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Studies on Correlation of Different Udder and Teat Measurements with Lactation Milk Yield in Case of Holde Crossbred Cows*

To fulfill the requirement of milk for our ever - increasing human population, the cows of good producing ability should be selected. Milk production performance is the major economic trait in the dairy cattle selection programme. Since reliable information is not available on production, pedigree and progeny records of most of the animals in villages, some criteria about the probable milk production capacity of animal is the need of present time. Hence the present study was undertaken in Holdeo (HF x Deoni) crossbred cows.

The udder and teat measurements were taken from 85 Holdeo (HF x Deoni) cows by allowing them to stand squarely on the pucca floor before milking. The data were analysed to calculate different correlations by Pearson's correlation coefficient and different prediction equations were calculated by the linear functional relationship (Y=a+bx).

The udder width in the present study was found to be greater than udder length (Table 1). Similar estimates were reported by some other investigations (Jagadish Prasad and Vijay Kumar, 1988). The udder length, depth and width decides the capacity of udder which reflects the

Table 1. Means (cm), standard error and coefficient of variations of udder measurements in Holdeo crossbred cows

Sl.No.	Traits	Mean (cm)	SE	CV%
1.	Udder length	49.87	0.56	10.35
2.	Udder depth	14.65	0.20	12.67
3.	Udder width	51.08	0.58	10.51
4.	Front teat length	7.32	0.09	12.17
5.	Rear teat length	6.72	0.09	13.66
6.	Front teat diameter	1.59	0.03	18.50
7.	Rear teat diameter	1.47	0.03	21.20
8.	Distance between two front teats	7.27	0.13	16.06
9.	Distance between two rear teats	6.45	0.11	15.85
10.	Distance between right front and rear teat	5.76	0.11	18.14
11.	Distance between left front and rear teat	5.33	0.11	19.67
12.	Lactation milk yield	1427.84	35.28	22.78

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Table 2. Correlation coefficients of Udder and teat measurements with lactation milk yield in Holdeo cows

Sl.No.	Traits	UL	UD	UW	FTL	RTL	RTD	RTD	DFT	DRT	DRFRT	DLFRT	LMY
1.	Udder length	1.00	0.62	0.89	0.63	0.55	0.54	0.54	0.46	0.39	0.22	0.17	0.49
2.	Udder depth		1.00	0.59	0.45	0.52	0.33	0.28	0.24	0.25	0.28	0.13	0.44
3.	Udder width			1.00	0.67	0.59	0.47	0.45	0.47	0.40	0.37	0.32	0.52
4.	Front teat length				1.00	0.83	0.36	0.38	0.35	0.38	0.35	0.22	0.37
5.	Rear teat length					1.00	0.26	0.37	0.28	0.37	0.36	0.32	0.42
6.	Front teat diameter						1.00	0.82	0.21	0.08	0.02	0.07	0.26
7.	Rear teat diameter							1.00	0.22	0.15	0.09	0.09	0.24
8.	Distance between two front teats								1.00	0.74	0.40	0.49	0.22
9.	Distance between two rear teats									1.00	0.54	0.36	0.30
10.	Distance between right front and rear teat										1.00	0.59	0.24
11.	Distance between left front and rear teat											1.00	0.17.
12.	Lactation milk yield												1.00

lactational milk yield which is in confirmation with the general statement of larger the udder capacity, more will be the milk yield.

The average of the front teats length was found to be more than the average length of rear teats. Similar findings were also reported by Gupta *et al.*, 1991. In general the capacious udder exhibits the proportionate size of the teat length and teat diameter which reflects the proportionate increase in the milk yield. In the present study the larger front and rear teat length and teat diameter has reflected in increased lactational milk yield of Holdeo cows (Table 2).

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