

ABSTRACT

Rizkyara Syafrozah, 24020121120023. **Effect of Shallot Extract and Rootone-F on the Growth of Grafted Grapevines (*Vitis* sp.) on Rooted and Unrooted Rootstock.** Under the guidance of Sri Widodo Agung Suedy and Nintya Setiari.

We can pursue increasing grape productivity by providing quality grape seedlings through vegetative propagation, including grafting. The choice of rootstock type and the application of growth regulators can support the growth of grapevine grafting. The objective of the study was to determine the effect of shallot extract and Rootone-F on the growth of grape grafting with rooted and unrooted rootstocks. The research was conducted experimentally using completely randomised design (CRD) with two treatment factors: the type of growth regulators (shallot extract and Rootone-F) and the type of rootstock (rooted and unrooted). The treatment of this type of growth regulator was carried out by soaking the rootstock tip and scion in 80% shallot extract, 300 mg/L Rootone-F, and distilled water as a control. Grape grafting was done by combining Julian cultivar grapes (*Vitis vinifera* L.) as scion and Isabella variety grapes (*Vitis labrusca* L.) as rootstock, and planting was done for 40 days after planting (DAP). We analysed the data using a two-way ANOVA, and if there were any significant differences, we proceeded with the DMRT test at a 95% confidence level. The parameters observed were survival success, average time of shoot emergence and first leaf, length and diameter of branches, area and number of leaves, number and length of roots, and the number of grape grafts with callus. The results indicated that there was an interaction between the single factor of growth regulators type and rootstock. The combination of Rootone-F and unrooted rootstock gave the best results on branch growth, leaf growth and root growth of grape grafting (*Vitis vinifera* L. and *Vitis labrusca* L.).

Keywords: grape, onion extract, grafting, rootone f, growth regulator