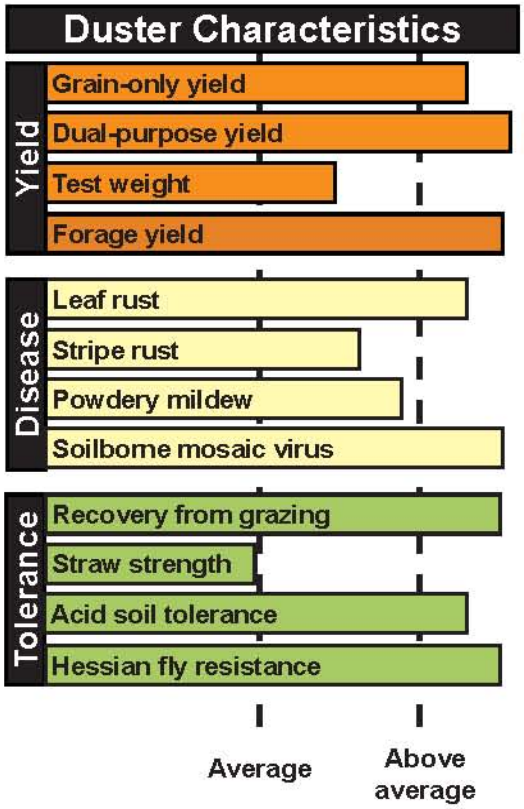

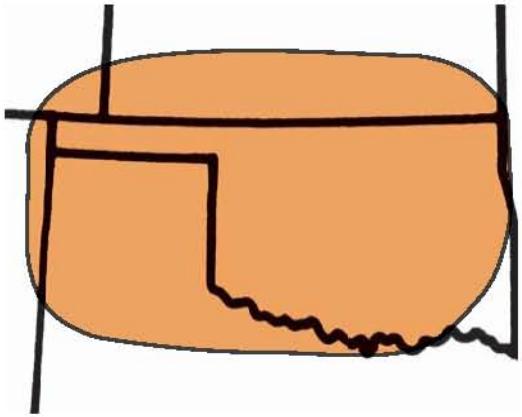

Duster area of adaptation

FOR MORE INFORMATION ON DUSTER CONTACT

Oklahoma Foundation
Seed Stocks
2902 West 6th Ave.
Stillwater, OK 74074
(405) 744-7741
www.oklahomaseed.com

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Robert E. Whitson, Director of Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President, Dean, and Director of the Division of Agricultural Sciences and Natural Resources and has been prepared and distributed at a cost of 000 cents per copy.

DUSTER

HARD RED WINTER WHEAT

Oklahoma Genetics Inc.
OGI
Shaping The Seed Industry

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 that displayed leaf rust and soilborne mosaic virus resistance. Several other reselections over the next ten 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.

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

Table 1. Two-year average yield (bu/ac) for Oklahoma variety trials in 2008 & 2009

	Grain-only				Dual-purpose		
Variety	*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*

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

Updated 04/14/2011