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Variety improvement and genetic study in *Jatropha curcas* L.

The aim of this study is to improve *J. curcas* varieties by intergeneric and interspecific hybridization, develop specific molecular markers to identify hybrids and study the role of DNA methylation on gene expression.

DNA marker development for specific identification in waterlily (*Nymphaea* spp.) and the endanger species, water-onion (*Crinum thianum*).



Waterlilies in the genus *Nymphaea* are well distributed all over the world and their flowers are bright and vary in color. Thailand has been generally accepted as one of the most famous waterlily-producing countries. New hybrids with outstanding characters have been released every year.

Water-onion is an endemic plant species in southern Thailand and adapts well to the most aquarium environments. The species is now listed as endangered due to habitat degradation and overexploitation. Very limited genetic information of this species is reported.

Searching and characterization for new bacterial leaf blight (BLB) resistance alleles from Thai rice germplasm

BLB is one of the most destructive diseases of rice that can significantly reduce crop yield. The purpose of this study is to search and clone new BLB resistance alleles from rice germplasm for using in rice breeding program.



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