

Corn (Field) and Sorghum Seed Treatment

Chemical	Application	Dosage ¹	Control ² of Seedling Blights ³	Remarks
Azoxystrobin (11) Dynasty, 9.6%	Slurry	0.0688 fl oz/80,000 kernel count unit	X	Also controls seed-borne head smut. Use only in combination with labeled rates of Maxim and Apron XL products.
Captan (M4) The following captan products are registered for seed treatment of corn and sorghum: Captan - Diazinon Seed Treater, 36.67% Methoxychlor, 70.9% Kernel Guard, 14.67% (corn only) Nu-Gro Captan 4000, 38.7% Sorghum Guard, 32.75%	See individual labels for rates of application, formulations, method of application and registered use	See individual labels for amounts of formulated product to apply	X	Captan - Diazinon Seed Treater contains 25% diazinon insecticide. Kernel Guard contains 15% diazinon and 25% lindane. Sorghum Guard contains 16.6% lindane insecticide.
Carboxin (7) Kernel Guard Supreme, 14%	Drill box	1.5 oz/42 lb	X	Kernel Guard contains 10.42% permethrin.
Ethaboxam (22) Intego Solo, 34.2%	Slurry or mist	0.2-0.3 fl oz/cwt	X	For control of <i>Pythium</i> . Also registered for sweet corn, sorghum and grain (milo).
Fludioxonil (12) Maxim 4FS, 40.3%	Slurry	0.036-0.072 fl oz/80,000 kernel count	X	For control of seed-borne and soil-borne fungi which causes seed decay, damping off and seedling blight, and seed-borne head smut.
Spirato 480FS 40.3%	Slurry	0.08 fl oz/cwt for sweet corn	X	
Dyna-Shield Fludioxonil, 40.3%	Slurry	0.036-0.072 fl oz/80,000 kernel count	X	
Fludioxonil (12) +Mefenoxam (4) Maxim XL, 21% : 8.4%	Water-based slurry	.071 fl oz/80,000 kernel count unit of seed	X	Controls seedling blights and fungi causing seed decay and damping off. For field corn.
Fludioxonil (12) +Mefenoxam (4) + Azoxystrobin (11) + Thiabendazole (1) Maxim Quattro 3.32%:2.65%:1.33%:26.5%	Water-based slurry	0.46 fl oz/80,000 kernel count	X	Also controls seed-borne smut.
Ipconazole (3) Vortex, 40.7%	Water-based Slurry	0.044 fl oz/cwt	X	For protection against soil-borne and seed-borne diseases.

¹Dosages for corn apply to field corn. Dosages for sweet corn vary with some products, and others are not registered for sweet corn, so consult the label for sweet corn information. Dosages are 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.

