Crambe **SEED TREATMENT**

Chemical	Application	Dosage ¹	Control ² of Seedling Blight ³	Remarks
Fludioxonil Maxim 4FS, 40.3%	Slurry	0.08-0.16 fl oz/cwt	Х	For Rhizoctonia and Fusarium.

Dry Edible Bean SEED TREATMENT

Chemical	Application	Dosage ¹	Control ² of Seedling Blights ³	Remarks
Azoxystrobin Dynasty, 9.6%	Slurry	0.153-0.765 fl oz/cwt	×	For seed-borne and soil-borne fungi.
Captan Captan 4000, 38.4%	See label for rates of application, formulations, and registered use.	See label for amounts of formulated product to apply.	X	
Chloroneb Chloroneb 65W, 65%	Slurry	4 oz/cwt	х	May be used as a supplemental seed treatment for improved suppression of Rhizoctonia and Pythium.
Fludioxonil Maxim 4FS, 40.3%	Slurry	0.08-0.16 fl oz/cwt	Х	For seed-borne and soil-borne fungi. Registered for control of Rhizoctonia and Fusarium.
Fludioxonil + Mefenoxam Maxim XL, 21% : 8.4%	Slurry	0.167-0.334 fl oz/cwt	Х	
Mefenoxam Apron XL LS, 32.3%	Slurry or mist	0.32-0.64 fl oz/cwt	х	For Pythium control. For both commercial and on-farm use.

Dosage = Amount of formulated product to apply.

2X = Product labeled for crop and disease; Blank = product not labeled for specific disease.

3Seedling blights due to various fungal infections of seed.

Note: Some seed treatments may affect Rhizobia inoculants; read inoculant label for specific information.

Dosage = Amount of formulated product to apply.

2X = Product labeled for crop and disease; Blank = product not labeled for specific disease.

3Seedling blights due to various fungal infections of seed.

Note: Some seed treatments may affect Rhizobia inoculants; read inoculant label for specific information.

Dry Edible Bean (continued) SEED TREATMENT

			Control ² of	
Chemical	Application	Dosage ¹	Seedling Blights ³	Remarks
Mefenoxam + Fludioxonil + Thiamethoxam Cruiser Maxx 1.7%:1.12%:22.61%	Slurry or Mist	3 fl oz/cwt	Х	
Metalaxyi Aquire, 28.35% Allegiance FL, 28.35% Allegiance Dry Seed Protectant, 12.5% Dyna-Shield, 28.35%	Mist or slurry Mist or slurry Drill box Slurry	0.75 fl oz/cwt 0.75 fl oz/cwt 4 oz/cwt 0.75 fl oz/cwt	X X X	Metalaxyl is only for Pythium damping control. For use only with commercial seed treatment equipment. Apron Dry Seed Protectant is for drill box application to seed not previously treated with Apron - thorough mixing of fungicide and seed is essential for good control.
Metalaxyl + PCNB + Carboxin Prevail, 3.12%:15%:15%	Drill box	6-8 oz/cwt	×	Controls early season Pythium and Rhizoctonia.
Pyraclostrobin Stamina, 18.4%	Slurry or mist	0.38-1.52 fl oz/cwt	Х	
Streptomycin 62.6% Agri-Strep 500, AS-50, or	Slurry (5%)	.83 oz/cwt		Controls bacterial surface contamination on dry beans.
Agricultural Streptomycin	8 1/3 lb in 10 gal. w process uses Fungi	ater treats 16,0 cide + Insectic	000 lb. of seed. Do not ide + Streptomycin.	use with Rhizobium inoculant. Triple treat
Thiram 42-S Thiram, 42%	Liquid or slurry	2 fl oz/cwt	х	
Thiram 50WP Dyed, 50%	Drill box or slurry	2 oz/cwt	×	
Trifloxystrobin Trilex, 22%	Slurry	0.32 fl oz/cwt	Х	For seed-borne and soil-borne fungi.
Trifloxystrobin + Metalaxyl Trilex 2000, 7.12%:5.69%	Slurry or mist	1.0 fl oz/cwt	х	For seed-borne and soil-borne fungi.

¹Dosage = Amount of formulated product to apply.

²X = Product labeled for crop and disease; Blank = product not labeled for specific disease.

³Seedling blights due to various fungal infections of seed.

Note: Some seed treatments may affect Rhizobia inoculants; read inoculant label for specific information.

