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... and much more!
OKLAHOMA wheat competes in the world market and must offer high quality, reliable supplies to both the domestic and export markets. The Oklahoma Wheat Commission (OWC) continues to place emphasis on market development efforts with end-use analytical research conducted by the Wheat Marketing Center (WMC) technical laboratories in Portland, Oregon.
During the 2020 research season, OWC and the Oklahoma State University (OSU) Wheat Improvement Team (WIT) have placed greater emphasis on wheat varieties that have the most suitable characteristics for tortilla and steam bread product developmental lines.

Early evaluations on functionality performance indicated that the Skydance variety would have great potential for steam bread dough textures, while the Showdown variety displayed favorable extensibility characteristics. Both Skydance and Showdown lines are Hard Red Winter (HRW) wheat classifications, but OSU also has a Showdown Hard White (HW) wheat classification that has not been released for public use. While other factors are being considered to determine if Showdown HW will be released, positive findings for suitable tortilla development with blends for both Showdown lines were encouraging.

Characteristics for the functionalities also determined what product development research should be conducted based on continued demand in the Central and Latin American markets, where tortilla consumption is massive. The Skydance variety is the first steam bread study OWC has funded, but with increased HRW wheat usage in blends for the Chinese and Taiwanese market, it seemed logical to understand just how well an OSU wheat would perform for steam bread use.

**Tortilla Development Findings**

Showdown, another new HRW variety released in 2018 by OSU, exhibits high yield potential, good Hessian fly resistance and strong overall disease resistance. This variety’s adaptation is wide, potentially ranging from well-watered to mild drought environmental conditions. According to the OSU Wheat Research Report, Showdown has exhibited good or better quality performance than some existing varieties (e.g. an upgrade for Bentley or Lonerider) grown in different areas of Oklahoma.

Hard white winter (HWW) wheat produces whiter flour than HRW wheat due to the color of its bran. Its flavor is more acceptable due to fewer bitter phenolic components in the outer bran layers. Showdown HW is an elevated high protein HWW variety.

Upon request, WMC tested Showdown and Showdown White for their suitability in tortilla applications. Tortillas require a mellower gluten profile compared to traditional pan bread products. In tortillas, gluten must be extensible enough to stretch without tearing when pressed. However, the strength needs to be sufficient to provide good rollability and tenacity to the tortilla without being so strong that the dough elastically recovers (i.e. shrinks) after pressing. As a result, flours that exhibit intermediate gluten strength profiles with good extensibility are typically selected for tortilla applications.

### Materials and Methods

**Materials**

Showdown (WS9K2S) and Showdown White (OK12716WWBS10AP) were provided by OWC for testing FGIS grades for Showdown and Showdown White were No. 1 and 3 HRW, respectively. The wheat moisture content was 11.7% for Showdown, 11.3% for Showdown White and protein was 11.6% (12%mb) for Showdown and 16.4% (12%mb) for Showdown White. The wheat samples were tempered to 16.5% moisture and then milled into refined flour the next day on a Buhler experimental mill (Model MLU-202). A straight grade HRW wheat control flour with protein content of 10.5% (14%mb) was milled on the Buhler experimental mill.

**Methods**

Flour quality analysis

Flour moisture (Method 44-15.02), ash (Method 08-01.01), and Falling Number (Method 56-81.03) were analyzed according to AACC International Approved Methods. The Farinograph was used to evaluate dough mixing properties according to AACC International Approved Method 54-21.02 (constant flour weight method). The Farinograph water absorption (%), dough development time (min), and stability (min) were recorded. The water absorption was the amount of water required for the dough to reach 500 BU. Development time was the time required for the dough to reach maximum consistency. Stability was the time between dough arrival and departure from the 500 BU line.

### Tortilla formula and production

The tortilla formula included: 15
- Flour (1000 g)
- Water (550 g)
- Salt (15 g)
- Sugar (5 g)
- Shortening (70 g)
- Sodium bicarbonate (10 g)
- Calcium acid pyrophosphate (18 g)
- SSL (5 g)

The ingredients were mixed in a spiral mixer at speed 1 for 2 minutes, followed by speed 2 for 6 minutes. After mixing, the tortilla dough was covered and rested for 5 minutes at room temperature. The dough was then flattened and divided into small balls (37 g per ball) in the Dutchess Divider (Model JN-3, Dutchess Baker’s Machinery Co., Superior, Wisconsin.) The balls were put in a closed box for proofing (20 min) and then pressed by a pilot scale tortilla hot press (Model Wedge Press, Bakery Equipment & Service Co., San Antonio, Texas) and baked at 355°F in the attached three-tier serpentine oven.

