

Table S1. *Phytophthora infestans* isolates used in this study.

Multilocus Genotype	Isolate	Location County/State abbreviation or Country/Geographic coordinates	Original host	Year	Collector
US-1	SA960008	Mpumalanga, South Africa/ 26°S 30°E	Potato	1996	Adele McLeod
US-6	Coffey7629	USA	-	-	Michael D. Coffey
US-7	Coffey7723	USA	-	-	Michael D. Coffey
US-8	US100028	Dufferin/ON Canada/ 44°05'N 80°12'W	Potato	2010	Eugenia Banks
	US110063	Erie/PA/ 42.10°N 80.10°W	Potato	2011	Andrew Musa
	US110102	Pasco/WA/ 46°14'19"N 119°6'31"W	Potato	2011	Niklaus Grünwald
US-11	US050007	Benton/OR/ 44°29'25"N 123°25'57"W	Tomato	2005	Melody Putnam
	US110028	Oneida/NY/ 43.24°N 75.44°W	Tomato	2011	Jerry Waskiewicz
US-12	US940494	Tompkins/NY/ 42.45°N 76.47°W	Tomato	1994	William Fry
US-14	Pi-001-01	MI/ 44°N 85°W	-	-	Ken Deahl
US-16	Coffey10112	OR/ 44°N 120.5°W	-	1994	Michael D. Coffey
US-17	US970001	Lee/FL/ 26.58°N 81.92°W	Tomato	1997	William Fry
US-19	NC09719	NC/ 35.5°N 80°W	Tomato	1997	Jean Ristaino
US-20	NC046	NC/ 35.5°N 80°W	Tomato	2004	Jean Ristaino
US-21	NC0719	NC/ 35.5°N 80°W	Tomato	2007	Jean Ristaino
US-22	US070001	Suffolk/NY/ 40.94°N 72.68°W	Tomato	2007	Margaret McGrath
	US090029	Orange/NY/ 41.40°N 74.31°W	Tomato	2009	CPDDC

	US090042	Chautauqua/NY/ 42.30°N 79.41°W	Tomato	2009	CPDDC
US-23var	BL2009P4	Blair/PA/ 40.47°N 78.35°W	Potato	2009	Ken Deahl
US-23	Pi431	-	-	2013	Dawn Tidd
	Pi432	-	-	2013	Dawn Tidd
	US110017	Suffolk/NY/ 40.94°N 72.68°W	Tomato	2011	Margaret McGrath
	US110040	Waukesha/WI/ 43.02°N 88.31°W	Tomato	2011	Amanda Gevens
	US110062	Aroostook/ME/ 46.65°N 68.59°W	Potato	2011	Steve Johnson
US-24	ND822Pi	ND/ 47°N 100°W	Tomato	2009	Gary Secor
	US110004	ND/ 47°N 100°W	Potato	2011	Gary Secor
	US110159	Cass/ND/ 46.93°N 97.25°W	Potato	2011	Gary Secor
GDT-01	US110057	Ontario/NY/ 42.85°N 77.29°W	Tomato	2011	Christine Smart
	US110058	Ontario/NY/ 42.85°N 77.29°W	Tomato	2011	Christine Smart
	US110066	Ontario/NY/ 42.85°N 77.29°W	Tomato	2011	Christine Smart
	US110073	Wayne/NY/ 43.28°N 77.05°W	Potato	2011	Christine Smart
	US110084	Ontario/NY/ 42.85°N 77.29°W	Tomato	2011	Christine Smart
	US110135	Ontario/NY/ 42.85°N 77.29°W	Nightshade	2011	Christine Smart
GDT-02	US110064	Genesee/NY/ 43.00°N 78.19°W	Potato	2011	Christine Smart
GDT-03	US110086	Monroe/NY/ 43.30°N 77.69°W	Potato	2011	Christine Smart
GDT-04	US110060	Wyoming/NY/ 42°50'N 78°5'W	Tomato	2011	Don Casiewicz
	US110065	Livingston/NY/ 42.73°N 77.77°W	Tomato	2011	Christine Smart
	US110074	Genesee/NY/ 43.00°N 78.19°W	Tomato	2011	Christine Smart
	US110075	Genesee/NY/ 43.00°N 78.19°W	Tomato	2011	Christine Smart

	US110078	Tompkins/NY/ 42.45°N 76.47°W	Tomato	2011	Keith Perry
	US110094	Tompkins/NY/ 42.45°N 76.47°W	Tomato	2011	Cliff Kraft
GDT-05	US110061	Cayuga/NY/ 42.94°N 76.56°W	Tomato	2011	Sharon Bachman
GDT-06	US110093	Tompkins/NY/ 42.45°N 76.47°W	Tomato	2011	Lisa Hahn
GDT-07	US110072	Genesee/NY/ 43.00°N 78.19°W	Potato	2011	Christine Smart
GDT-08	US110071	Tompkins/NY/ 42.45°N 76.47°W	Tomato	2011	Monica Roth
	US110114	Tompkins/NY/ 42.45°N 76.47°W	Potato	2011	William Fry
	US110128	Tompkins/NY/ 42.45°N 76.47°W	Potato	2011	William Fry
	US110141	Yates/NY/ 42.64°N 77.10°W	Tomato	2011	Abby Seaman
	US110142	Tompkins/NY/ 42.45°N 76.47°W	Tomato	2011	William Fry
GDT-08.1	US110069	Tompkins/NY/ 42.45°N 76.47°W	Tomato	2011	Tom Zitter
GDT-09	US110082	Genesee/NY/ 43.00°N 78.19°W	Tomato	2011	Christine Smart
	US110138	Genesee/NY/ 43.00°N 78.19°W	Tomato	2011	Christine Smart
	US110139	Genesee/NY/ 43.00°N 78.19°W	Tomato	2011	Christine Smart
GDT-10	US110083	Erie/NY/ 42.75°N 78.78°W	Tomato	2011	Sharon Bachman
GDT-11	US110085	Genesee/NY/ 43.00°N 78.19°W	Nightshade	2011	Christine Smart
GDT-12	US100029	Simcoe/ON Canada/ 44°14'99"N 79.8632°W	Potato	2010	Eugenia Banks
GDT-13	US100023	Simcoe/ON Canada/ 43°35'N 79°44'W	Tomato	2010	Catarina Saude
GDT-14	US110054	Mercer/PA/ 41.31°N 80.25°W	Tomato	2011	Beth Gugino
	US110079	Venango/PA/	Tomato	2011	Beth Gugino

	US110106	41.40°N 79.76°W Indiana/PA/ 40.65°N 79.09°W	Tomato	2011	Beth Gugino
GDT-15	US100032	Oxford/ON Canada/ 43°14'N 80°36'W	Potato	2010	Eugenia Banks
GDT-16	US100033	Oxford/ON Canada/ 43°14'N 80°36'W	Tomato	2010	Eugenia Banks
GDT-17	US110092	Erie/OH/ 41.51°N 82.61°W	Tomato	2011	Sally Miller
GDT-18	US100022	Genesee/NY/ 43.00°N 78.19°W	Tomato	2010	Christine Smart
GDT-19	US100019	Erie/NY/ 42.75N 78.78°W	Tomato	2010	Carol MacNeil
GDT-20	US100034	Niagara/NY/ 43.32°N 78.79°W	Tomato	2010	Christy Hoepfing

CPDDC: Cornell Plant Disease Diagnostic Clinic