

Milkability of Lactating Kankrej Cows in Different Months

H.D. Chauhan, A.K. Srivastava, H.A. Patel, K.B. Prajapati, R.B. Makwana, R.C. Kulkarni,
M.M. Pawar and S.R. Bhagwat

¹Assistant Professor LPM, ²Assistant Professor LPM, ³Veterinary Officer, ⁴Research Scientist, LRS, ⁵Veterinary Officer, ⁶Assistant Professor LPM, ⁷Assistant Professor Animal Nutrition, ⁸Professor & Head Animal Nutrition, College of Veterinary Science and Animal Husbandry, Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar, GUJARAT-385506

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Abstract

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. Highly significant difference was observed for let down time, milking time, and milk yield and milk flow rate. Interaction of months with number of lactations was also found significantly different in all the traits except milk yield and milk flow rate.

Keywords: Milkability; Lactation; Cattle.

Corresponding author: Corresponding author: A.K. Srivastava, Assistant Professor, Department of Livestock Production and Management, College of Veterinary Science and Animal Husbandry, Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar, GUJARAT-385506 Email: aksrivastavavet@gmail.com

Introduction

Milk plays a major role in economic significance in cattle and buffaloes. India has emerged as leading milk producing country in the world[1]. Milk harvesting is an art and science as well as it is the most important aspects on a dairy farm management [2]. Full co-operation of the milch animal is required for harvesting clean and maximum milk.

Materials and Methods

The experiment was done on twenty lactating Kankrej cows. Animals were divided into four groups according to number of lactation one to four (L_1 to L_4). The research works was carried out at Livestock Research Station, Sardarkrushinagar Dantiwada Agricultural University, and Sardarkrushinagar. All animals reared under semi-loose housing system and two times (Morning & Evening) milking was done with full hand milking method in RCC milking parlour. All the animals allotted routine feeding and management practices followed at Livestock Research Station. The experiment was conducted for six months (August-2003 to January-2004).

Let down time and milking time were recorded with use of stop watch in seconds while, milk yield was recorded by electronic weighing balance in Kilogram. Milk flow rate (Kg/minute) was calculated by dividing total milk yield by total milking time per cow at each

milking. The data so obtained were analysed using standard statistical methods[3]

Results and Discussion

Let down time

Month-wise let down time are presented in table: 1. The average let down time was observed 64.83 ± 3.4 seconds with a range from 51.75 to 86.30 seconds. It was lower than previously reported (73.19 Sec.) in same breed[4]. The difference due to months was highly significant. The let down time showed linear decreasing tendency as the parity advances. This is due to more acquaintance of cows with milking barn routine as the parity advances.

Milking time

Month-wise milking time is presented in table: 1. The average milking time was observed 252.87 ± 17.81 seconds with a range from 222.74 to 268.87 seconds. The difference due to months was highly significant. The maximum time was recorded in the month of December, while minimum time was recorded in August. The difference due to months was highly significant. The milking time recorded was lower than Gir (390 Sec.), Red Sindhi (390 Sec.) and Crossbred cows (270 Sec.).[5]. Normally milking time is proportional to milk yield. The Kankrej is a dual purpose breed; it produces less milk than other milch breeds (Gir and Red Sindhi etc.)

Table 1: Milking attributes recorded during different months in Kankrej cows

Month	Milking attributes			
	Let down time (Seconds)	Milking time (Seconds)	Milk yield/milking (Kilogram)	Milk flow rate (Kg/Milking)
August	62.82	222.74	3.580	0.970
September	71.72	260.44	3.870	0.860
October	69.85	253.99	4.130	1.000
November	63.31	259.51	4.390	1.040
December	54.51	268.87	4.370	0.980
January	66.78	251.67	4.150	0.980
Average	64.83 ± 3.4	252.87 ± 17.81	4.080 ± 0.47	0.970 ± 0.07
SEM	1.124	6.427	0.168	0.027
C.D.	3.393 **	17.815 **	0.465 **	0.075 **

** P < 0.01

Milk yield per milking

The overall average milk yield per time was recorded 4.080 ± 0.470 Kg (Table:1). The difference due to months was highly significant. It was lower than Sahiwal (7.2 Kg), Holstein Friesian (7.5 Kg) and Jersey (6.0 Kg) [6,7,8]. This might be due to the lower yield in Kankrej as dual purpose breed, while earlier observations were taken for milch breeds.

Milk flow rate

The overall average milk flow was recorded 0.97 ± 0.07 Kg/minute (Table: 1). The difference due to months was significant. It was higher than reported earlier (0.89 Kg/Min.) in same breed. [4] While, it was less than Tharparkar (1.6 Kg/Min.) and Sahiwal (1.6 Kg/min.) [9] Milk flow rate was obviously less due to more milk yield in aforesaid breed than Kankrej cows.

Conclusion

Milking attributes of lactating Kankrej cows were recorded during different months. The difference due to months in all parameters were found highly significant.

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