Genetic differentiation of thrips (*Stenchaetothrips biformis*) resistant traditional rice (*Oryza sativa* L.) varieties by RAPDs

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Rice thrip is one of the major pest problems in rice cultivation of Sri Lanka. To breed resistant varieties, identification of resistant germplasm and their characterization are prerequisite. Previous Field screening of traditional rice germplasm has shown that varieties such as Dahanala, Kalu Heenati, Heenati, Kalu Bala Wee, Wanni Dahanala and Dingirimanika have the resistance. Characterization based on molecular marker techniques offers the most reliable tool to assess the genetic diversity among individuals of the resistant germplasm. Using a PCR (Polymerase Chain Reaction) based technique, RAPD (Randomly Amplified Polymorphic DNA), the genetic variation of 26 accessions of 6 varieties of thrip resistant rice was studied. Out of twenty primers screened, ten primers showed polymorphism, not only between groups but among the accessions of one group. Analysis of RAPD data was helpful in determining the genetic relationship among them. The information about the genetic relationship and genetic diversity can be used in plant breeding when integrating thrip resistance into cultivated varieties.

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