



Association of trypanosomosis risk with dairy cattle production in western Kenya

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ABSTRACT

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Dairy cattle reared in western Kenya are exposed to medium to high levels of trypanosomosis risk. The social background, farm characteristics and dairy cattle productivity of 90 and 30 randomly selected farmers from medium- and high-risk trypanosomosis areas, respectively, were compared. All the 120 farmers were visited between July and August 2002. Data analysis was performed using descriptive statistics and analysis of variance. The results showed that increased trypanosomosis risk represented by an increase in disease prevalence in cattle of 1% to 20% decreased the density of dairy cattle by 53% and increased the calving interval from 14 to 25 months. The increased risk was also associated with a significant increase in cattle mortalities and in a lactation period of 257 to 300 days. It was concluded that removal of the trypanosomosis constraint on dairy production would lead to expansion of dairying since the domestic demand for dairy products is expected to increase.

Keywords: Dairy cattle, Kenya, production, trypanosomosis risk

INTRODUCTION

Dairy production in Kenya is dominated by smallholder farmers who contribute about 85% of total milk produced (Peeler & Omere 1997). It is estimated that the dairy herd in Kenya comprises about 3 million head of cattle, of which 2.5 million are owned by smallholders numbering about 650 000 (MoA 1996). This implies that this sector employs many people who derive a regular source of income and have a balanced nutrition. The sector is a catalyst for economic development and, when compared to other agricultural activities, it has higher financial returns (McIntire, Bourzat & Pingali 1992).

Dairy cattle production constraints have been extensively described by various authors (Stotz 1983; Moll, Lohding & Young 1984; Maloo, Thorpe, Ngumi & Perry 1994; Peeler & Omere 1997). These studies have identified livestock diseases as one of the major constraints to dairy production in Kenya. Major diseases cited are tick-borne diseases (TBDs) and trypanosomosis. Some field studies have attempted to ascertain the actual incidence and impact of TBDs on dairy production (Gitau, O'Callaghan, McDermott, Omere, Odima, Mulei & Kilungu 1994; Maloo *et al.* 1994). However, there exists only very limited information that measures the losses associated with trypanosomosis and the benefits that can accrue after its effective control (Mbogoh & Mukhebi 1997). This study provides some information on the losses associated with trypanosomosis among dairy farmers in western Kenya which could be used in designing sustainable strategies for managing the disease in future control programmes in this region.

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