There is plenty of available material in the flocks of our home breeders for founding new flocks, if farmers make their selections early in the season, before they are picked up by the U. S. speculators who will be here in strong force this summer, owing to the good prices being realized in that country for lambs and wool, and which will be followed by a proportionate advance on this side of the line. A small flock of sheep may be very profitably kept on nearly every farm in this country, without seriously interfering with any other branch of farming, and the proceeds of our farms might thus be augmented by millions of dollars in a very few years.

Prof. Grisdale and His Critics.

To the Editor "Farmer's Advocate":

Sir,—In your edition of the 2nd February, 1905, page 152, I am reported as having said: "From one year to two and a half years is the ideal age for feeding for beef. The relative cost of a pound of gain is as follows:

From birth to six months	$0 02	per lb.
Six months to one year	05	"
One year to two years	08	"
Two years to three years	17	"

There is something in the young animal that enables it to make better use of its food than when it gets older."

With one slight error, or, probably, I had better say modification, of my uttered, or at least intended to be uttered, remarks, the report is correct.

The line, "Two years to three years, 17c. per lb.," to correctly report what I said should have read, "And so on through the third year, till at the end of that period it is costing about 17c. per lb."

The article appearing in your edition of February 2nd, 1905, was not, as you are aware, either written or edited by me, so, Sir, I may not be held responsible for any slight variation from the text of what I really said, or, at least, supposed I said, and intended to say.

Now, Sir, permit me a few words as to the experiments on which these statements were based, for, judging by various letters that have found space in your columns since the first appearance of the above oft-quoted quotation therein, your readers are not willing to accept my statement unquestioned.

In the spring of 1900, some dozen or so bull calves, grade Shorthorns, were purchased, castrated, and the horn roots killed. They were then fed for beef production. They were divided from the beginning into two lots, as nearly equal as possible as to size and quality. Both lots were fed as good a ration as could be devised (whole milk excluded) until about six or seven months old, when one lot was gradually shortened up on the meal part of the ration, until at seven or eight months old no meal was being fed. The other lot continued to receive a fairly liberal mixed meal ration (save while on good grass for two months in summer) until ready for the block, at 22 months old.

The lot weaned off meal at eight months were fed on roots, ensilage, straw and clover hay in winter, and were on fair grass in summer, till 30 months old, when they were brought in and fed as any other 2½-year-old steers intended for beef the next spring would be fed.

This experiment, with slight variations, has been repeated annually since 1900, so that there are usually 25 or 30 steers of these lots on hand at any given time, and there have been between 60 and 70 different steers in all under this experiment.

A record as accurate as possible is kept of food of all descriptions fed the different lots, and upon these records, with feeds valued as below, were based the statements made as to the cost of production of beef at different ages:

Roots and ensilage	$2 00 per ton.
Clover hay	7 00 per ton.
Straw	4 00 per ton.
Skim milk	15 per 100 lbs.
Meal and grain of all kinds	20 00 per ton.
Pasture	2 00 per month.

Various kinds of grain were fed—bran, shorts, corn, oats, barley, peas, gluten meal, oil meal and flax-seed meal—some of which cost more than 1c. per pound, but others cost considerably less, so that on the average cost for several years being made up, it was found to be as nearly as possible 1c. a pound.

As to weights, the steers have, in the case of the short-feed lots, run from an average 700 to an average of 825 per steer per lot at one year old, and from 1,200 to 1,300 at 22 months or two years old. Odd steers have weighed 1,400 at 22 or 23 months, but then others have run only about 1,100 at the same age.

The long-feed steers usually average about 600 at one year old, about 1,000 at two years old, and about 1,500 at three years old.

