



**UvA-DARE (Digital Academic Repository)**

**Locus-dependent selection in crop-wild hybrids of lettuce under field conditions and its implication for GM crop development**

Hooftman, D.A.P.; Flavell, A.J.; Jansen, H.; den Nijs, H.C.M.; Syed, N.H.; Sørensen, A.P.; Orozco-ter Wengel, P.; van de Wiel, C.C.M.

*Published in:*  
Evolutionary Applications

*DOI:*  
[10.1111/j.1752-4571.2011.00188.x](https://doi.org/10.1111/j.1752-4571.2011.00188.x)

[Link to publication](#)

*Citation for published version (APA):*

Hooftman, D. A. P., Flavell, A. J., Jansen, H., den Nijs, H. C. M., Syed, N. H., Sørensen, A. P., Orozco-ter Wengel, P., & van de Wiel, C. C. M. (2011). Locus-dependent selection in crop-wild hybrids of lettuce under field conditions and its implication for GM crop development. *Evolutionary Applications*, 4(5), 648-659. <https://doi.org/10.1111/j.1752-4571.2011.00188.x>

**General rights**

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

**Disclaimer/Complaints regulations**

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

**Table S2. Expected segregation per locus.** Expectations are based on extrapolations from the observed segregation in the control generation using ratios provided in Table S1, i.e. if the control generation has skewed segregation under a no mortality situation this is expected to be intrinsic to the cross and to occur similar in the field grown generations. Therefore, mendelian segregation is only given for comparison.

