



SOFT RED WINTER WHEAT

.....
2026 QUALITY SURVEY

SOFT RED WINTER



COMPETITIVE ADVANTAGE

Soft Red Winter (SRW) wheat is the third-largest class of wheat grown in the United States and is cultivated primarily in the eastern third of the country. It is a high-yielding, low-protein wheat, with protein content ranging from 8.5% to 10.5% on a 12% moisture basis, or from 9.7% to 11.9% on a dry basis. SRW also has a soft endosperm, red bran and weak gluten. These characteristics make it ideal for pastries, cakes, cookies, crackers, pretzels and flatbreads. SRW is also effective for blending to improve flour performance as a way to reduce cost.

Widely available for export, SRW is shipped primarily through the Mississippi River system. Importers and the domestic milling and baking industries use it in cookies, crackers, cakes, snack foods and other specialty products. SRW is also a versatile blending wheat. Combining it with hard red spring (HRS) or hard red winter (HRW) wheat can lower grist cost and improve bread crumb texture, loaf volume and the quality and appearance of a wide variety of products.

MILLING ADVANTAGES:

Few mills operate exclusively on SRW because it is generally used for specialty products and blending. Its soft to very soft endosperm allows for lower conditioning moisture targets, typically between 14.0% and 15.5%, and shorter tempering times of 6 to 12 hours. Proper conditioning is essential to prevent an overly sticky endosperm and support efficient milling. SRW requires less grinding intensity than hard wheats, which can reduce energy needs and produce fine flour with low starch damage.

Because semolina production is minimal, fewer purifiers are needed, while more bran finishers help clean the bran effectively. A shorter reduction system is sufficient because the soft semolina and middlings reduce easily into flour, and greater sifter surface helps maximize extraction of low-ash, bright-colored flour. Including SRW in a long-term, wheat procurement plan can lower grist cost, diversify flour production and improve the quality of many products.

BAKING AND PROCESSING ADVANTAGES:

SRW flour is ideal for confectionery products and is commonly used in cookies, crackers, cakes and snack foods. Its fine particle size can increase the rate of water uptake, resulting in faster hydration, even though SRW typically has lower overall water absorption. This contributes to shorter mix times, improved production efficiency and good product quality.

Blending SRW flour with other flour types gives bakers opportunities to tailor flour characteristics for specific end uses. Markets have successfully blended SRW with HRS and HRW flour to improve dough development and mixing properties, crumb texture, loaf volume and product appearance.

SOURCING OPPORTUNITIES:

SRW is lower in protein than hard wheat classes and is often used strategically in blends with HRW or HRS to optimize cost, storage and product quality. It is widely available for export, especially through the Mississippi River system, and at times can be shipped by rail to the Gulf.

Purchasing SRW in combination with HRW or HRS can help mills manage storage constraints at destination. Domestic demand for SRW is strong. In years of reduced acreage or production, SRW prices may rise above prices for higher-protein classes, making proactive sourcing essential.

SOFT RED WINTER

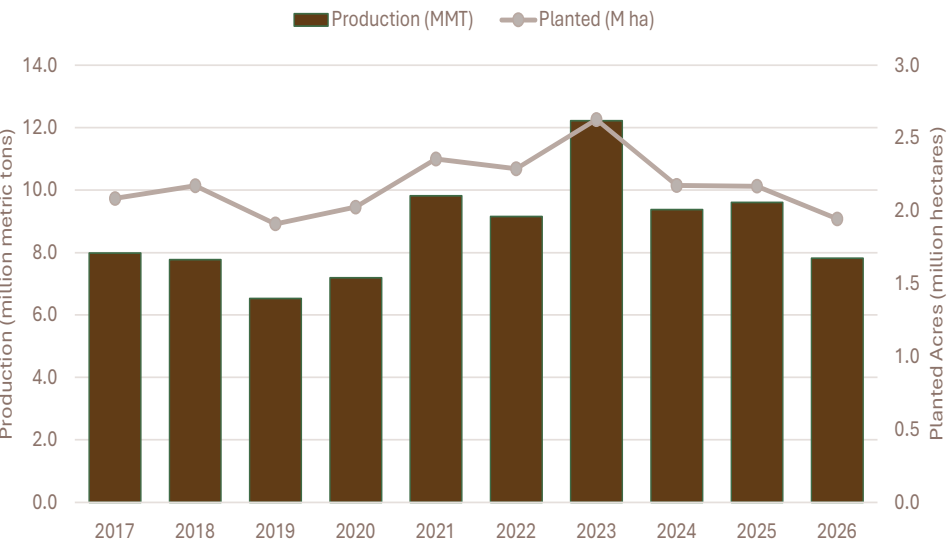
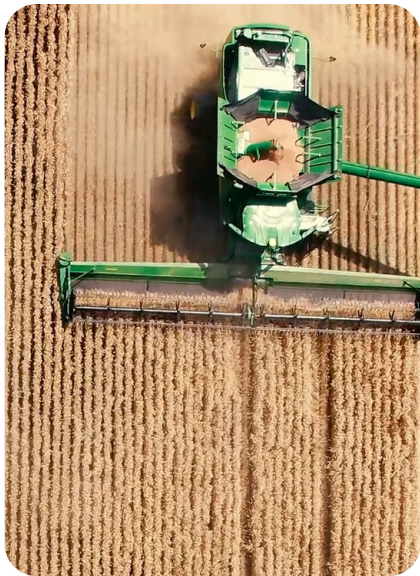
2026 PRODUCTION

FOR THE MAJOR PRODUCING STATES (MILLION METRIC TONS)

	2026	2025	2024	2023	2022
Alabama	0.1	0.1	0.1	0.3	0.2
Arkansas	0.1	0.1	0.1	0.3	0.2
Georgia	0.1	0.1	0.1	0.1	0.2
Illinois	1.5	1.7	1.6	1.8	1.2
Indiana	0.5	0.6	0.6	0.8	0.5
Kentucky	0.6	0.7	0.8	1.1	0.8
Maryland	0.3	0.3	0.4	0.5	0.4
Michigan	0.7	0.8	0.6	0.9	0.6
Missouri	0.8	1.0	1.0	1.1	0.7
North Carolina	0.2	0.2	0.2	0.2	0.2
New York	0.4	0.4	0.5	0.8	0.7
Ohio	1.0	1.2	1.1	1.4	1.0
Pennsylvania	0.4	0.4	0.4	0.5	0.4
Tennessee	0.4	0.5	0.7	0.8	0.7
Virginia	0.1	0.1	0.2	0.3	0.3
Wisconsin	0.4	0.5	0.5	0.5	0.5
Surveyed-States Total*	5.4	6.6	6.7	8.7	6.1
East Coast-Exportable	0.6	0.7	0.7	1.0	0.8
Gulf-Exportable	4.8	6.0	6.0	7.8	5.3
Sixteen-State Total	7.4	8.9	8.8	11.4	8.5
Total SRW Production	7.8	9.6	9.4	12.2	9.1

Based on August 2026 estimates from USDA's National Agricultural Statistics Service.

*Eleven states denoted by italics were surveyed accounting for 69% of 2026 SRW production.



SOFT RED WINTER

CROP SURVEY METHODS

SAMPLE COLLECTION AND ANALYSIS

Great Plains Analytical Laboratory in Kansas City, Missouri, collected, tested and analyzed 196 samples from elevators in 18 reporting areas across 11 states: 54 samples were from the East Coast states and 142 from the Gulf states.

