Aplikasi Plant Growth Promoting Rhizobacteria (PGPR) Dan Dosis Pupuk Kcl Terhadap Produksi Benih Jagung Komposit Varietas Bisma Aplication of Plant Growth Promoting Rhizobacteria (PGPR) and Kcl Fertilizer Dosage on Production of Bisma Variety of Composite Corn Seeds) Supervisor: Dwi Rahmawati, SP, M.P

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ABSTRACT

One of the ways to increase corn seed production is by adding nutrients or fertilizing. The current obstacle is that fertilization is still completely dependent on the use of chemical fertilizers, which is currently scarce and causes fertilization activities to be disrupted. In order to overcome this problem, it can be done by adding biological fertilizers in seed production activities. The biological fertilizer used is PGPR. In addition, chemical fertilizer treatment was given in the form of a dose of Kcl fertilizer to support corn seed production. The purpose of this study was to determine the effect of PGPR and Kcl fertilizer on maize seed production (Zea mays L). The experimental design used in this study was a randomized block design with two factors, namely the application of PGPR (P) and the dose of Kcl (K) fertilizer. Factor P consists of P1 =15 ml/liter, P2 = 25 ml/liter, P3 = 35 ml/liter. While the K factor consists of K1 = 1 gram/plant, K2 = 3 grams/plant, K3 = 5 grams/plant. There were 9 combinations and each was repeated 3 times to obtain 27 treatment units. Each treatment unit contained 5 plants, so the total population was 135 plants. The results showed that the best effect of 35ml/liter PGPR treatment gave 6.32 tons/ha of seed production and the Kcl fertilizer dose gave the best dose of 5 grams/plant with 5.21 tons/ha seed production.

Key word: corn, PGPR application and Kcl fertilizer dosage treatment