

GROWTH AND YIELD OF WATERMELON (*Citrullus Vulgaris* S) USING NPK FERTILIZER AND BRANCH PRUNING

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ABSTRACT

Watermelon (*Citrullus vulgaris* S.) is a horticultural commodity from the Cucurbitaceae (pumpkin) family. Cultivation techniques to maximize watermelon productivity are branch pruning and proper fertilization. Branch pruning is an activity of removing plant parts so as to stimulate hormones to stimulate the release of flowers and fruit. The fertilizer that used is NPK fertilizer. The research was conducted in Priyan hamlet, RT 10, Trirenggo, Bantul, Yogyakarta, at an altitude of 30 meters above sea level with regosol soil type. This study was a factorial experiment using a completely randomized block design. The first factor is branch pruning, namely without pruning branches, pruning leaving one branch, two branches and three branches. The second factor was NPK fertilizer at a dose of 40 g/plant, 60 g/plant, and 80 g/plant. Observational data were processed using analysis of variance (ANOVA), followed by the Duncan Multiple Range Test (DMRT) at a test level of 5%. The research results showed that the branch pruning treatment and the dose of NPK fertilizer had no significant effect on all observed parameters. Pruning by leaving three branches gives the best results in terms of fruit diameter, sweetness content, fruit length, fresh fruit weight, economic dry fruit weight, plant fresh weight, and biological plant dry weight. Treatment with a fertilizer dose of 80 g/plant gave the best results on the parameters of fruit diameter, sweetness content, fruit length, fresh fruit weight, economical dry fruit weight, and fresh plant weight.

Keyword : Watermelon, Branch Pruning, NPK Fertilizer