

Title Evaluation of tested vase solution compared to commercial vase solution on cut *Dendrobium* hybrids

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Abstract

Vase solution for cut orchids has been developed by replacing silver nitrate with other chemicals which is safety product for environment. The result from preliminaries experiment showed that vase solution contained 100 mg.L⁻¹ aluminum sulfate, 200 mg.L⁻¹ 8-hydroxyquinoline sulfate and 1.5 % sucrose can extend vase life of three different cut *Dendrobium* hybrids when compared with distilled water. This experiment was aimed to evaluate the quality of our vase solution compared with the commercial vase solution (Chrysal, Naarden, The Netherlands). Three cut *Dendrobium* hybrids namely *Dendrobium* Kao Sanan, *Dendrobium* Lovely Pink and *Dendrobium* Suree Peach were tested. The results showed that *Dendrobium* Kao Sanan and *Dendrobium* Lovely Pink have longer vase life in the tested vase solution than commercial vase solution while *Dendrobium* Suree Peach has shorter vase life in the tested solution than commercial vase solution. In *Dendrobium* Kao Sanan, *Dendrobium* Lovely Pink and *Dendrobium* Suree Peach vase life were extended to 14.8, 16.9 and 13.0 days respectively in tested vase solution. Whereas, cut *Dendrobium* inflorescences treated with chrysal solution had 13.5, 10.1 and 14.6 days of vase life respectively. However, there was no statistically different of vase life between the tested solution and commercial solution in *Dendrobium* Kao Sanan and *Dendrobium* Suree Peach but statistically different of vase life between the tested solution and commercial solution in *Dendrobium* Lovely Pink. These results suggested that our solution was able to improve quality and extended the vase life of cut *Dendrobium* as well as commercial solution