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Background

- Indigenous trypanotolerant taurine breeds (Lagune, Somba, and Borgou) are increasingly crossed or replaced by more milk-producing Zébu like Gudali (fig. 1).
- Borgou cattle (fig. 2), a well-adapted breed to various environments (semi-arid and sub-humid), are treat in their original belt in Nord-Est Benin, due to dairy farming.
- Identification of specific preferred traits related to breeding objectives is the first important step to the successful implementation of any breeding program.
- RESEARCH QUESTION. What attributes are preferred in the indigenous Borgou breed compared to Zebu cattle breeds?**



Fig. 1. Zebu Gudali



Fig. 2: Indigenous Borgou Breed

Methodology

- Field research Oct. 2021 to Jan. 2022.
- Focus groups discussion and individual interviews (fig. 3).
- Samples include agro-pastoralist farmers in the semi-arid zone of Benin (fig. 4).
- Calculations of rank means (RM) and relative importance (RI) of preferred traits associated with cattle breeds.



Focus groups discussion
04 municipalities, Oct. 2021



Individual interviews
150 farmers, Nov. 2021-
Jan 2022

Fig. 3. Focus group discussion and individual interviews



Fig. 4: Map of Benin, showing the studied municipalities

Results

- Gudali breed (RM: 1.09) was most preferred, followed by Yakana (RM: 2.14)
- The indigenous Borgou (RM: 3.34) was least desired.
- Zebu Yakana breed was preferred by transhumant ($p < 0.01$), while sedentary farmers preferred Zebu Gudali.
- All Zebu breeds were preferred for their high milk production and body size (fig. 5), in particular the M'bororo breed (fig. 6).
- In addition, Yakana (fig. 7) was desired for its adaptability to harsh environments and low feed requirements.



Fig. 6. Zébu M'bororo

- However, in the indigenous Borgou, high fertility (RI: 2.51) was the most desired attribute.

Highlights

- Zebu Gudali was the most desired for milk production
- Gudali and Yakana cows were preferably kept in most farms,
- Their bull was crossed with the indigenous Borgou cows,
- High fertility and adaptability of Borgou breed were acknowledged,
- Urgent needs for community-based breeding programs for pure Borgou cattle and crossbreds aiming to improve body size and milk production.

