

Table 1. List of primers used in this study.

NIR	TaNIR-F	AACAGCAGCGGCAAGAT
	TaNIR-R	TACAAGAAGGCGGTGCC
NRT2	TaNRT2_F	CCGAGTACTACTACGACCACTT
	TaNRT2_R	TCAGAGAGATAGCCACCCATAG
NR	TaNR-F	ATACTCCGGTGGTGGTAAGA
	TaNR-R	CCGTACTTGTTTCGGCTTCTC
ABA8	TaABA8-F	TCCATCCTCTCCTTCACCTT
	TaABA8-R	TTTCCAGCCCTTGGAATC
LEA2	TaLEA2-F	TCCTTTACTCGTTTGGTCGTTT
	TaLEA2-R	CGGAAATCACACAAGAGGGAA
RZF70	TaRZF70-F	AACTCTCGCCTCGGTAATTG
	TaRZF70-R	AAGACGCGTGGAACACAT

Table S2. Plant biometric and growth characteristics of wheat grown at different water stress regimes (100%, 50%, 25%) with and without N fertilization.

		Shoots FW	Shoots DW	Stems number	Spikes FW	Roots DW
		(g)	(g)		(g)	(g)
Treatment (T)						
	C	20.7 b	6.3 b	5.3 b	7.7 a	0.5
	T22	25.0 a	8.2 a	6.4 a	9.0 b	0.5
	76A	20.8 b	6.1 b	4.8 b	7.7 a	0.4
Nitrogen (N)						
	0	25.4 a	7.3	6.3 a	8.9 a	0.5
	N	19.0 b	6.5	4.7 b	7.4 b	0.4
Water (W)						
	100%	34.8 a	9.3 a	7.6 a	11.0 a	0.6 a
	50%	19.7 b	6.8 b	5.0 b	8.0 b	0.4 b
	25%	12.1 c	4.6 c	3.9 c	5.4 c	0.3 c
Significance						
	T	**	**	**	*	ns
	N	**	ns	**	**	ns
	W	**	**	**	**	**
	TxN	*	*	ns	Ns	*
	TxW	**	**	*	**	*
	NxW	**	ns	**	*	**
	TxNxW	*	ns	ns	ns	ns

ns , *; ** Non significant or significant at $P \leq 0.05$ and 0.01 respectively.

Table S3. Leaves ionic profile of wheat grown at different water stress regimes (100%, 50%, 25%) with and without N fertilization.

	NH ₄ ⁺ (g/kg d.m.)	K ⁺ (g/kg d.m.)	Mg ²⁺ (g/kg d.m.)	Ca ²⁺ (g/kg d.m.)	NO ₃ ⁻ (g/kg d.m.)	PO ₄ ³⁻ (g/kg d.m.)
Treatment (T)						
C	0.12 b	40.50 a	1.13 b	4.79	2.92 b	24.43 a
T22	0.12 b	35.56 c	1.19 a	4.61	1.36 c	19.77 c
76A	0.16 a	38.16 b	1.18 a	4.56	3.93 a	22.81 b
Nitrogen (N)						
0	0.16 a	38.51 a	1.40 a	5.20 a	5.05 a	22.54
N	0.11 b	37.64 b	0.93 b	4.11 b	0.42 b	22.14
Water (W)						
100%	0.12 b	36.96 c	1.44 a	5.19 a	3.48 a	19.48 c
50%	0.11 b	38.16 b	1.10 b	4.67 b	1.91 c	24.69 a
25%	0.16 a	39.10 a	0.95 c	4.10 c	2.81 b	22.85 b
Significance						
T	**	**	**	ns	**	**
N	**	**	**	**	**	ns
W	**	**	**	**	**	**
TxN	**	ns	**	ns	**	**
TxW	ns	**	**	**	**	**
NxW	**	ns	**	**	**	*
TxNxW	*	**	**	**	**	**

ns , *, ** Non significant or significant at $P \leq 0.05$ and 0.01 respectively.

Table S4. Roots ionic profile of wheat grown at different water stress regimes (100%, 50%, 25%) with and without N fertilization.

	NH ₄ ⁺ (g/kg d.m.)	K ⁺ (g/kg d.m.)	Mg ²⁺ (g/kg d.m.)	Ca ²⁺ (g/kg d.m.)	NO ₃ ⁻ (g/kg d.m.)	PO ₄ ³⁻ (g/kg d.m.)
Treatment (T)						
C	0.11 b	11.98 a	0.46 c	2.23 b	2.51 c	8.33 a
T22	0.22 a	10.52 b	0.66 a	3.40 a	9.21 a	5.76 c
76A	0.13 b	10.90 b	0.54 b	2.57 b	4.45 b	7.42 b
Nitrogen (N)						
0	0.16	10.60 a	0.56	2.69	4.61 b	6.71 b
N	0.15	11.66 b	0.56	2.77	6.18 a	7.62 a
Water (W)						
100%	0.15	10.41 b	0.66 a	3.14 a	5.01 b	6.05 b
50%	0.15	11.74 a	0.54 b	2.73 a	6.48 a	7.65 a
25%	0.16	11.24 a	0.47 b	2.33 b	4.69 b	7.80 a
Significance						
T	**	**	**	**	**	**
N	ns	**	ns	ns	**	**
W	ns	**	**	*	**	**
TxN	**	**	ns	ns	**	**
TxW	ns	**	ns	ns	**	**
WxN	ns	**	**	*	**	**
TxNxW	**	**	*	ns	**	**

ns , *; ** Non significant or significant at $P \leq 0.05$ and 0.01 respectively.