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REARING CALVES WITHOUT MILK

By
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It is a tragic feature of Western Australian dairying that very few calves are reared by wholemilk producers. The explanation is a simple economic one. When milk is worth over 3s. per gallon, it is too valuable a product to feed to calves, particularly during the months when the dairy farmer is building up his summer quota. So, in the absence of a suitable substitute for milk, the calves are killed at birth.

This loss of heifer calves is particularly serious when one remembers that the wholemilk producer has better-than-average cows. The heifer calves from these cows are urgently needed to improve the productivity of our herds and it is the object of this talk to impress on the wholemilk producer that by using dried buttermilk powder, calves can be reared cheaply and easily on a minimum of milk. In fact, commercial dairyman are now showing that healthy, robust calves can be reared with no milk other than colostrum.

When several years ago, I began my trials with buttermilk powder I kept to recommended practice. For the first fortnight the test calves were fed on wholemilk and then, in textbook manner,

Fig. 1.—Twin heifer calves, Bramley Research Station. These were placed on reconstituted dried buttermilk as soon as they were obtained from the farmer.

Fig. 2.—Test calves, Animal Health and Nutrition Laboratory. These calves were "borrowed" from a dairy farmer for the original tests carried out to determine the value of reconstituted dried buttermilk. As can be seen, the calves were scouring severely when obtained but after a few days on buttermilk the evil-smelling scouring had ceased and the calves were gaining weight.
gradually transferred to dried buttermilk mixed with water. Later I became more venturesome. Calves which at one week of age were brought home in the boot of my car, were at once put on to the buttermilk mixture. Despite this sudden change of diet, the calves did not scour or receive any setback. On this evidence I published recommendations to the effect that calves could be reared on 10 gallons of whole milk plus buttermilk powder.

But practical dairymen have gone further. A number commence feeding their calves on buttermilk as soon as the cow's milk is fit to sell. I thought this was asking a bit too much of the innovation and, to test it out, brought home a two-day-old bull calf which my son reared on buttermilk in a suburban backyard. Further evidence was obtained at the Bramley Research Station last winter, where the calves received no milk other than the colostrum. These calves are now well grown and a picture of good health. They demonstrate very effectively that milk can be replaced at a very early age by buttermilk powder mixed in water. The cost of the purchased buttermilk worked out at about £5 per head. In addition to this the calves received good quality meadow hay and were rotated in three calf paddocks growing young green pasture.

Dried buttermilk is produced locally and costs 92s. per 100 lb. bag or about 11d. per pound. One and a quarter pounds of this powder is mixed with water for use in the same way as whole milk. The powder does not dissolve readily and it settles out quickly. For this reason it is preferable to put the quota for each calf in a separate bucket and add the water just before feeding. Calves take to the buttermilk solution without any difficulty, in fact a number of dairymen have told me that they have been surprised how easy it is to get young calves to take to bucket feeding when buttermilk solutions have been used.

As is always the case when feeding calves, cleanliness is absolutely essential and only freshly prepared solutions should be fed. Do not overfeed. As before-mentioned, one and a quarter pounds of the powder is mixed with one gallon of water, the mixture being used in the same way as normally one would use milk. There will be a big demand for dried buttermilk. If it cannot be obtained use dried skim milk powder which costs about 1s. 2d. per pound in bulk lots.

Clean drinking water should always be available to calves. As soon as an appreciable volume of water is being consumed, buttermilk powder can be placed in sheltered feeding boxes for the calves to help themselves. There is no need to mix anything with this dried buttermilk. The calves like it and as soon as a reasonable quantity is being consumed, liquid feeding can be discontinued. Most dairymen seem to prefer liquid feeding but there are advantages in encouraging dry feeding as early as possible.

It is important to emphasise that calves should receive a daily issue of good quality hay and where possible, should be rotated on young pasture. On coastal properties, calves will also need a cobalt supplement, otherwise they will become unthrifty despite good food and attention.

Where there is plenty of skim milk there is no need to use dried buttermilk. Obviously this talk has been prepared for farmers who sell all their milk. I trust that the information does result in the survival of potentially valuable heifers which otherwise would be destroyed at birth.

(From a broadcast script made available by courtesy of the Australian Broadcasting Commission.)

Fig. 3.—Jersey twin, Animal Health and Nutrition Laboratory. One of the calves used in the tests made to determine if buttermilk alone was adequate.