

# **AN ECONOMIC ANALYSIS OF TOMATO RESPONSE TO NITROGEN AND BIOLOGICAL FERTILIZERS**

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## **ABSTRACT**

This research aimed to determine the optimal amount of nitrogen fertilizer which realizes high profit by adding it with the biological fertilizers to the tomato crop specie (Jinan limited Growth) depending on the results of an experiment in the green houses of the horticulture college – diyala university. The simple linear regression to estimate four productions was used. Quantitative analysis data have shown that the quadratic production function is the best in the two cases: one with and the other is without adding the biological fertilizers. The two estimated production functions passed the economical, statistical, and econometric testes, where their regression coefficients agreed with the logical economic of the production relationships. In addition, the static significance, at 1% probability, was approved for theses coefficients according to F and T tests and determination factor  $R^2$  reached 99%. Results appeared that the optimal level of nitrogen which added with the biological fertilizers was less than it's like which added without biological fertilizers by 37% but it gave product and profit more than 42% and 43%, respectively, compared with their likenesses added without biological fertilizers.