### Tortilla quality evaluation

Tortilla samples were cut into small pieces (3 g) for moisture measurement with an infrared moisture analyzer (Model HS 153, Mettler Toledo International, Columbus, Ohio.) Tortilla weight, diameter and thickness were measured by a Sartorious balance, ruler...
and calipers, respectively. Tortilla color (Brightness L*) was measured using a colorimeter (CR 310, Minolta Corp., Ramsey, New Jersey.) Tortilla opacity was scored from 0 (translucent)-100 (opaque) based on appearance and the control was set for 70. Rupture force was determined using a TA-XT Plus texture analyzer (Texture Technologies) with a cylindrical round-end probe (TA-108a, 1.11 cm diameter.) The force was recorded at the moment when the tortilla was broken by the moving probe. Rollability of tortillas was evaluated by wrapping a tortilla using a dowel (1.0 cm diameter). The rollability was scored from 1 (unrollable) to 5 (no signs of cracking and breakage) based on tortilla rolling breakage. Each quality parameter was measured on five tortillas and the average value and standard deviation were reported.

**Statistical Analysis**

Mean differences of samples were analyzed using t-test at p<0.05 with SAS studio software (SAS Institute, Cary, North Carolina.)

**Results and Discussion**

Table 1 shows flour composition and Falling Number values for Showdown and Showdown White. Although the moisture content of Showdown and control were greater than that for Showdown White, the ash contents of were similar between the three samples. The Falling Number value for Showdown was 364 s indicating a sound sample. However, the exceptionally high Falling Number value for Showdown White (796s) indicates it might be slightly heat damaged from harsh conditions in the field or inappropriate drying during storage.

<table>
<thead>
<tr>
<th>Moisture (%)</th>
<th>Ash (%, 14% mb)</th>
<th>FN (%, 14% mb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRW CTRL</td>
<td>13.8</td>
<td>0.42</td>
</tr>
<tr>
<td>Showdown</td>
<td>13.8 ± 0.1b</td>
<td>0.40 ± 0.03</td>
</tr>
<tr>
<td>Showdown White</td>
<td>13.2 ± 0.1a</td>
<td>0.42 ± 0.01</td>
</tr>
</tbody>
</table>

Means with different letters in the same column are significantly different at p<0.05.

Table 2. Farinograph results

<table>
<thead>
<tr>
<th></th>
<th>WA (%)</th>
<th>DT (min)</th>
<th>ST (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTRL</td>
<td>59.2</td>
<td>2.0</td>
<td>7.2</td>
</tr>
<tr>
<td>Showdown</td>
<td>58.8 ± 0.2</td>
<td>2.1 ± 0.1</td>
<td>4.1 ± 0.3a</td>
</tr>
<tr>
<td>Showdown White</td>
<td>57.9 ± 0.2</td>
<td>7.7 ± 4.0</td>
<td>36.7 ± 6.4b</td>
</tr>
</tbody>
</table>

Means with different letters in the same column are significantly different at p<0.05.

As observed in Table 2, the Farinograph water absorption of Showdown and Showdown White was similar to the control. However, Showdown White dough development time and stability surpassed that of Showdown and the control, especially the stability. If heat damage was present in the Showdown White sample, it would explain the increased mixing stability relative to Showdown.

Table 3. Tortilla quality characteristics sample

<table>
<thead>
<tr>
<th></th>
<th>Weight (g)</th>
<th>Diameter (cm)</th>
<th>Thickness (mm)</th>
<th>Opacity</th>
<th>Rollability</th>
<th>Rupture force (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTRL</td>
<td>35.0</td>
<td>16.1</td>
<td>3.0</td>
<td>70</td>
<td>4.5</td>
<td>605</td>
</tr>
<tr>
<td>Showdown</td>
<td>33.6 ± 0.3</td>
<td>18.7 ± 0.02b</td>
<td>2.8 ± 0.1</td>
<td>84 ± 1b</td>
<td>4.0 ± 0.0</td>
<td>536 ± 3a</td>
</tr>
<tr>
<td>Showdown White</td>
<td>34.4 ± 0.0</td>
<td>17.0 ± 0.06a</td>
<td>2.9 ± 0.1</td>
<td>64 ± 2a</td>
<td>4.5 ± 0.0</td>
<td>894 ± 69b</td>
</tr>
</tbody>
</table>

Means with different letters in the same column are significantly different at p<0.05.

The final tortilla quality characteristics for all samples are shown in Table 3.

No significant differences were observed in tortilla weight and thickness among the three samples. However, diameter was significantly larger, but rollability and rupture force were lower, for Showdown compared to Showdown White and the control. It should also be noted that a few tortillas from Showdown exploded during hot pressing, and the doughs were

Fig 1. Appearance of tortillas from control (left), Showdown (middle) and Showdown White (right) flours (Color L*: Control 82.82, Showdown 83.63, and Showdown White 82.89.)
very extensible and soft, indicating Showdown may present some dough handling issues in tortilla applications. As seen in Fig. 1 on the previous page, the colors were similar for all three samples. However, tortilla opacity was slightly less for Showdown White (right in the picture) as compared to the control. The low opacity is probably due to fewer air bubbles from leavening in the strong dough. More tests are needed to confirm and improve the opacity of Showdown White. Overall, both Showdown and Showdown White might be suitable as part of a tortilla flour blend, but they are not acceptable as standalone tortilla flours.

