

Supplementary data

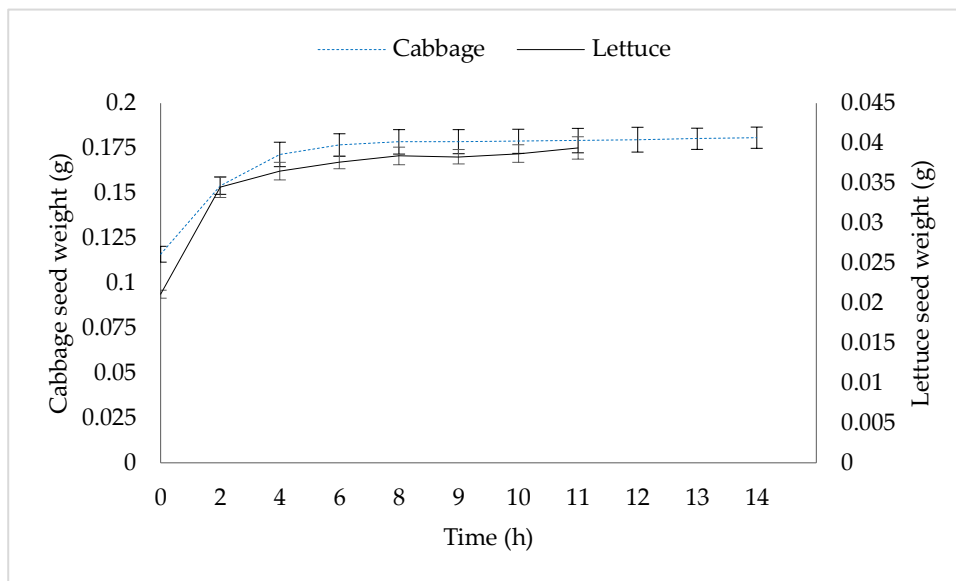


Figure S1. Water uptake in cabbage and lettuce seeds. Data points represent mean \pm SD (3 experiments of n = 25 seeds for each trial).

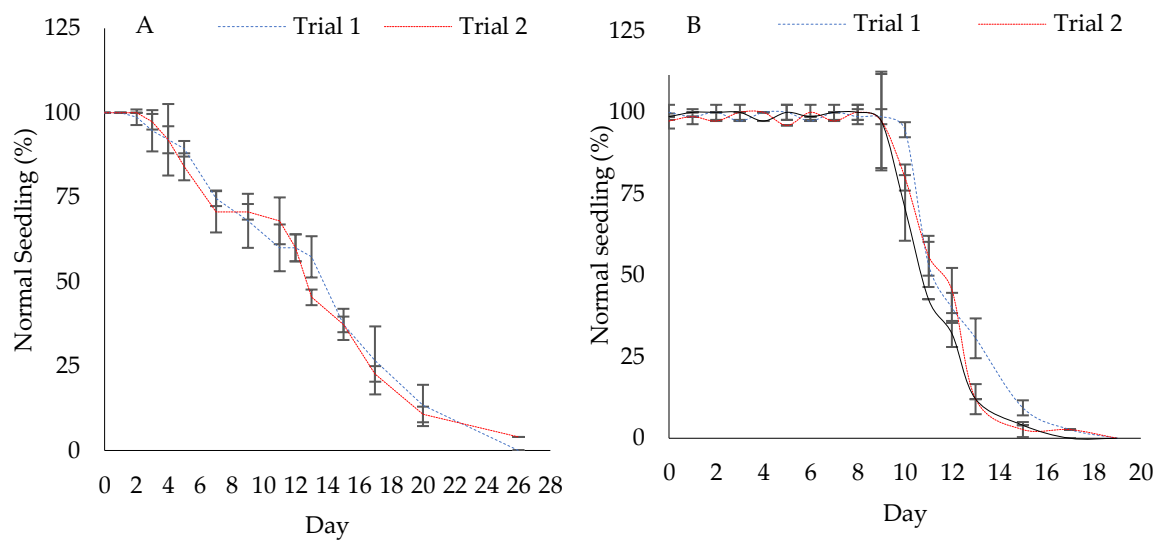


Figure S2. Normal seedling production (%) after controlled deterioration of cabbage (A) and lettuce (B) seeds 14 days after germination. Data points represent mean \pm SD (4 experiments of n = 25 seeds for each trial).

