

***THE EFFECT OF MICROBIAL SYNERGY AND BLOTONG FERTILIZER
ON THE VEGETATIVE GROWTH OF SUGARCANE PLANTS
IN KEJAYAN PLANTATION PG PRADJEKAN PTPN XI***

Anni Nuraisyah, S.TP., M.Si.

Sitti Nafisah

Study Program of Plantation Crop Cultivation
Department of Agricultural Production, Jember State Polytechnic

ABSTRACT

Sugar cane (Saccharum officinarum L.) is a plant with high economic value, because it is the main raw material in making sugar. The purpose of this study was to determine the effect of microbial synergy (blotong fertilizer, sugarcane root bacteria and soil exploration bacteria) on the vegetative growth of sugarcane plants in Kejayan PG Pradjekan Garden. The method used in this study is the Independent Sample T-test consisting of 2 different treatments, namely treatment T0 (ZA fertilizer = 8 kw/ha, SP36 = 2 kw/ha and KCL = 1 kw/ha) and treatment T1 (microbial synergy: blotong fertilizer = 30 tons/ha, sugarcane root bacteria = 40 l/ha and soil exploration bacteria = 40 l/ha + inorganic fertilizer at a dose of 50%). The T0 and T1 treatments each consisted of 50 sugarcane plant samples. The results of this study showed that the provision of microbial synergy had a very significant effect on the number of tillers, stem height and stem diameter of sugarcane. However, the effect was not significant on the number of leaves. The highest number of leaves in treatment T0 (11.34 strands), the highest number of tillers in treatment T0 (4 tillers), the best stem height in treatment T0 (175.36 cm) and the best stem diameter in treatment T1 (3.10 cm). While the best chlorophyll content was in the T1 treatment (2.125 mg/gr FW).

Key words: *Sugarcane, blotong fertilizer, sugarcane root bacteria, soil exploration bacteria*