

U.S. Wheat Crop and Market Update

**IAOM Central and Wheat State
District Meeting**

Justin Gilpin

KS Wheat Commission

Manhattan, KS

jgilpin@kswheat.com

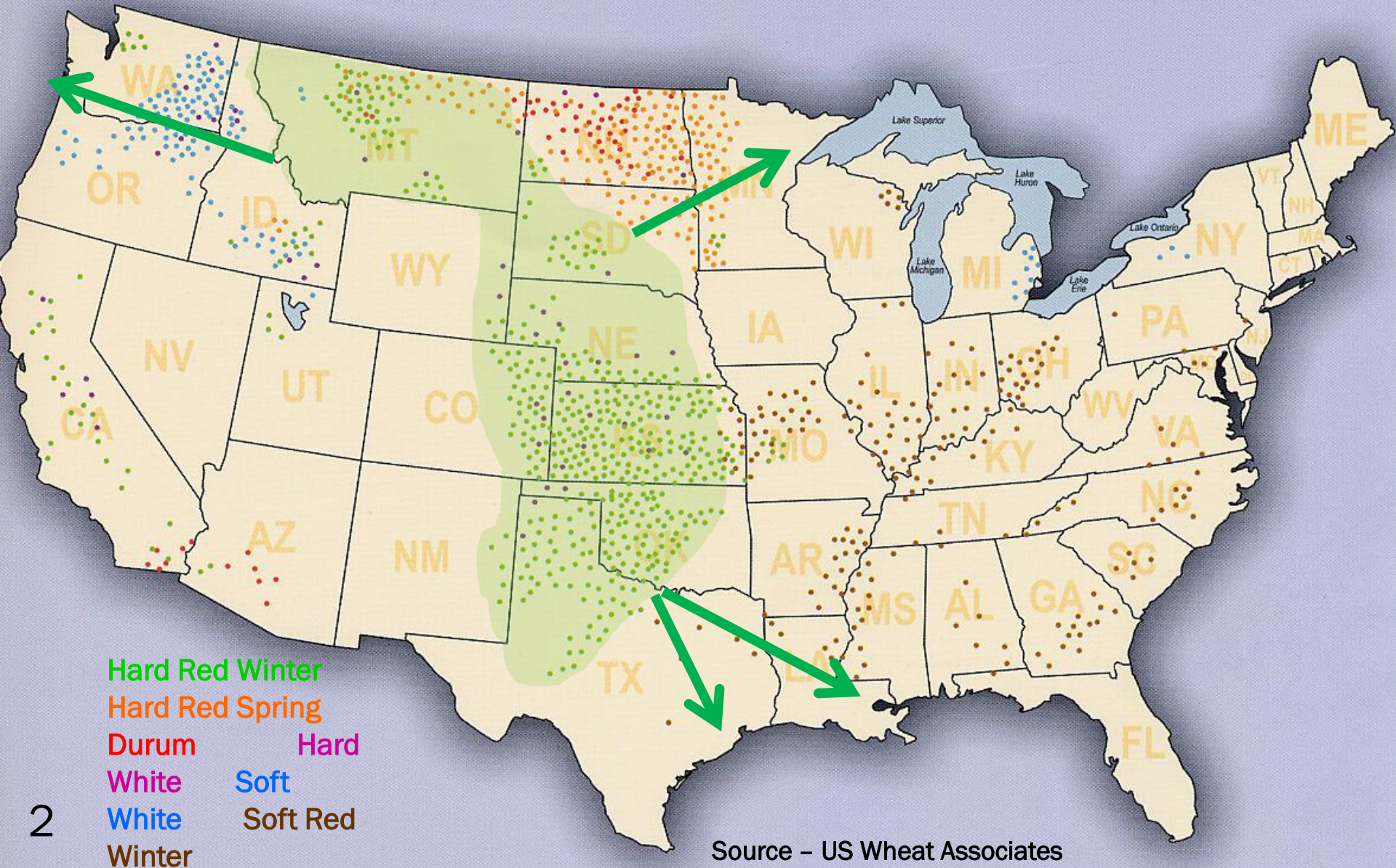
Overview

- US growing areas and trade flows
- US Wheat Crop outlook
 - Lower Winter wheat acres and production
 - Similar proteins in the Southern HRW areas
 - Drought in the northern plains
- 2017 Winter wheat crop early yield and quality
 - Southern plains; Kansas; Northern plains; California
 - Quality data from Plains Grains Inc.
- Market conditions
 - World wheat situation and US fall crops

US HRW Production Region



PLAINS GRAINS INC.



Source - US Wheat Associates

Wheat is not just wheat...

Hard White

The newest class of U.S. wheat, HW receives enthusiastic reviews when used for Asian noodles, whole wheat or high extraction applications, pan breads and flat breads.



Durum

Hardest of all wheats, durum has a rich amber color and high gluten content. It sets the “gold standard” for premium pasta products, couscous and some Mediterranean breads.



Soft White

A low moisture wheat with high extraction rates, providing a whiter product for exquisite cakes, pastries, and Asian-style noodles, SW is also ideally suited to Middle Eastern flat breads.



Hard Red Winter

Versatile, with excellent milling and baking characteristics for pan bread, HRW is also a choice wheat for Asian noodles, hard rolls, flat breads, general purpose flour and as an improver for blending.



Hard Red Spring

The aristocrat of wheat when it comes to “designer” wheat foods like hearth breads, rolls, croissants, bagels and pizza crust, HRS is also a valued improver in flour blends.

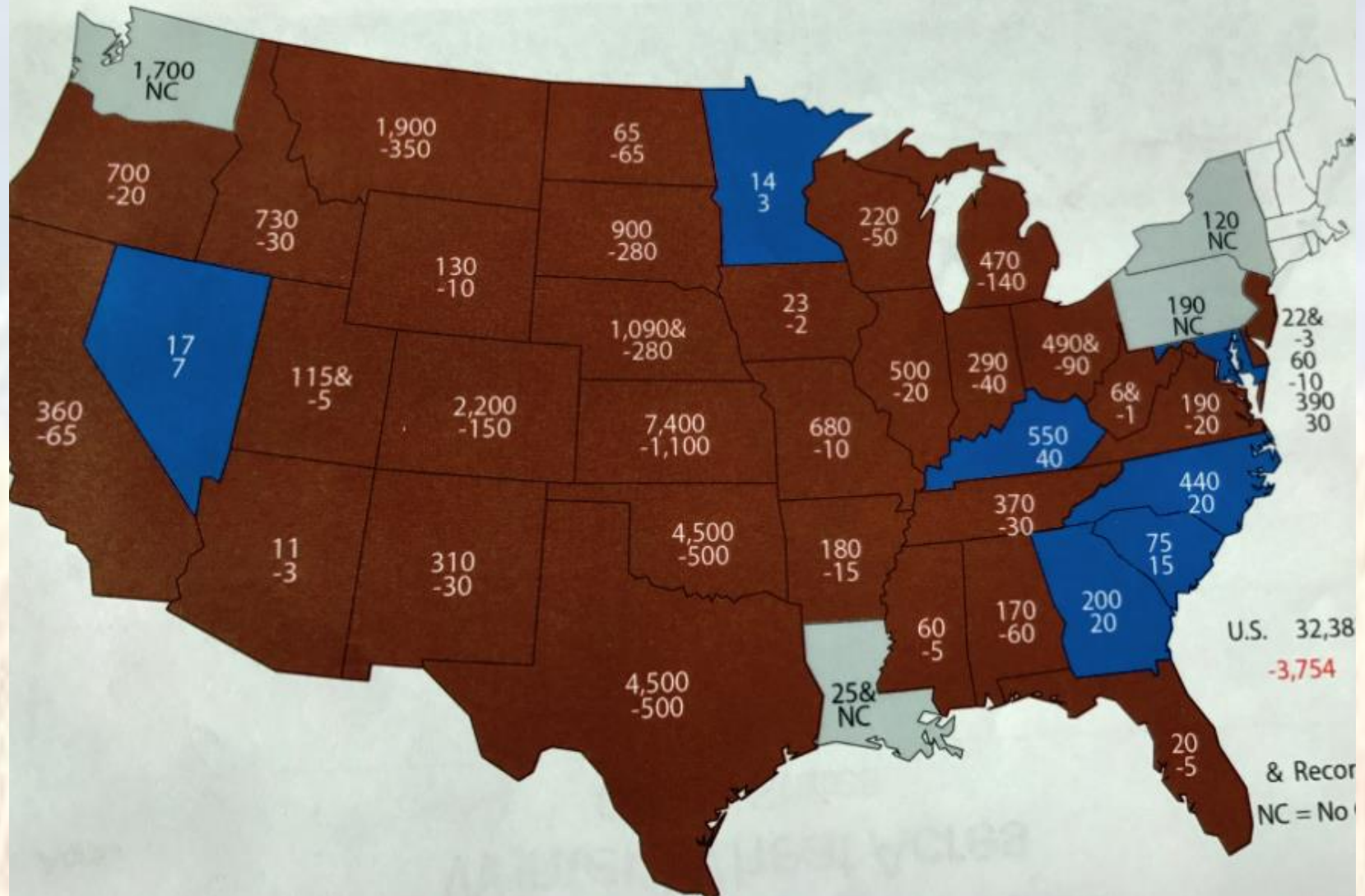


Soft Red Winter

Versatile weak gluten wheat with excellent milling and baking characteristics for cookies and crackers, also used for blending.



