

Title Detection of Cymbidium Mosaic Virus (CyMV) from the in vitro culture of small shoot apex of Dendrobium Pompadour by infectivity test.

Thesis Master of Science (Biology); Chiang Mai University 1976.

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## ABSTRACT

The small shoot apices cut at 0.5 x 0.5 x 0.3, 1.0 x 1.0 x 0.5 and 2.0 x 2.0 x 1 mm<sup>3</sup> from the new vegetative shoots of CyMV infected Dendrobium Pompadour, were propagated by tissue culture method. One hundred and thirty plantlets, 4-5 months old derived from eleven small shoot apices were detected for CyMV by infectivity test on leaves of Cassia occidentalis L. Fifty eight plantlets gave positive test by showing a few to numerous local brown spots, 1-2 mm on the inoculated leaves within 3-5 days. None of the rest (72) produced positive test after confirmed tests had been done. One small shoot apex cut at 0.5 x 0.5 x 0.3 mm<sup>3</sup> produced all virus-free plantlets. Whether plantlets contained the virus or not, they showed symptomless. The small shoot apices cut at the mentioned sizes still contained virus, but the virus-free plantlets were able to obtain from the clonal propagation of such small shoot apices. The smaller size of the shoot apex was cut, the greater chance of the virus-free plantlets was obtained. Thus propagation of the virus-free plantlets by mean of tissue culture technique needed least size cut shoot apex. This technique also provided the control for CyMV spreading in D. Pompadour.