Fungicides Registered for Pea, Lentil, and Chickpea Foliar Treatment and Disease Control

This table presents information on available fungicide products for management of widespread fungal diseases of pulse crops (peas, lentils, and chickpeas) for use in the United States. The information is based on labelled application rates according to label instructions and the presence of disease. The table includes the most widely marketed products and is not intended to be a list of all labelled products nor is it an endorsement of any specific product. Consulting this table does not substitute careful reading of the product label before an application is made.

Fungicide				**Crop** [a]	**Disease Efficacy** [b]									
Class [c]	**Active Ingredient**	**Product**	**Dosage** (fl oz/A)		**Mycosphaerella Blight**	**Ascochyta Blight**	**Alternaria**	**Anthracnose**	**Gray Mold (Botrytis)**	**Powdery Mildew**	**Rust**	**Septoria**	**Stemphylium**	**White Mold (Sclerotinia)**
Methyl Benzimidazole Carbamate (1)	Thiophanate- methyl	Topsin 4.5FL	20.0 - 30.0	C	--	--	--	R	R	--	--	--	--	R
Demethylation Inhibitors (3)	Mefentriflu- conazole	Provysol	2.5 - 5.0	C,L,P	R	R	R	--	--	R	R	--	--	--
	Prothioconazole	Proline 480 SC	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	--	R	R	--	R	R	R	--	--	S
	Propiconazole	Tilt	4.0	C	--	R	R	--	--	--	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 [d]	R [d]	R	R	--	--	--	--	R	--
	Fluoxastrobin	Evito 480 SC	2.0 - 4.75	C,L,P	R [d]	R [d]	R	R	--	--	R	--	--	--
	Picoxystrobin	Aproach	6.0 - 12.0	C,L,P	R [d]	R [d]	R	R	--	R	R	R	--	R
	Pyraclostrobin	Headline SC	6.0 - 9.0	C,L,P	R [d]	R [d]	R	R	--	R	R	--	--	--

Chitan Synthase Inhibitor (19)	Polyoxin D zinc salt	OSO 5% SC Fungicide	6.5 - 13.0	C, L, P	--	--	--	--	R	R	--	--	--	--
Other (29)	Fluazinam	Omega 500F	8.0 - 13.6	C	--	--	--	--	R	--	--	--	--	R
Multi-site Inhibitors (M)	Chlorothalonil	Bravo WeatherStik	C = 1.0-1.5 pt/A; L = 1.0 - 1.5 lb/A	C,L	--	R	--	R	--	--	R	--	--	--
	Copper Octanoate (Copper Soap)	Cueva Fungicide Concentrate	0.5 - 2.0 gal/A	P	--	R	--	R	R	R	--	--	--	R
	Copper Hydroxide	Kocide 2000-O	1.0 - 2.25 lb/A	P	--	--	--	--	--	R	--	--	--	--
Biological	Bacillus mycoides isolate J	LifeGard WG	4.5 oz/100gal	C,L,P	--	--	--	--	--	--	--	--	--	R
	Bacillus amyloliquefaciens strain D747	Double Nickel LC	0.5 - 4.5 qt/A	C,L,P	--	--	--	--	R	R	R	--	--	R
	Bacillus subtilis strain QST 713	Serenade ASO	0.5 - 4.0 qt/A	C,L,P	--	--	--	--	R	R	--	--	--	R
		Serenade Opti	14.0 - 20.00	C,L,P	--	--	--	--	R	--	--	--	--	R
Mixed Modes of Action	Difenoconazole, Benzovindiflupyr	Aprovia Top	10.5 - 11.0	C,L,P	R	R	R	R	--	R	R	--	--	--
	Prothioconazole, Trifloxystrobin	Delaro 325 SC	12.0	C,L,P	R	R	--	R	R	--	--	--	--	R
	Pydiflumetofen, Difenoconazole	Miravis Top	9.0 - 14.0	C,L,P	R	R	R	S	--	R	R	--	--	S
	Pydiflumetofen, Azoxystrobin, Propiconazole	Miravis Neo	13.7	C	--	R	R	R	--	R	R	--	--	S
	Fluxapyroxa, Pyraclostrobin	Priaxor Xemium Brand	4.0 - 8.0	C,L,P	R	R	R	R	--	R	--	--	--	--
	Fluopyram, Prothioconazole	ProPulse	8.0 - 13.6	C,L	R	R	--	--	R	--	--	--	--	R
	Cyprodinil, Fludioxonil	Switch 62.5 WG	11.0 - 14.0	C	--	--	--	--	R	--	--	--	--	R
	Azoxystrobin, Chlorothalonil	Quadris Opti	1.6 - 2.4 pt/A	C	--	R	R	--	--	--	R	--	--	--
	Azoxystrobin, Difenconazole	Quadris Top	C = 8 - 14; L,P = 12 - 14	C,L,P	R	R	R	--	--	R	R	--	--	--
	Azoxystrobin, Propiconazole	Quilt Xcel	10.5 - 14.0	C	--	R	R	R	--	--	R	--	--	--

Table Index

a. Crop on which the fungicide is registered: C= Chickpea; L = Lentil; P = Dry Pea (Field Pea)
b. Product categories: R = Registered for use; S = Registered for suppression only
c. Fungicide Mode of Action (MOA), letter followed by number and Fungicide Resistance Action Committee (FRAC) Code, number.
d. Where fungicide resistant strains are not present
    - Chickpea, MT and ND med-high risk; in pea, a few fungicide resistant isolates have been found

Table Summary

The table contains data that is arranged in rows and columns. The table is large, consisting of 3 primary columns, row 1 contains their headings. Column 1, Fungicide, divides into 4 sub-columns, their headings are in row 2. Column 2, Crop, contains no sub-divisions. Column 3, Disease Efficacy, divides into 10 different sub-columns, their headings are in row 2. Each cell in row 3 and below describes a fungicide class, fungicide active ingredients within each class, associated commercial product name, recommended application dose according to the product label, the pulse crops for which the product is labeled, and which pulse crop diseases are controlled by the product. An index is located below the table.

Consulting this table does not substitute careful reading of the product label

Further Information

To learn more about fungicides or other management strategies for diseases control in pulse crops, contact MSU Extension specialist Dr. Uta McKelvy at uta.mckelvy@montana.edu. For help with identifying crop disorders, contact your local extension agent or the Schutter Diagnostic Lab at diagnostics.montana.edu. This table is available online at plantpath.msuextension.org.

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