

Table 1 Suppl. Correlation analysis between salt (NaCl) concentrations (0, 25, 50, 75, 100, and 200 mM) and germination percentage (G%), seedling length, seedling fresh mass, and seedling dry mass in durum wheat seeds exposed to eight treatments (0.01, 0.05, 0.1, 0.3, 0.5% chitosan, distilled water, untreated, and 1% acetic acid) after 8 days post germination.

Correlation coefficient	Chitosan 0.01%	Chitosan 0.05%	Chitosan 0.1%	Chitosan 0.3%	Chitosan 0.5%	Distilled water	Untreated	Acetic acid 1%
NaCl vs. G%	-0.991	-0.980	-0.946	-0.990	-0.987	-0.997	-0.981	-0.976
NaCl vs. seedling length [cm]	-0.989	-0.998	-0.841	-0.984	-0.994	-0.987	-0.982	-0.900
NaCl vs. seedling fresh mass [g]	-0.923	-0.998	-0.752	-0.908	-0.985	-0.982	-0.908	-0.896
NaCl vs. seedling dry mass [g]	-0.895	-0.998	-0.775	-0.920	-0.983	-0.991	-0.944	-0.948

Table 2 Suppl. Correlation analysis between NaCl concentrations (0, 25, 50, 75, 100, and 200 mM) and GABA shunt metabolites (GABA, alanine, and glutamate) and malondialdehyde (MDA) content in durum wheat seeds exposed to eight treatments (0.01, 0.05, 0.1, 0.3, 0.5% chitosan, distilled water, untreated, and 1% acetic acid) at day 1, day 4 and day 8 post-germination.

Treatments	Correlation coefficient	Day 1	Day 4	Day 8
Chitosan 0.01%	NaCl vs. GABA	0.865	0.763	0.824
	NaCl vs. alanine	0.992	0.940	0.968
	NaCl vs. glutamate	0.668	0.802	0.963
	NaCl vs. MDA	0.941	0.991	0.924
Chitosan 0.05%	NaCl vs. GABA	0.926	0.933	0.951
	NaCl vs. alanine	0.998	0.908	0.862
	NaCl vs. glutamate	0.979	0.988	0.992
	NaCl vs. MDA	0.968	0.994	0.819
Chitosan 0.1%	NaCl vs. GABA	0.957	0.972	0.918
	NaCl vs. alanine	0.788	0.982	0.929
	NaCl vs. glutamate	0.831	0.978	0.852
	NaCl vs. MDA	0.965	0.959	0.924
Chitosan 0.3%	NaCl vs. GABA	0.925	0.984	0.977
	NaCl vs. alanine	0.967	0.978	0.981
	NaCl vs. glutamate	0.978	0.907	0.892
	NaCl vs. MDA	0.899	0.995	0.953
Chitosan 0.5%	NaCl vs. GABA	0.974	0.955	0.946
	NaCl vs. alanine	0.994	0.889	0.988
	NaCl vs. glutamate	0.987	0.982	0.987
	NaCl vs. MDA	0.978	0.965	0.999
Distilled water	NaCl vs. GABA	0.962	0.947	0.962
	NaCl vs. alanine	0.957	0.959	0.992
	NaCl vs. glutamate	0.949	0.979	0.987

	NaCl vs. MDA	0.977	0.985	0.879
Untreated	NaCl vs. GABA	0.973	0.983	0.978
	NaCl vs. alanine	0.984	0.955	0.987
	NaCl vs. glutamate	0.967	0.998	0.986
	NaCl vs. MDA	0.934	0.900	0.923
Acetic acid 1%	NaCl vs. GABA	0.992	0.848	0.968
	NaCl vs. alanine	0.994	0.984	0.997
	NaCl vs. glutamate	0.967	0.968	0.997
	NaCl vs. MDA	0.997	0.992	0.932

Table 3 Suppl. Correlation analysis between GABA shunt metabolites (GABA, alanine, and glutamate) and germination percentage (G%), seedling length (cm), seedling fresh mass (g), and seedling dry mass (g) of durum wheat seeds exposed to eight treatments (0.01, 0.05, 0.1, 0.3, and 0.5% chitosan, distilled water, untreated, and 1% acetic acid) supplemented with 0, 25, 50, 75, 100, and 200 mM of NaCl at day 8 post-germination.

Correlation coefficient	Chitosan 0.01%	Chitosan 0.05%	Chitosan 0.1%	Chitosan 0.3%	Chitosan 0.5%	Distilled water	Untreated	Acetic acid 1%
GABA vs. G%	-0.873	-0.977	-0.988	-0.939	-0.900	-0.968	-0.929	-0.980
GABA vs. seedling length [cm]	-0.815	-0.946	-0.971	-0.969	-0.959	-0.990	-0.978	-0.983
GABA vs. seedling fresh mass [g]	-0.949	-0.939	-0.922	-0.896	-0.976	-0.929	-0.959	-0.943
GABA vs. seedling dry mass [g]	-0.956	-0.947	-0.938	-0.919	-0.968	-0.930	-0.983	-0.975
Alanine vs. G%	-0.985	-0.821	-0.962	-0.978	-0.990	-0.993	-0.958	-0.993
Alanine vs. seedling length [cm]	-0.962	-0.875	-0.916	-0.933	-0.993	-0.974	-0.991	-0.918
Alanine vs. seedling fresh mass [g]	-0.972	-0.878	-0.840	-0.833	-0.977	-0.991	-0.915	-0.882
Alanine vs. seedling dry mass [g]	-0.957	-0.866	-0.867	-0.839	-0.993	-0.999	-0.944	-0.946
Glutamate vs. G%	-0.985	-0.962	-0.960	-0.871	-0.960	-0.976	-0.957	-0.992
Glutamate vs. seedling length [cm]	-0.967	-0.996	-0.964	-0.938	-0.989	-0.955	-0.966	-0.938
Glutamate vs. seedling fresh mass [g]	-0.968	-0.993	-0.954	-0.989	-0.989	-0.986	-0.919	-0.904
Glutamate vs. seedling dry mass [g]	-0.955	-0.997	-0.947	-0.979	-0.988	-0.988	-0.954	-0.954