

Table 1 Suppl. Names, accession numbers, and primer sequences of the genes used in the real time qPCR analysis. Amino acid transporters (AAT) primers were obtained from Kohl *et al.* (2012) and glutamine synthetase (GS) ones from Goodall *et al.* (2013).

Genes	Names	Acc. No.	Forward (5'→3')	Reverse (5'→3')
AAT	<i>HvAAP2</i>	HE820743	TCGGCGCCATCGGGTTCT	CGGCGGCAGCAATGGTGA
	<i>HvAAP4</i>	HE965466	TTTGGCCGCTCACCGTCTACTT	GAGCCCCTGCACCGAACCA
	<i>HvAAP6</i>	HE965468	TCGGCAACGTGGTGGGACTT	GCCGCGCTGCCTGATGTA
	<i>HvAAP7</i>	HE965469	CAGGGGGTCATCAGCCAGAAGC	ATGCTCCCCGATCGCTCTAACC
	<i>HvLHT2</i>	HE965514	ATCATCGCCGCCTGCTACTTCC	TCAAACACCGGCATCGCATAAA
	<i>HvProT1</i>	HE965518	GGCGCTCAGCACATTCCTCTC	GCGGCGATAGCAGCGGTGAT
GS	<i>HvGS1-1</i>	JX878489	GGACCGTCGGTGATGGGG	AAGACGAGAACGAGAAGAGAGACCAGAC
	<i>HvGS1-2</i>	JX878490	CACCTTGGGCAGGCTCTCGTCTC	CAGACTAGACCTTGCAATTGCAAAAGAAAC
	<i>HvGS2</i>	AK360336	AAGCTGGCGCTGAAGGTATGAAGG	GACGGAACCACAGGATCAACAAGAATG
Ref. genes	<i>HvActin</i>	AY145451	GTATGGAAACATCGTGCTCAGTGG	CTTGATCTTCATGCTGCTCGGA
	<i>HvTEF</i>	Z50789	AGGTCCACCAACCTTGACTG	CAACAGGCACAGTTCCAATG

Table 2 Suppl. Pearson correlation coefficients obtained by correlating the phloem amino acid export rate (phloem AA) against each gene analysed for S starvation experiment. ** - significant differences at $P < 0.01$.

Genes	<i>HvGS1-1</i>	<i>HvGS1-2</i>	<i>HvGS2</i>	<i>HvAAP2</i>	<i>HvAAP4</i>	<i>HvAAP6</i>	<i>HvAAP7</i>	<i>HvLHT2</i>	<i>HvProT1</i>
Phloem AA	0.5346**	0.7573**	-0.0190	-0.2646	-0.1818	0.3374	0.6940**	-0.0552	0.7277**