		S <sub>1</sub>	S <sub>1</sub>	S <sub>1</sub>	BC <sub>1</sub>	BC <sub>1</sub>	BC <sub>1</sub>	BC <sub>1S1</sub>	BC <sub>1S1</sub>	BC <sub>1S1</sub>			
		<i>L. serriola</i>	Hetero-zygous	<i>L. sativa</i>	<i>L. serriola</i>	Hetero-zygous	<i>L. sativa</i>	<i>L. serriola</i>	Hetero-zygous	<i>L. sativa</i>			
Mendelian	Co-dominant	0.25	0.5	0.25	0.5	0.5	-	0.625	0.25	0.125			
Mendelian	Dominant: <i>L. serriola</i> band	0.75	-	0.25	-	-	-	0.875	-	0.125			
Mendelian	Dominant: <i>L. sativa</i> band	0.25	-	0.75	0.5	-	0.5	0.625	-	0.375			
LG	cMorgan	Loci (incl band presence state)		Marker type									
1	4.1	E35/M59-F-127 ( <i>L. serriola</i> )		AFLP	0.263	0.525	0.213	0.500	0.500	-	0.631	0.263	0.106
1	16.1	E45/M48-F-070 ( <i>L. sativa</i> )		AFLP	0.227	0.520	0.253	0.466	0.534	-	0.587	0.278	0.135
1	16.3	CO9C-CTT-013 ( <i>L. sativa</i> )		SSAP	0.230	-	0.770	0.472	-	0.528	0.572	-	0.428
1	18	CO9C-ACG-008 ( <i>L. serriola</i> )		SSAP	0.809	-	0.191	-	-	-	0.933	-	0.067
1	28	NBS-33 ( <i>L. sativa</i> )		NBS	0.267	-	0.733	0.523	-	0.477	0.667	-	0.333
1	28.7	E45/M48-F-109 ( <i>L. sativa</i> )		AFLP	0.289	0.542	0.169	0.516	0.484	-	0.656	0.262	0.082
1	29.5	NBS-13 ( <i>L. serriola</i> )		NBS	0.778	-	0.222	-	-	-	0.905	-	0.095
1	33.5	E44/M48-F-297 ( <i>L. sativa</i> )		AFLP	0.259	0.553	0.188	0.484	0.516	-	0.617	0.286	0.097
1	40.9	E44/M48-F-109 ( <i>L. sativa</i> )		AFLP	0.273	0.511	0.216	0.516	0.484	-	0.648	0.247	0.104
1	71	CO9C-ATC-011 ( <i>L. sativa</i> )		SSAP	0.360	-	0.640	0.628	-	0.372	0.827	-	0.173
1	78.8	E44/M48-F-114 ( <i>L. serriola</i> )		AFLP	0.333	0.540	0.126	0.552	0.448	-	0.702	0.242	0.057
1	86.3	CO9C-ATC-005 ( <i>L. serriola</i> )		SSAP	0.852	-	0.148	-	-	-	0.963	-	0.037
1	97.3	E45/M48-F-297 ( <i>L. sativa</i> )		AFLP	0.394	0.408	0.197	0.659	0.341	-	0.793	0.139	0.067
2	1.9	E45/M48-F-235 ( <i>L. serriola</i> )		AFLP	0.274	0.500	0.226	0.523	0.477	-	0.653	0.239	0.108
2	13.2	NBS-23 ( <i>L. serriola</i> )		NBS	0.767	-	0.233	-	-	-	0.894	-	0.106
2	17	CO9C-ACT-012 ( <i>L. sativa</i> )		SSAP	0.256	-	0.744	0.508	-	0.492	0.639	-	0.361
2	25	E35/M59-F-273 ( <i>L. sativa</i> )		AFLP	0.291	0.442	0.267	0.568	0.432	-	0.694	0.191	0.115
2	32.4	NBS-30 ( <i>L. serriola</i> )		NBS	0.709	-	0.291	-	-	-	0.822	-	0.178
2	39.6	E44/M48-F-147 ( <i>L. sativa</i> )		AFLP	0.298	0.440	0.262	0.575	0.425	-	0.701	0.187	0.111
2	61.4	CO9C-ACT-004 ( <i>L. serriola</i> )		SSAP	0.742	-	0.258	-	-	-	0.865	-	0.135
2	62.4	CO9C-ATC-010 ( <i>L. sativa</i> )		SSAP	0.258	-	0.742	0.511	-	0.489	0.646	-	0.354
2	65.3	CO9C-CTT-008 ( <i>L. serriola</i> )		SSAP	0.770	-	0.230	-	-	-	0.897	-	0.103
2	67.4	CO9C-ACG-014 ( <i>L. sativa</i> )		SSAP	0.270	-	0.730	0.526	-	0.474	0.672	-	0.328
2	81.3	CO9C-GTT-216 ( <i>L. serriola</i> )		SSAP	0.793	-	0.207	-	-	-	0.920	-	0.080
2	90.5	CO9C-CTG-319 ( <i>L. serriola</i> )		SSAP	0.795	-	0.205	-	-	-	0.922	-	0.078
3	7.9	E44/M49-F-212 ( <i>L. sativa</i> )		AFLP	0.205	0.545	0.250	0.429	0.571	-	0.545	0.312	0.143
3	8.8	NBS-01 ( <i>L. serriola</i> )		NBS	0.722	-	0.278	-	-	-	0.840	-	0.160
3	11.6	E44/M49-F-082 ( <i>L. sativa</i> )		AFLP	0.153	0.625	0.222	0.328	0.672	-	0.431	0.420	0.149
3	13.1	CO9C-AAT-305 ( <i>L. serriola</i> )		SSAP	0.787	-	0.213	-	-	-	0.913	-	0.087
