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Economics of Small-Scale Dairy Farming in Sri Lanka — A Case Study from Coconut Cattle Silvo Pastoral System

MADUWE A. J. S. NAVARATNE, GERTRUD BUCHENRIEDER

*University of Hohenheim, Agricultural Economics and Social Sciences in the Tropics and Subtropics,
Germany*

Abstract

Dairy farming is a small segment in the national economy of Sri Lanka. It is predominantly in the hand of small-scale farmers. Milk production in the country only meets about 20 % of the domestic demand because of increasing demand for milk and milk products. The modest profit margin in the dairy sector has been often cited as the constraining factor for its expansion. Nevertheless, systematic research to probe the real situation of the profitability in the dairy sector is not adequate. In view of this, an empirical study was carried out to assess the profitability of small-holder dairy farmers in the Coconut Triangle of the intermediate zone of Sri Lanka, which is considered as a high-potential area for milk production.

A stratified field survey of 105 small-scale dairy farms was carried out from March–July 2002 in Sri Lanka. A semi-structured questionnaire was used to collect data from dairy farms with small herd sizes (10–15 heads) typical for the region. The farms were classified into three management systems: (1) intensive, (2) semi intensive, and (3) extensive. The profitability of dairy farming was estimated through a gross margin analysis. A statistical relationship between financial profitability and the factors affecting financial profitability was also established.

Findings reveal that dairy farming is still one of the main income source of small-scale farmers in the surveyed study area. Nevertheless, the size of owned land has become a constraint to increase the herd size and henceforth intensification. In general, about 73 % of variable costs in dairy farming consist of concentrate feeds alone. But the income gained from milk production in the intensive farms justifies the outlays.

Financial profitability demonstrates that intensively managed farms are obtaining larger profits. Multiple regression analysis was applied to demonstrate this relationship. The explanatory variables such type of management, total hours spend on dairy farming, land allocation and herd size were the main variables determining the profitability of dairy farming.

Keywords: Milk production, profitability, dairy farming, gross margin analysis, management systems, multiple regression analysis