

## Gene effects for begomovirus resistance and plant architecture attributes in pumpkin (*Cucurbita moschata* Duchesne)

NEHA VERMA<sup>1</sup>, KARMVIR SINGH GARGHA<sup>1</sup>, MADHU SHARMA<sup>1</sup>,  
ABHISHEK SHARMA<sup>1</sup>, AJMER SINGH DHATT<sup>2</sup>

<sup>1</sup>Department of Vegetable Science, Punjab Agricultural University, Ludhiana, Punjab, India

<sup>2</sup>Directorate of Research, Punjab Agricultural University, Ludhiana, Punjab, India

### Electronic Supplementary Material (ESM)

The authors are fully responsible for both the content and the formal aspects of the electronic supplementary material. No editorial adjustments were made.

2 Table S1. Analysis of variance for the begomovirus resistance, plant architectural and yield contributing traits in the different generations of the two crosses

Source	df	PDI			VL	IL	IN	LL	LW	PL	PDL	PDD	FW	FPD	FED	CD	NFPP	YPP
		SLCCNV	ToLCNDV	MI-Sq/To														
<b>Punjab Nawab × MVSR-6711 (C<sub>1</sub>)</b>																		
Replication	2	0.326 (0.395)	0.652 (0.677)	1.423 (1.630)	0.001	0.052	0.632	0.012	0.197	0.051	0.074	0.008	0.001	0.048	0.049	0.036	0.005	0.004
Generation	5	3 688.500 (2 740.837)*	4 085.33 (3 170.838)*	4 028.43 (3 082.362)*	1.108*	13.168*	31.351*	2.354*	1.856*	9.685*	11.306*	0.529*	0.313*	9.598*	16.044*	13.864*	0.062*	0.354*
Error	10	5.102 (7.119)	1.904 (2.293)	2.41 (3.332)	0.001	0.016	1.842	0.379	0.239	1.091	0.175	0.008	0.003	0.053	0.110	0.101	0.005	0.005
CV		3.24 (4.33)	1.94 (2.40)	2.22 (2.95)	3.60	2.490	6.960	6.380	3.880	7.960	8.970	5.010	5.550	2.420	2.390	2.940	5.080	6.640
<b>Punjab Nawab × P-135 (C<sub>2</sub>)</b>																		
Replication	2	3.4804 (5.085)	0.479 (0.473)	3.617 (5.274)	0.005	0.214	0.254	0.115	0.064	0.020	0.117	0.000	0.007	0.054	0.166	0.052	0.001	0.002
Generation	5	3 933.366 (2 977.365)*	4 155.48 (3 216.039)*	4 116.301 (3 177.032)*	0.034*	3.406*	7.292*	2.191*	6.231*	5.476*	4.789*	0.304*	0.052*	1.039*	4.482*	0.739*	0.014*	0.062*
Error	10	3.338 (4.759)	1.46 (2.098)	2.061 (2.890)	0.006	0.179	1.035	0.070	0.048	0.272	0.181	0.007	0.006	0.035	0.100	0.060	0.003	0.012
CV		2.63 (3.54)	1.71 (2.30)	2.05 (2.74)	3.500	4.930	3.740	2.560	1.500	3.070	4.870	3.170	6.290	1.610	1.940	1.890	4.840	7.570

PDI – percent disease index; SLCCNV – Squash leaf curl China virus; ToLCNDV – Tomato leaf curl New Delhi virus; MI-Sq/To – Mixed infection of SLCCNV and ToLCNDV; VL – vine length; IL – internodal length; IN – internode number; LL – leaf length; LW – leaf width; PL – petiole length; PDL – peduncle length; PDD – peduncle diameter; FW – fruit weight; FPD – fruit polar diameter; FED – fruit equatorial diameter; CD – cavity diameter; NFPP – number of fruits per plant; YPP – yield per plant; \*statistically significant at  $P < 0.05$