

Supplementary table

Table S1. List 55 of genotypes (10 parents and 45 hybrids)

Parents								
Code		Parent name	Pedigree		Source	Salient Features		
1	P1	RH-725			DRMR, Bharatpur	Oil content 40 %, timely sown rainfed condition		
2	P2	Pusa Jai Kisan	Somaclone of Varuna (Type 59)		DRMR, Bharatpur	High yielding		
3	P3	PM-28	SEJ 8 X Pusa Jagannath		DRMR, Bharatpur	Suitable for early sowing, plant height: 162 -195 cm, maturity: 97-131 days, oil content: 40.0-42.8 %, seed size: 4.2-5.1 g		
4	P4	Pusa Bold	Varuna X BK-1780		DRMR, Bharatpur			
5	P5	Pusa Agrani	Brassica juncea x synthetic amphidiploid (B. compestris var. toria x B. nigra)		DRMR, Bharatpur	First early maturing (110 days) variety of Indian mustard. Average seed yield of this variety is 17.5 q/ha with an oil content of 39-40 %.		
6	P6	PM-29	[(ZEM-2 x Pusa Barani) x EC-287711]		DRMR, Bharatpur	Plant height 232 cm, producing 6.5 primary branches and 17 secondary branches/ plant, low erucic acid.		
7	P7	CS-60	CS 330-1-1 x CS 609-B10		DRMR, Bharatpur	Salt-tolerant variety of Indian mustard that can grow in saline and alkali soils. It can grow up to 187 cm tall, matures in 125–132 days, and has a 1000 seed weight of 5.0–5.5 g.		
8	P8	Kranti	Selection from Varuna		DRMR, Bharatpur	High yielding, stable, medium maturity, tolerant to Alternaria, blight and mustard, aphid. Suitable for, timely sown irrigated, conditions. All mustard, growing areas of the country.		
9	P9	Giriraj	HB 9908 x HB 9916		DRMR, Bharatpur	Bold seeded, high oil content and high yielding variety.		
10	P10	RH-749			DRMR, Bharatpur	Oil content-39-39.5 %, timely sown irrigated Condition.		
Hybrids								
Code		Cross name	Code		Cross name	Code		Cross name
11	C1	RH-725 x Pusa Jai Kisan	26	C16	Pusa Jai Kisan x Giriraj	41	C31	Pusa Agrani x PM-29
12	C2	RH-725 x PM-28	27	C17	Pusa Jai Kisan x RH-749	42	C32	Pusa Agrani x CS-60

13	C3	RH-725 x Pusa Bold	28	C18	PM-28 x Pusa Bold	43	C33	Pusa Agrani x Kranti
14	C4	RH-725 x Pusa Agrani	29	C19	PM-28 x Pusa Agrani	44	C34	Pusa Agrani x Giriraj
15	C5	RH-725 x PM-29	30	C20	PM-28 x PM-29	45	C35	Pusa Agrani x RH-749
16	C6	RH-725 x CS-60	31	C21	PM-28 x CS-60	46	C36	PM-29 x CS-60
17	C7	RH-725 x Kranti	32	C22	PM-28 x Kranti	47	C37	PM-29 x Kranti
18	C8	RH-725 x Giriraj	33	C23	PM-28 x Giriraj	48	C38	PM-29 x Giriraj
19	C9	RH-725 x RH-749	34	C24	PM-28 x RH-749	49	C39	PM-29 x RH-749
20	C10	Pusa Jai Kisan x PM-28	35	C25	Pusa Bold x Pusa Agrani	50	C40	CS-60 x Kranti
21	C11	Pusa Jai Kisan x Pusa Bold	36	C26	Pusa Bold x PM-29	51	C41	CS-60 x Giriraj
22	C12	Pusa Jai Kisan x Pusa Agrani	37	C27	Pusa Bold x CS-60	52	C42	CS-60 x RH-749
23	C13	Pusa Jai Kisan x PM-29	38	C28	Pusa Bold x Kranti	53	C43	Kranti x Giriraj
24	C14	Pusa Jai Kisan x CS-60	39	C29	Pusa Bold x Giriraj	54	C44	Kranti x RH-749
25	C15	Pusa Jai Kisan x Kranti	40	C30	Pusa Bold x RH-749	55	C45	Giriraj x RH-749