

loss of at least the amount of the feed consumed during the interval, or to state it more accurately, the loss represents the difference between the value of the gain in flesh and the less price received, which is just about certain to be on the wrong side. The calculation is in no way abstruse. If a cow weighs 1,000 lbs. in the month of June and is in fair condition she will, at the present price of meat, bring four cents per pound live weight. Her value then is \$40.00. Now suppose she is pastured until October and then sold at three cents per pound, which is no less relatively than four cents in June. She is not likely to gain more than $1\frac{1}{4}$ lbs. per day, since she is matured. She weighs when sold four months later 1,150 pounds and fetches \$34.50. The loss in this case is \$5.50 with the cost of keep added.

It is of much importance therefore that the idlers should be turned off early in the season. Of course this cannot be done, as already said, if the animals are lean beyond a certain point. But this should not be. The farmer who has his animals lean beyond the point of rejection by the butcher has them too lean, in fact in that condition which will entail more cost for maintenance than if they had more flesh on them.

We do not mean here that breeding animals should be kept in that condition which best suits the purposes of the butcher, but with enough flesh on them to prevent their rejection by the butcher in case of any mishap that would disqualify them for breeding purposes. If not in this condition they should be so near it that some extra meal added to their usual ration would fit them for being turned off in a very few weeks. In these days of narrow margins a little calculation will accomplish more, it may be, toward making the farm pay than the expenditure of a large amount of muscle. The farmer cannot afford to keep about him on the farm any class of idlers, or any kind of live stock that is not more than paying its way.

Ensilage for Fattening Steers.

In the past it has been looked upon as almost an impossibility to make beef without a liberal supply of roots, hay, and grains fed in the form of meal. But the world is moving. It now appears that beef can be made from meal only and ensilage corn, quite as effectively and more cheaply, if anything, than from the old time-honored ration of roots, hay, and meal. This, we believe, is the result of an experiment just completed at the Experimental Farm, Guelph, which we have every reason to believe has been conducted with very much care and accuracy. This does not show conclusively that ensilage and meal will prove as satisfactory as the old time-honored ration in every instance, nor even that such will usually be the result. The experiment requires confirmation, and we believe it is the intention of the present Professor of Agriculture to repeat the experiment over and over again. This one instance, however, is very significant, as it indicates how the needle is pointing. We understand the pair of steers on which the experiment was tried were three years old, and were grown before the experiment commenced, and that, notwithstanding, they have made the excellent gain of nearly 2 lbs. per day in a four months test. The general opinion during recent years in regard to ensilage has been, that while it is a good ration for milk production, it is not of much value for meat making. So firmly has this opinion been grounded in the minds of the farmers, that the idea of wholly supplementing roots and hay, with corn ensilage, in beef making, was looked upon as chimerical. The very possibility of being able to make beef on this simple ration should be hailed with much satisfaction by the farmer, as the

process is a very simple one. The cost of the labor of feeding will be much less. The feeder has simply to go to the silo and get his food ration, put upon it the usual modicum of meal, and the whole thing is done. By the other process hay must be chopped, roots pulped, and meal mixed with the ration, which is more troublesome in every way. Indeed, it must prove exceedingly gratifying to know that milch cows, young stock and fattening animals may be supplied with food from the one common source, with the variation only of the ration of meal or of other cut fodder as may be thought necessary.

Corn may be grown in almost any part of Ontario for ensilage purposes. It will grow fairly in large sections not well adapted to the growth of roots, as on black loams rich in humus, which are found in the valleys along the banks of streams in clay sections. The area then for beef production will be considerably extended by the use of this food factor. Corn may be grown for the silo at a cost of not more than \$1.75 per ton, even though the labor of growing were all hired, including the work of men and horses, but not including any rental for land. The average crop is fifteen tons to the acre. The cost of growing an acre and putting it in the silo is about \$26.25. It may be done by the farmer, however, at a less cost, who is doing it on a large scale. The chief difficulties in the way are the securing of an engine to run the cutter, or of some other power, and performing the labor of filling the silo at a busy season of the year. But the first of these will be in a measure removed when silos become numerous; the latter is one that will remain, but it is not an insuperable difficulty. We should mention here that in the experiment referred to the ensilage fed was reckoned at \$2.50 per ton, which would leave the farmer who grows fifteen tons to the acre a profit of \$11.25 per acre for his crop. We cannot leave this subject without urging upon our farmers to look deeply into this corn question.

