

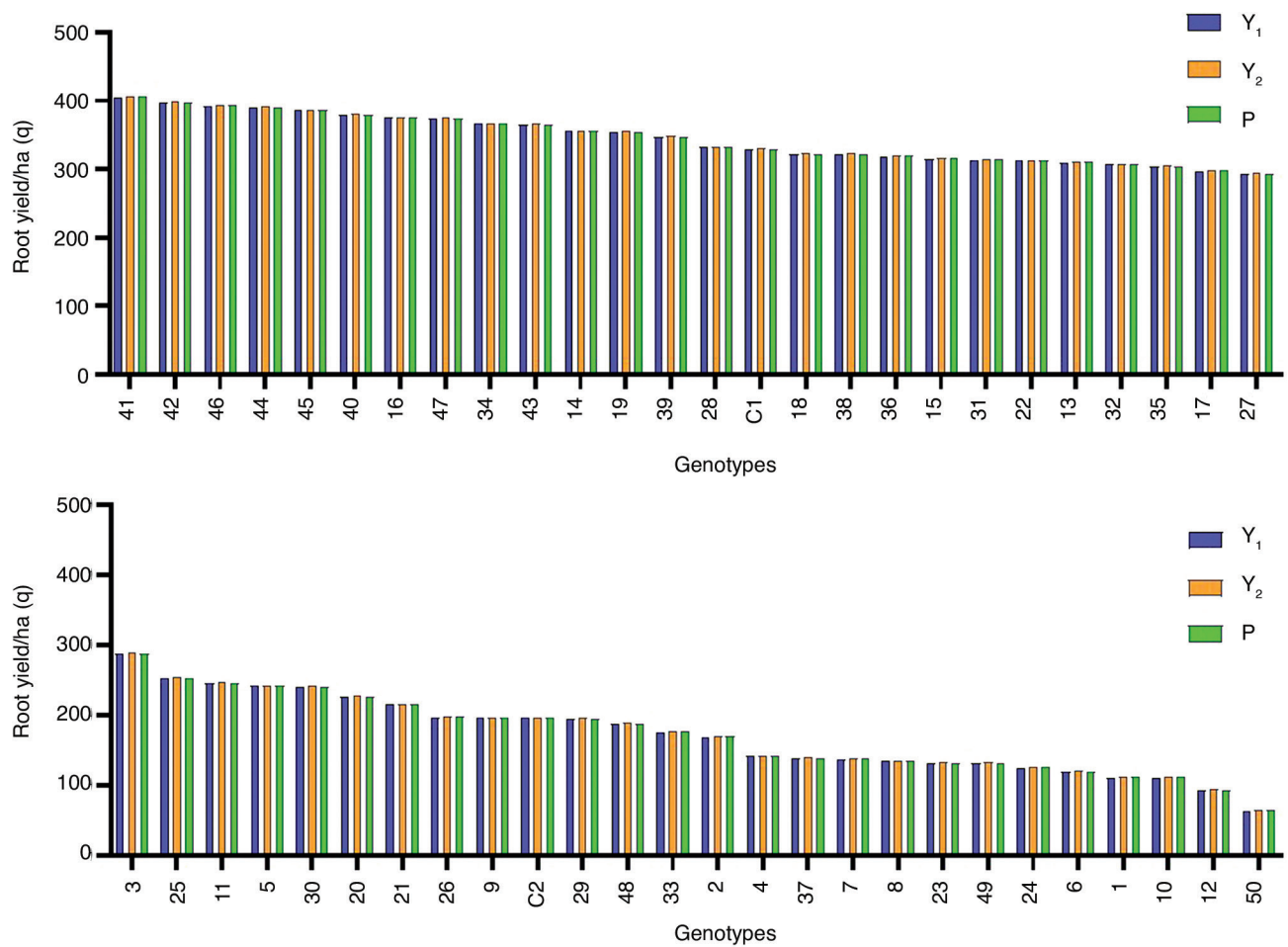
Supplementary Table 1 Comparative mean performance of different carrot genotypes for various quantitative traits during the *rabt* season 2021 and 2022

S.No.	Genotype	Foliage length (cm)			Foliage width (cm)			Petiole length (cm)			Days to first root harvest			Days to last root harvest		
		Y ₁	Y ₂	Pooled	Y ₁	Y ₂	Pooled	Y ₁	Y ₂	Pooled	Y ₁	Y ₂	Pooled	Y ₁	Y ₂	Pooled
1.	SKAU-C-1	22.30	20.83	21.57	7.53	8.76	8.15	29.62	28.37	29.00	87.33	83.12	85.23	93.33	89.80	91.57
2.	SKAU-C-2	14.27	12.83	13.55	10.73	11.96	11.35	21.65	20.40	21.03	94.67	90.46	92.57	100.67	97.14	98.91
3.	SKAU-C-3	17.04	15.60	16.32	20.60	21.83	21.22	18.85	17.60	18.23	85.33	81.12	83.23	91.33	87.80	89.57
4.	SKAU-C-4	21.18	19.74	20.46	14.50	13.27	13.89	27.13	28.38	27.76	95.67	91.46	93.57	101.67	98.14	99.91
5.	SKAU-C-5	27.64	26.20	26.92	9.46	8.23	8.85	29.93	31.18	30.56	93.67	89.46	91.57	99.67	96.37	98.02
6.	SKAU-C-6	19.77	18.33	19.05	9.00	10.23	9.62	21.23	22.48	21.86	93.00	88.79	90.90	99.00	95.47	97.24
7.	SKAU-C-7	24.27	22.83	23.55	14.47	15.70	15.09	21.67	22.92	22.30	86.67	82.46	84.57	92.67	89.14	90.91
8.	SKAU-C-8	21.30	22.74	22.02	16.00	17.23	16.62	17.30	18.55	17.93	82.79	87.00	84.90	89.47	93.00	91.24
9.	SKAU-C-9	14.37	15.81	15.09	12.83	14.06	13.45	27.17	28.42	27.80	88.12	92.33	90.23	94.80	98.33	96.57
10.	SKAU-C-10	17.67	19.11	18.39	11.87	13.10	12.49	16.67	17.92	17.30	88.79	93.00	90.90	95.47	99.00	97.24