SAMPLE TESTING

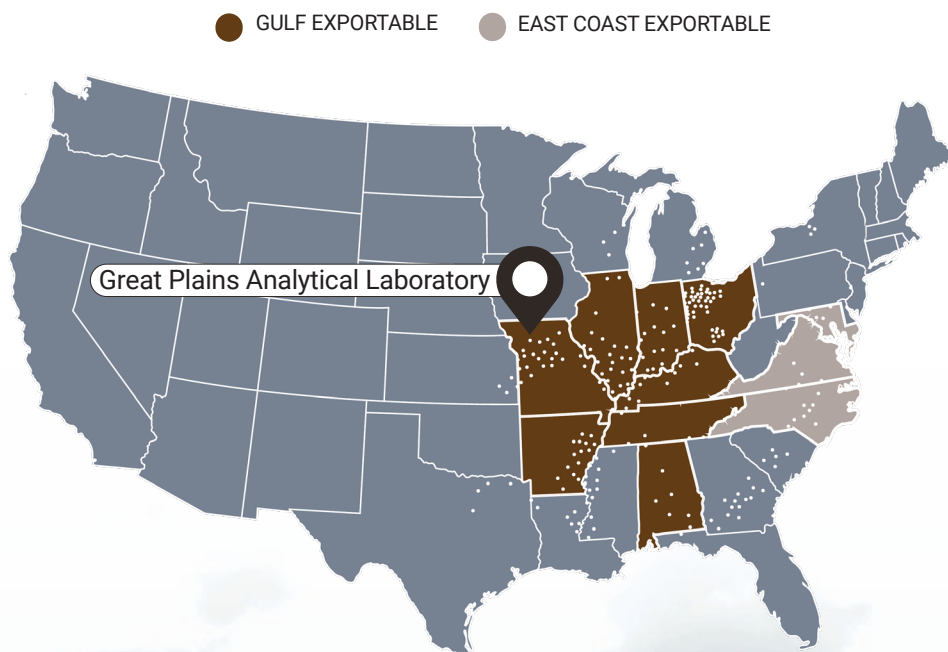
Test weight, wheat moisture, wheat protein, 1000-kernel weight, wheat ash, falling number and DON were determined on individual samples. The remaining tests were conducted on 18 composite samples.

The results were weighted by the estimated production for each reporting area and combined into "Overall," "East Coast" and "Gulf" values. Gulf states include Alabama, Arkansas, Illinois, Indiana, Kentucky, Missouri, Ohio, and Tennessee. East Coast states include Maryland, North Carolina and Virginia.

The surveyed Gulf states account for an estimated 62% of total 2026 U.S. SRW production, while the surveyed East Coast states account for 7%. Together, the 11 surveyed states represent 69% of total production.

11
STATES SURVEYED

69%
OF TOTAL SRW
PRODUCTION
REPRESENTED



SOFT RED WINTER

2026 CROP HIGHLIGHTS

OVERVIEW

The U.S. soft red winter (SRW) wheat production region experienced dry fall planting conditions followed by frequent spring rainfall, which improved crop development but increased concerns about disease pressure and harvest delays. Despite these challenges, major quality issues were generally localized and the crop finished the season in good condition. Processors will find a versatile crop with good qualities for cookies and crackers. With higher protein and balanced dough properties, the crop should also be valuable in blending for baking applications. Pockets of higher enzymatic activity (lower falling number values) may receive discounts or be directed to alternate uses depending on buyer requirements. Buyers with specific amylase requirements should consider specifying a minimum falling number in purchase contracts. Overall, buyers should find good quality in the 2026 SRW crop and are encouraged to review their specifications to ensure the wheat meets their needs for traditional soft wheat products or blending with stronger wheat.

PLANTING & EMERGENCE

The USDA estimated that 5.54 million acres (2.24 million hectares) of SRW wheat were seeded in fall 2025, down 9.2% from 2025 and 16.9% below the 2021-2025 average. Lower wheat profitability, competition from alternative crops and dry planting conditions in parts of the production

region likely contributed to reduced SRW acreage for the 2026 crop.

Planting in September began under mixed conditions. Much of the eastern SRW region entered the planting season with lingering drought concerns and below-normal soil moisture. Dry weather contributed to uneven emergence in some areas and raised concerns about stand establishment and yield potential. Kentucky was a notable exception, reporting excellent planting conditions.

By late November, 83% of the crop had emerged across the 11 SRW survey states. Despite periods of cold weather during winter, widespread winterkill was not reported. Most of the crop emerged from dormancy in generally good condition.

GROWING SEASON & HARVEST

Frequent spring rainfall replenished soil moisture across much of the Ohio Valley and Mid-South and supported crop development following the dry autumn. In some areas, excessive precipitation created saturated field conditions, delayed fieldwork and increased disease concerns.

Localized spring freeze events affected susceptible fields in Ohio and central Kentucky. The extent of the damage varied considerably by location and was not always apparent until later in the growing season.

Warm, humid conditions during heading and flowering raised concerns about Fusarium head blight (scab) and

DON development across portions of the SRW region. However, state sources generally reported low scab and DON levels in the harvested crop, with no widespread effects.

Rainfall periodically slowed harvest during June and early July, raising concerns about test weight, falling number and other weather-related quality effects. State representatives reported that falling number problems affected fewer producers than during the 2025 harvest, although localized areas of lower falling number were still observed. Warmer, drier conditions later allowed harvest to advance more rapidly.

PRODUCTION & MARKET OUTLOOK

Reduced acreage was the primary factor limiting SRW production for the 2026/27 marketing year. Fewer planted and harvested acres resulted in lower production despite generally favorable growing conditions across much of the region.

For the 2026/27 marketing year, USDA estimates reported 3.52 million acres (1.42 million hectares) harvested. SRW wheat production is estimated at 287 million bushels (7.8 MMT), down from last year's 353 million bushels (9.6 MMT). As of September 16, the USDA projects SRW exports to reach 120 million bushels (3.3 MMT) this marketing year, an increase from 117 million bushels (3.2 MMT) in the last marketing year, reflecting stronger export demand.

SOFT RED WINTER

2026 CROP HIGHLIGHTS

GRADE DATA:

GRADE

The overall average grade for the 2026 SRW harvest survey and for the Gulf region is U.S. No. 2 SRW; the East Coast region is U.S. No. 1 SRW.

TEST WEIGHT

Test weights in the Gulf region were slightly higher this year and aligned with the five-year average. East Coast samples also showed an improvement in test weight this year with values slightly better than the five-year average.

TOTAL DEFECTS

Total defects were substantially lower than last year in both regions, primarily reflecting fewer damaged and shrunken and broken kernels.

WHEAT NON-GRADE DATA:

WHEAT PROTEIN

Both Gulf and East Coast regions had higher protein content this year. This is likely due to more typical growing conditions in the Gulf region compared to last year, with drier conditions experienced in the East Coast region.

WHEAT MOISTURE

Moisture levels in the Gulf region were slightly higher than last year due to periodic harvest rainfall. East Coast moisture was lower than last year, reflecting the overall drier conditions in the region.