Conclusions

The Farinograph results showed that Showdown and Showdown White had different dough strength characteristics. The tortilla diameter and rupture force were affected by dough strength. Showdown produced comparatively weak tortillas with a few failed hot press attempts. However, the extensibility (e.g. large diameter) and opacity of Showdown are highly desirable. The strong dough of Showdown White offered good tolerance to press and final texture, but inferior opacity. Therefore, although Showdown and Showdown White are not acceptable as standalone tortilla flours, they may be suitable as part of a tortilla flour blend.

STEAMED BREAD DEVELOPMENT FINDINGS

Introduction

Skydance is one of the new HRW varieties released in 2018 from the Oklahoma State University breeding program. It features high test weight and protein content with strong dough characteristics. The variety also exhibits excellent milling and baking characteristics. OK12912C-138407-2 is an OSU candidate line with a pedigree of N91D2308-13/OK03926C/OK03928C. The candidate line is a Doublestop upgrade for straw strength, forage production and maturity. With these good field traits and quality characteristics, Skydance and OK12912C-138407-2 were selected to be evaluated for their suitability in steamed bread applications.

Steamed bread is typically defined as either Northern- or Southern-style. Northern-style steamed bread requires hard wheat flour with a strong gluten profile to generate a firm, chewy texture with high volume. Southern-style steamed bread is generally made with soft wheat flour, and as a result, has softer texture with slightly lower volumes. As a result, Northern-style steamed bread was selected to test the suitability of both lines for steamed bread applications.

Materials and Methods

Materials

Skydance (WY9W1) and OK12912C-138407-2 were provided by OWC for testing. FGIS graded Skydance and OK12912C-138407-2 as sample grade HRW. The wheat moisture and protein contents were 12.3% and 13.0% (12% mb) for Skydance, respectively, and 12.5% and 10.2% (12% mb) for OK12912C-138407-2, respectively. The samples were tempered to 16.5% moisture and then milled into refined flour the next day on a Buhler experimental mill (Model MLU-202.) A HW wheat flour (10.8% flour protein) milled at WMC with the Buhler experimental mill served as a control due to its exceptional performance in Northern-style steamed breads.

Methods

Flour quality analysis

Flour moisture (Method 44-15.02), ash (Method 08-01.01), and Falling Number (Method 56-81.03) were analyzed according to AACC International Approved Methods. The Farinograph was used to evaluate dough mixing properties according to AACC International Approved Method 54-21.02 (constant flour weight method). The Farinograph water absorption (%), dough development time (min), and stability (min) were recorded. The water absorption was the amount of water required for the dough to reach 500 BU. Development time was the time required for dough to reach maximum consistency. Stability was the time between dough arrival and departure from the 500 BU line.

Steamed bread formula and production

The steamed bread formula included:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flour</td>
<td>400 g</td>
</tr>
<tr>
<td>Instant yeast</td>
<td>4.0 g</td>
</tr>
<tr>
<td>Water</td>
<td>185-188 g</td>
</tr>
<tr>
<td>Sugar</td>
<td>16 g</td>
</tr>
<tr>
<td>Shortening</td>
<td>8 g</td>
</tr>
</tbody>
</table>

The yeast and sugar were separately dissolved with water. Flour was mixed with the dissolved yeast and sugar at speed 1 for 1 minute in Hobart mixer, at which point, shortening was added to the dough for another 1 minute of mixing at speed 1. After that, the dough was sheeted in a sheeter [Oshkiri, two pairs of rolls (9.7mm/3.4mm), 110 rpm] until the dough surface was smooth (about 10 times.) The dough sheet was rolled up into a cylinder with the seam sealed on the bottom. Then, 6 small pieces of dough (5 cm pieces) were divided and fermented at 29OC and 70% relative humidity for about 90 minutes. Finally, the dough pieces were steamed for 15 minutes and then cooled at room temperature about 1 hour before slicing and quality evaluation. A duplicate set of steamed breads were made for each flour sample.

Steamed bread quality evaluation

Loaf volume (cc) and specific volume (cc/g) were recorded. Crumb texture was measured with a TA-XT Plus texture analyzer (Texture Technologies) as a function of compression
force (g) where greater force reflects a firmer texture. The mean and standard deviation of each quality test were reported.

**Statistical analysis**

Mean differences of samples were analyzed using t-test at p<0.05 with SAS studio software (SAS Institute, Cary, North Carolina.)