Dry Edible Bean BIOLOGICAL SEED TREATMENT

Chemical	Application	Dosage ¹	Control ² of SeedlingBlights ³	Remarks
Organism Bacillus subtilus GB 03 Kodiak, 2.75%	Slurry	0.125 oz/cwt	Х	
Bacillus pumilus GB 34 Yield Shield, 0.28%	Slurry	0.102/cwt	Х	Suppression of root diseases caused by Rhizoctoria and fusarium

¹Dosage = Amount of formulated product to apply.

²X = Product labeled for crop and disease; Blank = product not labeled for specific disease.

³Seedling blights due to various fungal infections of seed.

Note: Some seed treatments may affect Rhizobia inoculants; read inoculant label for specific information.

Dry Bean SOIL APPLICATION

SOIL AFFLICATION									
Chemical (Fungicide Group)	Application	Dosage ¹	Control ² of Rhizoctonia	Remarks					
PCNB (14) Terraclor FL, 40%	In-furrow spray	2.2-3.3 fl oz/1,000 linear feet of row	х	Spray planting furrow and covering soil at planting. Do not apply to seed. Use lower rates on lighter					
Terraclor 75 WP, 75%	In-furrow spray	1.4-2.2 oz/1,000 linear feet of row	Х	soils. Apply as a directed spray in the					
Terraclor EC, 23.8%	In-furrow spray	4.4-6.6 fl oz/1,000 linear feet of row	×	seed furrow and to covering soil at planting. Spray planting furrow and covering					
PCNB 2 Spray, 24%	In-furrow spray	8.8 fl oz/1,000 linear feet of row	x x	soil at planting. Do not apply directly to seed. Use lower rates on lighter soils.					
Terraclor 10G, 10%	In-furrow granules	0.75-1 lb/1,000 linear feet of row	^	Apply in planting furrow and covering soil at planting.					
PCNB (14) + Metalaxyl (4) Ridomil Gold PC GR 10%: 0.5%	In-furrow granules	0.75 lb/1000 linear feet of row	X	Resistance statement 4 ³ Adjust application equipment so granules are mixed with soil surrounding seed. See label for planting restrictions within 12 months of application.					

¹Dosage = Amount of formulated product to apply.

³See fungicide resistance management statements on page 10.

²X = Product labeled for crop and disease; Blank = product not labeled for specific disease.

Dry Edible Bean FOLIAR SPRAYS

			Di	sease Co	ontrol ³	Announce and Annou	
Chemical (Fungicide Group)	Application ¹	Dosage ²	Anthracnose	Rust	Halo Blight	White Mold	Remarks
Boscalid (7) Endura, 70%	Spray or fungigation	8-11 oz/A		Х		Х	Apply at the beginning of flowering, prior to disease onset. Use higher rate for extended protection. Make a second application at full bloom if conditions continue to be favorable for disease development. Do not apply within 21 days of harvest.
Chlorothalonil (M5) Applause, 54%	Spray or fungigation	1 3/8 - 2 pt/A	×	×			Do not apply chlorothalonil within 14 days of harvest. See Circular PP-576, Dry Edible Bean Diseases.
Bravo 500, 40.4%	Spray or fungigation	2-3 pt/A	Х	X			Carefully monitor fields for disease.
Bravo WeatherStik Echo, Echo 720, Chlorotholonil 720, 54%	Spray or fungigation	1 3/8-2 pt/A	Х	х			
Bravo Ultrex DG, or Equus DF,82.5%	Spray or fungigation	1.25-1.8 lb/A	Х	Х			Bravo Zn, Bravo ZN, Echo Zn, and Terranil Zn also
Echo Zn, Bravo ZN or	Spray or fungigation	2-3 pt/A	Х	Х			contain zinc.
Terranil Zn, 38.5% Echo 90 DF, 90%	Spray or fungigation	1.13-1.63 lb/A	X	Х			
Copper (M) Basicop WP, 53%	Spray	2-4 lbs/A			Х	1	
Champ DP, 57.6%	Spray or fungigation	0.66-2 lb/A			х		
Champ Formula 2 Flowable, 37.5%	Spray or fungigation	0.66-2 pt/A			Х		
Cuprofix Ultra 40 Disprss 71.1%	Spray or fungigation	0.75-2 lbs/A			Х		
Kocide 2000, 53.8%	Spray or fungigation	0.75-2.25 lb/A			Х		
Kocide 3000, 46.1%	Spray or fungigation	0.5-1.25 lb/A			Х		
Kocide 4.5 LF, 37.5%	Spray or fungigation	0.66-2 pt/A			Х		

¹Spray = ground or aerial, Fungigation = application through sprinkler irrigation system.
²Dosage = Amount of formulated product to apply.
³X = Product labeled for crop and disease; Blank = product not labeled for specific disease.
⁴See fungicide resistance management statements of page 9.

