

# Management of Corn Diseases: Fungicide Efficacy for Control of Corn Diseases — 2023

Heather M. Kelly  
Associate Professor and Extension Specialist  
Department of Entomology and Plant Pathology

The Corn Disease Working Group (CDWG) has developed the following information on fungicide efficacy for control of major corn diseases in the United States. 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 ratings are based upon level of disease control achieved by product, and are not necessarily reflective of yield increases obtained from product application. Efficacy depends upon proper application timing, rate, and application method 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 systemic fungicides available that have been tested over multiple years and locations. The table is not intended to be a list of all labeled products<sup>1</sup>. Efficacy categories: NR=Not Recommended; P=Poor; F=Fair; G=Good; VG=Very Good; E=Excellent; NL = Not Labeled for use against this disease; U = Unknown efficacy or insufficient data to rank product. Table footnotes on second page.**

Fungicide(s)				Anthracnose leaf blight	Common rust	Eyespot	Gray leaf spot	Northern leaf blight	Southern rust	Tar spot <sup>2</sup>	Harvest Restriction <sup>3</sup>
Class	Active ingredient (%)	Product/Trade name	Rate/A (fl oz)								
QoI Strobilurins Group 11	Azoxystrobin 22.9%	Quadris 2.08 SC Multiple Generics	6.0 - 15.5	VG	E	VG	E	G	VG	NL	7 days
	Pyraclostrobin 23.6%	Headline 2.09 EC/SC	6.0 - 12.0	VG	E	E	E	VG	VG	NL	7 days
	Picoxystrobin 22.5%	Aproach 2.08 SC	3.0 - 12.0	VG	VG-E	VG	F-VG	VG	G	G <sup>4</sup>	7 days
DMI Triazoles Group 3	Propiconazole 41.8%	Tilt 3.6 EC, Multiple Generics	2.0 - 4.0	NL	VG	E	G	G	F	NL	30 days
	Prothioconazole 41.0%	Proline 480 SC	5.7	U	VG	E	U	VG	G	NL	14 days
	Tebuconazole 38.7%	Folicur 3.6 F, Multiple Generics	4.0 - 6.0	NL	U	NL	U	VG	F	NL	36 days
	Tetraconazole 20.5%	Domark 230 ME	4.0 - 6.0	U	U	U	E	VG	G	G <sup>4</sup>	R3 (milk)
	Flutriafol 20.9% Flutriafol 26.4%	Xyway LFR 1.92 SC Xyway 3D 2.5 SC	LFR: 5.8-15.2 3D: 5.8-11.8	NL	U	NL	G	VG	NL	NL	N/A
Mixed models of action	Azoxystrobin 13.5% Propiconazole 11.7%	Quilt Xcel 2.2 SE Multiple Generics	10.5 - 14.0	VG	VG-E	VG-E	E	VG	VG	NL	30 days
	Benzovindiflupyr 2.9% Azoxystrobin 10.5% Propiconazole 11.9%	Trivapro 2.21 SE	13.7	U	U	U	E	VG	E	G-VG	30 days
	Cyproconazole 7.17% Picoxystrobin 17.94%	Aproach Prima 2.34 SC	3.4 - 6.8	U	U	U	E	VG	G	G-VG <sup>4</sup>	30 days
	Flutriafol 19.3% Fluoxastrobin 14.84%	Fortix 3.22 SC Preemptor 3.22 SC	4.0 - 6.0	U	U	U	E	VG	VG	G-VG <sup>4</sup>	R4 (dough)

