

Pengaruh Pemangkasan Pucuk dan Penambahan Pupuk Fosfat terhadap Produksi Benih Melon Hibrida (*Cucumis melo* L.) Kode M214. (*Effect of Shoot Pruning and Addition of Phosphate Fertilizer on Hybrid Melon Seed Production (Cucumis melo L.) Code M214*): Supervised by Ir. Mochamat Bintoro M.P. dan Agus Suparno, S.P.

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ABSTRACT

Melon plant is one of the annual crops which has an important meaning for the source of income for farmers. This study aims to determine the effect of pruning shoots and the addition of appropriate phosphate fertilizer on the production of hybrid melon seeds. This research was conducted in the production area of PT. Tunas Agro Persada is located in Karang Salam Hamlet, Reksosari Village, Suruh District, Semarang Regency with an altitude of 660 meters above sea level, temperature of 26°C and humidity of 65% from November 2021 to January 2022. The study used a factorial Randomize Complete Block Design (RCBD) with 3 replications. The first factor was pruning shoots with 3 treatment levels, namely P₁: on the 32nd node, P₂: on the 29th node, and P₃: on the 26th node. The second factor of the addition of phosphate fertilizers consisted of 3 levels, namely U₁: 80 Kg/Ha, U₂: 112 Kg/Ha, and U₃: 144 Kg/Ha. Observational data were analyzed using ANOVA and follow-up tests using Duncan's Multiple Range Test (DMRT) level of 5% on results that show a significant effect and use advanced tests Duncan's Multiple Range Test (DMRT) level of 1% on the results which show a very significant effect. The results showed no significant effect on all observed parameters of shoot pruning treatment. The treatment with addition of phosphate fertilizer had a very significant effect on all parameters, except for the weight of 1000 seeds. The addition of phosphate fertilizer level of 112 Kg/Ha (U₂) gave the best results on the parameters of fruit weight (1.35 Kg), number of seeds per plant (242.6 grains), seed weight per plant (7.28 grams), number of seeds per plant (206.8 grains), seed weight per plant (6.41 grams), potential seed production per hectare (102.63 kg), weight of 1000 seeds (29.0 grams), and seed germination rate (91.9 %). The interaction between shoot pruning and the addition of phosphate fertilizers showed no significant effect on all parameters.

Key words: melon, shoot pruning, addition of phosphate fertilizer.