

Supplementary Material

***Hordeum vulgare* and *Hordeum maritimum* respond to extended salinity stress displaying different temporal accumulation pattern of metabolites**

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Table S1. Main physiological parameters, inorganic ions, hydrogen peroxide (H₂O₂), malondialdehyde (MDA), pigments, carbohydrates, glycine betaine, proteins, total and free amino acids content in leaves of *H. maritimum* and *H. vulgare* under control (non-saline condition), salt stress (200 mM NaCl) and salt removal treatment

Salt was gradually added to salt treated plants starting from 15 days after sowing (DAS). Salt removal treatment started from 30 DAS. Harvests were done at 30, 33, 36, 42 and 48 DAS.

Values are mean s.d. ($n=3$)

Day	<i>Hordeum maritimum</i>						<i>Hordeum vulgare</i>					
	Control		Sal stress		Salt removal		Control		Salt stress		Salt removal	
	Fresh weight (g per plant)											
30	1.31 ± 0.07 ^a	1.24 ± 0.21 ^{ac}	1.24 ± 0.21 ^{ac}	1.24 ± 0.21 ^{ac}	2.72 ± 0.31 ^b	1.04 ± 0.16 ^c	1.04 ± 0.16 ^c	1.04 ± 0.16 ^c	1.04 ± 0.16 ^c	1.04 ± 0.16 ^c	1.04 ± 0.16 ^c	1.04 ± 0.16 ^c
33	1.86 ± 0.36 ^a	1.25 ± 0.06 ^b	1.36 ± 0.06 ^b	3.38 ± 0.47 ^c	0.87 ± 0.09 ^d	1.30 ± 0.14 ^b	2.22 ± 0.28 ^a	4.26 ± 0.39 ^c	0.85 ± 0.12 ^b	2.72 ± 0.39 ^c	0.86 ± 0.11 ^e	2.72 ± 0.39 ^c
36	2.11 ± 0.11 ^a	0.91 ± 0.08 ^b	2.08 ± 0.21 ^a	4.26 ± 0.39 ^c	0.85 ± 0.12 ^b	2.22 ± 0.28 ^a	4.26 ± 0.39 ^c	0.85 ± 0.12 ^b	2.22 ± 0.28 ^a	4.26 ± 0.39 ^c	0.85 ± 0.12 ^b	2.22 ± 0.28 ^a
42	4.23 ± 0.28 ^a	1.24 ± 0.12 ^b	2.67 ± 0.48 ^c	7.21 ± 0.60 ^d	0.86 ± 0.11 ^e	2.72 ± 0.39 ^c	7.21 ± 0.60 ^d	0.86 ± 0.11 ^e	2.72 ± 0.39 ^c	7.21 ± 0.60 ^d	0.86 ± 0.11 ^e	2.72 ± 0.39 ^c
48	7.17 ± 0.56 ^a	1.41 ± 0.31 ^b	4.71 ± 0.44 ^c	10.09 ± 0.71 ^c	0.86 ± 0.04 ^d	3.45 ± 0.45 ^e	10.09 ± 0.71 ^c	0.86 ± 0.04 ^d	3.45 ± 0.45 ^e	10.09 ± 0.71 ^c	0.86 ± 0.04 ^d	3.45 ± 0.45 ^e
	Relative water content (%)											
30	85.8 ± 7.5 ^{ab}	83.8 ± 0.6 ^a	83.8 ± 0.6 ^a	91.5 ± 3.2 ^b	87.0 ± 5.8 ^{ab}	87.0 ± 5.8 ^a	91.5 ± 3.2 ^b	87.0 ± 5.8 ^{ab}	87.0 ± 5.8 ^a	91.5 ± 3.2 ^b	87.0 ± 5.8 ^{ab}	87.0 ± 5.8 ^a
33	87.0 ± 5.4 ^{ab}	83.7 ± 2.2 ^a	85.2 ± 4.2 ^{abc}	89.7 ± 2.4 ^b	86.8 ± 1.6 ^b	85.7 ± 3.6 ^{ab}	89.7 ± 2.4 ^b	86.8 ± 1.6 ^b	85.7 ± 3.6 ^{ab}	89.7 ± 2.4 ^b	86.8 ± 1.6 ^b	85.7 ± 3.6 ^{ab}
36	87.2 ± 6.8 ^a	83.9 ± 3.2 ^a	85.9 ± 2.5 ^a	89.7 ± 4.0 ^a	85.7 ± 2.8 ^{ac}	83.0 ± 2.9 ^a	89.7 ± 4.0 ^a	85.7 ± 2.8 ^{ac}	83.0 ± 2.9 ^a	89.7 ± 4.0 ^a	85.7 ± 2.8 ^{ac}	83.0 ± 2.9 ^a
42	89.7 ± 2.6 ^a	88.6 ± 2.6 ^a	89.8 ± 2.5 ^a	89.4 ± 2.4 ^a	83.8 ± 2.8 ^b	90.8 ± 3.6 ^a	89.4 ± 2.4 ^a	83.8 ± 2.8 ^b	90.8 ± 3.6 ^a	89.4 ± 2.4 ^a	83.8 ± 2.8 ^b	90.8 ± 3.6 ^a
48	87.3 ± 7.2 ^{ab}	87.8 ± 9.0 ^{ab}	87.8 ± 1.4 ^a	89.6 ± 3.1 ^a	83.0 ± 1.5 ^b	91.8 ± 1.8 ^a	89.6 ± 3.1 ^a	83.0 ± 1.5 ^b	91.8 ± 1.8 ^a	89.6 ± 3.1 ^a	83.0 ± 1.5 ^b	91.8 ± 1.8 ^a
	Leaf water potential (Mpa)											
30	-1.88 ± 0.03 ^a	-2.47 ± 0.15 ^b	-2.47 ± 0.15 ^b	-1.55 ± 0.05 ^c	-2.27 ± 0.14 ^b	-2.27 ± 0.14 ^b	-1.55 ± 0.05 ^c	-2.27 ± 0.14 ^b	-2.27 ± 0.14 ^b	-1.55 ± 0.05 ^c	-2.27 ± 0.14 ^b	-2.27 ± 0.14 ^b