Milk or Beef.

The keepers of live stock have always been divided into two camps on the question as to whether it is more profitable to keep bovines for the production of milk or beef. The answer to this question depends much upon locality, relative values of the products, and the skill shown in their production. The dairyman who lives near a city, or a railway station, will always have an advantage over the one who is not thus favored, and the one whose farm naturally produces succulent and abundant pastures, will always be more favorably situated for carrying on a successful business, than where the conditions are the reverse of this. When the facilities for marketing are not favorable it is doubtful whether dairying should be engaged in at all, even though the conditions of nutritious pastures and pure water are everything that may be desired. The relative values of the products of meat and milk vary at different periods, but at present the milk producer probably has the advantage. A few years ago the advantage was the other way, and what the future may be no one can say with certainty. The third contingency mentioned, however, the skill of the producer, is very largely under the control of the individual, and it is perhaps more potent in its results than either of the others mentioned. One who is well skilled in producing meat in the most desirable way, should hesitate before giving up its production to engage in that of the production of dairy products exclusively, if wholly unacquainted with the work of the latter, and the converse of this is also true.

It is happily possible, however, to produce both milk and meat in conjunction, and on the same farm, and this combination with the average farmer is perhaps the desirable one. Calves intended for shippers even may be raised on skim milk after the first few weeks without any difficulty, and without in any way seriously interfering with the dairy interest. This would involve, however, the keeping of Shorthorn, Holstein, or Ayrshire cows, or at least high grades of one or the other of those classes, and for this purpose the Shorthorn grade would probably be the best, as the steers from the latter would be the most suitable, taking them all in all. It would also require much care in the choice of the bull, that the milking properties might be well sustained.

That milk and meat production may go hand in hand has been demonstrated over and over again. That this combination is desirable sometimes, is clear from the fact that one is an article of food as much as the other, and that the production of meat is always to a large extent dependent upon the production of milk.

That growing meat on new milk at the present time is unprofitable, is patent to all who look into the matter. The average milk yield of the Ontario cow for the factory season is under 3000 lbs., but putting it at this amount it would all be required to raise a calf fed upon it, estimating the milk to be worth but one cent a pound, the cost of the calf for this item of its food alone would be \$30, which is already more than the calf would bring as meat at the close of the milking season. Add to this sum the other food fed, and also something for the keep of the cow during the period of gestation, and allow the manure made as an offset to the labor, and we find that a calf which will not bring more than \$20 for meat at weaning time, has cost twice that sum.

Now by the use of new milk for a short time and then skim milk, with flax in some form and meal added, a calf nearly as good can be raised, and at a very much less cost. It is clear then that those who are to raise shipping steers must call a halt. They must raise such when calves upon skim milk, and this will enable them at the same time to use the whole milk in the production of butter. The combining of meat and milk production on the same farm has the further benefit of utilizing to advantage any kind of food that may be grown upon the farm; some of them may be more suitable for the production of one or the other of these products indicated, and where both are grown they may be fed in that way which will be attended with the best results.

Feeding Calves for Beef.

There is a feeling of difference amongst many feeders for the beef market as to the best time to have the calves dropped. There are numerous advantages in having the cows calve in September, October, or in the later months, and these are the more striking if the stables are comfortable in every way and planned with a view of lessening the labor of attendance. Under such conditions the calves can be better taken care of, as work is not so pressing at this time, and as a result more attention can be given to the care of the calves when they most need it, and further, hired labor is cheaper and more easily secured. The cows are also more easily attended to, and the annoyance that follows when breeding time arrives is easily got over. The calves by coming in the fall go right ahead when they get on the grass after being weaned, and that is a most important matter, for if once the young calf goes back or loses its calf flesh, as it is