

Supplementary Table 1. PCR and multiplex PCR primer sets for the determination of *R. solanacearum*, race, phylotype, and sequence

Primer	Sequence (5' → 3')	Product size (bp)	Target	Reference
759	GTCGCCGTCAACTCACTTTCC	280	<i>R. solanacearum</i>	Opina et al. (1997)
760	GTCGCCGTGCAATGCGGAATCG			
PS-IS-F	CGCAACGCTGGATGAACCC	1,070	Race 1	Lee et al. (2001)
PS-IS-R	CAGACGATGCGAAGCCTGAC			
ISR _{so19} -F	TGGGAGAGGATGGCGGCTTT	1,884	Race 2	Lee and Khor (2003)
ISR _{so19} -R	TGACCCGCCTTTTCGGTGT			
630	ATACAGAATTCGACCGGCAC	357	Race 3	Fegan et al. (1998)
631	ATTCACATGCAATTCGCTAC			
AKIF	AACCGCACGTAAATCGTCGACA	165	Race 4	Horita et al. (2004)
AKIR	ACGACTGCCATTCGACGATG			
21F	CGACGCTGACGAAGGGACTC	125	Race 4	Horita et al. (2004)
21R	CTGACACGGCAAGCGCTCA			
fD1	AGAGTTTGATCCTGGCTCAG	About 1,600	Bacterial 16s ribosomal RNA	Weisburg et al. (1991)
Rp2	ACGGCTACCTTGTTACGACTT			
Nmult21:1F	CGTTGATGAGGCGCGCAATTT	144	Phylotype I	Fegan and Prior (2005)
Nmult21:2F	AAGTTATGGACGGTGGAAAGTC	372	Phylotype II	
Nmult23:AF	ATTACGAGAGCAATCGAAAGATT	91	Phylotype III	
Nmult22: InF	ATTGCCAAGACGAGAGAAGTA	213	Phylotype IV	
Nmult22:RR	TCGCTTGACCCTATAACGAGTA			
Endo-F	ATGCATGCCGCTGGTCGCCGC	750	<i>egl</i>	Poussier et al. (2000)
Endo-R	GCGTTGCCCGGCACGAACACC			
Rsol_fli_for	GAACGCCAACGGTGCGAAC	400	<i>fliC</i>	Schönfeld et al. (2003)
Rsol_fli_rev	GGCGGCCTTCAGGGAGGTC			
mutS-RsF1570	ACAGCGCCTTGAGCCGGTACA	756	<i>mutS</i>	Wicker et al. (2007)
mutS-RsR1926	GCTGATCACCGCCCGAACAT			

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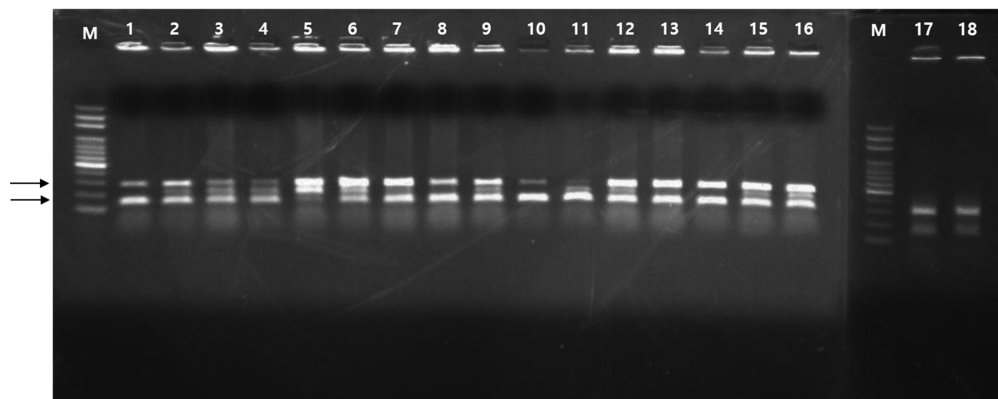
Supplementary Table 2. *Ralstonia solanacearum* and *R. pseudosolanacearum* strains used in this study

