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Evaluation of Genetic Diversity By Using of Link Maker For Amylase Content of Some Iranian Local Rice Cultivars

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Abstract

Molecular markers are the best method for investigating the genetic diversity. In this experiment, 72 cultivars including *Indica* and *Japonica* were investigated in Rice Research Centre of Iran. In order to evaluate the genetic diversity of locus *waxy* linked to the trait controlling the amylose content, PCR was performed using two oligonucleotides (484 and 485) and scored. The important Iranian cultivars of rice were screened using *waxy* microsatellite marker and classified into seven groups based on (CT)_n repeats ranging from n=7 to 20. The amplified PCR products ranged from 102 to 128 bps in length and represented the (CT)_n repeats of (CT)₇, (CT)₈, (CT)₁₄, (CT)₁₇, (CT)₁₈, (CT)₁₉ and (CT)₂₀, that were according to amylose content of cultivars in Iranian germplasm classified in seven groups for that locus and explained 70%, 72%, 78.95%, 80% and 70% of each group variations, respectively.

Keywords: Rice, *Waxy* microsatellite, Oligonucleotide, Amylose content

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