

DNA fingerprinting of the registered germplasm

DNA fingerprinting of the 12 castor registered germplasm was done using 100 SSR markers, 42 microsatellite markers (42%) revealed polymorphism between germplasm studied (Table 1, 2). Six unique alleles (6 %) were observed for 6 registered germplasm. The six germplasm RG43, RG47, RG392, RG1608, RG1771, RG2787 amplified a unique allele each by the markers mRCDOR36, mRCDOR30, mRCDOR50, mRCDOR9, mRCDOR147, mRCDOR8 respectively (Figure 1). The frequency of alleles ranged from 0.083 to 0.917. The PIC values for 42 SSR loci in our study varied from 0.153 to 0.653 with an average of 0.392.

Table 1. List of castor registered germplasm used for DNA fingerprinting

S.No.	Genotype
1	RG43
2	RG47
3	RG72
4	RG109
5	RG297
6	RG392
7	RG1608
8	RG1771
9	RG1930
10	RG2722
11	RG2787
12	RG2819

Table 2. Number of alleles (n), percentage polymorphism (P), number of banding patterns (N), confusion probability (C), and limit of discriminating power (DL)

Primer	Loci	n
mRcDOR5	(AT)23	2
mRcDOR6	(TC)16	2
mRcDOR8	(TG)15	2
mRcDOR9	(TC)15	3
mRcDOR10	(GT)12	2
mRcDOR11	(AG)10	2
mRcDOR13	(AG)12	2
mRcDOR17	(AT)16	2
mRcDOR20	(TA)13	2
mRcDOR21	(TC)17	2
mRcDOR22	(TC)13	2
mRcDOR24	(TC)13- (TA)12	2
mRcDOR25	(AG)20	2
mRcDOR26	(CT)12	3
mRcDOR28	(TC)24	2
mRcDOR30	(CT)12	2
mRcDOR32	(AT)18	2
mRcDOR36	(TC)13	2
mRcDOR45	(GT)27	2
mRcDOR49	(CT)14	2
mRcDOR50	(AT)15	3
mRcDOR51	(AG)17	2
mRcDOR54	(GA)12	2
mRcDOR55	(TC)12	2
mRcDOR56	(AG)13	2
mRcDOR65	(CT)15	2
mRcDOR88	(TC)13	2
mRcDOR91	(AG)17	2
mRcDOR92	(GA)12	2
mRcDOR103	(CAG)8	2
mRcDOR113	(AAG)8	2
mRcDOR119	(CAC)9	3
mRcDOR127	(CAG)8	2
mRcDOR144	(GAT)8	2
mRcDOR147	(GCT)9	2
mRcDOR150	(TCT)9	2

mRcDOR166	(CAC)9	2
mRcDOR175	(GGA)10	2
mRcDOR176	(TTC)8	2
mRcDOR181	(GAG)8	2
mRcDOR186	(TTC)10	2
mRcDOR187	(TCG)8	2

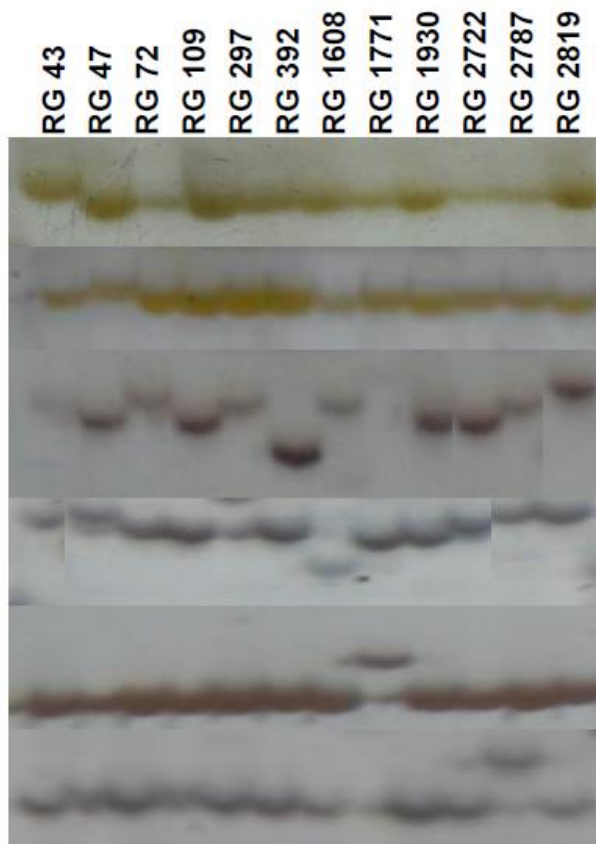


Fig : Unique alleles identified for RG43 (mRCDOR36), RG47 (mRCDOR30), RG392 (mRCDOR50), RG1608 (mRCDOR9), RG1771(mRCDOR147), RG2787 (mRCDOR8) respectively