Strain	Geographical origin	Collected date	Host
RW007	Taeon	Jul 2017	<i>Rosa</i> sp. cv. Fuego
RW008	Taeon	Jul 2017	<i>Rosa</i> sp. cv. Fuego
RW010	Taeon	Jul 2017	<i>Rosa</i> sp. cv. Fuego
RW014	Taeon	Jul 2017	<i>Rosa</i> sp. cv. Fuego
RW016	Taeon	Jul 2017	<i>Rosa</i> sp. cv. Fuego
RW017	Taeon	Jul 2017	<i>Rosa</i> sp. cv. Fuego
RW020	Taeon	Jul 2017	<i>Rosa</i> sp. cv. Fuego
RW021	Taeon	Jul 2017	<i>Rosa</i> sp. cv. Fuego
RW030	Paju	Sep 2017	<i>Rosa</i> sp. cv. Hera
RW059	Goyang	Jun 2018	<i>Rosa</i> sp. cv. Giorgio
RW060	Goyang	Jun 2018	<i>Rosa</i> sp. cv. Giorgio
RW065	Goyang	Jun 2018	<i>Rosa</i> sp. cv. Hera
RW068	Goyang	Jun 2018	<i>Rosa</i> sp. cv. Hera
RW075	Unknown	Nov 2018	<i>Rosa</i> sp. cv. Hera.
RW076	Taeon	Nov 2018	<i>Rosa</i> sp. cv. Fuego
RW077	Jangsu	May 2019	<i>Rosa</i> sp. cv. Santorini
RW078	Jangsu	May 2019	<i>Rosa</i> sp. cv. Santorini
KACC10697	Jeju	Jan 1998	<i>Solanum tuberosum</i>

Supplementary Table 3. *Ralstonia solanacearum* and *R. pseudosolanacearum* strains used for sequevars determination in this study

