

Forecasting monthly cinnamon prices in Matara District using ARIMA approach

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Cinnamon is one of the most valuable crops in Sri Lanka. The global market attracted a lot of attention for the Ceylon Cinnamon. This study was focused on modelling M-5 type cinnamon prices in Matara district in Sri Lanka using Time Series Analysis and identifying the best fitting statistical model for the objective to forecast cinnamon prices. Monthly average cinnamon prices (in Rs/kg) data from 2006 to 2016 were collected from Department of Export Agriculture, Sri Lanka. Various Box – Jenkins time series models were fitted on this data using Eview software. The ARIMA (0, 1, 1) model was found to be the best model for cinnamon prices based on the results of Dickey Fuller test, three criteria (Akaike info criterion, Schwarz criterion and Hannan-Quinn criterion) and residual analysis. The model was trained using January 2006 to April 2015 and validated using May 2015 to May 2016. All the predictions are made assuming that the prevailing conditions in the country affecting Cinnamon prices remain unchanged during the period.

Keywords: Cinnamon prices, ARIMA Model, Time Series Analysis

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