

exceptional performers at the pail and churn is the surest guarantee that the baby cow will grow into more than ordinary usefulness. Our calves at Maple Hill are bred on these lines of constitution and dairy capacity, with as much beauty of form as possible, and so far the results have proved very satisfactory.

When the calf is dropped we allow it to remain with the dam for a few hours, usually just long enough for it to get a good square meal of the mother's milk. It is then removed to a comfortable box-stall and taught to drink from the pail as soon as possible. We find that both the cow and the calf fret much less over the separation when this plan is followed. All of our calves get whole milk for at least six weeks, and many of them for two or three months; starting with about twelve pounds per day and increasing gradually to about twenty pounds as the calf grows older. We prefer to divide this amount into three feeds, and as many of our cows require to be milked three times a day when fresh, we can give the young calves a light feed at noon without much extra trouble. Skim-milk fresh from the separator is gradually substituted for the whole milk, and as we usually have plenty of it, some of our calves are still getting it at twelve months old. Such solid foods as clover hay, crushed oats, bran and oil cake are offered as soon as the calf's ruminating stomach is sufficiently developed to digest them, say at four or five weeks old, and it is astonishing how soon the little fellows learn to enjoy these side-dishes. By feeding these food-stuffs we aim to keep the calves in good thrifty growing condition with plenty of bone and muscle, but not fat. Most of our calves are dropped in the late summer or early fall, and are kept growing along nicely through the winter with the above treatment. They will then go out to pasture in the spring in good condition and go through the summer with very little attention on our abundant and well-watered pastures.

The heifers are usually bred at fifteen to eighteen months old, as we find that those that do not calve until they are three years old get into the habit of putting on beef to the detriment of the dairy qualities. When well along in calf it is important that the heifer should have liberal feeding, for it is during the first period of gestation that most cows are made or marred. For a few weeks before calving we find a moderate grain ration of great benefit in developing the udder and milk glands; and after calving an abundance of food, particularly of the succulent varieties, will be necessary to develop the lacteal functions to their fullest capacity. Of course, just after calving, it is best to feed lightly and carefully until the animal's system regains its normal condition, when the amount given may be gradually increased. With us, however, dairying is secondary to stock-breeding, and some dairymen would not be able to give their young stock as much care as we do, but when I say that the majority of our two year old heifers give from forty to sixty pounds per day at their best, does it not go to show that it pays to give them good treatment?

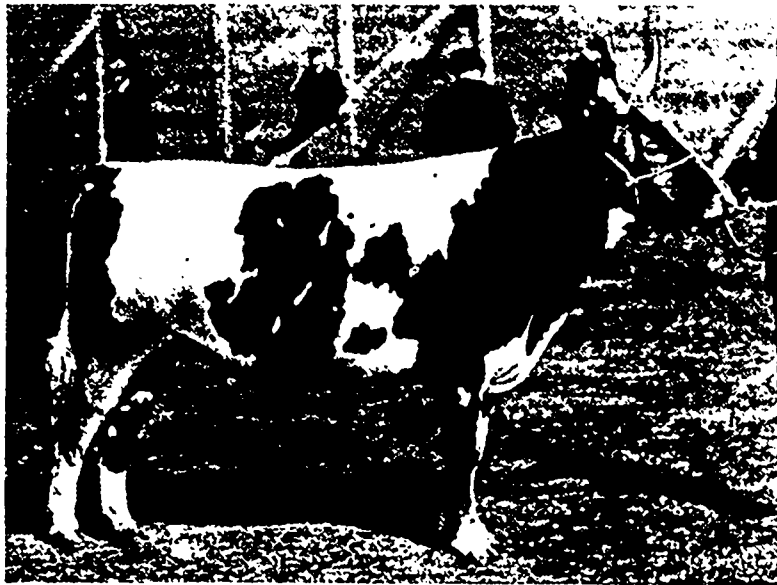
In regard to common errors in heifer rearing, I may say, that in my

