

TABLE 1. Isolates of *Phytophthora* spp. used in this study.

Species	Group ^a	Isolate # ^b	Host	Origin
<i>Phytophthora arecae</i>	II	441 ^{PT} , IMI348342	<i>Theobroma cacao</i>	Indonesia
<i>Phytophthora boehmeriae</i>	II	325 ^{PT} , P1257 ^{MC}	<i>Boehmeriae nivia</i>	Papua New Guinea
<i>Phytophthora cactorum</i>	I	384 ^{PT} , NY577 385 ^{PT} , NY568	<i>Fragaria x ananassa</i> <i>Malus sylvestris</i>	New York New York
<i>Phytophthora cambivora</i>	VI	443 ^{PT} , 33-4-8	<i>Prunus dulcis</i>	California
<i>Phytophthora capsici</i>	II	306 ^{PT} , Pc-m1	<i>Capsicum annuum</i>	New Jersey
<i>Phytophthora cinnamomi</i>	VI	Cn-2 ^{DJM} (A-2 mating type) 446 ^{PT} , 3210 ^{GB} 447 ^{PT} , 3267 ^{GB}	<i>Vaccinium</i> spp. <i>Castanea</i> <i>Jugulands californica</i>	Florida California California
<i>Phytophthora citricola</i>	III	422 ^{PT} , CR4	<i>Cornus</i>	UNK
<i>Phytophthora citrophthora</i>	II	461 ^{PT}	<i>Rhododendron</i> sp.	Oregon
<i>Phytophthora clandestine</i>	I	IMI287317 ^{DC}	<i>Trifolium subterranean</i>	Australia
<i>Phytophthora colocasiae</i>	IV	345 ^{PT} , 1696 ^{MC}	<i>Colocasia esculenta</i>	China
<i>Phytophthora cryptogea</i>	VI	310 ^{PT} , 620 ^{PH} 389 ^{PT} , NY508 ^{WW}	<i>Pinus lambertiana</i> <i>Prunus avium</i>	Oregon California
<i>Phytophthora drechsleri</i>	VI	401 ^{PT} , ATCC64494	<i>Solanum tuberosum</i>	Egypt
<i>Phytophthora erythroseptica</i>	VI	374 ^{PT}	<i>Solanum tuberosum</i>	Maine
<i>Phytophthora fragariae fragariae</i>	V	398 ^{PT} , 94-96 ^{JJM}	<i>Fragaria x ananassa</i>	Oregon
<i>Phytophthora gonapodyides</i>	VI	392 ^{PT} , NY414 ^{WW}	<i>Prunus persica</i>	New York

<i>Phytophthora heveae</i>	II	462 ^{PT} , 97-251 ^{PC}	<i>Rhododendron sp.</i>	Oregon
<i>Phytophthora hibernalis</i>	IV	338 ^{PT} , ATCC56353, 3822 ^{MC}	Citrus	Australia
<i>Phytophthora humicola</i>	V	IMI302303 ^{DC}	soil from citrus	Taiwan
<i>Phytophthora idaei</i>	I	IDA3 ^{DC} (Type)	<i>Rubus idaeus</i>	Scotland
<i>Phytophthora ilicis</i>	IV	344 ^{PT} , P3939 ^{MC} , ATCC56615	<i>Ilex aquifolium</i>	Canada
<i>Phytophthora inflata</i>	III	IMI342898 ^{DC}	<i>Syringa sp.</i>	
<i>Phytophthora infestans</i>	IV	561 ^{PT} , P30 ^{JG}	<i>Solanum cardiophyllum</i>	Mexico
<i>Phytophthora iranica</i>	I	IMI158964 ^{DC}	<i>Solanum melongera</i>	Iran
<i>Phytophthora katsurae</i>	II	IMI360596 ^{DC}	<i>Cocos nucifera</i>	Ivory Coast
<i>Phytophthora lateralis</i>	V	451 ^{PT} , 91/11/1-5 ^{MG}	<i>Chamaecyparis lawsoniana</i>	Oregon
<i>Phytophthora medii</i>	II	IMI129185 ^{DC}	<i>Hevea brasiliensis</i>	India
<i>Phytophthora megasperma</i>	V	309 ^{PT} , 336 ^{PH}	<i>Pseudotsuga menziesii</i>	Washington
		437 ^{PT} , IMI133317	<i>Malus sylvestris</i>	Australia
<i>Phytophthora megakarya</i>	II	327 ^{PT} , P132 ^{CB} 328 ^{PT} , P184 ^{CB}	<i>Theobroma cacao</i> <i>Theobroma cacao</i>	Nigeria Cameroon
<i>Phytophthora melonis</i>	VI	IMI325917 ^{DC}	<i>Cucumis sp.</i>	China
<i>Phytophthora mirabilis</i>	IV	340 ^{PT} , ATCC 64070, P3007 ^{MC}	<i>Mirabilis jalapa</i>	Mexico
<i>Phytophthora nemorosa</i>	IV	482 ^{PT} , P-13 ^{EH} Type	<i>Lithocarpus densiflorus</i>	California
<i>Phytophthora nicotianae</i>	II	360 ^{PT}	<i>Solanum tuberosum</i>	Delaware

