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A field survey of prevalence of Umblachery bullocks in Cauvery delta zone

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Abstract

The present study was targeted to survey the prevalence of Umblachery bullocks among the farmers in Cauvery delta zone of Tamil Nadu. The survey revealed that only 19.77% of surveyees maintained Umblachery bullocks, where as the rest of them had Umblachery cows (80.60%), crossbred cows (18.65%) and non-described cows (0.75%). It was observed that among 268 surveyees, 81.71% were involved in paddy cultivation and the rest were not involved in paddy cultivation but had either Umblachery cows or non-described cows. Among these paddy cultivators, mere 9.33% of the farmers utilized Umblachery bullocks for wet-ploughing and other agricultural works. On the contrary, 89.92% of the paddy crop cultivators employed tractors for land preparation and other agricultural tasks. The respondents also revealed their purposes for having the Umblachery cattle breed included cart-pulling and ploughing (33.57%), dairying (15.67%), sale of male animals for slaughter (13.06%) and cultural sports such as *Jallikattu*, *Rekla* race, etc. (13.06%). To conclude, there was a scope for increasing the Umblachery cattle especially male germplasm in its breeding tract.

Keywords: Umblachery, Bullocks, Wet ploughing, Cauvery delta zone

Introduction

The Umblachery breed of cattle is the best wet ploughing breed in the world. Its breeding tract included the integrated districts of Thanjavur, Tiruvarur and Nagapattinam in Tamil Nadu. These three districts together popularly called as the "Rice bowl of Tamil Nadu. In today's mechanized agricultural system, Umblachery cattle breed a pride of Cauvery delta zone lost its traditional role of wet ploughing in paddy cultivation. Possessing the unemployed breed for the sake of mere cultural value alone has not been sustaining well in the highly pressurized commercial system (Rajendran *et al.*, 2008) [5]. As a result, the population size of this breed started dwindling. This was evident in the breed wise population reports of 2013 and 2019 and the population sizes were 39,050 and 31,195 in numbers respectively (GoI Report, 2013 and 2019) [2, 1]. The earliest report available on the population size of this breed was in 1999 and it was 2,83,000 in numbers (Report, 1999) [6]. It indicated the marked declining trend of Umblachery population in its native tract. The major constraints in maintaining its population were due to lack of grazing land, lack of ponds, deficit of feeds, mechanization in agriculture, use of fertilizers in place of manure, inefficient breed associations, lack of quality bulls, dominance of crossbreeding and unregulated livestock sandy (Kannadhasan, M.S. *et al.*, 2018) [3]. The declining trend of Umblachery cattle breed needs to be checked and restored. The present study was targeted to survey the prevalence of Umblachery bullocks among the farmers in Cauvery delta zone of Tamil Nadu.

Materials and Methods

The field survey was conducted among 268 numbers of those farmers who were involved in rearing of Umblachery cattle spreaded in 15 villages in three districts viz. Thanjavur, Tiruvarur and Nagapattinam. The villages were selected based on stratified random method. The direct survey was done using the preset questionnaires. The questionnaire largely had the questions on kind of animals being reared, its utility, status of paddy cultivation, irrigation method being adapted and other relevant information. The resultant data were subjected to the appropriate statistical analysis.

Results and Discussion

Among 268 respondents, 33.21%, 42.54% and 24.53% were from Thanjavur, Tiruvarur and Nagapattinam districts, respectively. The higher percentage of respondents from Tiruvarur district may be attributed to the presence of higher

number of Umblachery cattle rearers in that district which is the highest paddy producing state in Tamil Nadu. The tradition of agriculture and indigenous breed keeping practice in Tiruvarur district was rightly reflected in the result.

Table 1: The detail of the questionnaire and the response collected from the respondents in the districts of Cauvery delta zone.

