

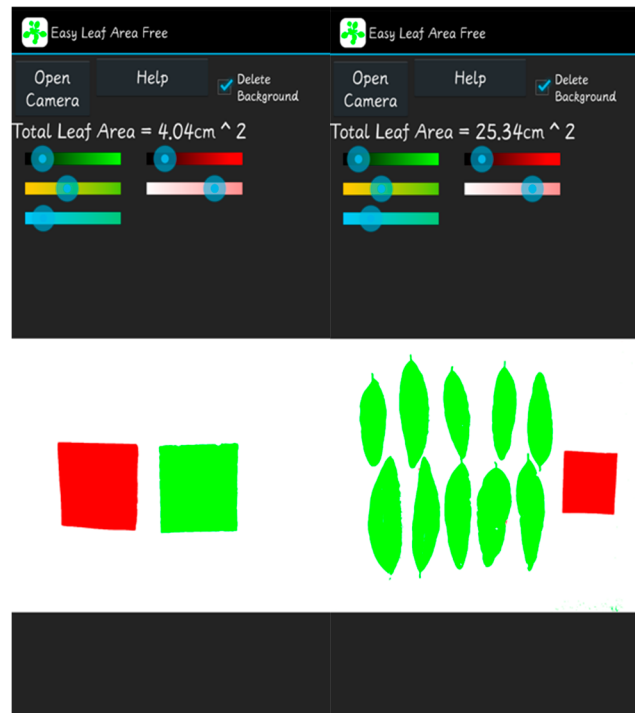


Figure S1. The images of software - Easy leaf area on phone. Total leaf areas = (green pixel count) $\times$ (calibration area/red pixel count), which is not counted as the showed value on phone. Green pixel count = measurement, calibration area = 4.04, red pixel count = 4.

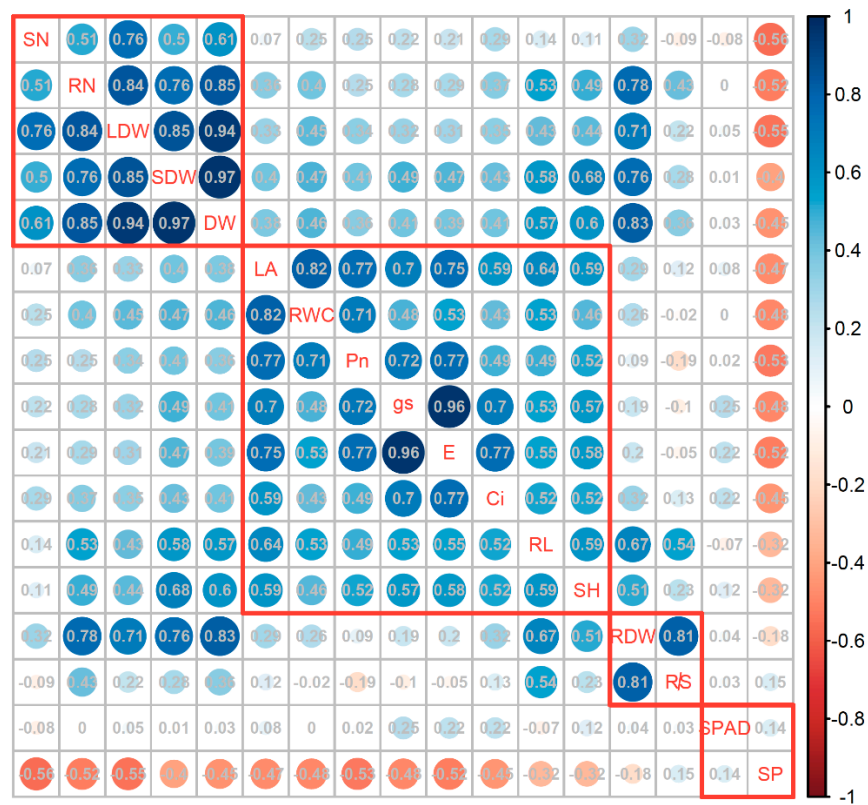


Figure S2. The correlation efficiency among growth parameters, including root dry weight (RDW), stem dry weight (SDW), leaf dry weight (LDW), total dry weight (DW), root/shoot ratio (R/S), root length (RL), root number (RN), shoot length (SL), new shoot number (SN), leaf area (LA), salt damage rate (SP), relative water content (RWC), SPAD, Pn, g_s , Ci and E. The blue is negative correlation with each other, the red is positive correlation with each other. The color is darker, the correlation is more significant.

