

STRUCTURAL TIME-SERIES MODELS FOR FORECASTING YIELD OF PROMISING VARIETIES OF GRAM (Chickpea) CROP IN CHHATTISGARH

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ABSTRACT

Gram is an important pulse crop grown in the country with the average yield 8.13 q/ha as compared the Chhattisgarh state average yield 7.13 q/ha. For trend analysis of crops yield widely used by Auto-regressive Integrated Moving Average (ARIMA) time series methodology. An alternative approach, discusses yield trends of promising variety, which is quite potential, is the "Structural time series modelling. The study mainly confined to secondary collected for a period 2009-10 to 2014-15 data of promising varieties of Gram yield. As these techniques, it may be mentioned that models are fitted to the data and coefficient parameter value obtained on the basis of the model are compared with the actual observation for assessing the accuracy of the fitted model. To validate the forecasting ability of the fitted models, for the three years with upper and lower limit. The maximum Gram yield obtained Vaibhav variety with forecast for the year 2017-18 obtained 27.95 q/ha with upper and lower limit 41.16 and 14.75 q/ha. The minimum yield obtained JG-6 (7.82 q/ha) with upper and lower limit 1.37 and 14.28 q/ha respectively.

KEYWORDS: Structural Time Series Model, AIC, BIC, Goodness of Fit

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