

Response of Soybean (Glycine Max) Plant Production to Pruning and Gibberellins PGR Application

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ABSTRACT

Soybean is the most important food commodity after rice and corn. The need for soybeans continues to increase along with public awareness of the importance of consuming soybeans. Efforts to increase soybean production to meet consumption needs continue. Through pruning treatment and the application of ZPT Gibberellins, it is expected to increase soybean production. This study aims to determine the response of soybean production (Glycine Max) to the pruning treatment and the application of Gibberellins PGR. This research was conducted for 103 days from December 13, 2020 to March 26, 2021. All research activities were carried out on the land of the Jember State Polytechnic, Sumpalsari District, Jember Regency. This study used a factorial randomized block design (RAK) with 2 factors, namely pruning and application of Gibberellins PGR, 10 treatment combinations and 3 replications. The pruning factor consists of 2 levels, namely without pruning and with pruning. While the ZPT Gibberellin factor consisted of 5 levels, namely 0 ppm, 150 ppm, 250 ppm, 350 ppm and 450 ppm. The data were analyzed using ANOVA and then further tested using the 5% DMRT test. The results showed that the pruning treatment had a significantly different effect on the parameters of the number of productive branches, dry pod weight, dry seed weight and 100 seed weight, but gave no significant effect on the parameters of the number of pithy and empty pods and the weight of wet pods. The best results were found in pruned plants with a yield of 23.06 g/plant. While the application of PGR Gibberellins gave no significant effect on all observation parameters, and there was no interaction between pruning and application of PGR Gibberellins on soybean production.

Keywords: *Gibberellins, Glycine Max, pruning, soybean*