

Article

Utilization of tomato landraces to improve seedling performance under salt stress

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Table S1. Details on the tomato germplasm collection used in the study to evaluate salt responses. TGRC, Tomato Genetic Resources Center; HAO DEMETER, Hellenic Agricultural Organization.

Genotype	Code	Type	Salinity tolerant	Source of origin	Geographic origin
<i>S. pimpinellifolium</i>	LA1579	wild accession	yes	TGRC	Gene Bank
Ailsa Craig	AC	model cultivar	no	TGRC	Gene Bank
LA4102	IL12-4	introgression line	unknown	TGRC	Gene Bank
SANTORINI	V1	landrace	unknown	HAO DEMETER	Aegean Sea
ZAKINTHOS	V2	landrace	unknown	HAO DEMETER	Ionian Sea
PAXOI	V3	landrace	unknown	HAO DEMETER	Ionian Sea
HL073	V4	landrace	unknown	HAO DEMETER	Crete, Greece
AGIOU OROUS	V5	landrace	unknown	HAO DEMETER	Macedonia, Greece
MAKEDONIA	V6	commercial cultivar originated from landraces	unknown	HAO DEMETER	Macedonia, Greece

Table S2. Results of analysis of variance applied on growth and physiological parameters of tomato seedlings of different genotypes as affected by salinity treatment. F-ratios' significance is given for the effects exerted by tomato's genotype and salinity treatment.

Variation Source	df ^z	Significance of F-ratio																
		Shoot Length	Shoot Thickness	Leaves Number	Shoot FW	Root FW	Shoot DMC	Root DMC	RGR	CCI	TR	SC	Anet	REL	AsA	totAsA	AsA/totAsA	MDA
Genotype (G)	8	**	**	**	**	**	**	**	**	**	**	**	**	*	**	**	**	**
Salinity (S)	1	**	**	**	**	**	NS	**	**	**	**	**	**	**	**	**	**	**
G x S	8	**	**	NS	NS	NS	**	**	NS	**	**	**	**	NS	**	**	**	**
CV%		9.33	7.20	12.40	15.34	17.66	6.02	10.01	21.88	25.03	20.19	17.21	15.50	11.33	9.86	8.82	7.60	3.73

z df, degree of freedom; FW, fresh Weight; DW, dry weight; DMC, dry matter content (%); RGR, relative growth rate; CCI, chlorophyll content index; TR, transpiration rate, SC, stomatal conductance Anet, net photosynthetic rate; REL, root electrolyte leakage; MDA, content of malondialdehyde; AsA, ascorbic acid; tot AsA, total ascorbic acid; CV, Coefficient of Variance; **, significance at $p < 0.01$; *, significance at $p < 0.05$; NS, nonsignificant.

Table S3. Tolerance indices stress susceptibility index (SSI) and salt tolerance index (STI) of the above-the-ground and total biomass of nine tomato genotypes subjected to 200 mM NaCl for 10 days.

Genotypes	Above-the-ground		Total	
	SSI	STI	SSI	STI
LA1579	0.432	0.427	0.468	0.465
AC	0.853	0.3	0.803	0.434
IL12-4	0.772	0.313	0.845	0.433
V1	0.604	0.515	0.723	0.719
V2	1.029	0.259	0.918	0.243
V3	1.05	0.388	0.99	0.552
V4	1.246	0.396	1.131	0.599
V5	1.482	0.263	1.816	0.314
V6	0.796	0.425	0.737	0.592