33	-1.80 ± 0.26 ^{abc}	-2.20 ± 0.17 ^a	-1.63 ± 0.06 ^b	-1.52 ± 0.08 ^{bd}	-1.83 ± 0.12 ^c	-1.40 ± 0.10 ^d	-1.52 ± 0.08 ^{bd}	-1.83 ± 0.12 ^c	-1.40 ± 0.10 ^d	-1.52 ± 0.08 ^{bd}	-1.83 ± 0.12 ^c	-1.40 ± 0.10 ^d
36	-1.53 ± 0.06 ^a	-2.33 ± 0.06 ^b	-1.53 ± 0.06 ^a	-1.30 ± 0.10 ^c	-2.40 ± 0.10 ^b	-1.20 ± 0.10 ^c	-1.30 ± 0.10 ^c	-2.40 ± 0.10 ^b	-1.20 ± 0.10 ^c	-1.30 ± 0.10 ^c	-2.40 ± 0.10 ^b	-1.20 ± 0.10 ^c
42	-1.60 ± 0.10 ^a	-2.53 ± 0.12 ^b	-1.57 ± 0.06 ^a	-1.20 ± 0.01 ^c	-2.32 ± 0.06 ^d	-1.23 ± 0.06 ^c	-1.20 ± 0.01 ^c	-2.32 ± 0.06 ^d	-1.23 ± 0.06 ^c	-1.20 ± 0.01 ^c	-2.32 ± 0.06 ^d	-1.23 ± 0.06 ^c
48	-1.50 ± 0.10 ^a	-2.60 ± 0.17 ^b	-1.60 ± 0.10 ^a	-1.17 ± 0.06 ^c	-2.27 ± 0.06 ^d	-1.20 ± 0.10 ^c	-1.17 ± 0.06 ^c	-2.27 ± 0.06 ^d	-1.20 ± 0.10 ^c	-1.17 ± 0.06 ^c	-2.27 ± 0.06 ^d	-1.20 ± 0.10 ^c
	Chloride (μmol g ⁻¹ FW)											
30	63.7 ± 2.5 ^a	161 ± 18.6 ^b	161 ± 18.6 ^b	67.1 ± 1.1 ^a	252 ± 9.7 ^c	252 ± 9.7 ^c	67.1 ± 1.1 ^a	252 ± 9.7 ^c	252 ± 9.7 ^c	67.1 ± 1.1 ^a	252 ± 9.7 ^c	252 ± 9.7 ^c
33	65.4 ± 1.1 ^a	177 ± 29.5 ^b	113 ± 4.5 ^c	78.4 ± 4.6 ^d	277 ± 4.0 ^e	205 ± 2.0 ^b	78.4 ± 4.6 ^d	277 ± 4.0 ^e	205 ± 2.0 ^b	78.4 ± 4.6 ^d	277 ± 4.0 ^e	205 ± 2.0 ^b
36	61.7 ± 0.8 ^a	206 ± 18.4 ^b	93.5 ± 6.1 ^c	70.3 ± 4.2 ^d	274 ± 3.8 ^e	195 ± 13.6 ^b	70.3 ± 4.2 ^d	274 ± 3.8 ^e	195 ± 13.6 ^b	70.3 ± 4.2 ^d	274 ± 3.8 ^e	195 ± 13.6 ^b
42	65.0 ± 2.3 ^a	206 ± 8.8 ^b	65.7 ± 11.5 ^{ac}	70.4 ± 3.1 ^c	276 ± 6.9 ^d	127 ± 7.1 ^e	70.4 ± 3.1 ^c	276 ± 6.9 ^d	127 ± 7.1 ^e	70.4 ± 3.1 ^c	276 ± 6.9 ^d	127 ± 7.1 ^e
48	75.6 ± 2.4 ^a	197 ± 42.8 ^b	61.5 ± 8.8 ^c	81.1 ± 16.1 ^{ac}	291 ± 17.8 ^d	109 ± 3.5 ^e	81.1 ± 16.1 ^{ac}	291 ± 17.8 ^d	109 ± 3.5 ^e	81.1 ± 16.1 ^{ac}	291 ± 17.8 ^d	109 ± 3.5 ^e
	Nitrate (μmol g ⁻¹ FW)											
30	98.4 ± 5.2 ^a	39.2 ± 0.7 ^b	39.2 ± 0.7 ^b	71.6 ± 4.5 ^c	22.4 ± 1.7 ^d	22.4 ± 1.7 ^d	71.6 ± 4.5 ^c	22.4 ± 1.7 ^d	22.4 ± 1.7 ^d	71.6 ± 4.5 ^c	22.4 ± 1.7 ^d	22.4 ± 1.7 ^d
33	101 ± 7 ^a	37.1 ± 0.7 ^b	33.7 ± 4.4 ^b	79.0 ± 5.1 ^c	19.0 ± 1.3 ^d	21.8 ± 4.9 ^d	79.0 ± 5.1 ^c	19.0 ± 1.3 ^d	21.8 ± 4.9 ^d	79.0 ± 5.1 ^c	19.0 ± 1.3 ^d	21.8 ± 4.9 ^d
36	99.1 ± 3.2 ^a	42.9 ± 4.4 ^b	42.7 ± 8.7 ^b	73.3 ± 6.5 ^c	17.4 ± 1.1 ^d	28.8 ± 2.3 ^e	73.3 ± 6.5 ^c	17.4 ± 1.1 ^d	28.8 ± 2.3 ^e	73.3 ± 6.5 ^c	17.4 ± 1.1 ^d	28.8 ± 2.3 ^e
42	104 ± 8 ^a	36.3 ± 0.3 ^b	58.8 ± 4.6 ^c	73.3 ± 5.3 ^d	17.3 ± 1.1 ^e	62.3 ± 3.5 ^c	73.3 ± 5.3 ^d	17.3 ± 1.1 ^e	62.3 ± 3.5 ^c	73.3 ± 5.3 ^d	17.3 ± 1.1 ^e	62.3 ± 3.5 ^c
48	99.6 ± 5.8 ^a	25.3 ± 1.8 ^b	67.6 ± 2.0 ^c	71.7 ± 10.3 ^{ce}	15.9 ± 0.7 ^d	74.3 ± 2.8 ^e	71.7 ± 10.3 ^{ce}	15.9 ± 0.7 ^d	74.3 ± 2.8 ^e	71.7 ± 10.3 ^{ce}	15.9 ± 0.7 ^d	74.3 ± 2.8 ^e
	Potassium (μmol g ⁻¹ FW)											
30	62.9 ± 1.8 ^a	56.2 ± 5.4 ^a	56.2 ± 5.4 ^a	67.1 ± 1.5 ^b	55.0 ± 1.4 ^a	55.0 ± 1.4 ^a	67.1 ± 1.5 ^b	55.0 ± 1.4 ^a	55.0 ± 1.4 ^a	67.1 ± 1.5 ^b	55.0 ± 1.4 ^a	55.0 ± 1.4 ^a
33	66.7 ± 1.1 ^a	54.9 ± 7.1 ^{bc}	45.9 ± 3.3 ^b	60.1 ± 2.7 ^c	50.3 ± 1.9 ^b	51.9 ± 0.9 ^b	60.1 ± 2.7 ^c	50.3 ± 1.9 ^b	51.9 ± 0.9 ^b	60.1 ± 2.7 ^c	50.3 ± 1.9 ^b	51.9 ± 0.9 ^b
36	63.1 ± 4.6 ^a	50.2 ± 5.0 ^{bc}	51.7 ± 4.6 ^{bc}	63.5 ± 3.7 ^a	45.5 ± 2.8 ^b	55.2 ± 0.5 ^c	63.5 ± 3.7 ^a	45.5 ± 2.8 ^b	55.2 ± 0.5 ^c	63.5 ± 3.7 ^a	45.5 ± 2.8 ^b	55.2 ± 0.5 ^c
42	62.9 ± 4.1 ^{ac}	40.7 ± 1.3 ^b	56.4 ± 3.9 ^a	62.8 ± 1.7 ^c	34.3 ± 3.5 ^d	57.5 ± 0.6 ^a	62.8 ± 1.7 ^c	34.3 ± 3.5 ^d	57.5 ± 0.6 ^a	62.8 ± 1.7 ^c	34.3 ± 3.5 ^d	57.5 ± 0.6 ^a
