

Table S1 Summary of other signal transduction genes with significant ($P < 0.01$) differential expression (≥ 2.0 -fold)

Contig ID	Accession No.	Annotation	Fold change C33 vs. C26		Fold change Spd26 vs. C26		Fold change Spd33 vs. C33		Fold change Spd33 vs. Spd26	
			C33 vs. C26	Spd26 vs. C26	Spd33 vs. C26	Spd33 vs. C33	Spd33 vs. C33	Spd33 vs. Spd26		
LesAffx.46550.1.S1_at	BG134870	Cyclin-dependent protein kinase	2.51	1.13	2.99	1.19	2.65	2.65	2.65	
Les.4288.1.S1_at	BT013804.1	pyruvate kinase	-2.01	1.36	1.14	2.3	-1.52	-1.52		
LesAffx.24208.1.A1_at	CK714802	protein kinase family protein	2.01	-1.05	2	-1.01	1.7	1.7		
Les.4957.1.S1_at	BT012983.1	adenosine kinase	-4.78	-1.84	-5.64	-1.18	-5.7	-5.7		
Les.17.1.S1_at	X99134.1	transcription factor	3.32	1.63	1.88	-1.76	1.63	1.63		
LesAffx.44609.1.S1_at	BG631285	transcription factor	2.14	1.16	2.07	-1.04	1.91	1.91		
LesAffx.69645.1.S1_at	BM536341	scarecrow transcription factor family protein	-1.89	1.17	-2.15	-1.14	-2.43	-2.43		
Les.2961.1.S1_at	U89682.1	LePK5	-2.11	1.06	1.18	1.07	1.36	1.36		
Les.274.1.S1_at	AF204784.1	ripening regulated protein	2.65	-1.02	3.56	1.34	1.75	1.75		
Les.5958.1.S1_at	CN384731	Fruit-ripening protein	-1.51	1.2	3.64	5.51	4.14	4.14		
Les.4930.1.A1_at	BT012923.1	Fruit-ripening protein	4.66	1.27	4.35	-1.07	2.24	2.24		
LesAffx.56.2.A1_at	B1923613	putative senescence-associated protein	2.04	-1.1	2.1	1.03	1.62	1.62		
Les.5056.1.S1_x_at	AY642285.1	regulator of gene silencing	2.58	1.12	2.4	2.93	6.05	6.05		
Les.5056.1.S1_a_at	AY642285.1	regulator of gene silencing	2.58	1.12	7.58	2.93	6.05	6.05		
Les.3573.1.S1_at	U89255.1	Pti4	1.64	1.31	2.41	1.47	1.55	1.55		
Les.3575.1.S1_at	U89256.1	Pti5	2.84	-1.15	2.26	-1.26	1.93	1.93		
Les.3574.1.S1_at	U89257.1	Pti6	1.25	1.03	2.02	1.62	2.41	2.41		
LesAffx.64171.1.S1_at	AW622064	lob domain-containing protein 38	2.35	-1.07	2.71	1.15	1.36	1.36		
LesAffx.16472.1.S1_at	AI774397	lob domain-containing protein 4	2.66	-1.03	2.05	-1.3	1.82	1.82		
LesAffx.70722.1.S1_at	AW030137	response regulator	1.39	-1.09	2.56	1.84	2.31	2.31		
LesAffx.26129.1.S1_at	BG134051	response regulator 3	1.45	1.19	2.89	2	3.12	3.12		
Les.4043.1.S1_at	Z29101.1	7S signal recognition particle	2.4	-1.02	1.21	-3.36	-1.08	-1.08		
Les.4041.1.S1_s_at	Z29260.1	signal recognition particle 7S	2.62	-1.14	-1.24	-2.33	-1.84	-1.84		
Les.2526.1.S1_at	CN385345	rapid alkalization factor 1	2.61	-2.59	2.18	-1.2	1.69	1.69		
Les.3684.1.A1_at	AJ277562.1	cyclophilin-like protein	2.67	1.03	1.57	-1.7	1.28	1.28		
Les.2672.1.S1_x_at	AF305968.1	Psi14B protein	2.69	-1.35	2.21	-1.11	1.45	1.45		
LesAffx.64439.1.S1_at	CN385725	ZPT2-13	2.97	-1.25	2.28	-1.3	2.18	2.18		
LesAffx.31298.1.S1_at	BM412546	chaperone	3.19	1.02	3.43	1.07	5.21	5.21		
Les.349.1.S1_at	CN385641	DREB-like protein	3.9	1.06	3.86	-1.01	3.2	3.2		

