GROWTH AND YIELD OF STRING BEANS PLANTS (*Phaseolus vulgaris* L.) AT VARIOUS CONCENTRATIONS OF GIBBERELLIN AND COMPOSITION OF GROWING MEDIA

By: Salsabila Risha Supervised by: Rina Srilestari and Ellen Rosyelina Sasmita

ABSTRACT

The low production of string bean is caused by the frequent occurrence of flower dropping and the lack of nutrient requirements for plants. The aims of the study were to examine the interaction between GA₃ and the composition of the growing media and to determine the most appropriate concentration of GA₃ and the composition of the growing media on the growth and yield of string bean. This study using a Complete Randomized Block Design (CRBD). The first factor is the GA₃ concentrations of 100 ppm, 150 ppm and 200 ppm. The second factor is the composition of the planting media (Soil: Cow Manure: Charcoal Husk) 2:1:1, 1:1:1, 1:1:2. Data were analyzed using ANOVA 5%, followed by Orthogonal Contras, and tested further with the DMRT 5%. The results showed that the GA₃ concentration treatment and planting media composition showed significantly better results compared to the control in the parameters of plant height at 35 and 42 DAP, number of leaves at 42 DAP, number of flowers, number of flowers that became pods, number of pods, pod length, and weight per pod. There was an interaction between the treatment combination of 150 ppm GA₃ concentration and Soil: Cow Manure: Charcoal Husk (1:1:1) planting media composition on the parameters of number of pods per plant and pod weight per plant. GA₃ concentration of 150 ppm gave the best results on leaf number parameters at 28 DAP. A planting media composition of Soil: Cow Manure: Charcoal Husk (1:1:1) gives the best results at leaf number parameters of 42 DAP.

Keywords: Gibberellins, Growing Media, String Beans