

The Effect of the BASISCROP Technology Package on the Growth and Production of Sugarcane (*Saccharum Officinarum* L.) at UD Jaya Makmur

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ABSTRACT

This research aims to examine the effect of the BASISCROP technology package (Nutrisi BC filter cake fertilizer, and amino acids) on the growth and production of sugarcane. The research was conducted from 16 June 2024 to 9 September 2025 on the land of UD Jaya Makmur, Tegal Besar Village, Kaliwates District, Jember Regency. The method used was an observation of three dosage treatments (P1, P2, P3) with key parameters including growth, quality (°Brix), and production. The data obtained were analyzed using ANOVA and, if there was a significant effect, followed by the LSD (Least Significant Difference) test at a 5% level. The analysis results showed that the treatments had a significant effect. The P2 treatment proved to be superior in growth aspects (stem height, number of segments, root volume) and produced the highest productivity, reaching 169.01 tons/ha. On the other hand, the P3 treatment (organic dominance) significantly produced the highest °Brix value (16.72°), indicating the best potential for yield quality. It can be concluded that P2 is the most effective treatment for increasing production, while P3 is the best for improving sugarcane quality.

Keywords: Sugarcane, BASISCROP, Growth, Production