11.	SKAU-C-11	23.50	24.94	24.22	15.63	14.40	15.02	22.35	21.10	21.73	84.67	80.46	82.57	90.67	87.14	88.91
12.	SKAU-C-12	18.80	20.24	19.52	14.33	13.10	13.72	28.18	26.93	27.56	96.67	92.46	94.57	102.67	99.14	100.91
13.	SKAU-C-13	26.51	25.07	25.79	16.26	15.03	15.65	17.12	15.87	16.50	84.12	88.33	86.23	90.80	94.33	92.57
14.	SKAU-C-14	26.54	25.10	25.82	19.90	21.13	20.52	19.92	18.67	19.30	80.79	85.00	82.90	87.47	91.00	89.24
15.	SKAU-C-15	25.91	24.47	25.19	17.50	18.73	18.12	17.45	16.20	16.83	83.46	87.67	85.57	90.14	93.67	91.91
16.	SKAU-C-16	18.47	19.91	19.19	12.30	13.53	12.92	18.18	16.93	17.56	84.46	88.67	86.57	91.14	94.67	92.91
17.	SKAU-C-17	22.47	23.91	23.19	15.90	17.13	16.52	13.28	12.03	12.66	85.33	81.12	83.23	91.33	87.80	89.57
18.	SKAU-C-18	24.47	23.03	23.75	13.96	12.73	13.35	14.58	13.33	13.96	83.46	87.67	85.57	90.14	93.67	91.91
19.	SKAU-C-19	30.30	31.74	31.02	21.03	19.80	20.42	18.45	17.20	17.83	82.79	87.00	84.90	89.47	93.00	91.24
20.	SKAU-C-20	26.67	28.11	27.39	14.96	13.73	14.35	20.05	18.80	19.43	91.67	87.46	89.57	97.67	94.14	95.91
21.	SKAU-C-21	23.57	25.01	24.29	20.43	19.20	19.82	23.55	22.30	22.93	85.67	81.46	83.57	91.67	88.14	89.91
22.	SKAU-C-22	21.70	23.14	22.42	14.53	15.76	15.15	25.68	24.43	25.06	89.33	85.12	87.23	95.33	91.80	93.57
23.	SKAU-C-23	14.93	16.37	15.65	10.43	11.66	11.05	16.75	15.50	16.13	85.46	89.67	87.57	92.14	95.67	93.91