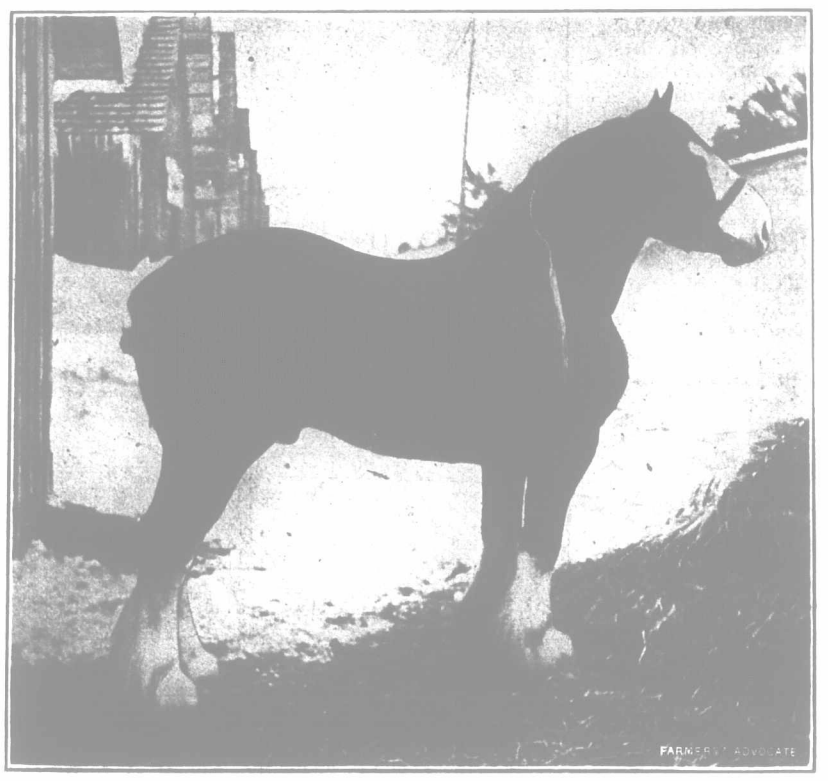
Steers fed as above described for two years, and making such gains, cost about 2c. per pound for gains made in the first six months, from 4c. to 5c. per pound the next six months, and from 7c. to 8c. per pound the second year. They cost in all about $50 per head to feed for the two years, or till ready for the block, and have usually sold for from $65 to $80 each, an average of about $70 I think.

The lots for three years cost about the same for gains during the first six months and second six months; for the second year of their lives they cost about 6c. per pound, and during the third year gradually increased in cost, till during the last month or six weeks they were costing (while being fattened) about 16c. or 17c. per pound.

Since seeing my figures questioned, I have, Sir, looked this matter up in some of the best authorities on such questions, and find that in the case of animals fed up to one year the average cost per pound gain was 4.05 cents; in the case of animals fed from one to two years old, the average cost per pound gain was 8.04 cents, and in the case of animals fed from two to three years old, the average cost per pound gain was 12.46 cents. The figures agree with our findings here, as you will notice, save that in the case of from two to three years old the average is given, while I gave the final rate of cost per pound gain.

Now, Sir, in your edition of March 9th, 1905, Mr. John Kennedy states that he can feed a steer for about six months for from $20 to $24; and Mr. Simpson Rennie is quoted as saying that he can put on 300 lbs. in six months for about the same sum, $24.52. I agree with these gentlemen, and think we have done even better here, having made gains more cheaply with 2½ and 3½ year old steers, because we used less meal. We find that an average of about five pounds of meal per day from start to finish gives the cheapest gains. For the first month or six weeks no meal at all is fed, but all the roots and ensilage, equal parts, the steers will eat and five or six pounds of clover hay daily. The meal when first given is fed in very small quantities—1 lb. per day for the first 10 days, then 1½ lbs. per day for the next week or 10 days; 2 lbs. for the next week, etc. Steers so fed cost us from 6c. to 8c. per pound for increase in live weight.

But, Sir, this might be taken as indicating that I am mistaken in my original statement, that the older the steer the more expensive the production of beef. It does not, however, as I think I can clearly show. The steers fed by Mr. Kennedy, Mr. Rennie and Mr. Baty were steers that were bought up in October and November for feeding purposes. They were, for some reason or other, not fat enough to go forward to the block off the grass, and, hence, were in good shape to put on gains cheaply, and the seller was forced to sell them cheaply. Now, Sir, either the seller (who was quite likely also the raiser) raised those steers on very, very cheap land, or he got very small prices for the feed he gave them. Such excellent farmers as Mr. Kennedy, Mr. Rennie and Mr. Baty know this too, or they would do more of the raising of steers to three-year-olds themselves before feeding; they know it either by experience or intuition, we know it by experience.



Prince of Scotlandwell, Imp. (11860).

Clydesdale Stallion, rising 5 years. Imported by Smith & Richardson, Columbus, Ont., and sold to T. A. Brown, Carp, Ont.

