

**RESPON TANAMAN SAWI (*Brassica juncea L.*) TERHADAP
PERTUMBUHAN DAN HASIL DALAM PERLAKUAN
PUPUK KANDANG AYAM DAN PUPUK
NPK 16:16:16**

ABSTRAK

Penelitian ini bertujuan untuk mengetahui respons tanaman sawi (*Brassica juncea L.*) terhadap pertumbuhan dan hasil dalam perlakuan pupuk kandang ayam, respons tanaman sawi (*Brassica juncea L.*) terhadap pertumbuhan dan hasil dalam pemberian pupuk NPK 16:16:16, serta interaksi antara pupuk kandang ayam dan pupuk NPK 16:16:16 terhadap pertumbuhan dan hasil tanaman sawi (*Brassica juncea L.*). Penelitian dilaksanakan di UPTD. BIH Gedung Johor Medan pada bulan November 2023 sampai Januari 2024. Rancangan penelitian yang digunakan adalah rancangan acak kelompok (RAK), dengan dua faktor, yaitu faktor pertama dosis pupuk kandang ayam (A) dengan empat taraf, yaitu: A0 = 0 kg/plot (tanpa kontrol), A1 = 1,5 kg/plot, A2 = 2 kg/plot, dan A3 = 2,5 kg/plot. Faktor kedua adalah dosis pupuk NPK 16:16:16 (N) dengan empat taraf, yaitu: N0 = 0 g/plot (tanpa kontrol), N1 = 50 g/plot, N2 = 100 g/plot, dan N3 = 150 g/plot. Hasil penelitian ini menunjukkan bahwa dosis pupuk kandang ayam berpengaruh nyata pada jumlah daun umur 28 HST, di mana A1 (1,5 kg/plot) merupakan perlakuan yang optimal. Sementara itu, dosis pupuk NPK 16:16:16 berpengaruh sangat nyata pada tinggi tanaman umur 21 – 28 HST, berpengaruh nyata pada jumlah daun umur 14 HST, dan berpengaruh sangat nyata pada umur 21 – 28 HST. Selain itu, berpengaruh sangat nyata pada lebar daun, panjang daun, bobot kotor/sampel dan bobot bersih/sampel, serta bobot kotor/plot dan bobot bersih/plot umur 28 HST. Terdapat interaksi antara kedua perlakuan yang berpengaruh sangat nyata pada tinggi tanaman umur 7 HST, berpengaruh nyata pada jumlah daun umur 21 HST, dan berpengaruh sangat nyata umur 28 HST. Namun, interaksi ini berpengaruh tidak nyata pada lebar daun dan panjang daun, serta tidak berpengaruh nyata pada bobot kotor/sampel dan bobot bersih/sampel. Interaksi ini berpengaruh nyata pada bobot kotor/plot, namun tidak berpengaruh nyata pada bobot bersih/plot.

Kata kunci: Pupuk Kandang Ayam, NPK 16:16:16, Sawi

**MUSTARD PLANT RESPONSE (*Brassica juncea* L.) ON GROWTH
AND IN THE TREATMENT OF CHICKEN MANURE
AND NPK FERTILIZER 16:16:16**

ABSTRACT

The objective of this research was to determine the response of mustard greens (*Brassica juncea* L.) to growth and yield under the treatment of chicken manure, the response of mustard greens (*Brassica juncea* L.) to growth and yield under the application of NPK 16:16:16 fertilizer, and the interaction between chicken manure and NPK 16:16:16 fertilizer on the growth and yield of mustard greens (*Brassica juncea* L.). The research had been conducted at UPTD. BIH Gedung Johor Medan from November 2023 to January 2024. The research design used had been a randomized block design with two factors. The first factor had been the dose of chicken manure (A) with four levels: $A_0 = 0$ kg/plot (control), $A_1 = 1.5$ kg/plot, $A_2 = 2$ kg/plot, and $A_3 = 2.5$ kg/plot. The second factor had been the dose of NPK 16:16:16 fertilizer (N) with four levels: $N_0 = 0$ g/plot (control), $N_1 = 50$ g/plot, $N_2 = 100$ g/plot, and $N_3 = 150$ g/plot. The results of this study had shown that the dose of chicken manure had significantly affected the number of leaves at 28 HST, with A_1 (1.5 kg/plot) being the optimal treatment. Meanwhile, the dose of NPK 16:16:16 fertilizer had a highly significant effect on plant height from 21 to 28 HST, significantly affected the number of leaves at 14 HST, and had a highly significant effect from 21 to 28 HST. Additionally, it had a highly significant effect on leaf width, leaf length, fresh weight/sample and dry weight/sample, as well as fresh weight/plot and dry weight/plot at 28 HST. There had been an interaction between the two treatments that had a highly significant effect on plant height at 7 HST, significantly affected the number of leaves at 21 HST, and had a highly significant effect at 28 HST. However, this interaction had no significant effect on leaf width and leaf length, and had no significant effect on fresh weight/sample and dry weight/sample. The interaction had significantly affected fresh weight/plot but had no significant effect on dry weight/plot.

Keywords: Chicken Manure, NPK 16:16:16, Mustard