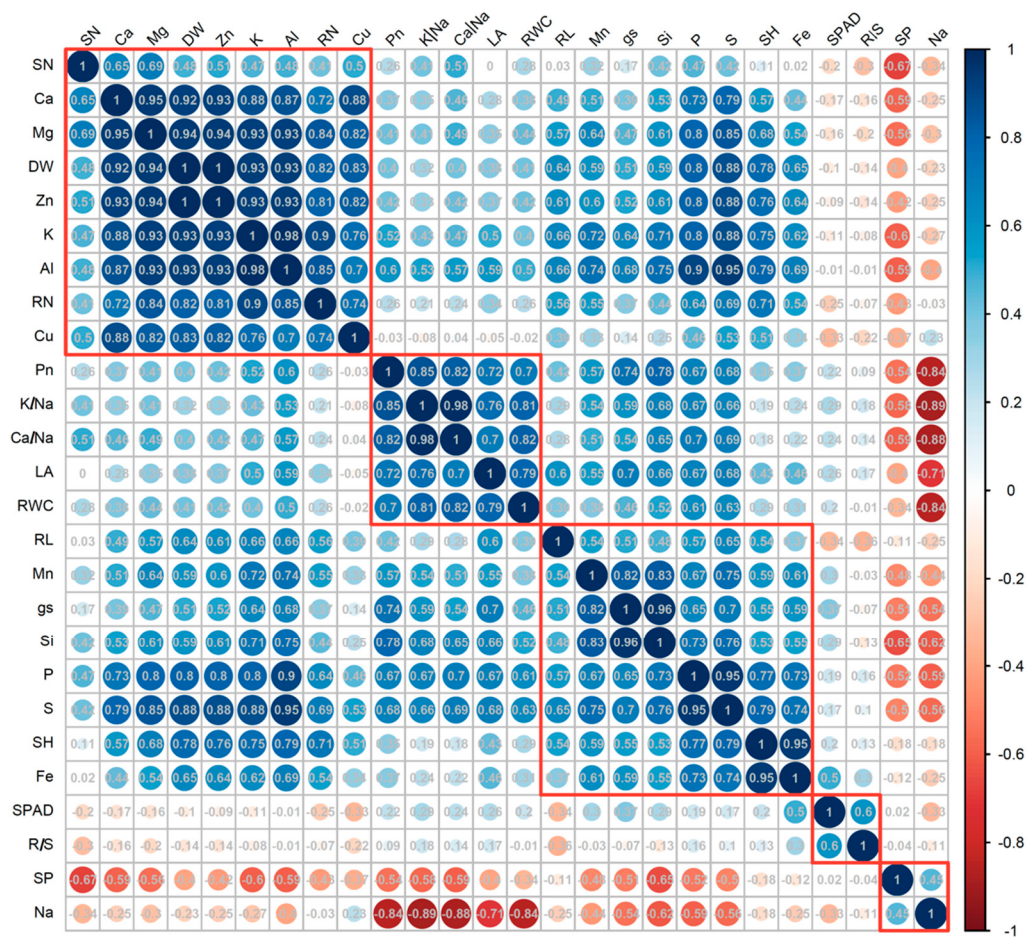


Figure S3. The correlation efficiency between growth parameters and mineral nutrients, including total dry weight (DW), root/shoot ratio (R/S), root length (RL), root number (RN), shoot length (SL), new shoot number (SN), leaf area (LA), salt damage rate (SP), relative water content (RWC), SPAD, Pn, total minerals content, K/Na and Ca/Na. The blue is negative correlation with each other, the red is positive correlation with each other. The color is darker, the correlation is more significant.

