

age, as shown by Mr. Carruther's Report, and the well-known fact that the year 1894 was exceptionally favourable to growth, we shall at once realise that upon this farm all the conditions were favourable to the production of a large yield of milk.

Table II. shows what this yield was, and that it was the highest yield which was obtained during the eight years, 1891 to 1898.

It is a somewhat remarkable fact, and well illustrates the desirability of care in the selection and breeding of dairy cattle, that the average daily yield of milk per cow at Butleigh, from 1st of May to the end of October in 1893, in spite of the exceptionally unfavourable season, was 27 lbs., and that exactly the same quantity, viz., 27 lbs., was the average daily yield at Mark from the 1st of May to the end of October, 1894, during a season when food was abundant.

Effect of food on the quality of milk.—But, while the average quantity of milk yielded daily was exactly the same both at Butleigh and Mark, the composition of that milk was very different. The milk at Mark was of exceptionally good quality, so that the proportion of cheese made from each gallon of milk was far greater than at Butleigh. Indeed, it was as high as it had been during the three preceding years, and was almost identical with the yield obtained from the cows fed on the rich hill pastures of Vallis, and it has not been since equalled.

It is often asserted that the quality of the food has no influence upon the composition of a cow's milk. (1) I do not believe in this theory which is utterly opposed to the universal experience of all practical men, and of all properly conducted experiments. The facts above stated afford striking evidence of the influence of food upon the quality of milk. The difference in the composition of the milk yielded at Mark as compared with that yielded at Butleigh in 1893, and at Axbridge in 1892, is well shown in Table I. on p. 80.

The stock and yield of milk at Haselbury in 1895.

On account of the size of the farm the stock was divided into two portions, so separated from one another that each lot was milked by separate milkers, and the milk brought home in different carts and trunks. In all there were, during most

of the time, seventy cows, of which thirty were on the pastures in the valley, and forty on the hill pastures. The former were, as is usual in Somerset, milked in the fields, and for the purpose of distinction, will be referred to as the field herd; the second lot were milked in a yard situated at and known as Rushy Wood, and will in future be referred to by this name.

The cows were well fed during the whole season, a liberal supply of artificial food being given during the time when the yield of the pastures was insufficient. The herd was made up, for the most part, of animals bred by Mr. Templeman from cows known to be good milkers.

Numbers of cows.—At the beginning of the season forty-one cows were in milk. The weather being mild, they were out on the pastures, but as the food was scanty, each animal received daily, in addition, four pounds of decorticated cotton-cake, and two pounds of a mixture of bran, ground cotton seed (containing 23 per cent. oil), and barley meal. On the 16th of April some silage was given to the cows. The use of artificial food was continued up to the 13th of May, being slightly varied during that period for reasons which will be referred to subsequently. On the 13th of May the cows were placed upon the summer pasturage without additional food.

In the meantime the number of cows had increased. On the 9th of April five were added, making in all forty-six, and on the 23rd of April the number rose to fifty-three. No more were added until the 13th of May, when eleven, mostly heifers, were brought into the herd. Two were added on the 14th of May, two on the 21st, and finally two on the 29th, bringing the total number up to seventy. There was no variation in this number during the season up to the 22nd of September, after which a few cows were gradually withdrawn.

Towards the end of the season, on account of the drought, the cows also received artificial food.

Milk yield.—The greatest quantity of milk was yielded on the 16th of May, and amounted to 198 gallons from sixty-six head of cattle, or exactly 3 gallons of milk per head. The average yield per head per day will be found in Table II, p. 83.

Influence of food on the quality of milk.—The effect of the high feed with artificials was to produce milk exceedingly rich in fat, (1) containing

(1) Note this, again. EN.

(1) This is the opinion of non-practical men. Try wheat-straw, brewer's grains, and lots of mangels against linseed-cake, carrots, and good hay, with a little pease-meal! EN.