3	18.8	CO9C-CTG-328 ( <i>L. serriola</i> )		SSAP	0.761	-	0.239	-	-	-	0.888	-	0.112
3	21.5	E45/M48-F-207 ( <i>L. serriola</i> )		AFLP	0.202	0.494	0.303	0.450	0.550	-	0.561	0.272	0.167
3	24.2	CO9C-CTA-600 ( <i>L. sativa</i> )		SSAP	0.191	-	0.809	0.415	-	0.585	0.455	-	0.545
3	26.5	NBS-34 ( <i>L. sativa</i> )		NBS	0.176	-	0.824	0.391	-	0.609	0.408	-	0.592
3	27.2	E35/M59-F-281 ( <i>L. serriola</i> )		AFLP	0.174	0.523	0.302	0.400	0.600	-	0.505	0.314	0.181
3	29.7	CO9C-CTA-325 ( <i>L. sativa</i> )		SSAP	0.180	-	0.820	0.397	-	0.603	0.419	-	0.581
3	37.1	E44/M49-F-479 ( <i>L. sativa</i> )		AFLP	1.000	0.000	0.000	0.500	0.500	-	0.625	0.250	0.125
3	44.9	E44/M49-F-362 ( <i>L. sativa</i> )		AFLP	0.164	0.582	0.254	0.361	0.639	-	0.466	0.372	0.162
3	46.6	E45/M48-F-287 ( <i>L. serriola</i> )		AFLP	0.103	0.540	0.356	0.277	0.723	-	0.352	0.391	0.258
3	47.1	NBS-18 ( <i>L. sativa</i> )		NBS	0.161	-	0.839	0.365	-	0.635	0.356	-	0.644
3	50.8	CO9C-ACG-011 ( <i>L. serriola</i> )		SSAP	0.618	-	0.382	-	-	-	0.671	-	0.329
3	52	NBS-20 ( <i>L. serriola</i> )		NBS	0.659	-	0.341	-	-	-	0.744	-	0.256
3	52.2	1A36-F-195 ( <i>L. sativa</i> )		AFLP	0.083	0.548	0.369	0.233	0.767	-	0.297	0.420	0.283
3	52.4	1A31-F-107 ( <i>L. sativa</i> )		AFLP	0.123	0.543	0.333	0.313	0.688	-	0.397	0.373	0.229
3	52.5	E35/M59-F-299 ( <i>L. sativa</i> )		AFLP	0.125	0.538	0.338	0.317	0.683	-	0.403	0.367	0.230
3	53.1	CO9C-CTA-142 ( <i>L. sativa</i> )		SSAP	0.101	-	0.899	0.252	-	0.748	0.160	-	0.840
3	58.8	CO9C-GTT-241 ( <i>L. serriola</i> )		SSAP	0.701	-	0.299	-	-	-	0.811	-	0.189
3	72.5	1A31-F-122 ( <i>L. serriola</i> )		AFLP	0.148	0.556	0.296	0.348	0.652	-	0.444	0.362	0.193
3	72.5	NBS-32 ( <i>L. serriola</i> )		NBS	0.686	-	0.314	-	-	-	0.788	-	0.212
3	73.1	1A31-F-124 ( <i>L. serriola</i> )		AFLP	0.148	0.543	0.309	0.353	0.647	-	0.449	0.351	0.200
3	83	NBS-35 ( <i>L. serriola</i> )		NBS	0.633	-	0.367	-	-	-	0.698	-	0.302
3	87.8	CO9C-GTG-070 ( <i>L. sativa</i> )		SSAP	0.180	-	0.820	0.397	-	0.603	0.419	-	0.581
3	89	CO9C-ATA-006 ( <i>L. serriola</i> )		SSAP	0.716	-	0.284	-	-	-	0.832	-	0.168
3	106.6	NBS-09 ( <i>L. sativa</i> )		NBS	0.111	-	0.889	0.273	-	0.727	0.190	-	0.810
3	112.4	CO9C-CTG-380 ( <i>L. serriola</i> )		SSAP	0.761	-	0.239	-	-	-	0.888	-	0.112
3	117.2	E35/M59-F-193 ( <i>L. sativa</i> )		AFLP	0.181	0.614	0.205	0.370	0.630	-	0.484	0.387	0.129
3	117.2	E35/M59-F-187 ( <i>L. serriola</i> )		AFLP	0.153	0.612	0.235	0.333	0.667	-	0.435	0.408	0.157
3	125.1	1A31-F-347 ( <i>L. serriola</i> )		AFLP	0.146	0.585	0.268	0.333	0.667	-	0.431	0.390	0.179
3	129.6	CO9C-CTA-285 ( <i>L. sativa</i> )		SSAP	0.157	-	0.843	0.359	-	0.641	0.343	-	0.657
3	130.2	CO9C-TCC-181 ( <i>L. serriola</i> )		SSAP	0.775	-	0.225	-	-	-	0.903	-	0.097
4	17.5	CO9C-TCC-202 ( <i>L. sativa</i> )		SSAP	0.281	-	0.719	0.540	-	0.460	0.696	-	0.304
4	25	CO9C-GTT-148 ( <i>L. sativa</i> )		SSAP	0.299	-	0.701	0.561	-	0.439	0.732	-	0.268
4	36.9	E35/M59-F-220 ( <i>L. sativa</i> )		AFLP	0.250	0.513	0.238	0.494	0.506	-	0.620	0.259	0.120
4	49.1	E35/M59-F-276 ( <i>L. sativa</i> )		AFLP	0.338	0.416	0.247	0.619	0.381	-	0.748	0.158	0.094
4	52.1	CO9C-TCC-281 ( <i>L. sativa</i> )		SSAP	0.247	-	0.753	0.496	-	0.504	0.618	-	0.382
4	58.8	CO9C-ATT-009 ( <i>L. sativa</i> )		SSAP	0.225	-	0.775	0.465	-	0.535	0.558	-	0.442