24.	SKAU-C-24	19.03	20.47	19.75	13.10	14.33	13.72	12.22	10.97	11.60	84.46	88.67	86.57	91.17	94.67	92.92
25.	SKAU-C-25	20.04	18.60	19.32	12.17	13.40	12.79	14.08	12.83	13.46	95.67	91.46	93.57	101.67	98.36	100.02
26.	SKAU-C-26	19.67	18.23	18.95	14.70	15.93	15.32	17.28	16.03	16.66	81.67	77.46	79.57	87.67	84.14	85.91
27.	SKAU-C-27	20.41	18.97	19.69	12.90	14.13	13.52	9.33	10.58	9.96	80.33	76.12	78.23	86.33	82.80	84.57
28.	SKAU-C-28	25.07	23.63	24.35	14.17	15.40	14.79	23.03	24.28	23.66	82.67	78.46	80.57	88.67	85.35	87.01
29.	SKAU-C-29	20.11	18.67	19.39	13.07	14.30	13.69	15.23	16.48	15.86	78.12	82.33	80.23	84.80	88.33	86.57
30.	SKAU-C-30	18.23	19.67	18.95	12.23	13.46	12.85	12.53	13.78	13.16	86.46	90.67	88.57	93.14	96.67	94.91

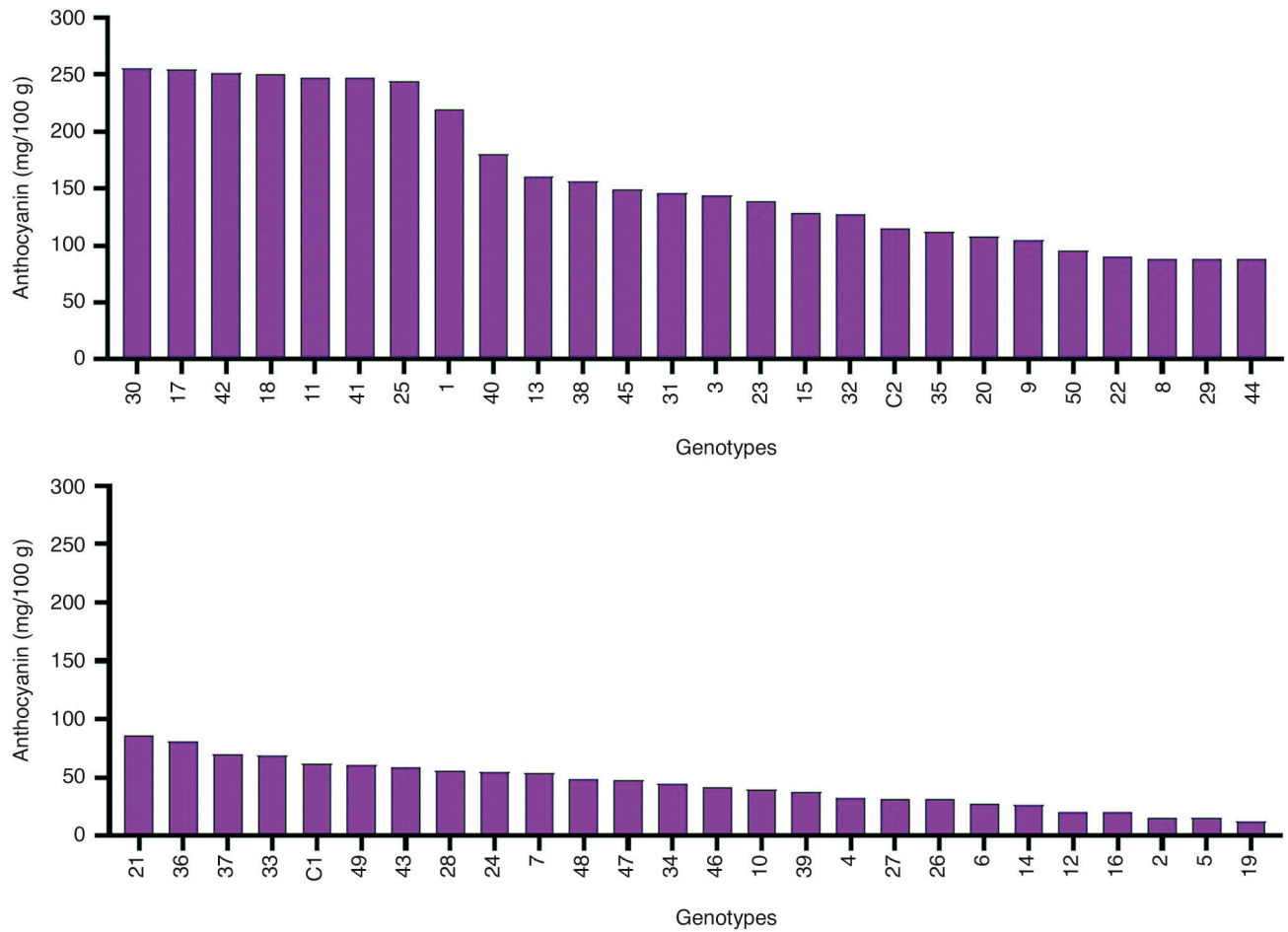
Supplementary Table 1 (Concluded)

S.No.	Genotype	Foliage length (cm)			Foliage width (cm)			Petiole length (cm)			Days to first root harvest			Days to last root harvest		
		Y ₁	Y ₂	Pooled	Y ₁	Y ₂	Pooled	Y ₁	Y ₂	Pooled	Y ₁	Y ₂	Pooled	Y ₁	Y ₂	Pooled
31.	SKAU-C-31	28.68	27.24	27.96	13.70	14.93	14.32	17.27	18.52	17.90	91.79	96.00	93.90	98.47	102.00	100.24
32.	SKAU-C-32	21.47	20.03	20.75	14.43	13.20	13.82	20.67	21.92	21.30	92.12	96.33	94.23	98.80	102.33	100.57
33.	SKAU-C-33	21.64	20.20	20.92	15.46	14.23	14.85	18.28	17.03	17.66	86.12	90.33	88.23	92.80	96.33	94.57
