Supplementary Information 1 – Solution concentrations in molar units

Table S1. An example of optimal tissue concentration values for all leaves (young and old) used for determining solution concentration for each nutrient with a low (3 g L^{-1}) and high (6 g L^{-1}) water-use efficiency (WUE). The final two columns show the hydroponic solution developed by Utah State University (USU).

Nutrient	Optimal leaf tissue concentration	Calculated solution concentration ----Water use efficiency----		USU dicot hydroponic solution ----Water use efficiency----	
		3 g per L	6 g per L	3 g per L	6 g per L
Macro	(%)	---------- (mM) ----------		---------- (mM) ----------	
N	3	6.4	13	7.2	14
P	0.4	0.4	0.8	0.4	0.8
K	4	3	6	3	6
Ca	1.5	1.1	2.2	1.5	3
Mg	0.5	0.6	1.2	0.8	1.6
S	0.5	0.5	1	0.8	1.6
Si	0.5[3]	0.5	1	0.6	1.2
Micro	(ppm)	---------- (μM) ----------		---------- (μM) ----------	
Fe	100	5.4	11	7	14
B	50	14	28	40	80
Mn	50	2.7	5.4	3	6
Zn	50	2.3	4.6	3	6
Cu	10	0.5	1	2	4
Cl	100	8.5	17	35	70
Mo	0.001	0.03 nM	0.06 nM	0.1	0.2
Ni	0.000001	0.05 pM	0.1 pM	0.1	0.2