Stain	Country	Region	Host	Phylotype	Sequevar	GenBank accession no.		
						<i>egl</i>	<i>fliC</i>	<i>mutS</i>
R288	China	Guangdong	<i>Morus alba</i>	I	12	KT630654	JF702351	AY756797
R292	China	Guangdong	<i>Morus alba</i>	I	12	DQ657635	DQ657690	AY756801
PSS216	Taiwan	Hsinchu (North-West)	<i>Solanum lycopersicum</i>	I	13	EU407291	JF702358	EU407359
PSS81	China	-	<i>Solanum lycopersicum</i>	I	14	FJ561066		
PSS358	Taiwan	Yunlin (West)	<i>Solanum lycopersicum</i>	I	15	EU407298	JF702360	EU407366
MAFF211266	Japan	-	<i>Solanum lycopersicum</i>	I	15	AF295250	JF702344	AY756791
PSS190	Taiwan	Taipei (North)	<i>Solanum lycopersicum</i>	I	15	EU407285	JF702349	EU407353
PSS366	Taiwan	Yunlin (West)	<i>Solanum lycopersicum</i>	I	15	EU407299	JF702357	EU407367
UW151	Australia	-	<i>Zingiber officinale</i>	I	16	AF295254		
P11	China	Nanning (Guangxi)	<i>Arachis hypogaea</i>	I	17	FJ561068	JF702375	JF702705
GMI1000	French Guiana	Kourou	<i>Solanum lycopersicum</i>	I	18	KT629830	JF702404	AY756804
JT519	Reunion island	-	<i>Pelargonium</i>	I	31	GU295032	JF702385	JF702713
PD7123	Netherlands	-	<i>Rosa</i> sp.	I	33	MF141027		
PD7195	Netherlands	-	<i>Rosa</i> sp.	I	33	MF141028	MF141025	MF141030
PD7216	Netherlands	-	<i>Rosa</i> sp.	I	33	MF141029	MF141026	MF141031
CFBP8468	India	Rodrigues	<i>Capsicum frutescens</i>	I	33	KX242316		
CFBP8469	India	Rodrigues	<i>Capsicum frutescens</i>	I	33	KX242313		
PSS219	Taiwan	Hsinchu (North-West)	<i>Solanum lycopersicum</i>	I	34	EU407292	JF702365	EU407360
O3	China	Sanmenjiang (Guangxi)	<i>Olea Europae</i>	I	44	FJ561069	JF702376	JF702706
GMI8254	Indonesia	-	<i>Solanum lycopersicum</i>	I	47	GU295014	JF702393	JF702719
Rs-10-244	India	Andaman Islands	<i>Capsicum frutescens</i>	I	48	KY661414	KY661422	JX264209
Rs-09-161	India	Goa	<i>Solanum melongena</i>	I	unknown	KY661413	KY661421	NZ_CM002757
UW551	Kenya	Naivasha	<i>Pelargonium</i>	IIB	1	DQ657596	JF702412	JF702736
IPO1609	Netherlands		<i>Solanum tuberosum</i>	IIB	1	EF371814	JF702405	EF371849
MOLK2	Philippines	Davao	<i>Musa</i> sp.	IIB	3	EF371841	JF702406	EF371848
RS210	Brazil	North	<i>Musa</i> sp.	IIA	4	KT629996		
A3909	USA	Hawaii	<i>Solanum lycopersicum</i>	IIA	6	EF371812		
B34	Brazil	Coari	<i>Musa</i> sp.	IIB	24	GQ907154		
RS293	Brazil	North	<i>Eucalyptus</i> sp.	IIB	27	KT630682		
RS82	Brazil	Central	<i>Solanum melongena</i>	IIB	28	KT629987		
CFBP2972	Martinique	Le Lamentin	<i>Solanum tuberosum</i>	IIA	35	AF295264		
CFBP2957	Martinique	Case Pilote	<i>Solanum lycopersicum</i>	IIA	36	EF371807	JF702402	EF371845
CIP120	Peru	La chincana, San Ramon	<i>Solanum tuberosum</i>	IIA	38	GQ907152		
CFBP2958	Guadeloupe	Saint François	<i>Solanum lycopersicum</i>	IIA	39	AF295266		
RS483	Brazil	Central	<i>Eucalyptus</i> sp.	IIA	41	KT629832		
RS264	Brazil	Northeast	<i>Eucalyptus</i> sp.	IIA	50	KT629885		
CMR121	Cameroon	-	<i>Solanum lycopersicum</i>	IIA	52	EF439725		
RS479	Brazil	Southeast	<i>Geranium</i> sp.	IIB	54	KT630034		
RS277	Brazil	South	<i>Solanum lycopersicum</i>	IIB	55	KT630059		
RS481	Brazil	Central	<i>Eucalyptus</i> sp.	IIB	56	KT630065		

RS92	Brazil	Central	<i>Solanum tuberosum</i>	IIB	57	KT630007		
JT525	Reunion	-	<i>pelargonium</i>	III	19	AF295279		
CMR15	Cameroon	-	<i>Solanum lycopersicum</i>	III	29	KU255925	FP885896	FP885895
DGBBC1227	Guinea	-	<i>Solanum tuberosum</i>	III	42	GU295011		
DGBBC1125	Guinea	-	<i>Solanum tuberosum</i>	III	43	GU295008		
CMR66	Cameroon	-	wood nigrum	III	49	EF439729		
MAFF301558	Japan	-	<i>Solanum tuberosum</i>	IV	8	DQ011548		
CFBP6447	Indonesia	-	<i>Syzygumi aromaticum</i>	IV	9	KC188101		
BDB R229	Indonesia	South Sulawesi	<i>Musa acuminata</i>	IV	10	GU295045		
PSI07	Indonesia	-	<i>Solanum lycopersicum</i>	IV	10	FP885891	JF702407	JF702730
ACH732	Australia	Northern territory	<i>Solanum lycopersicum</i>	IV	11	GQ907150		



Supplementary Fig. 1. Gel electrophoresis of PCR products for *Ralstonia* and phylotype I specific primers of re-isolated strains from artificially inoculated roses by *R. pseudosolanacearum* strain, RW078. Arrows indicate 280 bp and 144 bp products of *Ralstonia* and phylotype I specific primers, respectively. M, 100 bp DNA ladder (MGmed, Korea); lanes 1-9, re-isolates from cv. Hera; lanes 10-18, re-isolates from cv. Fuego.