opinion, the greatest mistake is in the happy-go-lucky system of breeding so much in vogue among all classes of stock. Hundreds of farmers, who are of at least average intelligence, will breed their cows to a shorthorn bull one year, to an Ayrshire the next, then to a Holstein or a Jersey, and so on. How any man can hope to build up a dairy herd in this way is more than I can understand. Each dairyman should select his favorite dairy breed and stick to it. By grading up with bulls of one breed and of good ancestry it is easy to raise a herd that will, in a few years, be practically as good as pure-breds. I think, also, that the average dairy heifer is not sufficiently well fed, particularly during the first six months of her life, and during the three months previous to first calving. It would be a great advantage if the majority of calves were dropped in the fall so that they would be more likely to get fair treatment during the winter when the farmer is not too busy to look after them; then, if bred to calve at two years, they would have the

over after filling the silo. Only a very small quantity of this is cut at a time because it heats very quickly. We commence feeding this as soon as the frosty nights come so as to keep the cows in condition and keep up the flow of milk, for our experience is that if a cow falls away in condition in the fall we will have a poor cow all winter.

If the oats (cut green) have been well filled and the corn has been well matured the cows will not require much grain. If grain has to be fed we prefer to feed a mixture of 4 lbs. brans, 4 lbs. oats, 1 lb. peas, and 1 lb. barley, the peas, oats and barley should be ground. We feed as much as the cows require of this mixture. If bran is \$10 per ton or less we would feed bran pretty liberally, but when bran is over \$10 per ton we feed it very sparingly. When winter comes we feed a great quantity of heavier hay. We run the heavier hay and unthreshed oats through the cutting box and then mix them with ensilage. We mix this a day ahead.

We milk at fifteen minutes past five every morning, Sunday included. That is all we do before breakfast. While the milkers are at their breakfast the milk is separated. After breakfast the skim milk is fed to the calves and the cows are watered and fed their breakfast. The stable is cleaned while the cows are eating their breakfast. By half-past nine the work is all done, the doors are then shut and the cows are allowed to remain perfectly quiet until half-past three when they are again watered and fed. The feed is then mixed ready for



Ayrshire Bull, Sensation of Lessnessock, 3647.

Bred by Thomas Lindsay, Reidstone, Ocheltree, Scotland. Owned by Robert Montgomery, Lessnessock, Ocheltree. Sensation of Lessnessock is a brown and white, calved March, 1895. First Prize and Champion Ayrshire Bull at the "Highland," Glasgow, 1897.

abundant summer pasture to put them in good flesh and vigor for that event.

Our bull calves get about the same treatment as the heifers, for they are usually sold before they are a year old. After they are six or seven months old it is necessary to keep them separate from the heifers, and we generally confine them in a box-stall or paddock. While we may keep our bulls in a little higher flesh than the heifers, still we have never kept even our show bulls in what a beef cattle breeder would call show condition. Keep dairy bulls in good hearty thrifty condition, but do not over-do them, is the best advice I can give.

CARE AND FEED OF A DAIRY HERD DURING THE WINTER.

By JOSEPH YULL, Carleton Place, Ont.

As soon as the frosty nights come we keep our cows in the stable and let them out on fine days. On cold and wet days we do not let them out, and when cold weather comes they are not let out again until spring. We grow more corn than our silo will hold, and also a large quantity of oats which are cut a little on the green side. We run the oats through the cutting box along with the corn that was left

the next day and all the work done up ready to milk at fifteen minutes past five. The milk is separated while we are at our supper, and all that there is to do after supper is to feed the calves their milk.

When the fine days in spring come we let the cows out for a short time every day, but we are in no hurry to turn them on the grass. We have a small field near the barn on which we turn them on fine days, but we do not let them on the grass until about the 15th or 20th of May. We keep our stables at a temperature of from 50° to 60° Fahr.

