Table S1 Concentrations of 14 free amino acids in Petunia petals at three developmental stages measured via GC-MS for each treatment (SE, n=4). Different letters in each row indicate significant difference between treatments using one-way ANOVA test in SPSS software at $P < 0.05$.

nmol g FW^{-1}	NH_4NO_3			NH_4-N			NO_3-N		
	S1	**S2**	**S3**	**S1**	**S2**	**S3**	**S1**	**S2**	**S3**
Glu	21.5 ± 8.2 b	21.7 ± 2.8 b	48.4 ± 15.1 a	11.5 ± 1.8 b	13.7 ± 5.4 b	29.5 ± 13.0 ab	16.0 ± 7.7 b	11.4 ± 2.3 b	18.3 ± 6.2 b
Gln	35.4 ± 15.7 b	33.5 ± 5.4 b	86.9 ± 28.3 a	13.4 ± 1.9 b	16.6 ± 7.3 b	45.1 ± 20.2 b	21.3 ± 11.5 b	21.9 ± 10.7 b	18.3 ± 6.9 b
Pro	13.6 ± 2.0 ab	11.9 ± 0.9 b	18.3 ± 1.1 a	14.6 ± 1.5 ab	11.4 ± 1.6 b	16.2 ± 2.3 ab	14.4 ± 1.2 ab	14.1 ± 1.3 ab	17.5 ± 2.5 a
Arg	3.0 ± 0.4 a	2.4 ± 0.3 ab	2.4 ± 0.4 ab	3.3 ± 0.8 a	3.0 ± 0.6 a	1.6 ± 0.2 b	2.2 ± 0.3 ab	2.9 ± 0.6 ab	2.7 ± 0.4 ab
Asp	92.0 ± 34.2 a	21.6 ± 7.3 b	32.9 ± 16.1 b	24.0 ± 9.0 b	42.1 ± 17.1 b	11.6 ± 2.2 b	8.0 ± 2.0 b	10.4 ± 5.7 b	7.9 ± 3.7 b
Asn	61.4 ± 27.5 a	15.3 ± 4.9 b	24.7 ± 12.3 b	9.8 ± 1.7 b	26.5 ± 13.9 b	7.7 ± 1.6 b	5.7 ± 1.3 b	5.2 ± 1.9 b	2.7 ± 0.5 b
Thr	3.8 ± 1.0 abc	5.2 ± 0.5 ab	6.0 ± 0.9 a	3.5 ± 0.5 bc	2.8 ± 0.6 c	3.5 ± 0.3 bc	5.6 ± 1.1 ab	5.5 ± 0.9 ab	4.0 ± 0.7 abc
Ile	134.2 ± 47.2 a	87.1 ± 26.0 ab	79.5 ± 15.1 abc	67.4 ± 3.7 bc	76.6 ± 18.4 abc	38.6 ± 5.5 bc	38.0 ± 4.4 bc	32.1 ± 4.9 bc	22.9 ± 3.7 c
Lys	14.2 ± 3.0	16.8 ± 2.0	18.5 ± 1.2	16.5 ± 6.1	17.4 ± 2.3	19.5 ± 2.8	19.9 ± 2.3	17.4 ± 3.0	18.6 ± 1.4
Ser	51.9 ± 10.0 ab	59.1 ± 6.9 b	44.5 ± 5.6 ab	41.1 ± 7.2 ab	36.5 ± 7.5 b	38.9 ± 5.9 b	44.2 ± 5.9 ab	51.9 ± 4.9 ab	33.1 ± 2.9 b
Leu	105.8 ± 41.4 a	74.4 ± 21.7 ab	65.8 ± 12.3 abc	48.7 ± 2.7 bc	59.2 ± 17.0 abc	30.9 ± 4.6 bc	24.2 ± 6.8 bc	29.3 ± 4.7 bc	18.5 ± 2.9 c
Tyr	1.25 ± 0.27 b	3.5 ± 0.5 a	3.8 ± 1.2 b	1.0 ± 0.4 b	1.5 ± 0.8 b	1.2 ± 0.4 b	0.2 ± 0.1 b	0.5 ± 0.1 ab	0.4 ± 0.1 b
Trp	0.5 ± 0.2 bc	0.7 ± 0.1 ab	0.9 ± 0.2 a	0.3 ± 0.1 c	0.3 ± 0.1 c	0.5 ± 0.1 bc	0.4 ± 0.1 c	0.46 ± 0.04 bc	0.3 ± 0.1 c
Phe	0.4 ± 0.2 b	0.8 ± 0.1 a	0.4 ± 0.1 b	0.5 ± 0.1 b	0.4 ± 0.1 b	0.36 ± 0.04 b	0.4 ± 0.1 b	0.6 ± 0.1 ab	0.4 ± 0.1 b