2017 Winter Wheat Planted Area (000) Acres and Change From Previous Year



KE - Hard Red Wheat - Weekly Continuation OHLC Chart





Outlook for US Hard Red Winter 2017 Production and Quality

Released July 12, 2017, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA).

**Winter Wheat Production Up 2 Percent from June
Durum Wheat Production Down 45 Percent from 2016
Other Spring Wheat Production Down 21 Percent from 2016
Orange Production Down 2 Percent from June**

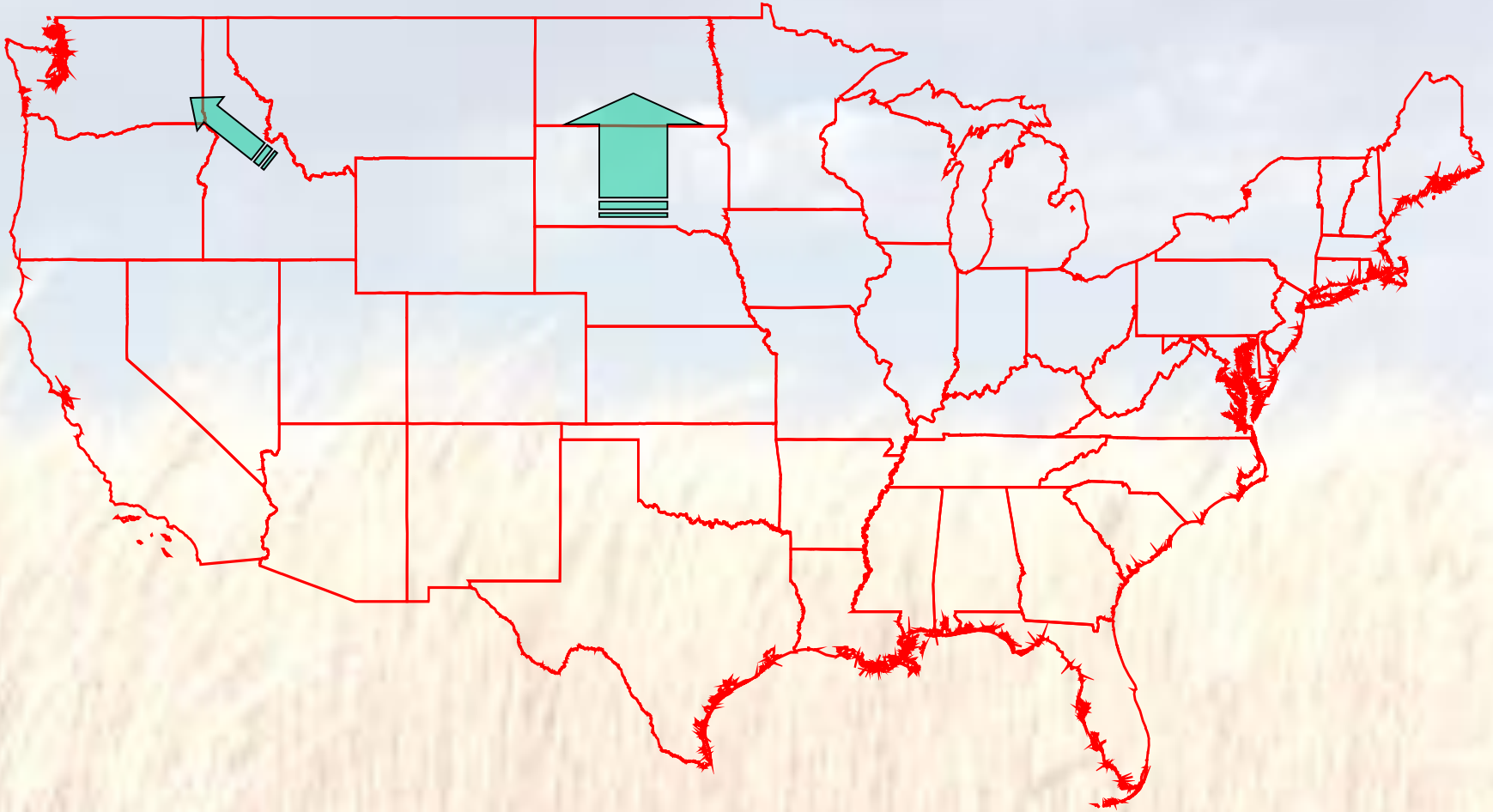
Winter wheat production is forecast at 1.28 billion bushels, up 2 percent from the June 1 forecast but down 23 percent from 2016. Based on July 1 conditions, the United States yield is forecast at 49.7 bushels per acre, up 0.8 bushel from last month, but down 5.6 bushels from last year. If realized, this will be the second highest yield on record for the United States, behind only 2016. The area expected to be harvested for grain or seed totals 25.8 million acres, unchanged from the *Acreage* report released on June 30, 2017, but down 15 percent from last year.

Hard Red Winter production, at 758 million bushels, is up 2 percent from last month. Soft Red Winter, at 306 million bushels, is up 3 percent from the June forecast. White Winter, at 216 million bushels, is up 3 percent from last month. Of the White Winter production, 18.5 million bushels are Hard White and 198 million bushels are Soft White.

Durum wheat production is forecast at 57.5 million bushels, down 45 percent from 2016. The United States yield is forecast at 30.9 bushels per acre, down 13.1 bushels from last year. Expected area to be harvested for grain totals 1.86 million acres, unchanged from the *Acreage* report released on June 30, 2017, but 21 percent below 2016.

Other spring wheat production is forecast at 423 million bushels, down 21 percent from last year. Area harvested for grain is expected to total 10.5 million acres, unchanged from the *Acreage* report released on June 30, 2017, but down 7 percent from last year. The United States yield is forecast at 40.3 bushels per acre, down 6.9 bushels from last year. Of the total production, 385 million bushels are Hard Red Spring wheat, down 22 percent from last year.

2017 HRW Harvest Activity:



2017 HRW crop conditions

- A year to be known as “A Variable” year
 - Variable rain fall with excess rain and drought areas
 - Late blizzard in Western Ks and rain soaked fields in Central KS
 - Late High Temperatures as crop finished out
- Big areas affected by Wheat Streak Mosaic Virus
 - Caused by wheat curl mite that moves from uncontrolled volunteer wheat fields in early fall
 - Caused fields not be harvested and affected yields and test weights.
- Harvest was a game of “red light / green light”
 - Stop and go as central corridor wrapped up before Western areas were ready.
 - Storms and rains prolonged harvest.
- Overall, a varying conditions created varying results with both yields and quality

2017 Southern Plains

- TX harvest
 - 70 million bushels down from 90 million bushels last year
 - Test weights good; proteins low, similar to last year
- Oklahoma harvest lower with fewer acres
 - 90.7 million bushels versus 137 million bushels
 - Proteins variable, but lower than average
- Overall, fewer acres planted and harvested and proteins and quality similar to 2016 crop.

Colorado, Nebraska, South Dakota, Wyoming and Montana

- Colorado harvest benefited from good filling weather.
 - 84 mi bu vs. last year of 105 mi bu.
- Harvest themes stayed consistent as it moved north
 - Nebraska; lowest planted acreage, ever...again
 - 1.0 million acres harvested
 - Production lower at 46 million bushels; 25 million bushels fewer.
 - South Dakota was “toast” and not the good kind of toast with jelly.
 - Less than half of last year with only 27 million bushels expected in 2017.
 - Montana fewer acres and lower yields.
 - 75 million bushels versus 105 million bushels in 2016.
 - Some stress in pockets should produce protein.

South Dakota Tweeter feed

Drought stressed crop resulting in fewer bushels but good quality



Spring #wheat waiting for harvest
Onida, SD. Maybe a foot tall?

Mgr at Oahe Grain on harvest so far:
"Protein 16.5-17.8; Yields 12-20 bpa."



California 2017

- Production slightly lower
 - 11.3 million bushels in 2017
 - 175,000 acres harvested with 65 bu/acre yield vs 77 bu/ac LY
- Proteins and Quality good
 - Test weights coming in above average
 - Proteins good and have value
- Overall, very good milling crop, but only about 1/6th of milling capacity. What gets sourced out of the plains will largely be dependent on market spreads.
- Water issues continue to be concerning.

Kansas early 2017 data

- Main story lines:
 - Lowest planted acres in 100 years.
 - Highly variable growing conditions creating variable results.
 - Last year, record yield of 58 bu/ac; vs. 47 in 2017.
 - 2017 Production of 324 million bu vs. 454 million bushels last year.
 - Lower than average protein; similar to last year.
- Yields variable; 60+ dryland in central corridor
- Western 3rd of Kansas more disappointing.
 - Big areas impacted by Wheat Streak Mosaic Virus
 - Decent test weights early, and TKWs but dropped off with rains.
 - Pockets of good proteins; but some with lower test weights.
 - TKW's good and still millable, but may have to take some #3 HRW to get desired protein
- Lower avg. proteins with wide ranges...
 - 9-10% in South Central with 11-12% out west
 - Kansas to average 11.3 – 11.6% protein
- Bake evaluations just beginning but look to be a protein quantity problem not a protein quality.

By “Variable”

- Some good...



- Some like this...



