

EFFECT OF MILKER ON LET DOWN TIME AND MILK FLOW RATE IN LACTATING KANKREJ COWS

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An experiment was conducted on 20 lactating Kankrej cows divided in four groups according to lactation number one to four and initial stage of lactation with almost same production. Five milkers were used to hand milk the cows. The average let down time was recorded 64.83 seconds. The average of rate of milk flow was observed 1.030 Kg/Minute. The difference in let down time and milk flow rate due to milker was non significant.

Key Words: Let down time, Milk flow rate, Cows

Milk plays a major role in economic significance in cattle and buffaloes. India has emerged as leading milk producing country in the world (FAO, 2002). Preparing a cow for milking is an important task for dairyman for harvesting clean and maximum milk. Milk harvesting is an art and science to get clean and good amount of milk. It is the most important aspect on a dairy farm management which has a direct bearing on profitability of dairy business. If, we reduce the let down time we can save time and expenditure in the milking process (Gupta, *et al.*, 1974). Labour for milk harvesting may account for as much as 30 % of annual milking cost (Pander and Chopra, 1986). The present investigation was undertaken to study the effect of milker on let down time and milk flow rate.

MATERIALS AND METHODS

Twenty Kankrej cows were divided into four groups on the basis of parity (1-4 lactation).

The cows selected were at the same stage of lactation excluding first 15 days of lactation. They were subjected to routine feeding and management practices followed at the Livestock Research Station, Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar where the experiment was conducted. Five milkers were selected randomly, for hand milking purpose. They were allotted the cows randomly targeting equal frequency of milking in all the cows. Data on let down time, milking time, milk yield and milk flow rate were collected weekly for each cow for six months. Milk flow rate was obtained by dividing milk yield by milking time. The data so obtained were analyzed using standard statistical methods (Snedecor and Cochran, 1994).

RESULTS AND DISCUSSION

Letdown Time

Average let down time was recorded 64.96 ± 3.016 sec. among different milkers (Table : 1).

The maximum letdown time was recorded for milker Bhuro(67.47 sec.). While, minimum let down time was recorded for milker Mohan (63.88 sec.). However, the difference in the let down time due to milkers was non-significant. While, significant difference ($P < 0.05$) was observed by Shiralkar and Dave (1975) in Kankrej cows. Bhagat *et al.*, (1992) observed non-significant difference in let down time of Murrah buffaloes due to different milkers.

Table: 1 Av. Let down time and milk flow rate recorded in Kankrej cows.

Milker	Let down time (Seconds)	Milk flow rate (Kg/Minute)
Mohan	63.88	0.960
Ceharo	64.31	0.960
Kurshi	64.09	0.950
Kheto	65.06	0.990
Bhuro	67.47	0.950
Average	64.96 ± 3.016	0.960 ± 0.021
C.D.	NS	NS

NS = Non significant

Milk Flow Rate

The overall average milk flow rate was recorded 0.960 ± 0.021 Kg/minute. (Table: 1). The maximum milk flow rate was recorded for milker Kheto (0.990 Kg/min.) While, the minimum rate of milk flow (0.99 Kg/Min.) was observed for two milkers Kurshi and Bhuro. However, the difference in the milk flow rate due to milkers was non-significant. While, significant difference for milk flow rate was observed by Bhagat *et al.*, (1992) earlier in buffaloes.

CONCLUSION

Milking attributes (Let down time and Milk flow rate) of lactating Kankrej cows were recorded during milking by different milkers. The difference due to milker in both milking attributes were found non significant.

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