

## Econometric Estimating for Response Supply of Maize Cultivated Area in Egypt

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**Abstract :** Maize is considered one of the most important cereal crops in Egypt. After adoption of economic reform policy, farmers became responsive to many variables in making their farm decision especially in long run. The main research problem is based on the assumption that farmers of maize are positively responsive to the economic incentives. In contrast to that the governmental interventions in price policy, i.e., the procurement prices and quotas system, adversely affected farmer's response. This study aimed to test the reliability of the stated assumptions, to determine the most variables affecting the acreage response, annual and full time period response for maize farmers. To achieve that objective, distributed lag models have been applied, by using Marc Nerlove's model for estimating maize acreage supply response in Egypt, through period (1993- 2013). The results of Marc Nerlove's partial adjustment model for maize supply response functions indicated that, there was a negative response to the farm costs of maize, and farm prices of peanut, where the full time period that make the farmer reach the complete response reached about 1.82, 1.89 years respectively. Also there was a positive response to the net revenue of sesame, where the full time period that make the farmer reach the complete response reached about 2.13 years. Also there was a positive response to the productivity of maize, where the full time period that make the farmer reach the complete response reached about 2.33 years. The study recommended effectiveness the role of technical change in increasing the cultivated area of maize, therefore, the role of agricultural extension should be emphasized to increase productivity and net return of maize as an incentive to expand maize area.

**Key words :** Marc Nerlove, cultivation of maize crop, agricultural crops.

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