Big Impact by Disease pressure

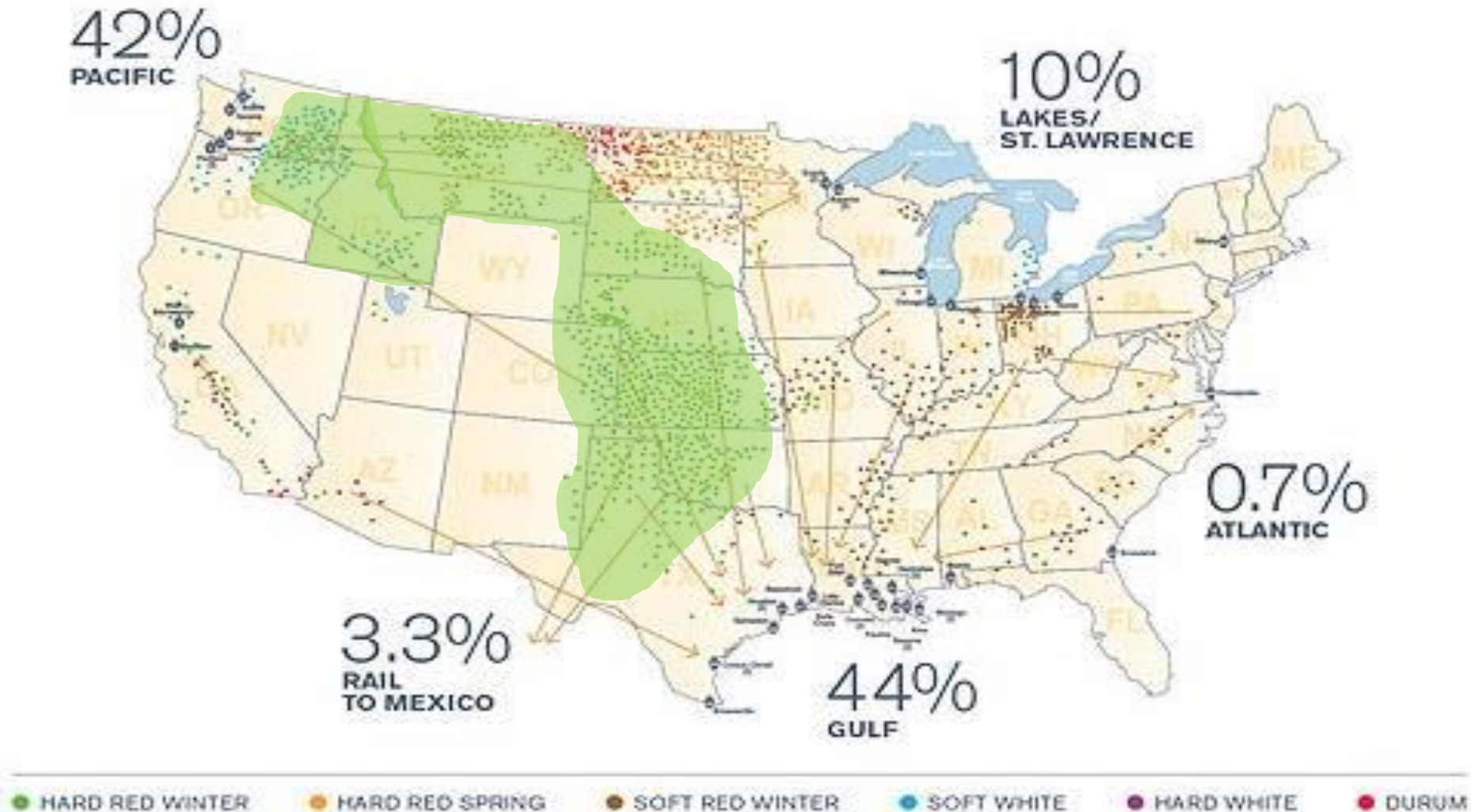
Wheat Streak Mosaic Virus

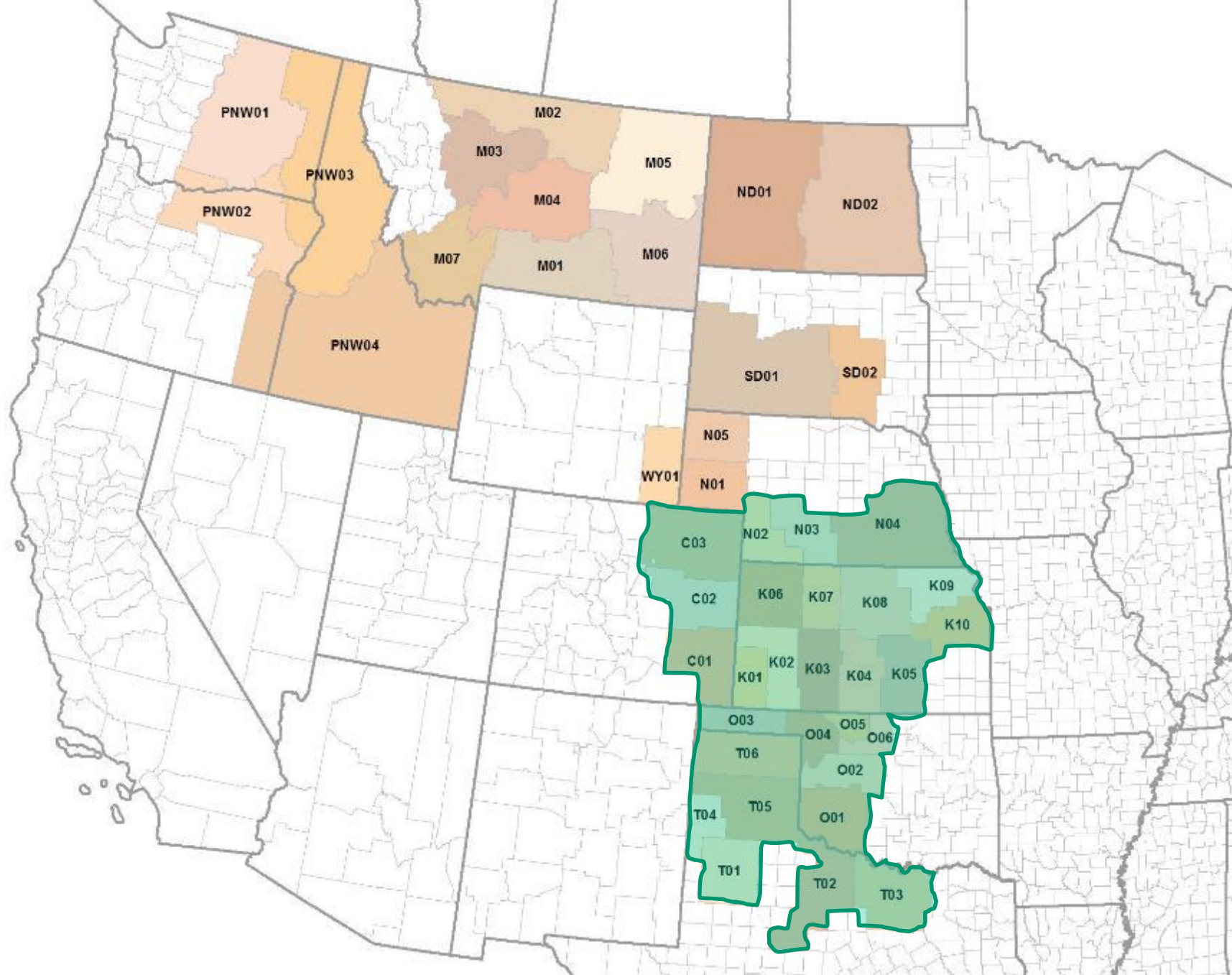


www.plainsgrains.org

- Interactive Maps
 - Protein
 - Test Weight
 - TKW
 - Moisture
 - Dockage
- Harvest updates posted on US Wheat Associates website uswheat.org