WHEAT FALLING NUMBER

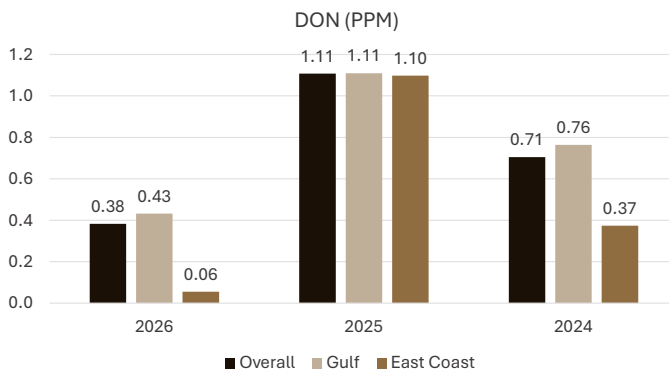
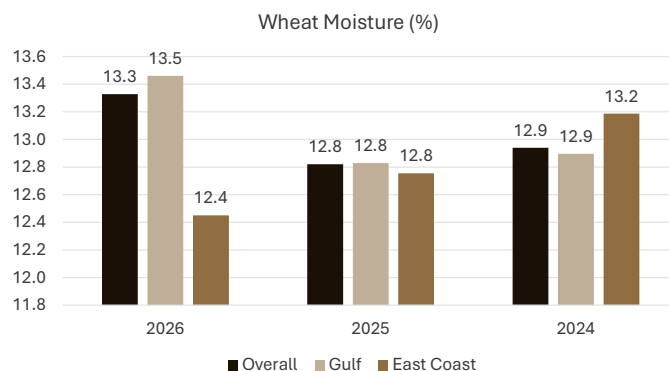
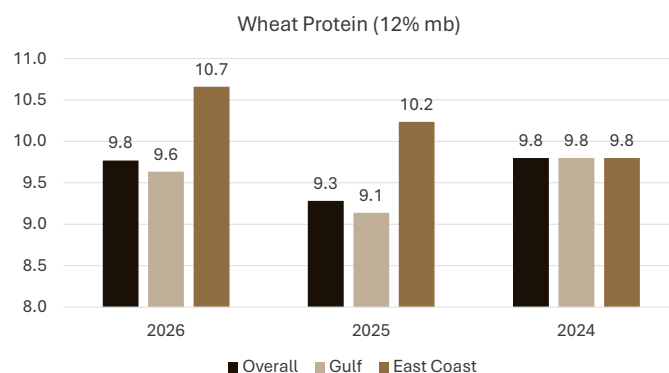
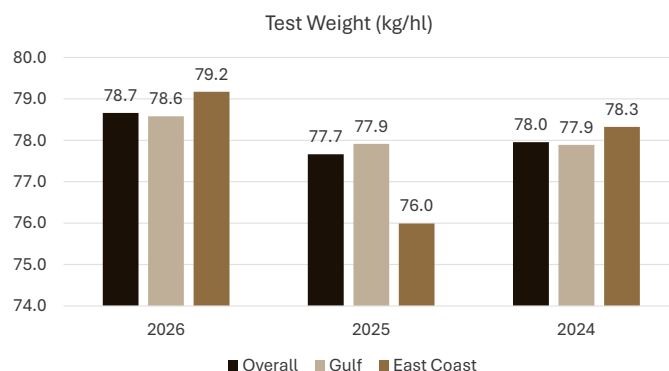
Falling numbers in the Gulf region were lower than last year and the five-year average, with minor sprout damage seen across the region due to rain delays at harvest. East Coast values were significantly higher than last year as a result of drier conditions at harvest.

SINGLE KERNEL

Gulf region kernel weights were heavier than last year, reflecting good kernel development from timely rainfall events through the spring. East Coast 1000 kernel weights were also slightly heavier, but still down from the five-year average. Overall kernel size is larger than last year driven primarily by larger kernels in the Gulf region.

VOMITOXIN (DON)

Lower DON levels were observed across both the Gulf and East Coast regions. The majority of the crop was past the vulnerable flowering stage when wetter conditions arrived, reducing DON potential this year.



SOFT RED WINTER

2026 CROP HIGHLIGHTS

FLOUR DATA:

LABORATORY MILL FLOUR EXTRACTION

Both the Gulf and East Coast region extraction rates were higher than last year and their respective five-year averages. This is a reflection of larger, heavier kernels, especially in the Gulf region.

Note: The extraction rate from a laboratory mill is not optimized and will always be significantly lower than the rate obtained from a commercial mill.

AMYLOGRAPH VISCOSITY

Gulf samples showed a decrease in Amylograph values consistent with the lower falling number observed in the region, while East Coast samples were improved as a result of lower amylase activity.

RVA (RAPID VISCO ANALYZER)

Gulf region RVA values showed decreases in viscosity consistent with higher amylase activity. East Coast samples had significantly higher viscosities compared to last year, reflecting their comparatively higher falling number. Overall peak viscosity is similar to last year, while trough and final viscosities are significantly lower.

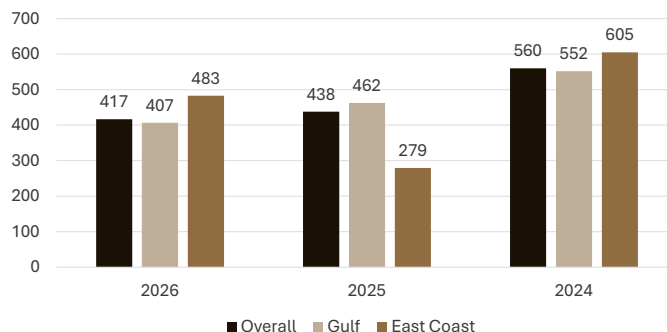
DAMAGED STARCH

Damaged starch levels of Gulf and East Coast region samples increased. This is likely due to greater kernel hardness observed in both regions this year.

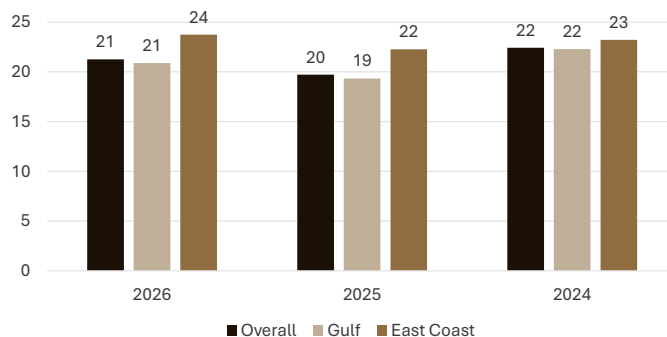
SOLVENT RETENTION CAPACITY (SRC)

Gulf SRC profiles were generally consistent with the five-year average and consistent with traditional uses such as cookies, crackers, and cakes. East Coast SRC values were generally similar to last year and the five-year average with an increase observed in the sodium carbonate SRC value, consistent with higher-than-average damaged starch and kernel hardness values.

