Pengaruh Pengaplikasian JMS (*Jadam Microbial Solution*) Dan Penyemprotan GA3 Terhadap Produksi Dan Mutu Benih Kedelai (*Glycine Max* [L.] Merril) Kelas *Stock Seed*. *The Effect of Applying JMS (Jadam Microbial Solution) and GA3 Spraying on the Production and Quality of Soybean Seeds (Glycine Max [L.] Merrill) Stock Seed Class*. Supervised by Netty Ermawati, SP., Ph.D.

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ABSTRACT

Soybean (Glycine max [L.] Merrill) is a plant that is classified as a food crop commodity other than rice and corn with a high vegetable protein content. This research used a Randomized Group Factorial Design (RAKF) with treatments of JMS (Jadam Microbial Solution) and GA3 spraying. The JMS (Jadam Microbial Solution) application treatment consists of 4 different doses with 3 repetitions. The JMS (Jadam Microbial Solution) application treatments given were 0 ml/plant (control), J1 (6 ml/plant), J2 (12 ml/plant), and J3 (18 ml/plant). And the GA3 spraying treatment consisted of 4 different concentrations with 3 repetitions. The GA3 spraying treatments given were 0 ppm (control), G1 (30 ppm), G2 (60 ppm), and G3 (90 ppm). The research data was tested using the ANOVA F test, then if it had a significantly different effect it would be tested further using the DMRT test at the 5% level. The results of the research showed that treatment combinations that showed very significant different effects were found in the parameters of plant height, number of leaves per plant, number of flowers per plant, number of productive branches, number of pods per plant, seed production per plant, seed production per hectare, weight of 1000 grains seeds, and seed germination power. Shows that the results of the combination of treatments have a significantly different effect on the parameters of seed growth speed, and also shows that the results of the combination of treatments have no significantly different effect on the parameters of plant root length, seed water content, and seed growth synchronization. The best combination of JMS and GA3 treatment is the J2G2 combination (12 ml/plant JMS dose and 60 ppm GA3 concentration).

Keywords: JMS, GA3, Soybean Seed Production