US HRW Production Region

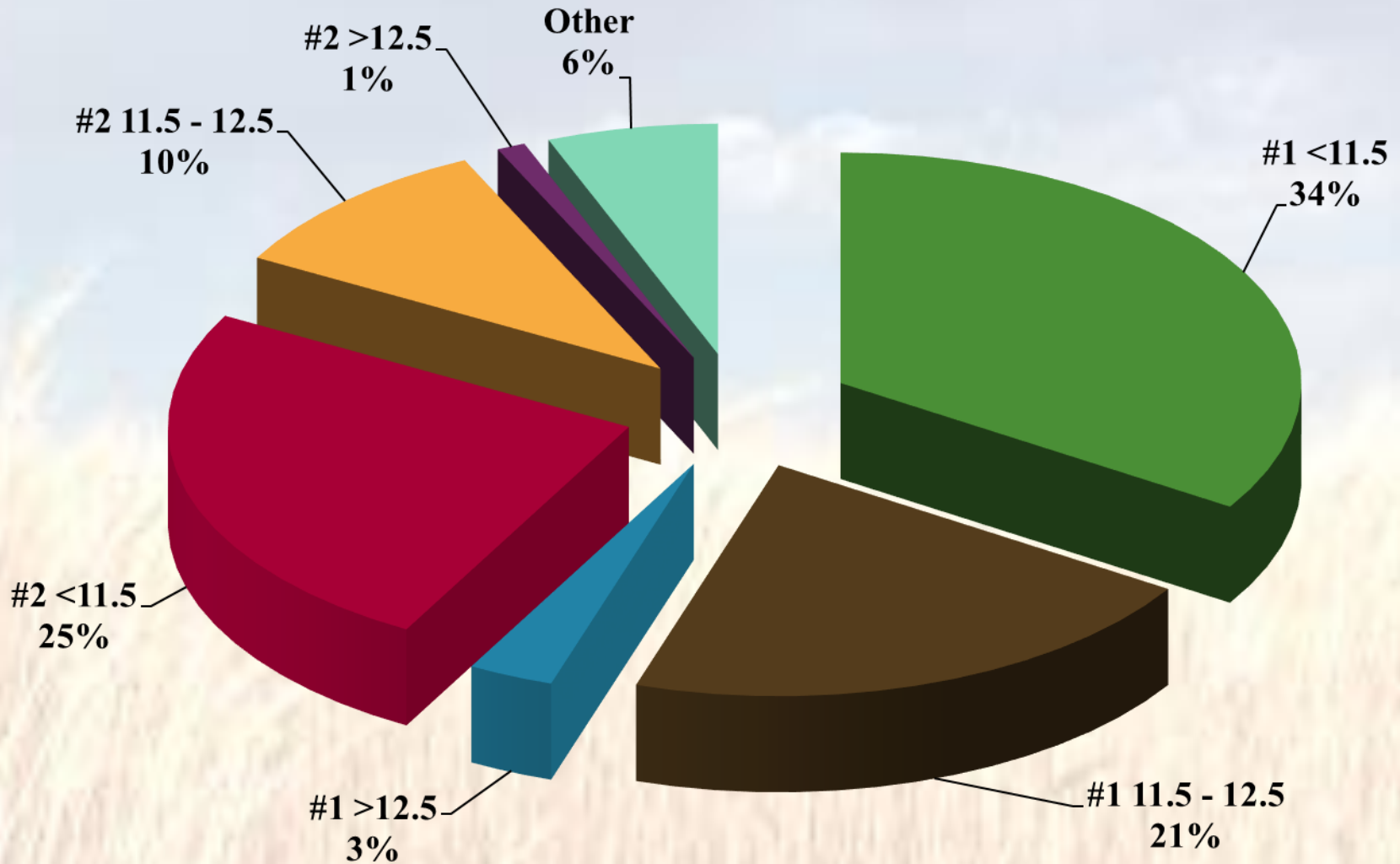






2016 Gulf Tributary HRW Grade Distribution*

*Partial

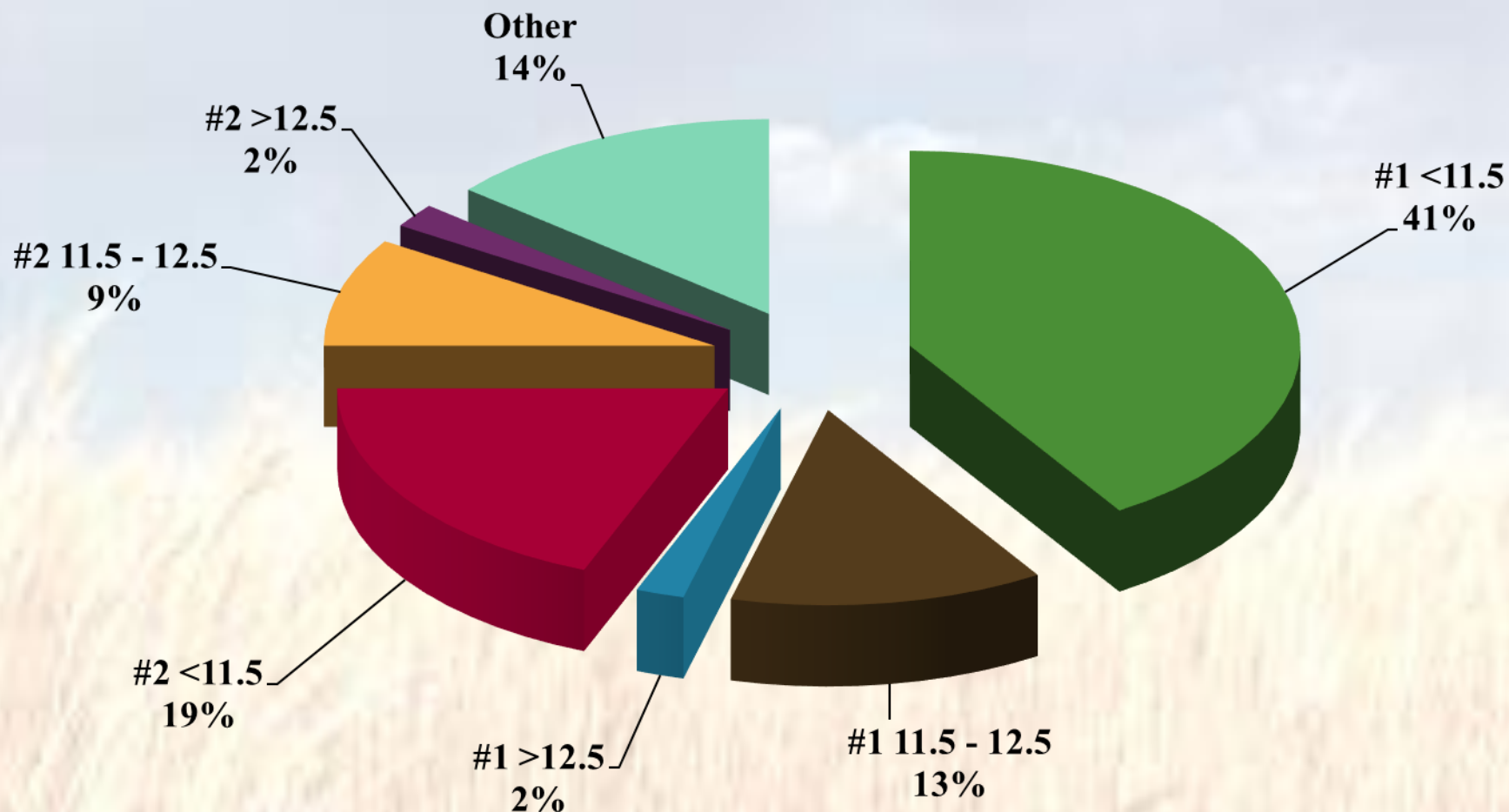


*Partial



2017 Gulf Tributary HRW Grade Distribution*

*Partial



*Partial



2017 Gulf HRW

Evaluation based on individual protein samples*

*Partial

Low Protein – Represents all samples less than 11.5% protein*.
(62%)

Med. Protein – Represents all samples between 11.5% and 12.5% protein*.
(29%)

High Protein - Represents all samples greater than 12.5% protein*.
(9%)

*12% Moisture Basis



2017*

Gulf HRW – Wheat Grade Data

*Partial

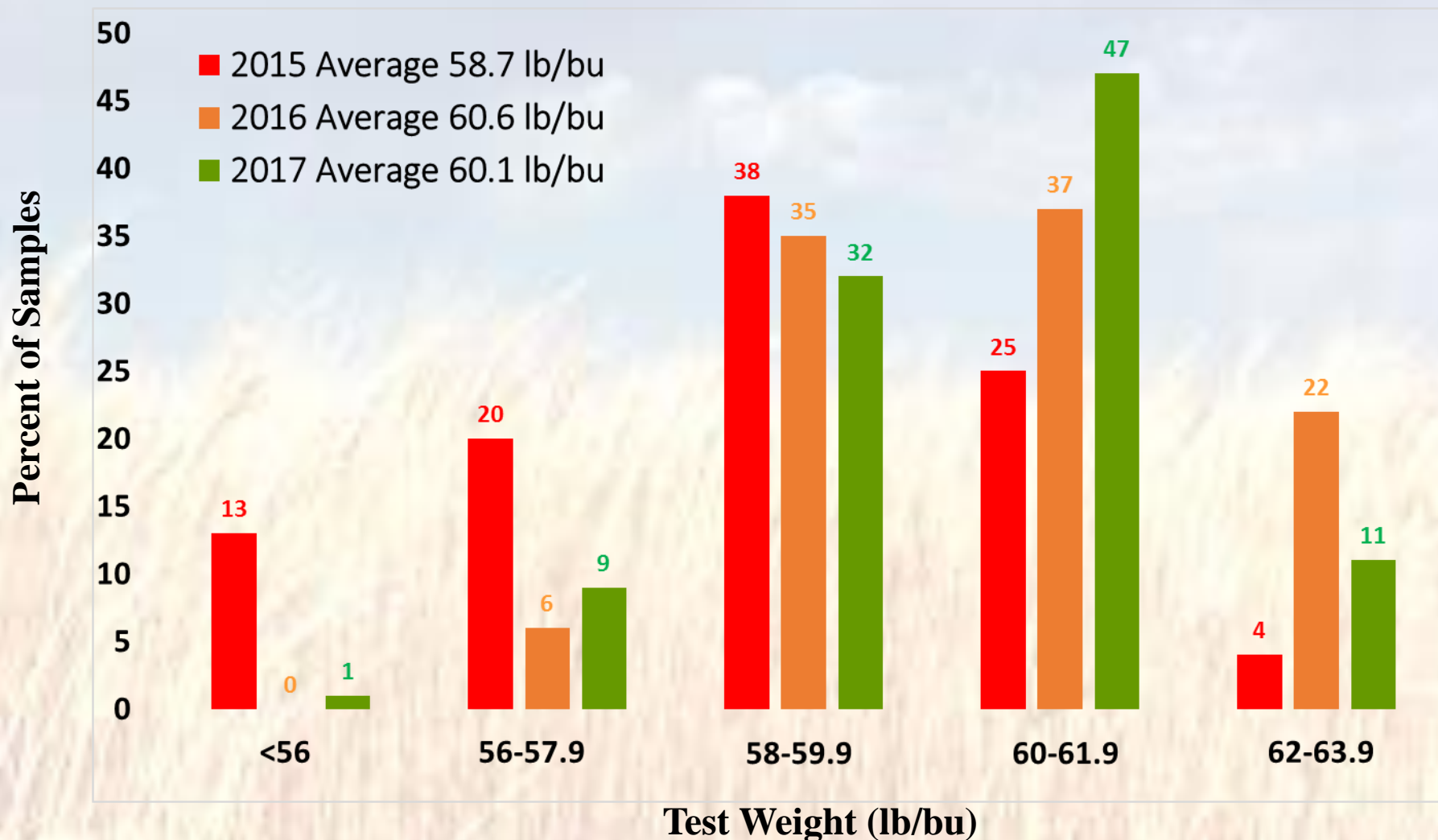
	Low	Med	High	2017	2016	5-Year
Test Weight (lb/bu)	60.6	59.5	58.5	60.1	60.6	
(kg/hl)	79.7	78.3	76.9	79.0	79.7	
Damaged Kernels (%)	0.1	0.2	0.2	0.1	0.3	
Foreign Material (%)	0.2	0.2	0.1	0.2	0.2	
Shrunken & Broken (%)	1.1	1.1	0.7	1.1	0.8	
Total Defects (%)	1.4	1.5	1.0	1.4	1.2	