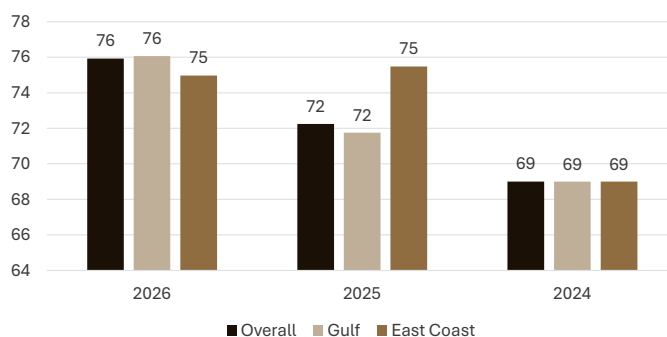
Amylograph Viscosity (65 g BU)



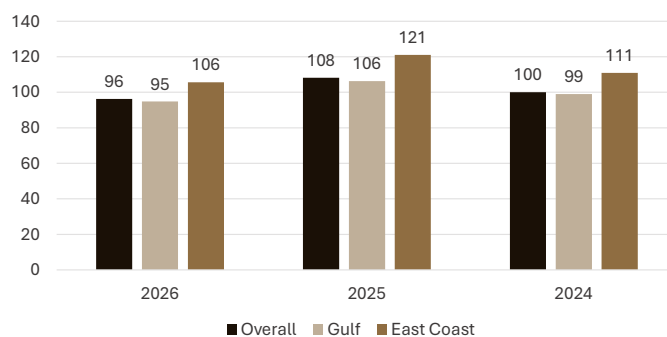
Wet Gluten (%)



SRC 5% Sodium Carbonate (%)



SRC 5% Lactic Acid (%)



SOFT RED WINTER

2026 CROP HIGHLIGHTS

DOUGH DATA:

DOUGH PROPERTIES

Gulf and East Coast peak time and stability increased compared with last year, indicating stronger dough properties in both regions.

ALVEOGRAPH

Both regions showed stronger W values than last year, particularly in the Gulf region where W was well above both last year and the five-year average, reflecting higher protein levels and improved dough strength.

END PRODUCT DATA:

BREAD

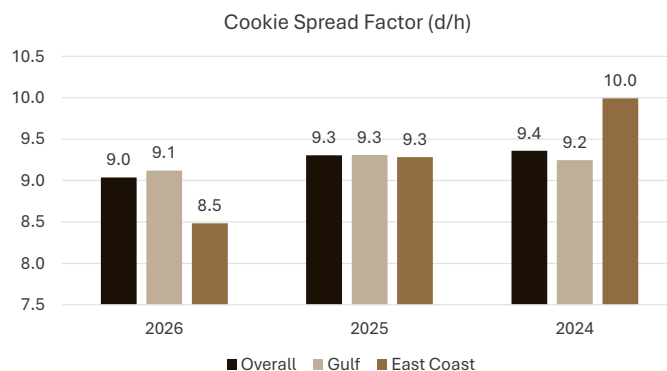
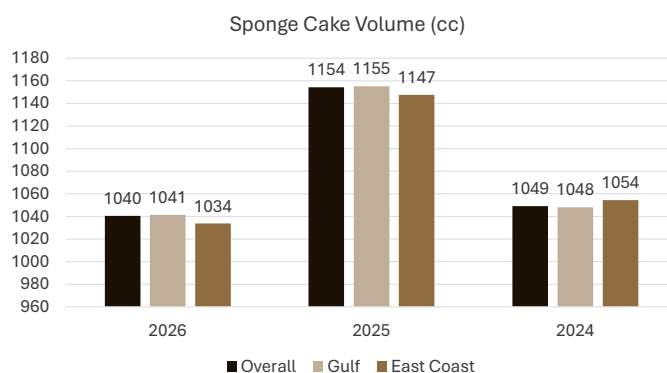
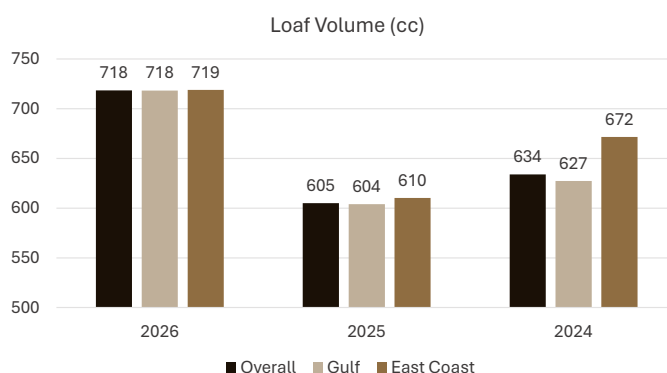
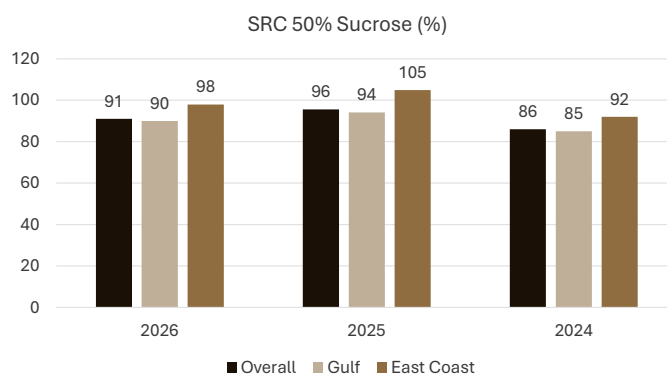
Gulf region bread performance was better than last year and the five-year average, with greater volumes attributed to higher protein this year and reflective of the improved Alveograph W value. East Coast pan bread had greater absorption and loaf volumes, likely due to higher falling number values and improved dough rheology characteristics.

CAKES

Gulf cakes had lower volumes and harder textures, with decreased quality at least partially due to higher amylase activity. East Coast sponge cakes had similarly lower volumes and harder textures. Higher protein levels and starch damage are likely contributing factors in both regions. Milling to appropriate short patent flours should mitigate most cake and batter-based product quality issues.

COOKIES

Gulf cookie quality remained similar to last year, with consistent spread and appearance. East Coast cookies exhibited smaller diameters, which is aligned with the higher protein content and damaged starch levels.