48	57.8 ± 7.4 ^a	33.8 ± 3.8 ^b	61.5 ± 1.0 ^a	63.7 ± 3.2 ^a	33.7 ± 1.3 ^b	58.6 ± 2.8 ^a	63.7 ± 3.2 ^a	33.7 ± 1.3 ^b	58.6 ± 2.8 ^a	63.7 ± 3.2 ^a	33.7 ± 1.3 ^b	58.6 ± 2.8 ^a
	Sodium (μmol g ⁻¹ FW)											
30	19.4 ± 2.6 ^a	64.1 ± 7.9 ^b	64.1 ± 7.9 ^b	12.1 ± 3.9 ^c	133.0 ± 9.4 ^d	133.0 ± 9.4 ^d	12.1 ± 3.9 ^c	133.0 ± 9.4 ^d	133.0 ± 9.4 ^d	12.1 ± 3.9 ^c	133.0 ± 9.4 ^d	133.0 ± 9.4 ^d
33	20.3 ± 4.9 ^a	68.0 ± 2.9 ^b	56.3 ± 4.3 ^c	13.8 ± 2.2 ^a	142.1 ± 5.4 ^d	125.8 ± 9.4 ^e	13.8 ± 2.2 ^a	142.1 ± 5.4 ^d	125.8 ± 9.4 ^e	13.8 ± 2.2 ^a	142.1 ± 5.4 ^d	125.8 ± 9.4 ^e
36	23.2 ± 3.7 ^a	68.3 ± 4.7 ^b	47.3 ± 5.9 ^c	13.7 ± 1.7 ^d	172.7 ± 15.1 ^e	108.4 ± 6.7 ^f	13.7 ± 1.7 ^d	172.7 ± 15.1 ^e	108.4 ± 6.7 ^f	13.7 ± 1.7 ^d	172.7 ± 15.1 ^e	108.4 ± 6.7 ^f
42	20.8 ± 4.8 ^a	77.5 ± 3.5 ^b	31.1 ± 4.4 ^c	14.4 ± 2.3 ^a	177.5 ± 16.2 ^d	84.7 ± 4.9 ^b	14.4 ± 2.3 ^a	177.5 ± 16.2 ^d	84.7 ± 4.9 ^b	14.4 ± 2.3 ^a	177.5 ± 16.2 ^d	84.7 ± 4.9 ^b
48	24.7 ± 3.1 ^a	76.4 ± 2.9 ^b	24.6 ± 2.5 ^c	15.6 ± 1.2 ^c	247.4 ± 26.3 ^d	65.5 ± 8.3 ^b	15.6 ± 1.2 ^c	247.4 ± 26.3 ^d	65.5 ± 8.3 ^b	15.6 ± 1.2 ^c	247.4 ± 26.3 ^d	65.5 ± 8.3 ^b
	Potassium:Sodium											
30	3.23 ± 0.39 ^a	0.88 ± 0.10 ^b	0.88 ± 0.11 ^b	5.56 ± 0.70 ^c	0.41 ± 0.05 ^d	0.41 ± 0.05 ^d	5.56 ± 0.70 ^c	0.41 ± 0.05 ^d	0.41 ± 0.05 ^d	5.56 ± 0.70 ^c	0.41 ± 0.05 ^d	0.41 ± 0.05 ^d
33	3.28 ± 0.40 ^a	0.81 ± 0.10 ^b	0.82 ± 0.10 ^b	4.35 ± 0.55 ^c	0.35 ± 0.05 ^d	0.41 ± 0.05 ^d	4.35 ± 0.55 ^c	0.35 ± 0.05 ^d	0.41 ± 0.05 ^d	4.35 ± 0.55 ^c	0.35 ± 0.05 ^d	0.41 ± 0.05 ^d
36	2.72 ± 0.22 ^a	0.74 ± 0.09 ^b	1.09 ± 0.11 ^c	4.62 ± 0.61 ^d	0.26 ± 0.03 ^e	0.51 ± 0.06 ^f	4.62 ± 0.61 ^d	0.26 ± 0.03 ^e	0.51 ± 0.06 ^f	4.62 ± 0.61 ^d	0.26 ± 0.03 ^e	0.51 ± 0.06 ^f
42	3.02 ± 0.40 ^a	0.52 ± 0.05 ^b	1.81 ± 0.19 ^c	4.36 ± 0.46 ^d	0.19 ± 0.03 ^e	0.68 ± 0.08 ^f	4.36 ± 0.46 ^d	0.19 ± 0.03 ^e	0.68 ± 0.08 ^f	4.36 ± 0.46 ^d	0.19 ± 0.03 ^e	0.68 ± 0.08 ^f
48	2.34 ± 0.33 ^a	0.44 ± 0.04 ^b	2.50 ± 0.32 ^c	4.09 ± 0.50 ^c	0.14 ± 0.02 ^d	0.89 ± 0.10 ^e	4.09 ± 0.50 ^c	0.14 ± 0.02 ^d	0.89 ± 0.10 ^e	4.09 ± 0.50 ^c	0.14 ± 0.02 ^d	0.89 ± 0.10 ^e
	Sap osmolality ((mOsmol kg ⁻¹))											
30	612 ± 7 ^a	823 ± 70 ^b	823 ± 70 ^b	551 ± 35 ^c	1170 ± 235 ^d	1170 ± 235 ^d	551 ± 35 ^c	1170 ± 235 ^d	1170 ± 235 ^d	551 ± 35 ^c	1170 ± 235 ^d	1170 ± 235 ^d
33	616 ± 4 ^a	791 ± 60 ^b	644 ± 31 ^a	545 ± 58 ^c	1045 ± 22 ^d	1077 ± 212 ^d	545 ± 58 ^c	1045 ± 22 ^d	1077 ± 212 ^d	545 ± 58 ^c	1045 ± 22 ^d	1077 ± 212 ^d
36	530 ± 64 ^a	907 ± 80 ^b	604 ± 66 ^a	533 ± 14 ^a	1041 ± 29 ^c	766 ± 290 ^{bc}	533 ± 14 ^a	1041 ± 29 ^c	766 ± 290 ^{bc}	533 ± 14 ^a	1041 ± 29 ^c	766 ± 290 ^{bc}
42	640 ± 20 ^a	926 ± 27 ^b	633 ± 3 ^a	523 ± 44 ^c	1242 ± 58 ^d	553 ± 49 ^c	523 ± 44 ^c	1242 ± 58 ^d	553 ± 49 ^c	523 ± 44 ^c	1242 ± 58 ^d	553 ± 49 ^c
48	513 ± 26 ^{ac}	1044 ± 44 ^b	578 ± 70 ^a	471 ± 27 ^c	1384 ± 45 ^d	524 ± 3 ^a	471 ± 27 ^c	1384 ± 45 ^d	524 ± 3 ^a	471 ± 27 ^c	1384 ± 45 ^d	524 ± 3 ^a
	H ₂ O ₂ (μmol g ⁻¹ FW)											
30	1.16 ± 0.23 ^a	1.44 ± 0.22 ^{ac}	1.44 ± 0.22 ^{ac}	0.75 ± 0.06 ^b	2.01 ± 0.37 ^c	2.01 ± 0.37 ^c	0.75 ± 0.06 ^b	2.01 ± 0.37 ^c	2.01 ± 0.37 ^c	0.75 ± 0.06 ^b	2.01 ± 0.37 ^c	2.01 ± 0.37 ^c