				S <sub>1</sub>	S <sub>1</sub>	S <sub>1</sub>	BC <sub>1</sub>	BC <sub>1</sub>	BC <sub>1</sub>	BC <sub>1S1</sub>	BC <sub>1S1</sub>	BC <sub>1S1</sub>
				<i>L. serriola</i>	Hetero-zygous	<i>L. sativa</i>	<i>L. serriola</i>	Hetero-zygous	<i>L. sativa</i>	<i>L. serriola</i>	Hetero-zygous	<i>L. sativa</i>
Mendelian	Co-dominant			0.25	0.5	0.25	0.5	0.5	-	0.625	0.25	0.125
Mendelian	Dominant: <i>L. serriola</i> band			0.75	-	0.25	-	-	-	0.875	-	0.125
Mendelian	Dominant: <i>L. sativa</i> band			0.25	-	0.75	0.5	-	0.5	0.625	-	0.375
LG	cMorgan	Loci (incl band presence state)	Marker type									
4	60.8	CO9C-ATT-010 ( <i>L. sativa</i> )	SSAP	0.225	-	0.775	0.465	-	0.535	0.558	-	0.442
4	63.4	CO9C-GTG-310 ( <i>L. sativa</i> )	SSAP	0.213	-	0.787	0.449	-	0.551	0.525	-	0.475
4	75.8	E45/M48-F-071 ( <i>L. serriola</i> )	AFLP	0.234	0.416	0.351	0.529	0.471	-	0.639	0.196	0.165
4	83.4	CO9C-CTT-012 ( <i>L. sativa</i> )	SSAP	0.253	-	0.747	0.504	-	0.496	0.632	-	0.368
4	94.1	CO9C-ACT-005 ( <i>L. sativa</i> )	SSAP	0.180	-	0.820	0.397	-	0.603	0.419	-	0.581
4	100.5	CO9C-CTA-102 ( <i>L. sativa</i> )	SSAP	0.124	-	0.876	0.297	-	0.703	0.230	-	0.770
4	102.9	CO9C-CTC-001 ( <i>L. sativa</i> )	SSAP	0.124	-	0.876	0.297	-	0.703	0.230	-	0.770
4	104.7	CO9C-CTC-020 ( <i>L. sativa</i> )	SSAP	0.102	-	0.898	0.255	-	0.745	0.163	-	0.837
4	106.7	CO9C-CTC-021 ( <i>L. serriola</i> )	SSAP	0.591	-	0.409	-	-	-	0.619	-	0.381
4	109.2	CO9C-TCC-167 ( <i>L. serriola</i> )	SSAP	0.663	-	0.337	-	-	-	0.751	-	0.249
4	112.2	1A31-F-259 ( <i>L. sativa</i> )	AFLP	0.092	0.477	0.431	0.279	0.721	-	0.346	0.344	0.311
4	153.3	CO9C-CTC-010 ( <i>L. serriola</i> )	SSAP	0.787	-	0.213	-	-	-	0.913	-	0.087
4	157.8	1A36-F-250 ( <i>L. sativa</i> )	AFLP	0.205	0.580	0.216	0.414	0.586	-	0.534	0.340	0.127
4	160.5	CO9C-GTG-193 ( <i>L. sativa</i> )	SSAP	0.247	-	0.753	0.496	-	0.504	0.618	-	0.382
5	0	NBS-24 ( <i>L. serriola</i> )	NBS	0.802	-	0.198	-	-	-	0.928	-	0.072
5	3.3	CO9C-CTC-017 ( <i>L. sativa</i> )	SSAP	0.281	-	0.719	0.540	-	0.460	0.696	-	0.304
5	8.3	CO9C-ATC-006 ( <i>L. serriola</i> )	SSAP	0.787	-	0.213	-	-	-	0.913	-	0.087
5	13.5	E44/M48-F-223 ( <i>L. serriola</i> )	AFLP	0.287	0.529	0.184	0.521	0.479	-	0.659	0.253	0.088
5	18.8	CO9C-CTC-004 ( <i>L. serriola</i> )	SSAP	0.798	-	0.202	-	-	-	0.924	-	0.076
5	22.8	CO9C-ACG-005 ( <i>L. serriola</i> )	SSAP	0.764	-	0.236	-	-	-	0.891	-	0.109
5	28.4	CO9C-AAT-162 ( <i>L. serriola</i> )	SSAP	0.764	-	0.236	-	-	-	0.891	-	0.109
5	35.9	1A31-F-129 ( <i>L. serriola</i> )	AFLP	0.305	0.451	0.244	0.575	0.425	-	0.704	0.192	0.104
5	43.7	1A31-F-224 ( <i>L. sativa</i> )	AFLP	0.309	0.444	0.247	0.581	0.419	-	0.711	0.186	0.103
5	46	CO9C-ATT-014 ( <i>L. serriola</i> )	SSAP	0.764	-	0.236	-	-	-	0.891	-	0.109
5	66	CO9C-CTG-96 ( <i>L. sativa</i> )	SSAP	0.261	-	0.739	0.515	-	0.485	0.653	-	0.347
5	66.6	CO9C-ATC-005 ( <i>L. sativa</i> )	SSAP	0.236	-	0.764	0.481	-	0.519	0.589	-	0.411
5	70.8	CO9C-ATC-002 ( <i>L. serriola</i> )	SSAP	0.730	-	0.270	-	-	-	0.851	-	0.149
5	72.6	CO9C-ACG-013 ( <i>L. serriola</i> )	SSAP	0.753	-	0.247	-	-	-	0.878	-	0.122
5	75.6	CO9C-AAT-200 ( <i>L. sativa</i> )	SSAP	0.292	-	0.708	0.553	-	0.447	0.719	-	0.281
5	78.5	CO9C-ACT-009 ( <i>L. sativa</i> )	SSAP	0.180	-	0.820	0.397	-	0.603	0.419	-	0.581
5	84.6	CO9C-AAT-172 ( <i>L. sativa</i> )	SSAP	0.191	-	0.809	0.415	-	0.585	0.455	-	0.545
5	86.7	1A36-F-160 ( <i>L. serriola</i> )	AFLP	0.224	0.529	0.247	0.458	0.542	-	0.579	0.287	0.134