2026 SRW QUALITY DATA – BY EXPORT REGION

	Overall Average			Gulf Average			East Coast Average		
	2026	2025	5-Year	2026	2025	5-Year	2026	2025	5-Year
Wheat Grade Data									
Test Weight (lb/bu)	59.8	59.0	59.7	59.7	59.2	59.8	60.2	57.7	59.1
(kg/hl)	78.7	77.7	78.5	78.6	77.9	78.7	79.2	76.0	77.7
Damaged Kernels (%)	0.5	1.2	0.5	0.5	1.1	0.5	0.3	1.5	0.6
Foreign Material (%)	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.3	0.2
Shrunken & Broken (%)	0.6	0.9	0.6	0.6	0.9	0.6	0.7	1.0	0.6
Total Defects (%)	1.2	2.2	1.3	1.2	2.2	1.2	1.2	2.7	1.4
Grade	1 SRW	2 SRW	2 SRW	2 SRW	2 SRW	2 SRW	1 SRW	3 SRW	2 SRW
Wheat Non-Grade Data									
Dockage (%)	0.4	0.5	0.4	0.4	0.5	0.4	0.5	0.5	0.3
Moisture (%)	13.3	12.8	13.0	13.5	12.8	12.9	12.4	12.8	13.3
Protein (%) 12% mb	9.8	9.3	9.5	9.6	9.1	9.4	10.7	10.2	9.8
Protein (%) 0% mb	11.1	10.5	10.7	10.9	10.4	10.6	12.1	11.6	11.1
Ash (%) 14% mb	1.38	1.21	1.37	1.40	1.21	1.37	1.30	1.22	1.33
Ash (%) 0% mb	1.61	1.41	1.59	1.62	1.40	1.60	1.51	1.41	1.55
1000 Kernel Weight (g)	34.7	32.9	33.8	34.9	33.1	33.6	33.5	31.7	34.2
Kernel Size: Large (%)	88.2	86.7	86.9	88.9	87.2	87.2	83.0	83.8	86.4
Medium (%)	11.4	12.5	12.1	10.6	12.1	11.8	16.4	15.2	12.8
Small (%)	0.5	0.7	0.9	0.4	0.7	0.9	0.6	1.0	0.8
Single Kernel: Hardness	27.0	23.3	24.1	26.2	23.7	24.1	32.3	20.2	23.7
Weight (mg)	35.3	33.2	34.0	35.5	33.5	34.0	34.2	30.9	33.9
Diameter (mm)	2.7	2.6	2.6	2.7	2.6	2.6	2.6	2.5	2.6
Sedimentation (cc)	13.9	13.2	12.1	13.5	12.7	11.9	16.3	16.7	13.3
Falling Number (sec)	304	301	312	302	308	316	313	262	293
DON (ppm)	0.38	1.11	0.73	0.43	1.11	0.79	0.06	1.10	0.46
Flour Data									
Lab Mill Extraction (%)	71.7	69.5	68.1	71.9	69.7	68.3	71.0	68.4	67.1
Color: L*	91.3	91.5	91.1	91.3	91.4	91.1	91.0	91.5	91.0
a*	-2.1	1.2	-1.5	-2.2	1.2	-1.6	-2.0	1.2	-1.5
b*	8.9	9.3	9.1	8.9	9.3	9.1	8.5	8.7	8.7
Protein (%) 14% mb	8.2	7.6	7.6	8.1	7.4	7.5	8.8	8.4	7.9
Protein (%) 0% mb	9.5	8.8	8.8	9.4	8.6	8.8	10.2	9.7	9.2
Ash (%) 14% mb	0.41	0.41	0.42	0.41	0.40	0.41	0.41	0.43	0.42
Ash (%) 0% mb	0.47	0.47	0.48	0.47	0.47	0.48	0.47	0.50	0.48
Wet Gluten (%)	21.3	19.7	20.6	20.9	19.3	20.5	23.7	22.3	21.6
Falling Number (sec)	300	301	309	297	308	313	318	262	288
Amylograph Viscosity: 65g (BU)	417	438	552	407	462	578	483	279	430
RVA: Pasting Temp. (°C)	77.7	80.2	81.9	77.2	80.2	82.1	80.7	80.3	80.5
Peak Visc. (cP)	2094	2011	2231	2077	2059	2257	2210	1697	2063
Hot Paste Visc. (cP)	1160	1241	1355	1133	1305	1384	1335	823	1165
Final Visc. (cP)	2196	2258	2452	2158	2363	2500	2449	1574	2131
Damaged Starch (%)	3.7	3.4	3.8	3.7	3.3	3.8	3.7	3.6	3.8
SRC: Water (%)	52	54	52	51	53	52	55	55	52
50% Sucrose (%)	91	96	90	90	94	90	98	105	93
5% Lactic Acid (%)	96	108	103	95	106	102	106	121	109
5% Na ₂ CO ₃ (%)	76	72	71	76	72	71	75	75	71
Gluten Performance Index (GPI)	0.58	0.64	0.64	0.57	0.64	0.64	0.61	0.67	0.66
Dough Properties									
Farinograph: Peak Time (min)	1.5	1.1	1.2	1.4	1.1	1.2	1.9	1.4	1.3
Stability (min)	2.1	1.4	1.7	2.0	1.4	1.6	2.9	1.7	1.7
Absorption (%)	53.2	53.0	52.3	53.0	52.9	52.3	54.3	53.5	52.5
Alveograph: P (mm)	46	45	42	46	45	42	47	42	42
L (mm)	82	75	73	80	71	72	94	102	84
P/L Ratio	0.56	0.59	0.57	0.57	0.63	0.59	0.50	0.41	0.50
W (10 ⁻⁴ J)	113	101	90	112	99	88	120	113	99
Extensograph: Resistance ₅₀	216	204	201	221	197	198	185	254	216
Resistance _{max} (BU)	262	238	230	264	228	226	244	305	254
Extensibility (cm)	14.7	14.7	15.0	14.6	14.5	14.9	15.4	15.6	15.8
Area (cm ²)	56.3	51.9	52.0	56.6	49.5	50.8	54.8	68.4	59.3
R ₅₀ /E Ratio	1.49	1.40	1.35	1.51	1.36	1.34	1.33	1.69	1.41
R _{max} /E Ratio	1.78	1.62	1.54	1.81	1.57	1.52	1.58	1.95	1.62
Baking Evaluation									
Cookie: Diameter (cm)	8.8	8.9	8.9	8.8	8.9	8.9	8.5	8.8	8.9
Spread Factor (diameter/height)	9.0	9.3	9.9	9.1	9.3	9.9	8.5	9.3	10.1
Pan Bread: Bake Absorption (%)	57.3	56.5	54.6	57.2	56.3	54.7	57.7	57.2	54.1
Loaf Volume (cc)	718	605	613	718	604	613	719	610	616
Specific Volume (cc/g)	4.74	4.00	-	4.74	3.99	-	4.76	4.06	-
Sponge Cake: Volume (cc)	1040	1154	1102	1041	1155	1102	1034	1147	1101
Hardness (g)	401	279	312	402	274	305	394	317	353

