

than a month. The condition of a cow at time of calving is believed to somewhat influence the monthly test curve. Unfortunately, our C.O.R. data cannot be used in this case, since no record is obtained in regard to the condition of a cow at commencement of test.

There are two kinds of condition, known respectively as "soft" and "hard," and either is obtained by difference in ration. As the names indicate, a soft condition is soon reduced, and is suitable for butterfat trials at shows, while a hard condition is not reduced so quickly by flush of milk-production, and "milks off" much slower. The latter is therefore the better condition to obtain in fitting a cow for C.O.R. test. The test curves for poor-, soft-, and hard-conditioned cows should show a difference in conformation one from the other, and all would no doubt be influenced by feeding during test. It is patent, therefore, that the whole question could be properly treated only from the results of a carefully planned experiment.

LACTATIONAL VARIATIONS DUE TO AGE.

A trial with the 1918-19 season Jersey data showed that the lactational-test variations were similar for different ages, all the curves being alike in general conformation. This factor may therefore be dismissed as one which does not materially affect the trend of the lactational-test curves.

LACTATIONAL VARIATIONS DUE TO QUANTITY OF MILK-PRODUCTION.

The 1918-19 two-year-old Jersey figures, when grouped according to quantity of milk-production, produced curves which were all uniform in general conformation. Difference in annual milk-production does not produce difference in the respective lactational-test curves. As a matter of fact, all curves for this factor as well as those for that of age were inclined at practically the same angle.

GENERAL EXAMPLES.

Before passing on to conclusions a few individual examples may prove of interest. In the Tables 11 and 12 the monthly tests are supplied for the highest- and lowest-testing cows of the principal breeds.

Table 13 has been compiled to illustrate how high and how low cows may test during a lactation. The tests quoted were taken from first-class C.O.R. records, and were allowed to stand, the cows at the time of test being normal as far as was known.

Table 13. Highest and Lowest Monthly Tests of the Chief Breeds.

Breed.	Highest Test.	Lowest Test.	Average Test of Breed.*
Jersey	11.60	2.60	5.55
Red Poll	6.50	3.24	4.39
Ayrshire ½	9.53	2.91	4.11
Milking Shorthorn	7.80	2.60	3.97
Friesian	8.00	2.13	3.54

* As given in the first article of this series (*Journal*, September, 1924).