Broad area of questions	Actual answers	Responses
Possession of Umblachery bullocks	Possessed	19.77%
	Not possessed	80.23%
Kind of cattle that are maintained	Umblachery cows	80.60%
	Cross-bred cows	18.65%
	Non-described cows	0.75%
Utility of having Umblachery breed	Agricultural works included wet ploughing, cart pulling	33.57%
	Dairy purpose	15.67%
	Sale of live animals for slaughter	13.06%
	Sale of live animals for <i>Jallikattu</i> and <i>Rekla</i> cart racing	13.06%
Status of paddy cultivation	Involved in paddy cultivation	81.71%
	Umblachery bullocks are used for wet ploughing	9.33%
	Tractors are used for wet ploughing	89.92%
Type of irrigation methods used	Not-involved in paddy cultivation	18.29%
	Bore-well system	63.43%
	River canal system	36.56%

The survey revealed that only 19.77% of surveyees maintained Umblachery bullocks, where as the rest of them had Umblachery cows (80.60%), crossbred cows (18.65%) and non-described cows (0.75%). It was evident that, being in the breeding tract of Umblachery breed the traditional farming community showed more interest towards having the local breeds than any other commercial breeds. It showed that this affinity of the farmers towards Umblachery cows can be strategically optimized to promote dairying through indigenous local breed. All they required was restoration of grazing fields, common ponds, ensuring the timely availability of quality male germplasm to feed and breed their cows (Kannadhasanm, M.S., *et al.*, 2018; Sridhala, K., *et al.*, 2024) [3, 7]. The prevailing and growing demand in the market for dairy from indigenous breeds can wisely be utilized in the Cauvery delta zone. Targeted subsidy package along with concerted skill training on production supply chain may help the Umblachery breed population to rise.

It was observed that among 268 surveyees, 81.71% were involved in paddy cultivation and the rest were not involved in paddy cultivation but had either Umblachery cows or non-described cows. This result demonstrated that the tradition of paddy cultivation had been the primary occupation for the majority of the people in Cauvery delta basin. Among these paddy cultivators, mere 9.33% of the farmers utilized Umblachery bullocks for wet-ploughing and other agricultural works. On the contrary, 89.92% of the paddy crop cultivators employed tractors for land preparation and other agricultural tasks. This contrasting feature openly displayed the dominance of mechanization in agricultural fields. The reasons for the popularity of mechanized agriculture may be due to time saving, minimal physical works, labour shortages, higher work efficiency, etc. The finance assistance from the banks for purchasing of tractors and other farm implements may be another reason why the tractors invaded every nook and corner of even the remote villages.

Among all the respondents, nearly two-third (63.43%) had bore-well system and one-third (36.56%) had river-canal irrigation system of paddy cultivation. The practice of traditional bullocks-drawing water irrigation system (*Etram irraithal in Tamil*) was nil. Hence, this utility of the bullocks of Umblachery breed was no more an option for having this

breed among the farmers. This could be attributed to the second reason next to mechanization in agriculture for the loss of the breed (Kannadhasanm, M.S., *et al.*, 2018; Sridhala, K., *et al.*, 2024) [3, 7].

The respondents also revealed their purposes for having the Umblachery cattle breed included cart-pulling and ploughing (33.57%), dairying (15.67%), sale of male animals for slaughter (13.06%) and cultural sports such as *Jallikattu*, *Rekla* race, etc. (13.06%). This aspect of the response clearly indicated that the Umblachery breed more precisely the bullocks were still being preferred for its popular and traditional purpose of agricultural works only. Followed by male animals of this precious germplasm was preferred for slaughter sales and cultural sports. In the history of animal husbandry especially in developing countries like India, where the commercial interests are omnipresent in post-globalization era, the only factor that would save the otherwise non-commercial traditional draught breeds like Umblachery cattle is cultural sports. Thus, cultural factors that save any given breeds of livestock should be facilitated and promoted. The morphological traits of Umblachery *jallikattu* bulls along with Pulikulam and Kangayam breeds revealed the potential role of cultural sports in saving these indigenous draught breeds of Tamil Nadu (Priyadharsini, R., *et al.*, 2019) [4].

Conclusion

The present study found that the percentage of the farmers maintained Umblachery cattle actually had bullocks was alarming. The results also showed that those farmers who involved in paddy crop cultivation used Umblachery bullocks were meager. Further it was also understood that a considerable section of the farmers keeping male animals for slaughter sales and cultural sports. There was a scope for increasing the Umblachery cattle especially male germplasm in its breeding tract.

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