Table S1. The accumulation of macroelements in pomegranate roots, stems and leaves under salt stress

Tissue content (mg)		P			S			K			Ca			Na			Mg		
Cultivar	Group	Root	Stem	Leaf	Root	Stem	Leaf	Root	Stem	Leaf	Root	Stem	Leaf	Root	Stem	Leaf	Root	Stem	Leaf
Dwarf Moy	CK	3.32	16.60	53.40	5.33	7.38	26.05	9.07	69.15	199.29	8.10	44.87	123.74	4.15	8.61	1.95	2.42	7.38	39.73
	ST	2.68	9.57	27.97	3.69	3.99	19.02	9.33	43.68	171.72	7.04	26.73	110.75	23.80	14.36	21.25	2.01	4.79	31.32
Kandahar	CK	4.22	26.28	53.21	9.37	12.82	32.25	19.93	130.75	194.29	20.86	94.86	167.69	13.33	8.97	4.03	6.34	12.82	43.53
	ST	3.96	14.69	35.27	5.49	6.85	20.67	26.42	65.61	180.60	15.34	47.00	144.11	46.33	26.11	12.77	4.88	6.85	32.65
Mollar	CK	6.63	32.46	64.52	10.83	16.23	33.05	22.48	147.43	213.24	17.61	89.27	137.70	25.37	6.76	8.66	6.63	16.23	40.92
	ST	3.85	15.33	31.14	6.75	7.08	20.15	26.50	85.10	206.97	12.96	48.35	109.90	34.69	42.06	21.37	3.75	9.43	31.14
Wonderful	CK	3.52	20.07	60.93	6.60	11.53	35.54	12.94	93.07	190.59	12.85	61.05	108.53	5.19	5.12	2.54	2.99	8.97	32.37
	ST	3.30	14.66	34.30	3.74	5.87	18.16	13.57	52.30	156.87	9.09	28.11	89.78	27.43	15.89	13.11	2.86	5.13	22.19
Pecos	CK	5.60	22.07	40.49	12.21	10.79	25.54	26.46	120.18	201.81	19.46	60.83	116.48	10.56	7.85	4.98	7.89	8.34	31.77
	ST	5.38	16.15	32.37	7.81	6.65	17.47	20.74	65.55	135.66	14.72	35.47	79.14	38.53	12.03	10.79	4.22	5.70	21.58
Red Angel	CK	3.67	17.48	54.05	4.35	7.94	29.78	11.26	66.46	165.46	6.12	39.98	89.35	9.18	3.18	1.38	2.20	6.36	27.03
	ST	1.59	7.08	19.73	2.11	3.16	15.69	6.90	32.39	116.57	3.43	21.85	70.84	12.17	11.75	21.52	1.21	4.07	19.73
Surh-Anor	CK	6.78	28.51	45.57	11.04	13.45	25.18	27.92	133.93	158.89	19.24	62.39	106.73	28.39	5.38	3.00	6.78	11.30	32.98
	ST	4.17	13.48	23.96	6.86	5.18	18.75	21.44	77.76	133.85	13.85	31.80	82.29	44.23	23.85	15.62	5.02	7.26	25.00
Sweet	CK	6.24	18.59	55.87	14.25	5.85	24.70	28.34	71.02	193.47	18.10	38.58	109.97	11.13	6.43	0.59	8.61	6.14	31.17
	ST	6.08	11.40	38.30	8.50	6.40	22.56	27.50	62.48	151.63	18.43	42.98	86.57	54.00	16.76	6.82	5.39	6.40	27.28
Total content (mg)		P			S			K			Ca			Na			Mg		
Cultivar	Group	Content	Δ (%)	Content	Δ (%)	Content	Δ (%)	Content	Δ (%)	Content	Δ (%)	Content	Δ (%)	Content	Δ (%)	Content	Δ (%)	Content	Δ (%)
Dwarf Moy	CK	73.32		38.76		277.50		176.71		14.71		49.53							
	ST	40.22	-45.14	26.69	-31.12	224.73	-19.02	144.52	-18.22	59.42	303.88	38.12	-23.03						
Kandahar	CK	83.71		54.44		344.98		283.40		26.34		62.69							
	ST	53.92	-35.59	33.02	-39.35	272.62	-20.97	206.45	-27.15	85.21	223.55	44.38	-29.20						
Mollar	CK	103.61		60.11		383.48		244.58		40.79		63.77							
	ST	50.32	-51.43	33.97	-43.49	318.57	-16.93	171.20	-30.00	98.12	140.54	44.32	-30.51						
Wonderful	CK	84.51		53.67		296.60		182.43		12.85		44.33							
	ST	52.26	-38.16	27.76	-48.27	222.74	-24.90	126.98	-30.39	56.43	338.99	30.19	-31.90						
Pecos	CK	68.16		48.54		348.45		196.76		23.39		47.99							
	ST	53.90	-20.92	31.93	-4.22	221.95	-36.30	129.32	-34.28	61.35	162.31	31.51	-34.35						
Red Angel	CK	75.20		42.07		243.19		135.45		13.74		35.58							
	ST	28.40	-62.23	20.97	-50.16	155.86	-35.91	96.12	-29.04	45.44	230.80	25.01	-29.72						
Surh-Anor	CK	80.86		49.67		320.74		188.36		36.77		51.06							
	ST	41.60	-48.55	30.79	-38.00	233.05	-27.34	127.93	-32.08	83.70	127.65	37.28	-26.98						
Sweet	CK	73.35		44.79		292.84		166.65		18.15		45.91							
	ST	63.13	-13.93	37.47	-16.35	241.61	-17.49	147.97	-11.21	77.58	327.52	39.07	-14.90						

