

**EFFECTIVENESS OF VARIOUS CONCENTRATIONS OF GAMAL LEAF  
LIQUID ORGANIC FERTILIZER (*Gliricidia sepium*) AND PLANTING  
DISTANCE TO PLANT GROWTH AND PRODUCTION OF  
CORN (*Zea mays L.*)**

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**ABSTRACT**

*Efforts to increase corn production as an important food commodity in addition to rice are still being developed, including the addition of nutrients by using environmentally friendly materials and spacing arrangements to optimize plant growth. In the manufacture of environmentally friendly POC many use parts of plants, such as fruits and foliage. This study aims to determine the interaction between the treatment of POC concentration of Gamal leaves and spacing on the growth and production of corn. This study began in April-July 2022 on cultivated land located in Bintoro Village, Patrang District, Jember regency, East Java province. This study used a randomized block factorial (RAKF) design, consisting of five levels of POC concentration of Gamal leaves (0%; 5%; 15%; 20%; and 25%) and two levels of planting distance (70x25 cm and 90x25 cm) with three repetitions. Parameters in this study include plant height, stem diameter, wet weight of cob per sample, wet weight of cob per plot, dry weight of cob per sample, dry weight of cob per plot, dry pipil weight per sample, and weight of 100 seeds. Data analysis using ANOVA, if significantly different then DMRT further test. The interaction between the treatment of POC concentration of Gamal leaves and planting distance were found on the parameters of wet cob weight per sample of 204.70 grams, wet cob weight per plot of 5757.40 grams, dry cob weight per sample of 165.79 grams, and dry cob weight per plot of 4642.19 grams.*

**Keyword** : Concentrations, Corn, Gamal leaves, Liquid Organic Fertilizer, Planting distance