

**Identification of Factors Affecting Milk Production of Dairy
Cattle at Galenbindunuwewa Veterinary Region in
Anuradhapura District**

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ABSTRACT

Dairy cattle farming is a key subsector in livestock sector which plays a crucial role as a source of income and supply of nutrients in Sri Lanka. Therefore, this study was carried out to investigate the present status of milk production and identify the main factors which affect to the daily milk production in Galenbindunuwewa veterinary region in Anuradhapura District. Total of 300 dairy farmers were selected using Stratified and Simple Random sampling technique. Milk production and socio-economic data were collected using a pre-tested structured questionnaire covering 41 Gramaniladari divisions in this region. Data were analyzed for descriptive analysis followed by Regression Analysis model stochastic frontier function using Minitab 17 and Stata 14 statistical software. Mean technical efficiency of this area is 72.22%. Results of the study revealed dairy cattle farming is operated as the major income source of this area (71%). With average wean age of 3.14 months, Jersey Sahiwal cross breed was the major breed (28.5%) accounts for 14.58 L/herd average daily milk production. The best fitted multiple linear regression model will predict 74.66% of technical efficiency daily milk production suggesting that number of milking cows in the herd, type of breeds, supply forage type, amount of night feeding supply, amount of mineral supplement, roughages feeding methods, concentrate feeding frequency per day, amount of concentrate supply, concentrate type, feed and water availability in cattle shed significantly affect the daily milk production ($p\text{-value} < 0.05$). However, lack of housing facilities, poor quality feeds and water, less success in AI were reported as key constraints which need to be properly focused in future policy making to increase the milk production in Galenbindunuwewa veterinary region in Anuradhapura District.

Keywords: Cattle farming, constraints milk production, regression analysis