Breeder on Our Herd-book Restrictions.

I think the United States and Canada might very well relax their conditions with regard to entry in their Shorthorn herdbooks, and assimilate them to those of the English Shorthorn Society. Of course, if the Shorthorn societies are run for the benefit of the owners of the old stocks, if that is the aim and object of breeding pedigree stock, it may be the right thing to maintain the exclusiveness of the conditions, but if the herdbook is intended for the public benefit, I maintain that it should be run on broad lines. I take it that the really crucial question is whether, for all practical purposes, an animal tracing its descent unbroken on the male and female lines to Vol. 20, or earlier, is any better or more impressive as a breeding animal, than one of shorter registered pedigree? If that were the case, why have not the oldest families maintained their position in this country? As a matter of fact, many of the oldest families are considered to be "played out," but whether that is the case or not, can it be contended that these families are in such perfection, judged from every point of view, as they were, say, forty years ago? The answer certainly would be no. Then, if that is the case, it would appear that it takes some forty years or so to bring a family to its best, and that after that time a deterioration sets in, unless great care is taken in the breeding and plenty of new blood introduced. Then, why are not the families dating from, say, forty years ago (and I am only using this figure for the sake

of argument) equally good as those of eighty years standing? I think it should always be borne in mind that the great object of pedigree stock breeding is to level up the general stock; not so much to improve the pedigree stock, but by maintaining the excellence of the pedigree stock to improve the "million." The owners of pedigree stock are quite able to take care of themselves, and will not introduce short pedigrees that are likely to be injurious to their old families, which, so long as their standard of excellence is maintained, will always be worth more than parvenues, but their number must always



Shire Mare, Flower, and Foal.

Sire of foal, Carbineer, Crewe District, England.

ly and cheaply be put in good flesh on pasture, and sell readily at a fair price.

The excuse that dogs are a menace to sheep-breeding, while it has some foundation, is greatly exaggerated, as experienced breeders will testify. In an experience of over forty years with a large flock, located within three miles of a town on one side and two miles of a village on the other, the flock was attacked but once in that time, with a loss of three sheep, which were paid for by the owner of the dog. The only precaution taken was the keeping of a couple of small cow-bells strapped to the necks of two sheep in each section of the flock, but even this seems to be too much trouble and expense for farmers who are looking for an excuse for not keeping sheep. In England, where villages are thick and dogs many times more plentiful than in Canada, and do many times more damage, sheep are considered the sheet-anchor of successful farming, and the abandonment of the flock is no more thought of than the quitting of grain-growing on account of the rooks and sparrows.

We confidently look for better times for Canadian sheep-breeders before many moons have passed, and feel safe in advising the founding of more flocks now that stock may be secured at moderate prices. The early autumn is the best season to secure the foundation for a flock or to add to an existing flock, as then the lambs are weaned, and ewes or lambs may be selected and bought to suit the needs of the buyer, and a strong ram lamb answers well for breeding to a moderate sized flock. It may not be advisable for all to go into breeding pure-bred sheep, as good grades may be bought for less money, but only a pure-bred ram should be used, and by look-

ing around a bunch of pure-bred ewes may be secured at little more than the cost of grades, in which case it will be good policy to buy the former.

be limited, and there are millions of cattle capable of being greatly improved by the use of a well-bred bull. Is it better, for the sake of keeping up the imaginary interests of a few, to curtail the general benefit of the many? My own cattle are all qualified for the American or Canadian herdbooks, and my families are among the oldest, but I have always thought it wise to encourage the raising up of new families to be registered in due course. This cannot be done without the use of our pure-bred bulls, but if it were possible for our forefathers to raise up and firmly establish tribes of Shorthorns from the materials so indifferent, so scattered about the country, and so difficult to collect and arrange, why should not this process be far more easily accomplished in these days, when nearly all Shorthorns are more or less purely bred, and when suitable materials are far more easily obtained than formerly? I maintain that it is in the interest of Shorthorn breeders to promote this, and their duty to the community at large. A good animal with a good old pedigree will always be worth more than a good one with a short or new pedigree, but the former is necessary for the production of the latter, and I maintain there is room for both, and that after a family has been established for a certain period, for all practical purposes, it is fully equal, if not superior, to the older families—mere antiquity of lineage is useless—and after a given time, say, five or six generations, if carefully bred, such animals may be used upon ordinary stock with as much success as those of older pedigree. I have long thought that there might very well be a new classification for new pedigrees, such as an A-and-B classification. All animals dating from, say, 1850, to