

APÉNDICE C – RESPIRACION

Curva estándar O2

area	%O2 (v/v)	% O2 (mol/mol)
0	0	0
267	4.7	4.70
261	4.7	4.70
282	4.7	4.70
516	9.9	9.90
548	9.9	9.90
497	9.9	9.90
689	15.1	15.09
693	15.1	15.09
702	15.1	15.09
904	20.7	20.69
886	20.7	20.69
893	20.7	20.69
1193	30.2	30.19
1187	30.2	30.19
1200	30.2	30.19
1393	40.1	40.09
1377	40.1	40.09
1378	40.1	40.09
1811	50	49.99
1812	50	49.99
1839	50	49.99
2381	59.9	59.89
2377	59.9	59.89
2344	59.9	59.89
2713	70	69.99
2712	70	69.99
2709	70	69.99

Curva estándar CO2

area	%CO2 (v/v)	% CO2 (mol/mol)
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0	0	0
108	4.7	4.70
125	4.7	4.70
230	10	10.00
261	10	10.00
256	10	10.00
436	16.35	16.35
428	16.35	16.35
465	16.35	16.35
710	19.91	19.91
727	19.91	19.91
736	19.91	19.91
827	25	25.00
842	25	25.00
840	25	25.00
1009	29.4	29.40
1011	29.4	29.40
984	29.4	29.40
1830	44.34	44.34
1826	44.34	44.34
1848	44.34	44.34
1984	60.2	60.20
1910	60.2	60.20
1891	60.2	60.20
2417	69.95	69.95
2386	69.95	69.95
2383	69.95	69.95
2748	80.19	80.187
2848	80.19	80.187
2783	80.19	80.187
3277	100	100
3336	100	100
3298	100	100

Valores de concentración de los experimentos de respiración a 5°C para la mora azul variedad rabbit eye

tiempo(h)	% mol CO2	desvest CO2	% mol O2	desvest O2
0	0	0	21.05	0.08
1	0	0	20.64	0.39
3	1.32	0.02	20.60	0.21
4	1.53	0.06	20.12	0.31

5	1.72	0.04	20.22	0.72
6	1.92	0.04	20.82	0.49
7	2.21	0.04	20.95	0.47
8	2.45	0.04	20.23	1.28
9	2.58	0.06	20.66	0.25
10.5	2.86	0.00	18.71	0.37
11	3.03	0.00	19.00	0.85
12	3.16	0.02	18.48	1.05
23.5	4.77	0.10	17.09	0.56
24.5	4.84	0.12	16.84	0.72
27.5	5.17	0.00	16.66	0.04
28.5	5.27	0.02	16.98	0.49
29.5	5.40	0.29	16.83	0.39
30.5	5.68	0.10	16.57	0.41
32.5	6.38	0.02	16.73	1.14
47.5	8.31	0.10	13.00	0.87
49.5	9.10	0.31	12.36	1.75
50.5	9.20	0.00	12.40	1.65
51.5	9.35	0.08	12.78	0.33
52.5	9.67	0.08	10.94	0.33
53.5	9.77	0.06	10.55	0.70
54.5	10.12	0.02	10.64	0.17
56.5	10.27	0.06	11.78	1.05
57.5	10.69	0.21	10.50	0.02
58.5	11.11	0.14	9.64	0.19
59.5	11.44	0.23	12.74	4.11
60.5	11.63	0.08	11.05	0.02
61.5	11.76	0.06	10.31	1.65
62.5	11.83	0.54	9.43	0.25
71	13.12	0.21	8.49	0.39
72	13.69	0.06	7.40	0.37
74	13.91	0.25	6.72	0.17
75	13.39	0.31	7.06	0.54
77	13.67	0.37	8.03	0.80
78	13.94	0.21	7.47	1.90
80	14.65	0.48	5.48	0.02
81	14.80	0.48	6.79	0.12
82	15.35	0.02	5.81	1.92
83	15.44	0.14	5.29	0.80
95	18.10	0.52	4.80	0.17
96	18.31	0.10	4.51	0.16
97	18.38	0.33	4.06	0.41
98	18.45	0.48	4.29	0.31
99	18.85	0.54	3.19	1.01
100	19.15	0.19	3.14	0.78
101	19.07	0.52	3.31	1.18
102	19.71	0.06	3.42	0.02

