

Management of Small Grain Diseases Fungicide Efficacy for Control of Wheat Diseases

The North Central Regional Committee on Management of Small Grain Diseases (NCERA-184) has developed the following information on fungicide efficacy for control of certain foliar diseases of wheat for use by the grain production industry in the U.S. Efficacy ratings for each fungicide listed in the table were determined by field testing the materials over multiple years and locations by the members of the committee. Efficacy is based on proper application timing to achieve optimum effectiveness of the fungicide as determined by labeled instructions and overall level of disease in the field at the time of application. Differences in efficacy among fungicide products were determined by direct comparisons among products in field tests and are based on a single application of the labeled rate as listed in the table. Table includes most widely marketed products, and is not intended to be a list of all labeled products.

Efficacy of fungicides for wheat disease control based on appropriate application timing

Fungicide(s)				Powdery mildew	Stagonospora leaf/glume blotch	Septoria leaf blotch	Tan spot	Stripe rust	Leaf rust	Stem rust	Head scab	Harvest Restriction
Class	Active ingredient	Product	Rate/A (fl. oz)									
Strobilurin	Picoxystrobin 22.5%	Aproach SC	6.0 - 12	G ¹	--	VG ²	VG	E ³	VG	VG	NL	Feekes 10.5
	Fluoxastrobin 40.3%	Evito 480 SC	2.0 – 4.0	G	--	--	VG	--	VG	--	NL	Feekes 10.5 and 40 days
	Pyraclostrobin 23.6%	Headline SC	6.0 - 9.0	G	VG ²	VG ²	E	E ³	E	G	NL	Feekes 10.5
Triazole	Metconazole 8.6%	Caramba 0.75 SL	10.0 - 17.0	VG	VG	--	VG	E	E	E	G	30 days
	Propiconazole 41.8%	Tilt 3.6 EC ⁴	4.0	VG	VG	VG	VG	VG	VG	VG	P	Feekes 10.5
	Prothioconazole 41%	Proline 480 SC	5.0 - 5.7	--	VG	VG	VG	VG	VG	VG	G	30 days
	Tebuconazole 38.7%	Folicur 3.6 F ⁴	4.0	NL	NL	NL	NL	E	E	E	F	30 days
	Prothioconazole 19% Tebuconazole 19%	Prosaro 421 SC	6.5 - 8.2	G	VG	VG	VG	VG	E	E	E	G
Mixed modes of action ⁵	Metconazole 7.4% Pyraclostrobin 12%	TwinLine 1.75 EC	7.0 – 9.0	G	VG	VG	E	E	E	VG	NL	Feekes 10.5
	Fluxapyroxad 14.3% Pyraclostrobin 28.6%	Priaxor	4.0 - 8.0	G	VG	VG	E	VG	VG	G	NL	Feekes 10.5
	Propiconazole 11.7% Azoxystrobin 13.5%	Quilt Xcel 2.2 SE ⁴	10.5 - 14.0	VG	VG	VG	VG	E	E	VG	NL	Feekes 10.5
	Prothioconazole 10.8% Trifloxystrobin 32.3%	Stratego YLD	4.0	G	VG	VG	VG	VG	VG	VG	NL	Feekes 10.5 35 days
	Cyproconazole 7.17% Picoxystrobin 17.94%	Aproach Prima SC	3.4-6.8	VG	--	VG	VG	E	VG	--	NR	45 days

¹Efficacy categories: NL=Not Labeled; NR=Not Recommended; P=Poor; F=Fair; G=Good; VG=Very Good; E=Excellent; -- = Insufficient data to make statement about efficacy of this product.

² Product efficacy may be reduced in areas with fungal populations that are resistant to strobilurin fungicides.

³Efficacy may be significantly reduced if solo strobilurin products are applied after stripe rust infection has occurred.

⁴Multiple generic products containing the same active ingredients also may be labeled in some states. Products including tebuconazole include: Embrace, Monsoon, Muscle 3.6 F, Onset, Orius 3.6 F, Tebucon 3.6 F, Tebustar 3.6 F, Tebuzol 3.6 F, Tegrol, and Toledo. Products containing propiconazole include: Bumper 41.8 EC, Fitness, Propiconazole E-AG, and PropiMax 3.6 EC. Products containing propiconazole + azoxystrobin include: Aframe Plus, Avaris 2XS.

⁵Products with mixed modes of action generally combine triazole and strobilurin active ingredients. Priaxor is an exception to this general statement and combines carboxamide and strobilurin active ingredients.