Genetic polymorphism of glutinous rice (*Oryza sativa* L.) using an amplified fragment length polymorphism (AFLP) technique

S. Kingsakul, S. Aoki, A. Dechakhamphu

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Abstract

Glutinous rice, the most commonly consumed in the Northeast region of Thailand, contains relatively high genetic diversity, and the identification of varieties based on morphology is still limited. This study aimed to use the Amplified Fragment Length Polymorphism (AFLP) technique for characterizing the genetic differences of six varieties of glutinous rice including 'RD6', 'Dawmakham', 'Dawbaipai', 'Dawbunmah', 'Dawhi', and 'Leenok'. The embryonic extracted DNA from each variety was selected by using specific restricted *EcoRI/MseI* enzymes, and a PCR technique was used to amplify the selected DNA using 40 restricted specific pair primers. The results showed that 14 primer pairs can distinguish the genetic polymorphism of all the studied varieties, and 125 polymorphic positions were generated. Therefore, the results of this study can be used as a supportive technique for variety identification and for studying the genetic relationship among varieties of glutinous rice.