

Table 2 Scaling and joint scaling test for adequacy of additive-dominance model of fourteen agro-morphological traits in cross Meha/ DMS 03-17-2 and Meha/ DMS 01-34-2

Traits	A	B	C	D	m	[d]	[h]	χ^2
Cross I (Meha/ DMS 03-17-2)								
DFFO	-5.33 ± 0.55**	-7.00 ± 0.62**	-8.33 ± 1.81**	2.00 ± 0.77**	37.17 ± 1.54**	0.50 ± 0.15**	-21.17 ± 3.23**	137.08*
DM	--	1.33 ± 0.41**	12.67 ± 0.70**	5.67 ± 0.42**	76.67 ± 0.87**	-0.33 ± 0.19	-25.67 ± 2.35**	362.38**
PH	-2.27 ± 1.98	-8.20 ± 2.15**	-12.40 ± 2.48**	-0.97 ± 1.51	33.43 ± 3.06**	-3.90 ± 0.41**	0.57 ± 8.44	30.12**
NPBP	-2.90 ± 0.35**	0.53 ± 0.61	-0.46 ± 0.54	0.96 ± 0.33**	5.33 ± 0.67**	0.45 ± 0.13	-5.31 ± 1.92**	86.88**
NSBP	-1.90 ± 0.45**	-2.37 ± 0.45**	-4.02 ± 0.61**	0.12 ± 0.40	4.61 ± 0.80**	0.10 ± 0.13	-4.56 ± 2.21*	54.73**
NMS	1.77 ± 0.64**	1.20 ± 0.64**	1.32 ± 0.82	-0.82 ± 0.48	8.64 ± 0.96**	-0.15 ± 0.16*	6.07 ± 2.66	--
AIL	-0.84 ± 0.9**	-1.22 ± 0.29**	-1.63 ± 0.41**	0.22 ± 0.20	3.91 ± 0.40**	-0.32 ± 0.07**	-2.10 ± 1.10	24.64**
NPP	-10.57 ± 2.40**	-9.83 ± 2.85**	-17.44 ± 3.95**	1.48 ± 1.92	17.66 ± 3.88**	2.10 ± 0.53**	-16.04 ± 10.33	27.98**
PL	-1.01 ± 0.40*	-0.94 ± 0.38*	-1.36 ± 0.40**	0.30 ± 0.27	8.20 ± 0.55**	-0.07 ± 0.11	-3.44 ± 1.56*	17.77**
NSP	1.97 ± 0.75	0.37 ± 0.69	0.67 ± 0.72	0.83 ± 0.50	13.07 ± 1.03	-0.13 ± 0.21	-5.23 ± 2.89*	--
SI	0.54 ± 0.17**	-2.92 ± 0.13**	-2.78 ± 0.24**	-0.20 ± 0.15	4.25 ± 0.30**	-0.53 ± 0.02**	-1.05 ± 0.74	579.77**
BYP	-10.31 ± 2.70**	-13.54 ± 3.13**	-32.43 ± 3.80**	-4.29 ± 2.21	12.34 ± 4.45**	0.08 ± 0.55	1.16 ± 12.07	77.94**
HI	-0.12 ± 3.01	-2.83 ± 4.65	-19.07 ± 4.09**	-8.06 ± 2.85**	14.87 ± 5.79*	-3.90 ± 1.01**	32.74 ± 16.20*	23.57**
SYP	-3.02 ± 1.35*	-5.79 ± 1.42**	-12.75 ± 1.72**	-1.97 ± 1.03	2.63 ± 2.08	-0.92 ± 0.32**	2.46 ± 5.69	57.04**
Cross II (Meha/ DMS 01-34-2)								
DFFO	-3.33 ± 0.48**	-1.00 ± 0.21**	13.67 ± 0.35**	9.00 ± 0.229**	50.50 ± 0.57**	2.17 ± 0.06**	-41.50 ± 1.60**	1919.83**
DM	1.67 ± 0.70*	-2.67 ± 0.81**	17.67 ± 0.77**	9.33 ± 0.46**	82.50 ± 0.95**	-2.83 ± 0.24**	-36.17 ± 2.80**	935.71**
PH	4.73 ± 1.84*	-8.23 ± 1.56**	-7.17 ± 1.99**	-1.83 ± 1.24	31.78 ± 2.50**	-4.55 ± 0.39**	3.02 ± 6.94	46.19**
NPBP	2.10 ± 0.51**	1.93 ± 0.42**	-0.12 ± 0.65	-2.08 ± 0.30	-1.31 ± 0.61*	0.32 ± 0.16*	13.49 ± 1.68**	58.87**
NSBP	0.40 ± 0.57	0.20 ± 0.66	-0.02 ± 0.70	-0.31 ± 0.42	2.88 ± 0.85**	-0.37 ± 0.14*	1.94 ± 2.41	--
NMS	0.40 ± 0.85	-0.33 ± 0.87	-0.20 ± 0.95	-0.13 ± 0.58	10.40 ± 1.17**	0.03 ± 0.16	2.37 ± 3.36	--
AIL	0.34 ± 0.27	-0.59 ± 0.26	-0.67 ± 0.30	-0.21 ± 0.18	2.95 ± 0.37**	-0.44 ± 0.06**	0.08 ± 0.04	12.00**
NPP	0.60 ± 1.87	10.53 ± 2.48**	13.84 ± 4.37**	1.36 ± 2.44	20.68 ± 4.91**	0.63 ± 0.47	8.01 ± 1.69	25.72**
PL	1.03 ± 0.40*	0.16 ± 0.36	0.94 ± 0.44*	-0.12 ± 0.26	7.06 ± 0.52**	-0.35 ± 0.10**	2.03 ± 1.48	8.49**
NSP	1.0 0.63	1.13 ± 0.59	-0.98 ± 0.76	-1.56 ± 0.42**	8.16 ± 0.87**	--	8.76 ± 1.59**	15.47**
SI	-0.88 ± 0.12**	-1.60 ± 0.23**	-4.40 ± 0.11**	-0.96 ± 0.13**	3.30 ± 0.26**	0.04 ± 0.03	1.52 ± 0.76*	1720.66**
BYP	-0.67 ± 1.33	4.36 ± 2.51	-7.74 ± 3.57*	-5.72 ± 2.08**	10.45 ± 4.18*	0.78 ± 0.44	32.29 ± 10.21**	11.13**
HI	12.71 ± 2.75**	13.23 ± 3.05**	2.76 ± 3.22	-11.60 ± 2.37**	4.14 ± 4.77	-2.74 ± 0.51	76.97 ± 12.94**	34.43**
SYP	3.15 ± 1.01**	5.18 ± 1.32	0.13 ± 1.64	-4.10 ± 1.11**	-2.21 ± 2.23	-0.43 ± 0.19	27.52 ± 5.72**	24.49**

Note: Abbreviations are given in materials and methods