

Aplikasi Pupuk Kalium dan Boron Terhadap Produksi dan Mutu Benih Mentimun (*Cucumis sativus* L.) (Application of Potassium and Boron Fertilizers on Cucumber (*Cucumis sativus* L.) Seed Production and Quality). *Supervised by:* Leli Kurniasari, S. P., M. Si.

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ABSTRACT

Improving cucumber cultivation methods, such as proper selection of seeds and adequate fertilization, can increase seed production and quality. This study aimed to determine the most effective dosage of potassium and boron fertilizers in improving the quality and presentation of cucumbers. This research was conducted from September 2022 to January 2023 using the Complete Randomized Block Design (RBD) method, which involved two factors: the potassium and boron dose. There are two treatments performed. The first treatment uses potassium fertilizer with three dose levels, namely 100 kilograms/ha, 200 kilograms/ha, and 300 kilograms/ha. Meanwhile, the second treatment used boron fertilizer with four dose levels, namely 0 kilograms/ha, 1 kilogram/ha, 2 kilograms/ha, and 3 kilograms/ha. We used the ANOVA test to examine the findings from the observations. Parameters observed in this study included the age of male and female flowering, number of seeds per fruit, number of seeds per fruit, weight of seeds, weight of seeds per fruit, seed production per hectare, weight of 1000 seeds, seed viability, seed vigor, index vigor, and pollen viability. The results showed that the dose of 300 kilograms/ha of potassium fertilizer had a significant impact on several parameters, including the number of seeds per fruit, the number of seeds per fruit, the weight of seeds per fruit, the weight of seeds per fruit, and the production of seeds per hectare. In addition, the dose of boron fertilizer of 1 kilogram/ha also significantly affected several parameters, such as male and female flowering ages, quality seed weight per pod, seed production per hectare, and pollen viability

Keyword : potassium, boron, seed cucumber production