

**THE EFFECT OF GOAT CAGE FERTILIZER DOSAGE AND
CONCENTRATION OF PGPR (Plant Growth Promoting
Rhizobacteria) Sugar Cane Roots ON VEGETATIVE GROWTH OF
SUGARCANE (*Saccharum officinarum* L.) BULULAWANG
VARIETY**

Dibimbing oleh Ir. Triono Bambang Irawan, MP

Rofli Wahyu Setiawan

Program Studi Budidaya Tanaman Perkebunan Jurusan
Produksi Pertanian

ABSTRACT

Sugarcane (*Saccharum officinarum* L.) is one of the plantation crop commodities that has an important role in producing sugar as its main ingredient. PGPR (Plant Growth Promoting Rhizobacteria) is a group of bacteria that colonize the rhizosphere area. This group of bacteria benefits plant growth because PGPR directly increases growth. Manure is a fertilizer that comes from animal manure, both solid and liquid and food residues, such as cow, horse, buffalo, goat manure and others. All of that when it rots will become a good fertilizer and very useful for plants (Subekti, 2005). This research was conducted from December 2021 to April 2022 at the Jember State Polytechnic. This study used a factorial randomized block design (RAK) with two factors namely P and K, the first factor was the concentration of PGPR (P), and the second factor was manure is a fertilizer (K). Testing the data obtained from observations using the 5% f test and if there is a significant difference in each treatment, it will be continued using the 5% level BNT test. The results obtained Based on the results of research and discussion, it can be concluded that the effect of the dose of goat manure gives results that are significantly different to very significant. At the concentration of PGPR sugarcane root of the Bululawang variety, the results showed that the effect was not significantly different, even the interaction of the two factors also got results that were not significantly different.

Keywords: *Sugarcane, PGPR Concentration, Dosage of Goat Manure*