Forecasting of Arrivals and Prices of Major Pulses in Chhattisgarh Using ARIMA Models

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ABSTRACT

The study was undertaken to forecast the arrivals and prices of three major pulse crops in Chhattisgarh using the monthly time series data of total arrivals and average prices of three major pulse crops in the markets (mandis) of Chhattisgarh during April 2009 to December 2017(105 months). Since the data was seasonal, seasonal ARIMA models were fitted and the appropriate models were selected based on highest R², lowest RMSE, MAE, MAPE. The selected appropriate models were used for future forecasts of next two years. The results shows that the arrivals of all three pulse crops will follow the same pattern of seasonality for next two years while the prices do not show much variation but the month fetching highest prices are revealed.

Key words: seasonal ARIMA, R², RMSE, MAE, MAPE, Forecast