Woodville Stock and Dairy Farm.

Woodville Stock and Dairy Farm is situated about four miles above Ottawa, and is owned by Mr. J. G. Clark. The house and barns are approached by a winding drive through a beautiful grove of maples. A large windmill surmounts the barn, which provides a supply of pure water for house and barn. From the farm a delightful view of the Dachine Rapids and of the Ottawa river can be had. Being so conveniently situated to Ottawa, Mr. Clark early began to cater for the city milk trade, and for this purpose he chose the Ayrshire and their grades. About seven years ago he obtained a number at the dispersion sale of T. C. Larkin, Ottawa, who had spared no pains to obtain the best regardless of cost. At present he has a herd of sixty dairy cows, twenty of which are pure-bred; his milk trade has increased to such an extent that he now finds it necessary to keep two wagons on the route delivering milk to his patrons. Mr. Clark, at the time of our visit, was busy filling his silo. He prefers the Longfellow and Mammoth Southern varieties of corn, and states that the silo reduces the cost of feeding his cows at least five cents a day, which, in his herd, would amount to quite a substantial profit in itself. Choice bulls have been selected from time to time of the best milking strains, to keep up the standard of this well-known herd.

The stock bull, Frank Ramsby 449, won second at Ottawa this year. The two cows, Mountain Maid and Beauty Bride, are as near perfect as can be. Three bull calves from Frank Ramsby were shown at Ottawa, two of which were highly commended in a very strong class of ten or a dozen.

Mr. Clark has been very particular in breeding from long-teated cows, believing that short teats have been one of the great defects of this breed. Having found, to his cost, that Canadians will not milk short-teated cows thoroughly, he set himself resolutely to work weeding out any of his cows that were deficient in this respect, with the result that his herd is remarkably good in this particular. The farm consists of two hundred and fifty acres of rich land, and in spite of his large crop he buys coarse grains. If the price of wheat continues as low as it is at present, he will use a large quantity of it as feed this winter, though his favorite feed is a mixture composed of two-thirds bran, one-third peas and oats ground together. The cows are given eight or nine pounds of this mixture, ten pounds clover hay and what ensilage they will eat up clean.

Feeding Cattle.

Just now many farmers who are in the habit of winter-feeding cattle are discouraged at the outlook, as the demand for export steers has not been equal to that of recent years, and the price has been correspondingly low. In consequence they have already decided not to feed as extensively as formerly. As a rule, farmers are apt to jump at conclusions, for they know relatively nothing of the profit and loss of feeding, or, for that matter other lines of their business. Any light that can be thrown on the subject is therefore interesting. In conversation with a prominent farmer who feeds a large number of steers every winter, he told us that he purchased only the best cattle, and claims that the export steer must be well-bred, smooth and well-finished. He usually buys steers at thirty months old, but the younger the better, providing they have the size. Such steers, when sold at thirty-six months old, should make an average weight of from 1,400 to 1,500 pounds. A year ago these cattle cost him from $4 to $4.50 per 100 pounds. Last spring he had two carloads of his own feeding, and not being satisfied with the price offered by local buyers he shipped them himself, and they realized as good as $5 at home. On being asked what the cost of producing a pound of beef was, he replied that the two loads mentioned were fed with a view of ascertaining the gain per day in winter-feeding, food consumed, and cost. The steers were weighed, then put in the stables and weighed each subsequent month, until the time they were shipped. During that time they made an average daily gain of a fraction over 3½ pounds, and cost 4¼ cents per pound. Charging then the market price for all feed consumed, he therefore claims he has made a profit of ¾ of a cent per pound in feeding this lot of cattle. Other feeders, who have kept account of everything, declare they can make a profit by feeding cattle at $4 per 100 lbs., but find it difficult to buy the class of steers that will give the best results, and claim that cattle have depreciated in quality from the little interest taken in breeding. In other districts many farmers are realizing this fact, and at present are endeavoring to stock up with good grade Shorthorn cows, from which they make butter, raise the calves, and find that it pays, as steers of their own breeding do better, feed at an earlier age, and produce beef at less cost per pound, which gives a correspondingly larger profit on the food consumed.

If Ontario is to keep her place in the export trade, only the very best finished cattle must be shipped, and these only are of any use in competition in the English beef markets.

Chatty Stock Letter from the States.

FROM OUR CHICAGO CORRESPONDENT.

The demand for horses for the northern pineries seems to be unusually light. There are two reasons given for this: One that lumbermen find it difficult to get what money they want for their business, and the other that they are afraid of the competition of Canadian lumber, if the tariff is removed by Congress.