5	107.9	E44/M49-F-316 ( <i>L. serriola</i> )	AFLP	0.114	0.544	0.342	0.295	0.705	-	0.375	0.384	0.241
5	109.6	E45/M48-F-127 ( <i>L. serriola</i> )	AFLP	0.156	0.422	0.422	0.426	0.574	-	0.515	0.242	0.242
5	110.3	E35/M59-F-129 ( <i>L. serriola</i> )	AFLP	0.193	0.494	0.313	0.438	0.562	-	0.547	0.277	0.176
5	111	CO9C-GTG-111 ( <i>L. sativa</i> )	SSAP	0.191	-	0.809	0.415	-	0.585	0.455	-	0.545
5	111.5	CO9C-GTT-213 ( <i>L. serriola</i> )	SSAP	0.724	-	0.276	-	-	-	0.843	-	0.157
5	112.8	CO9C-CTG-178 ( <i>L. sativa</i> )	SSAP	0.182	-	0.818	0.400	-	0.600	0.426	-	0.574
5	117.3	E35/M59-F-270 ( <i>L. sativa</i> )	AFLP	0.257	0.500	0.243	0.507	0.493	-	0.634	0.246	0.120
5	120.1	NBS-10 ( <i>L. sativa</i> )	NBS	0.195	-	0.805	0.421	-	0.579	0.469	-	0.531
5	126.2	E35/M59-F-178 ( <i>L. serriola</i> )	AFLP	0.241	0.410	0.349	0.541	0.459	-	0.651	0.188	0.161
5	126.5	E35/M59-F-182 ( <i>L. sativa</i> )	AFLP	0.238	0.393	0.369	0.548	0.452	-	0.656	0.178	0.167
5	129	NBS-22 ( <i>L. serriola</i> )	NBS	0.598	-	0.402	-	-	-	0.632	-	0.368
5	131.5	CO9C-AAT-431 ( <i>L. sativa</i> )	SSAP	0.112	-	0.888	0.275	-	0.725	0.194	-	0.806
5	133.2	1A36-F-156 ( <i>L. serriola</i> )	AFLP	0.253	0.391	0.356	0.564	0.436	-	0.674	0.170	0.155
5	134.3	NBS26 ( <i>L. sativa</i> )	NBS	0.233	-	0.767	0.476	-	0.524	0.579	-	0.421
5	140.2	CO9C-AAT-340 ( <i>L. serriola</i> )	SSAP	0.742	-	0.258	-	-	-	0.865	-	0.135
5	163.9	E35/M59-F-198 ( <i>L. sativa</i> )	AFLP	0.244	0.512	0.244	0.488	0.512	-	0.613	0.262	0.125
6	7.1	NBS-07 ( <i>L. serriola</i> )	NBS	0.742	-	0.258	-	-	-	0.865	-	0.135
6	7.8	1A36-F-304 ( <i>L. sativa</i> )	AFLP	0.233	0.523	0.244	0.471	0.529	-	0.594	0.277	0.129
6	11.7	CO9C-ATT-013 ( <i>L. sativa</i> )	SSAP	0.180	-	0.820	0.397	-	0.603	0.419	-	0.581
6	40	CO9C-ACG-004 ( <i>L. serriola</i> )	SSAP	0.697	-	0.303	-	-	-	0.804	-	0.196
6	43.4	CO9C-AAG-005 ( <i>L. serriola</i> )	SSAP	0.750	-	0.250	-	-	-	0.875	-	0.125
6	45.1	E35/M59-F-217 ( <i>L. sativa</i> )	AFLP	0.269	0.507	0.224	0.514	0.486	-	0.645	0.246	0.109
6	45.7	CO9C-ATT-005 ( <i>L. sativa</i> )	SSAP	0.202	-	0.798	0.432	-	0.568	0.491	-	0.509
6	53.7	CO9C-ACG-012 ( <i>L. sativa</i> )	SSAP	0.281	-	0.719	0.540	-	0.460	0.696	-	0.304
6	55.6	CO9C-AAG-008 ( <i>L. sativa</i> )	SSAP	0.276	-	0.724	0.533	-	0.467	0.685	-	0.315
6	56.6	CO9C-CTT-006 ( <i>L. sativa</i> )	SSAP	0.299	-	0.701	0.561	-	0.439	0.732	-	0.268
6	71.6	E35/M59-F-103 ( <i>L. sativa</i> )	AFLP	0.346	0.457	0.198	0.602	0.398	-	0.740	0.182	0.079
6	82.8	CO9C-CTC-008 ( <i>L. sativa</i> )	SSAP	0.295	-	0.705	0.557	-	0.443	0.725	-	0.275
6	82.9	CO9C-CTA-253 ( <i>L. serriola</i> )	SSAP	0.764	-	0.236	-	-	-	0.891	-	0.109
7	3.8	CO9C-GTT-155 ( <i>L. serriola</i> )	SSAP	0.782	-	0.218	-	-	-	0.909	-	0.091
7	4.3	CO9C-CTA-406 ( <i>L. serriola</i> )	SSAP	0.798	-	0.202	-	-	-	0.924	-	0.076
7	6.3	CO9C-ATA-004 ( <i>L. sativa</i> )	SSAP	0.216	-	0.784	0.452	-	0.548	0.532	-	0.468
7	14.2	E44/M49-F-248 ( <i>L. sativa</i> )	AFLP	0.264	0.517	0.218	0.505	0.495	-	0.636	0.256	0.108
7	15.3	1A36-F-171 ( <i>L. sativa</i> )	AFLP	0.250	0.511	0.239	0.494	0.506	-	0.621	0.259	0.121
7	15.6	CO9C-ACG-002 ( <i>L. serriola</i> )	SSAP	0.761	-	0.239	-	-	-	0.888	-	0.112
7	15.9	E45/M48-F-142 ( <i>L. sativa</i> )	AFLP	0.259	0.506	0.235	0.506	0.494	-	0.634	0.250	0.116
7	17.7	CO9C-ACT-010 ( <i>L. serriola</i> )	SSAP	0.787	-	0.213	-	-	-	0.913	-	0.087
7	25.6	CO9C-AAT-098 ( <i>L. sativa</i> )	SSAP	0.236	-	0.764	0.481	-	0.519	0.589	-	0.411
7	30.9	CO9C-AAG-007 ( <i>L. sativa</i> )	SSAP	0.213	-	0.787	0.449	-	0.551	0.525	-	0.475

