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AT WHAT AGE SHALL WE BREED OUR DAIRY HEIFERS?

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Why Are There So Many Under-sized, Unprofitable Milk Cows in Districts Where Breeding and Feeding are Both Apparently Good? Prof. Barton Answers this Question and Gives Concrete Illustrations to Prove the Correctness of His Conclusions.

EVERY YEAR sees a stronger demand for milk cows. Prices have rapidly advanced, and until the developing and marketing of good cows for milking purposes offers one of the most fertile sources of revenue on the farm. Today 10 good grade cows are worth at least \$1,000, a handsome payment on any farm, and with little capital involved at the outset.

What is true of grades is even more true of pure breeds; the supply of the right class is merely a drop in the bucket. To many, however, the pure bred is neither practicable nor advisable. This is no disparagement of the pure bred but rather a statement in its interest when both capital and knowledge are none too plentiful. At the same time in the development of cows which applies in producing a certain class of grades is equally applicable with the pure bred.

The breeding of marketable cows is an inviting proposition both for their earning and selling value. Very few of our otherwise good farmers, however, are doing it with any great measure of success. One trip through even the best districts will suffice to show what the situation is. I have just completed a trip through a part of Ontario that is generally conceded to be an exceptional district, a district in which one of our best dairy breeds was early introduced and generally accepted, and yet in this district it would seem that while the cows show breed in color, markings, etc., not more than 10 per cent. of them could be considered saleable at really remunerative prices, or would be very profitable to keep.

THE PROBLEM OUTLINED

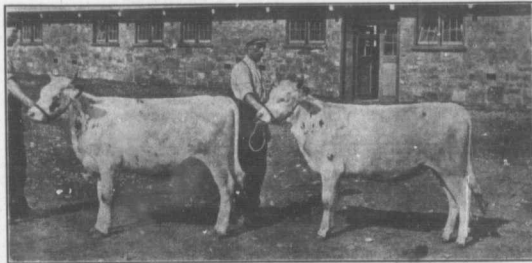
Why should this be so? On every farm where successful dairy farming is practiced, the cows, in grades, are the big factor in the success of the place. What will account for so many small, undeveloped, miserable looking specimens of cows with poor constitution, little capacity and less appearance of milk? Valuable as our record and judging work is it requires neither scales nor a judge to distinguish between really good cows and the general class of the country.

To me the problem has been one of interest for some time. I have carefully observed the practice and results on different farms in various districts and countries. I have asked questions of both successful and unsuccessful men, and

have done some investigation work at Macdonald College in the matter of cow improvement. There are various factors at work. Just what the relative importance and influence of certain factors may be, is something about which there is much difference of opinion and a lack of definite information. In this article most of the discussion will be confined to one factor, "age to breed," or the age at which a heifer is bred to drop her first calf, as a permanent influence on her outcome as a cow.

CHANGE OF BREED WILL NOT DO

Many would place this factor secondary to a number of others; perhaps the one factor most



Is it Wise to Breed Heifers so Young as These?

Here are two well developed, big-bodied heifers. Should they be bred? Many breeders would. Prof. Barton, under whose charge is the dairy herd at Macdonald College, Que., will not. In the adjoining article Prof. Barton tells why he believes early breeding injurious and late breeding advisable. Read of the results of his investigations with their dairy herd at Macdonald College.

—Photo courtesy Prof. Barton.

emphasized for the improvement of our cows at the present time is that of breed. Important as this is it would seem, however, that while the matter of breed and blood is the stumbling block for many, it, by no means, is the solution for hundreds who have evidently counted on making it such. In the district before mentioned where one of our best breeds was early introduced and became generally popular, some of the best animals the breed has known were freely used, the breeders have stuck by their breed for years, and yet the great majority of cows as developed are hardly marketable. The associate of breed in the general doctrine, has been feed. Undoubtedly many fail here, yet, given breed and feed we still have widely different results.

There is a popular impression among dairy cattle men that if a cow is to reach her full inherited capacity the milk producing habit must be brought about early in her development. This theory was much emphasized a few years ago.

The practice of early breeding was for most people an easier one than that of withholding the breeding period. Consequently it readily became popular and was, and is, practiced to such an extent that it is largely responsible, in my opinion, for a great many of the inferior cows in the country to-day.

There are exceptions to every rule. We occasionally find a man who has been eminently successful in breeding large, strong, capacious cows and yet have them freshen at about two years of age. We know too that with some individuals it would be a mistake to delay breeding later than would have the heifer freshen at about 27 months of age, for where she is developing rapidly and likely to mature early there would be danger of her growing unduly coarse and rough, and perhaps giving difficulty in breeding.

EARLY MATURING BREEDS ARE SMALL

We have also to admit that breed may be a consideration in that some breeds mature earlier than others. But with breeds we must notice as

well that the early maturing ones, those lending themselves best to the practice of early breeding and upon which it has been most extensively employed, are cattle of small size. Among these breeds and within them we have striking examples in the Jersey and French-Canadian.

Again the ambition for phenomenal records with young heifers may be mentioned, and while we must admit that here exceptions are common we must at the same time point out that the great majority of phenomenal records when made immature, are never repeated. In other words, the majority of heifers with exceptionally high records do not reappear, and further, the list of record making progeny from these heifers is usually a short one. A study of the Holstein-Friesian blue books of America will verify this statement.

At Macdonald College we have four breeds represented, including Holstein, Ayrshire, French-Canadian and Shorthorn, and while we have more results to report in this connection with Ayrshires than with the others, we have a few examples of each breed. We have in each breed full grown cows and also heifers which have been bred late or to calve for the first time from 30 to 36 months of age, and a few that have calved for the first time when about two years of age.

A CONCRETE CASE OF INJURY

Among the first lot of heifers bred at the College was one pair of Ayrshires, extremely well developed for their age, and in competition in judging classes with others of similar age the students did not hesitate to pick them out and place them first and second. These heifers