A French Count, recently visiting Chicago, brought over 7 Spanish jacks, which he thought ought to sell for $1,000 each, but which were knocked down at $1,200 for the lot. He bought and shipped to Paris two carloads of $50 to $75 street-car horses.

The average price of the horses lately selling here has been below $50 per head. This tells two stories: (1) of a low grade of stock, and (2) of a very weak demand for horse flesh.

The movement of stock cattle and feeders to the country continues on a large scale.

It seems queer, but it is nevertheless a fact, that young cattle are often bought at market and returned to the same neighborhood whence they came, thus causing two extra freight charges. Sometimes this is due to the inability of buyer and seller to trade at home. The one often thinks he is being cheated and so sends them to the open market, while the buyer, happening to be there, often finds that he can buy them to better advantage away from than at home.

As a rule, the highest priced cattle marketed lately were dehorned Shorthorns. The fact is being largely recognized that horns are a hindrance under all circumstances.

So glutted are the markets with medium to "pretty good" cattle that makers of really good beeves do not receive the proper amount of encouragement.

United States wool growers were generally rejoiced at the way the recent State elections went, indicating a possible stay of proceedings on the part of Kansas in the matter of tariff reform. No doubt the almost certain prospect of a removal of the wool tariff was largely at the bottom of the great flood of sheep lately forced upon the market.

When one sees two carloads of 1,806-lb. Shorthorns sell at $6, and the great mass of the cattle averaging 1,200 @ 1,500 lbs. and selling at $4@$4.50, the conclusion is irresistible that the quality of the cattle being prepared for market is very poor.

The States have a large surplus of corn this year and a tremendous surplus of wheat, and the low prices of the latter are causing many farmers to busy themselves with converting it into young pork, eggs and butter.

A local authority says:—"Montreal sent to London recently a shipment of 335 live sheep. It is too bad that our American sheep are not good enough to be sent abroad. They are certainly low enough now to have a margin of profit for exporters if the quality was at all suitable for shipment."

The exports of live stock and meats from the States are considerably behind last year. The foreign demand, of course, is weakened largely by the relatively high prices on this side and the sharp competition of the frozen meat trade.

Scotch and English Shorthorns.

In a recent article the editor of the North British Agriculturist says:—"Breeders of the Cruickshank type of Shorthorns may well be jubilant over the triumphs which this class of stock has lately achieved. At the World's Fair the Shorthorns of Cruickshank blood carried the lion's share of the prizes, and one of them, Young Abbotsburn, won the proud honor of being awarded the male championship in the cattle section at that great show, the female championship going to Abbess of Turlington, a member of the Abbess family of Polls which have been so largely bred by Mr. Clement Stephenson, and hailing originally from Balquhain, Aberdeenshire. Many of the most prominent English breeders of Shorthorns—notably the Queen and Mr. Willis, of Bapton Manor—have also used almost exclusively bulls of Cruickshank blood; and some of the proudest triumphs which the Lady Farmer of Windsor has won in the breeding and fat stock showyards of recent years have been won with Shorthorns of this strain. In the old-established herd of the Duke of Northumberland at Alnwick Castle, a Cruickshank bull was used for the first time last spring, Mr. Robt. Bruce's famous old Sittyton-bred bull Hospidar having been hired for the purpose of being mated with some of the best cows in that herd. And now, at the Bapton Manor sale last week, the President of the Shorthorn Society, Mr. Philo L. Mills, of Ruddington Hall, declared that the Aberdeenshire type of Shorthorns were the only kind that were likely to win prizes or pay the rents in these times of depression. Surely, therefore, the breeders of the Aberdeenshire type of Shorthorns have good reason to be satisfied with the progress that their stock are making in the estimation of the public. At the same time, there was much force in Mr. Duthie's statement made at the Bapton Manor sale, to the effect that there was no cause for any feeling of rivalry between the breeders of the distinctively English and the distinctively Scotch types of Shorthorns, for while the English Shorthorns excelled in quality, the Scotch Shorthorns excelled in substance and robustness, so that a judicious blend between the two great strains of Shorthorn blood would be distinctly advantageous to all concerned.

Feeding Animals Judiciously.

BY C. S. MOORE.

A good food ration for an animal must possess at least four qualities or attributes. It should have (a) palatability; (b) digestibility; (c) there should be a proper ratio between the albuminoids, or flesh-producing parts of the food, and the carbohydrates, or heat-producing parts; and (d) also a proper ratio between the concentrated part of the food and the coarse fodder.

