

would be very materially increased with better feeding and attention, for there are many cows in our herds which if given all the feed they can consume and convert into milk would produce much larger credits for butterfat. Not all crossbred cows would respond as well as purebred, but our experience in testing purebreds goes to indicate that frequently it is the owner and not the cow who is the cause of poor production. One breeder in the early days of the certificate-of-record system entered over thirty purebred cows for test in one season. With so large a team it was found impossible to give the individual attention requisite for the production of good records, and the result was that only two of the cows produced as high as 400 lb. of butterfat—the season's work, so far as C.O.R. testing was concerned, being undoubtedly a failure. However, a number of the cows were retested during a later season and under better conditions, with the result that the butterfat records were increased as follows: Lot 1: First record, 351 lb.; second record, 581 lb. Lot 2: First record, 319 lb.; second record, 528 lb. Lot 3: First record, 304 lb.; second record, 566 lb. Lot 4: First record, 286 lb.; second record, 630 lb.

THE CULL-COW PROBLEM.

It is necessary that known low producers which have been culled should as far as possible be prevented from entering other dairy herds if the greatest improvement in the production of our average cow is to be safeguarded. Many methods of solving the cull-cow problem have been put forward, but so far no really successful way out of the difficulty has been found. Branding has frequently been urged, but is, or would be, difficult to enforce; and spaying has been practised by some with satisfactory results. The best solution in the end, however, may be found to be better breeding, which will lessen the proportion of low producers as results become more generally extended throughout our dairy herds.

INFLUENCE OF THE PUREBRED SIRE.

The influence of the purebred sire has been often stressed, and not without reason. In a herd of registered purebred dairy cattle it may be assumed that a purebred sire is at least "one-half the herd." This will, of course, depend on the breeding. In many purebred herds, and also in grade or crossbred dairy herds, a registered purebred sire of good breeding is more than half the herd. It is more prepotent for good or evil, as the case may be. The Dairy Division possesses tabulated records of ninety dairy cows and of daughters of these cows sired by purebred dairy bulls. The records were made at various ages, but correcting them to a basis of records at mature age it has been found that the records of the daughters are 28 per cent. higher than those of the dams. Possibly some of the daughters had better testing-conditions than their dams, as the owners may have profited by experience obtained while the dams were under test or after they were tested; but even if the percentage of improvement is reduced from 28 to, say, 10 there still remains a potent recommendation for better breeding.

It is becoming more generally recognized that the earning-power of purebred stock is considerably above that of scrub stock, even if