2026 SRW QUALITY DATA – BY STATE

	Alabama	Arkansas	Illinois	Indiana	Kentucky	Missouri	Ohio	Tennessee	Maryland	North Carolina	Virginia
Wheat Grade Data											
Test Weight (lb/bu)	60.9	57.1	60.0	59.4	60.5	58.7	59.7	60.0	60.1	60.1	61.0
(kg/hl)	80.1	75.2	79.0	78.2	79.6	77.2	78.6	78.9	79.1	79.0	80.2
Damaged Kernels (%)	2.0	0.7	0.0	0.2	1.3	0.9	0.8	0.0	0.2	0.3	0.9
Foreign Material (%)	0.3	0.3	0.0	0.1	0.0	0.3	0.0	0.0	0.1	0.3	0.1
Shrunken & Broken (%)	0.9	0.4	0.6	0.6	0.8	0.9	0.4	0.6	0.7	0.6	0.8
Total Defects (%)	3.2	1.4	0.6	0.9	2.1	2.1	1.2	0.6	1.1	1.2	1.7
Grade	2 SRW	3 SRW	1 SRW	2 SRW	1 SRW	2 SRW	1 SRW	2 SRW	1 SRW	1 SRW	1 SRW
Wheat Non-Grade Data											
Dockage (%)	0.2	0.3	0.3	0.2	0.6	0.5	0.3	0.3	0.5	0.6	0.3
Moisture (%)	13.5	13.0	13.7	13.4	13.3	13.4	13.3	13.3	12.7	12.1	13.2
Protein (%) 12% mb	9.5	11.0	9.6	9.1	10.1	9.6	9.4	10.1	10.0	11.0	11.7
Protein (%) 0% mb	10.8	12.5	10.9	10.3	11.5	10.9	10.7	11.5	11.3	12.5	13.3
Ash (%) 14% mb	1.28	1.48	1.38	1.37	1.40	1.40	1.46	1.35	1.35	1.25	1.31
Ash (%) 0% mb	1.49	1.72	1.60	1.59	1.62	1.62	1.69	1.57	1.57	1.45	1.52
1000 Kernel Weight (g)	38.5	29.4	35.8	34.2	33.9	33.8	35.6	34.1	35.0	32.4	33.1
Kernel Size: Large (%)	92.7	78.9	91.2	90.1	88.4	89.9	91.1	72.4	87.8	79.4	81.8
Medium (%)	7.2	20.0	8.3	9.4	11.3	9.7	8.3	27.2	11.8	20.0	17.0
Small (%)	0.2	1.1	0.4	0.5	0.3	0.3	0.6	0.4	0.4	0.6	1.2
Single Kernel: Hardness	23.5	18.4	28.0	20.7	30.4	21.4	24.2	36.4	35.2	30.1	32.1
Weight (mg)	37.6	29.2	35.2	35.9	33.8	34.9	37.2	36.2	36.1	33.0	33.1
Diameter (mm)	2.7	2.5	2.7	2.8	2.7	2.7	2.7	2.7	2.7	2.6	2.6
Sedimentation (cc)	24.0	20.0	14.4	12.0	15.0	12.6	11.0	15.0	12.7	19.0	16.8
Falling Number (sec)	273	291	327	293	280	311	298	257	329	301	313
DON (ppm)	0.00	0.00	0.55	1.04	0.00	0.53	0.37	0.00	0.14	0.00	0.00
Flour Data											
Lab Mill Extraction (%)	70.5	70.9	73.0	71.0	72.2	71.0	71.1	72.1	72.0	70.0	71.9
Color: L*	91.6	90.3	91.6	91.3	91.4	91.3	91.1	91.2	91.4	90.6	91.2
a*	-2.4	-1.9	-2.2	-2.1	-2.2	-2.1	-2.2	-2.1	-2.0	-1.9	-2.2
b*	9.8	8.5	9.0	8.6	9.3	8.7	8.8	9.2	8.3	8.6	9.3
Protein (%) 14% mb	7.9	9.3	7.8	7.4	8.6	8.0	8.2	8.5	8.3	9.0	9.5
Protein (%) 0% mb	9.1	10.8	9.1	8.6	10.0	9.3	9.5	9.8	9.6	10.5	11.0
Ash (%) 14% mb	0.39	0.45	0.38	0.48	0.39	0.43	0.42	0.36	0.41	0.40	0.43
Ash (%) 0% mb	0.45	0.52	0.44	0.56	0.46	0.50	0.49	0.42	0.48	0.46	0.50
Wet Gluten (%)	18.6	26.8	18.7	21.9	24.3	16.6	23.7	23.3	23.3	23.7	25.5
Falling Number (sec)	282	300	313	310	266	305	299	255	339	305	301
Amylograph Viscosity: 65g (BU)	369	476	551	419	238	430	368	161	618	391	412
RVA: Pasting Temp. (°C)	83.9	83.0	74.6	84.1	79.1	66.7	81.3	84.5	83.6	79.5	75.5
Peak Visc. (cP)	1938	2417	2355	2141	1983	2093	1864	1550	2445	2009	2277
Hot Paste Visc. (cP)	1047	1323	1407	1186	971	1174	953	629	1563	1144	1383
Final Visc. (cP)	2049	2381	2563	2233	1955	2270	1844	1367	2731	2211	2515
Damaged Starch (%)	3.8	4.2	2.7	4.0	4.2	4.4	3.7	4.9	3.1	4.3	3.5
SRC: Water (%)	48	57	51	52	49	50	52	54	53	57	56
50% Sucrose (%)	83	102	88	87	90	84	96	97	92	102	102
5% Lactic Acid (%)	105	117	85	96	106	84	103	110	98	111	106
5% Na ₂ CO ₃ (%)	66	72	87	68	65	85	67	69	68	81	74
Gluten Performance Index (GPI)	0.71	0.67	0.48	0.62	0.68	0.49	0.63	0.67	0.62	0.61	0.60
Dough Properties											
Farinograph: Peak Time (min)	1.3	1.6	1.4	1.2	1.7	1.4	1.1	1.6	2.0	1.8	1.9
Stability (min)	1.5	2.3	2.3	1.8	2.5	1.7	1.5	2.3	3.0	2.8	2.7
Absorption (%)	52.7	53.4	53.5	52.5	53.5	53.3	51.6	54.4	53.4	55.1	53.9
Alveograph: P (mm)	45	42	53	33	50	51	32	52	45	49	43
L (mm)	82	122	74	76	88	81	81	90	91	93	116
P/L Ratio	0.55	0.34	0.72	0.44	0.57	0.64	0.40	0.58	0.49	0.53	0.37
W (10 ⁻⁴ J)	112	134	124	70	130	133	77	137	117	122	124
Extensograph: Resistance ₅₀	234	206	227	171	236	232	220	214	181	188	187
Resistance _{max} (BU)	268	282	272	187	299	289	246	272	259	229	256
Extensibility (cm)	14.7	19.0	14.7	14.0	14.9	15.2	13.3	15.5	14.1	16.1	16.9
Area (cm ²)	57.0	77.0	58.5	40.2	63.0	63.4	49.2	61.0	53.3	54.5	61.6
R ₅₀ /E Ratio	1.60	1.10	1.50	1.23	1.60	1.56	1.65	1.40	1.57	1.19	1.11
R _{max} /E Ratio	18.2	14.8	18.5	13.3	20.1	19.0	18.5	17.5	18.4	14.2	15.1
Baking Evaluation											
Cookie: Diameter (cm)	8.9	8.4	8.8	8.9	8.8	8.6	9.0	8.6	8.7	8.3	8.7
Spread Factor (diameter/height)	9.6	8.8	9.3	9.6	9.0	8.7	9.3	8.1	8.8	8.1	9.0
Pan Bread: Bake Absorption (%)	57.0	59.0	57.8	57.0	58.0	57.6	55.0	58.5	57.3	58.0	58.1
Loaf Volume (cc)	717	708	734	683	721	751	718	633	726	716	708
Specific Volume (cc/g)	4.67	4.74	4.87	4.53	4.70	5.01	4.71	4.08	4.76	4.78	4.68
Sponge Cake: Volume (cc)	994	1002	1028	1124	1059	1011	1051	1009	1042	1019	1071
Hardness (g)	407	413	424	297	348	486	383	413	455	357	339