**Results and Discussion**

**Table 1. Flour compositional analysis and Falling Number values sample**

<table>
<thead>
<tr>
<th></th>
<th>Moisture (%)</th>
<th>Ash (% 14% mb)</th>
<th>FN (% 14% mb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTRL</td>
<td>13.4</td>
<td>0.41</td>
<td>418</td>
</tr>
<tr>
<td>Skydance</td>
<td>13.6 ± 0.1</td>
<td>0.35 ± 0.01</td>
<td>484 ± 45</td>
</tr>
<tr>
<td>OK12912C-138407-2</td>
<td>13.2 ± 0.1a</td>
<td>0.42 ± 0.01</td>
<td>796 ± 51b</td>
</tr>
</tbody>
</table>

Table 1 shows that the moisture contents of Skydance and OK12912C-138407-2 were similar, but the ash content of Skydance was lower than control and OK12912C-138407-2. This may be due to genetically controlled differences in milling quality, specifically bran friability. It confirms the excellent milling characteristics of Skydance. The Falling Number values of Skydance and OK12912C-138407-2 were above 300 s, which indicates both were sound samples.

**Table 2. Farinograph results**

<table>
<thead>
<tr>
<th></th>
<th>WA (% 14% mb)</th>
<th>DT (min)</th>
<th>ST (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTRL</td>
<td>64.7</td>
<td>2.7</td>
<td>8.2</td>
</tr>
<tr>
<td>Skydance</td>
<td>58.1 ± 0.3</td>
<td>2.3 ± 0.1b</td>
<td>37.8 ± 24.5</td>
</tr>
<tr>
<td>OK12912C-138407-2</td>
<td>58.1 ± 0.3</td>
<td>1.5 ± 0.1a</td>
<td>1.3 ± 0.1</td>
</tr>
</tbody>
</table>

Means with different letters in the same column are significantly different at p<0.05.

In Table 2, Farinograph water absorption of Skydance and OK12912C-138407-2 were lower than control. However, the dough development time and stability of Skydance surpassed that of OK12912C-138407-2, especially the stability.

**Table 3. Steamed bread quality characteristics**

<table>
<thead>
<tr>
<th></th>
<th>Specific volume (cc/g)</th>
<th>Hardness (g)</th>
<th>Springiness (%)</th>
<th>Cohesiveness (g)</th>
<th>Chewiness (g)</th>
<th>Resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTRL</td>
<td>2.57</td>
<td>858</td>
<td>84.4</td>
<td>0.70</td>
<td>508</td>
<td>0.31</td>
</tr>
<tr>
<td>Skydance</td>
<td>2.68 ± 0.04a</td>
<td>1094 ± 189</td>
<td>89.3 ± 1.8</td>
<td>0.72 ± 0.02</td>
<td>700 ± 93</td>
<td>0.34 ± 0.02</td>
</tr>
<tr>
<td>OK12912C-138407-2</td>
<td>2.42 ± 0.04a</td>
<td>1226 ± 43</td>
<td>87.3 ± 0.3</td>
<td>0.66 ± 0.00</td>
<td>755 ± 17</td>
<td>0.29 ± 0.01</td>
</tr>
</tbody>
</table>

Means with different letters in the same column are significantly different at p<0.05.

Fig 1. Appearance of steamed breads from control (left), Skydance (middle) and OK12912C-138407-2 (right) flours.
Conclusions

The results showed good milling characteristics and functionality for Skydance. Specifically, Skydance exhibited stronger dough characteristics than OK12912C-138407-2. The dough strength did not negatively affect the steamed bread quality. Instead, a positive association was shown between dough strength and volume and texture of steamed bread. Skydance was found to produce firmer texture and higher volume for steamed bread compared to the control. OK12912C-138407-2 generated a similarly firm texture and a slightly lower volume compared to Skydance. Both samples were acceptable for steamed bread applications.

The WMC lab, is a for-profit entity, established to conduct proprietary research, lab analysis and training. WMC services include quality testing for bread, cracker/biscuit, pasta, tortilla and other product development on pilot scale production lines. Customized training for technical staff is also provided.

This study was conducted by the following Investigators:
Dr. Jayne Bock, Technical Director, Wheat Marketing Center
Mr. Bon Lee, Laboratory Supervisor, Wheat Marketing Center
Dr. Lingzhu Deng, Food Scientist, Wheat Marketing Center

2020 Annual Convention Registration Form
Thursday, August 13
Redlands Community College Conference Center
1300 S. Country Club Road, El Reno, Oklahoma

Tentative Program

9 a.m.       Doors open/Pick up name badge
9:15 a.m.    Welcome — Jeff Hickman and Mike Schulte
9:30 a.m.    Dr. Bob Hunger
             Overview of the 2020 Crop Diseases
10 a.m.      Dr. Kim Anderson
             Marketing Outlook for Now and Into the Future
10:30 a.m.   Dr. Brett Carver
             The 2020 Crop Year and What to Look for in the Future from OSU
11 a.m.      Wheat Commission Update from Mike Schulte
11:15 a.m.   NAWG update from Keeff Felty, NAWG Secretary-Treasurer
11:30 a.m.   Lunch
             Presentation of Extending the Legacy — Oklahoma Wheat Commission
             Presentation of Mr. Wheat and Distinguished Service Awards
12:30 p.m.   Annual Meeting/Elections followed by Board of Directors Meeting
             Introduction of Board of Directors, Approval of Last Annual Meeting’s Minutes, Approval of 2019-2020 Year-end Financial Statement, Discussion and Possible Vote of Proposed By-laws Change, Election of Officers, Any New Business

Free Registration for Members, $50 Registration for non-members
Due to COVID-19 restrictions, registration will be capped at 75 people.
MASKS ARE MANDATORY.

