

The Application of Various Kinetin Concentrations and Growing Medium Compositions for In Vitro Nepenthes Micropropagation

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ABSTRACT

This research was aimed to assess interaction between the application of kinetin concentrations and growing medium compositions, and to determine the optimal kinetin concentrations and growing medium compositions for the growth of *Nepenthes* micropropagated plantlets. The research was conducted in Agriculture Department Biotechnology Laboratory Universitas Pembangunan Nasional “Veteran” Yogyakarta on June – September 2023 using a Factorial Completely Randomized Design. The first factor was the various concentrations of kinetin (0 ppm, 2,5 ppm, 5 ppm, and 7,5 ppm) and the second factor was the growing medium compositions (MS medium and ½ MS medium). The results showed that there is an interaction between the kinetin concentrations and growing medium compositions on the percentage of planlet survival. The addition of 4,90 ppm kinetin concentration was able to provide optimal results for the number of shoots and the addition of 5.36 ppm kinetin concentration was able to provide optimal results for root length. Meanwhile, the used of ½ MS medium composition provided the best result in time of pitcher emergence and number of roots for the growth of *Nepenthes*.

Keywords: *Nepenthes, In Vitro, Kinetin, Murashige-skoog Medium*