

Pengaruh Perlakuan Topping dan Proporsi Bunga Jantan dan Betina Terhadap Produksi dan Mutu Benih Semangka (*Citrullus vulgaris* L.). *Effect of Topping Treatment and Proportion of Male and Female Flowers on Production and Seed Quality of Watermelon (*Citrullus vulgaris* L.).* Advisor: Dr. Ir. Nantil Bambang Eko Sulistyono, M. Si.

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ABSTRACT

Trimming the main stem (topping) and the proportion of male and female flowers as one of the cultivation techniques that can be done to increase watermelon seed production in order to meet production needs in Indonesia. This research was conducted on 02 November 2020 – 08 February 2021 on the land of PT. Seeds of Asian Image Wirowongso, Jember. This study used a factorial randomized block design (RAK) with 2 factors which were repeated 4 times. The first factor was trimming the main stem (topping) (T) which consisted of 3 levels, namely, without topping maintaining 1 branch (T1), topping the main stem maintaining 2 branches (T2), and topping main stem maintaining 3 branches (T3). The second factor is the proportion of male flowers (P) consisting of 2 levels, namely 1 male 1 female (P1), and 2 male 1 female (P2). Data analysis using the f test formula (ANNOVA) and further testing using Duncan Multiple Range Test (DMRT) with an error rate of 5%. The results showed that the main stem pruning treatment (topping) had a very significant effect on fruit diameter, fruit weight and number of pithy seeds per fruit. The main stem pruning treatment (topping) maintaining 2 branches (T2) resulted in an average fruit diameter of 12.21 cm, an average fruit weight of 1.96 kg, and an average number of pithy seeds per fruit of 60.88 grains. The treatment of male and female flower proportions (p) gave a very significant effect on the parameters of the number of finished fruit. The treatment proportion of 2 males and 1 female had a percentage of 5 fruits after 5 days of pollination. As for the interaction of the main stem pruning (topping) and the proportion of male and female flowers have a very significant effect on the parameters of the number of pithy seeds per fruit with an average of 70.25 grains, the weight of pithy seeds per fruit with an average of 3.91 grams, seed production per fruit. hectares with an average of 19.06 kg/ha and a weight of 1000 grains with an average of 39.65 grams in a combination of main stem pruning (topping) maintaining 2 branches and the proportion of 2 males and 1 female (T2P2).

Keywords : watermelon, topping, proportion of male and female flowers