34.	SKAU-C-34	22.34	20.90	21.62	14.70	13.47	14.09	14.67	15.92	15.30	85.46	89.67	87.57	92.14	95.67	93.91
35.	SKAU-C-35	18.47	19.91	19.19	14.10	12.87	13.49	18.90	20.15	19.53	90.12	94.33	92.23	96.80	100.33	98.57
36.	SKAU-C-36	16.87	18.31	17.59	13.00	11.77	12.39	14.53	15.78	15.16	93.67	89.46	91.57	99.67	96.14	97.91
37.	SKAU-C-37	20.07	21.51	20.79	13.50	12.27	12.89	24.55	23.30	23.93	92.67	88.46	90.57	98.67	95.34	97.01
38.	SKAU-C-38	21.83	23.27	22.55	15.26	14.03	14.65	15.42	14.17	14.80	91.33	88.13	89.73	97.33	94.00	95.67
39.	SKAU-C-39	18.37	19.81	19.09	15.20	13.97	14.59	23.18	21.93	22.56	96.33	92.12	94.23	102.33	98.80	100.57
40.	SKAU-C-40	32.51	31.07	31.79	20.56	19.33	19.95	16.75	15.50	16.13	87.33	82.63	84.98	93.33	90.20	91.77
41.	SKAU-C-41	32.61	31.17	31.89	19.73	20.96	20.35	16.42	15.17	15.80	93.33	97.33	95.33	100.02	103.33	101.68
42.	SKAU-C-42	20.54	19.10	19.82	12.57	13.80	13.19	15.23	16.48	15.86	85.12	89.33	87.23	91.82	95.33	93.58
43.	SKAU-C-43	17.11	15.67	16.39	12.83	14.06	13.45	12.32	11.07	11.70	92.67	95.33	94.00	97.80	101.33	99.57
44.	SKAU-C-44	20.91	19.47	20.19	16.93	18.16	17.55	21.18	19.93	20.56	92.67	88.46	90.57	98.67	95.14	96.91
45.	SKAU-C-45	28.73	30.17	29.45	18.46	17.23	17.85	19.75	18.50	19.13	94.33	90.12	92.23	100.33	96.80	98.57
46.	SKAU-C-46	22.60	24.04	23.32	15.13	13.90	14.52	19.03	20.28	19.66	90.12	94.33	92.23	96.80	100.33	98.57
47.	SKAU-C-47	14.07	15.51	14.79	12.83	11.60	12.22	14.50	15.75	15.13	94.12	98.33	96.23	100.80	104.33	102.57