<i>Phytophthora parasitica</i>	II	332 ^{PT} , P1751 ^{MC} 334 ^{PT} , P3118 ^{MC}	<i>Nicotiana tabacum</i> <i>Lycopersicon esculentum</i>	Australia Australia
<i>Phytophthora palmivora</i>	II	329 ^{PT} , P131 ^{CB}	<i>Theobroma cacao</i>	Nigeria
<i>Phytophthora phaseoli</i>	IV	352 ^{PT} , ATCC 60171, CBS 556.88 373 ^{PT}	<i>Phaseolus lunatus</i> <i>Phaseolus lunatus</i>	unknown Delaware
<i>Phytophthora porri</i>	III	CBS782.97 ^{DC}	<i>Brassica chinensis</i>	The Netherlands
<i>Phytophthora primulae</i>	III	CBS620.97 ^{DC}	<i>Primula acaulis</i>	Germany
<i>Phytophthora pseudosyringae</i>	IV	470 ^{PT} , P193907A ^{C DFA} 471 ^{PT} 472 ^{PT} 473 ^{PT} 484 ^{PT} , PSEU16 ^{TJ} , NFV-BU97-15 485 ^{PT} , P96 ^{EH}	<i>Manzanita</i> sp. <i>Umbellularia californica</i> <i>Umbellularia californica</i> <i>Umbellularia californica</i> <i>Fagus sylvatica</i> <i>Umbellularia californica</i>	Royal Oaks, CA Napa, CA Calistoga, CA Yountville, CA Germany Contra Costa Co., CA
<i>Phytophthora pseudotsugae</i>	I	308 ^{PT} , H270 ^{PH}	<i>Pseudotsugae menziesii</i>	Oregon
<i>Phytophthora quercina</i>	V	IMI340618 ^{DC}	<i>Quercus robur</i>	Germany
<i>Phytophthora ramorum</i>	IV	Prn-1 ^{PT} , PD93/844 ^{SW} Prn-2 ^{PT} , PD94/844 ^{SW} Prn-3 ^{PT} , PD98/8/6743 ^{SW} Prn-4 ^{PT} , PD98/8/6285 ^{SW} Prn-5 ^{PT} , PD98/8/2627 ^{SW} Prn-6 ^{PT} , PD98/8/5233 ^{SW} Prg-1 ^{PT} , BBA 69082 ^{SW} Prg-2 ^{PT} , BBA 9/95 ^{SW} , CBS101553 (Type) Prg-3 ^{PT} , BBA 14/98-a ^{SW} Prg-4 ^{PT} , BBA 12/98 ^{SW}	<i>Rhododendron</i> sp. <i>Rhododendron</i> sp. <i>Rhododendron</i> sp. <i>Rhododendron</i> sp. <i>Rhododendron</i> sp. <i>Viburnum</i> sp. <i>Rhododendron</i> sp. <i>Rhododendron catawbiense</i> <i>Rhododendron catawbiense</i> <i>Rhododendron catawbiense</i>	Netherlands Netherlands Netherlands Netherlands Netherlands Netherlands Germany Germany Germany Germany

		Prg-5 ^{PT} , BBA 13/99-1 ^{SW} Prg-6 ^{PT} , BBA 16/99 ^{SW} Prg-7 ^{PT} , BBA 9/3 ^{SW} Prg-8 ^{PT} , BBA 104 ^{SW} 288 ^{MG} 73101 ^{CDEFA} 044519 ^{CDEFA} 044522 ^{CDEFA} P072648 ^{CDEFA} 201 ^{CDR} 0-217, Pr-52 ^{DR} Coen ^{MG} 0-13, Pr-5 ^{DR} 0-16, Pr-6 ^{DR} C ^{MG}	<i>Rhododendron catawbiense</i> <i>Viburnum bodnantense</i> water water <i>Rhododendron</i> sp. <i>Lithocarpus densiflorus</i> <i>Umbellularia californica</i> <i>Lithocarpus densiflorus</i> <i>Quercus agrifolia</i> <i>Rhododendron</i> sp. <i>Rhododendron</i> sp. <i>Rhododendron</i> sp. <i>Lithocarpus densiflorus</i> <i>Quercus agrifolia</i> <i>Umbellularia californica</i>	Germany Germany Germany Germany California California California California California California California California California California California
<i>Phytophthora richardiae</i>	VI	ATCC46538 ^{DC}	<i>Zantedeschia</i> sp. root	The Netherlands
<i>Phytophthora sojae</i>	V	312 ^{PT} , ATCC 48068	<i>Glycine max</i>	Wisconsin
<i>Phytophthora syringae</i>	III	442 ^{PT} , P1023 ^{CB} , IMI 296829 469 ^{PT}	<i>Rubus idaeus</i> <i>Kalmia latifolia</i>	Scotland Oregon
<i>Phytophthora tentaculata</i>	I	CBS552.96 ^{DC}	<i>Chrysanthemum leucanth.</i>	Germany
Phytophthora sp. "O" group ^c		P246 ^{DC} , IMI389751	<i>Salix</i> roots	U.K.
P. taxon Raspberry ^c		P896 ^{DC} , IMI389744	soil	Tasmania

^a Waterhouse morphological group (1963)

^b CB = Clive Brasier, DC= DNA supplied by David Cooke, MC=Michael Coffey, KD = Ken Deahl, PH = Phil Hamm (E. Hansen), DJM=Dave Mitchell, DS=Dave Shaw, PT=Paul Tooley, UCR = University of California at Riverside, SW= Sabine Werres, WW=Wayne Wilcox, DR= Dave Rizzo, CDFA=Cheryl Blomquist, California Dept. of Food and Agriculture, PC=Plant Clinic identification by Paul Reeser, JG= J. Galindo

^c Species groupings of Brasier et al. (2003)