Corn (Field) and Sorghum (continued) Seed Treatment

Chemical	Application	Dosage ¹	Control ² of Seedling Blights ³	Remarks
Mancozeb (M3) Dithane DF Rainshield NT, 75%	Slurry	1.6-3.2 oz/bu field corn 1.6-2.7 oz/bu sorghum	X	Dithane DF, F-45 and M-45 registered for seed treatment of field corn and sorghum but not for seed treatment of sweet corn. Grain Guard and Grain Guard Plus registered for sorghum only. Grain Guard Plus contains 18.75% lindane insecticide.
Dithane F-45, 37%	Drill box or slurry	2.4-4.8 fl oz/bu field corn, 2.4-4.0 fl oz/bu sorghum	X	
Dithane ST, 37%	Slurry or mist	2.4-4.8 fl oz/bu field corn 2.4-4.0 fl oz/bu sorghum	X	
Dithane M-45, 80% or Dithane WSP, 80%	Drill box or slurry	1.5-3.0 oz/bu field corn 1.5-2.5 oz/bu sorghum	X	
Grain Guard, 50%	Drill box	3 oz/bu	X	
Grain Guard Plus, 50%	Drill box	3 oz/bu	X	
Manzate ProStick, 75%	Slurry	1.5-3 oz/bu corn 1.5-2.5 oz/bu sorghum	X	
Manzate Flowable, 37%	Slurry	2.4-4.8 oz/bu corn 2.4-4.0 oz/bu sorghum	X	
Penncozeb 80 WP, 80%	Drill box or slurry	1.5-3.0 oz/bu field corn 1.5-2.5 oz/bu sorghum	X	Treated seed should be labeled "must not be used for food, feed or oil purposes."
Penncozeb 75 DF, 75%	Drill box or slurry	1.6-3.2 oz/bu field corn 1.6-2.7 oz/bu sorghum	X	
Mefenoxam (4) Apron XL, 33.3%	Liquid or slurry	0.32-0.64 fl oz/cwt	X	For control of <i>Pythium</i> damping off only.
Metalaxyl (4) Allegiance FL, 28.35% or Sebring 318 FS, 28.35%	Mist or slurry	0.375-0.75 fl oz/cwt sorghum	X	For control of <i>Pythium</i> damping off only.
Dyna-Shield, 28.35%	Slurry	0.75 fl oz/cwt corn	X	
Metalaxyl (4) + PCNB (14) + Carboxin (7) Prevail, 3.12%:15%:15%	Drill box	3 oz/bu	X	Not registered for sorghum. Controls early season <i>Pythium</i> and <i>Rhizoctonia</i> .
Metconazole (3) Metlock 40%	Liquid or slurry	0.045-0.09 fl oz/cwt	X	Disease protection for <i>Rhizoctonia</i> damping-off, <i>Fusarium</i> seed/seeding dieback seed decay fungi and head smut.
Metalaxyl (4) + Metconazole (3) Metlock CT, 4.51%: 2.25%	Liquid or slurry	1.0-1.5 fl oz/cwt	X	Disease protection for <i>Rhizoctonia</i> damping-off, <i>Fusarium</i> seed/seeding dieback seed decay fungi and head smut.

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³Seedling blights due to various fungal infections of seed.

Corn (Field) and Sorghum (continued) Seed Treatment

Chemical	Application	Dosage ¹	Control ² of Seedling Blights ³	Remarks
Pyraclostrobin (11) Stamina, 18.4%	Slurry or mist	0.4-0.8 fl oz/cwt	X	Controls seed and seedling disease caused by <i>Rhizoctonia solani</i> , seed-borne fungi causing seed decay and seedling blight.
Pyraclostrobin (11) + Bacillus subtilis MBI 600 Xanthion, 23.6%; 5.0%	In-furrow Spray	3.6-7.2 flo oz/1000 ft of row	X	Product must be mixed in a 5:1 ratio of pyraclostrobin to <i>Bacillus subtilis</i> . Also for suppression of <i>Rhizoctonia solani</i> , <i>Fusarium</i> sp. and <i>Pythium</i> sp.
Bacillus subtilis strain QST 713 (44) Serenade ASO, 1.34%	In-furrow	2-6 fl qt/A	X	For control of <i>Pythium</i> and <i>Rhizoctonia</i> . Apply as directed spry in the seed furrow and to the covering soil at planting. A 2 (ee) allows application of Serenade ASO at 1 fl qt/A.
Sedaxane (7) Vibrance, 43.7%%	Slurry	2.5-5 gai/100 kg of seed corn 2.5-5 gai/100 kg of seed sorghum	X	For seed decay, seedling blights, and damping off caused by <i>Rhizoctonia</i>
Thiamethoxam + Fludioxonil (12)+ Mefenoxam (4) + Azoxystrobin (11) Cruiser Extreme 25.0% : 1.25% : 1.0% : 0.50%	Water-based slurry		X	For protection against damage from certain insects, soil-borne and seed-borne diseases.
Thiram (M3) 42-S Thiram, 42% Signet 480 FS, 42%	Liquid or slurry	1.5 fl oz/bu field corn 5.0 fl oz/cwt sweet corn 2 fl oz/bu sorghum	X	
Tolclofos-methyl (14) Rizolex, 42%	Slurry or mist	0.3 fl oz/cwt	X	For seed-borne and soil-borne diseases. Controls <i>Rhizoctonia solani</i> .
Trifloxystrobin (11) Trilex, 22%	Slurry or mist	0.32-0.64 fl oz/cwt	X	

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Corn Nematicide Seed Treatment