Here, Sir, is one item of experience. Steers kept on the Experimental Farm here from birth till they reach the age of three years, as described above, cost about $80 to feed, and sell for from $65 to $75. These figures refer to not one steer alone, but to several lots, an excellent reason for buying rather than raising feeders, is it not, especially when it is remembered that steers kept till two years old made a clear profit of from $15 to $20, and steers bought in and fed for six months usually made a profit of from $4 to $8 under exactly similar conditions.

Now, Sir, let me say further that I believe there is money in beef production in Eastern Canada, but the practically only certain clear-profit-making-system of beef production in this part of the country is, in our experience and opinion, the finishing off of beef at 2 or 2½ years old; in short, baby beef. This plan of producing beef will, or at least is likely to, always leave a profit. The usual method of buying up steers in the fall, feeding through the winter and selling in the spring, will, we find, frequently leave a small clear profit, although sometimes there is an apparent loss after paying for feeds at quoted prices. There is, however, always the home market for all coarse forage, and a plentiful supply of the very best kind of barnyard manure, that indispensable factor in successful Canadian farming.

In your edition of April 6th, 1905, both Mr. T. Baty, on page 499, and "T. A., of Perth Co., Ont.," page 500, refer to the superior value of aged cattle as consumers of coarse forage. I may say that we have found but very little difference between cattle of different ages, as to their comparative powers of utilizing coarse feeds.

We have fed steers aged from 8 to 12 months, from 18 to 24 months, from 30 to 36 months, and from 42 to 48 months at the same time, under similar conditions, and have found the young steers do quite as well as the older steers, so far as weight of gain was considered, and considerably better so far as cost of 100 lbs. gain was concerned.

The coarse forages fed were mangels, turnips, corn ensilage, oat straw and clover hay. The rations have varied slightly from year to year, but an average ration might be said to have been made up as follows: Oat straw, 6 to 8 lbs.; roots, 50 lbs.; and ensilage, 50 lbs. All the steers would eat up clean of this mixture. This was fed in two equal portions, night and morning, followed by from 2 to 4 lbs. of long clover hay after each portion. The steers from 8 to 12 months, and those from 18 to 24 months, received no other feed, neither did the older steers for about two months. During the two months, when all lots were on roughage alone, they all averaged about 2 lbs. a day, but later on, in order to keep up the 2 lb. a day rate of gain, it was necessary to feed meal to the 2½ and 3½ year old steers. The 8 to 12 months and the 20 to 24 months lots were allowed to continue without grain, and usually did from 1 to 1½ lbs. per day till grass was ready.

J. H. GRISDALE,
Agriculturist.

Rape in Stubble.

In an address, delivered before the South Dakota Sheep-breeders' Association, by W. F. Kelly, of that State, he said: "We have been for some years practicing the plan of sowing rape with our oats in spring, with the best results. I presume many of my hearers have already tried sowing rape with grain. I do not presume to teach these people anything on this subject, but to those who have not tried it, with their permission, I will give them my experience with rape in stubble.

"I would choose a grain field, and let it be a large one, that I intended planting to corn the following year. Then you need not plow till spring, thus giving the sheep the run of the field the entire fall. I would sow ten acres of that field by mixing the rape seed with the first grain that is sown in the spring, at the rate of two and one-half to three pounds to the acre, but do not sow it this early with barley, for if you do so, the chances are that you would harvest more rape than barley. I would sow the rest of the field anywhere from the 15th to the 25th of May, going over the field thus sown with a light harrow.

"Do not be afraid of damaging the grain by harrowing it, for I assure you you will not, but the very opposite will be the result. You will benefit your grain, you will kill very many weeds, and cover your rape seed at the same time. That's killing three birds with one stone. I will admit, that after harrowing your grain, your field will look bad. It will look as though it had lost its last friend, and you will probably curse Kelly for advising you to try such a plan, but just you wait a few days, and see that grain field get right down and hump itself and grow.

"My reasons for sowing ten acres with the grain is this, that acreage will make a rapid growth and furnish an abundance of feed, even if the late summer should prove to be very dry, but I would not care to risk sowing the whole field then, because, if the reason should prove favorable for the growth of rape, it might make such a strong growth that it would be nearly as high as the grain, and bother like everything at stacking time.

"I remember once, some years ago, I sowed some rape with oats, and I was obliged to go over the field and knock down every shock so the wind and sun might dry out the rape that was in the butts of the bundles, but that oat straw with the dried rape in it was next to alfalfa hay the finest sheep fodder I ever fed.

"The rape seed sown in May will usually be from four to eight inches high at harvest time. The sickle will sometimes snip off a few leaves,