

**Pengaruh Aplikasi PGPR (*Plant Growth Promoting Rhizobacteria*) dan  
Macam Varietas Pada Pertumbuhan Bibit Tebu Mata Tunas Tunggal  
(*Bud Chip*)**

Oleh : M. Khotibul Umam

Dibimbing oleh: Dr. Ir. Oktavia S. Padmini, M.Si dan Dr. Ir. Sri Wuryani, M.Agr

**ABSTRAK**

Penelitian ini bertujuan untuk mengidentifikasi interaksi konsentrasi PGPR dan macam varietas pada pertumbuhan bibit tebu *Bud Chip*, menentukan konsentrasi PGPR dan varietas terbaik. Penelitian ini disusun menggunakan rancangan petak terbagi petak dengan utama terdiri dari 4 aras perlakuan aplikasi PGPR (0, 5, 10, 15 ml/liter air) dan anak petak varietas tebu terdiri dari tiga varietas (PSBM 901, VMC 76-16, Kidang Kencana). Parameter yang diamati meliputi tinggi tanaman, diameter batang, jumlah helai daun, jumlah anakan, bobot basah tanaman, bobot kering tanaman, bobot basah, bobot kering akar serta volume akar.

Hasil penelitian menunjukkan bahwa terdapat interaksi perlakuan antara konsentrasi PGPR dan macam varietas pada diameter batang umur 28 HST, jumlah helai daun umur 14 dan 70 HST, jumlah anakan 56 dan 70 HST, bobot kering tanaman serta pada volume akar. Konsentrasi PGPR terbaik ditunjukkan pada 5 ml/liter air dan varietas tebu terbaik adalah VMC 76-16.

Kata kunci : Varietas Tebu, PGPR, *Bud Chip*

**The Effect of PGPR (Plant Growth Promoting Rhizobacteria) Application  
and Type Of Variety On Growth Of Single Seed Bud Of Sugarcane  
(Bud Chip)**

By: M. Khotibul Umam

Supervised by: Dr. Ir. Oktavia S. Padmini, M.Si and Dr. Ir. Sri Wuryani, M.Agr

ABSTRACT

The purpose of this research were to identify the interaction between PGPR concentration and sugar cane varieties on the growth of Bud Chip, to determine the best PGPR concentration and the best varieties. This research were compiled using split plot design was using in this experiment, the main plot was PGPR experiment 4 levels (0, 5, 10 15 ml/l of water) and the sub plot was the varieties of , that experiment 3 kinds (PSBM 901, VMC 76-16, Kidang Kencana), The parameters observed were plant height, stem diameter, number of leaves, number of tillers, plant fresh weight, plant dry weight, root fresh weight, root dry weight and root volume.

Data was analyzed by ANOVA at  $\alpha$  5% if no treatment effect using a different test followed Duncan's Multiple Range Test  $\alpha$  level of 5%. The results of this research was interaction between PGPR concentration and sugar cane varieties at stem diameter 28 days after planting, the number of leaves was 14 and 70 days after planting, the number of tillers 56 and 70 days after planting, plant dry weight and the root volume. The best PGPR concentration was 5 ml/l of water and sugar cane variety was VMC76-16.

Keywords: Sugarcane Variety, PGPR, Bud Chip