2017*/2016/2015

Gulf HRW – Test Weight Dist. (lb/bu)

***Partial**





2017*

Gulf HRW – Wheat Non-Grade Data

*Partial

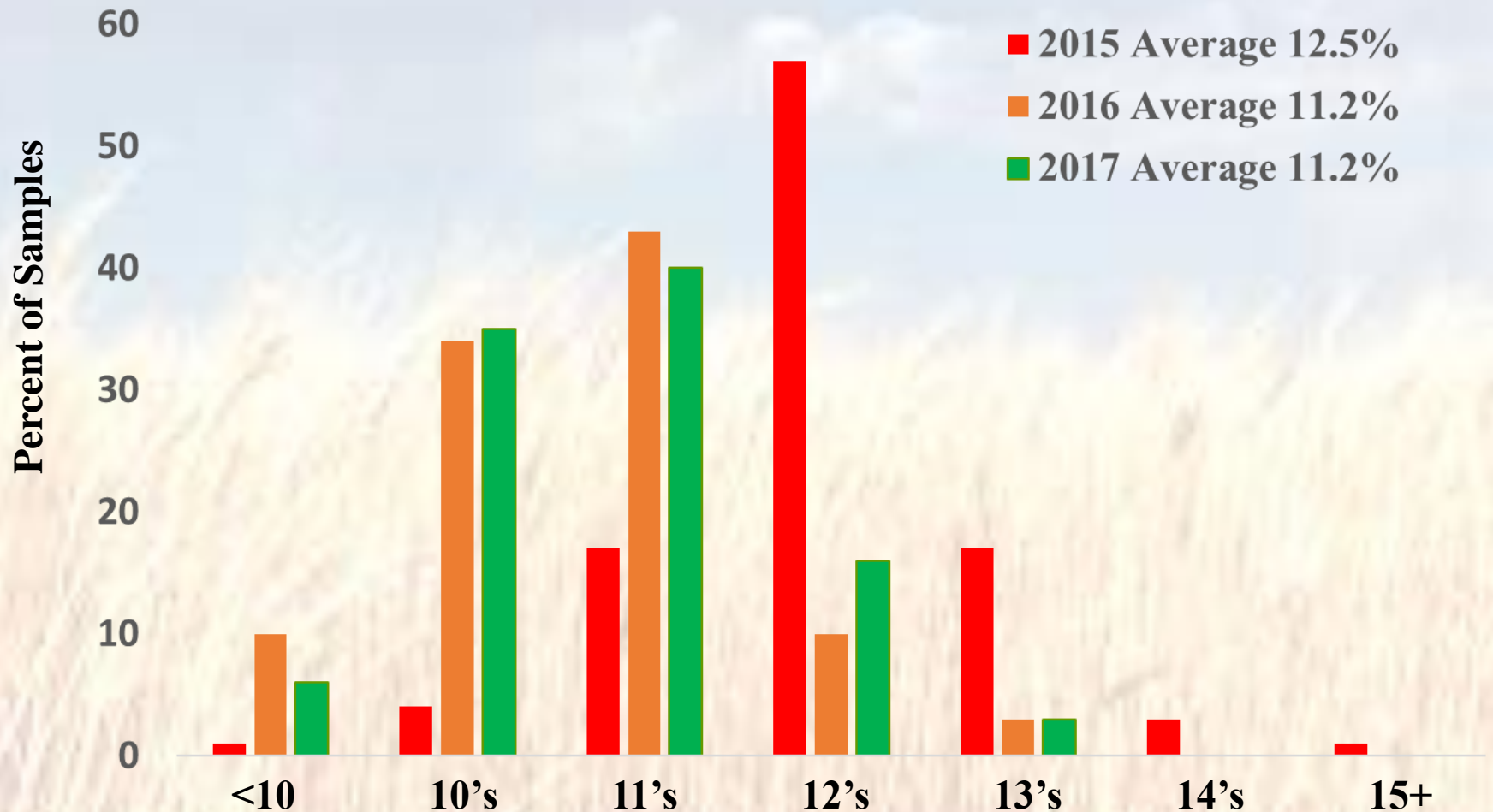
	Low	Med	High	2017	2016	5-Year
Dockage (%)	0.6	0.7	0.7	0.6	0.5	
Moisture (%)	11.6	11.0	10.6	11.3	11.5	
Protein (12% mb)	10.7	11.9	13.0	11.3	11.2	
(0% mb)	12.2	13.5	14.8	12.8	12.7	
Ash (14% mb)	1.53	1.53	1.56	1.53	1.47	
(0% mb)	1.78	1.78	1.81	1.78	1.71	



2017*/2016/2015

Gulf HRW – Protein Distribution

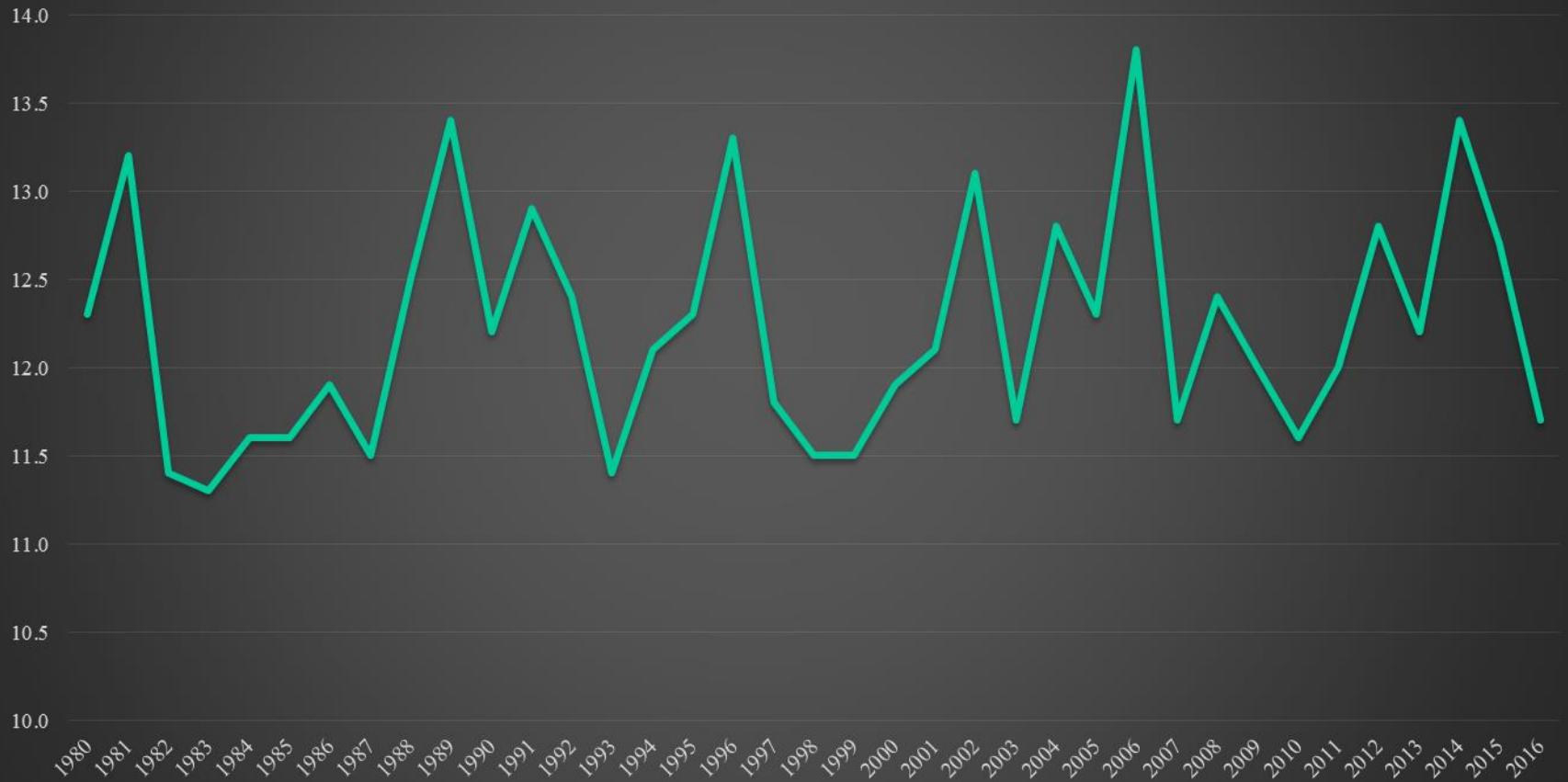
*Partial



As for Kansas Proteins

- A 35 year “look back” shows it is HIGHLY dependent on the weather
- This year’s rainfall was record levels in some areas in May.
- Similar to last year...
- So what we don’t have often is back to back low protein years. Will create challenges...

