Harvest Summary of HRW

August 24, 2023

State Percent Complete

Texas	100%
Oklahoma	100%
Kansas	100%
Colorado	100%
Nebraska	100%
Wyoming	95%
South Dakota	100%
Montana	85%
Idaho	70%
Washington	100%
Oregon	100%

- **Ohio** – Harvest wrapped in July. Record yields, 100 bu+. With high yields, slightly lower protein. Almost no DON. Expect increase in acreage this year.
- **Oklahoma** – Much of southern/western Oklahoma is in severe drought to abnormally. Hot, dry weather continues for the next 2 weeks. If hot and dry conditions continue, producers might delay planting.
- **Colorado** – Harvest essentially complete. No planting progress yet. Very hot and dry this week with cooler weather/rain forecast. Rain over weekend would likely start planting next week.
- **Nebraska** – Harvest is complete with overall better than expected yields. This week has been very hot and dry with 100+ temps. If soybeans come off early, might see slight increase in wheat acres.
- **Wyoming** – Similar to CO. The few fields left were swathed. Expect to see planting by end of next week. Good soil moisture right now with rains forecast.
- **Minnesota** – Harvest underway. Good quality, better than expected yields. Yields variable depending on rains. Long, drawn out harvest – no heat, heavy dews. So far, no quality issues.
- **North Dakota** – Spring: 24% harvested. Eastern part of state is very humid, drizzling, cloudy, hard to dry down. Slower than hoped. Better than expected yields (65-80 bu). Further west, avg to below avg yields. Some areas hailed out and some no precip. Overall better than expected yields given dry conditions. Durum: Cooler, humid, dewy. Slow progress. Average to above average yields and protein.
- **Montana** – Spring: harvest is progressing. Below average yields, good protein 14-15%. Rains from hurricane. Hot and dry. Winter: harvest 85% done. Big crop, good protein, avg 11.5%. Pockets of high yields. Durum: harvest is progressing. No quality concerns. Below avg yields.
- **Idaho** – Cooler temps and precip from hurricane. Wheat is drying out with warmer/dryer weather forecast. Quality looks good. Avg to below avg yields.
- **Washington** – Winter harvest complete. Better than expected yields and protein. Protein spread is smaller than in 2021. Rains last week that stopped/slower harvest. Warmer, dry weather forecast.
- **PGI/USDA** – 456 samples received. Avg TW 60 lbs. Large kernel size 69.4%. Protein content 12.7%. TKW 30 g. FN holding steady. Composites: 63 formed, 59 milled. Flour data shows a

really good crop in terms of overall quality. Flour ash 5.4, flour color 90.6; Farinograph absorp. 57.8. development time 4.9 min. stability time 8.6, all slightly lower than last two years. Alveograph P value 76.1. L value 10.7 (almost double than previous years). W value 263, well above 230 target value. P/l ratio is lower than previous years at 0.7. Mixograph looks good. Mix time 4 min. Tolerance 2.9 (3 is quality target). Bake absorption 64.8, average loaf volume 936 cc. Avg high protein is 12.4 with all loaf volumes well above quality target. Avg med protein is 10.9 with avg loaf volume 917 cc. Avg low protein is 9.8% with avg loaf volume 855 cc. Overall this is a good quality crop in terms of protein quality and baking products. This is Brad's last CQ…he'll be retiring in December!

- **WMC** – 73% of expected samples. Protein content is holding steady and expect to drop to ~10.5. Lower protein areas still harvesting. Quality is typical for SW. Some high protein this year will be an opportunity for blending wheat. Higher than avg protein crop but functionality it will be better than 2021.
- **NDSU** – 47 samples received. No data yet.

Physical Characteristics

Samples	Exp	MST	Pro%	DKG	TKW	FN	Grade	Test Weight	FM	DMG	S&B	DEF
456	520	11.7	12.7	0.8	29.9	365	2	59.8	0.2	0.5	0.9	1.6

Protein and falling number are excellent.

Milling

Composites Milled	Extraction %
59	75.98

Flour/Dough

Samples	Flour Ash (14% mb)	FARINO Abs (14% mb)	ALVEO P (mm)	ALVEO L (mm)	ALVEO W (mm)	MIXO Water Abs (14% mb)
59	.54	57.8	76.1	110.7	263.9	64.9

Baking Characteristics

Samples	Mix Time (min)	Bake Absorption (14% mb)	Loaf Volume (cc)	Crumb Grain (1-10)	Crumb Texture (1-10)
46	4.06	64.8	936	6.0	6.5

This year's crop is producing a very functional flour.

The data is a straight average of all the samples that have gone through all tests. Due to rounding and the way information is presented and being early in the sampling, these numbers will change when weighting factors are calculated.