48.	SKAU-C-48	8.27	9.71	8.99	8.90	7.67	8.29	15.20	16.45	15.83	98.67	94.46	96.57	104.67	101.14	102.91
49.	SKAU-C-49	16.90	18.34	17.62	16.00	14.77	15.39	16.93	18.18	17.56	97.00	92.79	94.90	103.00	99.47	101.24
50.	SKAU-C-50	14.30	15.74	15.02	11.76	10.53	11.15	19.77	21.02	20.40	97.67	93.46	95.57	103.67	100.14	101.91
51.	CHECK-1	17.07	18.51	17.79	14.83	13.60	14.22	16.88	15.63	16.26	95.33	91.12	93.23	101.33	97.99	99.66
52.	CHECK-2	22.80	24.24	23.52	16.50	15.27	15.89	18.50	19.75	19.13	85.46	89.67	87.57	92.14	95.67	93.91
	Mean	21.24	21.29	21.27	14.48	14.48	14.48	18.85	18.71	18.79	88.98	88.63	88.81	95.26	95.02	95.14
	SEm	0.276	0.294	0.285	0.227	0.191	0.209	0.292	0.249	0.271	1.406	1.299	1.352	1.377	1.379	1.378
	CD (5%)	0.775	0.823	0.799	0.638	0.536	0.587	0.819	0.699	0.759	3.944	3.643	3.793	3.861	3.869	3.865
	CD (1%)	1.025	1.089	1.057	0.844	0.709	0.777	1.084	0.925	1.005	5.219	4.821	5.020	5.110	5.119	5.115

Y₁, 2021; Y₂, 2022; SEM, Standard Error of Mean; CD (5%), Critical Difference at 5%; and CD (1%), Critical Difference at 1%.



Supplementary Fig. 1 Comparative mean values of 52 diverse carrot genotypes for root yield/ha (q) (2021 and 2022).
Y₁, Data for first year (2021), Y₂, Data for second year (2022) and P, Pooled data.



Supplementary Fig. 1 Pooled mean values of 52 diverse carrot genotypes for anthocyanin content.