

**APLIKASI INOKULAN RHIZOBIUM DAN KAPUR DOLOMIT
PADA PERTUMBUHAN DAN HASIL KACANG TANAH
(*Arachis hypogaea* L.) DI LAHAN SAWAH**

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ABSTRAK

Budidaya kacang tanah (*Arachis hypogaea* L.) di lahan sawah memiliki permasalahan penurunan produktivitas pada usaha peningkatan hasil. Tujuan penelitian untuk menentukan dosis yang tepat pada pemberian inokulan rhizobium dan kapur dolomit. Penelitian dilaksanakan pada April sampai Juli 2021 di lahan sawah Desa Selomartani, Kalasan, Sleman. Metode penelitian menggunakan rancangan percobaan faktorial dua faktor (3×4) diulang sebanyak tiga kali, menggunakan percobaan lingkungan dengan rancangan acak kelompok lengkap (RAKL). Faktor I adalah dosis inokulan rhizobium tiga level, yaitu R0=0 g/kg benih; R1=10 g/kg benih; dan R2=20 g/kg benih. Faktor II adalah dosis kapur dolomit empat level, yaitu D0=0 t/ha; D1=2 t/ha; D2=4 t/ha; dan D3=6 t/ha. Hasil pengamatan dianalisis menggunakan analisis varian (ANOVA) dan apabila perlakuan ada pengaruh nyata, dilanjutkan dengan menggunakan analisis uji beda DMRT (*Duncan Multiple Range Test*) dengan taraf signifikansi α 5%. Hasil penelitian menunjukkan terdapat interaksi pada tinggi tanaman 28 HST, jumlah daun 28 HST, hari berbunga, dan bobot 100 biji. Pemberian rhizobium 10 g/benih dengan dolomit 2 t/ha (R1D1) dan rhizobium 10 g/benih dengan dolomit 4 t/ha (R1D2), menunjukkan hasil tertinggi dan berpengaruh nyata pada jumlah daun 28 HST, hari berbunga, bobot kering brangkas, bobot kering polong, bobot kering polong konversi, dan bobot 100 polong.

Kata kunci: kacang tanah, inokulan rhizobium, dolomit

**APPLICATION OF RHIZOBIUM INOCULANT AND DOLOMITE LIME
ON THE GROWTH AND YIELD OF PEANUT
(*Arachis hypogaea* L.) IN RICE LAND**

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ABSTRACT

Peanut cultivation (*Arachis hypogaea* L.) in rice land has a problem of decreasing productivity in effort to increase yields. The aim of this study is to determine the exact dose on a treatment combination of rhizobium inoculant and dolomite lime. The study was conducted from April to July 2021 in the rice land on Selomartani Village, Kalasan, Sleman. The research method using factorial experimental design with two factor (3×4) repeated three times using environmental experiments with a randomized complete block design (RCBD). Factor I is a three-level dose of rhizobium inoculant, namely R0=0 g/kg seed; R1 =10 g/kg of seeds; and R2=20 g/kg of seeds. Factor II is a four-level dose of dolomite lime, namely D0=0 t/ha; D1=2 t/ha; D2=4 t/ha; and D3=6 t/ha. The result of observations analyzed with variant analysis (ANOVA) and if the treatment has a real influence, continued by using DMRT different test analysis (Duncan Multiple Range Test) with a significance level of α 5%. The results showed there was an interactions on plant height of 28 day after planting, leaf count of 28 day after planting, flowering day, and weight of 100 seeds. The application of 10 g/seed rhizobium treatment with 2 t/ha dolomite (R1D1) and rhizobium 10 g/seed with 4 t/ha dolomite (R1D2), showed the highest yield and had a noticeable effect on the leaf count of 28 day after planting, flowering day, the dry weight of the plants, the dry weight of the pods, the dry weight of the conversion pods, and the weight of 100 pods.

Keyword: peanut, rhizobium inoculant, dolomite