Day	<i>Hordeum maritimum</i>						<i>Hordeum vulgare</i>					
	Control		Sal stress		Salt removal		Control		Salt stress		Salt removal	
	Total chlorophyll (mg g ⁻¹ FW)											
30	2.43 ± 0.01	a	3.40 ± 0.19	b	3.40 ± 0.19	b	2.49 ± 0.25	a	2.44 ± 0.21	a	2.44 ± 0.21	a
33	2.32 ± 0.09	a	3.14 ± 0.06	b	3.58 ± 0.25	c	2.75 ± 0.34	a	2.30 ± 0.20	a	1.87 ± 0.26	c
36	1.91 ± 0.33	ad	4.05 ± 0.14	b	2.88 ± 0.19	c	2.03 ± 0.57	acd	2.22 ± 0.07	a	1.52 ± 0.32	d
42	1.88 ± 0.09	a	2.84 ± 0.22	b	1.59 ± 0.14	c	2.64 ± 0.16	b	2.47 ± 0.16	b	2.42 ± 0.20	b
48	1.35 ± 0.25	ac	2.42 ± 0.26	b	1.08 ± 0.01	a	2.70 ± 0.38	b	1.38 ± 0.09	c	1.95 ± 0.21	b
	Chlorophyll a/Chlorophyll b											
30	3.98 ± 0.26	a	3.68 ± 0.18	a	3.68 ± 0.18	a	2.99 ± 0.04	b	3.19 ± 0.20	b	3.19 ± 0.20	b
33	3.55 ± 0.02	a	3.67 ± 0.13	a	3.66 ± 0.23	a	3.12 ± 0.17	b	3.57 ± 0.25	a	3.07 ± 0.24	b
36	4.15 ± 0.65	a	3.54 ± 0.00	a	3.70 ± 0.08	b	3.30 ± 0.02	c	3.68 ± 0.28	b	3.30 ± 0.20	bc
42	4.33 ± 0.25	a	4.01 ± 0.18	a	4.37 ± 0.39	a	3.30 ± 0.09	b	3.41 ± 0.04	b	3.67 ± 0.18	c
48	4.14 ± 0.45	ab	4.02 ± 0.16	a	4.72 ± 0.20	b	3.69 ± 0.24	a	3.89 ± 0.19	a	3.74 ± 0.27	a
	Carotenoids (mg g ⁻¹ FW)											
30	0.15 ± 0.00	a	0.20 ± 0.01	b	0.20 ± 0.01	b	0.14 ± 0.01	a	0.14 ± 0.01	a	0.14 ± 0.01	a
33	0.14 ± 0.01	a	0.19 ± 0.01	b	0.21 ± 0.01	b	0.16 ± 0.02	a	0.14 ± 0.02	a	0.11 ± 0.02	c
36	0.12 ± 0.02	ad	0.24 ± 0.01	b	0.17 ± 0.01	c	0.12 ± 0.03	a	0.13 ± 0.00	a	0.09 ± 0.02	d
42	0.12 ± 0.00	a	0.17 ± 0.02	b	0.10 ± 0.01	c	0.15 ± 0.01	b	0.14 ± 0.01	b	0.14 ± 0.01	b
48	0.08 ± 0.01	a	0.15 ± 0.02	b	0.07 ± 0.00	a	0.16 ± 0.02	b	0.08 ± 0.00	a	0.12 ± 0.01	b
	Starch (μmol glucose _{eq} g ⁻¹ FW)											
30	24.1 ± 5.1	a	23.8 ± 2.1	a	23.8 ± 2.1	a	10.07 ± 1.51	b	10.2 ± 1.4	b	10.2 ± 1.4	b
33	15.0 ± 0.4	a	16.2 ± 1.0	a	17.0 ± 1.4	a	12.74 ± 1.21	b	12.0 ± 3.2	b	11.3 ± 2.8	b
36	15.3 ± 1.8	a	13.5 ± 5.1	a	14.8 ± 1.4	a	9.92 ± 1.47	b	13.7 ± 2.8	ab	11.7 ± 1.5	ab
42	11.9 ± 0.5	a	15.6 ± 1.1	b	10.8 ± 2.3	a	10.55 ± 1.52	a	13.8 ± 3.3	ab	14.7 ± 2.6	ab
48	8.6 ± 1.2	a	8.2 ± 2.2	a	9.0 ± 1.9	a	15.12 ± 3.36	b	12.7 ± 3.0	ab	15.8 ± 1.3	b
	Glucose (μmol g ⁻¹ FW)											
30	7.71 ± 0.95	a	11.18 ± 0.97	b	11.18 ± 0.97	b	7.03 ± 1.28	a	5.05 ± 0.17	c	5.05 ± 0.17	c
33	10.67 ± 0.82	a	8.54 ± 0.87	b	7.81 ± 0.68	b	8.99 ± 1.61	ab	6.96 ± 1.38	b	8.92 ± 1.83	b
36	6.76 ± 1.20	a	8.63 ± 0.73	ab	8.40 ± 0.73	ab	9.59 ± 0.94	b	8.73 ± 0.61	b	8.06 ± 1.36	ab
42	9.56 ± 0.63	a	9.44 ± 0.38	a	6.63 ± 0.78	b	13.45 ± 4.48	acd	12.67 ± 0.21	c	18.84 ± 3.82	d
48	9.33 ± 1.16	ac	9.63 ± 2.96	ac	8.05 ± 0.82	a	17.86 ± 1.93	b	11.69 ± 2.83	ac	13.74 ± 3.34	bc
	Fructose (μmol g ⁻¹ FW)											
30	5.43 ± 0.77	a	6.68 ± 0.62	a	6.68 ± 0.62	a	4.21 ± 0.34	b	3.48 ± 0.12	c	3.48 ± 0.12	c
33	1.48 ± 0.12	a	1.22 ± 0.19	a	1.27 ± 0.36	a	5.16 ± 0.63	b	4.39 ± 0.53	b	5.15 ± 0.52	b
36	0.77 ± 0.14	a	1.61 ± 0.50	b	0.96 ± 0.43	ab	5.32 ± 0.21	c	5.44 ± 0.18	c	4.43 ± 0.62	c
42	0.88 ± 0.19	a	1.54 ± 0.49	a	0.72 ± 0.11	b	6.54 ± 1.76	c	6.60 ± 0.04	c	9.80 ± 1.39	d
48	1.51 ± 0.28	a	1.10 ± 0.37	ab	0.76 ± 0.22	b	7.56 ± 0.50	c	7.18 ± 1.68	c	7.17 ± 0.82	c
	Sucrose (μmol glucose _{eq} g ⁻¹ FW)											
30	3.13 ± 0.75	a	6.80 ± 1.16	b	6.80 ± 1.16	b	3.00 ± 0.21	c	7.63 ± 0.64	a	7.63 ± 0.64	a
33	3.62 ± 0.12	a	4.95 ± 0.68	bd	4.38 ± 0.35	b	3.94 ± 0.48	ab	7.56 ± 3.54	c	5.52 ± 0.68	cd
36	2.74 ± 0.47	a	7.02 ± 0.80	b	4.06 ± 0.87	ac	3.67 ± 0.22	c	6.72 ± 0.30	b	3.52 ± 0.12	c
42	4.34 ± 0.60	a	7.98 ± 0.35	b	3.29 ± 0.03	c	4.23 ± 0.95	ac	14.90 ± 1.69	d	5.92 ± 1.42	b
48	2.32 ± 0.79	a	5.48 ± 1.20	ab	1.95 ± 0.72	a	5.80 ± 0.50	b	7.18 ± 2.15	b	4.87 ± 0.31	a
	Glycine betaine (μmol g ⁻¹ FW)											
30	4.99 ± 1.86	a	12.88 ± 4.42	bc	12.88 ± 4.42	bc	9.04 ± 0.01	b	15.2 ± 1.2	c	15.2 ± 1.2	c
33	6.79 ± 0.21	a	11.11 ± 0.01	b	11.42 ± 1.69	bc	5.45 ± 1.40	a	12.3 ± 0.8	c	12.1 ± 0.6	c
36	7.75 ± 1.96	ab	12.74 ± 3.05	a	8.16 ± 0.33	b	3.93 ± 0.31	c	11.9 ± 1.6	a	10.3 ± 1.7	a
42	9.32 ± 2.65	ab	11.57 ± 1.61	ab	6.06 ± 1.54	a	6.18 ± 0.49	a	11.5 ± 0.9	b	7.92 ± 2.24	a
48	5.36 ± 0.59	a	10.64 ± 1.07	b	3.64 ± 2.28	a	6.03 ± 1.36	a	10.8 ± 2.7	b	5.23 ± 0.51	a
	Total proteins (mg g ⁻¹ FW)											
30	12.0 ± 2.7	a	12.5 ± 1.5	a	12.5 ± 1.5	a	10.4 ± 0.9	a	9.7 ± 2.7	a	9.7 ± 2.7	a
33	10.0 ± 2.9	ab	12.8 ± 4.0	ab	13.4 ± 0.5	a	9.6 ± 1.4	b	9.0 ± 3.6	b	8.2 ± 2.4	b
36	9.6 ± 3.1	abc	12.7 ± 1.4	a	13.9 ± 1.2	a	8.5 ± 0.7	b	10.1 ± 0.6	c	8.3 ± 2.7	bc
42	11.2 ± 1.9	ab	14.5 ± 3.6	a	13.2 ± 3.5	a	8.5 ± 1.0	b	10.3 ± 1.6	ab	9.4 ± 2.0	ab
48	11.4 ± 4.0	a	11.8 ± 3.3	a	12.8 ± 2.9	a	8.5 ± 1.4	a	10.4 ± 1.2	a	10.7 ± 3.6	a
	Total free amino acids (μmol g ⁻¹ FW)											
30	28.6 ± 6.8	a	33.8 ± 5.9	a	33.8 ± 5.9	a	11.5 ± 2.5	b	54.1 ± 9.5	c	54.1 ± 9.5	c
33	25.9 ± 1.2	a	31.4 ± 5.9	a	33.7 ± 7.7	a	12.5 ± 0.2	b	65.0 ± 7.0	b	28.7 ± 3.7	a
36	24.7 ± 6.2	a	35.1 ± 5.3	a	26.4 ± 4.7	a	13.0 ± 4.6	b	66.9 ± 8.6	c	24.8 ± 5.0	a
42	26.4 ± 2.8	a	47.5 ± 4.7	b	35.9 ± 3.1	c	16.1 ± 3.4	d	56.1 ± 8.8	b	12.7 ± 3.8	d
48	39.6 ± 0.9	a	36.3 ± 5.7	ab	45.8 ± 3.9	b	20.2 ± 4.5	c	48.8 ± 8.0	b	22.3 ± 1.6	c

