U.S. Hard Red Spring and Durum Trends / Strengths / Challenges

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U.S. HARD RED SPRING WHEAT

“DNS Wheat”

- Second largest class produced in the U.S.
- Known for:
  - High protein content
  - High vitreous kernel levels
  - Dough strength and high water absorption
  - Big loaf volumes (with oven spring)
- Typically used as “blending” wheat (improve protein content and protein quality), specialty bread products and Asian noodles
- Major competitor is Canada, with some German, Australian and Kazak wheat offering limited competition dependent on year
- < 2% of Global Wheat Production but 4.5% of Global Wheat Trade
PROTEIN/QUALITY SPECTRUM MAJOR WORLD WHEAT SOURCES
WHO BUYS U.S. HRS WHEAT?

- USA: 50%
- North Asia: 19%
- Latin America: 10%
- South Asia: 15%
- Sub-Saharan Africa: 1%
- Europe: 3%
- Middle East: 2%
EXPORT SALES OF U.S. HRS WHEAT
(Year-to-Year comparison – As of mid-December)

Million Bushels

- Philippines
- Japan
- Taiwan
- China
- Korea
- Italy
- Thailand
- Guatemala
- U.K.
- Mexico

Marketing Year is June-May

Million Tons

1/30/2019
U.S. WHEAT FOOD USE BY CLASS

Million Bushels

- HRW
- HRS
- SRW

Million Tons

- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016
- 2017
Typical Share of Production by State/Region

- Washington: 4%
- Oregon: 4%
- Idaho: 12%
- Montana: 18%
- North Dakota: 52%
- South Dakota: 18%
- Minnesota: 14%
U.S. Northern Durum

- Valued for high protein, high vitreous kernels, and strong gluten
- 70% of demand is from U.S. millers
- Top international markets are Italy, Algeria, Nigeria and Central American countries
- Recent market challenges….improving domestic production in Algeria…Kazakhstan exports
U.S. DURUM WHEAT PLANTINGS
BY STATE

Million Acres

North Dakota
Montana
AZ & CA

Million Hectares

Source: USDA Small Grains Summary
EXPORT PACE – U.S. DURUM WHEAT
as of mid-December

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<th>Million Tons</th>
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1/30/19
HRS and Durum
Successes / Opportunities

- Strong base of traditional customers
- Premium prices in world market help offset to some degree “freight” disadvantage from North Dakota
- Push for “clean label” and higher fiber bread products favors higher percent of HRS in blends
- U.S. northern durum has advantage over EU and Desert Durum from sustainability perspective
- Two new durum varieties, Riveland and Grano, put us in great position if EU moves forward with lower Cadmium threshold
- U.S. HRS viewed as best in the world for gluten strength (recent improvement from 5-10 years ago)…but need to up breeding efforts for absorption
Wheat Challenges

- Competing crops
- Per acre returns
- Quality pricing risk
- Intense Black Sea competition
- Directly impacts HRW but lowers base price of all wheat
- Increasing customer concerns over residues and allergens
Allergen Challenges

- Soybean & buckwheat allergens
- Japan and some EU markets
- Buckwheat is similar to U.S. peanut allergy for segment of Japan population
- Volunteer tame buckwheat in next season wheat crop is concern
- As soybean production expands, customers finding higher levels of soybeans in wheat – for some it is a GMO concern
Residue Challenges

- Glyphosate
- Italy and U.S. market currently
- Pre-harvest application is greatest concern by customers, but variability in testing brings all production into the mix
- Producers need to remain vigilant on issue and when using as pre-harvest weed control follow post harvest window
Trade Policy

- Need effective and forward looking trade policy –
  - Open new markets, preserve current markets and ensure fair/equal trading platform with competitors
- Current challenges and potential challenges exist in some very important markets
  - China and Japan
- U.S./China trade dispute
  - No wheat sales to China since March 2018
  - Has been a #2 market for U.S. HRS exports...as high as 40 million bushels
  - Buyers in China place high value on U.S. or Canadian spring wheat because they need it to upgrade large stocks of low quality domestic wheat
  - If current U.S./China talks successful....HRS is rumored to be of interest by China...
US Wheat Exports to China

2018/19 total exports to China may be ZERO. A market loss of 48 million bushels against our 5 year average.
Trade Policy

- Comprehensive and Progressive Trans-Pacific Partnership (CPTPP)
  - Formerly TPP, U.S. dropped out in 2017
  - Signed December 31, 2018
  - Canada, Australia, Brunei, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam
  - Gives preferential access to Australia and Canada in Japan - one of our largest HRS markets
    - U.S. potentially at a $0.35-$0.40/bu. disadvantage by April 1, 2019. Disadvantage could grow to $1.90/bu. by 2027.
    - U.S. HRS wheat not likely to be 100% displaced since mills and end-users value U.S. HRS and Canadian HRS for different traits...but potential price discount for Canadian wheat is significant.
    - US Wheat Associates and member states pressing Administration to reengage with Japan on a bilateral
At risk:
US HRS sales priced at $1.90 per bushel over CWRS

40 cents per bu.

Bottom Line:
Japan Flour Millers Assn projects US exports to drop from 3.0 MMT to approx. 1.4 MMT *

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Trade Policy

- **USMCA (United State – Mexico – Canada Agreement), revised NAFTA**
  - Retains tariff free wheat exports to Mexico – HUGE market impact
  - Addresses some issues with Canada on wheat...but not all
    - U.S. wheat no longer automatically downgraded to “feed”...must be given the same grading standards as Canadian produced wheat
    - The catch....agreement allows Canada to retain it’s “approved variety” threshold for wheat classes...
    - To qualify for CWAD and CWRS (top prices).. must be an approved variety...very few ND, MT or MN varieties apply.....Glenn HRS and Strongfield Durum
    - More work yet to do on improving this....also addressing rail freight advantage and ensuring phyto issues don’t hinder trade
  - Heavy imports from Canada having big impact on U.S. durum and HRS prices
Mexican Wheat Purchases from USA
January through July 20th

US wheat exports to Mexico drop by 1.3 MMT below last year
“Middle Class” Outside the U.S. Expected to Double By 2020 – To 1 Billion Households

Worldwide food consumption will be impacted

Foreign households w/real PPP incomes greater than $20,000 a year (in millions of households)

Middle class in developing countries projected to increase 104% by 2020 vs. just 9% in developed countries in 2009

Source: Global Insight’s Global Consumer Markets data as analyzed by OGA
Research

- NDWC funds between $1.2 to $1.7 million in wheat research annually
  - This has continually increased over time
  - State and federal funds still make up the majority of funding for NDSU research programs...but its share has declined in some programs.

- Key support areas
  - Variety development for HRS, durum, and HRW
    - Disease resistance, stronger straw and increased yields
  - Quality testing and research
    - Key selling factor in retaining “class” / “origin” premiums
  - Other areas – soil science, marketing, transportation and economics

- Priorities discussed at annual meeting with county representatives
2018-19 BUDGETED NDWC SUPPORTED WHEAT RESEARCH: $1,308,583

Other includes New Technologies Contingency, NCI and Wheat Marketing Center.
World Map of USW Offices and Regions
NDWC BOARD OF COMMISSIONERS

OUR MISSION

◦ Build bigger better markets for ND premium wheat
◦ Promote, aid and develop marketing opportunities for ND wheat
◦ Sustain and improve state ag economy
THANK YOU

QUESTIONS?