

Fungicide Seed Treatment Decisions for Use on Winter Wheat

Trade Name Company	Common Chemical name	% Active Ingredient	Rate/ CWT	Additional label information
Apron XL® Syngenta	Mefenoxam	33.3%	0.0425 to 0.085 fl. oz.	Seed treatment fungicide protects against soil-borne <i>Pythium</i> , <i>Phytophthora</i> spp. and downy mildew. Does not protect against <i>Rhizoctonia</i> spp. May be applied as a water-based slurry alone or in combination with other registered seed treatment insecticides and fungicides through standard slurry or mist-type commercial seed treatment equipment. The doses depends on the inoculum pressure (low or high).
Dividend XL RTA Syngenta	Difenoconazole Mefenoxam (Apron XL)	3.21% 0.27%	2.5 fl oz OR 5.0 fl. oz. OR 10.0 fl. oz.	Broad-spectrum seed treatment fungicide. The 1.0 fl oz rate of Dividend Extreme and the 2.5 fl oz rate of Dividend XL RTA are for control of common bunt and loose smut. The 5.0 fl oz of Dividend XL RTA and the 2.0 fl oz rate of Dividend Extreme are for control of common bunt, dwarf bunt, Karnal Bunt, flag smut, seed-borne <i>Septoria</i> , loose smut, general seed rots, <i>Fusarium</i> seed scab and <i>Pythium</i> damping-off and for early season control of common root rot and <i>Rhizoctonia</i> root rot.
Dividend Extreme Syngenta	Difenoconazole Mefenoxam	7.73 % 1.93 %	1.0 fl oz OR 2.0 fl. oz. OR 4.0 fl. oz.	The 10.0 fl oz rate of Dividend XL RTA and the 4.0 fl oz rate of Dividend Extreme are for control of Common bunt, Karnal Bunt, Dwarf bunt, Flag smut, seed-borne <i>Septoria</i> , Loose smut, general seed rots, <i>Fusarium</i> seed scab and <i>Pythium</i> damping off as well as fall season powdery mildew, Leaf rust and <i>Septoria</i> leaf blotch; and early season control of Common root rot, <i>Fusarium</i> root rot, <i>Fusarium</i> crown rot, Take-all and <i>Rhizoctonia</i> root rot. Green wheat forage may not be grazed until 55 days after planting. Apply Dividend Extreme as water-based slurry through standard slurry or mist-type seed treatment equipment. Dividend XL RTA is especially formulated for on-farm treatment, using standard mechanical slurry- or mist-type seed treatment equipment.
Dynasty Syngenta	Azoxystrobin	9.6%	0.153- 0.382 fl. oz.	Systemic fungicide that controls seed-borne and soil-borne fungi causing decay, damping-off, and seedling blight; protects against common bunt and partially controls dwarf bunt. For uniform seed surface coverage, apply as a water-based slurry using seed treatment equipment.
Maxim 4FS Syngenta	Fludioxonil	40.3%	0.08-0.16 fl. oz.	For protection against seed-borne and soil-borne fungi that cause seed decay, damping-off, and seedling blights. Do not use treated seed for feed or food. Cereal forage may not be grazed until 30 days after planting. Apply in a water-based slurry.
Maxim XL Syngenta	Fludioxonil Mefenoxam (Apron XL)	21.0% 8.4 %	0.167- 0.334 fl. oz.	Maxim XL protects against damping-off caused by <i>Fusarium</i> spp., <i>Rhizoctonia</i> spp., and <i>Pythium</i> spp., <i>Tilletia caries</i> (Common Bunt) and general seed rots caused by <i>Aspergillus</i> spp. and <i>Penicillium</i> spp. If combined with Dividend® XL controls damping-off caused by <i>Fusarium</i> .

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Texas AgriLife Extension Service; The Texas A&M System July 9, 2011

