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RESEARCH PAPER

Price forecasting of onion in Bijapur market of northern Karnataka using ARIMA technique

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ABSTRACT

The present study is an attempt to forecast the prices of onion at Bijapur district of Northern Karnataka. The study was carried out in Bijapur market where arrivals of onion were found to be more in Northern Karnataka. The time series data on monthly price of onion required for the study was collected from the registers maintained in the Bijapur APMC Market from year 1996-97 to 2010-11. The ARIMA model forecasted prices revealed there was sudden increase in the prices during 1998, 1999, 2010 and 2011.The year-wise alternate decrease in production and adequate storage facilities might be the reasons for such sudden increase in the price. The forecasted price values showed an increasing trend in the next coming years. Hence, farmers' needs to plan the production process in such a way that a good price for the produce can be expected. ARIMA model is an extrapolation method that requires only historical time series data on the variable under study. The Box-Jenkins approach primarily makes use of three types of filters, namely, the autoregressive, the integration and the moving average. The Box-Jenkins model provides a verified approach for identifying and filtering most appropriate variations for the series being analyzed, for diagnosing the accuracy and the reliability of the models that have been estimated and lastly, for forecasting the policy.

KEY WORDS : ARIMA, Auto-correlation function, Akike information co-efficient, Swarz information co-efficient

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