

Fungicides for pea, lentil, and chickpea seed treatment and disease control (Revised 10 March, 2017)

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)				Crop ¹	Organisms targeted ^{2,3}							
Class	Active ingredient	Product	Dosage (fl. oz/100 lbs seed)		Ascochyta/ Mycosphaerella	Pythium	Aphanomyces	Rhizoctonia	Fusarium	Botrytis	Sclerotinia	General fungi ⁴
Benzimidazole Carbamates (1)	Thiabendazole	Mertect 340-F	P=1.02, L=1.05, C=2.04	P,L,C	R	--	--	--	R	--	--	
Dithiocarbamates (M3)	Thiram	42-S Thiram	8.0	P,L,C	--	--	--	--	--	--	--	R
Triazoles (3)	Ipconazole	Rancona 3.8 FS	0.085	P,L,C	--	--	--	R	R	R	R	R
PhenylAmides (4)	Mefenoxam	Apron XL	0.16–0.64	P,L,C	--	R	--	--	--	--	--	--
	Metalaxyl	Allegiance FL	0.1-0.375	P,L,C	--	R	--	--	--	--	--	--
Succinate-dehydrogenase inhibitors (7)	Sedaxane	Vibrance	0.08-0.16	P,L,C	--	--	--	R	--	--	--	--
	Fluxapyroxad	Systiva XS	0.24-0.47	P,L,C	S ⁶	--	--	R	R/S	--	--	--
Quinone outside Inhibitors (11)	Azoxystrobin	Dynasty	0.153–0.765	L,C	--	--	--	R	--	--	--	R
	Pyraclostrobin	Stamina	0.4–1.5	P,L,C	S ⁶	--	--	--	--	--	--	--
	Trifloxystrobin	Trilex Flowable	0.32	P,L,C	--	--	--	R	R	--	--	--
PhenylPyrroles (12)	Fludioxonil	Maxim 4FS	0.08–0.16	P,L,C	--	--	--	--	--	--	--	R
Aromatic hydrocarbons (14, proposed)	Toclofos-methyl	Rizolex	0.3	P,L,C	--	--	--	R	R	--	--	R
Thiazolecarboxamides (U5)	Ethaboxam	Intego Solo	0.14-0.27	L,C	--	R	R	--	--	--	--	--
Phthalimides (M4)	Captan	Captan 4L	2.6	P	--	--	--	--	--	--	--	R
Mixed mode of action	Fludioxonil/ Mefenoxam	Apron MAXX RTA	5.0	P,L,C	R ⁷	R	--	R	R	--	S	--
	Ipconazole Metalaxyl	Rancona Summit	4	P,L,C	R ⁶	R	--	R	R	R	R	R
	Prothioconazole Penflufen Metalaxyl	EverGol Energy	1.0	P,L,C	S	R	--	R	R	R	--	R
	Pyraclostrobin Fluxapyroxad Metalaxyl	Obvius	4.6	P,L,C	R ⁵	R	--	R	R	R	--	--
	Trifloxystrobin Metalaxyl	Trilex 2000	1.0	P,L,C	--	R	--	R	R	--	--	R
	Sedaxane Mefanoxam Fludioxonil	Vibrance Maxx	1.54	P,L,C	R	R	--	R	R	R	--	--

¹P=pea, L=lentil, C=chickpea

²Organisms targeted. For a complete list, check the label. Not included on this table are: Phytophthora, downy mildew; Alternaria, Aspergillus, Cladosporium, and Penicillium.

³Efficacy categories: R = Registered for use; S = Registered for suppression only; -- = Not registered

⁴Registered for protection against fungi; check label for details

⁵Product efficacy may be reduced in areas with fungal populations that are resistant to strobilurin fungicides.

⁶Check label for details on fungal species. Chickpea: *Ascochyta rabiei*; Lentil: *Ascochyta lentis*; Pea: *Ascochyta (Mycosphaerella) pinodes*, *Ascochyta pinodella* (*Phoma medicaginis* var. *pinodella*), and *Ascochyta pisi*

⁷Section 2ee In Montana, North Dakota and Wyoming