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Production Objectives, Breeding Practises and Management Strategies of Dairy Goat Farmers in Kenya: Implications for a Breeding Programme

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Abstract

Production objectives, breeding practises and management strategies of smallholder households participating in dairy goat breeding projects were analysed in relation to their ability to bring about sustainable genetic improvement in the dairy goat flocks in Kenya. A stratified survey involving 311 goat keepers in 4 project sites was used. Milk production and sales of breeding stock were high priority functions for the objective to create a financial buffer. The breeding objective traits that farmers perceived as being of primary importance were milk yield, growth rate, body size, fertility and disease tolerance. There were logical trade-offs in the choice of these traits by farmers. Female dairy goats were mainly culled due to old age, poor fertility, small body size and poor health. Farmers did not place a large significance on unsatisfactory milk performance when culling female goats, mainly due to the very small production size and the high demand existing for breeding animals. Factors affecting milk yield and flock size presented satisfied a $p < 0.1$ significance level. Positive and significant relations were found for administrative province of residence, supplementation feeding and type of births while gender of the farmer and kid rearing system were negative and significantly related to milk yield. Strong positive relations were found for administrative province of residence, education level, land ownership and grazing/ fodder land size, while age of the farmer was negative and significantly related to flock size. Multiple birth affected flock size positively while mortality and age at first mating of females showed a negative effect. The performance levels of dairy goats were mainly influenced by breeding and management strategies and the resource availability at the farm level. The optimisation of genotype \times environment interactions remains the biggest challenge given the objectives set by.

Keywords: Breeding practises, dairy goats, management strategies, production objectives, smallholder farmers