Pornchanok Kongsomaot 2011: Studies Shortening Breeding Program of Hybrid *Curcuma* for Cut Flower by Embryo Culture Master of Science (Agriculture), Major Field: Horticulture, Department of Horticulture. Thesis Advisor: Assistant Professor Thunya Taychasinpitak, M.S. 70 pages.

A study on Crossability of some Curcuma spp. the results showed that Patumma had the highest fruit-set rate were 93.3% , 87% for *Curcuma alismatifolia* 'Chaingmai-pink' x *C. alismatifolia* 'Topred' , *C. alismatifolia* 'Chaingmai-pink' x *C. alismatifolia* 'Kawdoitung', respectively. *Curcuma sp*.'Maneekan' x C. larsenii 'bualai' had the lowest rated (2.3 %), yielded the number of seed per pod were 23.8 - 94.2 seed/pod and number of fully developed seed percentage were 63.2 – 98 %. The embryo rescue of hybrid Curcuma seeds were excised and cultured on medium fortified with different concentrations of 6-benzyl adenine (BA), Gibberellic acid (GA_3), alpha-naphthaleneacetic acid (NAA) with sucrose and kelcogel, After 4 weeks of culture, the results showed that embryo germination rate were 36.7 – 81.7 %. *Curcuma alismatifolia* 'wild Curcuma' x *C. alismatifolia* 'Chaingmai-pink' had the highest embryo germination rate (81.7%). *Curcuma sp*.'Maneekan' x *C. alismatifolia.*'Dangrakang' had the lowest embryo germination rate (36.7%)

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