Uji Potensi Hasil Delapan Calon Benih Hibrida Baru Jagung Silang Tunggal. Yield Potential Test of Eight New Hybrid Seed Candidates of Single Cross Maize. Pembimbing: Ir. M. Bintoro, M.P.

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## **ABSTRACT**

Maize is one of the main secondary crops in Indonesia, playing an important role as human food, source of animal feed, and raw material for various industries. The increasing demand for maize for these three sectors poses a challenge in maintaining its availability in a sustainable manner. Therefore, efforts are needed to increase national maize production, considering that the productivity of this crop is still constrained by environmental and genetic factors. As part of the effort to obtain high-yielding varieties, research was conducted through yield potential testing. This study aimed to evaluate the yield potential of eight single-cross hybrid maize seed candidates. This study used a non-factorial Randomized Group Design (RGD) with 1 treatment factor consisting of 10 treatment levels, namely 8 new single-cross hybrid seed candidates including A1029, AN076, AJ146, AL114, Al048, AL121, Al278, AJ141, and 2 comparison varieties namely ADV-Jago and NK-6172-Perkasa. All treatments were repeated three times. Data were analyzed using ANOVA (Analysis of Variance), then treatments that showed significantly or very significantly different effects, further tests were carried out using DMRT (Duncan's Multiple Range Test) at the 5% or 1% level. The results showed a significantly different effect on plant height, cob diameter, cob length, and the weight of snacks per plant, and showed a significantly different effect on the number of seeds per row, the weight of snacks per plot, the weight of 1000 grains, and the potential yield per hectare.

Key Words: Yield Potential, New Hybrids, Maize, Single Cross