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**PRODUCTION FUNCTION AND PROFITABILITY ANALYSIS OF MAIZE-COWPEA INTERCROPPING IN NASARAWA-EGGON LOCAL GOVERNMENT AREA OF NASARAWA STATE, NIGERIA**

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**ABSTRACT**

The study analyzed the Economics of maize-cowpea intercropping in Nasarawa- Eggon Local Government Area of Nasarawa State, Nigeria. Data were collected with the use of a structured questionnaire administered to 120 respondents on their socio-economic characteristics. Simple descriptive statistics, gross margin and regression analysis were the analytical tools used in achieving the outcomes. The result shows that 56.7% of the farmers were male, while 43.3% were female and falls within the age group of 21- 40 years with 39.2% and 38.3% having attended secondary and primary schools. Most of the respondents were not visited by extension agents. Labour made up to 56.5% of the total variable cost, while Agro-chemical had the lowest proportion of 5.2% of the cost. The gross margin was estimated at ₦132,751.23, while the return per naira invested was found to be ₦1.99 indicating that for every naira invested, the farmers make ₦2.0. Production function analysis expressed that the double log regression model had the best fit to the data, with 0.758, meaning that 76% of the variation in output was accounted for by the inputs included in the model. Labour had positive regression coefficients indicating a direct relationship with the output. High cost of inputs, inadequate capital, and pest and disease were identified as major constraints in the area. It is recommended that improved cowpea and maize, functional infrastructure, adequate extension contacts and accessible and affordable loanable funds be provided as incentives to boost cereal output.

**Keywords:** Analysis, Cowpea, Maize Intercropping, Production Function, Profitability