Efficacy for cucurbit powdery mildew of fungicides at risk for resistance development in replicated field experiments conducted at university field facilities in the United States.

Year and state of study	Control of powdery mildew obtained with fungicides applied typically on 7-day interval (%) [z]								
	FRAC 11 fungicide [y]	Rally/ Nova	Procure	Mettle	Pristine	Fontelis	Quintec	Torino	Vivando
2012, New York			57		***40***	***33***	96		
2013, New York			95		93		99		97
2014, New York			70		54		96		98
2014, Oklahoma		43	75			37	84		
2014, Pennsylvania					70		95	89	98
2015, Arizona	76	89		89	87 [x]		98	100	
2015, Indiana					***64***		85	72	
2015, New York					73		69		70
2015, North Carolina	***25***		58				63		
2015, Pennsylvania			98		60		96	95	99
2016, Arizona	***14***	100			32 [x]		100	100	
2016, New York			91		43		98		
2016, North Carolina				51			95	28	100
2016, Pennsylvania			90	69	24		99	94	99
2017, Arizona		94	92	94	90 [x]		96	100	91
2017, New York			54		***23***		72	***19***	80
2017, Florida				30					
2018, Arizona		95				97	99		

2018, New York							42		54
2018, Pennsylvania								27	
2018, Illinois			98		62	77	87		
2019, New York							40		75
2019, Illinois								68	
2019, Florida		27 [v]							

[z] Efficacy calculated as percent control, relative to non-fungicide-treated plants, using AUDPC or severity near end of experiment. Defoliation was assessed in OK.

[y] Quadris or Flint.

[x] Endura was used in Arizona. Pristine also contains boscalid plus an additional active ingredient, pyraclostrobin.

[w] Values in bold italics indicate disease value not significantly different from non-treated control.

[v] Lowest label rate used.

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