Day	<i>Hordeum maritimum</i>						<i>Hordeum vulgare</i>																	
	Control		Sal stress		Salt removal		Control		Salt stress		Salt removal													
	Alanine (amino acids are expressed as $\mu\text{mol g}^{-1}$ FW)																							
30	1.39	±	0.10	a	1.01	±	0.29	ab	1.01	±	0.29	ab	0.70	±	0.04	b	1.10	±	0.08	a	1.10	±	0.08	a
33	1.55	±	0.11	a	1.20	±	0.14	b	1.52	±	0.10	a	0.95	±	0.06	c	1.37	±	0.16	ab	0.96	±	0.08	c
36	1.39	±	0.06	a	1.68	±	0.24	a	1.25	±	0.20	a	0.75	±	0.14	b	1.36	±	0.14	a	0.97	±	0.46	ab
42	1.58	±	0.28	ad	2.45	±	0.29	b	1.84	±	0.35	ab	1.05	±	0.07	c	1.25	±	0.08	d	0.91	±	0.28	c
48	1.71	±	0.21	a	1.64	±	0.25	ab	1.89	±	0.13	a	1.35	±	0.06	b	1.70	±	0.17	a	1.82	±	0.48	ab
	Arginine																							
30	0.20	±	0.01	a	0.16	±	0.05	ab	0.16	±	0.05	ab	0.11	±	0.01	b	0.09	±	0.00	c	0.09	±	0.00	c
33	0.16	±	0.03	a	0.15	±	0.01	a	0.16	±	0.02	a	0.11	±	0.01	b	0.09	±	0.01	b	0.12	±	0.03	b
36	0.14	±	0.05	ab	0.16	±	0.04	ab	0.12	±	0.01	a	0.12	±	0.01	a	0.18	±	0.02	b	0.13	±	0.06	ab
42	0.16	±	0.03	ab	0.19	±	0.04	a	0.20	±	0.03	a	0.14	±	0.03	ab	0.11	±	0.03	bc	0.09	±	0.01	c
48	0.24	±	0.08	ab	0.16	±	0.04	ac	0.25	±	0.03	b	0.14	±	0.01	c	0.25	±	0.09	ab	0.18	±	0.06	abc
	Asparagine																							
30	4.93	±	0.10	a	3.68	±	1.24	a	3.68	±	1.24	a	1.58	±	0.37	b	12.07	±	3.68	c	12.07	±	3.68	c
33	5.10	±	0.35	a	3.84	±	0.18	b	4.98	±	0.51	a	1.11	±	0.19	b	12.29	±	1.81	c	5.15	±	1.59	ab
36	4.92	±	1.29	a	3.46	±	0.66	ad	4.77	±	0.79	a	1.53	±	0.18	b	21.95	±	5.31	c	3.13	±	0.16	d
42	3.45	±	1.40	a	3.93	±	0.51	a	11.04	±	0.38	b	3.42	±	0.37	a	15.37	±	2.03	c	3.24	±	0.46	a
48	15.07	±	3.54	a	3.94	±	0.49	b	19.25	±	1.77	a	4.13	±	0.74	b	9.09	±	3.06	c	3.91	±	1.30	b
	Aspartate																							
30	0.85	±	0.05	a	0.76	±	0.25	ab	0.76	±	0.25	ab	0.55	±	0.14	b	0.82	±	0.10	a	0.82	±	0.10	a
33	1.07	±	0.06	a	0.79	±	0.06	b	0.92	±	0.08	ab	0.48	±	0.07	c	0.81	±	0.08	b	0.57	±	0.04	c
36	0.66	±	0.14	a	0.90	±	0.17	a	0.97	±	0.44	a	0.67	±	0.07	a	0.85	±	0.19	a	0.75	±	0.24	a
42	0.76	±	0.24	ab	0.99	±	0.10	a	0.68	±	0.08	b	0.70	±	0.10	b	0.73	±	0.08	b	0.45	±	0.06	c
48	0.83	±	0.15	a	0.69	±	0.15	a	0.72	±	0.10	a	0.89	±	0.11	a	1.28	±	0.13	b	0.72	±	0.22	a
	Glutamate																							
30	4.16	±	0.24	a	3.70	±	0.48	a	3.70	±	0.48	a	2.24	±	0.13	b	2.44	±	0.11	b	2.44	±	0.11	b
33	3.26	±	0.23	a	3.26	±	0.24	a	3.52	±	0.44	a	2.65	±	0.05	c	2.69	±	0.28	cd	2.15	±	0.31	d
36	2.78	±	0.62	ab	3.81	±	0.46	a	3.08	±	0.55	a	2.20	±	0.10	b	2.98	±	0.37	a	2.06	±	0.19	b
42	3.16	±	0.33	a	3.76	±	0.36	a	3.16	±	0.41	a	2.41	±	0.07	b	2.28	±	0.21	b	1.82	±	0.58	b
48	3.00	±	0.33	ab	2.48	±	0.27	a	3.31	±	0.09	b	1.95	±	0.09	c	1.74	±	0.36	c	2.05	±	0.40	a
	Glutamine																							
30	8.90	±	0.18	a	10.46	±	2.11	a	10.46	±	2.11	a	1.16	±	0.89	c	7.12	±	0.36	d	7.12	±	0.36	d
33	7.29	±	0.41	a	11.12	±	0.47	b	12.02	±	1.50	b	2.00	±	0.37	c	10.37	±	1.05	b	6.27	±	1.73	a
36	6.96	±	2.86	a	11.73	±	0.59	b	6.17	±	0.20	a	2.35	±	0.12	c	12.92	±	1.48	b	4.50	±	2.34	a
42	8.06	±	1.29	a	14.36	±	1.87	b	8.97	±	1.13	a	2.21	±	0.26	c	10.99	±	3.63	ab	2.43	±	0.65	c
48	7.48	±	2.09	a	10.40	±	0.82	b	5.26	±	0.34	ac	4.29	±	1.01	c	8.16	±	1.74	ab	5.59	±	1.29	c
	Glycine																							
30	0.13	±	0.01	a	0.14	±	0.04	a	0.14	±	0.04	a	0.10	±	0.02	a	0.30	±	0.01	b	0.30	±	0.01	b
33	0.10	±	0.00	a	0.12	±	0.01	b	0.11	±	0.01	ab	0.10	±	0.00	a	0.34	±	0.00	b	0.29	±	0.10	b
36	0.10	±	0.02	a	0.13	±	0.03	a	0.09	±	0.01	a	0.09	±	0.01	a	0.26	±	0.03	b	0.27	±	0.09	b
42	0.10	±	0.01	a	0.15	±	0.01	b	0.12	±	0.03	ab	0.14	±	0.03	b	0.26	±	0.05	b	0.22	±	0.01	b
48	0.12	±	0.01	a	0.11	±	0.02	a	0.11	±	0.01	a	0.15	±	0.03	a	0.21	±	0.10	a	0.21	±	0.01	a
	Histidine																							
30	0.49	±	0.05	a	0.49	±	0.15	a	0.49	±	0.15	a	0.47	±	0.03	a	1.66	±	0.08	b	1.66	±	0.08	a
33	0.46	±	0.03	a	0.47	±	0.02	a	0.47	±	0.07	a	0.45	±	0.02	a	1.79	±	0.12	b	0.87	±	0.33	a
36	0.47	±	0.10	a	0.50	±	0.04	a	0.52	±	0.07	a	0.49	±	0.03	a	1.25	±	0.13	b	0.83	±	0.23	c
42	0.51	±	0.07	a	0.65	±	0.08	a	0.68	±	0.10	a	0.56	±	0.03	a	1.27	±	0.18	b	0.57	±	0.01	a
48	1.06	±	0.11	a	0.83	±	0.02	b	0.90	±	0.06	a	0.73	±	0.08	b	0.84	±	0.12	a	0.75	±	0.11	b
	Isoleucine																							
30	0.16	±	0.02	a	0.21	±	0.05	a	0.21	±	0.05	a	0.11	±	0.01	b	0.55	±	0.01	c	0.55	±	0.01	c
33	0.15	±	0.02	a	0.18	±	0.01	a	0.16	±	0.03	a	0.09	±	0.00	b	0.59	±	0.04	c	0.27	±	0.13	a
36	0.15	±	0.02	a	0.18	±	0.02	a	0.19	±	0.03	a	0.11	±	0.01	b	0.38	±	0.02	c	0.22	±	0.09	a
42	0.17	±	0.02	a	0.29	±	0.02	b	0.19	±	0.02	a	0.18	±	0.06	a	0.42	±	0.11	b	0.10	±	0.03	c
48	0.41	±	0.07	a	0.42	±	0.12	a	0.26	±	0.02	b	0.16	±	0.02	c	0.26	±	0.03	b	0.12	±	0.06	c
	Leucine																							
30	0.13	±	0.01	ab	0.19	±	0.05	a	0.19	±	0.05	a	0.11	±	0.01	b	0.54	±	0.10	c	0.54	±	0.10	a
33	0.13	±	0.01	a	0.17	±	0.01	b	0.14	±	0.03	a	0.09	±	0.00	c	0.44	±	0.03	c	0.22	±	0.07	b
36	0.13	±	0.02	ab	0.17	±	0.02	a	0.17	±	0.02	a	0.12	±	0.01	b	0.35	±	0.02	c	0.18	±	0.07	a
42	0.14	±	0.01	a	0.25	±	0.02	b	0.16	±	0.02	a	0.16	±	0.05	a	0.40	±	0.10	c	0.09	±	0.02	d
48	0.31	±	0.07	a	0.32	±	0.12	a	0.19	±	0.02	b	0.16	±	0.02	b	0.29	±	0.03	a	0.21	±	0.06	ab
	Lysine																							
30	0.19	±	0.01	a	0.21	±	0.04	a	0.21	±	0.04	a	0.17	±	0.08	a	0.38	±	0.07	b	0.38	±	0.07	b
33	0.16	±	0.02	a	0.14	±	0.03	a	0.15	±	0.01	a	0.15	±	0.07	a	0.27	±	0.02	b	0.19	±	0.03	a
36	0.14	±	0.02	a	0.15	±	0.01	a	0.19	±	0.02	b	0.17	±	0.00	b	0.26	±	0.02	b	0.18	±	0.05	ab
42	0.14	±	0.00	a	0.17	±	0.01	b	0.16	±	0.01	b	0.17	±	0.01	b	0.31	±	0.04	c	0.15	±	0.02	ab
48	0.21	±	0.01	a	0.19	±	0.02	a	0.20	±	0.02	a	0.20	±	0.01	a	0.34	±	0.01	b	0.22	±	0.06	a