Company Name: ____________________________________________________
Contact Name: ______________________________________________________
Cell #: ____________________________________________________________
Address: ____________________________________________________________
City: ______________________________________________________________
State: _____________________________________________________________
Zip: __________________________________________________________________
Email address: ______________________________________________________

Mail check to address below before Thursday, Aug. 6
580-233-9516 | tammy.miller@okagassn.org | crystal.chain@okagassn.org
Return form to email addresses or mail to Oklahoma Wheat Growers’ Association
2309 N. 10th St., Ste. E | Enid, OK 73701 owc
During the month of June and July, the Oklahoma Wheat Commission hosted several conference calls with 20 mills represented from Mexico, Costa Rica, Brazil, Dominican Republic, Haiti, Nicaragua, Trinidad, Tobago and Venezuela. Discussions were held on harvest and crop conditions for this 2020 harvest season in the U.S. Southern Plains after presentations were made on crop quality data from the Southern Plains.

These virtual meetings have been set up in correspondence with U.S. Wheat Associates to work on the promotional efforts of this crop into the export market for the 2020-21 season.

Consultations were held on kernel hardness, kernel size, test weight and protein level. These factors determine the flour extraction rates and functionality specifications that millers and bakeries look to for indications on how the U.S. crop from this region will perform.

Analytical tests for baking performance are being conducted by the USDA Hard Winter Wheat Quality Lab on the southern region wheat grain sheds of Texas, Oklahoma, Kansas and Colorado. That data will be compiled as harvest progresses north, and performance test numbers will be available by the end of September. Reports will be compiled by Plains Grains Inc.

Conversations on the virtual calls were positive based on the high quality targets that have been achieved when looking at overall wheat quality from this region for the 2020 harvest. Test weight averages across the region have been reported in a range from 62 to 63 lbs. per bushel, kernel size averages have been reported at 33 milligrams, kernel diameter averages have been reported at 2.7 millimeters, and protein regional averages are landing in the 11.2% range. This data shows strong indications that the 2020 overall crop quality from this region will be exceptional for both milling and baking characteristics. More data will be presented in September once all the milling, bake and functionality tests are completed.

All U.S. Wheat Associates (USW) basis and FOB prices for all classes of wheat for July delivery are now over the September 2020 (U20) wheat futures contracts.

The July 10 USDA report shows that China bought 190,000 metric tons (MT) of Hard Red Winter (HRW) wheat and 190,000 MT of Hard Red Spring (HRS) wheat. This is supported by the Pacific Northwest (PNW) HRW and HRS export basis for July and August deliveries. PNW HRW protein spreads narrowed on the week. Higher CBOT SRW futures prices supported PNW soft white wheat export prices week-over-week. Limited export elevation capacity out of the Center Gulf supported HRS export basis for nearby and deferred deliveries. Tight exportable supplies and limited elevation capacity supported Gulf SRW export basis week-over-week.

By Claire Hutchins, U.S. Wheat Associates
In the July World Agricultural Supply and Demand Estimates (WASDE) report, USDA reduced its estimate for U.S. 2020-21 wheat production to 49.6 million metric tons (MMT), down 5% from last year. If realized, U.S. wheat exports for 2020-21 are now forecast at 25.9 MMT. This is stable with June’s estimate, but 2% less than 2019-20.

USDA’s July WASDE report offered the first by-class production estimates for marketing year 2020-21. HRW production is forecast to fall 15% on the year to 19.2 MMT. HRS production is estimated to fall 4% from last year to 13.7 MMT. SRW production is forecast to increase 18% on the year to 6.5 MMT. Total white wheat production (soft and hard) is estimated to remain relatively stable over the year at 7.48 MMT. Durum production is also forecast to remain relatively stable with last year at 1.52 MMT.

Click here to see the most recent USW Commercial Sales Report.

Click here to see the most recent USW Commercial Sales Report.

Click here to see the most recent USW Commercial Sales Report.
Global Wheat Reports

USDA now expects total world wheat production will reach 769 MMT, 4 MT — less than its June estimate, but still slightly higher than last year’s record of 765 MMT. Total global wheat ending stocks fell slightly from the June estimate to 315 MMT, still a world record and 6% more than last year.

