

**Rasio Tanaman Induk Jantan dan Betina serta Penambahan Pupuk Boron pada Tanaman Jantan terhadap Produksi dan Mutu Benih Jagung Manis (*Zea mays saccharata strut*). *The Ratio Male and Female Plants and Addition Boron Fertilizer in Male Plant to Production and Quality Seed on Sweet Corn (*Zea mays saccharata strut*). Advisor: Rahmat Ali Syaban and Dwi Rahmawati.***

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### **ABSTRACT**

*One cause of low production sweet corn in Indonesia was the lack of availability quality seeds and less accurate at cultivation technical. One effort that can be used to increase the production sweet corn is by setting a ratio of male and female parent plants and the addition boron fertilizer on male plants. The research was conducted in August - December 2015 at Kotes Village, Gandosari, Blitar a height above 60 m asl. And conducted split plot design (RBD) with 3 factors and 2 replications. The first factor is ratio plants consisting of 1: 4, 1:5 and 1:6. The second factor is addition boron fertilizer consisting of 0 kg/ha (control) and 15 kg/ha. The results showed that treatment ratio male and female parent plants significant effect on the parameters of number seeds each cobs, weight of 100 seeds, germination and speed germination. Plants ratio of 1:5 (R2) showed the best results on 219,50 the number of seeds each cobs and seed quality 83,67% for germination, and 32,75% speed germination. As for boron fertilizer treatment was highly significant on the weight of pollen and pollen viability. Boron fertilizer with a dose 15 kg/ha (B2) showed the best results production and pollen viability there are 1.91 gram/plant and Viability 7:19%. There is a significant interaction between plants ratio and boron fertilizer on number of seeds in each cobs. The combination plants ratio 1: 5 and boron fertilizer application showed best number seed in each cobs is 232,30.*

**Keywords:** *Boron Fertilizer, Production and Seed Quality, Ratio Male and Female Plants*