



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 about fungicide efficacy for the control of certain foliar diseases of wheat for use by the grain production industry in the United States.

The 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.

The table includes most widely marketed products, and is not intended to be a list of all labeled products.

Many products have specific use restrictions. Restrictions may be present on the amount of active ingredient that can be applied within a period of time or on the number of sequential applications that can occur.

Read and follow all use restrictions before applying any fungicide.

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

| | | Fungicide(s) | | Fungicide(s) | | | | | | | | | |
|--------------|------------------------|-------------------------------|---------------------|----------------------|--------------------------------|----------------------|----------|----------------|-----------|-----------|------------------------|----------------------|--------------------------|
| 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 ⁴ | Harvest Restriction | |
| Strobilurins | picoxytostrobin 22.5% | Aproach SC® | 6.0-12.0 | G ¹ | VG | VG ² | VG | E ³ | VG | VG | NL | Feeke's 10.5 | |
| | pyraclostrobin 23.6% | Headline SC® | 6.0-9.0 | G | VG | VG ² | E | E ³ | E | G | NL | Feeke's 10.5 | |
| | metconazole 8.6% | Caramba 0.75SL® | 10.0-17.0 | VG | VG | -- | VG | E | E | E | G | 30 days | |
| | tebuconazole 38.7% | Folicur 3.6F ⁵ | 4.0 | NL | NL | NL | E | E | E | E | F | 30 days | |
| | prothioconazole 41% | Proline 480SC® | 5.0-5.7 | -- | VG | VG | VG | VG | VG | VG | G | 30 days | |
| Triazoles | prothioconazole 19% | Prosaro 421SC® | 6.5-8.2 | G | VG | VG | E | E | E | E | G | 30 days | |
| | tebuconazole 19% | Tilt 3.6EC ⁶ | 4.0 | VG | VG | VG | VG | VG | VG | VG | P | Feeke's 10.5-4 | |
| | propiconazole 41.8% | Absolute Maxx SC® | 5.0 | G | VG | VG | VG | VG | VG | VG | NL | 35 days | |
| | cyproconazole 7.17% | Aproach Prima SC® | 3.4-6.8 | VG | VG | VG | VG | E | VG | VG | -- | NR | |
| | picoxytostrobin 17.94% | Delaro 325SC® | 8.0 | G | VG | VG | VG | VG | VG | VG | NL | Feeke's 10.5-35 days | |
| | tebuconazole 22.6% | Miravis Ace SC® | 13.7 | VG | VG | VG | VG | VG | VG | VG | G ⁷ | Feeke's 10.5-45 days | |
| | trifloxystrobin 22.6% | Nexitor EC® | 7.0-13.0 | VG | VG | E | E | E | VG | VG | NL | Feeke's 10.5 | |
| | prothioconazole 16.0% | Pydiflumetofen 13.7% | Fluxapyroxad 2.8% | Flutriafol 19.3% | Preemptor SC® | 4.0-6.0 | -- | -- | VG | VG | -- | NL | Feeke's 10.5 and 40 days |
| | trifloxystrobin 13.7% | propiconazole 11.4% | propiconazole 11.7% | pyraclostrobin 18.7% | Priaxor® | 4.0-8.0 | G | VG | E | VG | G | NL | Feeke's 10.5 |
| | pydiflumetofen 13.7% | Quilt Xcel 2.25E ⁵ | 10.5-14.0 | VG | VG | VG | VG | E | E | VG | NL | Feeke's 10.5-40 days | |
| | propiconazole 11.7% | Stratego YLD® | 4.0 | G | VG | VG | VG | VG | VG | VG | NL | Feeke's 10.5-35 days | |
| | azoxystrobin 13.5% | Trivapro SE® | 9.4-13.7 | VG | VG | VG | VG | E | E | VG | NL | Feeke's 10.5-30 days | |
| | prothioconazole 10.8% | Topguard EQ® | 4.0-7.0 | VG | NL | VG | VG | E | E | VG | NL | Feeke's 10.5-30 days | |
| | trifloxystrobin 32.3% | | | | | | | | | | | | |
| | benzovindifluor 2.9% | | | | | | | | | | | | |
| | propiconazole 11.9% | | | | | | | | | | | | |
| | azoxystrobin 10.5% | | | | | | | | | | | | |
| | flutriafol 18.63% | | | | | | | | | | | | |
| | azoxystrobin 25.30% | | | | | | | | | | | | |

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. Miravis Ace®, Nextror®, Priaxor®, and Trivapro® include carboxamide active ingredients.

⁷ Based on application timing at the beginning of anthesis (Feeke's 10.5.).

Find Out More

The Crop Protection Network (CPN) is a multi-state and international collaboration of university and provincial extension specialists, and public and private professionals who provide unbiased, research-based information to farmers and agricultural personnel. Our goal is to communicate relevant information that will help professionals identify and manage field crop diseases.

Find more resources at CropProtectionNetwork.org.



This publication was developed and published by Erick DeWolf (Kansas State University)
and members of the NCERA-184.

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