

Accessory Publication**Table S1. The electrical conductivity and osmotic potential of hydroponic solution used in Experiment 1**

Treatment	Solution EC (dS m ⁻¹)	Osmotic potential (-MPa)
Control	1.5	-0.017
NaCl – (20)	4.43	-0.111
NaCl – (50)	6.18	-0.272
NaCl – (100)	9.97	-0.551
NaCl – (200)	18.50	-1.044
CaCl ₂ +KCl – (5+10)	4.80	-0.101
CaCl ₂ +KCl – (12.5+25)	5.95	-0.242
CaCl ₂ +KCl – (25+50)	9.85	-0.565
CaCl ₂ +KCl – (50+100)	19.64	-0.965

Table S2. The EC_{FC} and osmotic potential of soil solution extracted at field capacity used in Experiment 2

Treatment	EC _{FC} (dS m ⁻¹)	Osmotic potential (-MPa)
Control	1.2	-0.030
NaCl – S(1)	5.28	-0.175
NaCl – S(2)	9.37	-0.333
NaCl – S(3)	14.88	-0.580
NaCl – S(4)	21.44	-1.012
CaCl ₂ – C(1)	5.12	-0.163
CaCl ₂ – C(2)	10.66	-0.326
CaCl ₂ – C(3)	15.23	-0.632
CaCl ₂ – C(4)	22.77	-1.067
CNS(1)	6.01	-0.210
CNS(2)	11.12	-0.398
CNS(3)	23.44	-0.990

Table S3. The composition of concentrated macronutrient solutions as a non-specific osmoticum used in Experiment 2

Treatment	N	Ca ²⁺	Concentration (mM)			
			Mg ²⁺	K ⁺	SO ₄ ²⁻	H ₂ PO ₄ ⁻
Control	10.12	3.15	0.75	4.00	0.75	2.00
CNS (1)	20.05	6.20	1.95	8.50	2.50	2.00
CNS (2)	41.11	12.50	4.15	17.50	3.75	2.00
CNS (3)	81.05	25.50	7.25	33.50	6.50	2.00

Table S4. The dry matter loss of Clipper and Sahara under solution culture and soil based system in Experiment 1 and 2

The values of dry matter loss have been calculated from the treatment means in each experiment

Experiment and treatment	Effects	Dry matter loss (%)	
		Clipper	Sahara
Experiment 1		EC ~ 5.0 dS m ⁻¹	
NaCl	Osmotic + Cl ⁻ + Na ⁺	33	35
KCl + CaCl ₂	Osmotic + Cl ⁻	30	31
		EC ~ 10.5 dS m ⁻¹	
NaCl	Osmotic + Cl ⁻ + Na ⁺	69	67
KCl + CaCl ₂	Osmotic + Cl ⁻	60	50
		EC ~ 19.2 dS m ⁻¹	
NaCl	Osmotic + Cl ⁻ + Na ⁺	71	75
KCl + CaCl ₂	Osmotic + Cl ⁻	62	65
Experiment 2		EC _{FC} ~ 5.2 dS m ⁻¹	
NaCl	Osmotic + Cl ⁻ + Na ⁺	4	15
CaCl ₂	Osmotic + Cl ⁻	12	23
CNS	Osmotic	15	26
		EC _{FC} ~ 10.5 dS m ⁻¹	
NaCl	Osmotic + Cl ⁻ + Na ⁺	25	23
CaCl ₂	Osmotic + Cl ⁻	33	31
CNS	Osmotic	30	24
		EC _{FC} ~ 21.1 dS m ⁻¹	
NaCl	Osmotic + Cl ⁻ + Na ⁺	52	33
CaCl ₂	Osmotic + Cl ⁻	46	37
CNS	Osmotic	55	33