



Review

Breeding goats for meat production: a review

1. Genetic resources, management and breed evaluation

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Accepted 17 April 2003

Abstract

The wild goats, Bezoar, Markhol and Ibex, possibly, the respective predecessors of the predominant Bezoar, Savannah and Nubian types, have contributed to the development of approximately 570 goat breed populations in the world. Numerous identifiable morphological characteristics and production performance in these breeds outline the potential for the genetic improvement of the efficiency of meat goat production. The management of meat goats tends to vary from country to country and within country from region to region according to the climate, terrain, breed, availability of feed and grazing land, diseases and economic status of the producer. Studies on evaluation of breeds has been more common in the past two decades, while a majority of these are from Institutional herds in developing countries. In meat goats, possible benefits from scientific advances made in genetics, nutrition and husbandry have not yet been realised to the same extent as other livestock and poultry species. Information on genetic resources and studies on breed evaluation under varying management could help identify breeds that demonstrate promise for the application of quantitative genetic principle to improve the efficiency of meat goat production.

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Keywords: Meat goat; Genetic resources; Management; Breed evaluation

1. Introduction

Meat goats include the majority of the tropical breeds not specialised in either dairy or fibre production. While more than 90% of the goats in the world remain in the developing countries, even in the absence of significant resources for their improvement goat numbers continue to rise (French, 1970; Devendra, 1998; FAO, 1999). Prior to 1970, the primary source of knowledge in this species (Gall, 1982)

was from goats used as experimental animals in biomedical research. In a review of goat reproduction and breeding, Shelton (1978) reported that the number of studies on genetics were limited, and among those there was little evidence to suggest progress in the development of the goat as a meat animal. It was only in the last three decades that research results on genetics of meat goat production were featured in the scientific literature (Acharya, 1982; Devendra, 1982; Cheng Peilieu, 1984; Hasnain, 1985; Yalçin, 1986; Orekhov, 1980; Ying, 1995; Mason, 1996; Gall, 1996; Wen et al., 1997; Luo et al., 2000; Oman et al., 2000; Cameron et al., 2001). The majority of these articles were based on research in the developing countries. Studies on meat goats have been negligible compared

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