

**APPLICATIONS OF GIBERELIN (GA3) AND PACLOBUTRAZOLE  
TO INCREASE YIELD OF TOMATO PLANTS**  
*(Solanum lycopersicum L.)*

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**ABSTRACT**

The growth of tomato plant height can be inhibited by administering paclobutrazol and increasing fruit ovulation using GA3. This research aims to determine the application of gibberellin (GA3) and paclobutrazol on tomato growth and yield. This research uses the Split Plot Design field trial method. The main plot, namely GA3, consists of concentrations of 30 ppm, 60 ppm, and 90 ppm. The subplots consisted of concentrations of 0 ppm, 150 ppm, 300 ppm, and 450 ppm. Data were analyzed using a 5% level of variance. followed by the Duncan Multiple Range Test (DMRT) with a level of 5%. There was an interaction between GA3 and paclobutrazol treatment on plant height and length of stem segments at 40, 50, and 60 HST, total fruit weight per plot, and sweetness level. GA3 concentration of 90 ppm gave the best results in terms of fruit bunch parameters, total fruit weight per plant, hardness level, and shelf life. The paclobutrazol concentration of 300 ppm gave the best results on the parameters of number of branches at 30 DAP, fruit bunches, number of fruit, and storage time.

**Keywords:** Paclobutrazole, GA3, tomato