ESTIMATION OF GENETIC PARAMETERS OF SOME VARIETIES OF TOMATOES (*Lycopersicum esculentum* Mill)

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ABSTRACT

The properties possessed by plants can be known through estimating genetic parameters. Estimation of genetic parameters on desired traits provides information about the genetic condition of plants. The purpose of this study is to find out the genetic diversity of several varieties of tomato plants and get the best varieties, know the heritability of several varieties of tomato plants, and know the progress of selection of several tomato varieties. This research method used a single-factor Randomized Complete Block Design (RCBD) with 3 blocks. The treatment consists of 9 varieties of F1 tomatoes, namely Servo, Tymoti, Corona, Gustavi, Betavilla, Marina, Ayuni, Bareto, and Permata. The data obtained were analyzed using variance analysis (ANOVA) and Scott Knott's follow-up test. The results showed that the value of the high coefficient of genetic diversity is the number of fruits per plant and weight per fruit. Bareto variety tomatoes have the best character than other varieties. Heritability values with high criteria are found in plant height 4 mst, plant height 6 mst, plant height 8 mst, stem diameter 8 mst, flowering age, harvest age, number of fruits per plant, fruit diameter, fruit weight per plant, weight per fruit, sweetness level, and hardness level. The value of genetic progress is high expectations found in the parameters of number of fruits per plant and weight per fruit.

Keyword: *tomato, estimation of genetic parameters, heritability*