Day	<i>Hordeum maritimum</i>						<i>Hordeum vulgare</i>											
	Control		Sal stress		Salt removal		Control		Salt stress		Salt removal							
Methionine																		
30	0.07	± 0.00	a	0.07	± 0.02	a	0.07	± 0.02	a	0.05	± 0.00	b	0.11	± 0.01	b	0.11	± 0.01	b
33	0.06	± 0.00	a	0.07	± 0.00	a	0.07	± 0.01	a	0.06	± 0.00	a	0.12	± 0.01	b	0.07	± 0.01	a
36	0.06	± 0.02	a	0.07	± 0.01	a	0.07	± 0.01	a	0.06	± 0.00	a	0.08	± 0.00	a	0.07	± 0.03	a
42	0.07	± 0.00	a	0.09	± 0.01	b	0.07	± 0.01	a	0.08	± 0.03	ab	0.12	± 0.03	b	0.06	± 0.01	a
48	0.07	± 0.01	a	0.06	± 0.01	a	0.06	± 0.00	a	0.10	± 0.00	b	0.13	± 0.01	c	0.09	± 0.03	abc
Ornithine																		
30	0.55	± 0.03	a	0.68	± 0.05	b	0.68	± 0.05	b	0.18	± 0.05	c	0.39	± 0.02	d	0.39	± 0.02	d
33	0.51	± 0.03	a	0.36	± 0.01	b	0.54	± 0.08	a	0.18	± 0.07	c	0.40	± 0.03	d	0.31	± 0.04	b
36	0.48	± 0.05	a	0.45	± 0.13	a	0.79	± 0.22	b	0.14	± 0.00	c	0.32	± 0.02	d	0.26	± 0.11	cd
42	0.43	± 0.05	a	0.57	± 0.02	b	0.41	± 0.05	a	0.26	± 0.02	c	0.37	± 0.05	a	0.19	± 0.05	c
48	0.43	± 0.03	a	0.46	± 0.13	a	0.46	± 0.01	a	0.16	± 0.01	b	0.37	± 0.01	c	0.18	± 0.04	b
Phenylalanine																		
30	0.22	± 0.01	a	0.34	± 0.10	a	0.34	± 0.10	a	0.18	± 0.02	b	0.96	± 0.04	c	0.96	± 0.04	c
33	0.26	± 0.02	a	0.31	± 0.01	b	0.30	± 0.04	ab	0.16	± 0.01	c	1.11	± 0.11	d	0.53	± 0.22	b
36	0.24	± 0.05	ab	0.32	± 0.03	a	0.30	± 0.04	a	0.20	± 0.01	b	0.55	± 0.06	c	0.45	± 0.21	ab
42	0.28	± 0.03	a	0.52	± 0.04	b	0.33	± 0.04	a	0.31	± 0.06	a	0.77	± 0.16	b	0.20	± 0.05	a
48	0.65	± 0.11	a	0.62	± 0.18	ab	0.45	± 0.04	b	0.34	± 0.04	c	0.75	± 0.07	a	0.55	± 0.18	abc
Proline																		
30	2.39	± 0.06	a	8.48	± 0.26	b	8.48	± 0.26	b	1.9	± 0.1	c	20.6	± 3.3	d	20.6	± 3.3	d
33	2.11	± 0.18	a	5.85	± 0.43	b	4.39	± 0.356	c	1.8	± 0.0	c	27.1	± 1.4	d	7.8	± 0.1	e
36	2.80	± 0.41	a	7.31	± 0.49	b	4.43	± 0.844	c	1.9	± 0.1	d	26.5	± 0.3	e	7.5	± 1.5	b
42	2.95	± 0.08	a	13.93	± 0.43	b	3.53	± 0.767	a	1.9	± 0.0	c	19.8	± 0.4	d	2.6	± 0.3	a
48	3.61	± 1.12	a	15.19	± 2.14	b	2.31	± 0.248	a	1.9	± 0.1	c	14.8	± 1.7	b	2.2	± 0.3	c
Serine																		
30	2.11	± 0.13	a	1.71	± 0.45	a	1.71	± 0.45	a	0.77	± 0.26	b	2.63	± 0.11	c	2.63	± 0.11	
33	1.85	± 0.12	a	1.73	± 0.11	a	2.32	± 0.17	b	1.12	± 0.19	b	2.57	± 0.22	b	1.42	± 0.07	
36	1.72	± 0.34	a	2.08	± 0.53	a	1.74	± 0.27	a	0.93	± 0.05	b	3.63	± 0.37	c	1.11	± 0.33	
42	1.77	± 0.38	a	2.49	± 0.31	a	2.31	± 0.37	ac	0.98	± 0.12	b	2.31	± 0.03	c	0.78	± 0.21	b
48	2.13	± 0.17	a	1.85	± 0.21	ac	2.26	± 0.15	b	1.20	± 0.07	c	2.58	± 0.43	ab	1.29	± 0.48	c
Threonine																		
30	0.64	± 0.04	a	0.48	± 0.14	a	0.48	± 0.14	a	0.30	± 0.02	b	0.61	± 0.05	a	0.61	± 0.05	
33	0.57	± 0.04	a	0.42	± 0.03	b	0.49	± 0.06	ab	0.35	± 0.00	c	0.53	± 0.02	a	0.39	± 0.04	
36	0.46	± 0.09	a	0.56	± 0.09	ac	0.44	± 0.06	a	0.33	± 0.01	b	0.70	± 0.07	c	0.43	± 0.21	a
42	0.52	± 0.07	a	0.65	± 0.07	a	0.57	± 0.09	a	0.48	± 0.10	a	0.60	± 0.05	a	0.28	± 0.06	b
48	0.70	± 0.09	ab	0.61	± 0.01	a	0.69	± 0.05	b	0.53	± 0.05	a	0.54	± 0.24	ab	0.70	± 0.19	ab
Tryptophan																		
30	0.15	± 0.04	a	0.13	± 0.02	a	0.13	± 0.02	a	0.16	± 0.01	a	0.28	± 0.03	b	0.28	± 0.03	b
33	0.12	± 0.01	a	0.12	± 0.01	a	0.12	± 0.01	a	0.17	± 0.01	b	0.36	± 0.02	b	0.23	± 0.03	c
36	0.11	± 0.02	a	0.13	± 0.01	a	0.12	± 0.01	a	0.17	± 0.02	b	0.21	± 0.02	b	0.22	± 0.07	b
42	0.12	± 0.01	a	0.18	± 0.01	b	0.12	± 0.02	a	0.19	± 0.01	b	0.26	± 0.04	c	0.17	± 0.02	b
48	0.17	± 0.03	a	0.15	± 0.03	a	0.14	± 0.00	a	0.22	± 0.01	b	0.27	± 0.02	c	0.21	± 0.06	bc
Tyrosine																		
30	0.47	± 0.03	a	0.46	± 0.14	a	0.46	± 0.14	a	0.20	± 0.02	b	0.57	± 0.08	a	0.57	± 0.08	a
33	0.53	± 0.03	a	0.59	± 0.07	a	0.81	± 0.12	b	0.22	± 0.00	c	0.66	± 0.07	b	0.39	± 0.08	d
36	0.59	± 0.13	a	0.78	± 0.14	a	0.61	± 0.08	a	0.34	± 0.03	b	0.48	± 0.04	a	0.43	± 0.13	a
42	0.67	± 0.11	ac	1.18	± 0.13	b	0.87	± 0.10	a	0.50	± 0.09	cd	0.64	± 0.12	c	0.40	± 0.14	d
48	0.74	± 0.17	ac	0.73	± 0.18	ac	0.50	± 0.04	a	1.17	± 0.02	b	1.07	± 0.08	b	0.99	± 0.24	bc
Valine																		
30	0.16	± 0.01	a	0.20	± 0.05	a	0.20	± 0.05	a	0.12	± 0.01	b	0.58	± 0.06	c	0.58	± 0.06	c
33	0.15	± 0.01	a	0.18	± 0.03	a	0.17	± 0.02	a	0.12	± 0.01	b	0.76	± 0.04	c	0.32	± 0.16	d
36	0.14	± 0.02	a	0.19	± 0.03	a	0.18	± 0.02	a	0.16	± 0.04	a	0.48	± 0.02	b	0.28	± 0.04	c
42	0.15	± 0.01	a	0.28	± 0.02	b	0.18	± 0.02	a	0.18	± 0.05	a	0.41	± 0.10	b	0.13	± 0.02	a
48	0.36	± 0.16	a	0.36	± 0.12	a	0.18	± 0.04	b	0.17	± 0.01	b	0.32	± 0.03	a	0.22	± 0.06	b

