

## **Identification of Microsatellite Markers Associated with Drought Tolerance in Rice (*Oryza sativa* L.) using Bulk Line Analysis**

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In the present study, bulked line analysis (BLA) was used to identify microsatellite markers associated with drought tolerance in rice. Thirty-eight rice accessions from diverse genetic backgrounds were first evaluated for water stress under field conditions. A considerable variation was noticed among the rice accessions for various physiological traits under stress. Based on field performance, 13 drought tolerant and 13 drought sensitive rice lines were selected. Drought tolerant bulk (DTB) and drought susceptible bulk (DSB) were constituted by pooling equal quantities of DNAs from the selected genotypes. The microsatellite analysis was performed on the two DNA pools using a total of 174 rice microsatellite primer pairs. Out of seven polymorphic primers identified between the bulks, two primers - RM223 and RM263 co-segregated in all the individual rice accessions constituting the bulks. These SSR markers are linked to drought resistance and may be useful in marker-assisted selection (MAS) for improvement of rainfed rice.