Les.3981.1.S1_at	X72729.1	(ERT 1b) ripening-related mRNA	-2.34	1.59	-2.08	1.13	-3.39
LesAffx.67341.2.S1_at	AW623786	ATXR5	-2.02	-1.02	1.04	2.11	1.11
Les.4783.1.S1_at	BT014085.1	TCH2	1.13	1	2.09	1.85	1.84
LesAffx.65689.1.S1_at	AI486980	ATBZIP9/BZO2H2	1.97	-1.01	2.66	1.35	2.7
LesAffx.70335.1.S1_at	CK716219	protein kinase	1.09	1.18	2.25	2.07	2
LesAffx.50167.1.A1_at	AI485309	RAR1-like protein	1.05	-1	2.31	2.2	3.12
LesAffx.43198.1.S1_at	BF113993	BTB and taz domain protein 4	1.7	-1.04	2.35	1.38	1.78
LesAffx.15353.1.A1_at	BM967389	phloem protein	1.65	-1.45	2.36	1.42	1.83
Les.5121.1.S1_at	BT013324.1	PEX11B	2.59	1.13	2.37	-1.1	2.06
LesAffx.894.2.A1_at	AW040158	nascent polypeptide-associated complex subunit	1.74	-1.39	2.38	1.37	2.12
LesAffx.23467.1.A1_at	CK715365	agamous-like 79	3.78	-1.15	3.95	1.05	3.56
Les.12.1.S1_at	AF143742.1	SNF4 protein	-1.81	-1.28	-2.03	-1.12	-1.3
Les.4808.1.S1_at	BT014314.1	leucine-rich repeat family protein	-1.5	-1.92	-2.18	-1.45	-2.45
Les.5559.1.S1_at	BT014147.1	Ndr family protein	-1.37	-1.16	-2.59	-1.9	-2.4

Table S2 Summary of other defense responses and oxidation reduction genes with significant ($P < 0.01$) differential expression (≥ 2.0 -fold)

