

PREFERENCE TRAITS OF FARMERS FOR INDIGENOUS LOCAL CHICKEN BREEDS IN SOUTHERN BENIN (WEST-AFRICA)

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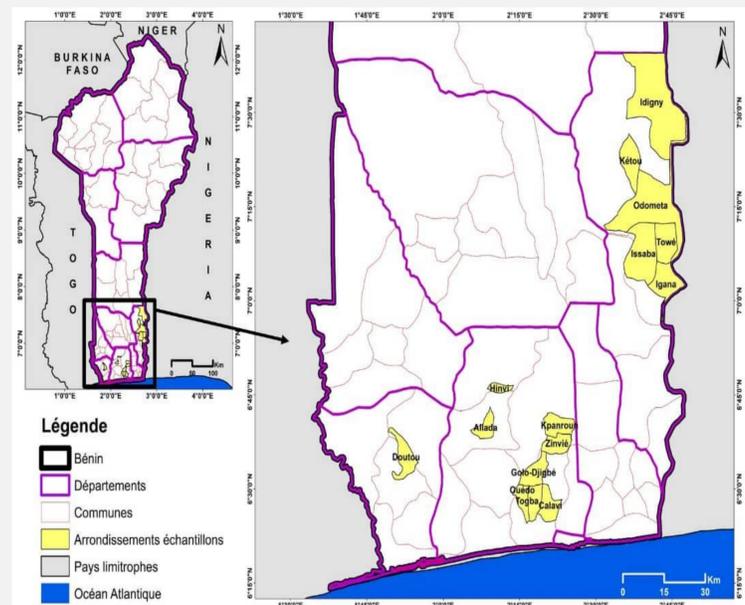
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INTRODUCTION

A diversity of phenotypic and ecotypes characterizes local chickens in Benin (FAO, 2015). They have unique characteristics or combinations of characteristics, disease resistance, tolerance to extreme climatic variations, which could constitute essential assets for the promotion of local breeds. The names of chickens are given according to the plumage, the use they make of it, the format and the breeding region. We distinguish the North, South, Fulani, Sahouè and Holli ecotypes preserved for decades by certain communities (Bonou, 2006 ; Tougan *et al.*, 2013). This study aims to identify local chicken ecotypes' distinctive traits and farmers' preferences for their attributes.

METHODS

- The snowball sampling method allowed the sampling of one hundred twenty local chicken farmers keeping one of the four local chicken ecotypes Fulani, Holli, Sahouè, and Koklo yaya.
- A semi-structured questionnaire was used to collect data on the production system used by farmers and their preferred traits for the ecotype of chickens reared.
- Farmers were asked to give scores ranging from 1 (most important) to 5 (less important) for each preferred trait, and the preference index (PI) was calculated. $\text{Index} = \frac{\text{Sum}(3 \times \text{rank}_1 + 2 \times \text{rank}_2 + 1 \times \text{rank}_3)}{\text{Sum}(3 \times \text{rank}_1 + 2 \times \text{rank}_2 + 1 \times \text{rank}_3)}$ for individual trait / $\text{Sum}(3 \times \text{rank}_1 + 2 \times \text{rank}_2 + 1 \times \text{rank}_3)$ for global traits (Bayou *et al.*, 2018 ; Getachew *et al.*, 2010).



Map of study areas

RESULTS



Rooster Fulani



Rooster Sahouè



Rooster Holli



Rooster Koklo yaya



Hen Fulani



Hen Sahouè



Hen Holli



Hen Koklo yaya

- Distinctive characteristics of the local chicken ecotypes were size, format, growth, and quality of the eggs.
- The Fulani ecotype had large size (17.3%) with big eggs (12.7%).
- Holli and Sahouè ecotype had a medium size (10,9% and 16,5%) with small egg in Holli.
- However, the Koklo yaya was of small size (9,1%).

CONCLUSION

The main distinctive characteristics of the local chicken ecotypes were the size, the format, the growth, and the quality of the eggs. Principal traits preferred of ecotypes are the high egg-laying rate and disease resistance.

- Ecotypes Holli and Sahouè were preferred for the high egg-laying rate (PI. 0.45 and 0.34) and the disease resistance capacity (PI. 0.29 and 0.24).
- Koklo yaya was preferred for its easy handling (0.40) and disease resistance (0.29) traits.
- For Fulani ecotypes it was fast growth and high carcass weight preferred

Table I : Preferred attributes of local chicken ecotypes

Attributes	Chicken ecotypes			
	Fulani	Holli	Koklo yaya	Sahouè
	Preference indexes (PI)			
Large size	0.23	-	-	-
Medium size	-	-	-	0.05
Good market value	0.03	-	-	-
Fast growth	0.48	-	-	0.14
High carcass weight	0.26	-	-	0.08
Good meat taste	-	-	0,12	-
Easy to rear	-	0.08	0.40	0.04
Good maternal capacity	-	0.05	0.19	0.08
High laying rate	-	0.45	-	0.34
High hatching rate	-	0.08	-	-
Ritual use	-	0.05	-	0.02
Disease resistance	-	0.29	0.29	0.24

PERSPECTIVES

Evaluate the comparative disease resistance capacity of the different ecotypes of local chickens in Benin.

Bibliographical reference

Hougbo Z. M. 2023. Zootechnical characterization and breeder preferences for local chicken ecotypes Fulani, Holli, Sahouè and Koklo yaya in Southern Benin. Master's thesis. National University of Agriculture