2026 SRW QUALITY DATA – BY AREA

	Ala.	Ark.	Ill.		Ind.		Ky.	Mo.		Ohio		Tenn.	Md.		N.C.		Va.	
			E	W	S	N		E	W	S	N	NE	E	W	SE	NE	W	E
Wheat Grade Data																		
Test Weight (lb/bu)	60.9	57.1	59.5	60.3	60.0	59.2	60.5	59.1	58.1	58.3	60.0	60.0	61.1	58.2	59.0	61.0	61.1	61.0
(kg/hl)	80.1	75.2	78.4	79.3	78.9	77.9	79.6	77.8	76.5	76.8	79.0	78.9	80.4	76.6	77.6	80.3	80.3	80.2
Damaged Kernels (%)	2.0	0.7	0.0	0.0	0.7	0.0	1.3	0.0	2.0	1.3	0.7	0.0	0.0	0.7	0.7	0.0	1.3	0.7
Foreign Material (%)	0.3	0.3	0.0	0.0	0.3	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.3	0.0
Shrunken & Broken (%)	0.9	0.4	0.5	0.6	1.0	0.4	0.8	1.2	0.6	0.5	0.4	0.6	0.5	1.1	0.7	0.5	0.9	0.7
Total Defects (%)	3.2	1.4	0.5	0.6	2.0	0.4	2.1	1.5	2.9	1.8	1.1	0.6	0.5	2.1	1.7	0.8	2.5	1.4
Grade	2 SRW	3 SRW	2 SRW	1 SRW	2 SRW	2 SRW	1 SRW	1 SRW	3 SRW	2 SRW	1 SRW	2 SRW	1 SRW	2 SRW	2 SRW	1 SRW	1 SRW	1 SRW
Wheat Non-Grade Data																		
Dockage (%)	0.2	0.3	0.4	0.3	0.4	0.1	0.6	0.5	0.5	0.3	0.3	0.3	0.6	0.3	0.5	0.6	0.3	0.3
Moisture (%)	13.5	13.0	14.2	13.5	13.5	13.3	13.3	13.6	13.3	13.9	13.2	13.3	12.5	13.1	11.7	12.5	13.0	13.3
Protein (%) 12% mb	9.5	11.0	9.8	9.5	9.4	8.9	10.1	9.4	9.8	10.4	9.2	10.1	10.2	9.5	11.4	10.7	12.4	11.4
Protein (%) 0% mb	10.8	12.5	11.1	10.8	10.7	10.1	11.5	10.7	11.1	11.8	10.5	11.5	11.6	10.8	12.9	12.1	14.1	12.9
Ash (%) 14% mb	1.28	1.48	1.33	1.40	1.32	1.39	1.40	1.41	1.38	1.39	1.47	1.35	1.38	1.30	1.26	1.24	1.23	1.34
Ash (%) 0% mb	1.49	1.72	1.55	1.63	1.54	1.62	1.62	1.64	1.60	1.62	1.71	1.57	1.60	1.51	1.47	1.44	1.43	1.56
1000 Kernel Weight (g)	38.5	29.4	35.0	36.2	33.9	34.3	33.9	34.5	32.9	38.4	35.0	34.1	34.9	35.3	31.8	32.9	34.4	32.6
Kernel Size: Large (%)	92.7	78.9	90.1	91.9	87.5	91.4	88.4	90.7	88.9	91.6	91.0	72.4	87.5	88.5	77.6	80.9	86.6	79.7
Medium (%)	7.2	20.0	9.1	7.9	11.5	8.4	11.3	9.1	10.5	7.9	8.4	27.2	12.0	11.4	22.0	18.3	11.7	19.3
Small (%)	0.2	1.1	0.8	0.3	1.0	0.3	0.3	0.2	0.6	0.5	0.6	0.4	0.5	0.1	0.4	0.8	1.7	1.0
Single Kernel: Hardness	23.5	18.4	30.9	26.4	22.5	19.8	30.4	22.2	20.3	18.8	25.4	36.4	34.6	36.5	26.9	32.8	29.5	33.2
Weight (mg)	37.6	29.2	34.5	35.6	33.2	37.1	33.8	36.0	33.5	38.4	37.0	36.2	35.2	37.7	32.4	33.5	33.2	33.1
Diameter (mm)	2.7	2.5	2.7	2.7	2.7	2.8	2.7	2.7	2.7	2.8	2.7	2.7	2.6	2.8	2.6	2.6	2.6	2.6
Sedimentation (cc)	24.0	20.0	15.0	14.0	10.0	13.0	15.0	13.0	12.0	11.0	11.0	15.0	13.0	12.0	19.0	19.0	21.0	15.0
Falling Number (sec)	273	291	323	329	300	289	280	313	308	292	300	257	335	316	281	317	311	314
DON (ppm)	0.00	0.00	0.49	0.59	1.33	0.90	0.00	0.66	0.37	0.49	0.34	0.00	0.00	0.41	0.00	0.00	0.00	0.00
Flour Data																		
Lab Mill Extraction (%)	70.5	70.9	73.3	72.9	71.1	70.9	72.2	71.3	70.6	71.1	71.1	72.1	72.6	70.8	71.7	68.5	70.7	72.4
Color: L*	91.6	90.3	91.6	91.6	90.8	91.5	91.4	91.1	91.6	90.9	91.1	91.2	91.5	91.3	90.4	90.8	90.5	91.5
a*	-2.4	-1.9	-2.2	-2.2	-2.0	-2.2	-2.2	-2.1	-2.1	-2.0	-2.2	-2.1	-1.9	-2.0	-1.8	-2.0	-2.1	-2.2
b*	9.8	8.5	9.0	9.0	8.9	8.4	9.3	8.9	8.4	8.3	9.0	9.2	8.2	8.5	8.3	8.9	9.5	9.2
Protein (%) 14% mb	7.9	9.3	7.8	7.9	8.3	7.0	8.6	8.2	7.9	8.5	8.2	8.5	8.5	7.9	9.3	8.8	9.8	9.3
Protein (%) 0% mb	9.1	10.8	9.0	9.2	9.6	8.1	10.0	9.5	9.2	9.9	9.5	9.8	9.8	9.2	10.8	10.2	11.4	10.8
Ash (%) 14% mb	0.39	0.45	0.38	0.38	0.44	0.51	0.39	0.45	0.41	0.45	0.41	0.36	0.41	0.42	0.43	0.37	0.40	0.45
Ash (%) 0% mb	0.45	0.52	0.44	0.44	0.51	0.59	0.46	0.52	0.48	0.53	0.48	0.42	0.47	0.49	0.50	0.43	0.47	0.52
Wet Gluten (%)	18.6	26.8	17.3	19.5	22.8	21.5	24.3	17.5	15.3	22.7	23.9	23.3	24.1	21.8	28.2	20.0	27.6	24.6
Falling Number (sec)	282	300	302	319	313	308	266	314	293	295	300	255	346	327	279	327	276	311
Amylograph Viscosity: 65g (BU)	369	476	575	538	459	400	238	448	406	345	373	161	641	575	316	455	267	474
RVA: Pasting Temp. (°C)	83.9	83.0	85.5	68.6	84.7	83.9	79.1	67.7	65.5	83.9	80.8	84.5	83.0	84.7	77.3	81.4	80.6	73.3
Peak Visc. (cP)	1938	2417	2223	2427	2208	2109	1983	2155	2011	1938	1848	1550	2558	2230	1856	2139	2062	2369
Hot Paste Visc. (cP)	1047	1323	1279	1478	1246	1157	971	1225	1106	996	944	629	1639	1418	931	1324	1249	1440
Final Visc. (cP)	2049	2381	2387	2660	2389	2160	1955	2356	2157	1957	1820	1367	2798	2603	1873	2497	2370	2577
Damaged Starch (%)	3.8	4.2	3.8	2.1	3.8	4.2	4.2	4.9	3.8	3.4	3.8	4.9	3.0	3.4	4.9	3.8	3.8	3.4
SRC: Water (%)	48	57	49	53	56	51	49	52	48	54	52	54	55	48	57	57	56	57
50% Sucrose (%)	83	102	83	91	94	84	90	86	82	101	95	97	97	81	104	100	107	100
5% Lactic Acid (%)	105	117	102	75	106	91	106	101	61	109	102	110	102	91	111	112	111	104
5% Na ₂ CO ₃ (%)	66	72	66	99	70	67	65	68	107	72	66	69	69	66	77	84	73	74
Gluten Performance Index (GPI)	0.71	0.67	0.69	0.39	0.65	0.60	0.68	0.66	0.32	0.63	0.63	0.67	0.61	0.62	0.61	0.61	0.62	0.60
Dough Properties																		
Farinograph: Peak Time (min)	1.3	1.6	1.3	1.5	1.4	1.1	1.7	1.6	1.2	1.0	1.1	1.6	2.1	1.8	1.6	2.0	1.9	1.9
Stability (min)	1.5	2.3	2.3	2.2	2.1	1.7	2.5	1.9	1.5	1.8	1.5	2.3	3.0	3.1	2.4	3.2	2.4	2.8
Absorption (%)	52.7	53.4	52.7	54.0	52.1	52.7	53.5	53.1	53.5	51.8	51.5	54.4	54.0	52.2	55.0	55.2	56.3	52.9
Alveograph: P (mm)	45	42	45	58	34	33	50	51	52	38	31	52	48	39	46	52	47	41
L (mm)	82	122	89	66	90	69	88	79	83	95	78	90	99	75	96	90	103	121
P/L Ratio	0.55	0.34	0.51	0.88	0.38	0.48	0.57	0.65	0.63	0.40	0.40	0.58	0.48	0.52	0.48	0.58	0.46	0.34
W (10 ⁻⁴ J)	112	134	123	124	80	65	130	126	143	98	72	137	133	87	114	128	122	125
Extensograph: Resistance ₅₀	234	206	232	224	190	162	236	235	229	249	214	214	212	123	198	179	152	202
Resistance _{max} (BU)	268	282	287	264	220	171	299	289	288	274	240	272	258	262	232	227	194	282
Extensibility (cm)	14.7	19.0	15.1	14.5	14.9	13.6	14.9	15.0	15.4	13.4	13.3	15.5	14.3	13.6	15.8	16.4	17.0	16.9
Area (cm ²)	57.0	77.0	63.0	56.0	49.0	36.0	63.0	63.0	64.0	55.0	48.0	61.0	53.0	54.0	55.0	54.0	49.0	67.0
R ₅₀ /E Ratio	1.60	1.10	1.50	1.50	1.30	1.20	1.60	1.60	1.50	1.90	1.60	1.40	1.50	1.70	1.30	1.10	0.90	1.20
R _{max} /E Ratio	18.2	14.8	19.0	18.2	14.8	12.6	20.1	19.3	18.7	20.4	18.0	17.5	18.0	19.3	14.7	13.8	11.4	16.7
Baking Evaluation																		
Cookie: Diameter (cm)	8.9	8.4	8.7	8.8	8.7	9.0	8.8	8.7	8.6	8.8	9.0	8.6	8.7	8.8	8.3	8.3	8.5	8.8
Spread Factor (diameter/height)	9.6	8.8	9.4	9.3	9.3	9.7	9.0	8.8	8.5	8.8	9.5	8.1	8.9	8.7	8.0	8.2	7.6	9.5
Pan Bread: Bake Absorption (%)	57.0	59.0	57.5	58.0	57.0	57.0	58.0	58.0	57.0	55.0	55.0	58.5	58.0	56.0	58.0	58.0	58.5	58.0
Loaf Volume (cc)	717	708	749	726	614	716	721	757	742	717	718	633	717	742	697	732	656	730
Specific Volume (cc/g)	4.67	4.74	4.99	4.81	4.08	4.74	4.70	5.06	4.95	4.78	4.69	4.08	4.69	4.90	4.66	4.88	4.34	4.83
Sponge Cake: Volume (cc)	994	1002	1057	1012	1122	1125	1059	1000	1026	1029	1056	1009	1064	1001	1008	1028	1059	1076
Hardness (g)	407	413	367	456	293	299	348	528	430	355	389	413	497	375	374	342	387	319

