

**ANALISIS SUPPLY RESPONSE JAGUNG
DI DAERAH SENTRA PRODUKSI UTAMA INDONESIA**

**SUPPLY RESPONSE ANALYSIS OF CORN
IN THE MAIN PRODUCTION CENTER INDONESIA**

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ABSTRACT

This study aims to: (1) analyze the trend in harvested area, production and productivity of corn, (2) determine the influence of the price on the response of harvested area and productivity of corn, (3) determine the influence of policy, climate, and irrigation on the response of harvested area and productivity of corn, (4) analyze the corn supply elasticity in the short run and long run.

This study focused on the areas of the mayor corn production centers in Indonesia, which covers: Lampung, Central Java, East Java, and South Sulawesi. The data used in this study are time series data, which are data periodically on subround over a period of 30 years. Data were analyzed with analysis of trends (multiple regression model), and the supply response analysis (Nerlove Partial Adjustment model, method of Least Squares and Generalized Least Squares). The supply response analysis simulated in the six models of planting period lagged.

The results showed that: (1) The development of corn in Indonesia in every decade has a different trend of harvested area, production and productivity. The development of corn in Lampung continuously has the best trend of harvested area, production dan productivity. In the past three decades, the development of corn in East Java has the greatest potential. In general, the trend of the corn harvested area is relatively stagnant, because of the land capacity is limited and fluctuating, while the broad peak harvest only occurs during the rainy season. In general, the trend of the corn productivity has increased, while the trend of corn production increased at the end of the decade; (2) The increase in the price of corn imports and prices feed can affect the increase in corn harvested area, while the increase in rice prices and price cassava can affect otherwise. The increase in the price of corn, the price of seed corn, and the price of TSP fertilizer could affect the improvement of productivity of corn, on the contrary, an increase in the falling corn price of previous maximum price, and prices of urea fertilizer can affect a decrease in productivity of corn. Farmers are less responsive to price changes if associated with corn harvested area, but if associated with corn productivity of the farmers (especially Central Java) is very responsive to price changes; (3) Total supply of corn the lagged period has always responded positively by corn farmers in Indonesia. El Niño climatic anomalies can effects a decrease in corn harvested area, especially in Central Java and East Java. In East Java, Central Java and Lampung, intensification policies (BLPB) and irrigated land area can be a positive influence on the level of productivity of corn; (4) Elasticity of corn supply in Indonesia is inelastic to the price of corn, but in the long run is more elastic, due to the adjustment of farmers habits. The behavior of corn farmers in Indonesia are more elastic in productivity rather than harvested area. Elasticity of corn supply in South Sulawesi is the most elastic, but have the supply response longest. By contrast, in Central Java, corn supply elasticity is less elastic, but have the supply response fastest.

Keywords: corn, trends, supply response, harvested area, production, productivity, prices, policy, climate, irrigation

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