

Calf Rearing on Modern Lines.

Correct Temperature of Food Essential if Scour is to be avoided—Some Substitutes for Cream in Milk Foods.

SPEAKING to a large gathering of Lancashire farmers at Burnley, on Monday, on calf rearing, Mr. C. T. May, M.A., of the county agricultural staff, said it was a great handicap to a calf to be fed only twice a day, and it was infinitely better to supply three meals, which would certainly reduce the risk of scour. When fed only twice a day the stomach was empty an hour or so before each meal, and was probably too full an hour or so afterwards. Thrice daily feeding, if only for a few days, would be a great advantage.

He felt sure it was through lack of care that scour was so prevalent at the present time. To safeguard against this trouble two important precautions must be taken. The first was the temperature of the food supplied. The temperature of a cow and therefore her milk was 101 degrees Fahr., and a calf fed with milk above 104 or below 94 was liable to scour, and the younger the calf the more likely this trouble. It was preferable to feed a little too cold than a little too hot. In cold weather it might be difficult to keep the food within the narrow limits he had named, but it was important every effort should be made to observe it.

A second important point was that the milk should not be taken in gulps during the first few days, and this should be avoided by allowing the calf to draw the liquid between the fingers. Where a number of calves were reared a good plan was to use a bucket fitted with a rubber teat. This receptacle was secured in the pen at the right height for the calf to drink. The cleaning of this utensil gave trouble, but it saved time and had other compensations.

Whole Milk at First.—The speaker stressed the importance of feeding whole milk for the first three weeks whenever possible. At the end of that time the calf was big and sturdy enough for a gradual change to be made to separated milk and a cream substitute. The change should take a fortnight. There was a wide range of cream substitutes, and almost any sugar, starch, oil or fat that was easy to digest and could be supplied in a finely divided state would do. He had known good calves reared on lard and separated milk. Cod liver oil, which was largely used, was comparatively cheap, but it was not very easily digested, and at first a calf could not utilize properly more than 2 oz. per day.

To each gallon of separated milk $\frac{3}{4}$ lb. of ground oats gave very good results, and was easy to feed. The oats were fed dry and not necessarily at the same time as the separated milk. To start the calf on this feed a

little should be put in the bucket when the milk had almost been consumed. As soon as the calf had got in the way of taking this food it could be supplied in the dry state. Crushed oats similarly fed had proved very successful. It should be given at the rate of about 1 lb. to each gallon of separated milk, and when the calf was five or six weeks old 1 part in 15 to 1 part in 12 of white fish meal should be added. Fish meal was of the greatest importance in the lime-lacking districts, as it supplied the bone-making material the calf most needed at this stage. These methods of feeding had given much better results than gruels or other cooked foods, effected a good deal of saving in labour, and minimized to a considerable extent the risk of scouring.

When Whey is Available.—When whey only was available, much greater care was necessary in feeding, and the growth was never so good. If calves did half so well on whey as on separated milk that was all that could be hoped for. Foods that had given the best results with whey were:—(1) Palm kernel cake, (2) equal parts of linseed cake meal and bean meal, (3) two parts of ground oats and one part of fish meal. To each of the first two feeds half an oz. of precipitated phosphate of lime should be added to provide bone-forming material. The whey should be as sweet as possible, because it was largely due to the acidity it contained that made it less suitable for rearing calves.

At the age of five or six weeks the calf would begin to eat a little hay, which helped to develop the first stomach. At 3½ to 5 months old separated milk could be withdrawn gradually. From this time it would be getting 1 lb. to 1½ lb. of mixed cakes and meals, 4 lb. to 6 lb. of hay per day, and 7 lb. to 10 lb. of swedes or grass until about twelve months old. At this age a wide range of cake and meals was available, but one of the least suitable was cotton-cake.—*The Farmer and Stock-Breeder and Agricultural Gazette*. No. 1990, Vol. XLI, Monday, November 28, 1927.