

Fungicides registered for pea, lentil, and chickpea foliar treatment and disease control (DRAFT 26 Jan, 2018)

The Northcentral Integrated Pest Management Center – Pulse Crop Working Group has developed the following information on fungicide efficacy for management of widespread seedborne and soilborne diseases of pulse crops (peas, lentils, and chickpeas) for use by the pulse production industry in the United States. Efficacy is based on labelled application rates according to label instructions and the presence of disease. Table includes the most widely marketed products, and is not intended to be a list of all labelled products.

Fungicide(s)					Disease Efficacy ²									
Class	Active ingredient	Product	Dosage (fl oz/A)	Crop ³	Mycosphaerella blight	Ascochyta blight	Alternaria	Anthraxnose	Grey mold (Botrytis)	Powdery mildew	Rust	Septoria	Stemphylium	White mold (Sclerotinia)
Methyl Benzimidazole Carbamate (1)	Thiophanate-methyl	Topsin 4.5FL	20-40	C				R	R					R
Demethylation Inhibitors (3)	Prothioconazole	Proline	C = 5.0-5.7 L = 4.3-5.7 P = 5.7	C,L,P		R					R			R
	Metconazole	Quash	4.0	C,L,P										S
	Propiconazole	Tilt	4.0	C			R							
Succinate dehydrogenase inhibitors (7)	Boscalid	Endura	6.0–11.0	C,L,P		R			R					R
	Penthiopyrad	Vertisan	14.0–20.0	C,L,P		R	R		R	R	R	R		R
Quinone outside inhibitors (11)	Azoxystrobin	Quadris Flowable	6.0–15.5	C,L,P	R ¹	R ¹	R	R					R	
	Fluoxastrobin	Evito 480 SC	2.0-4.75	C,L,P	R ¹	R ¹	R							
	Picoxystrobin	Approach	6.0–12.0	C,L,P	R ¹	R ¹	R	R		R	R	R		R
	Pyraclostrobin	Headline SC	6.0–9.0	C,L,P	R ¹	R ¹	R	R		R	R			
Other (29)	Fluazinam	Omega 500F	0.5-0.85 pt/A	C						R				R
Multi-site inhibitors (M)	Chlorothalonil	Bravo WeatherStik	C = 1.375–2.0 pt/A L = 1–1.5 lb/A ²	C,L										
	Sulfur	Kumulus DF	3.0–10.0 lb/A	P						R		R		
Biological	<i>Bacillus mycoides</i> isolate J	LifeGard WG	4.5 oz/100gal	C,L,P										R
	<i>Bacillus subtilis</i> strain QST 713	Serenade ASO	2.0–6.0 qt/A	C,L,P					R	R				R
		Serenade Opti	14-20 oz/A	C,L,P					R					R
Mixed modes of action	Difenoconazole/Benzovindiflupyr	Aprovia Top	10.5-11	C,L,P	R	R	R	R		R				
	Prothioconazole/Trifloxystrobin	Delaro	12	C,L,P	R	R		R	R					R
	Fluxapyroxad/Pyraclostrobin	Priaxor	4.0–8.0	C,L,P	R	R	R	R		R				
	Fluopyram/Prothioconazole	ProPulse	8.0–10.3	L,C	R	R								R
	Cyprodinil/Fludioxonil	Switch	11–14	C					R					R
	Azoxystrobin/Chlorothalonil	Quadris Opti	1.6–2.4 pt/A	C	R	R	R	R						
	Azoxystrobin/Difenoconazole	Quadris Top	C = 8.0–14.0 L,P = 12.0-14.0	C,L,P	R	R	R			R	R			
Azoxystrobin/Propiconazole	Quilt, Quilt Xcel	14.0, 10.5-14.0	C	R	R	R	R							

¹where fungicide resistant strains are not present (chickpea, MT and ND med-high risk; in pea, a few fungicide resistant isolates have been found)

²Efficacy categories: R = Registered for use; S = Registered for suppression only

³Crop on which the fungicide is registered C= Chickpea; L = Lentil; P = Dry Pea (Field Pea)