The French farm office, FranceAgriMer, predicts soft (non-durum) wheat exports from France to buyers outside the EU will plunge 43% in 2020-21, the lowest level since 2016-17. The harvest is expected to shrink by 21% this year following a wet autumn and a historically hot, dry spring. This follows a historic 2019-20 for EU wheat exports, which jumped 68% compared to 2018-19. Heavy rain in key growing areas of Canada caused little damage to crops reported to the Canadian agriculture ministry. Crops in Saskatchewan were seen as developing normally for the last week of June. In Alberta, overall crop conditions were rated 80% good to excellent, compared to 70% last year. In Manitoba, however, the effects of excessive moisture were still being assessed. Canadian wheat production is expected to be up 5% this year compared to last year.

The Russian Agriculture Minister, Dmitry Patrushev, said Russia would use a quota mechanism to control wheat exports in the second half of the marketing year. The government will meet with the grain trade to agree on the limit after the harvest results are made available. Patrushev added that he wants the quota mechanism to be used on a “regular basis” as demand for Russian grains on the world market grows so that supply remains for the domestic market. Russia is expected to produce 75 MMT of wheat in 2020-21 and expected to export around 35 MMT of wheat.

As harvest season gets underway in the Black Sea region, the cost of freight for Panamax-size vessels jumped. Sources said the demand in the North Atlantic was slow the first half of the year, leaving many cargoes in the Far East, far from where they are needed. Prices for July shipment from Ukraine to China climbed $28.85/mt, Ukraine to North Africa surged 9%.

Scant rain across many of Argentina’s main planting areas is slowing wheat planting. Farmers were able to get nearly 8% of expected area planted this week, bringing the current total to 86.8% of a projected 6.5 million hectares (16.0 million acres.) Rosario grains exchange cut the 2020-21 wheat crop forecast to 18-19 MMT from the 21-22 MMT previously predicted following prolonged dryness.

ProAgro, an agriculture consultancy, cut its 2020 wheat harvest estimate for Ukraine slightly to 26.0 MMT from 26.6 MMT. Year-on-year, Ukraine is expected to harvest 8% less wheat due to poor weather. Dry weather in some areas of the country cut yields while wet weather in other areas led to poor quality.

Wheat acres in Britain are down 25% for the year after wet autumn weather pushed many farmers to switch to spring planting. Wheat planting was predicted to be 1.36 million hectares (3.9 million acres.) Despite a wet autumn, the spring was mostly dry, further complicating wheat planting. The wheat harvest is expected to be around 10.0 MMT, down from the 16.3 MMT harvested in 2019.

Baltic and U.S. Dollar Indices

The Baltic Dry Index (BDI), an assessment of the average cost to ship raw materials like grains, coal and iron ore fell slightly week-over-week to end at 1,810.

The U.S. Dollar Index fell from last week’s 97.31 to close at 96.67.
The U.S.-Mexico-Canada Agreement (USMCA) has crossed its final hurdle to entry as the three countries have certified the agreement’s “entry into force.” This final step means that all required legislative and regulatory changes needed to implement the agreement have been put into place or are scheduled to take effect.

“The economic impact for wheat farmers that a completed USMCA brings to the table will only make us more competitive and viable for years to come with the Mexico milling and baking industries,” said Michael Peters, Secretary-Treasurer of U.S. Wheat Associates, Okarche. “The relationship with our largest buyers over the past 20 years must be maintained, and it’s always encouraging to see such agreements helping U.S. wheat farmers gain more export market opportunities.”

Keef Felty, Secretary of the National Association of Wheat Growers, added, “It has taken years of hard work and continued communication efforts on behalf of the United States, Mexico and Canada. To see agricultural producers and several industries working in promotion of positive trade outcomes for those of us in this region is imperative. The wheat industry thanks Congress and the administration for helping put this trade deal into effect.”

While there will be little direct change for U.S. wheat exports headed to Mexico, the agreement’s entry into force is a prime example of no news being an indicator of good news. The new agreement tightens coordination over sanitary and phytosanitary (SPS) rules and other non-tariff trade issues, but most importantly, it places certainty back in the trading relationship with USW’s largest export market. In the 2019-20 marketing year ending May 31, Mexico purchased more than 3.87 million metric tons (MMT) of U.S. wheat valued at $881 million.

On the other side of the continent, Canada published the new rules for U.S. farmers hoping to deliver wheat into the Canadian grain handling system. Those new rules, allowing U.S. grown wheat brought across the border to Canadian grain elevators to be graded on a level playing field, are a significant step in furthering equal trade between the countries’ wheat growers. U.S. farmers wishing to take advantage of this new provision will need to grow wheat varieties registered in Canada’s Variety Registration System.

On Nov. 30, 2018, Canada, the United States and Mexico signed an agreement to replace the North American Free Trade Agreement (NAFTA) with CUSMA, which was approved by the Canadian Parliament on March 13, 2020.

Under the Canada Grain Act, the Canadian Grain Commission is responsible for establishing and maintaining Canada’s grain grading system. The Canadian Food Inspection Agency is responsible for the administration of Canada’s Variety Registration System.
“The Canada-United States-Mexico Agreement marks an important milestone in our trade relationship with the U.S. and Mexico. Delivery declarations will protect Canada’s quality assurance system while allowing American grain producers to receive an official grade.”

