

1 **Supplementary material**

2 **Table S2.** Detailed concentration of all the amino acids examined in the wheat grain ( $\mu\text{g kg}^{-1}$  DW).

Treatment <sup>1</sup>	Asp <sup>2</sup>	Glu	Gln	Ala	Ser	Asn	Gly	Tyr	Pro	Cis	Trp	Arg	Lys	Phe	Thr	Val	His	Iso	Leu	Met	Sum
T0	208.4	78.4	29.8	25.3	14.8	3.1	10.7	4.4	1.9	1.7	111.4	75.6	18.9	8.7	14.4	12.3	7.1	3.7	3.1	1.6	635.2a
T1	241.0	84.1	63.6	33.7	15.6	28.2	15.1	7.1	2.0	2.1	117.4	101.5	44.1	16.8	14.2	13.3	10.5	5.7	4.9	2.4	823.2b
T2	237.6	94.3	30.2	20.5	14.5	10.5	10.1	7.1	1.2	0.7	111.9	100.3	22.1	13.7	13.3	10.7	8.9	3.4	2.5	1.2	714.7c
T3	224.7	73.8	23.8	19.5	12.6	2.9	7.3	5.9	1.2	0.7	85.5	109.0	15.9	11.6	12.3	9.7	7.1	2.9	2.2	1.1	629.7a
T4	207.2	73.2	43.6	13.1	13.6	12.5	10.3	6.7	1.3	1.7	113.6	97.6	39.0	12.4	11.3	8.6	15.3	3.2	2.2	1.1	687.4c
T5	223.8	67.6	48.1	17.1	11.4	14.9	6.7	5.2	1.2	1.2	76.1	77.6	27.2	9.5	9.8	6.5	11.2	2.4	1.6	0.8	619.9a
T6	274.4	111.6	45.8	21.5	14.4	3.2	8.5	7.1	1.2	0.8	139.7	109.1	27.8	13.7	14.4	10.8	7.9	3.2	2.4	1.2	819.0b
T7	221.0	79.1	19.8	18.7	12.4	2.9	7.2	6.1	1.2	0.6	131.8	96.2	15.4	11.7	12.2	9.8	7.3	3.0	2.3	1.1	659.9d

3 <sup>1</sup> T0, control; T1, *F. culmorum*; T2, herbicide + fungicide 1 + fungicide 2; T3, herbicide + fungicide 1 + fungicide 2 + *F. culmorum*; T4, herbicide + fungicide 1 + fungicide 2  
4 + humic acids; T5, herbicide + fungicide 1 + fungicide 2 + humic acids + *F. culmorum*; T6, herbicide + fungicide 1 + fungicide 2 + nitrophenols; T7, herbicide + fungicide 1  
5 + fungicide 2 + nitrophenols + *F. culmorum*.

6 <sup>2</sup> Asp, Aspartic acid; Glu, Glutamic acid; Gln, Glutamine; Ala, Alanine; Ser, Serine; Asn, Asparagine; Gly, Glycine; Tyr, Tyrosine; Pro, Proline; Cis, Cystine; Trp,  
7 Tryptophan; Arg, Arginine; Lys, Lysine; Phe, Phenylalanine; Thr, Threonine; Val, Valine; His, Histidine; Iso, Isoleucine; Leu, Leucine; Met, Methionine.

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