Table S1. Effect of the application of inorganic salt solutions on seedling vigour index of fresh and controlled deteriorated (P75) cabbage and lettuce seeds.

Controlled deterioration Level	Treatments	Seedling Vigour Index	
		Cabbage	Lettuce
Fresh	DW	6721.20±946.96 ^{NS}	3446.30±530.44 ^{NS}
	CaCl ₂	6820.20± 912.16 ^{NS}	3655.00±457.42 ^{NS}
	CaCl ₂ CW	6542.10±1369.35 ^{NS}	3525.00±244.66 ^{NS}
	CaMg	6284.90±1346.14 ^{NS}	3749.80±474.16 ^{NS}
	CaMg CW	5917.50±1075.33 ^{NS}	3462.50±289.32 ^{NS}
	CaMg CW (6.5)	7173.20±1231.64 ^{NS}	3440.50±333.14 ^{NS}
	MgCl ₂	7004.70±888.17 ^{NS}	3647.00±414.42 ^{NS}
	MgCl ₂ CW	6752.80±765.97 ^{NS}	3404.50±340.25 ^{NS}
	NaCl	4692.50±1904.47 ^{NS}	3431.95±231.65 ^{NS}
	NaCl CW	6906.30±841.71 ^{NS}	3400.00±153.44 ^{NS}
	NaCl CW (6.5)	6060.50±1158.96 ^{NS}	3463.90±482.66 ^{NS}
P75	DW	7554.50±2623.67 ^{NS}	4191.90±842.42 ^{NS}
	CaCl ₂	5559.45±1833.26 ^{NS}	3560.70±7181.02 ^{NS}
	CaCl ₂ CW	7126.30±2643.67 ^{NS}	4387.50±1315.91 ^{NS}
	CaMg	4357.00±1044.53 ^{NS}	4047.90±1256.79 ^{NS}
	CaMg CW	6512.00±1503.23 ^{NS}	4157.10±328.56 ^{NS}
	CaMg CW (6.5)	6627.20±2031.09 ^{NS}	4512.70±673.33 ^{NS}
	MgCl ₂	8012.50±2757.45 ^{NS}	4918.10±831.24 ^{NS}
	MgCl ₂ CW	6612.50±1427.34 ^{NS}	3552.20±880.11 ^{NS}
	NaCl	4672.20±2007.78 ^{NS}	4491.45±782.45 ^{NS}
	NaCl CW	6359.80±1727.57 ^{NS}	4592.30±1117.40 ^{NS}
	NaCl CW (6.5)	6435.00±2780.75 ^{NS}	4390.60±882.63 ^{NS}

Values represent mean±SD (4 × n = 25) of inorganic salt solutions that enhanced seedling vigour index (SVI) significantly relative to DW-treated seeds in fresh and P75. Values labelled with different letters are significantly different ($P < 0.05$, ANOVA) when compared across hydration treatments within each CD level. Cathodic water, CW; cathodic water adjusted to pH 6.5, CW (6.5); controlled deterioration, CD; NS: not significantly different from value obtained with DW and therefore not considered in statistical comparisons.

Table S2. Effect of the application of inorganic salt solutions on mortality (%) in fresh and controlled deteriorated cabbage and lettuce seeds.

