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A Note on Lactation Yield and Calving Interval in Surti Buffaloes

Reports on performance of Surti–buffaloes especially under hot–dry condition are meagre. Moreover, reports on repeatability of lactation yield are inconsistent (Muralidhar and Deshpande, 1995), and that of calving interval has been found to be moderate (Singh and Desai, 1978) and low (Kandasamy *et. al.*, 1993). In light of these, an attempt has been made to study the lactation yield and calving interval in Surti buffaloes maintained at Regional Research Station, Raichur. Calving and lactation data of totally 40 Surti buffaloes maintained at Regional Research Station, Raichur from 1980–1991 were utilized for this study. The data consisted of 200 and 305 days lactation milk yields and calving intervals. The year was divided into 3 seasons, *viz.* Summer (Feb–May), Rainy (Jun–Sept) and Winter (Oct–Jan). The statistical treatment of the data was as per Snedecor and Cochran (1967).

Mean values of 200 and 305 days lactation yields as per parity and season of calvings are presented in Table 1. Analysis of variance indicated that parity did not influence the lactation yields and maximum lactation yield was recorded in the 5th lactation similar to the findings of Sethi and Nagarcenkar, (1992). However, Tailor *et al.* (1992) had reported significant effect of parity on milk yield and peak lactation yield in fourth parity in Surti buffaloes. Summer calvers though yielded more milk, differences in season of calving on lactation yield was non–significant. These findings are similar to those reported by Tailor *et al.* (1992).

The average calving interval was 498.1 ± 230.92 days. The higher variability in calving interval indicates significant influence of environmental factors.

Table 1. Mean and standard deviation values of 200 days and 305 days lactation yield (kg/day) and calving intervals in buffaloes

	Lactation yield (kg/day)			Calving interval		
Lactation No.	No of animals	200 days	305 days	No.	No. of animals	Days
1	40	4.83±1.56	4.26±1.59	1	40	482.3±160.92
2	40	4.89±1.88	4.17±1.79	2	28	497.4±201.32
3	28	5.05±2.31	4.30±2.25	3	19	513.5±236.02
4	19	4.78±2.00	3.91±2.06	4	9	505.8±230.02
5	9	5.61±2.32	4.87±2.36	5	8	524.3±245.19
6	8	4.89±1.62	4.28±1.91			
Season						
Summer	17	5.81±2.00	5.33±1.73			
Monsoon	32	5.01±1.99	4.27±1.95			
Winter	95	4.76±1.82	4.03±1.85			

Repeatability values of lactation yields and calving interval presented in Table 2 indicate that repeatability of lactation yields was moderate and calving interval was low. The moderate repeatability values of lactation yields obtained in this study are in agreement with the earlier reports of Muralidhar and Deshpande (1995), and it indicates that Surti buffaloes can be selected on the basis of their first lactation milk yield. Singh and Desai (1978) recorded moderate values for repeatability of calving interval, unlike a low repeatability obtained in this study. High variability of calving interval recorded in this study, itself indicates a low repeatability of the trait.

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Table 2. Repeatability of lactation yield (kg/day) and calving interval (days) of buffaloes

Analysis of variance

source	d.f	Mean sum of squares 200 days	305 days	Calving interval (days)
Between dams	39a	8.51	8.09	74208.85
Within dams	111b	1.72	1.88	45071.22
Variance components				
Dams	1.81	1.65	8504.89	
Error	1.72	1.88	45071.22	
Repeatibility	0.5121	0.4676	0.1587	
K	3.75	3.75	3.43	

a= 32 and b = 82 for calving interval