ABSTRACT

This Final Project aims to explore the use of Temporary Immersion System (TIS) Double Vessel and Regression Tree methods in growing orchid seeds. The TIS-DV method will be used to optimize the growth and development of orchid seeds through tissue culture. Regression tree will be used to predict the temperature and humidity values inside the vessel. Described in the form of graphs such as histograms, line charts, and scatterplot graphs. The measurement results and prediction analysis related to air temperature and humidity in the vessel have air temperature measurement results with temperature variations in the range of 23°C to 25.5°C, and the highest frequency occurs at 24.5°C. Furthermore, the temperature prediction analysis shows a very high level of accuracy with an R^2 value of 99.22%, indicating a strong relationship between the prediction and actual data. humidity measurement results show that the highest frequency occurs at 97%. Humidity prediction analysis showed a high level of accuracy, with an R^2 value of 98.95%.