

# **GROWTH RESPONSE OF MARIGOLD (*Tagetes erecta* L.) CUTTINGS TO VARIOUS TYPE AND IMMERSION TIME OF PLANT GROWTH REGULATORS**

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## **ABSTRACT**

Marigold is an ornamental plant belonging to the Asteraceae family. Apart from being an ornamental plant, marigolds also have an important role in agriculture as a refugia plant. This research aims to examine the interaction between the type and duration of growth regulator immersion on the growth of marigold cuttings and determine the best type and duration of growth regulator immersion for the growth of marigold cuttings. The research method used Completely Randomized Design with two factors, namely the type of growth regulator and the growth regulator immersion time. The types of growth regulators used are Rootone-F 250 mg/liter, 100% coconut water, 80% shallot extract, and 80% bean sprout extract. The growth regulator immersion time are 10 minutes, 20 minutes and 30 minutes. The results of the observations were analyzed using analysis of variance at 5% level and further tests were carried out using Duncan's Multiple Range Test at 5% level. The results of the observations showed that there was an interaction between the types of growth regulators and the duration of growth regulator immersion in the parameter of number of shoot, shoot length, volume of roots, length of roots, number of roots, plant fresh weight, dan flower diameter. The application of 80% shallot extract and 80% bean sprout extract gave the best growth of marigold plant cuttings in the parameters of bud growth time and plant dry weight. Immersion time of 20 minutes gave the best growth of marigold plant cuttings in the parameters of bud growth time.

Keyword: Marigold, plant growth regulator, immersion time