		S <sub>1</sub>	S <sub>1</sub>	S <sub>1</sub>	BC <sub>1</sub>	BC <sub>1</sub>	BC <sub>1</sub>	BC <sub>1S1</sub>	BC <sub>1S1</sub>	BC <sub>1S1</sub>	
		<i>L. serriola</i>	Hetero-zygous	<i>L. sativa</i>	<i>L. serriola</i>	Hetero-zygous	<i>L. sativa</i>	<i>L. serriola</i>	Hetero-zygous	<i>L. sativa</i>	
Mendelian	Co-dominant	0.25	0.5	0.25	0.5	0.5	-	0.625	0.25	0.125	
Mendelian	Dominant: <i>L. serriola</i> band	0.75	-	0.25	-	-	-	0.875	-	0.125	
Mendelian	Dominant: <i>L. sativa</i> band	0.25	-	0.75	0.5	-	0.5	0.625	-	0.375	
LG	cMorgan	Loci (incl band presence state)	Marker type								
7	40.4	CO9C-ACT-013 ( <i>L. serriola</i> )	SSAP	0.775	-	0.225	-	-	0.903	-	0.097
7	42.1	NBS-04 ( <i>L. sativa</i> )	NBS	0.256	-	0.744	0.507	0.493	0.639	-	0.361
7	43.5	NBS-16 ( <i>L. sativa</i> )	NBS	0.244	-	0.756	0.493	-	0.507	-	0.389
7	50.6	CO9C-CTG-112 ( <i>L. serriola</i> )	SSAP	0.761	-	0.239	-	-	0.888	-	0.112
7	60.5	CO9C-ACT-006 ( <i>L. serriola</i> )	SSAP	0.809	-	0.191	-	-	0.933	-	0.067
7	61.6	1A31-F-170 ( <i>L. serriola</i> )	AFLP	0.173	0.593	0.235	0.368	0.632	-	0.478	0.374
7	63.2	E35/M59-F-101 ( <i>L. serriola</i> )	AFLP	0.120	0.560	0.320	0.300	0.700	-	0.384	0.392
7	66.8	CO9C-CTT-002 ( <i>L. serriola</i> )	SSAP	0.770	-	0.230	-	-	0.897	-	0.103
7	68.6	CO9C-ACT-001 ( <i>L. serriola</i> )	SSAP	0.747	-	0.253	-	-	0.872	-	0.128
7	90.7	1A36-F-223 ( <i>L. sativa</i> )	AFLP	0.212	0.565	0.224	0.429	0.571	-	0.550	0.323
7	97	CO9C-ATA-009 ( <i>L. serriola</i> )	SSAP	0.779	-	0.221	-	-	0.906	-	0.094
8	0	CO9C-GTT-270 ( <i>L. sativa</i> )	SSAP	0.267	-	0.733	0.522	-	0.478	0.665	-
8	0.5	CO9C-CTC-014 ( <i>L. serriola</i> )	SSAP	0.818	-	0.182	-	-	0.940	-	0.060
8	5.1	NBS-11 ( <i>L. serriola</i> )	NBS	0.778	-	0.222	-	-	0.905	-	0.095
8	9.5	E45/M48-F-067 ( <i>L. serriola</i> )	AFLP	0.222	0.472	0.306	0.485	0.515	-	0.599	0.243
8	18.4	E44/M49-F-262 ( <i>L. sativa</i> )	AFLP	0.284	0.477	0.239	0.543	0.457	-	0.673	0.218
8	25.6	NBS-08 ( <i>L. serriola</i> )	NBS	0.782	-	0.218	-	-	0.909	-	0.091
8	31.5	CO9C-CTC-005 ( <i>L. sativa</i> )	SSAP	0.281	-	0.719	0.540	-	0.460	0.696	-
8	57.4	CO9C-ATC-009 ( <i>L. serriola</i> )	SSAP	0.818	-	0.182	-	-	0.940	-	0.060
8	57.9	E35/M59-F-153 ( <i>L. sativa</i> )	AFLP	0.299	0.529	0.172	0.531	0.469	-	0.671	0.248
8	60.8	1A36-F-127 ( <i>L. sativa</i> )	AFLP	0.282	0.600	0.118	0.485	0.515	-	0.630	0.309
8	64.2	CO9C-CTG-370 ( <i>L. sativa</i> )	SSAP	0.227	-	0.773	0.469	-	0.531	0.565	-
8	72.1	1A31-F-146 ( <i>L. serriola</i> )	AFLP	0.284	0.543	0.173	0.511	0.489	-	0.650	0.266
8	79.3	CO9C-ATT-004 ( <i>L. serriola</i> )	SSAP	0.843	-	0.157	-	-	0.957	-	0.043
8	80.6	E44/M48-F-141 ( <i>L. sativa</i> )	AFLP	0.259	0.588	0.153	0.468	0.532	-	0.606	0.313
8	90.2	CO9C-CTC-012 ( <i>L. sativa</i> )	SSAP	0.261	-	0.739	0.515	-	0.485	0.653	-
8	128.2	1A36-F-323 ( <i>L. sativa</i> )	AFLP	0.278	0.544	0.177	0.506	0.494	-	0.643	0.269
8	133.6	CO9C-AAT-248 ( <i>L. sativa</i> )	SSAP	0.236	-	0.764	0.481	-	0.519	0.589	-
8	143.3	E44/M48-F-192 ( <i>L. sativa</i> )	AFLP	0.213	0.562	0.225	0.432	0.568	-	0.553	0.319
9	0	NBS-02 ( <i>L. serriola</i> )	NBS	0.839	-	0.161	-	-	0.955	-	0.045
9	20.3	CO9C-GTG-151 ( <i>L. serriola</i> )	SSAP	0.719	-	0.281	-	-	0.836	-	0.164
9	24.4	CO9C-AAG-003 ( <i>L. sativa</i> )	SSAP	0.302	-	0.698	0.565	-	0.435	0.738	-
9	28.1	CO9C-ATT-015 ( <i>L. sativa</i> )	SSAP	0.281	-	0.719	0.540	-	0.460	0.696	-
