

Pengaruh Dosis Pupuk Urea dan Pupuk Kalsium Nitrat Terhadap Produksi dan Mutu Benih Jagung Komposit (*Zea mays L.*). *Effect of Urea Fertilizer and Calcium Nitrate Fertilizer Doses on Production and Quality of Composite Corn Seeds (*Zea mays L.*) Supervised by Ir. Hari Prasetyo, MP.*

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ABSTRACT

Composite corn production is still unstable, the increase in production even increased in 2018 - 2020, then decreased in 2021 and increased again in 2022, statistical data shows that the increase and decrease in composite corn production is not yet stable every year. Increase in corn production is caused by the provision and improvement of fertilizers such as Urea (N) and Calcium Nitrate (Ca(NO₃)₂) which are needed by plants in very high doses. Both fertilizers are used to prepare chlorophyll, protein protoplasm and nucleic acids. According to the description above, testing must be carried out on how to increase seed production in composite corn plants. It is hoped that Urea fertilizer treatment and the addition of Calcium Nitrate fertilizer can increase the production and quality of composite corn seeds. Research conducted from November 2023 to March 2024 on the grounds of the Jember State Polytechnic. Planning used before conducting the research was a factorial randomized block design (RAK) which was carried out three times. First factor uses a dose of urea fertilizer consisting of 300 kg/ha (U1), 600 kg/ha (U2), and 900 kg/ha (U3). Second factor uses a dose of Calcium Nitrate fertilizer which is described as 2.5 g/plant (K1), 5 g/plant (K2), and 7.5 g/plant (K3). Research data is analyzed using Anova, if the results show real or very real differences, then further tests are carried out using DMRT at a level of 5% or 1%. Research results show that calcium nitrate fertilizer has a significantly different effect () on the number of cobs planted (1,6 pieces) and calcium nitrate fertilizer has a very significantly different effect (**) on all cob seeds (468,78 pieces), number of seeds planting (715,56 pieces), dry seed weight planting (198,78 g), and seed production per hectare (8,36 tons/ha).*

Key Word : Corn, Urea Fertilizer, Calcium Nitrate Fertilizer