It is evident to any farmer that a substance must be palatable and digestible in order to serve as a food at all. Anthracite coal contains all the elements of a good food, in about the right proportions, but it has never been used to feed animals, and never will, because it lacks those two essential qualities—digestibility and palatability.

(c) The ratio of the albuminoids (flesh-producers) to the carbohydrates (heat producers).—The animal body demands food both for building up the tissues and for keeping up the heat and energy of the body. It has been found by experiments that the best ratio for a milch cow is about 1 part albuminoids to 5 parts of carbohydrates; for fattening cattle, the ratio is 1 : 5½; for fattening sheep, 1 : 4½; for fattening swine and for young cattle, 1 : 6; for working horses, about 1 : 5. This proportion between the flesh-producing and heat-producing elements of a food is called its nutritive ratio.

(d) The proportions, in a ration, of coarse fodder (such as hay, straw, corn-stalks, etc.,) to the concentrated food (such as the common grains, wheat bran, cottonseed-meal, oil cake, corn-meal, and so on), must be determined by the kind of animals to which it is fed, and the object aimed at in feeding them. If they are to be fattened they need more concentrated food than if they are merely being fed for growth. Cattle and sheep need a larger amount of coarse food than horses or swine, for the stomach of the ruminant is large and must be distended in order that digestion may go on. The stomach of the horse and hog is smaller and digests more concentrated food to advantage.

Let us suppose that A is an average farmer with cows, sheep, horses, young cattle, fattening steers and pigs. Also suppose that his crops have been poor this season, and that he wants to get through the winter economically, and yet have his animals come out well in the spring. We will try and see how he can apply some of the above principles with profit.

If fodder is scarce it is necessarily dear; hence, in our case, it will probably be best for A to fit up what stock he intends to fatten and get them out of the way before they "eat their heads off."

Before considering how A should feed his animals, we will try and impress upon him the importance of keeping them in a warm place. Animals have to eat a certain amount of food in order to keep up the right temperature in their bodies. The colder the stable in which they are kept the more heat radiates from them, and hence the more food they must eat in order to keep warm. This is one reason why we eat more in cold than in hot weather. A will save money, if he has cold stables, by using every means to close up the chinks in the floor and wall and thus keep his animals warm.

Now, I am afraid he is going to say "Oh, pshaw!" at this next suggestion, if he has not said so already. But nevertheless here goes.

At nearly any experiment station A can get a list of food products with the amounts of albuminoids and carbohydrates given in 10 or 100 lbs. of each fodder. When he once has one of these tables it is a very simple matter to "cut and try" until he has a ration for each group of animals in which the albuminoids and the carbohydrates bear the proper ratio to each other. For instance, in his table he will see the following:—

Pounds.	Food.	Alb. (lbs.)	Carb. (lbs.)
10	Clover hay.....	.78	4.40
10	Corn-stalks.....	.24	3.56
10	Wheat bran.....	1.17	5.13
10	Cottonseed-meal	3.57	6.14

From this table he finds out the amounts of albuminoids and carbohydrates in 50 lbs. clover hay, 20 lbs. corn-stalks, 10 lbs. bran, 5 lbs. cottonseed-meal, and tabulates them thus:—

Pounds.	Food.	Alb. (lbs.)	Carb. (lbs.)
50	Clover hay.....	3.00	22.00
20	Corn-stalks.....	.48	7.12
10	Wheat bran.....	1.17	5.13
5	Cottonseed-meal	1.78	2.57
	Adding, we have...	7.33	36.82

Now, 7.33 : 36.82 : : 1 : 5+. Hence the nutritive ratio of the above ration is 1 : 5. When ensilage and roots are fed their analysis can be neglected for all practical purposes. By following his table he can make up rations for all his animals, and by using a little thought and a few figures he can soon learn how to use up all his fodders to the best advantage. Here are a few rations for illustration:

FOR MILK.

10 lbs. brewer's grains, 4 lbs. cottonseed meal, 8 lbs. wheat bran, 70 lbs. corn silage. Nutritive ratio, 1 : 5.2.

FOR GROWING CALVES.

15 lbs. timothy hay, 20 lbs. ensilage, 2 lbs. oil meal, 1 lb. oats, 1 lb. corn-meal, 4 lbs. bran. Nutritive ratio, 1 : 6.6.

FOR FATTENING SWINE.

30 lbs. corn-meal, 6 lbs. oil meal. Nutritive ratio, 1 : 6.

After making up a ration, the first thing to do is to find out if the animals relish it. If they do not like it, make it over again until their tastes are