



United States Department of Agriculture
National Agricultural Statistics Service



Kansas Wheat Quality

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Wheat Protein Up but Test Weight Down from 2022

Preliminary data for the 2023 Kansas winter wheat crop show an average test weight of 60.6 pounds per bushel. This compares to 61.0 pounds per bushel for the 2022 crop and an average of 60.7 pounds per bushel for the 2013 through 2022 crops. A total of 4,914 carlot samples were tested from 46 counties across Kansas. Of the total samples tested, the largest shares came from the Central and West Central Districts. Samples for the 2023 crop were taken from June 12, 2023 to August 11, 2023. Samples for the 2022 crop were taken from June 8, 2022 to August 11, 2022.

Protein content averages 13.0%, up 1.0% from last year, and up 1.1% from the 10-year average of 11.9%. The South Central District has the highest protein content at 13.4%, followed by the North Central District at 13.3%. Protein content is expressed on a 12% moisture basis. Statewide, moisture content averages 11.6%, above 10.9% last year and the 10-year average of 11.3%.

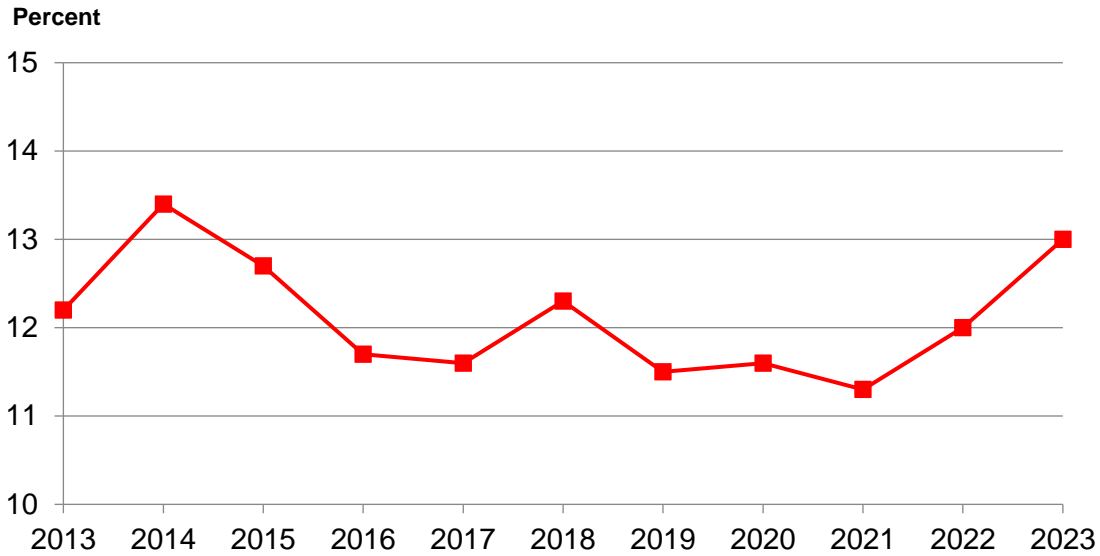
Samples of wheat grading No. 1, at 62%, are down from 80% last year. Samples grading No. 2 are 35%, up from 19% last year. Samples grading No. 3 or below are 3%.

Wheat samples average 0.5% damaged kernels, up 0.1% from last year, and the 10-year average. Samples tested have 0.1% foreign material on average, unchanged from last year, and equal to the 10-year average. Shrunken and broken kernels average 1.1%, down 0.1% from last year and the 10-year average. Total defects average 1.7%, unchanged from last year but up 0.1% from the 10-year average. Average dockage for all samples is 0.6%, up 0.1% from last year.

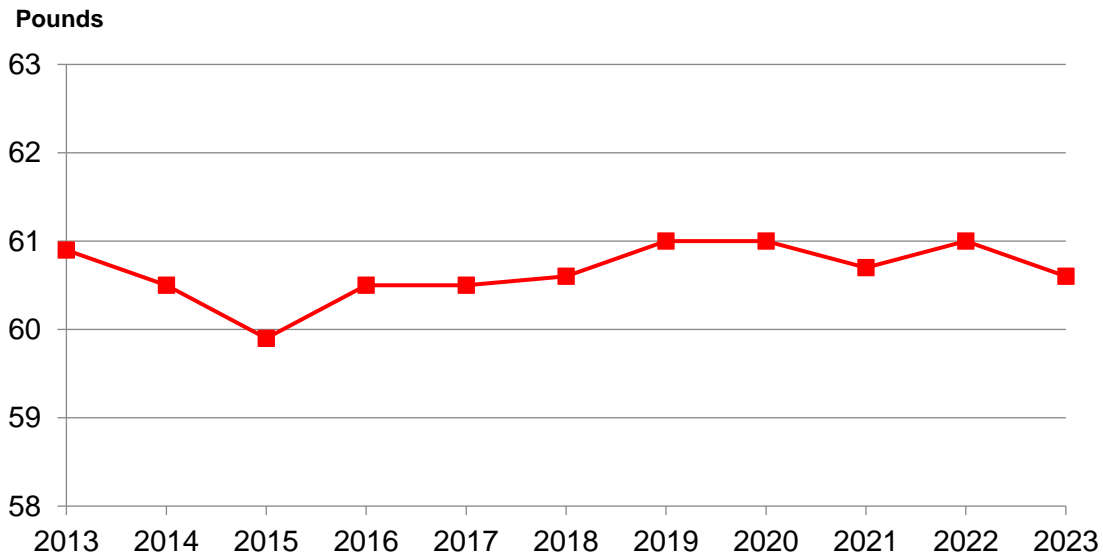
There were 654 samples voluntarily submitted for inspection in the 2023 crop year. The test weight for these samples averages 59.3 pounds per bushel, protein averages 13.1% and moisture content averages 12.4%. Of the total submitted samples, 36% grade No.1, 44% grade No. 2 and 20% grade No. 3 or below.

