

**Estimation of genetic variability of a Gerbera Brazilian collection based on morphological traits and EST-SSR markers**

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**Supplementary Table 1.** Matrix of quantitative genetic similarity analysis of 32 gerbera accessions, based on simple matching coefficients.

	I1	TF2	G4	I5	K6	W7	PE8	G9	G10	D12	TF13	G14	D15	C16	I17	TF18	M19	G20	W21	C22	TF23	G24	
Igor 1	1																						
Terra fame 2	0.44	1																					
Golden G. 4	0.44	0.11	1																				
Igor 5	0.67	0.33	0.78	1																			
Kozak 6	0.22	0.33	0.78	0.56	1																		
Wild 7	0.67	0.33	0.78	0.78	0.56	1																	
Pink elegance 8	0.67	0.56	0.33	0.33	0.33	0.56	1																
Golden G. 9	0.56	0.44	0.44	0.67	0.67	0.44	0.44	1															
Golden G. 10	0.78	0.44	0.44	0.67	0.44	0.67	0.44	0.78	1														
Deranagem 12	0.44	0.78	0.11	0.11	0.33	0.33	0.78	0.44	0.44	1													
Terra fame 13	0.44	0.78	0.33	0.56	0.56	0.56	0.33	0.67	0.67	0.56	1												
Golden G. 14	0.22	0.56	0.33	0.11	0.56	0.11	0.56	0.44	0.22	0.78	0.33	1											
Deranagem 15	0.44	0.56	0.33	0.33	0.56	0.11	0.33	0.67	0.44	0.56	0.56	0.78	1										
Cariba 16	0.44	0.56	0.33	0.11	0.33	0.33	0.56	0.22	0.44	0.78	0.33	0.78	0.56	1									
Igor 17	0.67	0.33	0.56	0.56	0.33	0.33	0.56	0.44	0.44	0.33	0.11	0.56	0.56	0.56	1								
Terra fame 18	0.67	0.78	0.33	0.56	0.33	0.56	0.78	0.44	0.44	0.56	0.56	0.33	0.33	0.33	0.56	1							
Mystique 19	0.22	0.78	0.33	0.56	0.56	0.33	0.33	0.67	0.44	0.56	0.78	0.56	0.56	0.33	0.33	0.56	1						
Golden G. 20	0.56	0.67	0.22	0.44	0.44	0.22	0.67	0.78	0.56	0.67	0.44	0.67	0.67	0.44	0.67	0.67	0.67	1					
Wild 21	0.56	0.44	0.67	0.44	0.44	0.67	0.67	0.11	0.33	0.44	0.22	0.44	0.22	0.67	0.67	0.67	0.22	0.33	1				
Cariba 22	0.56	0.44	0.44	0.22	0.44	0.44	0.44	0.33	0.56	0.67	0.44	0.67	0.67	0.89	0.44	0.22	0.22	0.33	0.56	1			
Terra fame 23	0.67	0.56	0.56	0.56	0.56	0.78	0.78	0.44	0.44	0.56	0.56	0.33	0.33	0.33	0.33	0.78	0.33	0.44	0.67	0.44	1		
Golden G. 24	0.33	0.44	0.44	0.22	0.67	0.22	0.67	0.56	0.33	0.67	0.22	0.89	0.67	0.67	0.67	0.44	0.44	0.78	0.56	0.56	0.44	1	
Terra fame 25	0.33	0.89	0.22	0.44	0.44	0.44	0.44	0.56	0.56	0.67	0.89	0.44	0.44	0.44	0.22	0.67	0.89	0.56	0.33	0.33	0.44	0.33	
Golden G. 26	0.56	0.22	0.89	0.67	0.67	0.67	0.44	0.33	0.33	0.22	0.22	0.44	0.44	0.44	0.67	0.44	0.22	0.33	0.78	0.56	0.67	0.56	
Terra fame 27	0.22	0.33	0.78	0.56	0.78	0.56	0.33	0.44	0.44	0.33	0.33	0.56	0.33	0.56	0.56	0.33	0.56	0.44	0.67	0.44	0.33	0.67	
Terra fame 29	0.22	0.56	0.56	0.56	0.56	0.56	0.33	0.44	0.44	0.56	0.56	0.56	0.33	0.56	0.33	0.33	0.78	0.44	0.44	0.44	0.33	0.44	
Terra fame 31	0.56	0.67	0.44	0.44	0.44	0.67	0.67	0.33	0.33	0.67	0.67	0.44	0.44	0.44	0.22	0.67	0.44	0.33	0.56	0.56	0.89	0.33	
G32	0.33	0.44	0.44	0.22	0.67	0.22	0.67	0.56	0.33	0.67	0.22	0.89	0.67	0.67	0.67	0.44	0.44	0.78	0.56	0.56	0.44	1.00	
Monique 34	0.33	0.44	0.67	0.44	0.67	0.44	0.22	0.33	0.33	0.44	0.44	0.67	0.67	0.67	0.44	0.22	0.44	0.33	0.56	0.78	0.44	0.56	
Orça 40	0.22	0.56	0.56	0.56	0.56	0.33	0.11	0.44	0.44	0.33	0.56	0.56	0.56	0.56	0.33	0.78	0.44	0.44	0.44	0.11	0.44		
Orça 42	0.56	0.67	0.44	0.67	0.44	0.67	0.22	0.56	0.78	0.44	0.89	0.22	0.44	0.44	0.22	0.44	0.67	0.33	0.33	0.56	0.44	0.11	
Pacific 45	0.33	0.44	0.67	0.67	0.67	0.67	0.67	0.56	0.33	0.44	0.44	0.44	0.22	0.22	0.44	0.67	0.67	0.56	0.56	0.11	0.67	0.56	