Kansas Historical Protein 1980-2016





2017 PARTIAL

Gulf HRW – Wheat Non-Grade Data

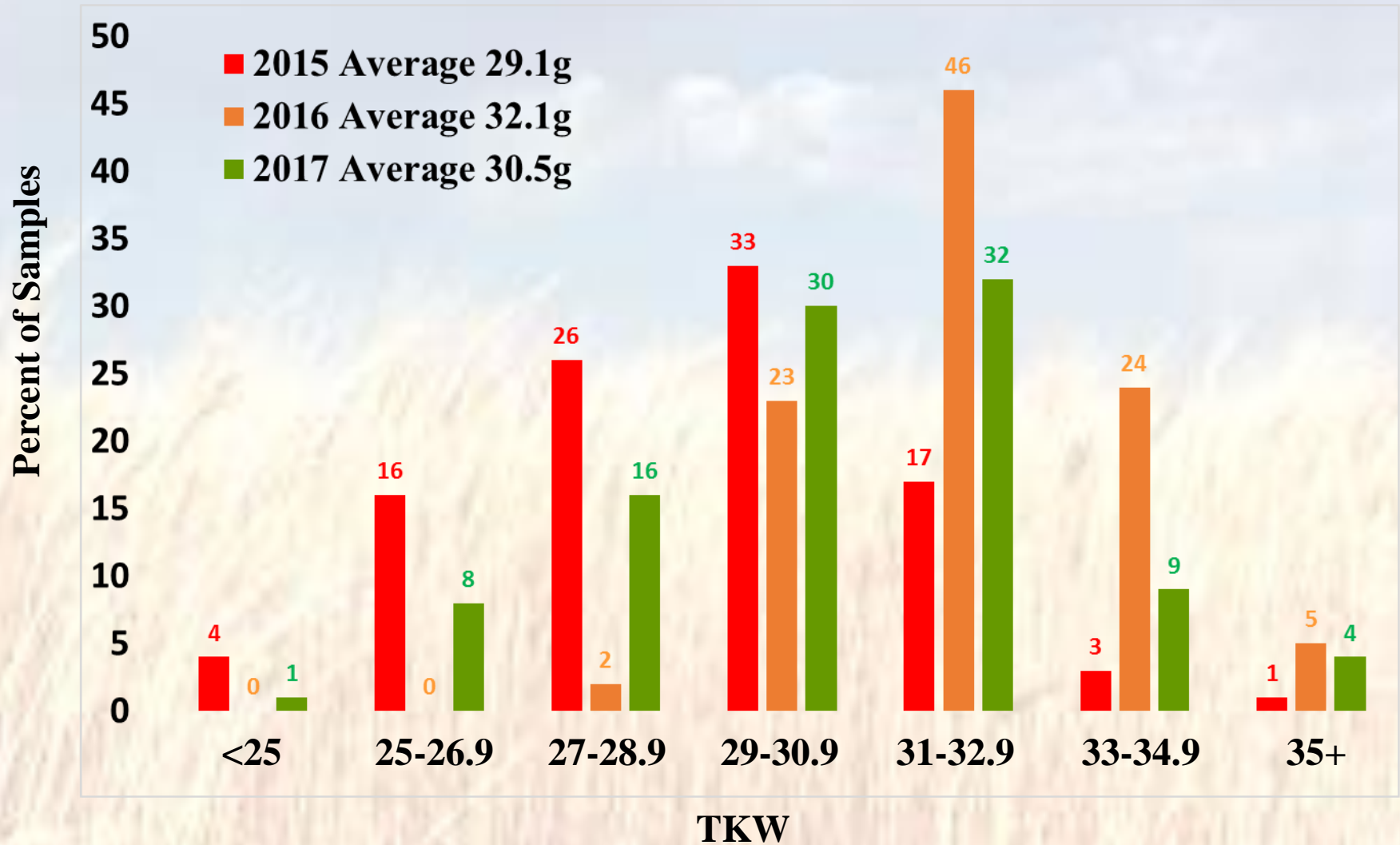
	Low	Med	High	2017	2016	5-Year
Thousand Kernel Wt. (g)	30.7	30.0	30.9	30.5	32.1	
Kernel Diameter (mm)	2.57	2.54	2.54	2.56	2.68	
Sedimentation (cc)						
Falling Number (sec)	366	381	379	372	397	



2017*/2016/2015

Gulf HRW – TKW Distribution

*Partial





PLAINS GRAINS INC.

2016 HRW WHEAT QUALITY SURVEY

The data contained in this presentation were collected, tested and analyzed by PLAINS GRAINS, INC., an organization of the HRW States of Texas, Oklahoma, Colorado, Kansas, Nebraska, Wyoming, South Dakota, Montana, Washington, Oregon, Idaho and North Dakota in cooperation with USDA-ARS Hard Winter Wheat Quality Laboratory, Manhattan, Kansas. For more detailed information about the 2013 HRW crop go to:

www.plainsgrains.org



Wheat Market Update and World Situation

Highlights of USDA's 2017/18 Supply and Demand Estimates

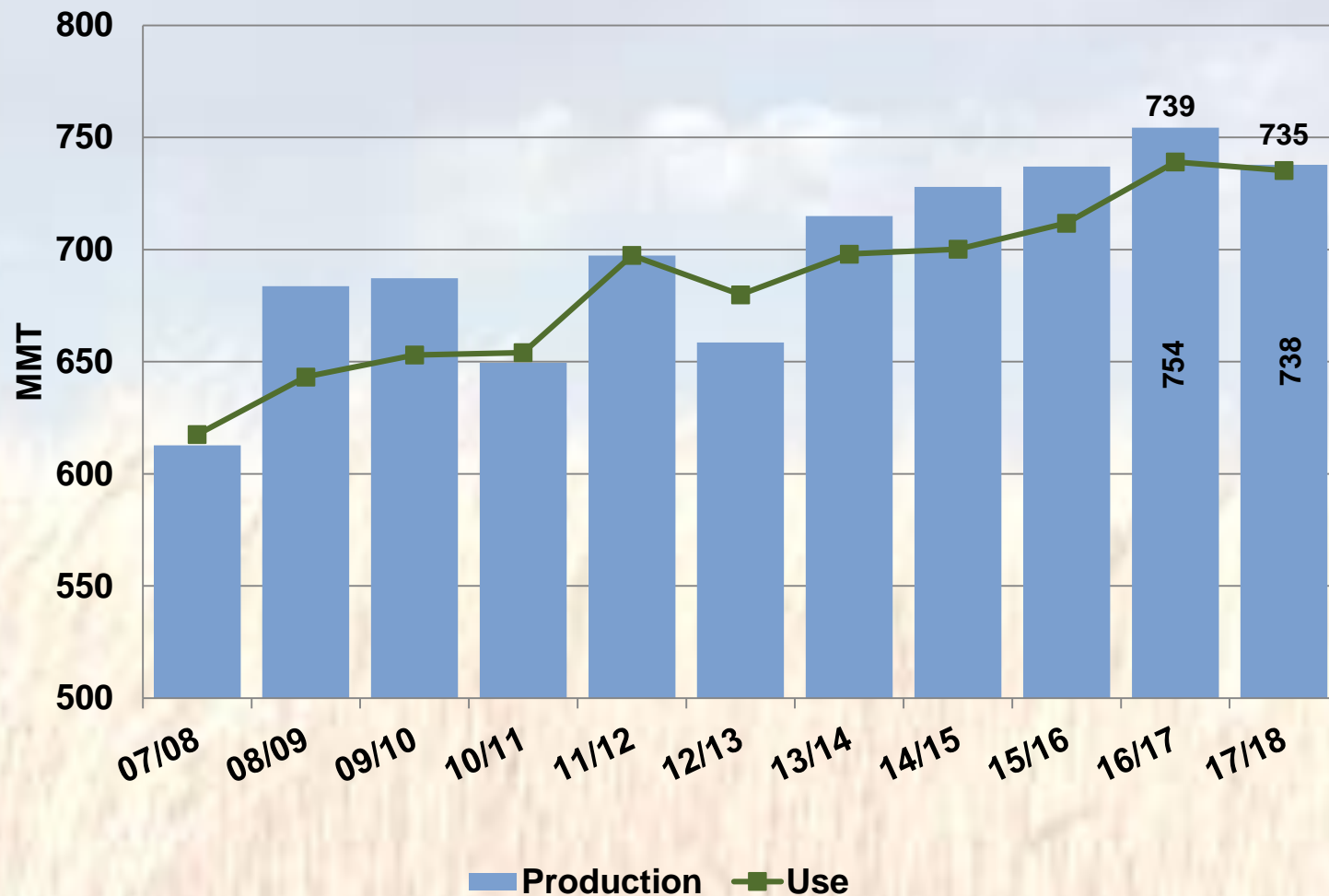
1. 2017/18 global wheat production fall for first time since 2012/13
 - Global supplies estimate to fall to 996 MMT; down slightly from the 2016/17 record
 - Wheat production in Australia to fall to 23.5 MMT, 10% below the 5-year average, if realized
 - U.S. wheat production estimated at 47.9 MMT, 24% below 2016/17, if realized
2. Consumption forecast at a record 735 MMT, 4% above the 5-year average
 - Russia feed wheat usage to total 18.0 MMT, 32% above the 5-year average, if realized
 - U.S. domestic consumption to slip 1% year over year to 31.9 MMT
3. World wheat trade projected at 178 MMT, down 2% from 2016/17, but 8% above the 5-year average
 - EU exports to rise to 30.0 MMT, 11% above 2016/17, but 1% below the 5-year average
 - Exports from Ukraine to fall 22% year over year to 14.0 MMT
 - U.S. 2017/18 exports to reach 26.5 MMT, down 8% from the 2016/17 projection of 28.7 MMT