Valores de concentración de los experimentos de respiración a 15°C para la mora azul variedad rabbit eye

tiempo(h)	% mol CO2	desv CO2	% mol O2	desv O2
0	0	0	21.11	0.12
1	0	0	20.90	0.25
2	1.72	0.04	20.26	0.39
3	2.50	0.12	19.37	0.41
4	3.02	0.23	18.83	0.16
5	3.70	0.29	18.04	0.89
6	4.16	0.43	17.91	0.87
7	4.86	0.60	17.31	0.21
9	5.95	0.62	17.12	0.02
10	6.83	0.87	15.37	1.55
12	7.91	0.79	14.58	0.70
13	8.57	0.81	13.84	0.19
27	14.05	2.44	8.30	1.67
30	15.81	2.15	8.01	2.00
31	16.30	2.73	7.03	1.01
37	17.71	3.14	5.40	2.62
38	17.75	3.16	4.96	3.16

Valores de cambio en concentración de los experimentos de respiración a 25°C para la mora azul variedad rabbit eye

tiempo	% mol CO2	desv %CO2	% mol O2	desv %O2
0	0	0	20.81	0.08
1	1.85	0.10	19.92	0.17
3	2.02	0.10	18.59	0.89
4	3.92	0.60	17.64	0.56
6	9.14	0.33	14.74	0.35
7	10.41	0.23	15.21	0.85
8	11.13	0.08	15.22	1.22
14	16.26	0.27	12.04	0.41
16	17.25	0.31	9.35	0.49
17	23.19	0.02	5.56	0.95
18	24.53	0.02	5.91	0.81

20	27.65	0.66	4.54	2.02
21	28.14	0	3.45	0.06
22	28.96	0.58	2.94	0.12

Valores de velocidades de respiración de mora azul variedad rabbit eye, de acuerdo a Hagger et al a las tres temperaturas de estudio

5°C

tiempo (h)	rO2 (mg /kg h)	rCO2 (mg /kg h)
0	8.820	13.349
1	8.829	13.351
3	8.847	13.354
4	8.856	13.356
5	8.864	13.358
6	8.873	13.360
7	8.882	13.361
8	8.891	13.363
9	8.900	13.365
10.5	8.913	13.368
11	8.918	13.369
12	8.926	13.371
23.5	9.030	13.392
24.5	9.039	13.394
27.5	9.066	13.399
28.5	9.075	13.401
29.5	9.084	13.403
30.5	9.093	13.405
32.5	9.111	13.408
47.5	9.250	13.436
49.5	9.268	13.440
50.5	9.277	13.441
51.5	9.287	13.443
52.5	9.296	13.445
53.5	9.306	13.447
54.5	9.315	13.449
56.5	9.334	13.452
57.5	9.343	13.454
58.5	9.353	13.456
59.5	9.362	13.458
60.5	9.371	13.460
61.5	9.381	13.462
62.5	9.390	13.464
71	9.471	13.479
72	9.481	13.481
74	9.500	13.485
75	9.510	13.487

77	9.529	13.490
78	9.539	13.492
80	9.558	13.496
81	9.568	13.498
82	9.577	13.500
83	9.587	13.501
95	9.704	13.524
96	9.714	13.526
97	9.724	13.527
98	9.734	13.529
99	9.744	13.531
100	9.754	13.533
101	9.764	13.535
102	9.774	13.537

15°C

tiempo (h)	rO2 (mg /kg h)	rCO2 (mg /kg h)
0	29.116	54.919
1	28.567	53.050
2	28.033	51.272
3	27.513	49.578
4	27.005	47.964
5	26.510	46.424
6	26.027	44.954
7	25.557	43.549
9	24.649	40.924
10	24.212	39.695
12	23.368	37.392
13	22.961	36.311
27	18.147	24.930
30	17.296	23.166
31	17.024	22.618
37	15.508	19.683
38	15.273	19.247

25°C

tiempo (h)	rO2 (mg /kg h)	rCO2 (mg /kg h)
0	37.572	83.142
1	37.914	83.903
3	38.611	85.459
4	38.968	86.254
6	39.696	87.879
7	40.068	88.710
8	40.446	89.554
14	42.831	94.890
16	43.675	96.781
17	44.107	97.749
18	44.545	98.732
20	45.442	100.745
21	45.902	101.777
22	46.368	102.824

Valores de cambio en concentración de mora azul variedades blueray, jersey y coville, reportados por Song et al. (1992).