**Table 1. Continuation...**

	TF25	G26	TF27	TF29	TF31	G32	M34	O40	O42	P45
Terra fame 25	1									
Golden G. 26	0.11	1								
Terra fame 27	0.44	0.67	1							
Terra fame 29	0.67	0.44	0.78	1						
Terra fame 31	0.56	0.56	0.22	0.44	1					
G32	0.33	0.56	0.67	0.44	0.33	1				
Monique 34	0.33	0.78	0.67	0.67	0.56	0.56	1			
Orça 40	0.67	0.44	0.78	0.78	0.22	0.44	0.67	1		
Orça 42	0.78	0.33	0.44	0.67	0.56	0.11	0.56	0.67	1	
Pacific 45	0.56	0.56	0.67	0.67	0.56	0.56	0.33	0.44	0.33	1

**Supplementary Table 2.** Matrix of qualitative genetic similarity analysis of 32 gerbera accessions, based on simple matching coefficients.

	I 1	TF2	G 4	I 5	K 6	W 7	PE 8	G 9	G 10	D 12	TF13	G 14	D 15	C 16	I 17	TF18	M 19	G 20	W21	C22	TF23	G24	
Igor 1	1																						
Terra fame 2	0.72	1																					
Golden G. 4	0.77	0.74	1																				
Igor 5	0.97	0.74	0.79	1																			
Kozak 6	0.72	0.85	0.69	0.74	1																		
Wild 7	0.77	0.74	0.59	0.74	0.64	1																	
Pink elegance 8	0.82	0.79	0.64	0.85	0.74	0.74	1																
Golden G. 9	0.77	0.74	1.00	0.79	0.69	0.59	0.64	1															
Golden G. 10	0.77	0.64	0.90	0.79	0.59	0.59	0.64	0.90	1														
Deranagem 12	0.67	0.69	0.79	0.69	0.79	0.54	0.74	0.79	0.69	1													
Terra fame 13	0.67	0.95	0.79	0.69	0.79	0.69	0.74	0.79	0.69	0.74	1												
Golden G. 14	0.77	0.59	0.85	0.74	0.54	0.59	0.59	0.85	0.95	0.64	0.64	1											
Deranagem 15	0.67	0.69	0.79	0.69	0.79	0.54	0.74	0.79	0.69	1.00	0.74	0.64	1										
Cariba 16	0.87	0.79	0.74	0.90	0.79	0.85	0.85	0.74	0.69	0.74	0.69	0.69	0.69	1									
Igor 17	0.97	0.74	0.79	1.00	0.74	0.74	0.85	0.79	0.79	0.69	0.69	0.74	0.69	0.90	1								
Terra fame 18	0.72	1.00	0.74	0.74	0.85	0.74	0.79	0.74	0.64	0.69	0.95	0.59	0.69	0.79	0.74	1							
Mystique 19	0.67	0.54	0.59	0.64	0.59	0.64	0.54	0.59	0.69	0.54	0.59	0.69	0.54	0.59	0.64	0.54	1						
Golden G. 20	0.77	0.74	0.90	0.79	0.69	0.69	0.74	0.90	0.90	0.79	0.79	0.85	0.79	0.85	0.79	0.85	0.59	1					
Wild 21	0.72	0.69	0.54	0.69	0.74	0.85	0.69	0.54	0.54	0.59	0.64	0.59	0.59	0.74	0.69	0.69	0.69	0.64	1				
Cariba 22	0.87	0.79	0.74	0.90	0.79	0.85	0.85	0.74	0.74	0.69	0.74	0.69	0.69	1.00	0.90	0.79	0.59	0.85	0.74	1			