Table S2. Sodium, chloride and potassium content of entire shoot at 30 and 48 days after sowing (DAS), older leaf tissues already present before 30 DAS and still present at 48 DAS and leaf younger tissues developed in the period 30-48 DAS after the cessation of salinity treatment.

H. maritimum and *H. vulgare* plants of a second independent experiment run with same experimental design as in Table S1 and Figure 1. Harvests were done at 30 and 48 DAS. Values are mean s.d. ($n=3$)

Day	<i>Hordeum maritimum</i>						<i>Hordeum vulgare</i>					
	Control		Salt stress		Salt removal		Control		Salt stress		Salt removal	
	Chloride (mmol g ⁻¹ DW)											
30	0.45 ± 0.02 ^a	1.00 ± 0.12 ^b	1.00 ± 0.12 ^b	0.79 ± 0.01 ^c	1.93 ± 0.07 ^d	1.93 ± 0.07 ^d						
33	0.50 ± 0.01 ^a	1.08 ± 0.18 ^b	0.76 ± 0.03 ^c	0.76 ± 0.04 ^c	2.09 ± 0.03 ^d	1.61 ± 0.02 ^e						
36	0.48 ± 0.01 ^a	1.29 ± 0.11 ^b	0.66 ± 0.04 ^c	0.68 ± 0.04 ^c	1.92 ± 0.03 ^d	1.70 ± 0.12 ^e						
42	0.63 ± 0.02 ^a	1.80 ± 0.08 ^b	0.64 ± 0.11 ^a	0.66 ± 0.03 ^a	1.71 ± 0.04 ^b	1.23 ± 0.07 ^c						
48	0.60 ± 0.03 ^{ac}	1.62 ± 0.35 ^b	0.50 ± 0.07 ^a	0.78 ± 0.15 ^c	1.71 ± 0.10 ^b	1.03 ± 0.03 ^d						
	Nitrate (mmol g ⁻¹ DW)											
30	0.69 ± 0.04 ^a	0.24 ± 0.00 ^b	0.24 ± 0.00 ^b	0.85 ± 0.05 ^c	0.17 ± 0.01 ^d	0.17 ± 0.01 ^d						
33	0.78 ± 0.05 ^a	0.23 ± 0.00 ^b	0.23 ± 0.03 ^b	0.77 ± 0.05 ^a	0.14 ± 0.01 ^c	0.17 ± 0.04 ^{bc}						
36	0.77 ± 0.02 ^a	0.27 ± 0.03 ^b	0.30 ± 0.06 ^b	0.71 ± 0.06 ^a	0.12 ± 0.01 ^c	0.25 ± 0.02 ^b						
42	1.02 ± 0.08 ^a	0.32 ± 0.00 ^b	0.57 ± 0.08 ^c	0.69 ± 0.05 ^c	0.11 ± 0.01 ^d	0.60 ± 0.04 ^c						
48	0.79 ± 0.05 ^a	0.21 ± 0.02 ^b	0.55 ± 0.02 ^c	0.69 ± 0.10 ^c	0.09 ± 0.00 ^d	0.70 ± 0.05 ^c						
	Potassium (mmol g ⁻¹ DW)											
30	0.44 ± 0.01 ^a	0.35 ± 0.03 ^b	0.35 ± 0.03 ^b	0.79 ± 0.02 ^c	0.42 ± 0.01 ^d	0.42 ± 0.01 ^d						
33	0.51 ± 0.01 ^a	0.34 ± 0.04 ^b	0.31 ± 0.02 ^b	0.58 ± 0.03 ^c	0.38 ± 0.01 ^{bd}	0.41 ± 0.02 ^d						
36	0.49 ± 0.04 ^a	0.31 ± 0.03 ^b	0.37 ± 0.03 ^b	0.61 ± 0.04 ^c	0.32 ± 0.04 ^b	0.48 ± 0.01 ^a						
42	0.61 ± 0.04 ^a	0.36 ± 0.01 ^b	0.55 ± 0.04 ^a	0.59 ± 0.02 ^a	0.21 ± 0.02 ^c	0.55 ± 0.03 ^a						
48	0.46 ± 0.06 ^a	0.28 ± 0.03 ^b	0.50 ± 0.01 ^a	0.61 ± 0.03 ^c	0.20 ± 0.01 ^d	0.55 ± 0.04 ^{ac}						
	Sodium (mmol g ⁻¹ DW)											
30	0.14 ± 0.02 ^a	0.40 ± 0.05 ^b	0.40 ± 0.05 ^b	0.14 ± 0.05 ^a	1.02 ± 0.07 ^c	1.02 ± 0.07 ^c						
33	0.16 ± 0.04 ^a	0.42 ± 0.02 ^b	0.38 ± 0.03 ^b	0.13 ± 0.02 ^a	1.07 ± 0.04 ^c	0.99 ± 0.07 ^c						
36	0.18 ± 0.03 ^a	0.43 ± 0.06 ^b	0.34 ± 0.04 ^b	0.13 ± 0.02 ^a	1.21 ± 0.11 ^c	0.95 ± 0.06 ^c						
42	0.20 ± 0.05 ^a	0.68 ± 0.03 ^b	0.30 ± 0.05 ^a	0.14 ± 0.02 ^c	1.10 ± 0.10 ^d	0.82 ± 0.05 ^e						
48	0.20 ± 0.02 ^a	0.63 ± 0.02 ^b	0.20 ± 0.02 ^a	0.15 ± 0.01 ^c	1.45 ± 0.15 ^d	0.62 ± 0.08 ^b						
	Potassium:Sodium											
30	3.23 ± 0.39 ^a	0.88 ± 0.10 ^b	0.88 ± 0.11 ^b	5.56 ± 0.70 ^c	0.41 ± 0.05 ^d	0.41 ± 0.05 ^d						
33	3.28 ± 0.40 ^a	0.81 ± 0.10 ^b	0.82 ± 0.10 ^b	4.35 ± 0.55 ^c	0.35 ± 0.05 ^d	0.41 ± 0.05 ^d						
36	2.72 ± 0.22 ^a	0.74 ± 0.09 ^b	1.09 ± 0.11 ^c	4.62 ± 0.61 ^d	0.26 ± 0.03 ^e	0.51 ± 0.06 ^f						
42	3.02 ± 0.40 ^a	0.52 ± 0.05 ^b	1.81 ± 0.19 ^c	4.36 ± 0.46 ^d	0.19 ± 0.03 ^e	0.68 ± 0.08 ^f						
48	2.34 ± 0.33 ^a	0.44 ± 0.04 ^b	2.50 ± 0.32 ^c	4.09 ± 0.50 ^c	0.14 ± 0.02 ^d	0.89 ± 0.10 ^e						

