

WHEAT – FOLIAR FUNGICIDES

Terry Spurlock

Fungicides are beneficial only if certain diseases are present at high enough levels and early enough in the season to cause yield and quality losses. The most important times for application of foliar fungicides are usually between GS 8 (flag leaf emergence) and GS 10.5 (full heading). In most years, GS 10 (full boot) is considered the ideal timing for a single fungicide application to control most diseases. Fields with stripe rust should be sprayed when the disease is first observed. Finally, the greater the yield potential of the field is, the more likely an economic return from fungicide use.

Disease	Fungicide	Active Ingredient	FRAC Code*	Rate/Acre	Comments
Leaf Rust	Alto	cyproconazole	3	3 - 5.5 fl oz	See label.
Stagonospora (Glume) Blotch ¹	Caramba	metconazole	3	10 - 14 fl oz	No more than 2 applications/season. See label.
Septoria Leaf Blotch Powdery Mildew Tan Spot ² Stripe Rust ³	Bumper or Propimax, or Tilt	propiconazole	3	4 fl oz	Do not apply after Feekes GS 10.5. Do not apply more than 8 fl oz per acre per crop per season.
	tebuconazole (various trade names 3.6F)	tebuconazole	3	4 fl oz	Maximum of 4 fl oz/acre per year.
	Quadris**	azoxystrobin	11	6 fl oz	Do not apply after Feekes GS 10.5. Do not harvest treated wheat for forage. Do not apply within 14 days of harvest for hay or 45 days for grain or straw. Use 8.5 fl oz for powdery mildew. See label for other restrictions.
	Aftershock or Evito 480SC	fluoxastrobin	11	2.5 - 4 fl oz	10 - 14 day intervals. See label.
	Headline**	pyraclostrobin	11	6 - 9 fl oz	Do not apply after Feekes GS 10.5 (beginning of flowering). See label. Headline is also labeled for control of black point of wheat.
	Quilt	azoxystrobin + propiconazole	11 + 3	10.5 - 14 fl oz	Do not apply after Feekes GS 10.5. Tank mixes with certain herbicides and fertilizers may result in crop injury – see label for all restrictions.
	Quilt Xcel	azoxystrobin + propiconazole	11 + 3	10.5 - 14 fl oz	Do not apply after Feekes GS 10.5. Tank mixes with certain herbicides and fertilizers may result in crop injury – see label for all restrictions.
	Twinline	pyraclostrobin + metconazole	11 + 3	7 - 9 fl oz	Use high rate for stripe rust. Do not apply after Feekes GS 10.5. See label.
	Stratego 250EC	trifloxystrobin + propiconazole	11 + 3	10 fl oz	Do not apply after Feekes GS 10.5.
	Stratego YLD	trifloxystrobin + prothioconazole	11 + 3	4 fl oz	See label for restrictions.
	Absolute 500SC	trifloxystrobin + tebuconazole	11 + 3	5 fl oz	Do not apply more than 5 fl oz per season. Do not use adjuvants.
	Priaxor	pyraclostrobin + fluxapyroxad	11 + 7	4 - 8 fl oz	See label.
	Prosaro	prothioconazole + tebuconazole	3 + 3	6.5 - 8.2 fl oz	See label.

WHEAT – FOLIAR FUNGICIDES – continued

Disease	Fungicide	Active Ingredient	FRAC Code*	Rate/Acre	Comments
Fusarium Head Blight (Scab) (suppression only) and control of other diseases listed above	Caramba	metconazole	3	13.5 - 17 fl oz	Apply at early flowering for optimal head blight suppression. See label.
	tebuconazole (various trade names 3.6F)	tebuconazole	3	4 fl oz	Maximum of 4 fl oz/acre per year. Least effective option for Scab.
	Prosaro	prothioconazole + tebuconazole	3 + 3	6.5 - 8.2 fl oz	Apply from early flowering to 3 days after flowering for optimal head blight suppression. See label.

* **FRAC Code** – Fungicides with the same FRAC Code have the same mode of action. See <http://www.frac.info/> for an explanation of the FRAC Codes. Rotation of fungicides with different FRAC Codes could minimize the development of fungicide-resistant strains.

** Only effective as a preventative treatment for stripe rust.

¹ Stagonospora (glume) blotch is more effectively controlled by seed treatment fungicides because it is primarily seedborne under Arkansas conditions and foliar symptoms are difficult to scout for in the spring. See Wheat Seed Treatment Table for details.

² Tan spot is generally rare in Arkansas but can be a problem in no-till fields that are continuously cropped to wheat. The identity of the disease should always be confirmed before a fungicide is considered since tan spot symptoms can be confused with herbicide injury and other non-disease problems.

³ All fields with active hot spots of stripe rust should be sprayed immediately if found prior to Feekes GS 10.5.

WHEAT DISEASE THRESHOLDS

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The following threshold system is a general guide for whether or not there is adequate disease pressure to justify fungicide use. The relative susceptibility of the variety, favorable weather conditions during the spring and location in Arkansas should also be considered. For current row crop information, sign up for the Arkansas Row Crop Updates at www.arkansas-crops.com/ or visit your local Cooperative Extension Service office.

Feekes Growth Stage	Disease	Indicator Leaf	Treatment Threshold
GS 8	Leaf Rust	Flag-3 and above	1 pustule/leaf
	Septoria tritici leaf blotch	Flag-3 and above	25% of leaves infected
	Powdery Mildew	Flag-2 and above	5 pustules/leaf
	Stagonospora blotch ¹	Flag-2 and above	10% of leaves infected
	Tan Spot ²	Flag-2 and above	25% of leaves infected
	Stripe Rust ³	Any leaf	1 pustule/20 leaves
GS 9 - GS 10.5	Leaf Rust	Flag-2 and above	1 pustule/leaf
	Septoria tritici leaf blotch	Flag-2 and above	25% of leaves infected
	Powdery Mildew	Flag-1 and above	5 pustules/leaf
	Stagonospora blotch ¹	Flag-2 and above	10% of leaves infected
	Tan Spot ²	Flag-2 and above	25% of leaves infected
	Stripe Rust ³	Any leaf	1 pustule/20 leaves

¹ Stagonospora (glume) blotch is more effectively controlled by seed treatment fungicides because it is primarily seedborne under Arkansas conditions and foliar symptoms are difficult to scout for in the spring. See Wheat Seed Treatment Table for details.

² Tan spot is rare in Arkansas. Fields with lots of infected residue (no-till wheat) are more likely to have the disease; however, the identity of the disease should always be confirmed before a fungicide is considered since tan spot symptoms can be confused with herbicide injury and other non-disease problems.

³ All fields with active hot spots of stripe rust prior to Feekes GS 10.5 should be sprayed immediately.