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Comparative analysis of market-oriented and subsistence pig farmers' traits preferences and selection criteria in Burkina Faso, West Africa

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Abstract

In Burkina Faso, pig production is constantly increasing due to the growing demand for pork meat. This trend can be explained by demographic data, urbanisation and the emergence of a middle class. Pigs are reared in two main production systems, namely subsistence and market-oriented farming. This study has been carried out to understand pig farmers' traits' preferences and their selection criteria. A total of 386 farmers from rural and peri-urban areas were interviewed using focus group discussions methods and semi-structured questionnaires. Data were analysed using R. Descriptive statistics were done, means and standard deviation of quantitative variables were computed and compared using Tukey Test. At the same time frequencies were calculated for qualitative variables and Pearson's Chi-squared test and Fisher's exact test used for comparison. Reasons for keeping pigs, breed preferences and selection criteria were assessed by computing indexes or ranking. The results show that pig farmers were predominantly men and public employees in the market-oriented system (MS) while women having crop farming as main activity dominate in the subsistence system (SS). The two systems were significantly ($p < 0.05$) different regarding the sex of farmers and their main activity. In both systems, earning income was the main reason for keeping pigs (Index = 0.484 in CS and 0.496 in SS) followed by manure, wealth and household consumption in various order. For breed preferences, market-oriented farmers prioritised prolificity (Index = 0.404) and fattening weight (Index = 0.374) while subsistence farmers preferred fattening weight (Index = 0.371) first, followed by prolificity (Index = 0.290). Breed and body size were the most preferred traits for the selection of breeding sow and boar in the two systems, but their relative importance varied according to the system. For breeding sow, indexes of breed and body size were 0.389 and 0.350 in MS and 0.394 and 0.367 in SS. These values for breeding boar were 0.408 and 0.351 in MS and 0.391 and 0.374 in SS. Regarding that the productive features of animals were mostly preferred by farmers in both production systems, improvement strategies should target these traits to improve their livelihoods.

Keywords: Burkina Faso, market, pigs, subsistence, trait preferences