

**Pengaruh Pemberian Pupuk SP-36 dan Boron terhadap Produksi dan Mutu Benih
Tomat (*Solanum lycopersicum* L.). *Effect of SP-36 Fertilizer and Boron Application on
Yield and Seed Quality of Tomato (*Solanum lycopersicum* L.).***

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ABSTRACT

*This study aimed to determine the effects of SP-36 fertilizer and boron application, as well as their interaction, on the seed yield and seed quality of tomato (*Solanum lycopersicum* L.). The research was conducted at the experimental field in Antirogo District, Jember Regency, and at the Seed Technology Laboratory of Politeknik Negeri Jember using a factorial Randomized Complete Block Design (RCBD) consisting of two factors: SP-36 fertilizer at 100, 200, and 300 kg/ha and boron at 0, 1, and 2 kg/ha. The observed parameters included number of fruits per plant, fruit weight per plant, seed weight per treatment, seed weight per plant, number of seeds per plant, 1000-seed weight, germination percentage, germination rate, uniformity of emergence, and vigor index. The results showed that the interaction between SP-36 fertilizer and boron significantly affected several seed yield and seed quality parameters. The best seed yield was obtained from the combination of 100 kg/ha SP-36 and 0 kg/ha boron (P1B1), which produced the highest number of fruits per plant, seed weight per treatment, seed weight per plant, and number of seeds per plant. Meanwhile, the highest seed quality was achieved by the combination of 200 kg/ha SP-36 and 2 kg/ha boron (P2B3), which resulted in the highest 1000-seed weight and germination rate. Therefore, the application of 100 kg/ha SP-36 without boron was the most effective treatment for improving tomato seed yield, whereas the combination of 200 kg/ha SP-36 and 2 kg/ha produced the highest seed quality, as indicated by a 100- seed weight of 2.74g and a germination rate of 20.1 %*

Keywords: *boron, seed quality, seed yield, SP-36 fertilizer, tomato.*