Terra fame 23	0.67	0.95	0.74	0.69	0.79	0.69	0.74	0.74	0.64	0.69	0.90	0.59	0.69	0.74	0.69	0.95	0.49	0.74	0.64	0.74	1		
Golden G. 24	0.77	0.74	0.90	0.79	0.69	0.69	0.74	0.90	0.90	0.79	0.79	0.85	0.79	0.85	0.79	0.74	0.59	1.00	0.64	0.85	0.74	1	
Terra fame 25	0.72	0.95	0.69	0.74	0.79	0.74	0.79	0.69	0.64	0.64	0.90	0.59	0.64	0.79	0.74	0.95	0.54	0.74	0.69	0.79	0.90	0.74	
Golden G. 26	0.77	0.74	0.90	0.79	0.69	0.69	0.74	0.90	0.90	0.79	0.79	0.85	0.79	0.85	0.79	0.74	0.59	1.00	0.64	0.85	0.74	1.00	
Terra fame 27	0.77	0.90	0.69	0.79	0.74	0.79	0.85	0.69	0.69	0.64	0.85	0.64	0.64	0.85	0.79	0.90	0.59	0.79	0.74	0.85	0.85	0.79	
Terra fame 29	0.72	1.00	0.74	0.74	0.85	0.74	0.79	0.74	0.64	0.69	0.95	0.59	0.69	0.79	0.74	1.00	0.54	0.74	0.69	0.79	0.95	0.74	
Terra fame 31	0.72	0.90	0.74	0.74	0.74	0.74	0.79	0.74	0.74	0.69	0.95	0.69	0.69	0.79	0.74	0.90	0.64	0.85	0.69	0.79	0.85	0.85	
G32	0.82	0.90	0.85	0.85	0.74	0.74	0.74	0.85	0.74	0.64	0.85	0.69	0.64	0.79	0.85	0.90	0.64	0.74	0.69	0.79	0.85	0.74	
Monique 34	0.79	0.77	0.67	0.77	0.72	0.72	0.67	0.67	0.62	0.56	0.72	0.67	0.56	0.77	0.77	0.77	0.56	0.62	0.67	0.77	0.72	0.62	
Orça 40	0.82	0.85	0.79	0.85	0.74	0.74	0.74	0.79	0.69	0.64	0.79	0.64	0.64	0.79	0.85	0.85	0.64	0.69	0.69	0.79	0.79	0.69	
Orça 42	0.82	0.85	0.79	0.85	0.74	0.74	0.74	0.79	0.69	0.64	0.79	0.64	0.64	0.79	0.85	0.85	0.64	0.69	0.69	0.79	0.79	0.69	
Pacific 45	0.82	0.74	0.69	0.85	0.74	0.74	0.74	0.69	0.69	0.64	0.69	0.64	0.64	0.79	0.85	0.74	0.74	0.69	0.79	0.79	0.69	0.69	

**Table 2.** Continued.

	TF25	G26	TF27	TF29	TF31	G32	M34	O40	O42	P45
Terra fame 25	1									
Golden G. 26	0.74	1								
Terra fame 27	0.90	0.79	1							
Terra fame 29	0.95	0.74	0.90	1						
Terra fame 31	0.90	0.85	0.90	0.90	1					
G32	0.85	0.74	0.85	0.90	0.79	1				
Monique 34	0.82	0.62	0.72	0.77	0.72	0.77	1			
Orça 40	0.79	0.69	0.79	0.85	0.74	0.95	0.77	1		
Orça 42	0.79	0.69	0.79	0.85	0.74	0.95	0.77	1.00	1	
Pacific 45	0.74	0.69	0.79	0.74	0.74	0.85	0.72	0.90	0.90	1

**Supplementary Table 3.** Matrix of molecular and morphological traits and a genetic similarity analysis of 32 gerbera accessions based on simple matching coefficients.

