

**Thesis Title** Random Amplified Polymorphic DNA Technique for Genetic Analysis of *Curcuma spp.*

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**M.S.** Biology

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**Abstract**

Genetic analysis of 10 species of *Curcuma* was investigation at species and clonal levels using RAPD (Random Amplified Polymorphic DNA) technique. Forty-eight random arbitrary (10-mer) nucleotide primers were used to amplified DNA fragments. Three primers designated PA20 , PD11 and PAB04 produced 37 polymorphic DNA bands ranged in size from 200 - 1700 bp.. These DNA fingerprint patterns were able to distinguish and divide all the 10 species into two groups , early and medium flowering groups . This result was corresponding to an analysis of these *Curcuma* species by isozyme technique reported previously .

In addition , PAB04 primer was able to detect clonal variation in three species of *Curcuma* such as MH (*Curcuma sp.*) , CMUP (*Curcuma petiolata* Wall.) and BC (*Curcuma sp.*) where as PAX17 primer was able to detect only in MH and BC .