9	36.5	CO9C-ATC-008 ( <i>L. sativa</i> )	SSAP	0.270	-	0.730	0.526	-	0.474	0.672	-
9	46.4	1A36-F-189 ( <i>L. sativa</i> )	AFLP	0.301	0.494	0.205	0.549	0.451	-	0.685	0.223
9	49.5	CO9C-CTC-002 ( <i>L. sativa</i> )	SSAP	0.330	-	0.670	0.596	-	0.404	0.784	-
9	53.1	CO9C-ATC-001 ( <i>L. sativa</i> )	SSAP	0.311	-	0.689	0.575	-	0.425	0.754	-
9	60.7	E44/M49-F-175 ( <i>L. serriola</i> )	AFLP	0.253	0.517	0.230	0.494	0.506	-	0.622	0.262
9	81.4	CO9C-CTA-098 ( <i>L. serriola</i> )	SSAP	0.730	-	0.270	-	-	0.851	-	0.149
9	92.6	CO9C-CTT-007 ( <i>L. sativa</i> )	SSAP	0.172	-	0.828	0.385	-	0.615	0.394	-
9	95.6	1A31-F-176 ( <i>L. serriola</i> )	AFLP	0.156	0.558	0.286	0.358	0.642	-	0.458	0.358
9	100.2	NBS-19 ( <i>L. sativa</i> )	NBS	0.235	-	0.765	0.480	-	0.520	0.587	-
9	102.5	NBS-25 ( <i>L. serriola</i> )	NBS	0.744	-	0.256	-	-	0.868	-	0.132
9	106.1	CO9C-TCC-123 ( <i>L. serriola</i> )	SSAP	0.865	-	0.135	-	-	0.970	-	0.030
9	108.1	E35/M59-F-183 ( <i>L. sativa</i> )	AFLP	0.222	0.611	0.167	0.421	0.579	-	0.550	0.354
9	113.1	E35/M59-F-096 ( <i>L. sativa</i> )	AFLP	0.232	0.512	0.256	0.475	0.525	-	0.597	0.269
9	122.5	CO9C-ATA-007 ( <i>L. sativa</i> )	SSAP	0.205	-	0.795	0.435	-	0.565	0.498	-
9	127.7	CO9C-AAG-004 ( <i>L. serriola</i> )	SSAP	0.747	-	0.253	-	-	0.872	-	0.128
9	133.4	CO9C-ACT-007 ( <i>L. sativa</i> )	SSAP	0.191	-	0.809	0.415	-	0.585	0.455	-
9	137	CO9C-ACT-002 ( <i>L. serriola</i> )	SSAP	0.697	-	0.303	-	-	0.804	-	0.196
u	u	CO9C-ATT-011 ( <i>L. sativa</i> )	SSAP	0.213	-	0.787	0.449	-	0.551	0.525	-
u	u	E44/M48-F-212 ( <i>L. serriola</i> )	AFLP	0.218	0.460	0.322	0.487	0.513	-	0.599	0.236
u	u	1A31-F-074 ( <i>L. sativa</i> )	AFLP	0.232	0.451	0.317	0.507	0.493	-	0.621	0.223
u	u	1A31-F-244 ( <i>L. sativa</i> )	AFLP	0.263	0.553	0.184	0.488	0.512	-	0.623	0.283
u	u	1A31-F-323 ( <i>L. sativa</i> )	AFLP	0.250	0.500	0.250	0.500	0.500	-	0.625	0.250
u	u	1A31-F-402 ( <i>L. sativa</i> )	AFLP	0.250	0.500	0.250	0.500	0.500	-	0.625	0.250
u	u	1A36-F-148 ( <i>L. sativa</i> )	AFLP	0.250	0.500	0.250	0.500	0.500	-	0.625	0.250
u	u	1A36-F-246 ( <i>L. sativa</i> )	AFLP	0.365	0.376	0.259	0.660	0.340	-	0.784	0.128
u	u	1A36-F-299 ( <i>L. sativa</i> )	AFLP	0.250	0.500	0.250	0.500	0.500	-	0.625	0.250
u	u	1A36-Fb-126.70 ( <i>L. sativa</i> )	AFLP	0.250	0.500	0.250	0.500	0.500	-	0.625	0.250
u	u	E35/M59-F-086 ( <i>L. sativa</i> )	AFLP	0.250	0.500	0.250	0.500	0.500	-	0.625	0.250
u	u	E35/M59-F-204 ( <i>L. sativa</i> )	AFLP	0.250	0.500	0.250	0.500	0.500	-	0.625	0.250
u	u	E35/M59-F-212 ( <i>L. sativa</i> )	AFLP	0.200	0.541	0.259	0.425	0.575	-	0.540	0.311
u	u	E44/M48-F-328 ( <i>L. sativa</i> )	AFLP	0.195	0.552	0.253	0.415	0.585	-	0.529	0.323
u	u	E44/M48-F-403 ( <i>L. sativa</i> )	AFLP	0.250	0.500	0.250	0.500	0.500	-	0.625	0.250
u	u	E44/M49-F-231 ( <i>L. sativa</i> )	AFLP	0.250	0.500	0.250	0.500	0.500	-	0.625	0.250
u	u	E44/M49-F-250 ( <i>L. sativa</i> )	AFLP	0.250	0.500	0.250	0.500	0.500	-	0.625	0.250
u	u	E44/M49-F-337 ( <i>L. sativa</i> )	AFLP	0.241	0.542	0.217	0.471	0.529	-	0.598	0.287
u	u	E45/M48-F-084 ( <i>L. sativa</i> )	AFLP	0.250	0.500	0.250	0.250	0.750	-	0.625	0.250
u	u	E45/M48-F-103 ( <i>L. sativa</i> )	AFLP	0.243	0.554	0.203	0.468	0.532	-	0.597	0.295
u	u	E45/M48-F-140 ( <i>L. sativa</i> )	AFLP	0.262	0.500	0.238	0.512	0.488	-	0.640	0.244

