

Supplementary information:

Microbial biopesticides against bacterial, fungal and oomycete pathogens of tomato, cabbage and chickpea

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Table S1. Media used in this study (shown as per L)

LB	LM	YEP	PDA
Bactotryptone: 10.0 g Bacto yeast extract: 6.0 g NaCl: 0.6 g Agar: 18.0 g	Bactotryptone: 10.0 g Bacto yeast extract: 6.0 g K ₂ HPO ₄ : 1.5 g NaCl: 0.6 g MgSO ₄ .7H ₂ O: 0.4 g Agar: 18.0 g	Bactotryptone: 10.0 g Bacto yeast extract: 10.0 g NaCl: 5.0 g Agar: 18.0 g	Potato infusion: 200.0 g Dextrose: 20.0 g Agar: 18.0 g

Table S2. Primers and qPCR conditions to quantify *Pst* and *A. brassicicola* in plants

Name of primer	Primers (5' to 3')	Condition
<i>Pst</i>		Pre-incubation: 95°C 180 s
GyrA-F	GGCAAGGTCACCCGCTTCAAGGAAT	Amplification (45 cycles) 60°C 10 s (<i>Pst</i>) - 55°C 10 s (<i>A. brassicicola</i>)
GyrA-R	GACCGCCACGCTTGTACTCAGGGAAC	
<i>S. lycopersicum</i>		72°C 10 s
Actin-F	AGGCAGGATTTGCTGGTGATGATGCT	Melting curve
Actin-R	ATACGCATCCTTCTGTCCCATTCGA	95°C 5 s
<i>A. brassicicola</i>		60°C 10 s (<i>Pst</i>) - 55°C 10 s (<i>A. brassicicola</i>)
AbSCD1-123-F	GCAGACAGCTACGATAGCAA	97°C 1 s
AbSCD1-219-R	GATGCATTTGCGGAGAC	
<i>B. oleracea</i>		
DLH155-F	CAACGGATATCTCGGCTCTC	
DLH156-R	TTGCGTTCAAAGACTCGATG	

Table S3. Isolates with antifungal and antioomycete activities.

Laboratory shorthand identification	Isolate strain name
<i>Bacillus amyloliquefaciens</i> (1)	33YE
<i>B. amyloliquefaciens</i> (2)	41YE
<i>Brevibacillus laterosporus</i>	4YE
<i>Bacillus licheniformis</i>	28M
<i>Bacillus megaterium</i> (2)	44LGS
<i>B. megaterium</i> (3)	52LGS
<i>Bacillus methylotrophicus</i> (1)	45YE
<i>B. methylotrophicus</i> (2)	46YE
<i>B. methylotrophicus</i> (3)	42LGS
<i>Bacillus mojavensis</i>	30LM
<i>Bacillus pumilus</i> (1)	44YE
<i>B. pumilus</i> (3)	7LM
<i>B. pumilus</i> (4)	8LM
<i>B. pumilus</i> (5)	12LM
<i>B. pumilus</i> (6)	27LM
<i>B. pumilus</i> (8)	18M
<i>B. pumilus</i> (9)	20M
<i>B. pumilus</i> (10)	32LM
<i>B. pumilus</i> (11)	33LM
<i>B. pumilus</i> (12)	35LM
<i>B. pumilus</i> (13)	6tH
<i>Bacillus safensis</i> (2)	35YE
<i>B. safensis</i> (3)	27M
<i>Bacillus subtilis</i> (1)	1M1
<i>B. subtilis</i> (2)	1M
<i>B. subtilis</i> (3)	25LGS
<i>Corynebacterium flavescens</i>	43M
<i>Klebsiella pneumoniae</i>	44LGF
<i>Lactobacillus hilgardii</i>	25MRS
<i>Lactobacillus plantarum</i>	23MRS
<i>Lactobacillus mangiferihumi</i>	37LM
<i>Ochrobactrum grignonense</i> (1)	34MC
<i>O. grignonense</i> (2)	37MC
<i>Paenibacillus peoriae/ polymyxa</i>	14TH
<i>Sporosarcina aquimarina</i> (2)	32YE
<i>S. aquimarina</i> (3)	34YE
<i>S. saromensis</i>	39YE
<i>Pseudochrobactrum kiredjianiae</i> (3)	12LGF
<i>Staphylococcus saprophyticus</i>	41M