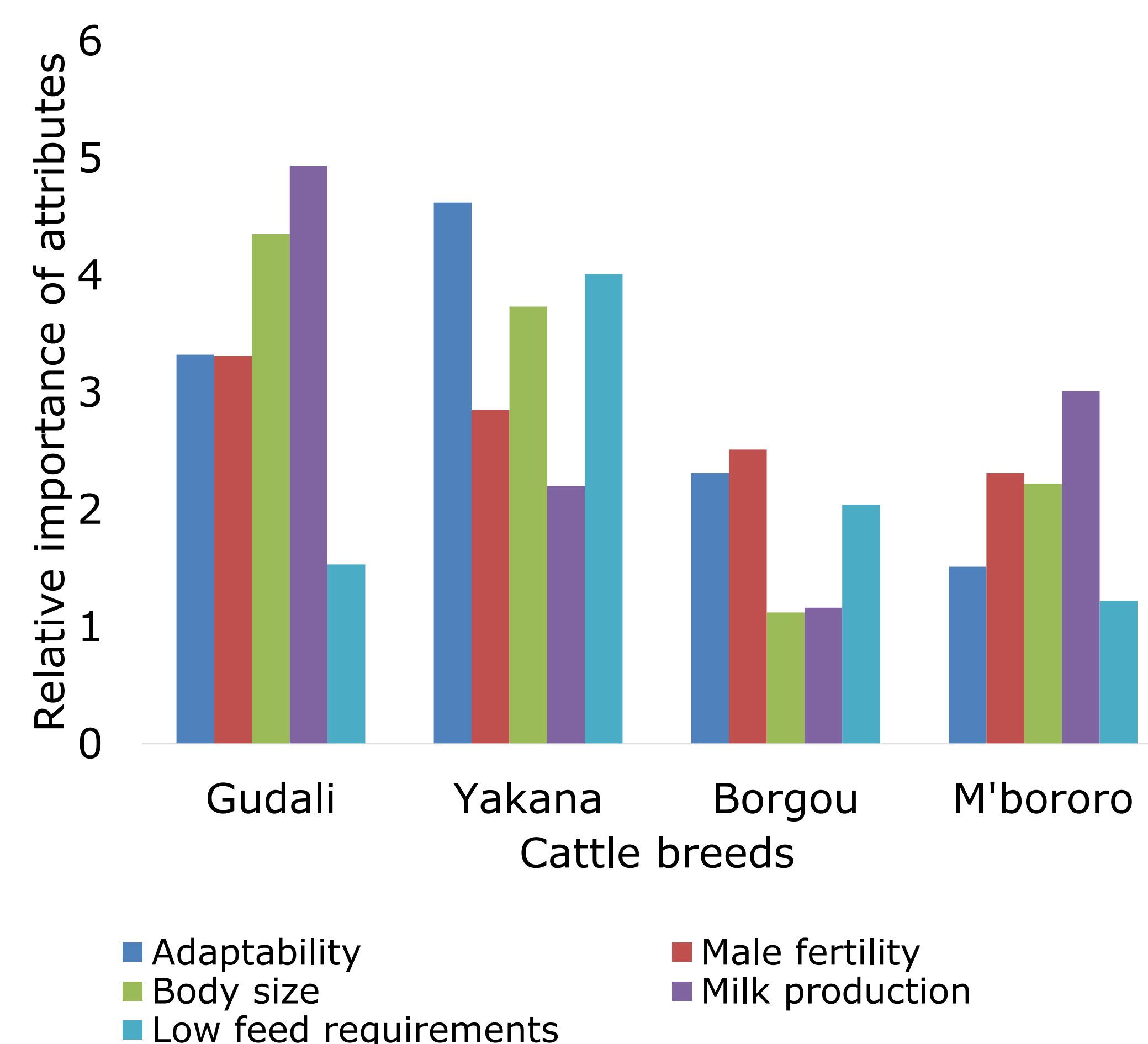


Fig. 6. Relative importance of agro-pastoralist farmers preference for attributes of the different cattle breeds

Results

- Farms similar breeding practices: cows replacement strategies, uncontrolled mating, and no records keeping.

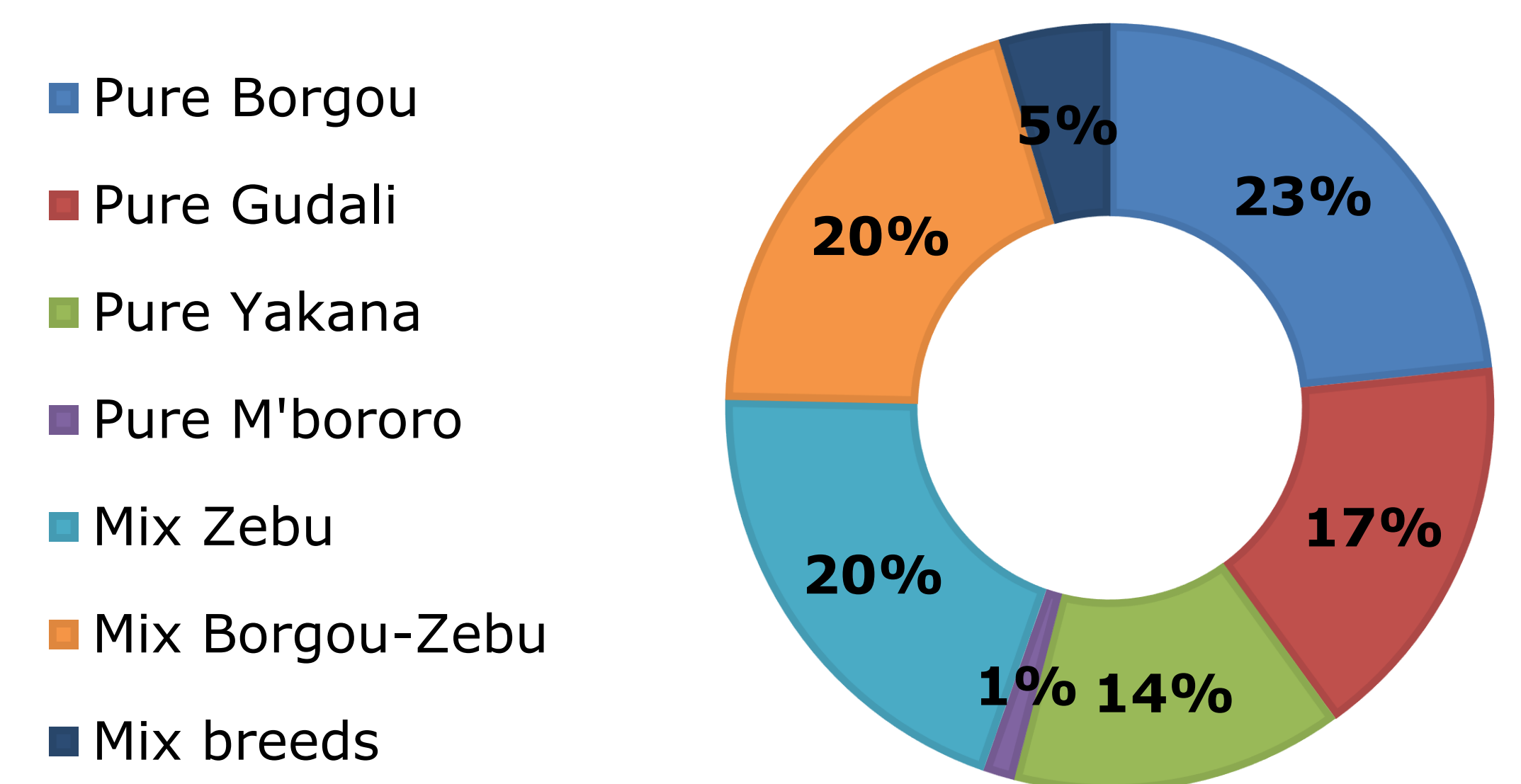


Fig. 8. Breeds utilization in the surveyed farms

- Only 23% of farms hold pure Borgou cows (fig. 7).
- Selection of breeding females made on milk yield (RI: 3.03), the calves' survival in the first 03 months (RI: 2.05), and the earlier sexual maturity (RI: 1.94).



Fig. 7. Zébu Yakana

- Yakana bull in transhumant herds, and Yakana or Gudali bull in sedentary farms.

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