

**RESPON PERTUMBUHAN DAN HASIL TIGA VARIETAS BAWANG
MERAH (*Allium ascalonicum* L.) PADA KONSENTRASI *PLANT GROWTH
PROMOTING RHIZOBACTERIA***

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ABSTRAK

Bawang merah merupakan sayuran penting di Indonesia yang dimanfaatkan umbi lapisnya. Upaya untuk memenuhi kebutuhan bawang merah yang terus meningkat dengan pemberian pupuk hayati dan pemilihan varietas yang sesuai dengan wilayah lahan. Tujuan penelitian ini untuk mengetahui interaksi antara tiga varietas bawang merah dengan konsentrasi *Plant Growth Promoting Rhizobacteria* untuk mendapatkan pertumbuhan dan hasil tanaman terbaik. Penelitian dilaksanakan pada bulan Maret sampai dengan bulan Mei 2020 di Lahan. Metode penelitian menggunakan Rancangan Acak Kelompok Lengkap (RAKL) yang terdiri dari 2 faktor. Faktor pertama adalah varietas bawang merah terdiri atas 3 taraf yaitu Varietas Tiron, Varietas Philip, dan Varietas Tajuk. Faktor kedua adalah konsentrasi *Plant Growth Promoting Rhizobacteria* terdiri atas 4 taraf yaitu 0%, 1%, 2%, 3%. Analisis hasil menggunakan Annova pada taraf 5% dan diuji lanjut DMRT pada taraf 5%. Hasil penelitian menunjukkan bahwa terdapat interaksi antara varietas bawang merah dan konsentrasi bawang merah pada parameter tinggi tanaman umur 14 hari, 28 hari dan jumlah daun per rumpun umur 14 hari. Varietas Tajuk memberikan hasil yang baik pada parameter tinggi tanaman per rumpun umur 42 hari, jumlah daun per rumpun umur 28 hari, jumlah daun per rumpun umur 42 hari, jumlah umbi per rumpun, bobot segar umbi per rumpun, bobot umbi kering per rumpun. Penggunaan konsentrasi PGPR 2% memberikan hasil yang baik pada parameter diameter umbi.

Kata kunci : Bawang merah, varietas, *Plant Growth Promoting Rhizobacteria* (PGPR), pertumbuhan, hasil

**GROWTH RESPONSE AND YIELD OF THREE VARIETIES OF
SHALLOTS (*Allium ascalonicum* L.) ON PLANT GROWTH PROMOTING
RHIZOBACTERIA CONCENTRATION**

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ABSTRACT

Shallots is an important vegetable in Indonesia, mainly utilized for its bulb layers. Decreased shallots production is often caused by root diseases due to unfavorable environmental conditions. Efforts to meet the increasing demand for shallots are by applying biological fertilizers and selecting varieties according to the area of land. The aim of this research was to determine the interaction between the concentration of three varieties of shallots and Plant Growth Promoting Rhizobacteria in order to obtain the best plant growth and yield. The research was conducted from March to May 2020 at Bantul, Yogyakarta. The research method used a Completely Randomized Block Design consisting of two factors. The first factor was the varieties of shallots, consisting of three levels: Tiron Variety, Philip Variety, and Tajuk Variety. The second factor was the concentration of Plant Growth Promoting Rhizobacteria (PGPR), consisting of four levels 0%, 1%, 2% , and 3%. Analysis of the results using Annova at 5% level and further tested DMRT at 5% level. The results showed that there was an interaction between the varieties of shallots and the concentration of PGPR on the plant height parameter at 14 and 28 days old, as well as the number of leaves per clump at 14 days old. Tajuk Variety yielded favorable results in terms of plant height per clump at 42 days old, the number of leaves per clump at 28 and 42 days old, the number of bulbs per clump, the fresh weight of bulbs per clump, and the dry weight of bulbs per clump. The use of 2% PGPR concentration produced favorable results in terms of bulb diameter.

Keywords: Shallots, varieties, Plant Growth Promoting Rhizobacteria, growth, yield