

**CONCENTRATIONS OF GIBBERELLIN AND PHOSPHORUS FERTILIZER  
DOSAGE EFFECTS ON PARTHENO-CARPIC FRUIT FORMATION IN  
CUCUMBER PLANTS (*Cucumis sativus* L.)**

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**ABSTRACT**

The formation of parthenocarpic fruit in cucumbers is necessary to make processing more effective and efficient. This study aims to determine the influence of gibberellin concentration and phosphorus fertilizer dosage on the formation of parthenocarpic fruit in Bagos F1 cucumbers. The research method used was a Completely Randomized Block Design with two factors and three replications. The first factor was gibberellin concentration at 200, 300, and 400 ppm. The second factor was phosphorus fertilizer dosage at 150, 250, and 350 kg/ha. The data were analyzed using a 5% level ANOVA followed by DMRT tests between treatments and an Orthogonal Contrast test between control and treatments. Gibberellin concentration and phosphorus fertilizer dosage treatments differed significantly from the control. There was an interaction between gibberellin concentration and phosphorus fertilizer dosage treatments on fruit weight, length, diameter, flesh thickness, total number of seeds per fruit, and the percentage of imperfectly formed seeds. A gibberellin concentration of 300 ppm showed the best results for plant height at 5 WAP, fruit success rate, fruit drop rate, and dry weight of cuttings. A phosphorus fertilizer dosage of 250 kg/ha gave the best results for plant height at 3, 4, and 5 WAP, number of female flowers, and cucumber plant dry weight.

**Keywords:** parthenocarpy, gibberellin, phosphorus