

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 labeled 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	Head scab	Harvest Restriction
Class	Active ingredient	Product	Rate/A (fl. oz)								
Strobilurin	Azoxystrobin 22.9%	Quadris 2.08 SC	6.2 - 10.8	F(G) ¹	VG	VG	E	E ²	E	NR	45 days
	Pyraclostrobin 3.6%	Headline 2.09 EC	6.0 - 9.0	G	VG	VG	E	E ²	E	NR	Feekes 10.5
Triazole	Metconazole 8.6%	Caramba	10.0 - 17.0	-- ³	--	--	--	E	E	G	30 days
	Propiconazole 41.8%	Tilt 3.6 EC PropiMax 3.6 EC Bumper 41.8 EC	4.0	VG	VG	VG	VG	VG	VG	P	40 days
	Prothioconazole 41%	Proline 480 SC	5.0 - 5.7	-- ³	VG	VG	VG	--	VG	G	30 days
	Tebuconazole 38.7%	Folicur 3.6 F ⁴ Embrace 3.6 L Monsoon Muscle 3.6 F Orius 3.6 F Tebucon 3.6 F Tebustar 3.6 F Tebuzol 3.6 F Tegrol Toledo	4.0	G	VG	VG	VG	E	E	F	30 days
	Prothioconazole 19% Tebuconazole 19%	Prosaro 421 SC	6.5 - 8.5	G	VG	VG	VG	E	E	G	30 days
Mixed mode of action	Metconazole 7.4% Pyraclostrobin 12%	Multiva TwinLine	6.0 - 11.0	G	VG	VG	E	E	E	NR	Feekes 10.5 and 30 days
	Propiconazole 11.7% Azoxystrobin 7.0%	Quilt 200 SC	14.0	VG	VG	VG	VG	E	E	NR	45 days ⁵
	Propiconazole 11.4% Trifloxystrobin 11.4%	Stratego 250 EC	10.0	G	VG	VG	VG	VG	VG	NR	35 days

¹ Efficacy categories: NR=Not Recommended; P=Poor; F=Fair; G=Good; VG=Very Good; E=Excellent. Efficacy designation with a second rating in parenthesis indicates greater efficacy at higher application rates.

² Efficacy may be significantly reduced if solo strobilurin products are applied after stripe rust infection of has occurred

³ Insufficient data to make statement about efficacy of this product

⁴ Generic products containing tebuconazole may not be labeled in all states

⁵ The pre-harvest interval for Quilt is under review by EPA and may be adjusted to consider a growth stage restriction.

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 or participants in the NCERA-184 committee assume no liability resulting from the use of these products.

Preliminary estimates of fungicide efficacy for stem rust of wheat and barley

Preliminary estimates are based on available data. We have more data for Tebuconazole and Propiconazole than for other products. When products have only been evaluated in a few studies the efficacy ratings are based in part on product efficacy against other cereal rust diseases.

Fungicide(s)				Stem rust
Class	Active ingredient	Product	Rate/A (fl. oz)	
Strobilurin	Azoxystrobin 22.9%	Quadris 2.08 SC	6.2 - 10.8	E
	Pyraclostrobin 3.6%	Headline 2.09 EC	6.0 - 9.0	E
Triazole	Metconazole 8.6%	Caramba	10.0 - 17.0	E
	Propiconazole 41.8%	Tilt 3.6 EC PropiMax 3.6 EC Bumper 41.8 EC	4.0	VG
	Prothioconazole 41%	Proline 480 SC	5.0 - 5.7	VG
	Tebuconazole 38.7%	Folicur 3.6 F	4.0	E
	Prothioconazole 19% Tebuconazole 19%	Prosaro 421 SC	6.5 - 8.5	E
Mixed mode of action	Metconazole 7.4% Pyraclostrobin 12%	Multiva TwinLine	6.0 - 11.0	E
	Propiconazole 11.7% Azoxystrobin 7.0%	Quilt 200 SC	14.0	E
	Propiconazole 11.4% Trifloxystrobin 11.4%	Stratego 250 EC	10.0	VG