Contig ID	Accession No.	Annotation	Fold change		Fold change		Fold change	
			C33 vs. C26	Spd26 vs. C26	Spd33 vs. C26	Spd33 vs. C33	Spd33 vs. Spd26	
Les.5706.1.S1_at	BT014421.1	phenylcoumaran benzylic ether reductase	2.85	-1.13	2.85	1	3.29	
Les.5096.1.S1_at	BT013271.1	2OG-Fe(II) oxygenase family protein 230	-5.81	1.29	-2.23	2.61	5.83	
Les.3683.1.S1_at	AY093595.1	PR-5x	-3.69	1.38	-2.5	1.48	-4.35	
Les.Affx.29801.1.A1_at	AI489456	2OG-Fe(II) oxygenase family protein 77	-3.51	1.28	-1.21	2.9	3.19	
Les.1225.2.S1_at	AI776112	4,5-DOPA dioxygenase extradiol	-2.48	-1	-1.53	1.62	-1.33	
Les.Affx.4854.1.S1_at	BE461865	monoxygenase 1	-2.34	-1.36	-1.57	1.49	-1.5	
Les.Affx.18025.1.S1_at	BM410186	2OG-Fe(II) oxygenase family protein 144	-2.29	-1.05	-1.77	1.3	-1.97	
Les.Affx.49321.2.S1_at	AW218981	tropinone reductase	-2.22	-1.08	-2.17	1.02	1.26	
Les.5581.1.S1_at	BT014193.1	Putative L-ascorbate peroxidase	-1.61	-1.01	-2.08	-1.29	-1.33	
Les.4999.1.S1_at	BT013077.1	peroxidase	2.11	1.01	2.08	1.18	1.71	
Les.Affx.69830.1.S1_at	AW219112	peroxidase	-2.2	-1.06	-1.84	1.2	-1.59	
Les.Affx.71388.1.S1_at	AW034384	peroxidase 22	-2.11	-1.03	-1.53	1.38	-1.14	
Les.Affx.1574.7.A1_at	CD002886	Catalytic/ oxidoreductase	2.15	1.12	2.22	1.03	1.95	
Les.Affx.24134.1.A1_at	CK720539	oxidoreductase	2.17	1.23	2.35	1.08	2.5	
Les.Affx.17064.1.A1_at	AJ785263	Leucoanthocyanidin dioxygenase	1.18	1.2	-2.05	-2.42	-1.42	
Les.Affx.62593.2.A1_at	AW626298	Avr9/Cf-9 rapidly elicited protein	2.2	1.16	3.9	1.77	4.01	
Les.5939.1.S1_at	CN385618	Avr9/Cf-9 rapidly elicited protein 20	2.7	1.15	3.26	1.21	1.97	
Les.Affx.63074.1.A1_at	CN385213	Avr9/Cf-9 rapidly elicited protein 140	2.72	-1.09	2.29	-1.19	2.73	
Les.Affx.62593.2.S1_at	AW626298	Avr9/Cf-9 rapidly elicited protein 194	2.2	1.16	2.71	1.77	4.01	
Les.3940.2.A1_at	BG628187	wound-induced proteinase inhibitor 1	2.24	1.04	-1.15	-2.59	-1.06	
Les.5481.1.A1_at	BT014001.1	lesion inducing protein-related	2.26	-1.13	2.14	-1.13	1.7	
Les.Affx.11941.1.S1_at	AI776170	Phytophthora-inhibited protease	2.33	-1.2	2.09	-1.11	2.38	
Les.3987.1.S1_at	AJ457051.1	hero resistance protein	2.41	1.24	1.53	-1.57	1.8	
Les.Affx.51975.1.S1_at	AF362735.1	succinate dehydrogenase subunit 4	2.62	-1.08	1.59	-2.11	1.16	
Les.75.1.S1_s_at	AF039681.1	plant resistance protein	2.56	1.36	1.77	-1.2	2.26	
Les.Affx.37475.1.A1_at	AI486588	shrunken seed 1	2.58	1.11	2.41	-1.07	1.79	
Les.Affx.16288.1.A1_at	AW041416	macrophage migration inhibitory factor family	2.64	-1.08	2.09	-1.27	1.94	
Les.3710.1.S1_at	AJ312131.1	alternaria stem canker resistance protein	2.74	1.1	2.24	-1.22	1.75	
Les.Affx.53857.1.S1_at	AI773690	glutaredoxin family protein	2.75	-1.06	1.86	-1.48	3.64	

Les.Affx.53857.2.S1_at	AI776010	glutaredoxin family protein	3.09	-1.05	1.94	-1.59	3.78
Les.3024.1.A1_at	A1491090	trans-2-enoyl-CoA reductase	-2.01	1.07	1.04	2.08	1.03
Les.Affx.10235.1.S1_at	A1785323	Acyl-CoA synthetases	1.81	-1.03	2.84	1.04	1.9
Les.Affx.71065.1.S1_at	BM413117	Pathogen-related protein 131	1.66	1	2.93	1.77	3.04
Les.Affx.46550.1.S1_at	BG134870	cyclin p4	2.51	1.13	2.99	1.19	2.65
Les.5530.1.S1_at	BT014086.1	heavy-metal-associated domain-containing	3.38	-1.05	3.41	1.01	2.13
Les.5038.1.S1_at	CN385443	salt responsive protein 2	1.2	1.06	1.06	3.38	2.14
Les.3621.1.S1_at	K03290.1	wound-induced proteinase inhibitor	1.04	-1.39	-2.62	-2.72	1.01
Les.641.1.S1_at	BG626664	early-responsive to dehydration 3	-1.7	-1.3	-2.3	-1.36	-2.31
Les.5591.1.S1_at	BT014216.1	tgacg motif-binding factor 4	-1.88	-1.09	-2.13	-1.13	-1.84
Les.5694.1.S1_at	BT014398.1	hydroxysteroid dehydrogenase 1	1.58	1.15	-2.36	-3.74	-4.59