

Table 1. Efficacy of microbial biopesticides in experiments published in Plant Disease Management Reports (# times effective/total # experiments in which product was tested) ^a

Crop Type or Crop	Disease	Actinovate	AgriPhage	AVIV	Bio-Tam/ Tenet	Companion	Contans	Double Nickel	Howler	Kodiak	LifeGard	Mycostop	Prestop	Rootshield /T-22	Serenade/Optiva	Serifel	Soilgard	Sonata	Stargus	Taegro
Basil	Downy mildew	3/6				1/3		0/1	0/2						2/4			2/4	0/1	
Bean, snap	White mold							1/1											2/2	
Beet	Cercospora leaf spot	1/1									2/2				1/1				1/1	
Brassica crops	Alternaria leaf spot	1/3						1/4							0/4			0/3	1/1	
	Black rot	0/1						1/1			3/3				0/1			0/1	3/7	
	Downy mildew										0/1								0/2	
Carrot	Alternaria leaf blight	1/1																		
Cucurbit crops	Anthracnose	0/1													0/1					
	Angular and bacterial leaf spots														1/1					
	Bacterial spot	2/2									2/2				2/2			2/2		
	Downy mildew	5/13		1/1		0/1		3/4			0/4				3/9	1/1		3/8	1/3	1/3
	Fusarium wilt														0/2					
	Gummy stem blight			1/1																
	Powdery mildew	15/18				4/5		3/3	0/1		1/1				8/11			9/11		4/4
	Root knot nematodes	1/3																		
Lettuce	Downy mildew																1/1			
	Drop (<i>Sclerotinia minor</i> and/or <i>S. sclerotiorum</i>)	3/3		1/1	1/2		7/7	1/1							4/7		5/5		1/1	1/1
	Powdery mildew	2/2									1/1				1/1		1/1	1/1		

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Pea	Damping-off	0/2								1/1		0/1	0/1	0/1	0/2		0/1			
Pepper	Bacterial leaf spot										3/3				1/4					
	Phytophthora blight	1/1																		
Potato	Black scurf	0/1						1/2												
	Early blight	1/1						0/1							1/1				1/1	
	Nematodes																			
	Rhizoctonia diseases								1/1						1/1	1/1				
	Silver scurf, black dot							0/1	0/1											
Spinach	Damping off (<i>Pythium</i> spp mostly)									1/1		0/1		0/1			1/1			
	Damping off (<i>Rhizoctonia</i> and <i>Fusarium</i>)	1/1						1/1				1/1		0/1						
	Downy mildew	1/1							1/1		1/2				1/1				0/1	1/1
	Stemphylium leaf blight										1/2									
Tomato	Anthracnose																			0/1
	Bacterial canker		0/1								1/2									0/1
	Bacterial speck	2/2	0/1					2/2			1/1									1/1
	Bacterial spot	3/4	2/3					1/1			2/3				2/2	1/1				
	Early blight														0/3			0/2	0/1	
	Fusarium wilt	0/1			0/1							0/1			0/1		0/1			
	Gray mold	0/3											1/1							

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Tomato	Leaf mold (high tunnel)							2/2												
	Powdery mildew	1/2				2/2									0/1			0/2		1/1
	Septoria leaf spot	1/3				2/3									0/1			0/1	0/1	0/2
	Southern blight	0/2			0/2							0/2			0/2		0/2			
Turnip	Black leg														0/1					
	Light leaf spot														0/1					
	White leaf spot														0/1					

^a Reports published from 2007 to spring 2021. Results are for biopesticides tested alone, not in a program with other products. Biopesticide considered effective if disease severity significantly less than non-treated control for at least one assessment. A few biopesticides that were only found evaluated in one report were not included.

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