Highlights of USDA's 2017/18 Supply and Demand Estimates

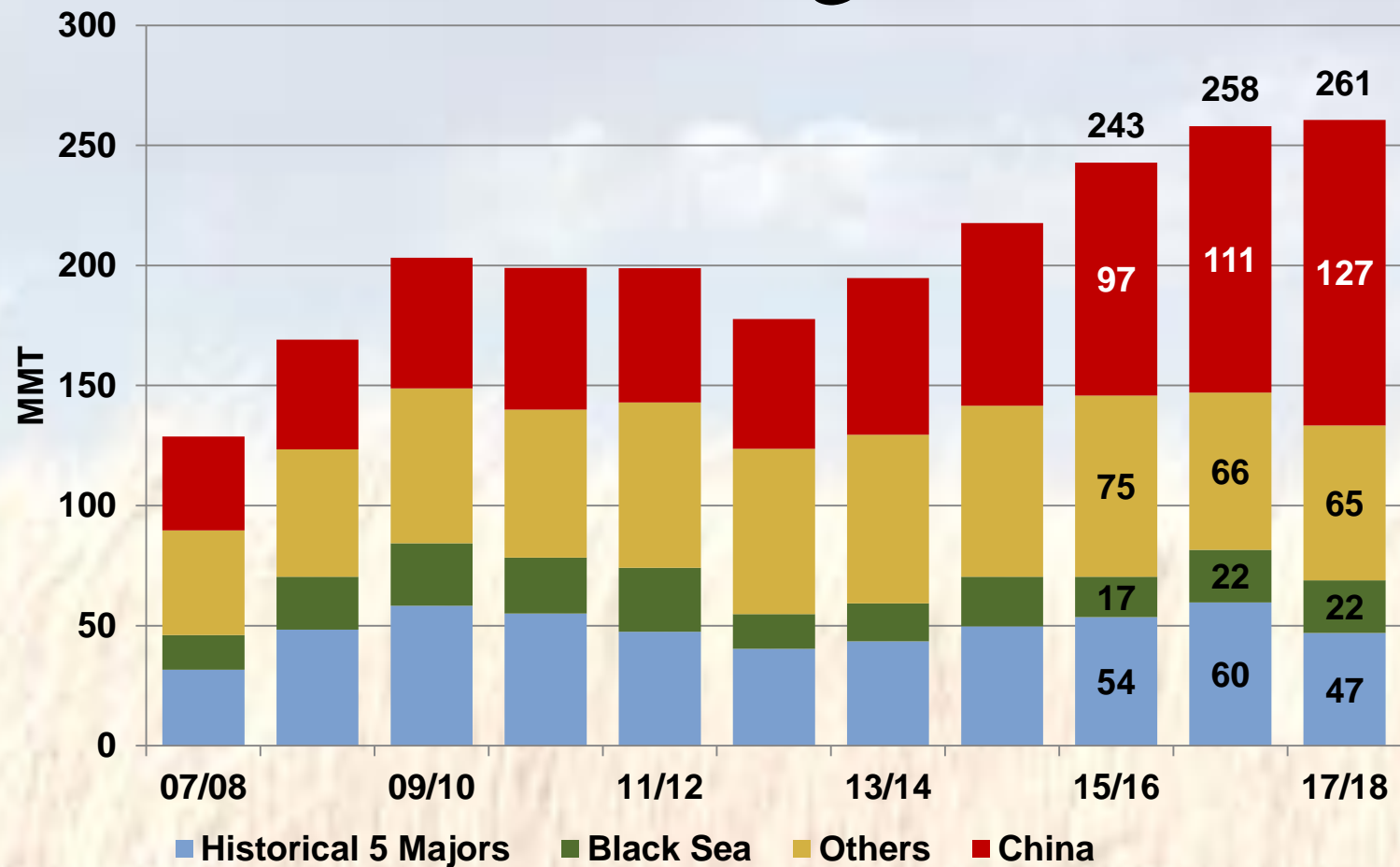
4. World beginning stocks estimated at record 258 MMT, up 6% year over year
 - Beginning stocks in the Russia to rise to 10.8 MMT, up 93% year over year
 - U.S. beginning stocks to climb to an estimated 32.2 MMT, 21% above 2016/17 levels
5. Global ending stocks projected at record 261 MMT, 1% higher than 2016/17, if realized
 - Estimated Chinese ending stocks of 128 MMT account for 49% of global ending stocks, 59% greater than the 5-year average
 - Exporter ending stocks to fall 16% year over year to 68.8 MMT
 - Ending stocks in importing countries to fall to 64.5 MMT, 8% below the 5-year average of 70.3 MMT
6. U.S. farm gate average price forecast 23% higher in 2017/18
 - Projected average range: **\$4.40 to \$5.20/bushel (\$162-\$191/MT)***

**Average U.S. farm gate price, marketing year weighted average*

World Production and Use

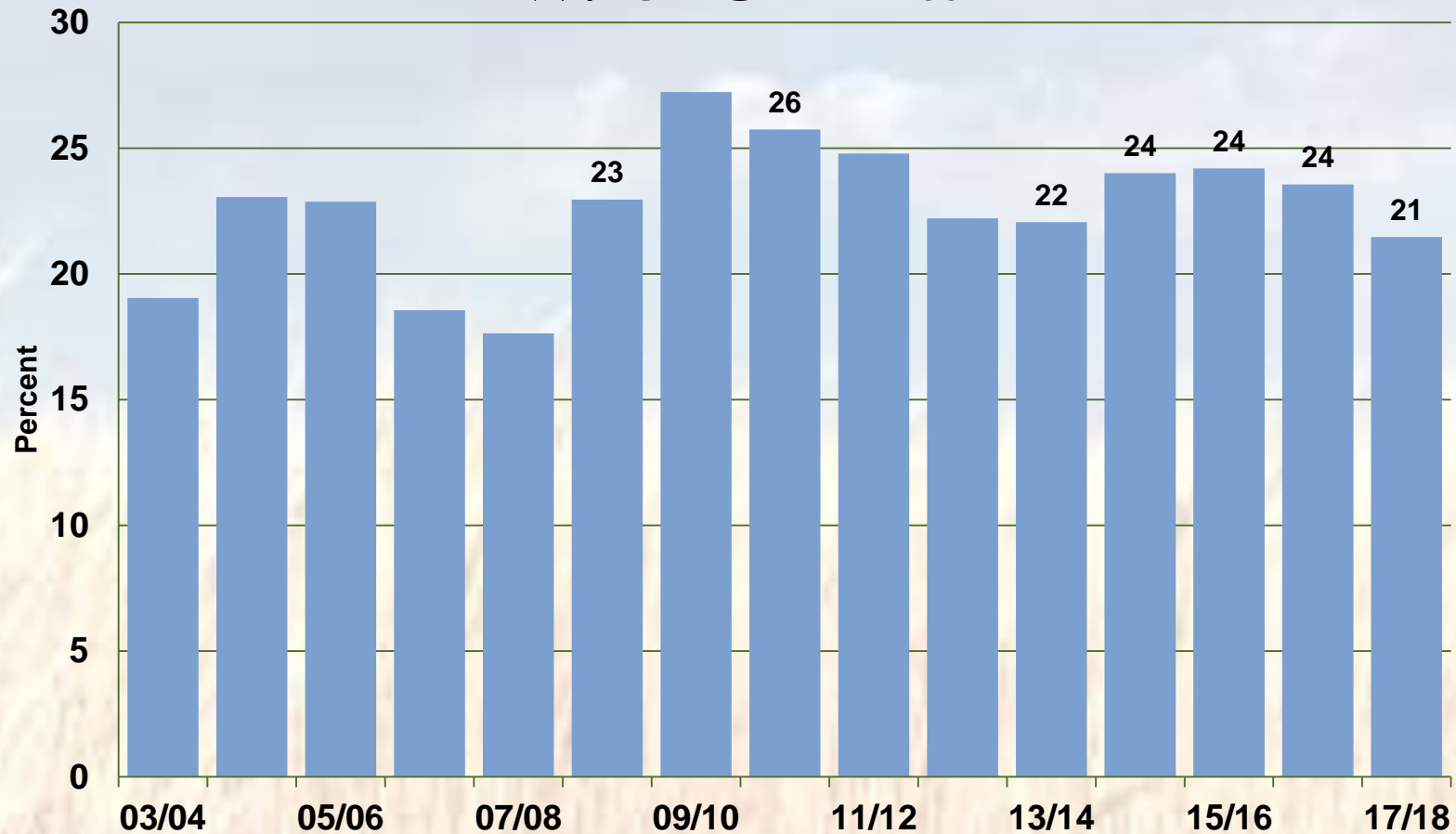


World Ending Stocks



*Historical Five Major Exporters include U.S., Canada, Australia, Argentina and EU-27.
Black Sea includes Russia, Ukraine and Kazakhstan.*