Note: CK: untreated group of plants, ST: salt-treated group of plants; Δ value of P, S, K, Ca and Mg were calculated as (ST – CK)/CK × 100; multiple comparison was conducted by the Δ values; no significant changes were observed in macronutrient content of whole plant.

Table S2. The accumulation of microelements in pomegranate roots, stems and leaves under salt stress

Tissue content (µg)		Fe			Si			Mn			Zn			Al			Cu		
Cultivar	Group	Root	Stem	Leaf	Root	Stem	Leaf	Root	Stem	Leaf	Root	Stem	Leaf	Root	Stem	Leaf	Root	Stem	Leaf
Dwarf Moy	CK	0.50	0.94	2.36	0.21	0.05	2.61	0.07	0.37	1.37	0.12	/	/	0.37	/	/	0.02	0.09	0.20
	ST	0.50	0.59	3.87	0.17	0.09	2.21	0.11	0.27	1.85	0.08	/	/	0.36	/	/	0.06	0.45	1.17
Kandahar	CK	0.64	1.61	0.33	0.39	0.58	1.72	0.11	0.22	0.60	0.12	0.34	0.24	0.73	0.77	/	0.02	0.19	0.24
	ST	0.71	0.87	1.40	0.34	0.29	1.56	0.26	0.27	0.93	0.11	0.14	0.09	0.59	0.15	/	0.17	0.73	1.19
Mollar	CK	0.91	0.91	0.79	0.53	0.51	0.87	0.19	0.44	0.80	0.10	0.69	0.47	0.85	0.20	/	0.05	0.20	0.24
	ST	0.85	0.50	1.51	0.41	0.35	0.84	0.33	0.49	0.95	0.08	0.42	0.09	0.79	0.12	/	0.13	0.88	2.11
Wonderful	CK	0.74	0.76	1.02	0.23	/	2.51	0.10	0.31	1.03	0.13	0.12	0.10	0.53	/	/	/	0.13	0.19
	ST	0.59	0.56	2.25	0.22	/	1.64	0.19	0.30	0.87	0.13	0.00	0.23	0.46	/	/	/	0.62	0.98
Pecos	CK	0.77	0.75	0.56	0.36	0.07	1.28	0.44	0.26	0.74	0.31	0.23	0.37	0.90	/	/	/	/	/
	ST	0.89	1.07	1.63	0.37	0.14	1.65	0.31	0.31	0.78	0.10	0.02	0.00	0.60	/	/	/	/	/
Red Angel	CK	0.47	0.62	1.88	0.18	0.16	0.90	0.10	0.45	1.51	0.06	0.00	/	0.28	0.08	/	0.02	/	/
	ST	0.28	0.59	2.51	0.11	0.20	0.68	0.07	0.23	1.19	0.03	0.23	/	0.16	0.11	/	0.01	/	/
Surh-Anor	CK	1.07	0.90	0.92	0.49	0.08	2.33	0.30	0.30	0.65	0.14	/	0.09	0.92	/	/	/	/	0.18
	ST	0.73	0.81	1.07	0.41	0.21	1.70	0.19	0.36	0.74	0.07	/	0.00	0.64	/	/	/	/	0.39
Sweet	CK	1.42	0.75	1.19	0.38	0.04	1.50	0.38	0.23	0.90	0.36	0.13	0.18	1.05	/	/	/	/	/
	ST	1.24	1.05	2.67	0.45	0.05	1.84	0.35	0.33	1.10	0.19	0.00	0.00	0.85	/	/	/	/	/
Total content (µg)		Fe			Si			Mn			Zn			Al			Cu		
Cultivar	Group	Content	Δ (%)	Content	Δ (%)	Content	Δ (%)	Content	Δ (%)	Content	Δ (%)	Content	Δ (%)	Content	Δ (%)	Content	Δ (%)	Content	Δ (%)
Dwarf Moy	CK	3.81		2.87		1.81		0.13		0.37		0.37		0.31					
	ST	4.96	30.27	2.46	-14.01	2.22	23.03	0.08	-38.46	0.36	-3.57	1.68	445.52**						
Kandahar	CK	2.58		2.68		0.94		0.70		1.50		0.45							
	ST	2.98	15.50	2.19	-18.20	1.46	55.78*	0.33	-52.86	0.74	-50.64	2.09	359.92**						
Mollar	CK	2.60		1.90		1.43		1.26		1.05		0.49							
	ST	2.86	10.00	1.60	-15.68	1.78	24.28	0.59	-53.17	0.90	-13.93	3.12	-539.95						
Wonderful	CK	2.52		2.74		1.45		0.34		0.53		0.32							
	ST	3.41	35.52	1.86	-32.10	1.35	-6.64	0.36	5.88	0.46	-12.50	1.61	404.52**						
Pecos	CK	2.09		1.71		1.44		0.90		0.90		0.00							
	ST	3.59	72.10*	2.17	-26.39	1.40	-2.85	0.12	-86.67	0.60	-33.63	0.00	/						
Red Angel	CK	2.97		1.25		2.06		0.06		0.36		0.02							
	ST	3.38	13.60	0.99	-20.34	1.49	-27.61	0.26	333.33**	0.27	-26.10	0.01	43.36						
Surh-Anor	CK	2.89		2.90		1.24		0.23		0.92		0.18							
	ST	2.61	-9.72	2.32	-20.16	1.29	4.16	0.07	-69.57	0.64	-30.28	0.39	117.11						
Sweet	CK	3.35		1.92		1.50		0.66		1.05		0.00							
	ST	4.95	47.73	2.34	21.84	1.78	18.52	0.19	-71.21	0.85	-18.72	0.00	/						

