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RAPD fingerprint construction and genetic similarity of *Mesona chinensis* (Lamiaceae) in China

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ABSTRACT. *Mesona chinensis* is an economically important agricultural crop, primarily cultivated for making grass jelly. It was originally discovered in South China. We examined 18 cultivars, including cultivars from Guangdong, Fujian, and Guangxi, China, Taiwan, and Indonesia, and a hybrid (a cross between cultivars from Indonesia and Guangdong), based on RAPD markers. The genetic similarity coefficient was calculated by NTSYS 2.10 and the clustering analysis was made by UPGMA. PCR amplification with 10 primers produced 163 bands; 94% of the amplified loci were polymorphic. The primers S208, S206, and S253 could completely distinguish all 19 samples by constructing a DNA fingerprint. Cluster analysis divided the 19 cultivars into five groups, with an overall genetic similarity coefficient of 0.68. Correlations were found among regional distributions, parental sources, and RAPD markers, demonstrating the rich genetic diversity of these 19 cultivars of *M. chinensis*. This study provides useful information for the classification, identification, and breeding of *M. chinensis*.

Key words: *Mesona chinensis*; RAPD fingerprint; Genetic similarity