		S <sub>1</sub>	S <sub>1</sub>	S <sub>1</sub>	BC <sub>1</sub>	BC <sub>1</sub>	BC <sub>1</sub>	BC <sub>1S1</sub>	BC <sub>1S1</sub>	BC <sub>1S1</sub>		
		<i>L. serriola</i>	Hetero-zygous	<i>L. sativa</i>	<i>L. serriola</i>	Hetero-zygous	<i>L. sativa</i>	<i>L. serriola</i>	Hetero-zygous	<i>L. sativa</i>		
Mendelian	Co-dominant	0.25	0.5	0.25	0.5	0.5	-	0.625	0.25	0.125		
Mendelian	Dominant: <i>L. serriola</i> band	0.75	-	0.25	-	-	-	0.875	-	0.125		
Mendelian	Dominant: <i>L. sativa</i> band	0.25	-	0.75	0.5	-	0.5	0.625	-	0.375		
LG	cMorgan	Loci (incl band presence state)	Marker type									
u	u	E45/M48-F-146 ( <i>L. sativa</i> )	AFLP	0.250	0.500	0.250	0.500	0.500	-	0.625	0.250	0.125
u	u	E45/M48-F-159 ( <i>L. sativa</i> )	AFLP	0.250	0.500	0.250	0.500	0.500	-	0.625	0.250	0.125
u	u	1A36-F-434 ( <i>L. serriola</i> )	AFLP	0.250	0.500	0.250	0.500	0.500	-	0.625	0.250	0.125
u	u	E44/M49-F-150 ( <i>L. serriola</i> )	AFLP	0.250	0.500	0.250	0.500	0.500	-	0.625	0.250	0.125
u	u	E44/M49-F-447 ( <i>L. serriola</i> )	AFLP	0.250	0.500	0.250	0.500	0.500	-	0.625	0.250	0.125
u	u	NBS-03 ( <i>L. sativa</i> )	NBS	0.213	-	0.787	0.449	-	0.551	0.525	-	0.475
u	u	NBS-05 ( <i>L. sativa</i> )	NBS	0.232	-	0.768	0.475	-	0.525	0.577	-	0.423
u	u	NBS-27 ( <i>L. sativa</i> )	NBS	0.345	-	0.655	0.613	-	0.387	0.807	-	0.193
u	u	NBS-36 ( <i>L. sativa</i> )	NBS	0.579	-	0.421	0.805	-	0.195	0.966	-	0.034
u	u	NBS37 ( <i>L. sativa</i> )	NBS	0.632	-	0.368	0.837	-	0.163	0.978	-	0.022
u	u	CO9C-AAT-097 ( <i>L. sativa</i> )	SSAP	0.135	-	0.865	0.319	-	0.681	0.267	-	0.733
u	u	CO9C-AAT-153 ( <i>L. sativa</i> )	SSAP	0.270	-	0.730	0.526	-	0.474	0.672	-	0.328
u	u	CO9C-AAT-180 ( <i>L. sativa</i> )	SSAP	0.146	-	0.854	0.339	-	0.661	0.305	-	0.695
u	u	CO9C-AAT-208 ( <i>L. sativa</i> )	SSAP	0.067	-	0.933	0.178	-	0.822	0.073	-	0.927
u	u	CO9C-ATA-003 ( <i>L. sativa</i> )	SSAP	0.261	-	0.739	0.515	-	0.485	0.653	-	0.347
u	u	CO9C-ATT-001 ( <i>L. sativa</i> )	SSAP	0.303	-	0.697	0.566	-	0.434	0.740	-	0.260
u	u	CO9C-CTT-003 ( <i>L. sativa</i> )	SSAP	0.230	-	0.770	0.472	-	0.528	0.572	-	0.428
u	u	CO9C-CTT-009 ( <i>L. sativa</i> )	SSAP	0.253	-	0.747	0.504	-	0.496	0.632	-	0.368
u	u	CO9C-GTG-700 ( <i>L. sativa</i> )	SSAP	0.205	-	0.795	0.435	-	0.565	0.498	-	0.502
u	u	CO9C-GTT-238 ( <i>L. sativa</i> )	SSAP	0.218	-	0.782	0.456	-	0.544	0.539	-	0.461
u	u	CO9-C-GTT-440 ( <i>L. sativa</i> )	SSAP	0.250	-	0.750	0.500	-	0.500	0.625	-	0.375
u	u	CO9C-TCC-088 ( <i>L. sativa</i> )	SSAP	0.202	-	0.798	0.432	-	0.568	0.491	-	0.509
u	u	CO9-C-TCC-146 ( <i>L. sativa</i> )	SSAP	0.250	-	0.750	0.500	-	0.500	0.625	-	0.375
u	u	CO9C-TCC-199 ( <i>L. sativa</i> )	SSAP	0.225	-	0.775	0.465	-	0.535	0.558	-	0.442
u	u	CO9-C-TCC-640 ( <i>L. sativa</i> )	SSAP	0.250	-	0.750	0.500	-	0.500	0.625	-	0.375