

ABSTRACT

GROWTH AND YIELD OF CORN HYBRID VARIETIES BISI 18 AND NK 22 AT VARIOUS RATES OF FERMENTED CHICKEN MANURE

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Corn (*Zea mays* L.) is currently an important food crop but its productivity is still relatively low. Currently, there are many hybrid corn varieties with high productivity being cultivated by farmers, such as hybrid corn varieties BISI 18 and NK 22, but their productivity at the farmer level has not been maximized according to the potential yield. By adding fermented chicken manure, it is hoped that high yields can be increased. This research aims to determine the effect of the interaction between the hybrid corn varieties Bisi 18 and NK 22 with a dose of fermented chicken manure on corn growth and yield. The experimental design used was a factorial randomized block design (RAK) with 2 factors and 2 replications. Factor I is two hybrid corn varieties (V), namely v1 = hybrid corn variety NK 22, v2 = hybrid corn variety Bisi 18. Factor II is four levels of fermented chicken manure (P), namely p0 = control (without chicken manure), p1 = chicken manure rate 10 t/ha, p2 = chicken manure rate 15 t/ha, p3 = chicken manure rate 20 t/ha. The results of the research showed that there was an interaction between the hybrid corn varieties Bisi 18 and NK 22 with the amount of fermented chicken manure on corn plant height, Leaf Area Index (LAI), length of corn cobs, number of seeds per ear, weight of dry shelled seeds per ear, weight of 100 dry shelled seeds, and corn yield per hectare (t/ha). The results of the research showed that there was no interaction between corn varieties and the amount of fermented chicken manure on the growth and yield of hybrid corn varieties. Independently, the dose of fermented chicken manure influences the components of growth and yield. Applying fermented chicken manure at a dose of 20 t/ha to the Bisi 18 hybrid corn variety produced 12.54 t/ha of dry shelled seeds and 11.43 t/ha to the NK 22 hybrid corn variety, the yield was in line with and slightly higher. with the potential yield of each hybrid corn variety being 12 t/ha and 10.48 t/ha respectively as shown in Attachments 1 and 2.

Keywords: Corn varieties, fermented chicken manure, *Zea mays* L