

**THE EFFECT OF NPK FERTILIZER DOSAGE 16:16:16 ON  
THE PRODUCTION OF SUGARCANE CROPS  
VARIETY PS 862**

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***ABSTRACT***

*Sugarcane production from year to year has experienced instability, this is certainly not balanced with the increase in domestic sugar consumption. This production instability is caused by two factors, namely the area of sugarcane land which is decreasing and productivity is still relatively low. This study aims to determine the appropriate dose for the application of NPK 16:16:16 to the production of sugarcane (*Saccharum officinarum L.*) variety PS 862. The study was conducted from March to November 2020 in sugarcane fields (moor) Jember State Polytechnic with an altitude of 89 meters above sea level. This study used a non-factorial randomized block design (RAK) with the tested factors including P0 (NPK fertilizer 16:16:16 100 kg/ha), P1 (NPK fertilizer 16:16:16 200 kg/ha), P2 (NPK fertilizer 16:16:16 NPK 16:16:16 300 kg/ha), P3 (NPK 16:16:16 fertilizer 400 kg/ha). Further testing uses the BNT Test (Least Significant Difference) with a level of 5%. The results showed that the application of NPK 16:16:16 fertilizer at a dose of 100 kg/Ha, 200 kg/Ha, 300 kg/Ha, 400 kg/Ha on the parameters of stem diameter, stem weight, number of tillers, and brix did not show significant differences. However, the stem lengths were significantly different with the best dose of 300 kg/Ha.*

**Key words** : *NPK fertilizer 16:16:16, Sugar cane plant*