Forecasting of Tomato Wholesale Price Using Auto Regressive Integrated Moving Average (ARIMA) Model in Chittoor, Andhra Pradesh

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ABSTRACT

Price forecasting is more sensitive and difficult in vegetable crops due to their seasonality. In addition, to improve domestic market potential for producers, who are the biggest suppliers in the market and in line with Government Agricultural sector. Prices forecasting is vegetables essential. This paper attempted to predict the Tomato wholesale prices of Chittoor district by using ARIMA models using a period of 67 months (January 2010-July 2015) secondary data. The best model has been selected based on the maximum R^2 and minimum Bayesian Information Criterion (BIC) values. It has been found that ARIMA (2, 0, 7) Model the best as the coefficient of determination is 0.79 and Maximum Absolute Percentage (MAPE) is 24.19%. It was observed that the Tomato prices an highest in the month of August and lowest in the month of November every year.

Key words : ARIMA, Prediction model, Time series, Tomato prices.