Fungicide

## **Sunflower Seed Treatment**

			Disease Control <sup>2</sup>		
Chemical	Application	Dosage <sup>1</sup>	Seedling Blights <sup>3</sup>	Downy Mildew	Remarks
Azoxystrobin (11) Dynasty, 9.6%	Slurry	3.75-15 fl oz/cwt 0.025-0.1 mg/seed	2	х	Provides suppression against downy mildew.
Captan (M4) Captan 400, 37.4%	Slurry	2-4 fl oz/cwt	х		
Fludioxonil (12) Maxim 4FS, 40.3%	Slurry	0.08-0.16 fl oz/cwt	х		For seed-borne and soil-borne fungi.
Spirato 480 FS, 40.3%	Slurry	0.08-0.16 fl oz/cwt	×		
Fludioxonil (12) + Mefenoxam (4) Maxim XL, 21% : 8.4%	Slurry	0.167-0.334 fl oz/cwt	х		
Mefenoxam (4) Apron XL, 33.3%	Slurry	1.28 fl oz/cwt			
Metalaxyl (4) Allegiance FL, 28.35% Sebring 318 FS, 28.35%  Dyna-Shield, 28.35%  Belmont 2.7 FS, 28.98%	Mist or slurry Slurry Slurry or mist	1.5-3.0 fl oz/cwt 1.5-3 fl oz/cwt 1.5-3.0 fl oz/cwt			In North Dakota, the pathogen causing downy mildew has been resistant to metalaxyl for over a decade. The resistance is thought to be widespread and stable.
Pyraclostrobin (11) Stamina, 18.4%	Slurry	0.8-2.3 fl oz/cwt	х		For seed-borne and soil-borne fungi.
Thiram (M3) 42-S Thiram, 42% Signet 480 FS, 42%	Liquid or slurry	2 fl oz/bu	х		

<sup>&</sup>lt;sup>1</sup>Dosage = amount of formulated product to apply.

<sup>&</sup>lt;sup>2</sup>X = product labeled for crop and disease; Blank = product not labeled for specific disease.

<sup>3</sup>An increase in stand has been noted only once in moderately severe tests to date; under very severe conditions, some increase in stand might be expected.

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Chemical (Fungicide Group)	Application <sup>1</sup>	Dosage <sup>2</sup>	Rust Control <sup>3</sup>	Remarks			
Azoxystrobin (11) Quadris, 22.9% Satori, 22.9% Equation, 22.9%	Spray or fungigation	6-15.5 fl oz/A	х	Resistance statement 5 <sup>4</sup> . Apply prior to disease development. Also labeled for control of Alternaria leaf spot.			
Boscalid (7) Endura 70%	Spray or fungigation	.8-11 oz/A		For suppression of sclerotinia head rot.			
Penthiopyrad (7) Vertisan, 20.6%	Spray or fungigation	10-30 fl oz/A	х	For suppression of sclerotinia head rot. Apply prior to disease development. Do no apply more than 61 fl oz/A per season. PHI = 14 days.			
Fluxapyroxad (7) + Pyraclostrobin (11) Priaxor 14.33% : 28.58%	Spray or fungigation	4-8 fl oz	х	Resistant statements 5 & 6 <sup>4</sup> . For control of several fungal diseases including <i>Alternaria, Septoria</i> , rust and powdery mildew. For suppression of sclerotina head rot.			
Pyraclostrobin (11) Headline EC, 23.6% Headline SC, 23.3%	Spray or fungigation	6-12 fl oz/A	х	Resistance statement 5 <sup>4</sup> .  Apply prior to disease development. Also labeled for control of Alternaria leaf spot, powdery mildew, septoria leaf spot and white rust. Maximum of 2 applications per season. PHI = 21 days.			
<b>Tebuconazole (3) 38.7%</b> Orius 3.6F Tebuzol 3.6F Monsoon	Spray	4-6 fl oz/A	х	For maximum disease control, labels recommend using lowest rate of nonionic surfactant. Apply at earliest sign of infection. Do not apply more than 16 fl oz per season or within 50 days of harvest. See labels for further information or spray scheduling.			

Soil-Applied Biological Fungicides

Organism	Application	Dosage <sup>1</sup>	Sclerotinia Sclerotiorum (white mold) Control <sup>2</sup>	Remarks
Coniothyrium minitans Contans WG, 5.3%	Soil incorporation	1-2 lb/A depending on crop	х	Fungus attacks sclerotia of the fungus.

<sup>&</sup>lt;sup>1</sup>Spray = ground or aerial; Fungigation = application through sprinkler irrigation system.

<sup>2</sup>Dosage = amount of formulated product to apply.

<sup>3</sup>X = product labeled for crop and disease; Blank = product not labeled for specific disease.

<sup>&</sup>lt;sup>4</sup>See fungicide resistance management statements on Pages 7-8.

<sup>&</sup>lt;sup>1</sup>Dosage = amount of formulated product to apply.

<sup>2</sup>X = product labeled for crop and disease; Blank = product not labeled for specific disease.