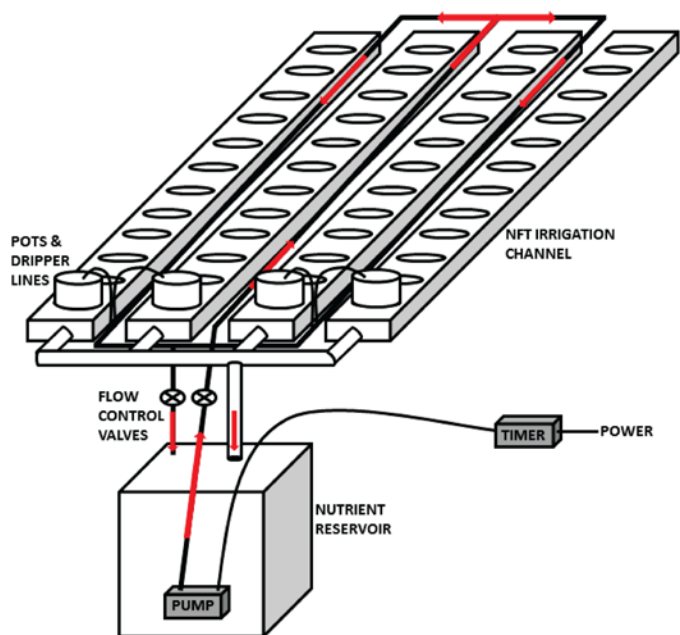


Supplemental Data for:

Baby, T., B. Hocking, S.D. Tyerman, M. Gilliam, and C. Collins. 2014.
 Modified method for producing grapevine plants in controlled environments.
 Am. J. Enol. Vitic. 65:261-267. doi: 10.5344/ajev.2014.13121.



Supplemental Figure 1 Hydroponics setup design and construction for 48 pot system with automated irrigation.

Supplemental Table 1 Nutrient regime 4 (modified half-strength Hoagland's solution) used to irrigate experimental plants grown in perlite. pH of the nutrient solution was adjusted to 5.6 using 1 M NaOH solution.

Ion	Regime 4	
	Concn	Activity
K ⁺	3.3	2.88 mM
Ca ²⁺	2.2	1.22 mM
Mg ²⁺	1	0.57 mM
NH ₄ ⁺	1	0.88 mM
Cl ⁻	3.51	3.07 mM
NO ₃ ⁻	6.8	5.96 mM
SO ₄ ²⁻	1.01	0.48 mM
H ₂ PO ₄ ⁻	0.4	0.1 mM
Na ⁺	2.085	1.83 mM
FeEDTA ⁻	0.035	14 μM
Mn ²⁺	0.005	37 nM
Zn ²⁺	0.012	7.3 nM
Cu ²⁺	0.0012	2.4 pM
B	0.02	20 μM
MoO ₄ ²⁻	0.0001	36 nM

Supplemental Table 2 Comparison of the concentration of nutrients in the runoff of nutrient regime 4^a (after 10 irrigation cycles) at pH 5.6. Concentration of different nutrients in the runoff collected from perlite after washing with demineralized water is also given.

	Fe	Mn	B	Cu	Mo	Zn	Ca	Mg	Na	K	P	S
Perlite wash with water	0.01	<0.006	0.1	<0.005	<0.01	<0.003	0.06	0.04	3.14	0.16	0.52	0.20
Nutrient regime 4	1.95	0.27	0.22	0.08	<0.01	0.78	88.2	24.3	47.9	129	12.4	32.4
Runoff	1.26	0.22	0.26	0.06	<0.01	0.57	65.2	17.5	44.1	87.6	9.70	24.1

^aNutrient regime 4 initial concentrations were calculated from solution composition. All other values are averages of three replicates determined by ICP-OES. Concentration is in mg/L.