

BACKCROSSING QUALITY ASSAYS—LARVAL VIABILITY ASSAY

MARKER 35496

offspring observed				expected 1		G-test goodness-of-fit			expected 2		G-test of independence		
marker(+)	marker(-)	total	+/tot	marker(+)	marker(-)	G	df	P value	marker(+)	marker(-)	G	df	P value
25	35	60	0.42	30.0	30.0	1.674	1	0.196	31.2	28.8	2.605		
29	29	58	0.50	29.0	29.0	0.000	1	1.000	30.2	27.8	0.099		
67	81	148	0.45	74.0	74.0	1.326	1	0.249	77.1	70.9	2.739		
44	42	86	0.51	43.0	43.0	0.047	1	0.829	44.8	41.2	0.028		
37	30	67	0.55	33.5	33.5	0.733	1	0.392	34.9	32.1	0.268		
62	44	106	0.58	53.0	53.0	3.071	1	0.080	55.2	50.8	1.763		
53	47	100	0.53	50.0	50.0	0.360	1	0.548	52.1	47.9	0.035		
72	64	136	0.53	68.0	68.0	0.471	1	0.493	70.8	65.2	0.041		
64	45	109	0.59	54.5	54.5	3.329	1	0.068	56.8	52.2	1.942		

pooled G-value	453	417	870	0.52	435	435	1.490	1	0.222				
total G-value							11.011	9	0.275		9.521	8	0.300

MARKER 38463

52	36	88	0.59	44.0	44.0	2.925	1	0.087	45.7	42.3	1.814		
44	29	73	0.60	36.5	36.5	3.104	1	0.078	37.9	35.1	2.048		
43	40	83	0.52	41.5	41.5	0.108	1	0.742	43.1	39.9	0.001		
23	21	44	0.52	22.0	22.0	0.091	1	0.763	22.9	21.1	0.002		
22	29	51	0.43	25.5	25.5	0.964	1	0.326	26.5	24.5	1.585		
29	38	67	0.43	33.5	33.5	1.213	1	0.271	34.8	32.2	2.014		
24	28	52	0.46	26.0	26.0	0.308	1	0.579	27.0	25.0	0.698		
34	32	66	0.52	33.0	33.0	0.061	1	0.806	34.3	31.7	0.005		
23	19	42	0.55	21.0	21.0	0.382	1	0.537	21.8	20.2	0.134		

pooled G-value	294	272	566	0.52	283.0	283.0	0.855	1	0.355				
total G-value							9.156	9	0.423		8.300	8	0.405

BACKCROSSING QUALITY ASSAYS—COMPETITIVE MATING ASSAY

MARKER 35496

offspring observed			
marker(+)	marker(-)	total	+/tot
13	27	40	0.33
5	35	40	0.13
11	29	40	0.28
7	33	40	0.18
8	32	40	0.20
0	40	40	0.00
10	30	40	0.25
13	27	40	0.33
21	19	40	0.53
7	33	40	0.18
0	40	40	0.00
3	37	40	0.08
14	26	40	0.35
10	30	40	0.25
19	21	40	0.48
7	33	40	0.18
0	40	40	0.00
0	40	40	0.00
5	35	40	0.13

expected 1		G-test goodness-of-fit		
marker(+)	marker(-)	G	df	P value
10	30	1.132	1	0.287
10	30	3.859	1	0.049
10	30	0.131	1	0.718
10	30	1.297	1	0.255
10	30	0.560	1	0.454
10	30			
10	30	0.000	1	1.000
10	30	1.132	1	0.287
10	30	13.805	1	0.000
10	30	1.297	1	0.255
10	30			
10	30	8.295	1	0.004
10	30	1.980	1	0.159
10	30	0.000	1	1.000
10	30	9.410	1	0.002
10	30	1.297	1	0.255
10	30			
10	30			
10	30	3.859	1	0.049

expected 2		G-test of independence		
marker(+)	marker(-)	G	df	P value
8.1	31.9	3.367		
8.1	31.9	1.622		
8.1	31.9	1.248		
8.1	31.9	0.178		
8.1	31.9	0.000		
8.1	31.9			
8.1	31.9	0.558		
8.1	31.9	3.367		
8.1	31.9	20.511		
8.1	31.9	0.178		
8.1	31.9			
8.1	31.9	4.941		
8.1	31.9	4.774		
8.1	31.9	0.558		
8.1	31.9	14.999		
8.1	31.9	0.178		
8.1	31.9			
8.1	31.9			
8.1	31.9	1.622		

pooled G-value	153	607	760	0.20	190	570	10.076	1	0.002					
total G-value							48.054	15	2.5E-05			58.104	14	2.52E-07

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11	29	40	0.28
12	28	40	0.30
8	32	40	0.20
0	40	40	0.00
10	30	40	0.25
11	29	40	0.28
13	27	40	0.33
0	40	40	0.00
8	32	40	0.20
9	31	40	0.23
0	40	40	0.00
0	40	40	0.00
11	29	40	0.28
27	13	40	0.68
5	35	40	0.13
11	29	40	0.28
23	17	40	0.58
6	34	40	0.15
10	30	40	0.25

10	30	0.131	1	0.718
10	30	0.512	1	0.474
10	30	0.560	1	0.454
10	30			
10	30	0.000	1	1.000
10	30	0.131	1	0.718
10	30	1.132	1	0.287
10	30			
10	30	0.560	1	0.454
10	30	0.136	1	0.712
10	30			
10	30			
10	30	0.131	1	0.718
10	30	31.893	1	0.000
10	30	3.859	1	0.049
10	30	0.131	1	0.718
10	30	19.002	1	0.000
10	30	2.381	1	0.123
10	30	0.000	1	1.000

9.21	30.79	0.433		
9.21	30.79	1.031		
9.21	30.79	0.214		
9.21	30.79			
9.21	30.79	0.086		
9.21	30.79	0.433		
9.21	30.79	1.868		
9.21	30.79			
9.21	30.79	0.214		
9.21	30.79	0.006		
9.21	30.79			
9.21	30.79	0.433		
9.21	30.79	35.659		
9.21	30.79	2.863		
9.21	30.79	0.433		
9.21	30.79	21.902		
9.21	30.79	1.602		
9.21	30.79	0.086		

pooled G-value	175	585	760	0.23	190	570	1.608	1	0.205					
total G-value							60.559	15	2.02E-07			67.263	14	6.02E-09