

PENGARUH KONSENTRASI DAN INTERVAL WAKTU APLIKASI GA₃ TERHADAP PRODUKSI DAN MUTU BENIH JAGUNG HIBRIDA (*Zea mays* L.) *the effect of ga₃ application concentration and time interval on hybrid corn seed production and quality* **Ir. Suwardi, MP**

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ABSTRACT

*Corn (*Zea mays* L.) is a strategic commodity that plays an important role as a source of food, animal feed, and industrial raw materials. The availability of quality hybrid corn seeds is a major factor in increasing national corn productivity. One effort to increase the production and quality of hybrid corn seeds is through the application of the growth regulator gibberellin (GA₃) with the right concentration and time interval. This study aims to determine the effect of the concentration and time interval of GA₃ application and their interaction on the production and quality of hybrid corn seeds. The study was conducted from June to October 2025 in Pontang Jaya Village, Ambulu District, Jember Regency, East Java. The study used a factorial Randomized Block Design (RBD) with two factors, namely GA₃ concentration (15 mg/L, 25 mg/L, and 35 mg/L) and application time interval (20 days after planting; 20 and 40 days after planting; and 20, 40, and 60 days after planting) with three replications. Observed parameters included harvest age, cob length and diameter, seed weight per plant, potential yield per hectare, 1,000-grain weight, germination rate, and growth rate. Data were analyzed using analysis of variance (ANOVA) followed by a DMRT test at the 5% level. The results showed that the concentration and application interval of GA₃ significantly affected several production parameters of hybrid corn seeds, while the interaction between the two treatments had different effects on certain parameters.*

Keyword: Hybrid Corn, GA₃, Concentration, Time Interval, Seed Production.