

# FARM AND DAIRY & RURAL HOME

## BREEDING MAXIMS SUBMITTED TO ACTUAL TEST\*

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### A Story of Twenty-six Years Experience in the Breeding of Dairy Cattle—The Various Sires Used and Their Influence on the Herd.—Deductions of Value to all Farmers.

It has long been an axiom of the breeder that the sire is half the herd, and it is generally accepted as a fit expression of an important rule.

The skillful breeder of any kind of stock does not need to have it pointed out to him how important it is that the sire be properly selected. If he is a skillful breeder, it is largely because he realizes the importance of the sire and knows how to select him. While the skilled breeder realizes the importance of this in breeding, the average dairyman does not give the question of the sire one-tenth the attention in the importance of the question demands.

#### POOR ECONOMY

Thousands of men make use of a scrub or grade sire on account of mistaken economy in cost rather than pay a few dollars more for an animal that is almost certain to transmit desirable qualities. It is not surprising that we have so many worthless cows. They come by their worthlessness in the majority of the cases from sires worse than worthless. Some of these scrub bulls are registered in the herd books.

I am a believer in selecting a breed for the purpose for which it is to be used. If the farmer intends to milk cows and make that an important part of his business he is not working to the best advantage unless he selects a breed that has been developed with that object in view. In purchasing the sire a good general rule to follow is to get one whose female ancestry is of the type that is desired to raise. If the animal in question is pure bred the chances are reasonably good that these qualities will be transmitted to a large extent at least. The head of the herd should be a better bred animal than the cows if it is possible to get one.

#### SELECTION MORE DIFFICULT IN WELL BRED HERDS

The higher developed the herd the more important becomes the selection of the sire and at the same time the more difficult. We have then to take into account the surprising variation in the way different bulls transmit dairy qualities. This is shown in a striking manner by the records of the Jersey herd belonging to the University of Missouri. This herd was started in 1884 by the purchase of four cows and all the females in the herd since are descended from these four. Complete milk and butter records have been kept since 1892 and no females added to the herd. This gives an opportunity to study the influence

of the sire used. The figures given below are the average for a series of years and in most cases for the entire lifetime of the animals included. A comparison is made in each case of the production of the daughters with their dams.

The first bull used in this herd was Missouri Rioter. He left four daughters in the herd that have a total of 26 milking periods. The results are given below:



Show Yard Dandies as Seen at the Canadian National

The Ayrshires illustrated herewith compose the first prize graded herd at Toronto this year; likewise they comprise some of the best animals of the breed. Canadian Ayrshire breeders need take second place to none when they have animals such as these, the property of H. H. Nees, Howick, Que.

—Photo by an editor of Farm and Dairy.

	Dams	Daughters
Average yield of milk	5,380	4,381
Average per cent. fat	4.35	4.93
Average yield of fat	234	216

The average production of the daughters of this animal was 1,009 lbs. of milk per year below the production of their dams, and 16 lbs. of fat per year. In every case the daughters were inferior to their mothers. If we had the same results in a herd of 30 animals it would mean a production of over 30,000 lbs. of milk a year and 540 lbs. of fat less than the dams on account of the sire.

The next sire was Hugarotus. This animal left 11 daughters having 50 milking periods:

	Dams	Daughters
Average yield of milk	4,969	4,576
Average per cent. fat	4.66	5.49
Average yield of fat	231	245

The 11 daughters average 898 lbs. of milk a year below their dams, but on account of the milk being richer gained slightly in the fat produced. The herd was not making any gain as long as this animal was at the head.

The next was Lorne of Meridale. This animal had 12 daughters who totalled 67 milking periods as given below:

	Dams	Daughters
Average yield of milk	4,559	5,969
Average per cent. fat	4.85	4.81
Average yield of fat	221	287

The daughters show the remarkable increase of 1,410 lbs. of milk and 66 pounds of fat a year each over the dams and in only two cases out of 11 did a daughter fall below her dam and one of these only slightly. If 30 daughters of this bull had been in milk six years their total milk production would have exceeded that of their dams by 250,000 lbs., worth \$3,750 at \$1.50 a cwt.

The next herd bull was Missouri Rioter 3d. While he had only three daughters these have 15 lactation periods as given below:

	Dams	Daughters
Average yield of milk	4,775	8,005
Average per cent. fat	4.97	3.80
Average yield of fat	238	484

The daughters produced on the average of

3,230 lbs. of milk and 146 lbs. of fat a year more than their dams. While the number of daughters is small they were uniform in looks and in milking qualities and we have every reason to believe that had there been more of them they would all have been much the same. Had the value of this bull been known he could have made a fortune and a reputation for any breeder. He was raised on the college farm and his value was not recognized until too late, as has been the case with many breeding animals, he was sold and no record even kept as to what became of him.

The next bull at the head of this herd was Minettes Pedro. There have been 20 daughters of this animal in the herd with the following records:

	Dams	Daughters
Average yield of milk	5,321	5,376
Average per cent. fat	5.04	5.04
Average yield of fat	268	271

On the whole the daughters are practically on a par with their mothers and the herd was practically at a standstill and barley held its own. The last animal with daughters old enough to admit of a comparison is Brown Bessie's Registrar. This animal has but five daughters in our herd with records as shown below:

	Dams	Daughters
Average yield of milk	6,029	4,295
Average per cent. fat	4.86	5.05
Average yield of fat	293	217

While these figures are too limited to mean much it is certain that his daughters were decidedly inferior, as only one out of the five was as good as her mother.

#### FARMER'S CONVINCING EXPERIENCE

A Missouri farmer gives me the following interesting figures showing the effect in milk production of a dairy sire as compared with one not of dairy breeding. He owned a western bred grade cow. Her first heifer was sired by a grade beef bred sire, her second by a pure bred Jersey. The mother averaged 3,085 lbs. of milk and 117 lbs. of fat a year. The daughter by the grade beef sire averaged 3,700 lbs. of milk and 133 lbs. of fat. The daughter by the Jersey averaged

\*An address before the Association of American Dairy Farmers at Chicago. Prof. Eckles is one of the greatest of American dairy authorities and has, with the University herd, broken several records for milk and butter production.