Test weight, protein content, grade and defect samples are representative of wheat moving in commercial rail cars and truck lots (truckloads converted to carlot equivalents). Summarized data include old crop and new crop wheat moving from first point of sale, and inspected by Kansas Grain Inspection Service, Inc. The USDA's National Agricultural Statistics Service summarizes all data for the *Kansas Wheat Quality* report. The Kansas Wheat Commission funds collection and publication services. Final numbers for the 2023 Kansas winter wheat crop, including wheat quality, top-planted varieties, acreage, and production, will be available in the *Kansas Wheat History* report to be released in October.

Average Wheat Protein Content – Kansas 2013-2023



Average Wheat Test Weight – Kansas 2013-2023



**Kansas Winter Wheat Quality – Agricultural Statistics Districts and State:
2013-2022 Average, 2022 and 2023**

[May not add due to rounding. Averages weighted by number of samples tested]

Item	Unit	Northwest			West Central			Southwest			North Central		
		Avg	2022	2023	Avg	2022	2023	Avg	2022	2023	Avg	2022	2023
Samples tested	number	1,213	1,301	384	950	1,065	941	2,204	2,001	481	1,489	1,456	500
Test weight.....	lbs/bu	60.4	60.3	60.1	60.4	61.2	60.6	60.5	60.9	60.8	60.8	60.1	59.7
Protein	percent	12.3	12.2	12.0	12.0	11.7	12.4	12.1	12.3	12.8	12.1	12.0	13.3
Moisture	percent	11.3	11.1	11.7	11.3	10.7	11.5	10.9	10.4	11.1	11.7	11.5	11.8
Grade													
1.....	percent	64	69	49	62	79	60	63	86	54	71	32	29
2.....	percent	32	27	39	33	21	38	36	14	44	28	67	66
All other.....	percent	3	4	12	5	0	2	1	0	2	1	1	5
Defects													
Damaged kernels.....	percent	0.3	0.3	0.6	0.3	0.3	0.5	0.3	0.5	0.7	0.5	0.8	0.6
Foreign materials	percent	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2
Shrunken & broken	percent	1.3	1.5	1.6	1.1	1.3	1.3	1.2	1.3	1.2	1.2	1.0	1.1
Total.....	percent	1.6	1.8	2.2	1.4	1.6	1.9	1.5	1.8	1.9	1.8	1.9	1.8
Average dockage	percent	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.7
Item	Unit	Central			South Central			Northeast			East Central		
		Avg	2022	2023	Avg	2022	2023	Avg	2022	2023	Avg	2022	2023
Samples tested	number	2,297	2,419	1,332	2,724	3,060	840	58	37	14	55	8	85
Test weight.....	lbs/bu	60.5	60.7	60.4	61.2	61.6	61.1	60.6	60.9	61.4	61.1	60.2	61.4
Protein	percent	11.9	11.9	13.2	11.5	11.9	13.4	11.5	10.8	12.3	11.4	10.8	11.4
Moisture	percent	11.5	11.1	11.7	11.3	10.8	11.6	12.0	11.4	11.1	12.3	12.1	11.7
Grade													
1.....	percent	73	77	49	82	92	87	89	76	93	97	87	92
2.....	percent	25	22	47	15	8	12	10	19	7	3	13	8
All other.....	percent	3	1	4	3	0	1	1	5	0	0	0	0
Defects													
Damaged kernels.....	percent	0.5	0.4	0.4	0.4	0.4	0.5	0.8	1.1	0.5	0.4	1.3	1.0
Foreign materials	percent	0.1	0.0	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.0	0.0	0.0
Shrunken & broken	percent	1.1	1.0	0.9	1.2	1.1	1.0	1.0	1.2	0.9	0.8	1.0	0.6
Total.....	percent	1.6	1.5	1.5	1.7	1.6	1.6	1.9	2.4	1.6	1.3	2.3	1.7
Average dockage	percent	0.5	0.5	0.5	0.6	0.5	0.5	0.6	0.5	0.6	0.6	0.5	0.6
Item	Unit	Southeast			State								
		Avg	2022	2023	Avg	2022	2023						
Samples tested	number		404		313		337		11,389		11,660		4,914
Test weight.....	lbs/bu		60.7		61.3		60.8		60.7		61.0		60.6
Protein	percent		11.1		11.2		12.6		11.9		12.0		13.0
Moisture	percent		12.2		11.9		11.8		11.3		10.9		11.6
Grade													
1.....	percent		75		86		87		73		80		62
2.....	percent		18		13		11		25		19		35
All other.....	percent		7		1		2		2		1		3
Defects													
Damaged kernels.....	percent		0.7		0.7		0.3		0.4		0.4		0.5
Foreign materials	percent		0.0		0.0		0.0		0.1		0.1		0.1
Shrunken & broken	percent		0.9		0.8		0.5		1.2		1.2		1.1
Total.....	percent		1.7		1.5		0.8		1.6		1.7		1.7
Average dockage	percent		0.6		0.6		0.5		0.6		0.5		0.6

Access to NASS reports

Find this report at:

https://www.nass.usda.gov/Statistics_by_State/Kansas/Publications/Cooperative_Projects/Wheat_Quality/whtqlty23.pdf

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