Protein Content of Winter Wheat Varieties in Oklahoma

2006

Production Technology 2006-9 | July 2006 | Vol. 18, No.9

Jeff Edwards
Small Grains Extension Specialist

Rick Kochenower
Panhandle Area Agronomist

Richard Austin
Small Grains Research Technician

Melanie Inda
Small Grains Research Assistant

Brett Carver
Wheat Breeding and Genetics

Robert Hunger
Extension Plant Pathologist

General information

Protein is just one of many attributes which determine end-use quality and marketability of hard winter wheat. While varietal differences commonly exist, differences among locations are generally much larger than differences among varieties. Therefore, rather than determine protein content of all varieties at a few locations, we opted to test the most widely grown and newest varieties at several locations. We feel this strategy will best serve the needs of Oklahoma wheat producers and also helps quantify environmental effects on wheat protein content.

Wheat samples for protein analysis were collected from the 2005-2006 Oklahoma State University Wheat Variety Performance Tests (Production Technology PT-2006-5).

Additional Information on the Web

For information on disease resistance and other characteristics of all wheat varieties grown in Oklahoma, see publication PT 2006-6 *Wheat Variety Comparison Chart* available at www.wheat.okstate.edu

Cooperation Acknowledged

These data result from a cooperative effort among our many farmer cooperators, county extension agents, area agronomists, USDA-CSREES agreement # 2004-06066, and the

Protein content (12% moisture base) of winter wheat varieties in the 2005-06 OSU wheat variety perfomance tests

	Grazed			Non-grazed												
	Elk City	El Reno	Gage	Alva	Apache	Apache fungicide	Balko	Buffalo	Haskell	Hooker	Kingfisher	Lahoma	Lahoma fungicide	Lamont	Marshall early-sown	Marshall late-sown
2145	-	-	-	-	-	-	-	-	14.5	-	-	-	-	-	-	-
2174	13.0	13.7	14.0	10.4	16.9	16.7	16.6	14.1	14.7	-	13.1	13.6	13.8	10.5	15.2	14.4
AP502CL	10.8	10.8	11.8	8.2	14.4	14.7	14.5	12.4	14.0	-	12.2	11.5	11.6	8.2	13.2	12.9
Avalanche (W)	-	-	-	-	-	-	15.3	-	-	-	-	-	-	-	-	-
Centerfield	-	12.6	-	-	-	-	-	-	14.3	-	11.8	-	-	9.5	-	-
Custer	12.7	12.6	13.8	10.9	15.8	15.9	15.4	14.2	-	-	13.7	-	-	-	14.8	15.0
Cutter	12.3	12.0	13.7	8.9	15.7	15.6	15.5	14.4	14.5	-	13.0	12.8	13.3	8.6	15.0	14.7
Danby (W)	-	-	-	-	-	-	15.3	-	-	-	-	-	-	-	-	-
Deliver	12.1	11.3	13.6	9.8	15.3	14.9	15.7	13.9	13.9	12.9	13.8	13.0	12.8	9.7	14.5	14.1
Duster	12.4	12.3	13.7	9.1	15.5	15.2	15.6	14.0	13.8	-	12.1	12.3	12.7	8.7	14.5	13.6
Endurance	11.4	12.4	13.0	9.5	14.6	14.7	14.7	12.8	13.6	11.9	12.2	12.1	12.1	9.5	13.6	13.3
Fannin	12.5	12.2	13.6	10.1	15.6	15.5	17.0	15.0	15.7	-	13.7	14.9	14.8	10.0	15.5	15.5
Guymon (W)	-	-	-	10.4	-	-	16.3	-	-	12.8	-	-	-	-	-	-
Ike	-	-	-	-	-	-	15.4	-	-	-	-	-	-	-	-	-
Intrada (W)	-	-	-	-	-	-	16.3	-	-	13.7	-	-	-	-	-	-
Jagalene	13.0	12.8	13.5	8.4	15.3	15.5	16.0	13.7	14.2	12.0	12.9	12.5	13.3	8.5	15.3	15.2
Jagger	13.6	13.4	13.0	9.8	16.4	16.4	16.4	14.2	15.1	12.6	13.8	14.0	13.8	8.9	15.5	15.3
JEI 110	13.4	12.9	13.2	9.9	16.6	16.0	16.5	14.1	15.0	-	13.4	14.3	14.3	10.0	15.4	14.6
Lakin (W)	-	-	-	-	-	-	15.5	-	-	-	-	-	-	-	-	-
Neosho	-	-	-	-	-	-	-	-	14.6	-	-	13.2	13.4	9.6	-	-
OK Bullet	12.9	12.9	13.9	9.2	16.5	16.5	15.9	14.0	15.0	12.7	14.0	13.4	13.7	9.0	14.3	14.5
Ok101	11.8	11.7	13.2	9.5	14.6	14.3	14.6	13.4	13.7	-	11.9	12.3	12.6	9.3	14.4	13.3
Okfield	12.0	12.1	13.2	9.6	15.1	15.1	14.7	13.2	13.9	-	12.0	12.4	12.8	8.1	13.1	13.3
Overley	13.2	12.7	13.9	8.7	15.9	15.8	16.9	13.9	14.9	-	13.0	12.7	13.3	9.0	15.4	15.5
Protection CL	-	-	-	-	-	-	-	-	15.5	-	-	12.7	12.9	8.7	-	-
Santa Fe	12.8	13.0	14.0	9.9	15.6	15.5	16.0	14.2	14.9	-	12.9	14.0	14.2	9.0	14.9	14.7
Stanton	-	-	-	-	-	-	14.8	-	-	-	-	-	-	-	-	-
TAM 110	-	-	-	-	-	-	14.2	-	-	11.7	-	-	-	-	-	-
TAM 111	12.4	12.3	13.7	9.7	15.3	15.3	15.7	13.9	-	13.5	13.6	-	-	-	14.6	14.3
Trego (W)	-	-	-	-	-	-	15.2	-	-	12.1	-	-	-	-	-	-
OK03928C	-	13.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OK01307	12.8	13.4	13.7	9.4	16.1	15.6	15.5	14.0	14.4	-	13.1	12.2	-	8.8	14.5	14.3
OK01310	13.6	-	-	-	-	-	-	14.4	-	-	-	-	-	-	-	-
OK01420	12.5	12.5	-	9.5	-	-	-	-	-	-	12.2	12.4	12.7	8.9	-	-
OK02405	13.1	13.9	-	-	16.4	16.5	-	-	-	-	-	-	-	-	-	-
OK00224	12.4	-	-	10.4	15.1	15.1	-	-	-	-	-	-	-	9.6	-	-
OK02522W	-	14.3	-	10.4	16.9	16.7	-	-	-	-	13.8	-	-	9.7	15.4	15.7
OK00611W	-	14.0	-	10.0	17.1	17.0	-	-	-	-	13.9	-	-	9.7	15.5	15.4
Mean	**12.6**	**12.7**	**13.5**	**9.6**	**15.8**	**15.7**	**15.6**	**13.9**	**14.5**	**12.6**	**13.0**	**13.0**	**13.2**	**9.2**	**14.7**	**14.5**
LSD $_{(0.05)}$	**0.3**	**0.8**	**0.8**	**0.9**	**0.6**	**0.7**	**0.6**	**0.1**	**0.6**	**1.2**	**2.0**	**0.8**	**0.6**	**0.8**	**0.5**	**0.7**

Oklahoma Cooperative Extension Service publication PT 2006-9

Partial financial support provided by the Oklahoma Wheat Commission