RESISTANCE, GROWTH AND YIELDS OF SEVERAL GENOTYPES OF TOMATO AGAINTS BACTERIAL WILT (*Ralstonia solanacearum)*

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ABSTRACT

One of the important diseases of tomato plants is bacterial wilt caused by *Ralstonia solanacearum*. This research aims to determine the level of resistance for disease incidency and disease intensity caused by *Ralstonia solanacearum*, and to know the growth response and yield of various genotypes of tomatoes. The research was carried out on land owned by PT. Tani Murni Indonesia located in Candibinangun, Pakem, Sleman, Special Region of Yogyakarta. The study used a Completely Randomized Design (CRD). The genotypes are TM-1, TM-2, TM-3, TM-4, TM-5, TM-6, Marta (susceptible control), and Servo (resistant control). The data were analyzed using analysis of variance (ANOVA) then continued with Duncan's Multiple Range Test (DMRT) level of 5%. Based on research results, TM-1 genotype has a resistant to bacterial wilt on disease incidency, also has the longest incubaction period. TM-6 genotype has a moderate resistant to bacterial wilt on disease intensity. The TM-6 genotype gives the best results on plant height, stem diameter and fruit diameter. The TM-1 genotype gives the best results on number of fruits per plant. The TM-4 genotype gives the best results on weight parameters of the fruit. The TM-6 genotype gives the best results on level of resistance, growth response and yield.

Keyword : tomato, resistance, bacterial wilt, *Ralstonia solanacearum*