Table Continued

Fungicide(s)				Anthracnose leaf blight	Common rust	Eyespot	Gray leaf spot	Northern leaf blight	Southern rust	Tar spot <sup>2</sup>	Harvest Restriction <sup>3</sup>
Class	Active ingredient (%)	Product/Trade name	Rate/ A (fl oz)								
Mixed models of action	Flutriafol 26.47% Bixafen 15.55%	Lucento	3.0 – 5.5	U	U	U	VG-E	VG	VG	G <sup>4</sup>	30 days
	Flutriafol 18.63% Azoxystrobin 25.30%	TopGuard EQ	5.0 – 7.0	U	F	U	VG	G-VG	G-VG	G-VG <sup>4</sup>	45 days
	Mefentrifluconazole 17.56% Pyraclostrobin 17.56%	Veltyma	7.0 – 10.0	U	U	U	VG-E	VG-E	VG	VG	21 days
	Fluxapyroxad 7.71% Mefentrifluconazole 11.61% Pyraclostrobin 15.49%	Revytek	8.0 – 15.0	U	U	U	VG-E	VG-E	VG	VG	21 days
	Prothioconazole 16.0% Trifloxystrobin 13.7%	Delaro 325 SC	8.0-12.0	VG	E	VG	E	VG	G-VG	G-VG	14 days
	Fluopyram 10.9% Prothioconazole 14.9% Trifloxystrobin 13.1%	Delaro Complete 3.83 SC	4.0 – 12.0	U	U	U	E	VG	G-VG	VG	14 days
	Pydiflumetofen 7.0% Azoxystrobin 9.3% Propiconazole 11.6%	Miravis Neo 2.5 SE	13.7	U	U	U	E	VG-E	VG	G-VG	30 days
	Pyraclostrobin 13.6% Metconazole 5.1%	Headline AMP 1.68 SC	10.0 - 14.4	U	E	E	E	VG	G	G-VG	20 days
	Pyraclostrobin 28.58% Fluxapyroxad 14.33%	Priaxor 4.17 SC	4.0 – 8.0	U	VG	U	VG	VG-E	VG	NL	21 days
	Trifloxystrobin 32.3% Prothioconazole 10.8%	Stratego YLD 4.18 SC	2.0 - 5.0	VG	E	VG	E	VG	G	NL	14 days
	Tetraconazole 7.48% Azoxystrobin 9.35%	Affiance 1.5 SC	10.0-14.0	U	G-VG	U	G-VG	G-VG	G	G <sup>4</sup>	7 days
	Flutriafol 15.7% Azoxystrobin 15.7% Fluindapyr 10.5%	Adastrio 4.0 SC	7.0 – 9.0	U	U	U	U	U	VG	U <sup>4</sup>	30 days

**Footnotes:**

<sup>1</sup>Additional fungicides are labeled for disease on corn, including contact fungicides such as chlorothalonil. Certain fungicides may be available for diseases not listed in the table, including Gibberella and Fusarium ear rot. Applications of Proline 480 SC for use on ear rots requires a FIFRA Section 2(ee) and is only approved for use in Illinois, Indiana, Iowa, Louisiana, Maryland, Michigan, Mississippi, North Dakota, Ohio, Pennsylvania and Virginia.

<sup>2</sup>Fungicide application timing is extremely important and needs to be made near the onset of the tar spot symptoms. Efficacy ratings based on limited site locations from 2018 to 2022.

<sup>3</sup>Harvest restrictions are listed for field corn harvested for grain. Restrictions may vary for other types of corn (sweet, seed or popcorn, etc.), and corn for other uses such as forage or fodder.

<sup>4</sup>A 2ee label is available for several fungicides for control of tar spot, however efficacy data are limited. Check 2ee labels carefully, as not all products have 2ee labels in all states.

Many products have specific use restrictions about the amount of active ingredient that can be applied within a period of time or the amount of sequential applications that can occur. Please read and follow all specific use restrictions prior to fungicide use. 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. Reference to products in this publication is not intended to be an endorsement to the exclusion of others that may be similar. Persons using such products assume responsibility for their use in accordance with current directions of the manufacturer. Members or participants in the CDWG assume no liability resulting from the use of these products.

**Disclaimer**

This publication contains pesticide recommendations that are subject to change at any time. The recommendations in this publication are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. The label always takes precedence over the recommendations found in this publication.

Use of trade or brand names in this publication is for clarity and information; it does not imply approval of the product to the exclusion of others that may be of similar, suitable composition, nor does it guarantee or warrant the standard of the product. The author(s), the University of Tennessee Institute of Agriculture and University of Tennessee Extension assume no liability resulting from the use of these recommendations.