Chemical	Application	Control	Remarks
Abamectrin + Thiamethoxam Avicta Duo Corn, 12.4%:28.1% Avicta Duo 250 Corn, 11.3%: 14.2%	Commercially applied	Root nematodes (by abamectrin) and various insects (by thiamethoxam)	Crop Protection LLC has an <i>Avicta Complete Corn</i> commercial brand that recommends the combination of multiple separate seed treatment products.
Abamectrin + Thiamethoxam + Thiabendazole (1) + Fludioxonil (12) + Mefenoxam (4) + Azoxystrobin (11) Avicta Complete Corn 250, 10.3%: 11.7%: 2.34%: 0.30%: 0.23%: 0.12% Avicta Complete Corn 500, 10.20%: 23.10%: 2.31%: 0.30%: 0.23%: 0.12%	Commercially applied	Root nematodes (by abamectrin), various insects (by thiamethoxam), and various diseases (by thiabendazole, fludioxonil, mefenoxam, and azoxystrobin)	Syngenta Crop Protection LLC has a commercially treated blend of nematicide, insecticide, and fungicide seed treatment products.
Clothiandin + <i>Bacillus firmus</i> Poncho Votivo, 40.3% and 8.1%	Commercially applied	Provides early season protection of the corn plant against root nematodes and broad control of insect pests.	The <i>Bacillus firmus</i> bacterium creates a living barrier that prevents nematodes from reaching the roots.

Corn Soil Application

Chemical (Fungicide Group)	Application	Dosage ¹	Remarks
<i>Bacillus subtilis</i>, strain MBI 600 (44) Xanthion, 5.0%	In-furrow spray	0.02-0.04 fl oz/1,000 ft. row	Can be used in combination with Headline. For soilborne diseases such as Rhizoctonia and Fusarium.
Pyraclostrobin (11) Headline, 23.6%	In-furrow spray	0.1-0.8 fl oz/1,000 ft. row	For suppression of Rhizoctonia. Do not apply more than 12 fl oz/A of Headline.
Fluoxastrobin (11) Evito 480 SC, 40.3%	In-furrow spray	0.11-0.16 fl oz/1,000 ft. row	For protection against soilborne diseases. Do not exceed a maximum of 22.8 ounces/acre of fluoxastrobin per year.

¹Dosage = amount of formulated product to apply.

³See fungicide resistance management statements on Pages 7-8.

Corn (Field) Foliar Sprays

Chemical (Fungicide Group)	Application ¹	Dosage ²	Disease Control ³		Remarks
			Rust	Leaf Spots ⁴	
Bacillus subtilis strain QST 713 (44) Serenade ASO, 1.34%	Spray or fungigation	2-6 qt/A	X	X	Begin applications when environmental conditions and plant stage are conducive to disease development.
Bacillus pumilus strain QST 2808 Sonata, 1.38%	Spray or fungigation	1-4 qt/A	X	X	Begin applications when environmental conditions and plant stage are conducive to disease development.
Chlorothalonil (M5) Equus 720 SST, 54.0 % Equus DF, 82.5%	Spray or fungigation Spray or fungigation	0.75-2.0 pts/A 0.7-1.8 lbs/A	X X	X X	Begin applicatiosn when conditions favors disease development. Maximum use rate per season is 12.0 pts/A for Equus 720 SST and 10.9 lbs/A for Equus DF. PHI = 14 days
Copper (M1) MasterCop, 21.46%	Spray or fungigation	0.5-1.5 pt/A			Apply when disease first appears and every 7 to 10 days as needed. Manium use rate per season is 6.0 pts/A.
Flutriafol (3) Topguard 11.8%	Spray	7-14 fl oz/A	X	X	Resistance statement 3 ⁵ . For control of several fungal diseases. Do not apply more than 2 applications or 28 fl oz/season. PHI=80 days.
Fluxapyroxad (7) + Pyraclostrobin (11) Priaxor 14.33% : 28.58%	Spray or fungigation	4-8 fl oz/A	X	X	Resistance Statements 5 and 6 ⁵ . Apply at V5-V8 growth stages for early season disease control. Do not harvest for forage within 7 days of last application. PHI=21 days
Mancozeb (M3) Koverall, 75% Manzate ProStick, 75% Penncozeb 75DF Manzate Flowable, 37% Roper DF Rainshield, 75%	Sprays or fungigation Sprays or fungigation Sprays or fungigation Sprays or fungigation Sprays or fungigation	1.5 lb/A 1.5 lb/A 1-1.15 lb/A 1.2 qt/A 1.5 lb/A	X X X X	X X X X	Do not feed treated forage to livestock. Do not apply more than 15 lb product per season. Do not apply within 40 days of harvest.