Table S3. Sodium, chloride and potassium content of entire shoot at 30 and 48 days after sowing (DAS), older leaf tissues already present before 30 DAS and still present at 48 DAS and leaf younger tissues developed in the period 30-48 DAS after the cessation of salinity treatment and expressed on fresh and dry weight bases

The *H. maritimum* and *H. vulgare* plant material used was from a second independent experiment run with same experimental design as in Table S1 and Figure 1. Harvests were done at 30 and 48 DAS. Values are mean s.d. ($n=3$)

Day	<i>Hordeum maritimum</i>			<i>Hordeum vulgare</i>		
	Entire shoot	Older tissue	Younger tissue	Entire shoot	Older tissue	Younger tissue
Chloride ($\mu\text{mol g}^{-1}$ FW)						
30	155 \pm 12.5 ^a			242 \pm 22.3 ^b		
48	66.3 \pm 10.0 ^a	100 \pm 14.3 ^b	54.2 \pm 9.9 ^a	100 \pm 12.6 ^b	191 \pm 17.8 ^c	60.7 \pm 3.5 ^a
Sodium ($\mu\text{mol g}^{-1}$ FW)						
30	59.8 \pm 8.7 ^a			126 \pm 14.2 ^b		
48	21.3 \pm 5.4 ^a	25.6 \pm 5.4 ^a	19.8 \pm 1.2 ^a	54.9 \pm 10.7 ^b	94.7 \pm 26.3 ^c	37.8 \pm 8.3 ^b
Potassium ($\mu\text{mol g}^{-1}$ FW)						
30	48.5 \pm 7.3 ^a			60.4 \pm 8.6 ^a		
48	59.4 \pm 4.8 ^a	39.2 \pm 4.8 ^b	66.6 \pm 3.2 ^a	62.4 \pm 4.9 ^a	51.3 \pm 1.3 ^c	67.2 \pm 2.8 ^a
Chloride (mmol g^{-1} DW)						
30	1.09 \pm 0.09 ^a			3.00 \pm 0.28 ^b		
48	0.54 \pm 0.08 ^a	0.94 \pm 0.13 ^b	0.51 \pm 0.09 ^a	1.10 \pm 0.14 ^a	1.55 \pm 0.14 ^c	0.91 \pm 0.05 ^a
Sodium (mmol g^{-1} DW)						
30	0.42 \pm 0.06 ^a			1.56 \pm 0.18 ^b		
48	0.17 \pm 0.04 ^a	0.24 \pm 0.05 ^a	0.19 \pm 0.01 ^a	0.61 \pm 0.12 ^b	0.77 \pm 0.21 ^b	0.57 \pm 0.12 ^b
Potassium (mmol g^{-1} DW)						
30	0.34 \pm 0.05 ^a			0.75 \pm 0.11 ^b		
48	0.49 \pm 0.04 ^a	0.37 \pm 0.05 ^a	0.63 \pm 0.03 ^b	0.69 \pm 0.05 ^b	0.42 \pm 0.01 ^a	1.01 \pm 0.04 ^c



Fig. S1. Photographs showing representative *H. vulgare* plants at 30, 36, 42, 48 DAS.



Fig. S2. Photographs showing representative *H. maritimum* plants at 30, 36, 48 DAS.

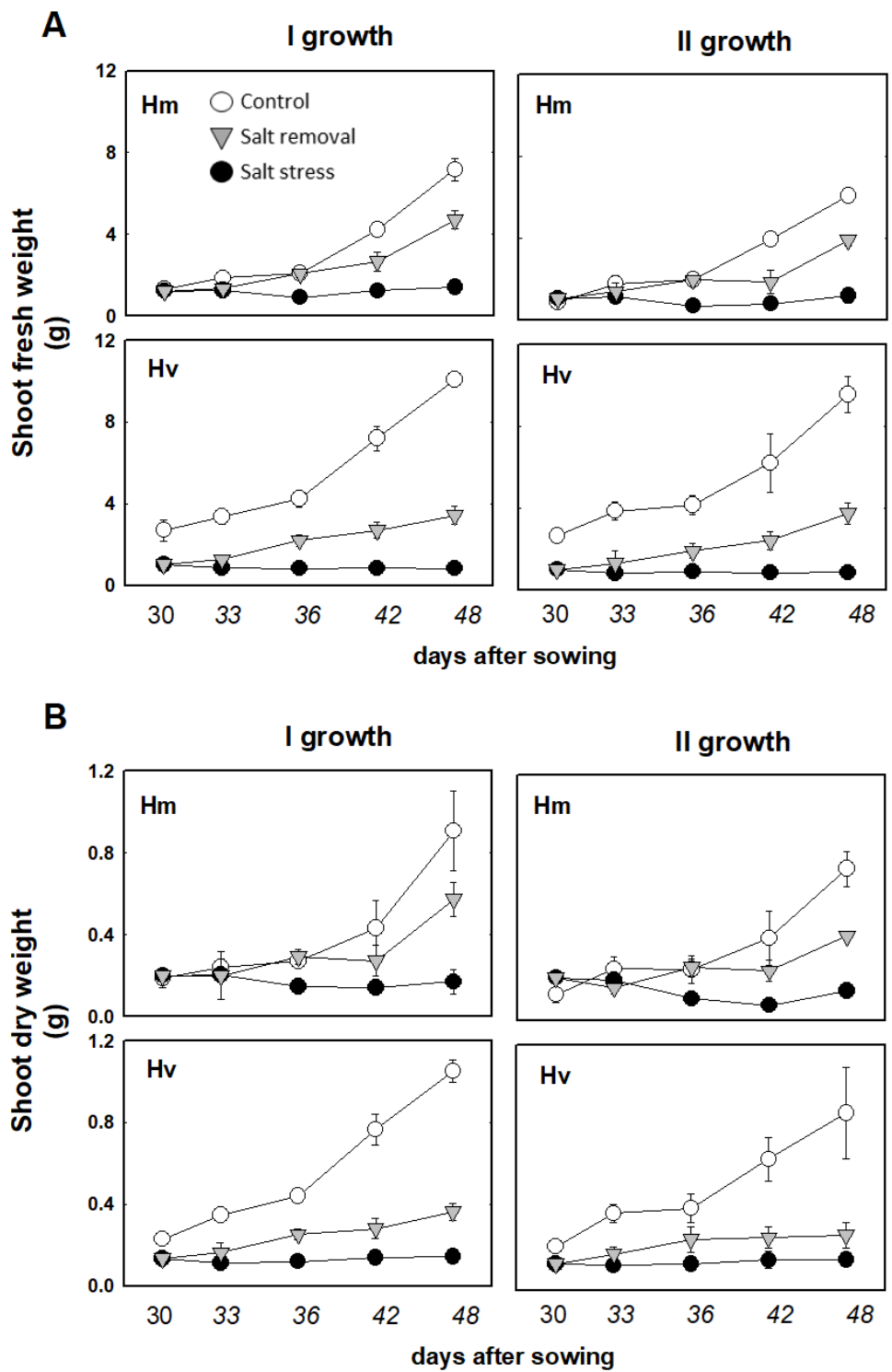


Fig. S3. Shoot fresh (A) and dry (B) weights of *H. maritimum* (Hm) and *H. vulgare* (Hv) plants under control, stress (200 mM NaCl) and salt removal treatments. Salt was gradually added to salinity treatments starting from 15 DAS. Salt removal treatment started from 30 DAS. Harvest was done at 30, 33, 36, 42 and 48 DAS. Metabolites were expressed as $\mu\text{mol g}^{-1}$ FW. Values are mean s.d. (n=3).