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Farmers’ and academia’s views”

Agro-pastoralist farmers’ perceptions of dairy cattle breeds and breeding strategies in northern Benin

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Abstract

To understand farmers’ preferences and perceptions of dairy cattle breed attributes and breeding practices, including selection criteria, 150 agro-pastoralists in northeast Benin were interviewed in a cross-sectional survey. Respondents scored their preference for cattle breeds, traits, and selection criteria of breeding stock on a scale of 1 (most preferred) to 5 (least preferred). Rank means (RM) and relative importance (RI) of preferred traits associated with cattle breeds were calculated and compared between farm types (sedentary or transhumant). Results showed that the Gudali breed (RM: 1.09) was most preferred, followed by Yakana (RM: 2.14), while the indigenous Borgou (RM: 3.34) was least desired. Zebu Gudali breed was preferred by transhumant ($p < 0.01$), while sedentary farmers preferred Zebu Yakana. The relative importance given by respondents to the different trait preferences revealed that the Gudali breed was preferred for its high milk production (RI: 4.93) and big body size (RI: 4.35). Zebu M’bororo was preferred only for its high milk production (RI: 3.01). The Yakana breed was chosen for its big body size (RI: 3.73), its adaptability to harsh environments (RI: 4.62), and its low feed requirement (RI: 4.01). However, the indigenous Borgou was the only breed preferred for its high fertility (RI: 2.51). Breeding practices were similar in replacement strategies, uncontrolled mating, and no record keeping. The common criteria mentioned by farmers for the selection of breeding females were the milk yield (RI: 3.03), the calves’ survival in the first 03 months (RI: 2.05), and the earlier sexual maturity (RI: 1.94). All farmers had a least one bull, that age at first service was 4.07-year-old. Transhumant herds used Yakana bull, while sedentary farmers preferred either Yakana or Gudali bull. The replacement of the indigenous Borgou breed in its original belt by more milk-producing breeds calls for this breed conservation. Community-based breeding programmes for pure Borgou cattle and crossbreds aiming to improve body size and milk production could be implemented.

Keywords: Borgou, Gudali, Small-scale, Trait preference, West Africa