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Cruiser 5FS Syngenta	Thiamethoxam	47.6%	1.0 fl oz.	Systemic insecticide that protects early season seedlings against bird cherry-oat aphids, English grain aphid, greenbug, Hessian fly, wireworm and Russian wheat aphid. Reduces grasshopper damage.
CruiserMaxx Cereals Syngenta	Thiamethoxam Mefenoxam, Difenoconazole	2.80 % 0.56 % 3.36 %	5 oz	A seed treatment that protects against Wireworms, Aphids, Hessian Fly. Controls General Seed Rots, Seedling Blight, Root Rot, and Damping-Off caused by seed- and soil-borne <i>Fusarium</i> and soil-borne <i>Pythium</i> , Common and Dwarf Bunt, Loose Smut. Suppresses Common Root Rot (<i>Cochliobolus</i> spp.), <i>Fusarium</i> Crown and Foot Rot, and Take-All. In winter wheat it also suppresses early Season Rhizoctonia Root Rot.
Gaucht XT Bayer CropScience	Imidacloprid Metalaxyl Tebuconazole	12.70% 0.82% 0.62%	3.4 fl. oz.	Systemic fungicide/insecticide for early season disease control of <i>Pythium</i> damping-off, stinking smut, flag smut, loose smut, Septoria disease complex, Rhizoctonia root rot, common root rot and <i>Fusarium</i> root rot; early season suppression of leaf rust and powdery mildew; and early season seedling protection against injury by Aphids (including Bird cherry-oat, English grain, Greenbug, and Russian wheat aphid) Wireworms and Hessian fly. While there are no registered insecticides for white grub control in wheat, limited field tests suggest that Gaucht® seed treatments are effective. Do not graze or feed livestock on treated areas for 45 days after planting. See label for rotational crop restrictions. Apply to seed as a slurry treatment.
Grain Guard Trace-Chemtura	Mancozeb	50.00%	2.0 oz. per bushel of seed	For control of seed and seedling diseases caused by <i>Pythium</i> , Rhizoctonia and <i>Fusarium</i> (rot and damping-off), and for the control of Bunt. Treat only those seeds needed for immediate use, minimizing the interval between treatments and planting. DO NOT store excess treated seeds beyond planting time. Apply as a drill-box treatment mixing thoroughly so all seeds are covered.
Enhance Seed Protectant Trace- Chemtura	Captan Carboxin	19.55% 20.00%	4.0 oz.	Enhance protects wheat against loose smut, common bunt of wheat, covered smut, scab seedling blight, flag smut, seed rots and seedling disease. Applied as a dry mixture in the planter-box as a seed treatment before planting
Enhance® AW Trace- Chemtura	Imidacloprid Carboxin Captan and Related Derivatives	20.00% 20.00% 20.00%	4.0 oz.	Enhance AW is a dry formulation that protects against seed and soil-borne seedling diseases including damping off and seed decay, besides controlling Common bunt and Loose smut. The systemic insecticide protects from early season aphids and wireworm. Applied as a dry mixture in the planter-box as a seed treatment before planting
Allegiance Dry Trace- Chemtura	Metalaxyl	12.50%	1.5-2.0 oz	Controls <i>Pythium</i> damping-off . Should be applied by thoroughly mixing with seed in the planter box with the Mighty Mixer or utilizing the Gustafson CF-80* treater or other dry seed treatment application equipment to maximize seed coverage.
Allegiance-FL Seed Treatment Bayer CropScience	Metalaxyl	28.35%	0.75 fl. oz.	Systemic fungicide for the control of <i>Pythium</i> . May be applied as a water-based slurry with other registered seed treatment insecticides and fungicides through standard slurry or mist-type commercial seed treatment equipment. Check for compatibility before mixing products.

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<p>Proceed MD Bayer CropScience</p>	<p>Prothioconazole Tebuconazole Metalaxyl</p>	<p>1.47 % 0.29 % 0.59 %</p>	<p>5.0-7.5 fl. oz.</p>	<p>Seed treatment for broad-spectrum disease control of flag smut, loose smut, common bunt, Barley stripe, general seed rots, seed-borne Fusarium scab, Pythium damping-off. It provides early season protection against Rhizoctonia root rot, common root rot, Fusarium foot rot, Septoria disease complex, powdery mildew and rust. Apply using standard slurry or mist-type seed treatment equipment. Do not use treated seed for feed, food, or oil purposes. Forage may be grazed or harvested for hay 31 days after seeding.</p>
<p>Proceed Plus Bayer CropScience</p>	<p>Clothianidin Prothioconazole Tebuconazole Metalaxyl</p>	<p>1.48% 1.48% 0.29 % 0.59 %</p>	<p>5.0-7.5 fl. oz.</p>	<p>Fungicide/Insecticide Seed treatment for the control of stinking smut, flag smut, loose smut, covered smut(common bunt), early season Septoria disease complex, general seed rots, Pythium damping-off, early season Rhizoctonia root rot, early season common root rot, seedborne Fusarium scab, barley stripe, early season Fusarium foot rot, early season suppression of powdery mildew (7.5 fluid ounce rate only) and rust. Clothianidin offers suppression of wireworm activity on seed and young seedlings. Apply using standard slurry or mist-type seed treatment equipment. Do not use treated seed for feed, food, or oil purposes. Forage may be grazed or harvested for hay 31 days after seeding.</p>
<p>Raxil MD Bayer CropScience</p>	<p>Tebuconazole Metalaxyl</p>	<p>0.48% 0.64%</p>	<p>5.0 to 6.5 fl. oz.</p>	<p>Aids in the control or suppression of the following seed, seedling and soilborne diseases of wheat: stinking smut, flag smut, loose smut, early season Septoria disease complex, general seed rots, Pythium damping-off, early season Rhizoctonia root rot, early season common root rot, seedborne Fusarium scab, early season Fusarium foot rot, early season suppression of powdery mildew and rust. Wheat green forage may be grazed or harvested for hay 31 days after seeding. Applications should be made using standard slurry or mist-type seed treatment equipment. This product is for commercial or on-farm application. This is not intended for direct application into a planter box.</p>
<p>Raxil MD extra W Seed Treatment Bayer CropScience</p>	<p>Imidacloprid Tebuconazole Metalaxyl Imazalil</p>	<p>1.384% 0.415% 0.560% 0.965%</p>	<p>5.14 fl. oz.</p>	<p>Insecticide/systemic fungicide for the control or suppression of the following seed, seedling and soilborne diseases of wheat: stinking smut, flag smut, loose smut, early season Septoria disease complex, general seed rots, Pythium damping-off, early season Rhizoctonia root rot, common root rot, seedborne Fusarium scab, early season Fusarium foot rot, early season suppression of powdery mildew and rust. Protect seeds from wireworm. Do not use treated seed for feed, food, or oil purposes. Do not graze or feed livestock on treated areas for 45 days after planting. Apply to seed with standard slurry or mist-type seed treatment equipment.</p>
<p>Raxil MD-W Bayer CropScience</p>	<p>Imidacloprid Metalaxyl Tebuconazole</p>	<p>1.538% 0.461% 0.615%</p>	<p>5 fl. oz.</p>	<p>Aids in the control or suppression of the following seed, seedling and soilborne diseases of wheat: stinking smut, flag smut, loose smut, early season Septoria disease complex, general seed rots, Pythium damping-off, early season Rhizoctonia root rot, early season common root rot, seedborne Fusarium scab, early season Fusarium foot rot, early season suppression of powdery mildew and rust. Imidacloprid offers suppression of wireworm activity on seed and young seedlings. While there are no registered insecticides for white grub control in wheat, limited field tests suggest that Imidacloprid seed treatments are effective. Do not graze or feed livestock on treated areas for 45 days after plating. See label for rotational crop restrictions.Applications should be made using standard slurry or mist-type seed treatment equipment. This product is for commercial or on-farm application. This product is not intended for direct application into a planter box.</p>

