

**Molecular Characterization of Introgression from *Oryza Glaberrima* Steud (African rice) into Indica Rice (*O. sativa* L.)**

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**Objectives**

- To characterize introgression using SSR markers from *O. glaberrima* into *O. sativa* genome.
- To detect polymorphism among different accessions of *O. glaberrima* and *O. sativa* using SSR markers

**Materials and Methods**

- Materials : IR64×TOG5681(BC<sub>3</sub>F<sub>3</sub>), IR69502×CG14(BC<sub>3</sub>F<sub>3</sub>), IR55423×TOG5681(BC<sub>3</sub>F<sub>4</sub>)
- SSR analysis : 450 markers used for parental survey; 120 polymorphic markers selected for genotyping of populations.

**Results and Discussion**

- Out of 450 SSR markers, a set of 120 markers with clear expression of bands was used in introgression analysis.
- SSR analysis showed that of the 43 breeding lines, only a few showed introgression (Table1). Similarly, the number of markers introgressed varied for each of the 12 chromosomes.
- The introgressed segments of *O. glaberrima* were found in both homozygous and heterozygous forms (Fig ).

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Table. Introgression detected in 43 lines through SSR markers from *O. glaberrima* into *O. sativa*.

Chromosome	No. of SSR markers	Number of Breeding Lines	
		Without Introgression	With Introgression
1	7	38	5 (RM 104)
2	13	18	2 (RM 521), 6 (RM 497), 10 (RM 555), 11 (RM 318)
3	12	23	2 (RM 132), 3 (RM 60, RM 175), 4 (RM 85, RM 416), 14 (RM 231)
4	10	40	2 (RM 252, RM 185, RM 349), 3 (RM 348)
5	14	25	1 (RM 188), 2 (RM 159, RM 421), 5 (RM 598), 7 (RM 267), 10 (RM 163)
6	13	20	1 (RM 275), 2 (RM 527), 7 (RM 253), 8 (RM 528), 11 (RM 510)
7	10	38	(1 (RM 429), 7 (RM 427)
8	14	14	2 (RM 310), 4 (RM 433, RM 339), 7 (RM 264), 11 (RM 447), 14 (RM 25)
9	9	36	2 (RM 160, RM 215, RM 434), 5 (RM 444)
10	10	38	1 (RM 330A), 2 (RM 171), 3 (RM 304)
11	10	21	1 (RM 144, RM 254), 2 (RM 202), 3 (RM 536), 4 (RM 167), 5 (RM 332), 7 (RM 229), 12 (RM 21)
12	5	38	5 (RM 83)

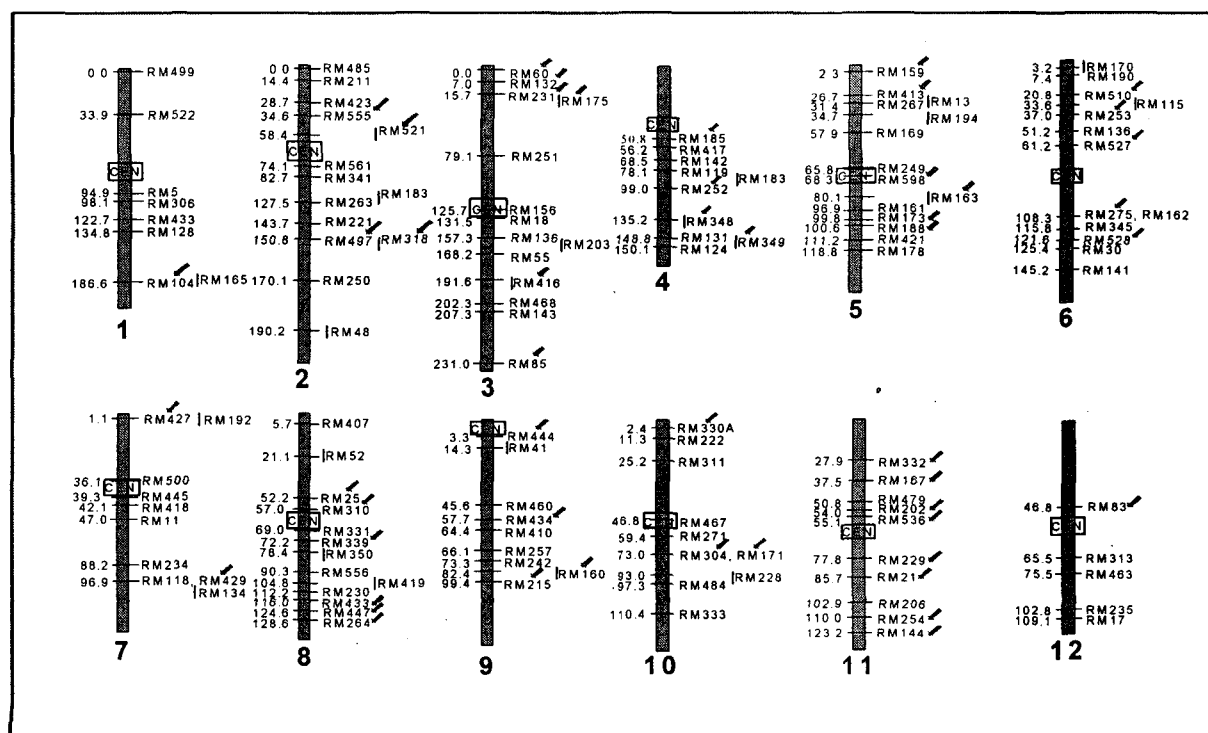


Fig 2. Molecular map showing introgression from *O. glaberrima* into *O. sativa*.