Aplikasi Pupuk Bokashi dan Pupuk Guano terhadap Produksi dan Mutu Benih Kedelai (Glycine max L). Application of Bokashi Fertilizer and Guano Fertilizer on Growth and Production of Soybean Seed (Glycine max L). Supervised by: Leli Kurniasari, SP., M.Si, dan Sri Ayu Dwi Lestari SP., M.Si.

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## **ABSTRACT**

The need for supply of soybeans is increasing so that it must be imported because local production is not enough to meet the needs, so it is necessary to increase its productivity to meet these needs. The purpose of this study was the effect of application of bokashi fertilizer and guano fertilizer on the growth and production of soybean seeds. This research was carried out from October 2021 to January 2022 at the Agricultural Technology Research and Assessment Installation (IP2TP) area of Muneng Probolinggo, Jl. Sukapura, Muneng Kidul, Sumberasih, Probolinggo, East Java 67251. The experimental design used was a factorial randomized block design with 2 factors and 3 replications. The first factor was the dose of bokashi fertilizer which consisted of 4 levels, namely B0 (control), B1 (10 ton/ha), B2 (15 ton/ha), and B3 (20 ton/ha). The second factor is the dose of guano fertilizer which consists of 4 levels, namely G0 (control), G1 (0,2 ton/ha), G2 (0,3 ton/ha), and G3 (0,4 ton/ha). Data were analyzed using ANOVA test and continued with Duncan Multiple Range Test (DMRT) test with a level of 5%. The results showed that the dose of bokashi fertilizer had a significant effect (\*) on the chlorophyll index 20 DAP (21,6 ccl) and the number of seeds planted (98 seeds). The dose of guano fertilizer had a significant effect (\*) on plant height 30 days after planting (57,3 cm), number of crop pods (46 pods) and planting seed weight (23,2 gr). The interaction between the two treatments had no significant effect (ns) on all observation parameters

**Keywords**: soybean, bokashi fertilizer, guano fertilizer