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## Analysis of Supply Response to Maize Production: A Food Safety Measure in Nigeria

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### Abstract

Maize is one of the most important crops in Nigeria and the policy objective of Nigeria government is to increase maize production so as to achieve food self-sufficiency in the country.

Moreover, the maize production provides significantly to employment, manufacturing, foreign exchange and food security. This study aimed to analyse maize supply response to price and non-price factors in Nigeria using econometric techniques. The non-price factors considered in this study are rainfall and Acreage. Regression model was applied on time series data spanning from 1995–2015 to estimate the supply response of maize production in Nigeria. In order to deal with the likely difficulties connected with time series data the study engaged many diagnostic tests. The results of the study indicated that, the relationship between the shortrun and longrun elasticity for output response, yield response, acreage response when considering the price at the longrun is negatively inelastic which shows that it is not price responsive. The results of this study confirmed that non-price factors appear to have numerous effect on maize supply in Nigeria. It also revealed that non-price factors such as, rainfall and acreage parameters have a positive influence on maize productivity in Nigeria. Therefore, the study suggests policies that centre more on non-price factors as a way of sustaining high maize production. The study also recommends that maize producers and policymakers should find ways to put together the significant relationships between non-price factors and production output into forthcoming decisions and marketing policies to preserve a strong, growing and sustainable maize production in Nigeria.

**Keywords:** Maize supply response, non-price factors, price factors, price responsive