

10.1071/FP19170_AC

© CSIRO 2020

Supplementary Material: *Functional Plant Biology*, 2020, 47(8), 757–768.

Supplementary Material

Anatomical, morphological and growth responses of *Thinopyrum ponticum* plants subjected to partial and complete submergence during early stages of development

María del Rosario M. Iturralde Elortegui^{A,F}, Germán D. Berone^{B,C}, Gustavo G. Striker^{D,E},

María J. Martinefsky^A, Mqria G. Monterubbianesi^C and Silvia G. Assuero^C

^AInstituto Nacional de Tecnología Agropecuaria (INTA), AER Olavarría, Alsina 2642,
B7400COJ Olavarría, Buenos Aires, Argentina.

^BInstituto Nacional de Tecnología Agropecuaria (INTA), EEA Balcarce, Ruta Nacional 226 km
73.5, C.C. 276, B7620BKL Balcarce, Buenos Aires, Argentina.

^CFacultad de Ciencias Agrarias, Universidad Nacional de Mar del Plata, Ruta Nacional 226 km
73.5, C.C. 276, B7620BKL Balcarce, Buenos Aires, Argentina.

^DIFEVA, Universidad de Buenos Aires, CONICET, Facultad de Agronomía, Buenos Aires,
Argentina, Av. San Martín 4453, CPA 1417, DSE Buenos Aires, Argentina.

^EUWA School of Agriculture and Environment, Faculty of Science, The University of Western
Australia, 35 Stirling Highway, Crawley, WA 6009, Australia.

^FCorresponding author. Email: iturraldeelortegui.m@inta.gob.ar

Table S1. Mean air/water temperature recorded at soil level of pots where *Thinopyrum ponticum* were maintained at field capacity (C) or subjected to partial (PS) or complete submergence (CS) for 14 days (submergence period) and subsequently 14 days at field capacity (recovery period) in two experiments (Experiment 1: 3 expanded leaves stage, Experiment 2: 5 expanded leaves stage)

Values represent the daily mean \pm standard error. Same letter in the same column indicate no significant differences among submergence treatments ($P > 0.05$)

Treatment	Mean air temperature (°C)			
	Experiment 1		Experiment 2	
	Sumergence	Recovery	Sumergence	Recovery
C	13 \pm 0.5 a	14 \pm 0.6 a	16 \pm 0.7 a	15 \pm 0.7 a
PS	14 \pm 0.6 a	14 \pm 0.7 a	16 \pm 0.5 a	16 \pm 0.8 a
CS	13 \pm 0.5 a	14 \pm 0.6 a	16 \pm 0.5 a	15 \pm 0.7 a

Table S2. Tillers per plant, green leaves, leaf area and root length of *Thinopyrum ponticum* plants maintained at field capacity (C) or subjected to partial (PS) or complete submergence (CS) for 14 days, and harvested at day 0 (beginning of the submergence period), 14 (end of the submergence period) and 28 days (end of the recovery period) from the application of the submergence treatments in two experiments (Experiment 1: 3 expanded leaves stage on the main stem, Experiment 2: 5 expanded leaves stage on the main stem)

Values represent the mean \pm standard error ($n=10$, except where indicated by * $n=3$). Same letter in the same column and plant component indicate no significant differences among submergence treatments ($P > 0.05$)

		Experiment 1			Experiment 2		
		Day 0	Day 14	Day 28	Day 0	Day 14	Day 28
<i>Tillers</i>	C	2 \pm 0.1	5 \pm 0.4 a	8 \pm 0.42 a	7 \pm 0.6	9 \pm 0.6 a	17 \pm 1.1 a
	SP		2 \pm 0.2 b	4 \pm 0.27 b		10 \pm 0.6 a	10 \pm 0.7 b
	SC		2 \pm 0.2 b	2 \pm 0.58 c*		7 \pm 0.5 b	5 \pm 0.6 c
<i>Leaves</i>	C	4 \pm 0.1	12 \pm 0.7 a	23 \pm 1.2 a	16 \pm 1	22 \pm 2 a	45 \pm 3 a
	SP		5 \pm 0.5 b	9 \pm 0.7 b		23 \pm 1 a	27 \pm 2 b
	SC		2 \pm 0.3 c	5 \pm 1.5 b*		12 \pm 2 b	14 \pm 1.8 c
<i>Leaf area (cm²/planta)</i>	C	5 \pm 1.6	26 \pm 2.2 a	70 \pm 7 a	55 \pm 12	69 \pm 9 a	111 \pm 11 a
	SP		15 \pm 1.7 b	25 \pm 3 b		93 \pm 6 a	92 \pm 8 a
	SC		2 \pm 0.3 c	6 \pm 3 b*		27 \pm 5 b	39 \pm 7 b
<i>Root length (cm)</i>	C	103 \pm 11.8	495 \pm 41 a	1261 \pm 126 a	928 \pm 105	1752 \pm 268 a	5376 \pm 630 a
	SP		242 \pm 31 b	857 \pm 125 a		2340 \pm 247 a	5329 \pm 565 a
	SC		118 \pm 20 c	144 \pm 42 b*		848 \pm 165 b	1432 \pm 309 b