ANALYSIS METHODS

SOFT RED WINTER LABORATORY TESTING

All quality data contained in this report is the result of testing and analysis conducted by Great Plains Analytical Laboratory in Kansas City, Missouri.

TEST:	METHODOLOGY:
WHEAT GRADE FACTORS	
Grade	Official U.S. Standards for Grain.
Test Weight	AACCI 55-10.01.
Damaged Kernels	Official U.S. Standards for Grain.
Foreign Material	Official U.S. Standards for Grain.
Shrunken and Broken	Official U.S. Standards for Grain.
Total Defects	Official U.S. Standards for Grain.
WHEAT NON-GRADE FACTORS	
Dockage	Official USDA procedures.
Moisture	AACCI 44-15.02. • Wheat: DICKEY-john GAC® 2500-UGMA Grain Analysis Computer. • Flour: air oven method.
Protein (12% mb)	AACCI 46-30.01 (Dumas combustion nitrogen analysis or CNA method).
Ash (14% mb)	AACCI 08-01.01 expressed on a 14% mb.
1000 Kernel Weight	Based on a 10 g clean wheat sample counted by an electronic counter, results converted to express weight by 1000 kernels
Kernel Size	Wheat is sifted with a RoTap sifter using Tyler No. 7 (2.82 mm) and No. 9 (2.00 mm) screens.
Single Kernel Characterization System (SKCS)	AACCI 54-31.01 using Perten SKCS 4100.
Sedimentation	AACCI 56-61.02, Zeleny.
Falling Number	AACCI 56-81.04; 2019 FGIS barometric pressure correction procedure; average value is a simple mean of sample results.
DON	Neogen ELISA.



ANALYSIS METHODS

SOFT RED WINTER LABORATORY TESTING

TEST:	METHODOLOGY:
FLOUR FACTORS	
Laboratory Milling Extraction	AACCI 26-10.02, AACCI 26-21.02. Samples are milled on a Buhler Laboratory mill (MLU 202) using a 183-micron (μ) sieve.
Color	CIE 1976 L*a*b* color system. Minolta Chroma Meter with Granular-Materials attachment CR- A50 and CR-410 colorimeter.
Protein (14% mb)	AACCI 46-30.01 (Dumas CNA method).
Ash (14% mb)	AACCI 08-01.01 expressed on a 14% mb.
Wet Gluten	AACCI 38-12.02 expressed on a 14% mb.
Falling Number	AACCI 56-81.04; 2019 FGIS barometric pressure correction procedure; average value is a simple mean of sample results.
Amylograph Viscosity	AACCI 22-10.01 modified to use 65 g flour (14% mb) and 450 ml distilled water with pins.
Damaged Starch	AACCI 76-30.02 (Enzymatic hydrolysis).
Solvent Retention Capacity	AACCI 56-11.02.
DOUGH PROPERTY FACTORS	
Farinograph	AACCI 54-21.02 (constant flour weight method) with 50 g bowl.
Alveograph	AACCI 54-30.02, Chopin-Alveolab.
Extensograph	AACCI 54-10.01; 45 min rest.
EVALUATION OF END-PRODUCTS	
Bread	AACCI 10-10.03 ("pup loaf" method); producing two loaves per batch using dry yeast and ascorbic acid. After mixing, the dough is divided into two equal portions, fermented for 160 min, molded and panned in pup loaf pans before proofing and baking. Loaf volume is measured immediately after baking by rapeseed displacement.
Sugar-Snap Cookies (Biscuits)	AACCI 10-50.05, macro-method.
Sponge Cake	Mechanical folding method as described by Mense et al. in Cereal Chemistry https://doi.org/10.1002/cche.10791 , 2024.





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