	I 1	TF 2	G 4	I 5	K 6	W 7	PE 8	G 9	G 10	D 12	TF13	G 14	D 15	C 16	I 17	TF18	M19	G 20	W21	C22	TF23	G24	
Igor 1	1																						
Terra fame 2	0.66	1																					
Golden G. 4	0.62	0.66	1																				
Igor 5	0.93	0.65	0.64	1																			
Kozak 6	0.59	0.71	0.88	0.61	1																		
Wild 7	0.66	0.59	0.6	0.64	0.6	1																	
Pink elegance 8	0.67	0.66	0.65	0.64	0.68	0.63	1																
Golden G. 9	0.65	0.70	0.94	0.65	0.86	0.57	0.66	0.95	1														
Golden G. 10	0.66	0.66	0.91	0.65	0.81	0.59	0.66	0.95	1														
Deranagem 12	0.69	0.76	0.71	0.66	0.73	0.60	0.68	0.76	0.72	1													
Terra fame 13	0.61	0.91	0.70	0.62	0.71	0.60	0.63	0.72	0.69	0.73	1												
Golden G. 14	0.62	0.66	0.88	0.59	0.80	0.55	0.65	0.91	0.92	0.73	0.65	1											
Deranagem 15	0.70	0.73	0.76	0.66	0.77	0.57	0.67	0.80	0.75	0.94	0.71	0.76	1										
Cariba 16	0.78	0.70	0.64	0.76	0.66	0.69	0.72	0.65	0.66	0.72	0.62	0.67	0.71	1									
Igor 17	0.90	0.63	0.61	0.90	0.58	0.59	0.68	0.62	0.62	0.65	0.60	0.61	0.67	0.74	1								
Terra fame 18	0.60	0.87	0.69	0.60	0.72	0.59	0.66	0.70	0.66	0.69	0.79	0.64	0.66	0.63	0.56	1							
Mystique 19	0.60	0.59	0.58	0.60	0.60	0.56	0.52	0.60	0.61	0.61	0.57	0.62	0.59	0.60	0.53	0.61	1						
Golden G. 20	0.65	0.71	0.89	0.63	0.84	0.59	0.71	0.93	0.92	0.77	0.71	0.91	0.80	0.70	0.64	0.73	0.6	1					
Wild 21	0.60	0.61	0.64	0.56	0.69	0.69	0.67	0.61	0.63	0.57	0.55	0.66	0.58	0.66	0.58	0.63	0.53	0.66	1				
Cariba 22	0.88	0.65	0.61	0.88	0.62	0.62	0.67	0.61	0.63	0.67	0.62	0.62	0.68	0.83	0.87	0.56	0.53	0.65	0.60	1			
Terra fame 23	0.64	0.86	0.75	0.62	0.76	0.61	0.66	0.76	0.72	0.71	0.80	0.70	0.71	0.64	0.60	0.79	0.53	0.76	0.66	0.62	1		
Golden G. 24	0.63	0.70	0.91	0.61	0.86	0.59	0.71	0.93	0.92	0.77	0.69	0.94	0.80	0.71	0.64	0.70	0.58	0.97	0.68	0.66	0.76	1	
Terra fame 25	0.63	0.92	0.63	0.64	0.68	0.57	0.62	0.67	0.66	0.69	0.87	0.63	0.67	0.67	0.61	0.80	0.55	0.69	0.58	0.62	0.78	0.67	
Golden G. 26	0.63	0.68	0.94	0.65	0.86	0.62	0.69	0.90	0.90	0.74	0.69	0.89	0.76	0.70	0.62	0.71	0.58	0.93	0.68	0.65	0.77	0.95	
Terra fame 27	0.62	0.81	0.70	0.62	0.71	0.65	0.66	0.67	0.67	0.68	0.75	0.66	0.69	0.67	0.62	0.86	0.65	0.72	0.64	0.62	0.73	0.72	
Terra fame 29	0.64	0.96	0.70	0.66	0.73	0.61	0.63	0.71	0.67	0.75	0.90	0.66	0.72	0.69	0.62	0.84	0.58	0.71	0.61	0.64	0.83	0.71	
Terra fame 31	0.66	0.92	0.70	0.64	0.70	0.63	0.65	0.71	0.71	0.76	0.90	0.70	0.74	0.67	0.61	0.84	0.600	0.74	0.61	0.64	0.83	0.74	
G32	0.71	0.67	0.73	0.68	0.71	0.71	0.71	0.75	0.70	0.69	0.64	0.72	0.71	0.70	0.71	0.64	0.61	0.71	0.63	0.68	0.68	0.75	
Monique 34	0.45	0.45	0.45	0.45	0.47	0.40	0.39	0.44	0.42	0.39	0.40	0.46	0.41	0.47	0.47	0.43	0.38	0.41	0.40	0.46	0.45	0.44	
Orça 40	0.68	0.72	0.75	0.70	0.73	0.66	0.61	0.75	0.71	0.74	0.71	0.71	0.74	0.71	0.69	0.66	0.63	0.71	0.60	0.65	0.68	0.71	
Orça 42	0.70	0.71	0.74	0.71	0.72	0.64	0.66	0.75	0.73	0.66	0.69	0.67	0.68	0.70	0.66	0.70	0.63	0.7	0.63	0.68	0.67	0.68	
Pacific 45	0.68	0.66	0.68	0.71	0.70	0.65	0.62	0.67	0.66	0.66	0.64	0.65	0.63	0.66	0.67	0.70	0.66	0.69	0.62	0.63	0.67	0.67	

