

Effect of Major Socio-Economic Factors on Dairy Cattle Milk Production in Maho Veterinary Region in Kurunegala District

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Livestock plays a socially and economically significant role in Sri Lankan agriculture providing multi-functional outputs and supplementing family incomes for livelihood security. Therefore, the present study was conducted to identify the effect of major socio-economic factors and constraints on dairy cattle milk production in Maho veterinary region in Kurunegala district. Three hundred and fifty (350) farmers from Maho veterinary region were selected using stratified sampling. Socio-economic and production data were collected using a pre-tested structured questionnaire. Data were subjected to descriptive analysis and multiple linear regressions using Minitab 17 statistical software. Results of the descriptive analysis revealed that majority engaged in dairy cattle farming as a major source of income (58.29%). Of the total farmers, 78.29% practiced semi-intensive rearing while Jersey and Sahiwal were reported as the dominant breeds (38%) within the region. Average daily milk production was 6.20 L cow⁻¹ day⁻¹. Results of the regression analysis highlighted relationships between breed type, breeding technique, feeding method, concentration type, level of education of the farmer and experience in dairy farming with the daily milk production ($P < 0.05$). Fitted regression model well predicted the daily milk production ($R^2 = 94\%$). It disclosed that breed type, breeding technique, feeding method, concentration type, level of education of the farmer and experience determine the dairy cattle milk production. However, lack of high yielding cross breeds, less success in artificial insemination (AI), low quality pasture and seasonality in pasture production and poor milk collection network were reported as the major constraints. The key findings of this study might promote improving the factors affecting the milk production in Maho veterinary region.

Keywords: constraints, dairy cattle, milk production, regression analysis, socio economic.