Table 1 Primary metabolites and their response to changing O_2 supply

	2.1 kPa O_2		21 kPa O_2		42 kPa O_2	
	Mean	SD	Mean	SD	Mean	SD
Soluble sugars*						
Glucose	4.8	1.6	6.0	2.1	8.1	1.5
Fructose	6.5	3.0	7.1	2.3	9.1	1.6
Sucrose	32.6	4.9	34.9	1.7	35.6	10.2
Free amino acids*						
Ala	5.19	1.18	1.97	0.48	1.77	0.35
Arg	1.95	1.03	1.70	0.31	2.27	0.82
Asp	0.35	0.06	1.41	0.12	1.50	0.36
Asn	15.8	4.8	7.5	1.4	11.7	2.5
Cys	0.16	0.03	0.23	0.04	0.33	0.09
Glu	7.12	0.60	5.59	0.40	4.26	0.51
Gln	0.35	0.18	0.68	0.17	0.90	0.31
Gly	0.38	0.10	0.27	0.02	0.27	0.03
Gaba	0.08	0.02	0.07	0.01	0.03	0.02
Ile	0.11	0.06	0.08	0.02	0.20	0.08
Leu	0.15	0.04	0.18	0.02	0.14	0.02
Lys	0.18	0.07	0.11	0.01	0.16	0.04
Met	0.06	0.02	0.05	0.01	0.13	0.03
Phe	0.09	0.04	0.05	0.01	0.07	0.01
Ser	1.17	0.44	1.01	0.13	0.92	0.18
Thr	1.30	0.14	1.15	0.14	1.54	0.20
Tyr	0.09	0.04	0.02	0.00	0.04	0.01
Val	0.36	0.17	0.28	0.05	0.53	0.17
Nucleotide sugars						
UDP-glucose†	1.02	0.09	1.45	0.06	1.37	0.06
ADP-glucose‡	16.5	1.2	13.6	1.2	14.2	2.0
Nucleotides‡						
AMP	44.4	8.1	6.2	1.7	6.6	1.1
ADP	53.7	3.0	45.8	4.3	35.2	3.1
ATP	88.9	18.9	171.0	10.3	179.7	21.9
Glycolytic intermediates†						
Glucose-1-P	10.57	1.41	5.73	0.65	5.43	0.24
Glucose-6-P	8.82	0.51	3.76	0.12	2.62	0.11
Fructose-6-P	32.81	3.05	12.72	0.95	9.20	0.50
Fructose-1,6-bisP	1.65	0.48	0.87	0.23	1.40	0.25
3-PGA	1.08	0.41	2.02	0.18	0.89	0.09
PEP	2.50	0.28	3.09	0.19	2.28	0.19
Pyruvate	0.36	0.06	0.27	0.02	0.10	0.01
Acetyl-CoA	0.24	0.06	0.62	0.08	0.80	0.06
Organic acids†						
Lactate	3.76	0.59	1.86	0.36	1.09	0.11
Succinate	28.39	2.65	15.36	1.40	16.26	0.80
Malate	8.28	0.56	7.42	0.41	7.30	0.47
Citrate	10.60	0.63	9.95	0.56	9.74	0.41
Isocitrate	3.61	1.12	6.14	1.65	2.61	0.66
Shikimate	0.82	0.10	0.82	0.06	0.77	0.07
Chorismate	0.29	0.04	0.37	0.03	0.32	0.04

*Data in μmol g^{-1} f. wt.
†Data in relative units.
‡Data in nmol g^{-1} f. wt.
Data are given as mean ± SD.