Fungicide Efficacy for Control of Wheat Diseases (Updated 2022)

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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.

Table 10-1B. Efficacy of Fungicides for Wheat Disease Control Based on Appropriate Application Timing

Fungicide(s)				Disease								
Class	Active ingredient	Product	Rate/A (fl. oz)	Powdery mildew	Stagonospora leaf/glume blotch	Septoria leaf blotch	Tan spot	Stripe rust	Leaf rust	Stem rust	Head scab	Harvest Restriction
Strobilurin	Picoxystrobin 22.5%	Aproach SC	6.0 – 12	G[1]	VG	VG[2]	VG	E	VG	VG	NL	Feekes 10.5
	Pyraclostrobin 23.6%	Headline SC	6.0 – 9.0	G	VG	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
	Tebuconazole 38.7%	Folicur 3.6 F[5]	4.0	NL	NL	NL	NL	E	E	E	F	30 days
	Prothioconazole 41%	Proline 480 SC	5.0 – 5.7	--	VG	VG	VG	VG	VG	VG	G	30 days
	Prothioconazole 19% Tebuconazole 38.7%	Prosaro 421 SC	6.5 – 8.2	G	VG	VG	VG	E	E	E	G	30 days
	Propiconazole	Tilt 3.6 EC[4,5]	4.0	VG	VG	VG	VG	VG	VG	VG	P	Feekes 10.5.4
Mixed modes of action[5]	Tebuconazole 22.6% Trifloxystrobin 22.6%	Absolute Maxx SC	5.0	G	VG	VG	VG	VG	E	VG	NL	35 days
	Cyproconazole 7.17% Picoxystrobin 17.94%	Aproach Prima SC	3.4 – 6.8	VG	VG	VG	VG	E	VG	--	NR	45 days
	Prothioconazole 16.0% Trifloxystrobin 13.7%	Delaro 325 SC	8.0	G	VG	VG	VG	VG	VG	VG	NL	Feekes 10.5 35 days
	Pydiflumetofen 13.7% Propiconazole 11.4%	Miravis Ace SE	13.7	VG	VG	VG	VG	VG	VG	VG	G[7]	Feekes 10.5.4
	Fluapyroxad 2.8% Pyraclostrobin 18.7% Propiconazole 11.7%	Nexicor EC	7.0 – 13.0	VG	VG	E	E	E	E	VG	NL	Feekes 10.5
	Fluoxastrobin 14.8% Flutriafol 19.3%	Preemptor SC	4.0 - 6.0	--	--	VG	VG	E	VG	--	NL	Feekes 10.5 and 40 days
	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[5]	10.5 – 14.0	VG	VG	VG	VG	E	E	VG	NL	Feekes 10.5.4
	Metconazole 10.9% Protioconazole 18.2%	Sphaerex	4.0 – 7.3	VG	VG	VG	VG	E	E	E	G	30 days
	Prothioconazole 10.8% Trifloxystrobin 32.3%	Stratego YLD	4.0	G	VG	VG	VG	VG	VG	VG	NL	Feekes 10.5 and 35 days
	Benzovindiflupyr 2.9% Azoxystrobin 10.5%	Trivapro SE	9.4 – 13.7	VG	VG	VG	VG	E	E	VG	NL	Feekes 10.5.4
	Flutriafol 18.63% Azoxystrobin 25.30%	Topguard EQ	4.0-7.0	VG	NL	VG	VG	E	E	VG	NL	Feekes 10.5.4 30 days

1. Efficacy 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.
3. Efficacy may be significantly reduced if solo strobilurin products are applied after stripe rust infection has occurred.
4. Application of products containing strobilurin fungicides may result in elevated levels of the mycotoxin Deoxynivalenol (DON) in grain damaged by head scab.
5. Multiple generic products containing the same active ingredients also may be labeled in some states.
6. Products with mixed modes of action generally combine triazole and strobilurin active ingredients. Nexicor, Priaxor and Trivapro include carboxamide active ingredients.
7. Based on application timing at the beginning of anthesis (Feekes 10.5.1)

DISEASE CONTROL