ILRI Farmers' Preferences of Phenotypic Traits in Cattle Production and Marketing: A Case Study in Central Ethiopia

Girma Tesfahun Kassie^{1,2}, Clemens B. A. Wollny^{1,2}, Awudu Abdulai³, Adam G. Drucker⁴, Workneh Ayalew¹ ¹International Livestock Research Institute, P. O. Box 5689, Addis Ababa, Ethiopia; ²Institute of Animal Breeding and Genetics, Georg-August University Goettingen, Kellnerweg 6, 37077 Goettingen, Germany; ³ Department of Food Economics and Consumption Studies, University of Kiel, Olshausenstrasse 40, 24098 Kiel, Germany; ⁴School for Environmental Research, Charles Darwin University, Darwin NT 0909, Australia

Conclusion: The research verified that farmers have age-old mechanisms of identifying and ranking their trait preferences in a consistent and meaningful manner. The identification of these trait preferences implies that decisions for genetic improvement and conservation of indigenous cattle in these production systems should be based on comprehensive understanding not only of the relative importance attached to each phenotypic trait but also of the ways in which cattle keepers and consumers measure these traits.



Introduction: Production and marketing decisions in the semi-subsistence cattle keeping systems of Ethiopia are principally influenced by farmers' preferences of cattle phenotypic traits. Eliciting the preferences and quantifying the economic worth of these characteristics would reinforce efforts in the production, marketing, and sustainable conservation and use of animal genetic resources (AnGR). This study focused at understanding what farmers and farmer-buyers' preferences are regarding the cattle they want to buy and/or keep or sell.

Table 1. Count of rankings for oxen traits on the farm (FA) and in the Market (MA)

Rank	Color		Age		Origin		Body size		Horn type		Draft power		Calf strength	
	FA	MA	FA	MA	FA	MA	FA	MA	FA	MA	FA	MA	FA	MA
1			5	4	6	2	1				3	5	1	2
2			3	2	1	3	1				3	1		3
3	2	1	1	4	1	2	2	5			4	4	3	2
4	1	1	2	1	1	1	3	2	1		1	1	2	
5	4	2			1	2	2	4					3	2
6	4	7				1	2		2				2	2
7				0	1				8	11				

Table 2. Count of rankings for cow traits on the farm (FA) and in the Market (MA)

Rank	Color		Age		Origin		Body Size		Hom type		Fertility		Milk yield		Calf strength	
	FA	MA	FA	MA	FA	MA	FA	MA	FA	MA	FA	MA	FA	MA	FA	MA
1			4	2	2	5		1			6	2	1	3	3	1
2			3	5	3	1		2			1	1	1	1	1	3
3			2		2	1	2	1			2	3	1	1	2	2
4				2	1	1	2	4			1	3	7	1	5	1
5			1	2	3	- 2	3	1			1	1		4		2
6		3	1	10	1	2	4	1				1	1	1		3
7	11	8		xu.	-	1		1								
8			-	12.			1		11	11			1.	1	1.17	

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Methodology: This study was done in Dano district which is located some 250 km south west of Addis Ababa in Ethiopia. were generated Data using both participatory and conventional data collection methods with a sample of 44 livestock keepers and/or buyers. Data were descriptive analyzed using statistics including Spearman's non-parametric correlation coefficient.

Result: Age, origin, and draft power were ranked highest by farmers asked on their farms about oxen. Plowing strength, age, origin, and calf strength were ranked highest among oxen traits by buyers in the markets. Fertility in terms of short calving interval, age, calf strength and calf strength were ranked highest when buyers were asked in the markets about cow traits. Origin, age, milk yield and fertility were highest ranked traits of cows in the market. (tables 1 and 2). Body size was found to be a second rate trait by both respondents asked in the markets and on the farm. Color and horn shape were uniformly ranked least by both groups of farmers both for cows and oxen. The spearman non-parametric rank correlation coefficients calculated for the rankings made by the farmers (both as keepers and as buyers) show that covariations of the rankings are strong and mainly occur along the upward slant. This implies that trait preferences are consistent and vary in the same direction.



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