The great success in caring for dairy cattle is to be as gentle with them as possible. Never speak crossly or harshly to them, nor allow any other person to do so. Be as punctual as possible in every particular. Never vary one minute in the time of commencing to milk. The milkers should milk the same cows every time and in the same order. If you have been in the habit of milking a certain cow first and you happen to milk another one before her she will feel very much disappointed. It will act like a shock to her nervous system, and will be at your expense. Avoid sudden changes of feed. If you have some inferior feed you want to feed mix it with good feed at first. If you have been in the habit of giving your cows a good feed for their breakfast, and for some reason you have to give them a poor feed, take our word for it they will pay you back at night. A cow will repay you just according to the care and attention she receives from you.

Treat your cows kindly, feed them liberally foods suitable for milk production, keep them warm and comfortable and the cows will keep you.

MILK TEST AT THE SOUTHERN FAIR, BRANTFORD.

The judges were Professor H. H. Dean and R. W. Stratton, of the Ontario Agricultural College, Guelph. There were two sections—one open only to cows, the milk of which had been sent to a cheese factory for at least two months during 1897, and the other class was open to all grades and pure breeds, whether supplying milk to a cheese factory or not. The scale of points used in the test was as follows: 20 points for constitution and conformation; 1 point for each pound of milk; 20 points for each pound of butter fat; 4 points for each pound of solids, not fat; 1 point for each ten days in milk, after the first ten days; limit, 205 days. Ten points were deducted from the total score for each per cent. of butter fat below 3 per cent. in the milk. The test commenced at 6 p.m. on Wednesday, the 22nd inst., and continued for twenty-four hours. One man milked his cows three times per day—9 p.m., 1 p.m., and 6 a.m., and started at 9 p.m. Tuesday, finishing at the same time on Wednesday evening. The cows were milked out clean the evening previous to the test, and the milk given during the next twenty-four hours was weighed and tested, and the points scored were determined according to the scale above. There were seven cows in the test, representing three different breeds: Holsteins, Jerseys, and Ayrshires and two grade cows. The competitors were such well-known breeders as W. M. & J. C. Smith, of Fairfield Plains; A. & G. Rice, of Curries, Oxford county; and B. H. Bull & Son, of Brampton. There were thus more breeds represented at the Southern Fair than competed at the Victorian Era Exhibition, Toronto.

The following table shows the result of the testing:

Owner.	P. O.	Breed.	Open only to Patrons of Cheese Factories.			Open to all not in Former Class.		
			* Lbs. milk in 24 hours.	Lbs. fat in 24 hours.	Lbs. solids, not fat, in 24 hours.	Score.		
A. & G. Rice.	Curries.	Holstein	59.00	1.883	5.169	136.74		
J. R. Alexander.	Chinville.	Shorthorn Grade	45.00	1.602	4.069	108.72		
W. M. & J. C. Smith.	Fairfield Plains.	Ayrshire	26.75	0.917	2.652	72.07		
B. N. Bull & Son.	Brampton.	Jersey	29.75	1.591	2.663	64.82		
William Brittain.	Brantford.	Holstein Grade.	33.00	1.437	2.819	91.72		
W. M. & J. C. Smith.	Fairfield Plains.	Ayrshire	34.90	1.189	2.839	84.50		

CORRESPONDENCE.

With a view to gathering information on the methods followed by successful dairymen in rearing calves and handling dairy stock, we sent a request to a number of successful stock raisers asking them to outline their methods of management for the benefit of the readers of FARMING. We published a number of these in last week's issue, and give a number more this week. We are sure they will prove of interest and benefit to our numerous readers.

HEIFER CALVES FOR THE DAIRY.

Editor of FARMING:

SIR,—My system of treating heifer calves for dairy purposes is as follows: I remove the calf as soon as dry and able to stand, and do not allow it to suck for the two following reasons:

(1) It has a tendency to acquire this habit of sucking, which is a great evil, as a calf when sucking for some time after through feeding, draws air into its stomach, which causes indigestion.