

# The Effect of Fertilizer Different Dilution Rates on the Current Pseudobulb Growth and Flowering for the Potted Nobile-type *Dendrobium*

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## Abstract

This experiment was conducted to determine how applying soluble compound fertilizer(N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O:20-20-20) with different concentrations affect the growth and flowering of *Den. Tian Mu No. 5* and *Den. Tian Mu No. 7*. The two cultivations were bred in Taiwan. Results indicated that plant height and pseudobulb node numbers were lowest in *Den. Tian Mu No. 5* with CK and 4,000 X diluted rate treatment, and flowering node percentage, total flower numbers were the highest. In the *Den. Tian Mu No. 7*, the lowest plant height and pseudobulb node numbers were appeared at the diluted rate treatment of 4,000 X, the highest flowering node percentage and total flower number were also appeared at the same diluted rate treatment. Statistically significant differences between these treatments were found. Our study suggested that applying soluble fertilizer (N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O:20-20-20) at the diluted rates of 4,000X every 14 days could be appropriated on the cultivation of *Den. Tian Mu No. 5* and *Den. Tian Mu No. 7* cultivated in sphagnum moss. This study also recommends no fertigation after pseudobulbs stop elongation and begin to swell (terminal leaf formation) for better flowering performance.

**Keywords:** Nobile-type *Dendrobium*, Fertilization management, Orchid, Current pseudobulb

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