Patti Miller, Chief Commissioner
Canadian Grain Commission

Canada Grain Act amendments implemented for 2020-21 crop year as CUSMA comes into effect

By the Canadian Grain Commission

The Canadian Grain Commission is implementing amendments to the Canada Grain Act and Canada Grain Regulations as the Canada-United States-Mexico Agreement (CUSMA) comes into effect.

As a result of the CUSMA agreement, the following changes took effect on July 1:

• Grain grown in the United States will be able to receive an official Canadian grade if it’s a variety that is registered in Canada
• The requirement of a country of origin statement on inspection certificates for grain grown in the United States will be removed
• It will be mandatory for people, including licensed grain companies, who sell grain to a Canadian Grain Commission licensee to complete a declaration of eligibility.

The declaration of eligibility will provide valuable information to protect Canada’s grain quality assurance system and will ensure producers receive the appropriate grain grade and payment for deliveries. The delivery declaration regulations build on the existing declaration process already used across much of the grain sector in western Canada. In eastern Canada, the Canadian Grain Commission will work with grain sector stakeholders to phase in the declaration during the 2020-21 crop year.

American producers who deliver grain to Canada will have the same obligations as Canadian producers. The declarations requirement will help accommodate U.S. grain by ensuring reliable information on seed registration is provided. owc
Yield results are in from the Governor’s Wheat Challenge that took place between Governor Kevin Stitt and Lt. Governor Matt Pinnell. The Smith’s Gold variety, chosen by Governor Stitt, came in at 88 bushels per acre, while the Baker’s Ann variety chosen by Lt. Governor Pinnell, came in at 87 bushels per acre.

It’s an extremely close race to decide the overall winner, which will be tabulated after the final milling and baking analysis are conducted by the OSU Food and Agricultural Products Center in August. The results will be made public in September.

Analytical tests conducted on the samples will follow the same formats used to judge the 2020 State 4-H and FFA Junior Wheat Show competition. To see the official rules, click here. These rules discuss all the factors that will be evaluated for visual, milling and production as well as bake portions.

The Smith’s Gold variety had a test weight of 62 pounds per bushel and the Baker’s Ann variety had a test weight of 61 pounds per bushel. This was based on a 12% moisture basis. The Baker’s Ann variety is leading in the protein category at 13.1% and the Smith’s Gold variety came in at a 12.7% protein. A variable rate technology app was used to determine spring fertilizer applications. All wheat received 200 lbs. urea, 92 lbs. nitrogen. The low nitrogen wheat received an extra 100+ lbs. urea or 50 lbs. nitrogen. The planting date was Nov. 15, 2019.

This competition was put together by the Oklahoma Department of Agriculture, Food and Forestry (ODAFF), Oklahoma State University-Wheat Improvement Team (WIT), USDA/NASS and the Oklahoma Wheat Commission. All organizations are grateful for the time that both the governor and lieutenant governor have taken to be involved in learning about the wheat industry from the producer, research and marketing perspectives.

The varieties selected for this challenge are two of the most favorable to have come from the OSU public wheat research program in recent years. Smith’s Gold was named to honor OSU Wrestling Coach John Smith for his winning attitude and quality wrestling program on the OSU campus. Baker’s Ann was named to honor the OSU First Cowgirl, Ann Hargis, for her advocacy and promotion of the Oklahoma wheat industry. She has been passionate about highlighting the Oklahoma wheat industry and end-use quality research focusing on nutrition, with wellness and health initiatives.

Smith’s Gold, which saw a large increase in planted acres last year, is the First Gallagher progeny with better leaf hygiene and an excellent GrazenGrain® variety with later maturity date. It has
improved baking quality as verified by the Wheat Quality Council, resistance to Hessian fly and greenbug and improved resistance to stripe rust over Gallagher. Smith’s Gold has excellent flavor profiles appropriate for any bread maker, with less bitter and tannic flavors, making it also suitable for fresh noodle pasta and its GoldnGrain® distinction.

This variety has many versatile uses for several bread product lines that include anything from traditional breads, bakery snacks and rolls to steam breads. As with Gallagher, Smith’s Gold is resistant to the Great Plains biotype of Hessian fly. This is of particular benefit to producers wishing to sow early to maximize forage yield or those who no-till wheat after wheat.

