

PERSETUJUAN PEMBIMBING

**PENGARUH PEMBERIAN PLANT GROWTH PROMOTING
RHIZOBACTERI TERHADAP PERTUMBUHAN DAN PRODUKSI
BIOMAS RUMPUT GAJAH (*Pennisetum purpureum*)**

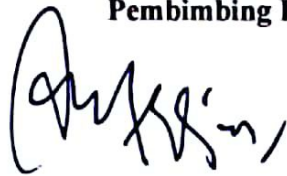
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PENGARUH PEMBERIAN PLANT GROWTH PROMOTING
RHIZOBACTERI TERHADAP PERTUMBUHAN DAN PRODUKSI
BIOMAS RUMPUT GAJAH (*Pennisetum Purpureum*)

SKRIPSI

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Telah memenuhi syarat dan dipertahankan di depan dewan penguji

Hari/Tanggal : Jumat, 06 April 2018

Waktu : 10.30 – 12.00 WITA

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ABSTRAK

YIZREL SAPAN, 2018. Pengaruh Pemberian Plant Growth Promoting Rhizobacteri Terhadap Pertumbuhan dan Produksi Biomas Rumput Gajah (*Pennisetum Purpureum*). Muhammad Mukhtar dan Musrifah Nusi.

Penelitian ini bertujuan untuk mengetahui pengaruh pemberian Plant Growth Promoting Rhizobacteri (PGPR) terhadap pertumbuhan tinggi tanaman, produksi anakan, produksi bahan segar, dan persentase daun rumput gajah (*Pennisetum Purpureum*). Penelitian ini menggunakan rancangan acak lengkap (RAL) terdiri dari 5 perlakuan dan 4 ulangan dengan menggunakan media *polybag*. Perlakuan penelitian ini adalah P0 (0 ml PGPR/liter air), P1 (5 ml PGPR/liter air), P2 (10 ml PGPR/liter air), P3 (15 ml PGPR/liter air), dan P4 (20 ml PGPR/liter air). Penelitian ini dilakukan selama 60 hari dengan pengaplikasian PGPR sebanyak 2 kali selama penelitian. Parameter yang diamati adalah pertumbuhan tinggi tanaman, produksi anakan, produksi bahan segar, dan persentase daun rumput gajah. Hasil penelitian ini menunjukkan PGPR tidak berpengaruh nyata ($P>0,5$) terhadap pertumbuhan tinggi tanaman, produksi anakan, produksi segar dan persentase daun, namun setiap perlakuan memiliki nilai yang lebih besar daripada kontrol. Perlakuan P4 memiliki nilai yang lebih tinggi pada pertumbuhan tinggi tanaman (79,79 cm), produksi bahan segar (253,25 gram/m²), dan persentase daun (48,35 %). Sedangkan produksi anakan tertinggi terdapat pada P3 (7,60).

Kata Kunci : PGPR, pertumbuhan, produksi biomas, rumput gajah

ABSTRACT

YIZREL SAPAN. 2018. The Effect of Plant Growth Promoting Rhizobacteri on Growth and Production of Elephant Grass (*Pennisetum purpureum*) Biomass. The principal supervisor is Muhammad Mukhtar and co-supervisor is Musrifah Nusi.

The objective of this study was to determine the effect of Plant Growth Promoting Rhizobacteri (PGPR) on growth of plant height, tiller number, fresh weight production and leaf blade percentage of elephant grass (*Pennisetum purpureum*). This study used completely randomized design consisting of 5 treatments and 4 repetitions using polybag media. The treatments were P0 (0 ml PGPR/ liter of water), P1 (5 ml PGPR / liter of water), P2 (10 ml PGPR / liter of water), P3 (15 ml PGPR / liter of water) and P4 (20 ml PGPR/ liter of water). This research was conducted for 60 days with the application of PGPR twice during the study. The parameters measurement were plant height growth, tiller number, fresh weight production and leaf blade percentage of elephant grass. The study result showed that PGPR was not significantly affected ($P > 0.05$) between treatments that were growth of plant height, tiller number, fresh weight production and leaf blade percentage. However, the value of all the variables is still better than the control, which means the effect of PGPR still needs to be noticed at a higher level. The highest value of growth of plant height, tiller number, fresh weight production and leaf blade percentage were 79.79 cm, 253,25 gram/m², 48.35% and 7.60/number of plant respectively.

Keywords: PGPR, growth, biomass production, elephant grass

