



Duster area of adaptation

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# DUSTER

HARD RED

WINTER WHEAT



L-331



**Graze n Grain**  
**breeding system**

# DUSTER HARD RED WINTER WHEAT

## HISTORY

A 19-year effort of selection and reselection lead to the release of Duster by Oklahoma State University in May of 2006. Breeders in the Pioneer hard red wheat breeding program made the initial cross for Duster and it became part of the OSU wheat breeding program when selected by Dr. Ed Smith from approximately 30,000 head rows donated by Pioneer in 1991.

In 1995, Dr. Bob Hunger identified single plants displayed leaf rust and soil-borne mosaic virus resistance. Several other reselections during the next 10 years led to the advanced line OK93P656H3299-2C04, which would eventually be released as Duster. Duster is marketed and sold by Oklahoma Genetics Inc. through a licensing agreement with OSU.

## YIELD POTENTIAL

Duster has been a consistent top performer in OSU wheat variety tests (Table 1). Duster performs well in both grain-only and dual-purpose systems, and test weight of Duster has proven to be above-average in OSU variety trials. Given Duster's solid performance from central Oklahoma to the Panhandle, it is an excellent fit for all of Oklahoma and similar areas of the southern Great Plains.

Variety	Grain-only				Dual-purpose		
	Goodwell	Kingfisher	Lahoma	Marshall	Marshall	El Reno	Cherokee
Duster	62	57	62	48	36	62	50
Jagger	48	42	49	27	31	40	43
Doans	47	49	63	43	32	51	46
Fuller	54	49	62	44	35	48	43

Current yield data for these and other varieties are available at [www.wheat.okstate.edu](http://www.wheat.okstate.edu)

## UNIQUE TRAITS

Hessian fly is becoming more and more of an issue for wheat producers in the southern Great Plains. Duster has shown resistance to the Great Plains biotype of Hessian fly. This will be of particular benefit to producers wishing to sow early to maximize forage yield, or those who no-till wheat after wheat.

## DISEASE PACKAGE

Duster is resistant to current strains of leaf rust, powdery mildew, wheat soilborne mosaic virus, and wheat spindle streak mosaic virus. Duster shows intermediate resistance to stripe rust and barley yellow dwarf virus. Moderate susceptibility to tan spot and septoria means that Duster should be monitored for these diseases in continuous no-till wheat production systems.

## MANAGEMENT

Duster has above-average tillering ability and recovers from grazing well. It emerges well in hot, dry soil conditions and closes canopy rapidly. These traits along with good forage production and medium/late first hollow stem make Duster a nice fit for dual-purpose production systems.

## MANAGEMENT (CONT'D)

Abundant tillering and good winter hardiness also make Duster a nice fit for late-sown wheat or sandy soils that require extra cover to prevent wind erosion.

Duster can perform well in grain-only production, but management is the key. Duster's abundant tillering combined with intermediate straw strength can result in lodging some years. Therefore, lower seeding rates and later planting dates are recommended for Duster in grain-only systems.

Acid soil tolerance, a good soilborne and foliar disease resistance package, and a good track record in breeder nurseries and state variety trials indicate that Duster has wide adaptation to all areas of Oklahoma and similar areas of the southern Great Plains



Partial financial support for the development of Duster was provided by the Oklahoma Wheat Commission



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