***EFFECTIVINESS OF RHIZOBIUM AND POULTRY MANURE ON PLANT GROWTH OF SOYBEAN* (*Glycine Max* (L.) Merrill)**

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***ABSTRACT***

Soybean (Glycine max (L.) Merril) is the most important strategic main food crop after rice and in terms of providing nutritious food for humans. The aim of research in this title was to determine the effects of rhizobium dose and poultry manure dose to increase on plant growth of soybean in Karang Cecer Village, Sumbersari District, Regency. Jember. *The research used Randomized Block Design in a factorial with two factors, sixteen level of treatments and two replications.* The first factor is rhizobium rate consisting of without application of rhizobium, 5 gr/kg of seeds, 10 gr/kg of seeds, 15 gr/kg of seed. *The second factor is poultry manure rate consisting of Without application of poultry manure,* 2,5 kg/plot, 5 kg/plot, 7.5 kg/plot. *Parameters measured were plants height,* stover weight, number of root nodules, number of pithy pods, number of empty pods, the weight of wet pods, weight of dry pods, and 100 seeds weight. The result showed that the interaction of rhizobium treatment was a dose 15 gr/kg and poultry manure was a dose 7,5 kg/plot significantly effected on weight of wet pods 74,44 for the best treatment.

*Keywords: Chicken Manure Addition, Rhizobium, Soybean*