

Comparative Performance of Time Series Models on Groundnut in North Coastal Zone of Andhra Pradesh

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ABSTRACT

The present study was carried out to compare the performance of time series models of area, production and productivity of groundnut in North coastal zone of Andhra Pradesh. It has been undertaken to estimate the future trends and to fit the adequate model for the future projections by 2020 AD by using time series data from 1971 to 2011. Different linear, non linear and time series models were fitted to the area, production and productivity of groundnut and the best-fitted model was chosen based on least Mean Absolute Percent Error (MAPE) value and highest R^2 value for future projections. The result showed that there would be slight decrease in the future projection of groundnut area and production i.e. 49.71 thousand hectares and 64.89 thousand tonnes by 2020 AD. The linear model revealed that there would be substantial increase in productivity of the groundnut i.e. 3379 kg ha¹ by 2020 AD.

Key words :ARIMA, ARCH, GARCH, Exponential smoothing, Linear trend, MAPE, R^2 .