Technical Efficiency of Small Scale Dairy Farming in Sri Lanka

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The lack of understanding of technical efficiency of small scale dairy farming could have a far-reaching consequence on the productivity and profitability of the farms, and the potentially restricts the need to boost the dairy production. Therefore, this study asseses technical efficiency of smallholder dairy farmers and the factors that cause technical inefficiency. Stochastic frontier production function has estimated from the data collected on the management practices and general information from randomly selected 60 farms in Kosgama Veterinary range in Seethawaka Divisional Secretariat of Colombo District Sri Lanka.

The study reveals that mean technical efficiency is 45 with the efficiency range from 40 to 55 indicating that, the dairy farmers were not fully technically efficient. The result also shows that, farmers’ educational level, extension service, years of farmer experience, main source of income, training received, land utilized for fodder and milking frequency have significantly influenced on the technical efficiency. Farmer age, farm size, shad and number of animal are statistically independent variables on technical efficiency. Almost all farmers in Kosgama veterinary range have adopted intensive system with feeding of poor quality grass and concentrates. The average milk production amounted to 60 per cent of the mean daily total of 11.0 litres per cow with average lactating days 250. We conclude that milk production and productivity of small scale farm in Sri Lanka is not significantly effective. It is obvious that if dairy farming is to be a technically efficient sector, there is a need for the small scale farmers to consider dairying as a commercial enterprise and at the same time to link themselves with the large scale dairy farms.

Key Word: Small scale dairy production, technical efficiency, Stochastic production frontier

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