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RESEARCH ARTICLE :

Identification of simple sequence repeats (SSR) markers linked to yellow mosaic virus (YMV) resistance in blackgram [*Vigna mungo* (L). Hepper]

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SUMMARY : YMV transmitted by whitefly is the major disease in pulses that causes the severe yield loss in India as well as in other blackgram growing countries in Asia. Molecular markers linked with YMV can improve the process of identification of resistant genotypes. In the present investigation Simple Sequence Repeats (SSR) and Bulk segregant analysis (BSA) techniques were used to analyse the F_2 individuals of T_9 (resistant) × LBG-759 (susceptible) to screen and identify the yellow mosaic virus (YMV) resistant gene in urdbean. Two DNA bulks, namely resistant and susceptible bulks were setup by pooling equal amount of DNA from ten extreme phenotypes, resistance and susceptible plants. Parental survey study was carried out by using 59 SSR primers. This study revealed that 12 SSR markers showed polymorphism between the parents. These polymorphic markers were utilized for bulk segregant analysis (BSA). Among the polymorphic SSR markers, one primer *viz.*, VR9 were able to distinguish the resistant and susceptible bulks and individuals indicating that this marker is tightly linked to yellow mosaic virus resistance gene and report of YMV-resistance linked marker in blackgram. This marker VR9 could be utilized in the marker assisted breeding programme.

KEY WORDS :
Marker assisted breeding, Urdbean, yellow mosaic virus, Simple sequence repeats, Bulk segregant analysis

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