

In vitro culture of Borneo's endemic orchid, *Vanda dearei*.

ABSTRACT

The effect of basal media, complex additives and sugars to the growth and development of *V. dearei* protocorms were reported in this study. Protocorms were initiated from in vitro seeds germination from immature capsule. Among the three basal media, growth of protocorms was superior in $\frac{1}{2}$ MS medium followed by KC and VW with maximum percentage of protocorms with leaf and root, and mean number of leaf and root produced. Meanwhile, 0.2% (w/v) yeast extract markedly enhanced the growth of protocorms. In sugar study, results show that protocorms preferred sucrose as compared to fructose and glucose. The leaf and root formation was significantly enhanced as the sugar concentration was decreased. Medium supplemented with 2% (w/v) sucrose was the best compared to the other treatments and sugar at a concentration of 4% (w/v) induced the formation of large size seedlings.

Keyword: *Vanda dearei*; Protocorms; Propagation; Growth medium.