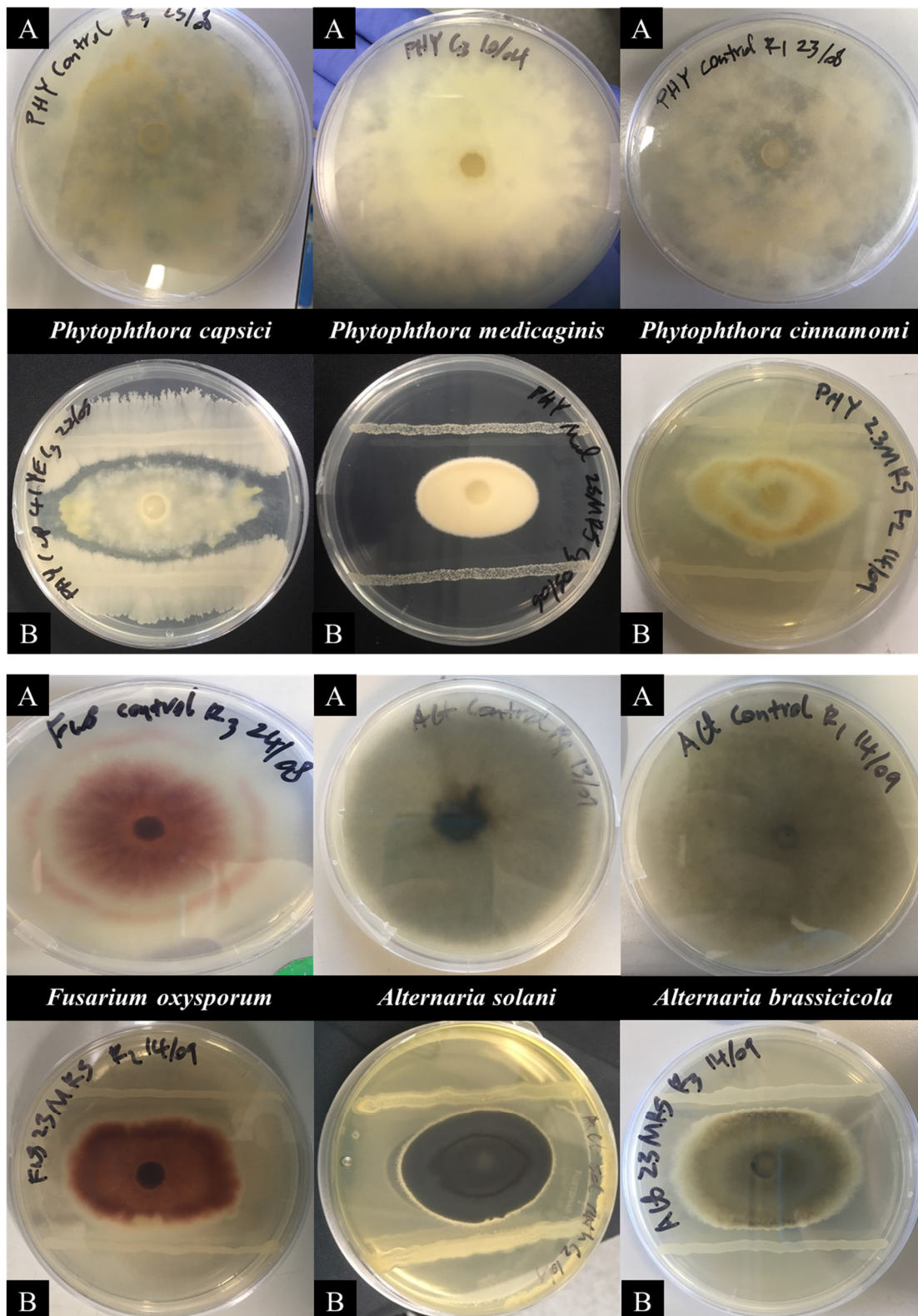


Figure S1. Screening and testing of antagonistic bacteria against fungal and oomycete pathogens at full grown stage (day 7). (A) Control plates. (B) Antagonistic biocontrol assay plates.