

Aplikasi Beberapa Agen Hayati dan Beberapa Macam Pupuk P secara Foliar terhadap Produksi dan Mutu Benih Sawi Pakcoy (*Brassica rapa* subsp. *chinensis*). (*Foliar Application of Several Biological Agents and P Fertilisers on the Production and Seed Quality of Mustard Bok Choy (*Brassica rapa* subsp. *chinensis*)*). Dr. Ir. Rahmat Ali Syaban, M.Si (Supervisor)

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ABSTRACT

Bok choy is a horticultural crop with high economic and nutritional value that is widely cultivated in Indonesia. The low availability of high-quality pakcoy mustard seeds is one of the obstacles to increasing productivity, which can be caused by physiological disorders in the generative phase of the plant due to nutrient deficiencies and pathogen disorders. The application of biological agents and foliar phosphorus fertilisers is considered a potential solution as they can enhance nutrient absorption efficiency, stimulate generative growth, and improve plant resistance to environmental stress. This study aims to evaluate the effects of several biological agents and types of foliar phosphorus fertilisers on the production and quality of pakcoy mustard seeds. The research was conducted at the Production Farm of PT. Benih Citra Asia, Rowosari Village, Jember, from October 2021 to February 2022 using a factorial randomized complete block design with two treatment factors: bio-agents (PGPR 100 ml and Trichoderma 75 g) and phosphorus fertilizers (PUPUK P 46% 4 g/L, NPK 3 g/L, and Pupuk P 55% 2 g/L), totaling six treatment combinations with four replications. Data were analyzed using ANOVA followed by DMRT at a 5% significance level. The results showed that the treatment interaction between biological agents and foliar P fertiliser gave significantly different effects on seed weight per plant (2.46 grams), seed weight per plot (33.60 grams) and potential production per hectare (137.85 kg/ha) with the best treatment interaction being M2P2 (Trichoderma 75 g and NPK fertiliser 3 g/l).

Key Words: Bioagent, Fertilizer, Phosphorus, Seed Bokchoy, Trichoderma