

## Intisari

### PENGARUH TAKARAN PUPUK KANDANG SAPI DAN MAGNESIUM SULFAT TERHADAP PERTUMBUHAN DAN HASIL WIJEN (*Sesamun indicum L.*) DI LAHAN PASIR PANTAI

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Penelitian bertujuan untuk 1) mengetahui pengaruh takaran pupuk kandang sapi dan magnesium sulfat heptahidrat ( $MgSO_4 \cdot 7H_2O$ ) terhadap pertumbuhan dan hasil wijen dan 2) mendapatkan takaran optimal kombinasi pupuk kandang sapi dan magnesium sulfat heptahidrat pada penanaman wijen di lahan pasir pantai. Percobaan dilakukan dengan memberikan dua perlakuan yaitu, takaran pupuk kandang sapi (0; 10; 20; dan 30 ton/ha), dan takaran magnesium sulfat heptahidrat (0; 70; dan 140 kg/ha) yang disusun dalam rancangan acak kelompok lengkap (RAKL) faktorial dengan tiga blok sebagai ulangan. Pengamatan dilakukan terhadap beberapa variabel pertumbuhan dan daya hasil wijen. Data yang telah diperoleh selanjutnya dianalisis varian (ANOVA) pada taraf 5 %, dan dilanjutkan dengan uji beda nyata terkecil (LSD) dan uji kecenderungan. Hasil penelitian memberikan informasi bahwa takaran pupuk kandang sapi berinteraksi dengan magnesium sulfat heptahidrat dan memberikan pengaruh positif terhadap variabel bobot segar tajuk, bobot segar akar, bobot segar polong, bobot kering polong, jumlah polong, bobot segar total, bobot kering total, serta daya hasil wijen di lahan pasir pantai. Kombinasi takaran optimum untuk penanaman wijen di lahan pasir pantai adalah pemberian 54 ton pupuk kandang sapi dan 70 kg magnesium sulfat heptahidrat pada setiap hektar lahan dengan hasil 755 kg/ha.

Kata kunci: wijen, pupuk kandang sapi, magnesium sulfat heptahidrat, lahan pasir pantai

*Abstract*

THE EFFECT OF COW MANURE AND MAGNESIUM SULPHATE DOSAGE  
TO THE GROWTH AND YIELD OF SESAME (*Sesamum indicum L.*)  
IN THE COSTAL AREA

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The objectives of the research were 1) to find the effect of cow manure and magnesium sulphate heptahydrate ( $MgSO_4 \cdot 7H_2O$ ) dosage to the growth and yield of sesame in the costal area, 2) to determine the optimal dose of cow manure and magnesium sulphate heptahydrate on sesame planting in the costal area. The first factors were the dosage of cow manure in 4 levels: 0; 10; 20; and 30 tons in every hectare. The second factors were the magnesium sulphate heptahydrate dosage in 3 levels: 0; 70; and 140 tons in every hectare. The experiment was arranged in Randomized Complete Block Design (RCBD) factorial, with three blocks as replications. The observed variables in the study were the growth and yield variable. Data were analyzed using Analysis of Variance (ANOVA) at 5 % levels, and continued with Least Significant Difference (LSD) test and trend comparison test. The results informed that the dosage of cow manure interacted with magnesium sulphate heptahydrate dosage and giving positif effect to stalk wet weight, root wet weight, capsule wet weight, capsule dried weight, number of capsule, total wet weight, total dried weight, and yield variable of the sesame in costal area. The optimal dose for sesame planting in the costal area was 54 tons of cow manure and 70 kilograms of magnesium sulphate heptahydrate which provided 755 kg sesame yield per hectare.

Key words: *sesame, cow manure, magnesium sulphate heptahydrate, costal area*