

**GROWTH RESPONSE OF COCOA SEEDS (*Theobroma cacao* L.) ICCRI
08 H CLONE WITH MULTIPLE CONCENTRATIONS AND
MONOSODIUM GLUTAMATE INTERVALS**

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ABSTRACT

Increasing cocoa production, among other things, can be done by using quality cocoa seeds and using good planting media. However, the insufficient content of nutrients in the soil can inhibit the growth of the cocoa plant itself, so fertilization is necessary. Monosodium glutamate consists of 78% glutamate, 12% sodium and 10% water. This compound is soluble in water. This chemical content plays a role in fertilizing plants. This final project research was carried out from September 2022 to January 2023 at the Kaliurang Green Garden Residential Area, Kec. Sumpalsari, Jember Regency. This research method used a factorial randomized block design (RBD) with two factors, namely the first factor was the monosodium glutamate concentration treatment which consisted of 5 levels, namely no treatment (G0), a dose of 3gr/L (G1), a dose of 6gr/L (G2), dose of 9gr/L (G3), dose of 12gr/L (G4) and the second factor is the treatment Interval of Monosodium Glutamate consisting of 3 levels, namely interval of 5 days (L1), interval of 10 days (L2), interval of 15 days once (L3). There are 45 units, each unit consisting of 5 plants so that there are a total of 225 samples of cocoa plant seeds. Based on the results of the final project research that has been done, it can be concluded that the effect of giving several concentrations and intervals of monosodium glutamate in cocoa plant nurseries showed significantly different results on the parameters of observation of seedling height at 90 HST observation and number of leaves at 60 DAP observations and administration of monosodium glutamate with concentrations 0 gr/L (G0) and 10 day intervals (L2) or the control being the treatment that produces the highest mean values for the parameters of plant height and number of leaves.

Keywords: *Monosodium Glutamate, Nurseries, Cocoa*