ABSTRACT

Gutierrez, B.A.G. et al., **Performance of Grafted Tomato (Solanum lycopersicum) under the Control Environment.** Research and Development. Diploma in Agricultural Technology. Quezon National Agricultural School. July 2023.

The study was conducted at Quezon National Agricultural School, Silangang Malicboy, Pagbilao, Quezon from January 2023 to July 2023. This study investigated the effectiveness of grafting tomato stems onto eggplant rootstocks to mitigate these issues. A Complete Randomized Design (CRD) was used with three treatments, replicated three times, involving 135 plants. Results showed grafting six-week-old seedlings yielded the highest mean fruit weight (35.36g), followed by four-week-old seedlings (24.22g), and control (18.19g). Grafting also promoted earlier flowering and zero mortality, while ungrafted plants showed delayed flowering and the highest mortality (3.33). The findings highlight the potential of grafting to improve tomato resilience and productivity.

Based on the results and findings of the study, Grafted (6 weeks age of seedlings) shows the highest mean with 35.36 grams, and Grafted (4 weeks age of seedlings) with 24.22 grams and control (Ungrafted) with 18.19 grams there is a highly significant difference on the treatment of the study at 5% and 1%. In terms of early emergence of flowers. The Grafted (6 weeks age of seedlings) shows the earliest emergence of flower with average age of 6 weeks, and Grafted (4 weeks age of seedlings) with average age of 7 weeks and control (Ungrafted) with average age of 8.5 weeks.In terms of mortality rate. The control (Ungrafted) shows the highest mortality rate with an average of 3.33 mortality rate, and Grafted (4 weeks age of seedlings) with zero mortality rate and Grafted (6 weeks age of seedlings) with a zero-mortality rate.