
Buffalo breeding in Bangladesh

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Bangladesh has about 100 000 adult female buffaloes that are being used for dairy purposes. These buffalo are found in the Bramhaputra-Jamuna flood plain of central Bangladesh, the Ganges-Meghna tidal flood plain of southern Bangladesh and institutional herds. A brief description of the buffalo is presented in table 1.

From table 1 it appears that Bangladesh has milk/dairy buffaloes of swamp, cross-bred and river type. The occurrence of cross-bred dairy buffaloes indicates that the genetic improvement programme was run and is still being run to date. A brief description of past and present breeding programmes (with success and constraints) is given below.

DLS possessed a small herd of dairy buffaloes of Murah and Nili-Ravi breeds along with dairy cattle in Dhaka city. Between 1969-1970, a number of Murrah and Nili-Ravi bulls from that farm were distributed to the Ganges-Meghna tidal flood plain for cross-breeding with the indigenous dairy buffaloes. There was neither a selection programme nor extra manpower involved in that programme. After 1970 with the expansion of Dhaka city, the farm was closed and buffaloes were shifted to the central cattle breeding farm at Savar. The buffaloes were kept idle there until 1985. In 1985 the buffaloes (25 heads) of that farm were transferred to the newly built Buffalo Breeding Farm (BBF) at Bagherat, 400 km south-west of Dhaka.

BBF was designed to maintain about 500 buffaloes of different age groups and to produce superior bulls. In addition to the 25 buffaloes from Savar, it had 40 Nili-Ravi females and ten bulls imported from Pakistan and 60 indigenous river buffaloes at the start. In 1995 there were 350 buffaloes. At present, there are 196 buffaloes consisting of 31 milking females, 40 dry, 46 heifers, 19 bulls, 12 growing males, nine bullocks and 39 calves.

**Buffalo
breeding
activities of
the Directorate
of Livestock
Services (DLS)**

This farm has so far sold 190 bulls of Nili-Ravi x indigenous river type to the farmers of the Gange-Meghna tidal flood plain for cross-breeding of dairy buffaloes. These bulls are officially considered as being of higher genetic merit. The females are evaluated on their own performance and bulls are selected on dam yield and on their own performances, by the DLS staff.

Table 1. Description of dairy buffaloes in Bangladesh.

Parameter	Bramhaputra-Jumana flood plain	Ganges-Meghna tidal flood plain	Institutional herds
Population size	5 000	95 000	211
Herd size (no. animals/herd)	2 - 10	300 - 800	Herd no. 1 (15 animals) Herd no. 2 (196 animals)
Type/breed	Surati, unknown river type	Nili-Ravi x swamp, swamp, Murrah x swamp	Nerd no. 1 (Murrah x unknown river type) Herd no. 2 (Nili-Ravi, Nili-Ravi x unknown river type)
Animal identification method	Name of animal	Name of animal, ear notching	Eartag
Mating system	Natural	Natural	Natural
Management system	<ul style="list-style-type: none"> • Semi-intensive • Individually raised all year • Individually raised 6 months, collectively raised 6 months 	<ul style="list-style-type: none"> • Extensive • Collectively raised throughout the year 	<ul style="list-style-type: none"> • Intensive • Semi-intensive
Record keeping done by:			
• Animal categories	• Milk man	• Milk man	• Farm staff
• Traits measured	• Only adult females	• Only adult females	• All types of animals
• Purpose	• Milk yield	• Milk yield	• All economic traits
• Type of analysis of crude data done by	• On-farm management	• On-farm management	• Herd no. 1: on-farm management
• Number of recorded buffaloes	• None	• None	• Herd no. 2: central breeding decision
	• 200*	• 800*	• BAU staff
			• 200

* A record keeping scheme on economic traits of all categories of buffaloes for future selection and genetic improvement purpose on-farm in two main regions has been started by ABG department of BAU in collaboration with BLRI and BARC since 1998. Data are being computerised for subsequent scientific analysis.

There is no geneticist involved in the evaluation and improvement programme of BBF. The managers, nutritionists and veterinarians are sent to the farm following contracts and are changed frequently. Milk recorders and other subordinate staff have been there for a long time.

The constraints associated with BBF are lack of skilled personnel, AI facilities and failure to follow the performances of cross-bred progeny at field level.

BAU is located at Mymensing, 120 km north-west of Dhaka. The BAU dairy farm has 15 dairy buffaloes of cross-bred type and one bull of indigenous river type. The BAU Centre had Murrah and Nili-Ravi in the past. The Genetics and Animal Breeding Department (ABG) has already completed the characterisation of dairy buffaloes in Bangladesh. ABG has in collaboration with the Bangladesh Livestock Research Institute (BLRI) and the Bangladesh Agricultural Research Council (BARC) developed a field recording system for an on-farm breeding programme and has also recently produced about 100 pedigree calves. The ABG has failed to transfer AI technology to BBF and has also failed to maintain breeding bulls badly needed for the Bramhaputra Jumuna flood plain.

**Buffalo
breeding
activities at
the
Bangladesh
Agricultural
University
(BAU)**
