

Agung Setia Budi 20230110046: The Effect of Concentration and Length of Soaking with Rootone-F on the Initial Growth of Isabela Variety Grape Cuttings (*Vitis vinifera* L.) under guidance **Dr. Supriono, SP. MP** dan Bapak **Tarwa Mustopa, SP., M.Agr.**

SUMMARY

The grape plant (*Vitis vinifera* L.) is a fruit plant in the form of a shrub vines that belong to the Vitaceae family. This plant is shaped bush, woody stem, cylindrical in shape, stem color brownish, surface rough, the direction of growth of the stem is climbing, and the direction of growth of the branches is twisted. Grape production can be increased by using seeds that have high vigor. The provision of seeds from seeds is relatively slow, therefore the provision of seeds is carried out vegetatively. Seedlings with high vigor can be obtained from vegetative plant propagation, one of which is grape cuttings.

This research was carried out for 4 months (January – April 2024) at the Integrated Field Laboratory, Faculty of Agriculture, Kadiri Islamic University, Rejomulyo, District, City, Kediri Regency. The climate conditions in the Kediri City area have a wet and dry tropical climate with two seasons, namely the rainy season and the dry season. This design uses a factorial completely randomized design (CRD) with a 2-factor treatment design. Factor I is the concentration of Rootun-F with 3 levels denoted by (K) and factor II is the soaking time of Rootun F with 3 levels denoted by (L). The design consisted of 3 groups with a total of 27 combinations of treatment plots determined as follows: Factor 1 (F1): Rootone-F (K) concentration, namely: K1: Rootone-F concentration with a dose of 200 Mg/Liter of water, K2: Rootone concentration -F with a dose of 300 Mg/Liter of water, K3: Rootone-F concentration with a dose of 400 Mg/Liter of water. Factor 2 (F2-): Soaking time for Rootone-F (L), namely: L1: Soaking

time for Rootone-F for 1 hour, L2: Soaking time for Rootone-F for 3 hours, L3: Soaking time for Rootone-F for 6 hours

The results of the research showed that there was an interaction between Rootone-F concentration treatment and soaking time on the parameters of growth percentage and number of roots at 86 DAP of cuttings. The Rootone-F concentration treatment had a significant effect on shoot height, number of leaves and had no significant effect on observations of root number, root length and growth percentage. Where the best treatment was obtained in the K2 treatment (Rootone-F concentration 300 mg/l). The long soaking treatment with Rootone-F had a significant effect on root length and had no significant effect on observations of shoot height, number of leaves, growth percentage and number of roots. Where the best treatment was obtained in treatment L3 (soaking time for Rootone-F 6 hours).

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