

Aplikasi Inokulasi *Rhizobium* Dan Pupuk Sp-36 Terhadap Produksi Dan Mutu Benih Kedelai (*Glycine max* (L.) Merrill) Varietas Dering. *Effect of Rhizobium inoculation and Sp-36 Fertilizer on Production and Quality Seed Soybean (*Glycine max* (L.) Merrill) varieties Dering.* **Advisor: Ir. Sri Rahayu, MP. and Dr. Ir. Suharjono, MP.**

Moh Faruq Hendriyanto

Program Studi Teknik Produksi Benih, Jurusan Produksi Pertanian

ABSTRACT

Soybean production year by year keep going decrease. This is caused by the decreasing of wide field year by year and seed stock. One way to increase soybean production is by maximizing the result each hectare. This research heads for knowing the effect of rhizobium inoculation dosage and some SP-36 fertilizer dosages that is applicated to know the production and quality of Dering variety soybean seed. This research was held from october 2015 untill january 2016 at Besuk, Wirowongso Village, Ajung District. Jember and Seed Technology Laboratory of State Polytechnic of Jember. This research used randomized block design that was consisted by 12 treatment combinations. The first factor was rhizobium inoculation dosage (R) that was consisted by 0 gr / 1 kg seed, 5 gr / 1 kg seed, 7 gr / 1 kg seed dan 9 gr / 1 kg seed. And the second factor was SP-36 fertilizer dosage (P) that was consisted by 69,5 kg / ha, 138 kg/ha, and 207,5 kg/ha. The research result showed that Rhizobium inoculation (R) have showed significant effect to the number of root nodule. R1 treatment (5gr/1kg seed) gave the highest result to the number of root nodule. Whereas SP-36 fertilizer dosage application (P) have showed very significant effect to flowering age, the number of pod-filled, the result each plant, production each hectare and the weight of 100 seeds. P3 treatment (SP-36 fertlizer dosage 207,5kg/ ha) gave the highest result to flowering age. P2 treatment (SP-36 fertilizer dosage 138kg/ ha) gave the highest result to the number of pod-filled, the result each plant and production each hectare. P1 treatment (SP-36 fertilizer dosage 69,5kg/ha) gave the highest result to the weight of 100 seeds.

Keywords: *Rhizobium inoculation, fertilizer SP-36, Seed Yield, seed quality, Soybean.*