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<p>Charter BASF Corporation</p>	<p>Triticonazole</p>	<p>2.4%</p>	<p>3.1 fl. oz.</p>	<p>Liquid seed treatment used for the control of Seed Rot and Seedling Blight caused by seed-borne <i>Fusarium</i> sp., Loose Smut, and Common Bunt. Will also suppress early season infections caused by Fusarium Crown Rot and Root Rot, and <i>Rhizoctonia</i>. Do not use treated seed for food, feed or oil processing. Do not plant any crop not listed in label in soil treated within 30 days after planting treated seed. Seed should be well conditioned and free of chaff before treating with this product. May be applied using standard commercial seed treatment equipment (ie. slurry or mist-type equipment) or on-farm seed treatment equipment. Can also be used in "On the Go" type air seeder treatment systems.</p>
<p>Charter F2 BASF Corporation</p>	<p>Triticonazole Methalaxyl</p>	<p>1.32% 0.79%</p>	<p>5.4 fl. oz.</p>	<p>Liquid seed treatment used for the control of loose smut, common bunt, Flag smut, Fusarium seed rot, Fusarium seedling blight, and <i>Pythium</i> damping-off, and the reduction of Common root rot, Dry seed decay, fusarium crown rot, Fusarium root rot and Rhizoctonia root rot. Do not use treated seed for food, feed or oil processing. Do not plant any crop not listed in label in soil treated within 30 days after planting treated seed. Seed should be well conditioned and free of chaff before treating with this product. Product may be applied using standard commercial seed treatment equipment (ie. slurry or mist-type equipment) or on-farm seed treatment equipment. Can also be used in "On the Go" type air seeder treatment systems.</p>
<p>Stamina BASF Corporation</p>	<p>Pyraclostrobin</p>	<p>18.4%</p>	<p>0.4-0.8 fl. oz.</p>	<p>Fungicide for the control of seed and seedling disease caused by <i>Rhizoctonia solani</i>, seedborne fungi causing seed decay including <i>Penicillium</i> spp., <i>Aspergillus</i> spp., <i>Alternaria</i> spp., and <i>Fusarium</i> spp, and seedling damping-off, and for the suppression of common root rot (<i>Cochliobolus</i> sp.), Fusarium seed rot and seedling blight (<i>Fusarium</i> spp.), dry seed decay (<i>Penicillium</i> spp.), common bunt (<i>Tilletia caries</i>), and seedling damping off (<i>Pythium</i> spp.). Do not use treated seed for food, feed or oil processing. Apply as a water-based mixture using standard slurry or mist-type seed treatment application equipment. May be mixed with Charter seed treatment.</p>
<p>Stamina F³ HL (BASF Corporation) Will be available this fall on winter wheat.</p>	<p>Pyraclostrobin Triticonazole Metalaxyl</p>	<p>7.57% 7.57% 4.54 %</p>	<p>1 fl. oz.</p>	<p>Liquid seed treatment for a broad protection against diseases including Fusarium seed rot and seedling blight, damping-off, common root rot, Rhizoctonia root rot, dry seed decay, wheat common blight, wheat loose smut and flag smut, barley covered smut, true loose smut and false loose smut. It also provides suppression of Fusarium crown root rot and Fusarium common root rot. Protects against <i>Pythium</i> species. Can be mixed with Axxess® insecticide seed treatment for protection against wire worms, aphids, Hessian flies, grasshoppers and other insects. For use at commercial seed treatment facilities. Not for use on farm. Direct application into a planter box is prohibited.</p>

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