

CONSTRAINTS ON DAIRY CATTLE PRODUCTION FROM LOCALLY AVAILABLE FORAGES IN BANGLADESH

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The productivity of indigenous milk-producing animals in Bangladesh is low because of low individual yield and poor fertility. The resistance to diseases and climatic stress exhibited by a particular breed is an important overall consideration. It is only when the major constraints to productivity are overcome that the genetic potential for milk production becomes important (Dargie 1989). Thus, the purpose of this study was to find out the practical constraints on dairy cattle production using locally available forages under small holding village conditions of Bangladesh.

The cows of the villagers are used for multipurpose such as draught, dairy and meat. Rice straw is the main source of feed for the animals. Animals are mainly stall fed. Calves are usually tied up at night and given free access to their dam during the day. Sixty seven post partum cows were taken from 65 small holder farms. Measurements and observations of cows and calves for the period of 10 months were recorded.

Table 1. Group metabolite means within each season (mean \pm SD)

Season	β -HB (mmol/L)	Globulin (g/L)	Albumin (g/L)	Urea (mmol/L)	Pi (mmol/L)
Summer	0.342 \pm 0.046	37.0 \pm 7.39	38.0 \pm 2.34	4.52 \pm 0.976	1.33 \pm 0.117
Autumn	-	36.7 \pm 7.76	33.7 \pm 2.7	7.20 \pm 0.086	1.61 \pm 0.198
Winter	0.362 \pm 0.057	-	35.0 \pm 2.74	5.46 \pm 0.931	1.42 \pm 0.094
Spring	0.292 \pm 0.035	35.0 \pm 5.00	38.2 \pm 3.85	3.25 \pm 1.075	1.46 \pm 0.132

Table 2. Reproductive intervals by seasons (days) (mean \pm SD and number)

Season	Calving to 1 st ovulation	Calving to 1 st service	Calving to conception	Calving Interval
Summer	66 \pm 42	272 \pm 147	263 \pm 148	544 \pm 162
Autumn	7 67 \pm 25	9 120 \pm 60	7 136 \pm 67	6 419 \pm 72
Winter	36 187 \pm 105	17 191 \pm 81	17 197 \pm 92	16 489 \pm 84
Spring	10 51 \pm 14	17 216 \pm 38	17 223 \pm 38	15 501 \pm 39
	9	12	12	9

Among the blood metabolites studied a considerable change in urea values were noticed as shown in Table 1. The spring value was low enough to suggest a shortage of RDP in the rations at that time. The calving to first service interval was higher than that of calving to first ovulation as shown in Table 2. It means that farmers were unable to detect heat in their cows at the proper time. The calving to first service interval in autumn was shorter than in the other 3 seasons. It would be tempting to relate the shorter period to the urea levels that were highest in the autumn. Average parasitic egg (mainly *Fasciola gigantica*) counts were 54/g of faeces of cows. Feed protein deficiency, improper heat detection and parasitic infestation were identified as significant constraints on dairy cattle production.

DARGIE, J. D. (1989). 'Helping Small Farmers to Improve their Livestock'. IAEA Year Book.

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