Hydration treatments	Cabbage				Lettuce			
	% mortality for fresh seeds	% mortality for CDd (P75) seeds	% mortality for CDd (P50) seeds	% mortality for CDd (P25) seeds	% mortality for fresh seeds	% mortality for CDd (P75) seeds	% mortality for CDd (P50) seeds	% mortality for CDd (P25) seeds
DW	11.00±9.26 ^{NS}	17.00±8.21 ^{NS}	38.50±5.63 ^b	60.00±3.02 ^b	1.00±1.85 ^{NS}	20.00±7.09 ^{NS}	38.50±11.70 ^a	70.00±5.24 ^a
CaCl ₂	6.00±6.76 ^{NS}	23.50±6.57 ^{NS}	65.00±7.33 ^a	70.50±11.10 ^a	0.00±0.00 ^{NS}	23.00±5.95 ^{NS}	33.00±8.75 ^{NS}	55.00±11.66 ^{NS}
CaCl ₂ CW	5.50±5.21 ^{NS}	20.00±7.09 ^{NS}	71.00 ±12.78 ^a	73.50±5.21 ^a	0.00±0.00 ^{NS}	23.00±7.63 ^{NS}	29.00±7.93 ^{NS}	54.00±11.51 ^{NS}
CaMg	7.50±7.54 ^{NS}	30.00±4.28 ^{NS}	51.50±6.91 ^{NS}	68.50±4.50 ^a	1.50±4.24 ^{NS}	20.50±6.57 ^{NS}	13.00±5.13 ^b	51.50±13.60 ^b
CaMg CW	8.50±9.43 ^{NS}	22.50±7.98 ^{NS}	33.00±11.46 ^{NS}	72.00±3.70 ^a	0.00±0.00 ^{NS}	24.00±4.28 ^{NS}	31.50±10.13 ^{NS}	66.00±10.03 ^{NS}
CaMg CW (6.5)	3.50±5.83 ^{NS}	23.50±7.23 ^{NS}	38.00±7.09 ^{NS}	63.50±2.56 ^{NS}	1.00±1.85 ^{NS}	20.50±3.96 ^{NS}	28.00±11.90 ^{NS}	63.00±9.74 ^{NS}
MgCl ₂	5.00±7.01 ^{NS}	15.50±10.13 ^{NS}	54.50±8.80 ^{NS}	77.50±6.39 ^a	1.00±1.85 ^{NS}	13.00±7.33 ^{NS}	36.50±7.84 ^{NS}	60.00±6.41 ^{NS}
MgCl ₂ CW	7.50±9.90 ^{NS}	17.50±6.74 ^{NS}	46.50±6.02 ^{NS}	64.50±9.67 ^{NS}	0.50±1.41 ^{NS}	27.50±11.80 ^{NS}	36.50±5.42 ^{NS}	50.00±11.11 ^b
NaCl	6.50±5.47 ^{NS}	25.00±12.42 ^{NS}	28.50±11.40 ^{NS}	70.75±3.01 ^a	1.50±1.85 ^{NS}	21.00±5.55 ^{NS}	32.00±12.28 ^{NS}	56.50±13.43 ^{NS}
NaCl CW	4.50±4.99 ^{NS}	15.50±6.21 ^{NS}	57.00±13.31 ^a	65.50±4.75 ^{NS}	0.00±0.00 ^{NS}	21.00±5.95 ^{NS}	40.00±10.03 ^{NS}	49.50±10.03 ^b
NaCl CW (6.5)	6.00±8.00 ^{NS}	22.50±7.69 ^{NS}	46.50±4.24 ^{NS}	59.00±7.33 ^{NS}	0.50±1.41 ^{NS}	21.00±5.55 ^{NS}	36.00±5.66 ^{NS}	47.00±8.75 ^b

Values represent mean±SD (4 × n = 25) % mortality of the control (fresh seeds soaked in deionised water [DW] and all the inorganic salt solutions), and CDd (P75, P50 and P25) cabbage and lettuce seeds exposed to the inorganic salt solutions. Values labelled with different letters are significantly different ($P < 0.05$, ANOVA) when compared across hydration treatments within each controlled deterioration level. Cathodic water, CW; cathodic water adjusted to pH 6.5, CW (6.5); controlled deteriorated, CDd; not significant, NS.



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