Baker’s Ann, is a premium-quality wheat variety well suited for quality-based contracted production. Baker’s Ann produces smaller seed than Gallagher (similar to Iba) at about one-half point higher wheat protein, and qualitatively stronger dough to the degree that Wheat Quality Council has classified this variety at a good blending wheat to correct for poor strength elsewhere. Baker’s Ann exhibits very strong resistance to stripe rust across a wide geography, though resistance to leaf rust may need to be bolstered with a fungicide application. It will fit best in the Oklahoma panhandle and north central Oklahoma, and originates from the cross, TAM 303 sister/Billings. Owing to its Texas parentage, Baker’s Ann will carry the brand of GrazenGrain but will carve a greater reputation under the banner of premium baking quality GoldnGrain.
An ever changing list of wheat varieties available to Oklahoma wheat producers requires evaluation and comparison of Hard Red Winter (HRW) and Hard White Winter (HWW) wheat varieties currently being sold. To address this need, the OSU Small Grains Variety Testing Program evaluates yield potential and quality characteristics of approximately 20 commercially released wheat cultivars and two to four candidate cultivars at approximately 18 locations throughout Oklahoma.

In addition, the program evaluates 40 to 50 cultivars and experimental lines at five regional test sites to ensure that statewide tests are filled with the best adapted cultivars. Data to be collected include:

- Grain yield under dual-purpose and grain-only production systems
- Forage yield
- Resistance to disease
- Response to fungicide application
- Plant height
- Adaptability to no-till production systems
- High-temperature sensitivity to germination
- First hollow stem date
- Heading date

These research plots ensure farmers and ranchers have an opportunity to observe the newest genetics in research demonstration plots throughout Oklahoma. The OSU Small Grains Variety Testing Program is unique in that the plots are made possible with the team work of OSU extension and farmer cooperators that allow trials to be studied on privately owned land. At many universities, these efforts are restricted to research station plots only, but the OSU variety testing program goes the extra mile to ensure wheat varieties are tested by farmers for the real world settings in Oklahoma wheat fields before the release.

OSU wheat variety test plots also have a distinctive difference with the influence that is put toward the nature of GrazenGrain® varieties. While dual purpose wheat gives producers more options for increasing profitability options on the farm, the primary purpose of having this kind of emphasis is to ensure minimal loss of grain production and quality if the OSU varieties are subjected to grazing.

Continued research shows grazing capacity on varieties in the OSU wheat research program is essentially linked to grain quality via adaptation. The Small Grains Variety Testing Program promotes the public research made possible by the OSU wheat variety development program and the producer support made available through the OWC checkoff and the Oklahoma Wheat Research Foundation. We would like to thank the Oklahoma wheat producers for the continued funding that makes the public research programs such as the OSU Small Grains Variety Testing Program possible.
Harvesting results on the 2020 OSU wheat variety trials can now be found under the 2019-2020 Wheat Variety Trial Results, online at the OSU Department of Plant and Soil Sciences page at www.wheat.okstate.edu. Due to COVID-19, virtual tour demonstrations were presented before the 2020 harvest from Altus, Chickasha and Lahoma. The research data is published from 18 plots across the state. The entire report for the Small Grains Variety Performance Tests is still being compiled and is planned to be released by mid-August. OWC

Oklahoma “Best of Wheat” 2020 State Fair Bread Baking Contest Cancelled Due to COVID-19

Times are changing very quickly with activities that include larger groups of people in attendance. At the June 30th Oklahoma Wheat Commission (OWC) board meeting, the OWC board of directors determined that in light of the Oklahoma State Fair closing and ripple effects it’s having on county fairs, it would be in the best interest of all of the great people that participate in the fairs and help make them happen, that we cancel the entire “Best of Wheat” bread baking competition at the county and state level this year due to the continuing spikes with COVID-19 and the uncertainty for the fall months. This decision was not taken lightly, as each year, we strive to have the best bread baking contest across the counties and at our state competition.

Each OSU county office received the 2019 “Best of Wheat” cookbook and bread scrapers for prizes to be used at the county fairs if some counties end up having fairs.

Over the next several months, we will be evaluating the contest to see if it stays the way it has been for years or is changed to help increase interest and participation when we return! We know home baking and bakers have exploded over the past several months and we hope that momentum continues so we can capture the skills, creativity and love of bread baking in a competition.

We would like to thank all the competitors, county fair volunteers and state fair volunteers for the support and continued efforts! OWC
The Wheat Foods Council focuses on developing educational and promotional nutrition resources on wheat food products that reach health and nutrition professionals, opinion leaders, media and consumers. Recently, the Council has added several new videos to its available resources that can be found on the Oklahoma Wheat Commission website at the links below.

The Sandwich: one simple meal defined in many ways

A healthy way of life

How to cook the perfect pasta

Pasta with tomato, kalamata olives and arugula

Wheat Foods Council Publishes Educational Video Content

Click here to read the latest issue.

Summer 2020
Wheat Foods Council Kernels magazine
The Home Baking Association has been busy developing many new resources and videos for at-home baking and virtual learning. They recently launched a new website that is packed full of valuable resources for educators, parents, community service volunteers, scratch-bakers and anyone else interested in baking, and sharing baking with others. You will find recipes, activities, lesson plans and other helpful resources that will help you at home in the kitchen, or in the classroom.

FIND IT ONLINE AT www.HomeBaking.org