

**EFFECTS OF ARBUSCULAR MYCORRHIZA AND ENDOPHYTIC  
DIAZOTROPHIC BACTERIA ON GROWTH AND DEVELOPMENT  
OF *Curcuma alismatifolia* Gagnep.**

**APIRAYA THEPSUKHON**

**DOCTOR OF PHILOSOPHY  
IN HORTICULTURE**

**THE GRADUATE SCHOOL  
CHIANG MAI UNIVERSITY**

**OCTOBER 2011**

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**APIRAYA THEPSUKHON**

**A THESIS SUBMITTED TO THE GRADUATE SCHOOL IN  
PARTIAL FULFILLMENT OF THE REQUIREMENTS**

**FOR THE DEGREE OF  
DOCTOR OF PHILOSOPHY**

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