

SRI RAHAYU NINGRAT, 2025. **THE EFFECT OF NAA (NAPHTHALENEACETIC ACID) AND SHALLOT EXTRACT COMBINATION ON THE GROWTH OF MOON ORCHID PLANT (*Phalaenopsis amabilis* (L.) Blume).** Department of Biology Education, Faculty of Teacher Training and Education, Siliwangi University, Tasikmalaya.

ABSTRACT

Orchid flower or Phalaenopsis amabilis (L.) Blume is one of the flowers that is in demand by the public and has the nickname "Puspa Pesona". However, conventional breeding is considered less effective, so the plant tissue culture method is applied so that the breeding is more effective. This study aims to determine the effect of the combination of NAA ZPT and red onion extract on the growth of moon orchid plantlets (Phalaenopsis amabilis (L.) Blume). This study used an experimental method with a Completely Randomized Design (CRD) experimental design, with two types of ZPT, namely NAA and shallot extract. NAA consists of 4 concentration levels, namely 0 mg/l, 5 mg/l, 10 mg/l, and 15 mg/l, and shallot extract consists of 4 concentration levels, namely 0 g/l, 15 g/l, 20 g/l, 25 g/l. The main parameters used are plantlet height, leaf length, number of leaves, root length, number of roots, and live presentation. While the additional parameters are plantlet color. The study was conducted at the Tissue Culture Laboratory of Siliwangi University for 3 months. Data were analyzed using the Kruskal-Wallis test followed by the Dunn post-hoc test. The results showed that the optimal concentration for each parameter was different. However, overall the N3E3 treatment of 15 mg/l NAA and 25 g/l shallot extract had a positive effect on the parameters tested. The percentage of survival in this study was 48% which produced various plantlet colors.

Keywords: *in vitro* culture, NAA, *Phalaenopsis amabilis* (L.) Blume, red onion extract