K·STATE Research and Extension

Foliar Fungicide Efficacy Ratings for Wheat Disease Management 2025

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Efficacy ratings for each fungicide listed in the table were determined by field testing the materials over multiple years and locations in Kansas. They were verified by the members of the North Central Extension and Research Committee (NCERA-184) for the management of small grain diseases.

Efficacy is based on proper application timing needed 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.

Quick Guidelines for Fungicide Use

Research conducted by Kansas State University indicates a single fungicide application made to susceptible wheat varieties when the risk of disease is high will often result in a 4% to 13% yield increase with an average increase of approximately 10% relative to wheat that remained untreated. A lower yield response is likely if the disease remains at low levels or is absent. The following guidelines will help maximize the potential for effective disease management and a positive yield response.

Application timing. In general, the largest reductions in disease severity and greatest increases in wheat yield or grain quality occur when fungicides are applied between full extension of the flag leaves and anthesis (when the male flower parts have just begin to emerge). Applications intended for the management of glume blotch or head scab should be made during anthesis (flowering). Always consult the product label for specific growth stage restrictions and preharvest intervals (PHI) before making a fungicide application.

Pay attention to disease scouting reports. The risk of severe disease and yield loss is greatest when foliar diseases become established early and result in consistent disease pressure throughout the growing season. Discovery of low disease levels within a field or regional reports of disease outbreaks when the local wheat crop is between jointing and flag leaf emergence is a valuable indicator of an elevated disease risk and potential yield loss.

Know the vulnerabilities of varieties. Growing wheat varieties that are susceptible to leaf rust, stripe rust, tan spot, or powdery mildew increases the risk of severe disease and yield loss. Fungicides are most likely to improve yield when applied to varieties that are susceptible to one or more of these common diseases. Varieties with moderate or high levels of resistance to these diseases are less likely to benefit from a fungicide application. For more information, refer to the current *Kansas Wheat Variety Guide,* MF991 and *Evaluating the Need for Wheat Foliar Fungicides*, MF3057.

This information is provided only as a guide. It is the responsibility of the pesticide applicator by law to read and follow all current label directions. No endorsement is intended for products listed, nor is criticism meant for products not listed. Members of NCERA-184 Committee assume no liability resulting from the use of these products.

Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned. Persons using such products assume responsibility for their use in accordance with current label directions of the manufacturer.

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

Fungicide(s)												
Class	Active ingredient	Product	Rate/a (fl. oz)	Powdery mildew	Stagonospora leaf/glume blotch	Septoria tritici blotch	Tan spot	Stripe rust	Leaf rust	Stem rust	Head scab[4]	Harvest Restriction
Strobilurin FRAC 11	Picoxystrobin 22.5%	Aproach SC	6.0 - 12.0	G[1]	VG[2]	VG[2]	VG	E[3]	VG[3]	VG	NL	Feekes 10.5
	Pyraclostrobin 23.6%	Headline SC	6.0 - 9.0	G	VG[2]	VG[2]	E	E[3]	E[3]	G	NL	Feekes 10.5
	Azoxystrobin 22.9%	Quadris 2.08 SC *Multiple generics[6]*	4.0 - 12.0[5]	G	VG[2]	VG[2]	E	E[3]	E[3]	VG	NL	Feekes 10.5.4
Triazole FRAC 3	Tebuconazole 38.7%	Folicur 3.6 F *Multiple generics[6]*	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
	Prothioconazole19% Tebuconazole 19%	Prosaro 421 SC	6.5 - 8.2	G	VG	VG	VG	E	E	E	G	30 days
	Propiconazole 41.8%	Tilt 3.6 EC *Multiple generics[6]*	4.0	VG	VG	VG	VG	VG	VG	VG	P	Feekes 10.5.4
	Metconazole 10.91% Prothioconazole 18.19%	Sphaerex	4.0 – 7.3	VG	VG	VG	VG	E	E	E	G	30 days
	Flutriafol 11.8%	Topguard SC	10.0 – 14.0[7]	G	U	VG	VG	VG	G	U	P	30 days
Mixed modes of action[9]	Tebuconazole 22.6% Trifloxystrobin 22.6%	Absolute Maxx SC	5.0	G	VG	VG	VG	VG	E	VG	NL	35 days
	Azoxystrobin 15.7 % Fluindapyr 10.5% Flutriafol 15.7%	Adastrio SC	5.0 - 9.0	U-	U	VG	VG	E	E	VG	NL	30 days
	Cyproconazole 7.17% Picoxystrobin 17.94%	Aproach Prima SC	3.4 - 6.8	VG	VG	VG	VG	E	VG	U	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	Feekes 10.5.4
	Fluxapyroxad 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
	Fluxapyroxad 14.3% Pyraclostrobin 28.6%	Priaxor	4.0 - 8.0	G	VG	VG	E	VG	VG	G	NL	Feekes 10.5
	Prothioconazole 17.39% Tebuconazole 8.7% Fluopyram 8.7%	Prosaro Pro SC	10.3-13.6	G	VG	VG	VG	E	E	E	G	30 days
	Propiconazole 11.7% Azoxystrobin 13.5%	Quilt Xcel 2.2 SE *Multiple generics[6]*	10.5 - 14.0[8]	VG	VG	VG	VG	E	E	VG	NL	Feekes 10.5.4
	Prothioconazole 10.8% Trifloxystrobin 32.3%	Stratego YLD[10]	4.0	G	VG	VG	VG	VG	VG	VG	NL	Feekes 10.5 35 days
	Benzovindiflupyr 2.9% Propiconazole 11.9% 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; U = 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] *Label rate for powdery mildew is 7.5-11.0 fl. oz/acre.*

[6] *Multiple generic products containing the same active ingredients also may be labeled in some states.*

[7] *Supplemental labels have been approved for 5.0-7.0 fl oz/acre rates to be applied early in the season or as split-rate applications in various states.*

[8] *A 7 oz/acre rate has been approved in several states (Kansas, Nebraska, Colorado, South Dakota) for flag leaf applications when disease levels are low*

[9] *Products with mixed modes of action generally combine triazole and strobilurin active ingredients. Miravis Ace, Nexicor, Priaxor, and Trivapro include carboxamide active ingredients.*

[10] *Stratego is a product with the same active ingredients as Stratego YLD but a different formulation (11.4% Propiconazole and 11.4% Trifloxystrobin) and higher use rate (10 fl oz/acre).*