

**Pengaruh Inokulasi Bakteri Rhizobium Dan Pemberian Dosis Pupuk Urea Terhadap Hasil dan Mutu Benih Kedelai (*Glycine max* (L.) Merrill).** *Effect Of Inoculation Rhizobium Bacteria And Administration Of Dosage Urea Fertilizer On The Results And Quality Of Soybean Seeds (Glycine max (L.) Merrill).* Advisor : Dr. Ir. Nurul Sjamsijah, MP and Ir. Sri Rahayu, MP.

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### **ABSTRACT**

*The result and quality of soybean seed (*Glycine max* (L.) Merrill) is still low, it is necessary to improve the quality of seed yield, one of them is through the improvement of cultivation technique using rhizobium bacteria inoculation application as well as providing nutrient in take of nitrogen (Urea). The purpose of this study was to determine the results and quality of soybean seeds by inoculation treatment of rhizobium bacteria and dosage of Urea fertilizer. This research was conducted in September 2016 - February 2017 using Randomized Complete Block Design (RCBD) with 2 factors. The first factor ( $R_1$ ) = 5 gr, ( $R_2$ ) = 6 gr, ( $R_3$ ) = 7 gr and ( $R_4$ ) = 8 gr Rhizobium / kg seed, Second factor ( $N_1$ ) = 25 kg, ( $N_2$ ) 50 kg Urea / Ha. The observational data were tested using DMRT with 5% level. The parameters observed were flowering age, plant height, number of root nodule, number of branches, number of pods, crop yield, 100 grain weight, seed germination rate, seed growth rate, and seedling simultaneity. The results showed that the best treatment was ( $R_2$ ) = 6 gr and ( $R_4$ ) = 8 gr of rhizobium / kg seed, significant effect the number of root nodules and number of pods. ( $N_2$ ) = 50 kg Urea / ha, significant effect on the number of root nodule ( $N_1$ ) = 25 kg Urea / ha, significant effect on crop yield and 100 grain weight.*

**Key words:** *Soybean, Rhizobium Bacteria Inoculation, Dosage Urea*