Blueray
5°C

tiempo (h)	rO2 (mg /kg h)	rCO2 (mg /kg h)
0	8.62	6.57
6	8.13	6.38
12	7.67	6.20
18	7.25	6.02
24	6.85	5.84
31	6.43	5.65
37	6.09	5.49
42	5.82	5.35
48	5.53	5.20
54	5.25	5.05
60	4.99	4.91
66	4.74	4.77
72	4.51	4.64
79	4.26	4.49
86	4.03	4.34
91	3.87	4.24
97	3.70	4.12
102	3.56	4.03
108	3.40	3.92
114	3.25	3.81

120	3.10	3.70
126	2.97	3.60
133	2.82	3.48
139	2.70	3.39

15°C

tiempo (h)	rO2 (mg /kg h)	rCO2 (mg /kg h)
0	30	25
3	24	21
6	20	18
9	18	17
12	15	15
15	13	14
18	12.5	12.5
21	12	12
24	11	11
27	10	10.5
30	9.5	10
33	9	9.5
36	8.8	9
39	8.5	8.5
42	8.3	8
45	8	7.8
48	7.6	7.6
51	7.2	7.45
54	6.8	7.3
57	6.4	7.15
60	6	7

25°C

tiempo (h)	rO2 (mg /kg h)	rCO2 (mg /kg h)
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0	47.71	44.87
2	42.91	42.09
4	38.70	39.53
6	34.98	37.18
8	31.69	35.01
10	28.77	33.01
12	26.17	31.16
14	23.84	29.44
16	21.75	27.84
18	19.87	26.36
20	18.18	24.98
22	16.66	23.69
24	15.27	22.49
26	14.02	21.37
28	12.88	20.31

Jersey
5°C

tiempo (h)	rO2 (mg /kg h)	rCO2 (mg /kg h)
0	12.02	8.84
6	11.10	8.47
12	10.28	8.11
18	9.54	7.77
24	8.87	7.45
31	8.18	7.09
37	7.64	6.80
42	7.23	6.57
48	6.78	6.30
54	6.37	6.04
60	5.99	5.80
66	5.64	5.57
72	5.32	5.35
79	4.98	5.10
86	4.67	4.87
91	4.47	4.71

15°C

tiempo (h)	rO2 (mg /kg h)	rCO2 (mg /kg h)
0	33	30
3	28	26
6	24	22.5
9	22	21
12	19	19
15	17	18
18	16	17

21	15	16.5
24	14	16
27	13	15.5
30	12.7	15
33	12	14.5
36	11	14
39	10.7	12.5
42	10.5	12

25°C

tiempo (h)	rO2 (mg /kg h)	rCO2 (mg /kg h)
0	74.89	70.74
1.5	66.16	65.85
3	58.71	61.46
4.5	52.32	57.52
6	46.79	53.97
7.5	42.00	50.75
9	37.81	47.83
10.5	34.14	45.17
12	30.91	42.73
13.5	28.05	40.50
15	25.52	38.44
16.5	23.26	36.55
18	21.24	34.81

Coville
5°C

tiempo (h)	rO2 (mg /kg h)	rCO2 (mg /kg h)
0	15.11	12.21
6	13.66	11.60
12	12.40	11.03
18	11.31	10.49
24	10.35	9.98
31	9.37	9.43
37	8.63	8.98
42	8.08	8.63
48	7.48	8.23
54	6.94	7.84
60	6.46	7.48
66	6.02	7.14
72	5.63	6.82
79	5.21	6.46

86	4.84	6.13
91	4.59	5.90

15°C

tiempo (h)	rO2 (mg /kg h)	rCO2 (mg /kg h)
0	49	44
3	37	34
6	28	28
9	24	25
12	21	22
15	18	19
18	17	18
21	15	17
24	14	16.5
27	13	16
30	12.5	15
33	12	14.5
36	11	14
39	10.5	11

25°C

tiempo (h)	rO2 (mg /kg h)	rCO2 (mg /kg h)
0	90.67	91.33
1.5	76.42	80.65
3	64.81	71.83
4.5	55.27	64.46
6	47.35	58.23
7.5	40.74	52.91
9	35.17	48.34
10.5	30.46	44.37
12	26.45	40.91
13.5	23.01	37.86
15	20.06	35.17
16.5	17.50	32.77