Dry Edible Bean (continued) FOLIAR SPRAYS

			Disease Control³				
Chemical (Fungicide Group)	Application ¹	Dosage ²	Anthracnose	Rust	Halo Blight	White Mold	Remarks
Cyprodinil (9)+ Fludioxonil (12) Switch 62.5 WG 37.5%:25.0%	Spray	11-14 oz/A				Х	Make first application at 10- 20% bloom. A 2 (ee) label allows Switch to be applied in tank mix with Thiophonate- methyl for improved white mold control.
Iprodione (2) Rovral 4F, 41.6%	Ground spray or fungigation	1.5-2.0 pt/A				X	Resistance statement 2 ⁴ Apply at first bloom (10% of plants with 1 open blossom) and again at peak bloom, if needed. Do not apply after full bloom. Use 50-100 psi and 3 nozzles, 1 over the row and one on each side. If pH of spray water exceeds 7.0, buffer it to pH 5.0-7.0.
Maneb (M3) Maneb 80, 80%	Spray or fungigation	1.5-2 lb/A	х	х	Х		
Maneb 75 DF, 75% Manex, 37%	Spray or fungigation	1.5-2 lb/A	X	X	Х		
Wansh, Crite	Spray or fungigation	1.2-1.6 qt/A	Х	Х	Х		
Prothioconazole (3) Proline 480 SC, 41%	Spray	5.7 fl oz/A		х		х	Apply Proline prior to disease onset or at 15-25 % flowering when conditions are favorable for disease development. Do not make more than 3 applications per year. Repeat applications as needed on a 5-14 day interval. For maximum disease control apply in 20 or more gpa by ground. Do not apply within 7 days of cutting or swathing for harvest.
Tebuconazole (3), 38.7% Folicur 3.6F Orius 3.6F	Spray or fungigation	4-6 fl oz/A		Х			See labels for information on spray scheduling, pre-harvest intervals and re-entry intervals. Do not apply more than 12 fl oz per year.

¹Spray = ground or aerial, Fungigation = application through sprinkler irrigation system.
²Dosage = Amount of formulated product to apply.
³X = Product labeled for crop and disease; Blank = product not labeled for specific disease.
⁴See fungicide resistance management statements of page 9.

Dry Edible Bean (continued) FOLIAR SPRAYS

			Di	Disease Control³			
Chemical (Fungicide Group)	Application ¹	Dosage ²	Anthracnose	Rust	Halo Blight	White Mold	Remarks
Qols Azoxystrobin (11)							Resistance statement 2 ⁴
Quadris, 22.9%	Spray or fungigation	6.2 fl oz/A for rust 6.2-15.4 fl oz/A for other leaf diseases	Х	Х			
Azoxystrobin (11) + Chlorothalonil (M5) Quadris Opti, 4.6% : 46%	Spray	1.6-2.4 pt/A	×	x			
Pyraclostrobin (11) Headline, 23.6%	Spray or fungigation	6-9 fl oz/A	X	Х			Apply prior to onset of disease. Maximum of 2 applications per season. 30 day PHI.
Sulfur (M) Microthiol Disperss, 80%	Spray	7 lb/A		Х			
Thiophanate- methyl (1) Topsin M WSB, or T-methyl 70W WSB or T-Methyl WSB E-AG	Spray or fungigation	1.5-2 lb/A- 1 application or 1-1.5 lb/A - 2 applications	Х			X	Resistance statement 2 ⁴ Apply 1.5-2 lb once when 70-100% of the plants have at least one open blossom. Or apply 1-1.5 lb twice with the first application when 10-
Topsin or T-Methyl E-AG, 46.2%	Spray or fungigation	30-40 fl oz/A 1 application or 20-30 fl oz/A if two applications	X			х	30% of the plants have at least one open blossom and the second application 4-7 days later. Complete coverage of all parts of plant is essential for control of
Thiophanate Methyl 85 WDG, 85%	Spray or fungigation	0.8-1.6 lb/A	X			X	white mold. Do not apply more than 4 lbs product/acre/season. Do not apply thiophanate-methyl within 14 days of harvest

¹Spray = ground or aerial, Fungigation = application through sprinkler irrigation system.

²Dosage = Amount of formulated product to apply.

³X = Product labeled for crop and disease; Blank = product not labeled for specific disease.

⁴See fungicide resistance management statements of page 9.