Efektivitas Pemberian Bakteri *Synechococcus* sp. Dan Dosis Pemupukan Urea Terhadap Produksi Dan Kualitas Benih Kedelai Edamame (*Glycine max* (L.) Merrill)

Effectiveness Of Bacteria Synechococcus sp. And Dose Of Urea Fertilization On Production And Quality Of Edamame Soybean Seed (Glycine max (L.) Merrill)

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ABSTRACT

This study aims to obtain edamame seeds capable of producing and high quality by using bacteria Synechococcus sp. and urea fertilizer. This research was conducted in the experiment of State Polytechnic of Jember and Seed Production Technique Laboratory from September to December 2016. The materials used in this research activity include Ryoko edamame varieties of soybean seeds, bacterial cultures (Synechococcus sp.*), Urea fertilizers, etc. This research used Factorial Randomized Complete Block Design (RCBD) with 4 repetitions. The treatment in this study consisted of the first factor was the bacterium Synechococcus* sp. *(S), S0 = Without treatment of bacteria Synechococcus sp., S1 = Inoculation of Bacteria Synechococcus* sp. *The second factor is the dose of urea fertilizer (N), N1 = Urea 50 Kg / Ha, N2 = Urea 100 Kg / Ha and N3 = Urea 150 Kg / Ha, so there are 6 treatment combinations: S0N1, S0N2, S0N3, S1N1, S1N2 , S1N3. If there is a significant difference then tested continued using the Smallest Real difference (BNT) with a real level of 1% or 5%. The results showed Bacteria Synechococcus* sp. *The effect was significantly differen effect (*) with plant height and number of branches and had a very significant effect (**) on the number of branches, weight of 100 seeds. While the dose of fertilization urea (N) does not affect all observation parameters. The best amount of protein is between the combination of S1N2.*

Keywords: *edamame soybean, seed quality, Shynechococcus* sp.*, urea*