

**PENGARUH JARAK TANAM DAN APLIKASI PGPR(*Plant Growth Promoting Rhizobacteria*) TERHADAP HASIL BENIH JAGUNG (*Zea Mays L*) PIONEER.** (*The Effect of Plant Spacing and Application of PGPR (Plant Growth Promoting Rhizobacteria) Used on The Results Corn Seed (Zea mays L.) Inbreed Variety X*) Muhammad Bagus Dwi Sakti, NIM. A41162006, year 2020, yard, Agricultural Production, State Polytechnic of Jember, Dr. Ir. Rahmat Ali Syaban, M.Si (Main Supervisor) and Yoladeva Anneke Putri, SP. (Escort Supervisor)

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### **ABSTRACT**

*The national corn production from 2014-2018 continued to increase until it experienced overproduction, however Indonesia, which had excess production that year, still can't be said to be able to guarantee the availability of corn in the coming year. Therefore, efforts are needed to increase national corn production. This research was conducted in July to October 2019 in Production Research Land of PT. Corteva Agriscience, Dilem Malang, Indonesia. This study was conducted in a Randomly Complete Block Design (RCBD) consisting of 2 factors. The first factor is the setting of planting distances consisting of 4 levels, that is J1 (65cm x 16cm), J2 (65cm x 14cm), J3 (70cm x 16cm) and J4 (70cm x 14cm). The second factor is the addition of PGPR consisting of three levels, that is P0 (without PGPR), P1 (PGPR 7.5 ml/L) and P2 (12.5 ml/L). The results show that plant spacing J3 (70cm x 16cm) had a very significant effect on the parameters of ear length and ear weight of cobs. Meanwhile, the treatment of J4 Plant spacing (70cmx14cm) had a very significant effect on weight of 1000 seed. The PGPR P2 (12.5 ml/L) application treatment had a very significant effect on the parameters of the leaf width and ear length. There is a significant interaction between the application of spacing and the provision of PGPR, namely the combination of J3P2 treatment (70cm x 16cm + 62.5 ml/5L) to plant height parameter on 48 days after planting.*

**Keyword :** *Corn, Planting Distance, PGPR*