



Current Report

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WHEAT LEAF RUST CONTROL-1986

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One of the most effective and economical ways to control leaf rust of wheat is to grow resistant varieties. The leaf rust fungus survives in nature as many biotypes called races. These races are constantly changing within the rust population, so there is need for a continual search to find resistant genes to place into new varieties. Resistance within a variety may last just a few years or for many years depending upon the prevalent races of the fungus. When selecting leaf rust resistant varieties, rely only on current information. The following table gives the leaf rust disease reactions for varieties that were grown at the 1985 Wheat Production Demonstration Centers in Oklahoma:

RESISTANT	MODERATE RESISTANCE	MODERATE SUSCEPTIBILITY	SUSCEPTIBLE
Payne	TAM W-101	Bounty 205	Chisholm
Osage		Pioneer 2157	Hawk
Siouxland		Mustang	HW 1035
		Scout 66	Newton
		Sturdy	TAM 105
		Quantum 576	Triumph 64
		Wrangler	Vona

Resistant = 0-10% Severity
 Moderate Resistance = 10-20% Severity
 Moderate Susceptibility = 20-40% Severity
 Susceptible = Greater than 40% Severity

FUNGICIDES FOR CONTROLLING LEAF RUST

Fungicides are used on a regular basis in Europe for controlling foliar diseases of wheat. The use of foliar fungicides is increasing in the United States in areas of high rainfall and high humidity. For Oklahoma, spraying wheat with foliar fungicides is still limited to fields with annual yield potentials of 50 bu/acre or greater. Fungicides labeled for use on wheat are steadily increasing. The following table lists fungicides that are commercially available and are labeled for leaf rust control on wheat:

FUNGICIDE TRADE NAME	ACTIVE INGREDIENTS	RATE/ACRE FORMULATION	EFFECTIVENESS*
Bayleton 50WP-	Triadimefon 50%	4 to 8 oz	Very Good
Bayleton 50WP + (tank mix)	Triadimefon 50%	2 to 4 oz +	
Dithane M-45	Mancozeb 80%	2 lb	Very Good
Dithane M-45 or Manzate 200	Mancozeb 80%	2 lb	Good
Top Cop Flowable	Sulfur 50% Copper 4.4%	2 qt	Not Tested

*Evaluations based on data from field trials conducted for the past 3 years by OSU Plant Pathology Department. Fungicides were applied twice, at boot stage and after wheat was fully headed.

Other diseases controlled: Bayleton - very good for powdery mildew, Bayleton + Dithane M-45 - good for powdery mildew, Septoria leaf blotch and tan spot, Dithane M-45 or Manzate 200 - good for Septoria glume blotch, Septoria leaf blotch and tan spot.

The information given herein is for educational purposes only. References to commercial products or trade names is made with the understanding that no endorsement of a particular brand is intended by the Cooperative Extension Service. The pesticide information presented in this publication was current with federal and state regulations at the time of printing. The user is responsible for determining that the intended use is consistent with the label of the product being used. Use pesticides safely. Read and follow label directions.

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