

# 2020 Crop Production Review & Analysis

**OVERVIEW:** The 2020 hard red winter (HRW) wheat crop was unique in several respects. This crop does hold value for about every customer. Overall, the crop had very few insect or disease issues throughout the entire growing season.

Most kernel characteristics are similar or equal better than last year. However, average test weight and thousand kernel weight exceeded the 5-year averages. Similarly, most flour, dough and bake data were equal to or better than last year, but again there were several exceptions that exceeded the 5-year averages. Those included the W-values, farinograph peak time, farinograph stability time, bake absorption and loaf volume.

Overall, the 2020 crop has good milling and processing characteristics and should provide customers with an exceptionally good range of quality and value.

**WEATHER AND HARVEST:** The 2020 HRW planted area was again near historic 100-year lows, continuing the trend of recent years, HRW production is estimated at 18.9 MMT (695 mil bu), a 3.8 MMT decrease from 2019.

Moisture (or lack of) and below freezing temperatures during the later stages of crop development defined the 2020 crop in the central and southern Great Plains. Eastern areas of that region experienced favorable growing conditions and subsequently realized near record yields (per unit area), particularly good kernel characteristics, but lower protein. At the same time western areas of the central and southern Great Plains experienced drought and freeze events during the later stages of crop development that adversely affected the crop resulting in lower yields and smaller kernels, but higher protein. With very few exceptions disease and insects were not a major issue for the 2020 HRW crop.

The northern Great Plains and Pacific Northwest (PNW) faced variable growing conditions as well. Washington, Montana, Idaho and South Dakota all harvested a crop that was at record or near record yields (per unit area) with generally particularly good kernel characteristics and protein. At the same time Oregon experienced a significant reduction in yield due to unseasonably dry weather.

**WHEAT AND GRADE DATA:** Overall 92% of Composite, 90% of Gulf Tributary and 96% of PNW Tributary samples graded U.S. No. 2 or better. Average test weight of 61.4 lb/bu (80.8 kg/hl) is above the 2019 average of 60.6 lb/bu (79.6 kg/hl) and above the 5-year average of 60.4 lb/bu (79.4 kg/hl). Average dockage (0.5%), total defects (1.4%) and foreign material (0.1%) are all equal to or like 2019 and the 5-year averages. Average shrunken and broken is (1.1%), above 2019 (0.8%) and above the 5-year average (1.0%). Average thousand kernel weight of 31.2g while less than 2019 (32.7g), is like the 5-year average (31.1g). Protein is (11.9%), above last year (11.4%) and slightly lower than the 5-year average (12.1%). The average wheat falling number is 369 sec, indicative of sound wheat.

**FLOUR AND BAKING DATA:** The Buhler laboratory mill flour yield average is 73.5%, slightly lower than the 2019 average (74.5%) and the 5-year average (75.4%). The 2020 flour ash of 0.49% (14% mb) is comparable to last year's 0.48%, but lower than the 5-year average of 0.54%. The alveograph W value of 261(10-4 J) is significantly higher than last year and the 5-year averages (223 and 232 10-4 J) respectively. Farinograph peak time (5.3 minutes) is higher than in 2019 and 5-year respectively (3.3 and 4.6) minutes. Stability time (10.3 minutes) is significantly higher than last year and the 5-year average of (7.3 minutes and 8.1 minutes) respectively. Average bake absorption is 63.1%, above the 62.7% value for 2019 and the 5-year average of 62.9%. Overall loaf volume averaged 859 cc and is comparable to last year's 863 cc and to the 5-year average of 853 cc.