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

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⁴Leaf spots include fungal leaf diseases such as northern corn leaf blight

⁵See fungicide resistance management statements on Pages 7-8.

Corn (Field) Foliar Sprays

Chemical (Fungicide Group)	Application ¹	Dosage ²	Disease Control ³		Remarks
			Rust	Leaf Spots ⁴	
Penthiopyrad (7) Vertisan, 20.6%	Spray or fungigation	10-24 fl oz/A	X	X	Apply prior to disease development. Controls multiple diseases of corn. Do not apply more than 48 fl oz/A per year. PHI = 7 days.
Triazoles Propiconazole (3) Tilt, Propimax, or Bumper 41.8 EC, Propiconazole E-AG, 41.8% Fitness, 41.8% Topaz 41.8% Bumper ES, 40.85%	Spray or fungigation Spray or fungigation	2-4 fl oz/A	X	X	Resistance statement 3 ⁵ . Do not apply to field corn and field corn grown for seed after silking. Do not apply more than 16 oz/A per season. Do not apply to sweet corn within 14 days of harvest or field corn within 30 days of harvest. See label for restrictions on use for forage.
Prothioconazole (3) Proline 480 SC, 41.0%	Spray or fungigation	5.7 fl oz/A	X	X	Apply when symptoms first appear. Do not use adjuvants in sprays made between V8 (8 leaf collar) and VT (tasseling). Do not apply more than 22.8 fl oz/A per season. PHI = 14 days.
Tebuconazole (3) Orius 3.6F, 38.7% Tebuzol 3.6F, Monsoon, Onset 3.6L	Spray or fungigation	4-6 fl oz/A	X	X	See individual labels for spray schedule recommendations and preharvest intervals.
Qols Azoxytrobin (11) Quadris, 22.9% Satori, 22.9% Equation, 22.9%	Spray or fungigation	6.0-9.0 fl oz/A rust 6.0-15.5 fl oz/A leaf spots	X	X	Resistance statement 5 ⁵ for all. Do not apply more than 2 sequential applications and do not apply more than 123 fl oz per acre per season. For field, pop and sweet corn.
Fluoxastrobin (11) Evito 480SC, 40.3%	Spray or fungigation	2.0-5.7 fl oz/A	X	X	Apply maximum of 2 applications (with final application no later than the R4 early growth stage). Do not apply more than 11.4 fl oz/year. Apply prior to disease onset. Apply at V5-V8 growth stages for ear season disease control. Additionally, applications can be made at VT-R2 growth stages. PHI = 7 days. Do not exceed 72 fl oz/A per season; maximum of 2 sequential applications.
Pyraclostrobin (11) Headline EC, 23.6% Headline SC, 23.3%	Spray or fungigation	6-12 fl oz/A	X	X	
Picoxytrobin (11) Approach, 22.5%	Spray or fungigation	6-12 fl oz/A	X	X	For early season disease control/suppression make a single 3-4 fl oz/A application between V4-V7. Apply no more than 36 fl oz/A per season and no more than 2 sequential applications. PHI = 7 days.

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⁵See fungicide resistance management statements on Pages 7-8.

