

Supplementary Information

Identification of QTLs conferring resistance to downy mildew in legacy cultivars of lettuce

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Supplementary Table

Table S1: **Correlation coefficients of traits means.** Pearson's coefficient is above black diagonal; Spearman's coefficient is below diagonal. Significance level is indicated by darker green color.

Experiment	Week	Evaluation	F-2008	F-2009	F-2009	F-2009	F-2009	F-2009	F-2011	F-2011	F-2011	F-2011	F-2011	F-2012a	F-2012b	F-2012b	F-2012b	F-2012b	F-2012b	F-2012b	L-2012a	L-2012b	Integrated	
			WK1	WK1	WK3	WK3	WK5	WK5	WK1	WK2	WK2	WK5	WK5	WK1	WK1	WK1	WK2	WK3	WK3	WK3	WK3	WK1	WK1	n.a.
			Rating	Rating	Rating	AUDPS	Rating	AUDPS	Rating	Rating	AUDPS	Rating	AUDPS	Rating	Rating	Rating	AUDPS	Rating	AUDPS	Rating	AUDPS	Sporulation	Sporulation	0-100
F-2008	WK1	Rating		0.36	0.35	0.41	0.42	0.43	0.50	0.54	0.56	0.45	0.52	0.53	0.02	0.31	0.28	0.44	0.42	0.23	-0.05	0.67		
F-2009	WK1	Rating	0.42		0.48	0.82	0.44	0.78	0.31	0.30	0.33	0.28	0.32	0.28	-0.07	0.21	0.16	0.32	0.28	0.28	0.10	0.47		
F-2009	WK3	Rating	0.36	0.49		0.88	0.65	0.89	0.39	0.45	0.45	0.32	0.39	0.21	-0.05	0.21	0.17	0.25	0.24	0.27	0.11	0.38		
F-2009	WK3	AUDPS	0.42	0.83	0.89		0.65	0.99	0.41	0.45	0.46	0.35	0.42	0.28	-0.07	0.24	0.19	0.33	0.30	0.32	0.12	0.45		
F-2009	WK5	Rating	0.39	0.43	0.64	0.64		0.74	0.39	0.47	0.46	0.41	0.46	0.41	0.01	0.28	0.25	0.36	0.35	0.25	0.08	0.42		
F-2009	WK5	AUDPS	0.44	0.80	0.90	0.99	0.76		0.43	0.48	0.49	0.38	0.45	0.32	-0.06	0.26	0.21	0.35	0.33	0.33	0.12	0.46		
F-2011	WK1	Rating	0.47	0.32	0.40	0.41	0.32	0.41		0.73	0.85	0.61	0.67	0.47	0.04	0.40	0.36	0.35	0.41	0.26	0.09	0.55		
F-2011	WK2	Rating	0.52	0.31	0.46	0.44	0.39	0.46	0.66		0.94	0.84	0.89	0.43	0.02	0.37	0.32	0.44	0.44	0.38	0.22	0.65		
F-2011	WK2	AUDPS	0.54	0.34	0.47	0.46	0.39	0.47	0.91	0.94		0.79	0.92	0.48	0.03	0.41	0.37	0.43	0.46	0.35	0.18	0.65		
F-2011	WK5	Rating	0.45	0.31	0.35	0.37	0.39	0.38	0.57	0.84	0.80		0.98	0.38	0.09	0.32	0.31	0.39	0.41	0.43	0.22	0.65		
F-2011	WK5	AUDPS	0.49	0.32	0.36	0.38	0.37	0.40	0.76	0.93	0.88	0.97		0.44	0.07	0.37	0.35	0.43	0.45	0.42	0.21	0.67		
F-2012a	WK1	Rating	0.55	0.30	0.21	0.26	0.39	0.29	0.45	0.41	0.45	0.40	0.44		0.12	0.44	0.42	0.57	0.58	0.27	0.07	0.75		
F-2012b	WK1	Rating	0.03	-0.03	-0.05	-0.06	0.06	-0.04	0.14	0.09	0.12	0.12	0.11	0.16		0.23	0.55	0.15	0.38	0.01	0.32	0.18		
F-2012b	WK2	Rating	0.36	0.23	0.19	0.19	0.25	0.21	0.43	0.38	0.42	0.35	0.37	0.50	0.31		0.95	0.52	0.82	0.18	0.15	0.56		
F-2012b	WK2	AUDPS	0.31	0.18	0.13	0.13	0.22	0.16	0.41	0.35	0.40	0.35	0.36	0.49	0.52	0.95		0.50	0.86	0.16	0.24	0.55		
F-2012b	WK3	Rating	0.44	0.41	0.26	0.33	0.29	0.34	0.33	0.36	0.36	0.35	0.35	0.55	0.14	0.52	0.51		0.88	0.38	0.08	0.83		
F-2012b	WK3	AUDPS	0.45	0.33	0.25	0.27	0.32	0.30	0.43	0.42	0.44	0.41	0.42	0.61	0.38	0.84	0.84	0.88		0.31	0.18	0.81		
L-2012a	WK1	Sporulation	0.22	0.34	0.30	0.36	0.22	0.36	0.28	0.37	0.37	0.40	0.40	0.21	0.05	0.16	0.15	0.36	0.31		0.18	0.53		
L-2012b	WK1	Sporulation	-0.01	0.09	0.09	0.10	0.08	0.10	0.15	0.26	0.26	0.21	0.22	0.10	0.28	0.15	0.22	0.09	0.18	0.19		0.33		
Integrated	n.a.	0-100	0.66	0.40	0.37	0.44	0.47	0.48	0.55	0.68	0.67	0.67	0.70	0.72	0.21	0.55	0.55	0.83	0.80	0.54	0.31			

P
E
A
R
S
O
N

S P E A R M A N

Significant at P-value
 < 0.05
 < 0.01
 < 0.001

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Supplementary Figure

Figure S2: **Avirulence genes detected in *B. lactucae* isolates.** Fifty-eight samples of the pathogen were collected in Salinas during 2008 - 2012 period. The avirulence genes that were never detected are *Avr5/8*, *Avr7*, *Avr11*, *Avr12*, *Avr13*, *Avr14*, *Avr15*, *Avr18*, *Avr18/32*, and *Avr40*.

