

STUDYING ON *IN VITRO* PROPAGATION OF *Dendrobium anosmum* Lindl.

Dang Thi Thu Ha, Pham Thu Ha

Summary

Dendrobium anosmum of the genus *Dendrobium* is a precious orchid species with high economic value. The flowers of *Dendrobium anosmum* has a vary range of purple and has a pleasant fragrance. Currently, with the increasing demand for orchids, but with traditional orchid cultivation techniques, it is impossible to meet the needs of people. The application of advanced breeding methods for orchid *Dendrobium anosmum* to satisfy the needs of customers and recover economic benefits is necessary. The results of propagation of *Dendrobium anosmum* by *in vitro* culture technique showed that the orchid sterilization formula is most suitable to immerse the fruit of *Dendrobium anosmum* in 96% alcohol and burn 30 seconds on the flame of alcohol lamp (repeated 3 times) gave a processed sample proportion and a high proportion of germination (98.61%). MS environment supplemented with 0.3 mg/l BAP, 0.2 mg/l kinetine, 0.1 mg/l NAA and additional 60 g potato is most suitable for rapid multiplication of buds with a coefficient of 11.21 times. The optimal environment for the formation and growth of *Dendrobium anosmum* roots is MS + 0.5 mg/l NAA + 40 g/l sucrose + 6.5 g/l agar. Trees were trained in the substrates which include 50% Coconut fiber and 50% pine bark to have the highest survival rate up to 93.33%. Trees have high quality which cost of only 5000 - 7000 VND/tree for its height from 5 - 7 cm.

Keywords: *Dendrobium anosmum*, *in vitro* culture, environmental selection, create completed tree.