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“Development on the margin”

Evaluation of Pig Management and Breeding under Different Smallholder Production Systems

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Abstract

This study analysed the existing pig management and breeding practices of smallholder farmers under different production systems geared towards the development of breeding objectives and design of pig breeding programmes in Kenya. The two distinct systems evaluated included semi-intensive system and extensive system and they differed in remoteness, market access, resource availability and pig production intensity. Data were collected using structured questionnaires where a total of 102 pig farmers were interviewed. Qualitative and quantitative research methods were employed to define the socioeconomic characteristics of the production systems, understanding the different roles that pigs play and identifying the breed and trait preferences that determine genetic selection. The results show that regular cash income and insurance against emergencies were the main reasons for rearing pigs. Finances, feeds and housing were identified as the major constraints to production. The farmers identified the following breeding objectives: high body weights, big size, high growth rate, prolificacy, piglet survival and disease tolerance. The breeding objectives can be achieved through the development of village breeding programmes whereby farmers in the semi-intensive system should focus more on production and reproduction traits, while maintaining functional and adaptive traits. In the extensive system such programmes should focus on adaptive traits such as utilisation of fibre-rich diets and disease tolerance. For the improvement of pigs in Kenya and other countries in the tropics, this study concurs with other studies that there should be concomitant development of feeding strategies based on cheap locally available feedstuffs, simple, affordable and relevantly designed pig sties, proper disease control and health management and the identification of suitable traits that fit local environmental conditions.

Keywords: Breeding objectives, Kenya, pigs, production systems, smallholder