Corn (Field) (continued) Foliar Sprays

Chemical (Fungicide Group)	Application ¹	Dosage ²	Disease Control ³		Remarks
			Rust	Leaf Spots ⁴	
Qols + Triazole Azoxystrobin (11) + Propiconazole (3) Quilt 7.0%; 11.7% Quilt Xcel 13.5%; 11.7% Trivapro B 1.5%; 11.7%	Spray or fungigation Spray or fungigation Spray or fungigation	7-14 fl oz/A 10.5-14 fl oz/A 10.5 fl oz/A	X X X	X X X	Resistance statement 3 ⁵ . Applications prior to tasseling may impose stress on the plant that could inhibit proper kernel development, especially under stress conditions. Field corn and sweet corn. Alternate applications of Quilt or Quilt Xcel with Tilt or another non-Group 11 fungicide. For best disease control, make applications after R1. PHI = 30 days. Combining Trivapro A and Trivapro B = Trivapro co-pack. Apply prior to disease onset when conditions are conducive for disease. Do not apply more than 28 fl oz/A of Trivapro B per year. PHI = 30 days for Trivapro B.
Azoxystrobin (11) + Tebuconazole (3) Custodia, 11.0%; 18.35%	Spray or fungigation	9-12.9 fl oz/A	X	X	Resistance statement 3 ^b . Apply in protective spray schedule. Repeat applications at 7 to 14 day intervals. Do not use adjuvants or crop oil after the V8 stage prior to VT. Do not exceed 51.7 fl oz/A per season. PHI = 21 days for forage and 36 days for grain or fodder.
Azoxystrobin (11) + Tetraconazole (3) Affiance, 9.35%; 7.48%	Spray or fungigation	10.0-17.0 fl oz/A	X	X	Resistance statement 3 ^b . Apply prior to disease onset and as part of an integrated pest management program. Do not apply more than 17.0 fl oz/A per year. Do not make more than two applications per year. Applications can be made between V4-R3. Harvest PHI = 7 days. Silage PHI = 21 days.
Pyraclostrobin (11) + Metconazole (3) Headline AMP 13.64%:5.14%	Spray	10-14.4 fl oz/A	X	X	Resistance statement 3 ⁵ and 5 ⁵ . For optimal disease control, begin applications prior to disease development. Apply at VT-R2 growth stages for optimal disease control. Do not exceed 57.6 fl oz/A/season. 20-day PHI.
Trifloxystrobin (11) + Prothioconazole (3) Stratego YLD, 32.3%:10.8%	Spray or fungigation	4.0-5.0 fl oz/A	X	X	A 2(ee) allows application of Stratego YLD at 2.0-5.0 oz/A at the V4 to V6 growth stages. Additionally, Stratego YLD can be applied from VT to R2 stages. Do not apply more than 10 fl oz/A/year. 14-day PHI.

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⁵See fungicide resistance management statements on Pages 7-8.

Corn (Field) (continued) Foliar Sprays

Chemical (Fungicide Group)	Application ¹	Dosage ²	Disease Control ³		Remarks
			Rust	Leaf Spots ⁴	
Picoxystrobin (11) + Cyproconazole (3) Approach Prima, 17.94%; 7.17%	Spray or fungigation	3.4-6.8 fl oz/A	X	X	Apply preventatively for disease control. Apply at 3.4 fl oz/A for early season disease control. Do not apply more than 6.8 fl oz/A per season and no more than two sequential applications of a picoxystrobin containing product. PHI = 30 days for grain corn, and 21 days for silage.
Fluoxastrobin (11) + Flutriafol (3) Fortix, 14.84%; 19.3%	Spray or fungigation	4-6 fl oz/A	X	X	Apply preventatively from V5-VT. Do not use crop oil or MSO. Do not use surfactant after V8 and before VT. Do not apply more than 12 fl oz/A per year. PHI = 40 days
Fluoxastrobin (11) + Tetraconazole (3) Zolera FX. 17.76%; 17.76%	Spray or fungigation	4.4-6.8 fl oz/A	X	X	For best results apply beginning at VT. Do not use surfactant after V8 and before VT. Do not apply more than 6.8 fl oz/A per year. PHI = 30 days.
SDHI Benzovindiflupyr (7) Trivapro A 10.27%	Spray or fungigation	4 fl oz/A	X	X	Combining Trivapro A and Trivapro B = Trivapro co-pack. Apply prior to disease onset when conditions are conducive for disease. Do not apply more than 14 fl oz/A of Trivapro A per year. PHI = 7 days for Trivapro A.

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Crambe Seed Treatment

Chemical	Application	Dosage ¹	Control ² of Seedling Blight ³	Remarks
Fludioxonil (12) Maxim 4FS, 40.3%	Slurry	0.08-0.16 fl oz/cwt	X	For <i>Rhizoctonia</i> and <i>Fusarium</i> .
Dyna-Shield Fludioxonil, 40.3%	Slurry	0.08-0.16 fl oz/cwt	X	
Pyraclostrobin (11) Stamina, 18.4%	Slurry or mist	1.5-3.1 fl oz/cwt	X	For suppression of <i>Rhizoctonia solani</i> , <i>Fusarium</i> sp. and <i>Pythium</i> sp.

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³Seedling blights due to various fungal infections of seed.

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