**Supplementary Table 3.** Continued.

	TF25	G26	TF27	TF29	TF31	G32	M34	O40	O42	P45
Terra fame 25	1									
Golden G. 26	0.66	1								
Terra fame 27	0.77	0.72	1							
Terra fame 29	0.91	0.71	0.85	1						
Terra fame 31	0.87	0.76	0.82	0.92	1					
G32	0.64	0.7	0.68	0.68	0.65	1				
Monique 34	0.50	0.45	0.45	0.46	0.45	0.47	1			
Orça 40	0.70	0.71	0.71	0.75	0.68	0.82	0.45	1		
Orça 42	0.69	0.70	0.72	0.71	0.67	0.71	0.49	0.8	1	
Pacific 45	0.66	0.69	0.72	0.69	0.69	0.71	0.46	0.75	0.72	1

**Supplementary Table 4.** Characteristics of the 17 EST-SSR markers used in this study.

Locus name	Primer sequence 5'-3'	Annealing temperature (°C)	Length expected
GERB1	F- TTTCAAGACCGGGATCGAGT R- CACAATCTCCCATAGAGACACACA	56.6	200
GERB4	F- AAACCCTGAAGTCAAGCGGA R- CAACAAGCGATATAAAGCAACACA	54.9	238
GERB9	F- CCTAAAAGGTGCATTACTTGTTC R- CGGCGTAAATTCCAACCCTA	55.8	250
GERB10	F- AGAAGGTCCGTCTGGATGA R- TTGGTAAAAGCCGTCTCCGT	56.4	300
GERB12	F- CAGTGTTGCAGGGCAGAGTT R- GGGGGCATAACGATGCATAAA	56.4	260
GERB14	F- CCTACACAGAAGCGAAGGGG R- ACACGAAACACGAAGCCTCA	57.4	261
GERB17	F- TCGCTCTTGCAAACCAGAAA R- TGCCTGAAAAGTTCACCCAA	53.4	269
GERB21	F- GTCCGACGACAACATTGGAA R- CCTGTAAATTGCTACAAAACGGG	55.7	260
GERB22	F- AAACACCACCAAATCAAATGC R- TGCCATGGATGTGTTCCCTTC	53.5	370
GERB25	F- TCCATCATCACTTCCCCTCC R- TTTCCCGGAATTGAATTTGC	53.3	142
GERB30	F- TTGAGGAAGAAAGCGAGCCT R- ATTTCTTTTGTTCATCCATTCAATT	53.5	320
GERB34	F- TTCTTTCCATCGGCCTTGTT R- TTCCCGATTTAACCGTCGTT	53.4	140
GERB35	F- GCAGGCGCTAAGTCCATTTCC R- CGCAAATCAGACTCACCCA	56.4	148

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GERB40	F- GACATCAAACCGTCGTCCAA R- CCACAATAGCCCATCAAGACA	55.5	206
GERB41	F- CGCCTCAAAAACCATATCCTG R- TTCCTCTTAGCTGCGGGAAG	56.5	103
GERB42	F- TTCAAAATTCGGTGAGAGGGA R- TCGCTTTCTTGTTGGCTTCA	53.5	310
GERB44	F- CAATAAAACGGTGACCAAAACG R- TCCCAAGTGTCTTCCCAG	55.6	213

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