Note: CK: untreated group of plants, ST: salt-treated group of plants; Δ value was calculated as (ST – CK)/CK × 100; multiple comparison was conducted by the Δ values; / was less than 0.01 µg/g and unavailable; * and

** indicate significance at 0.05 and 0.01 among cultivars, respectively.

Table S3. The ratio of K/Na and Ca/Na in pomegranate organs

Ion ratio	Cultivar	Root		Stem		Leaf		Whole plant	
		CK	ST	CK	ST	CK	ST	CK	ST
K/Na	Kandahar	1.50	0.57	14.57	2.51	48.20	14.14	18.86	3.78
	Dwarf Moy	2.18	0.39	8.04	2.83	102.00	8.87	13.10	3.20
	Mollar	1.04	0.65	21.80	2.02	24.64	9.69	9.49	3.21
	Wonderful	2.49	0.49	18.17	3.29	75.75	11.56	23.07	3.95
	Red Angel	1.23	0.57	20.92	2.76	120.00	5.42	14.90	3.62
	Pecos	2.51	0.54	15.31	5.45	40.50	12.57	17.70	3.43
	Surh-Anor	0.98	0.48	24.90	3.26	51.80	8.57	8.72	2.78
	Sweet	2.55	0.51	11.05	3.73	129.00	22.23	16.14	3.11
Ca/Na	Kandahar	1.56	0.33	10.57	1.80	41.60	11.29	12.01	2.43
	Dwarf Moy	1.95	0.30	5.21	1.86	63.33	5.21	10.76	2.42
	Mollar	0.69	0.37	13.20	1.15	15.91	5.14	6.00	1.74
	Wonderful	2.07	0.35	11.00	2.17	46.75	6.35	14.19	2.25
	Red Angel	0.67	0.28	12.58	1.86	64.80	3.29	8.41	2.11
	Pecos	1.84	0.38	7.75	2.95	23.37	7.33	9.86	2.12
	Surh-Anor	0.68	0.31	11.60	1.33	35.60	5.27	5.12	1.53
	Sweet	1.95	0.33	6.50	2.09	86.02	13.69	9.18	1.91

Note: CK: untreated group of plants, ST: salt-treated group of plants;