Global Stocks*-to-Use Ratio w/o China



**Ending stocks*

World Wheat Supply and Demand

		15/16	16/17	17/18
			<i>MMT</i>	
SUPPLY:	Beginning Stocks	218	242	255
	Production	737	753	738
	Supply Total	955	996	993
TRADE:	Exports/Imports	173	180	178
DEMAND	Food & Seed	576	593	596
	Feed & Residual	137	148	139
	Use Total	712	740	735
	ENDING STOCKS:	242	255	258

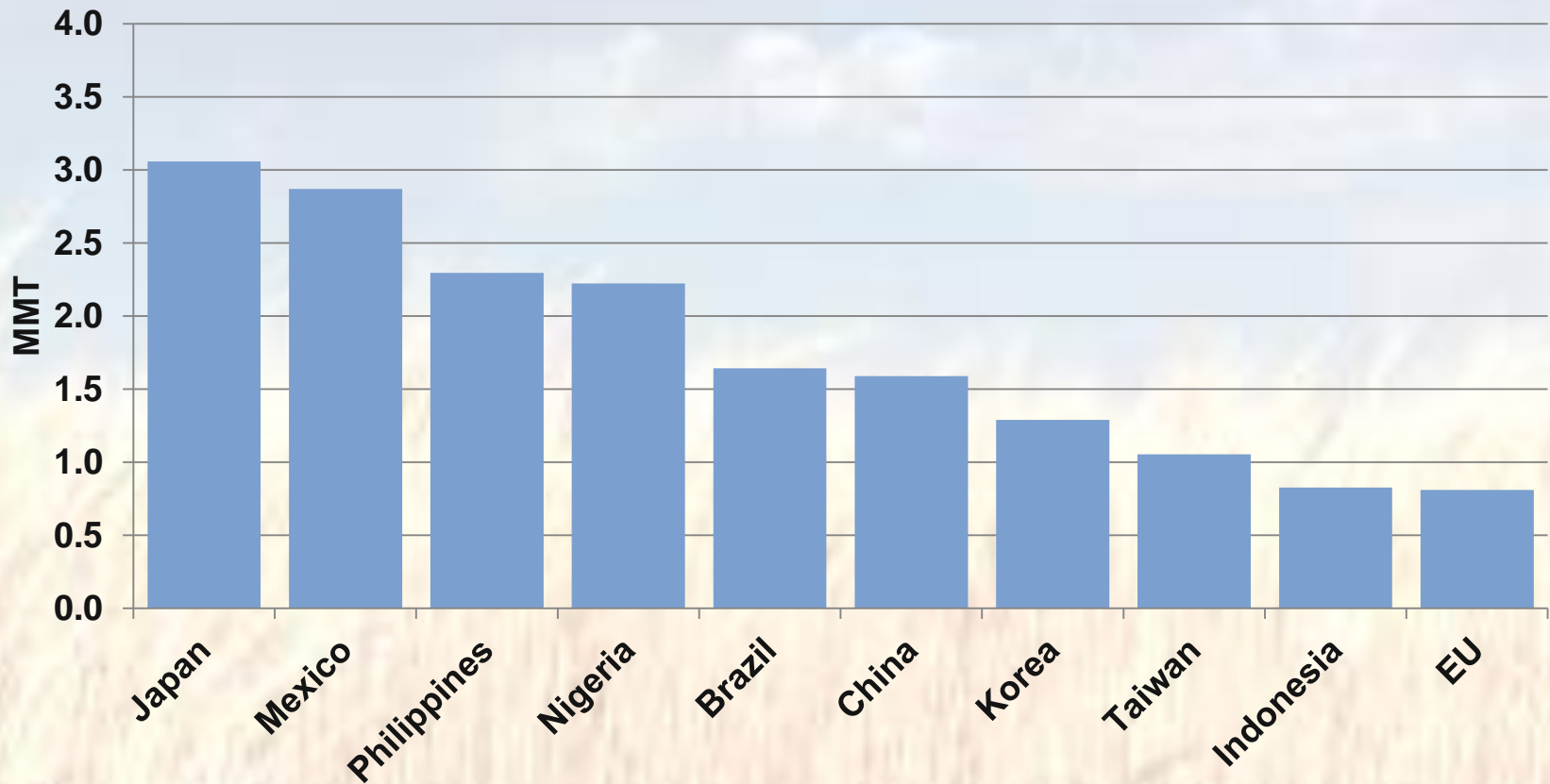
The US exports half our wheat

- Largest buyer
 - Mexico



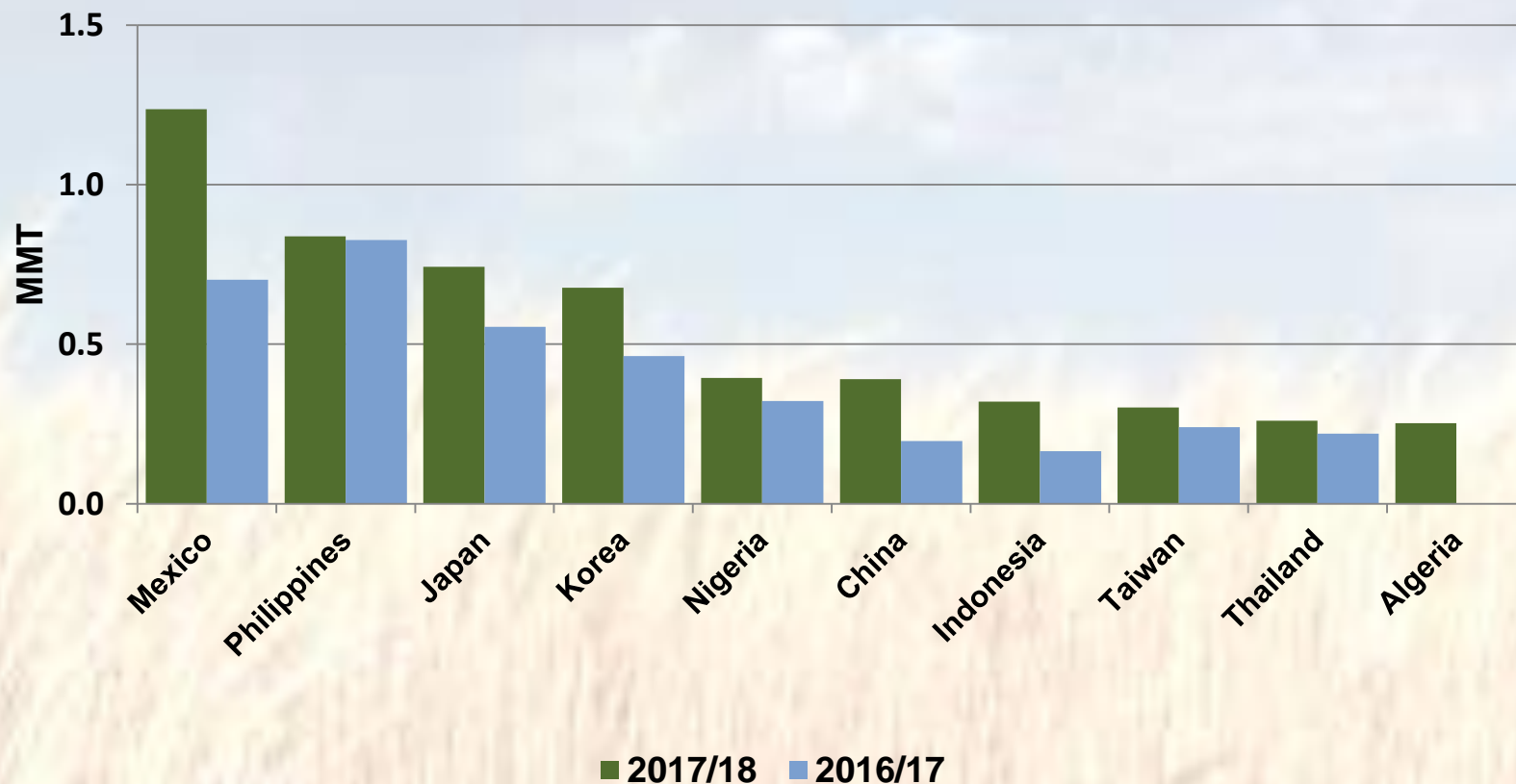
Top 10 Customers for U.S. Wheat

5-year average



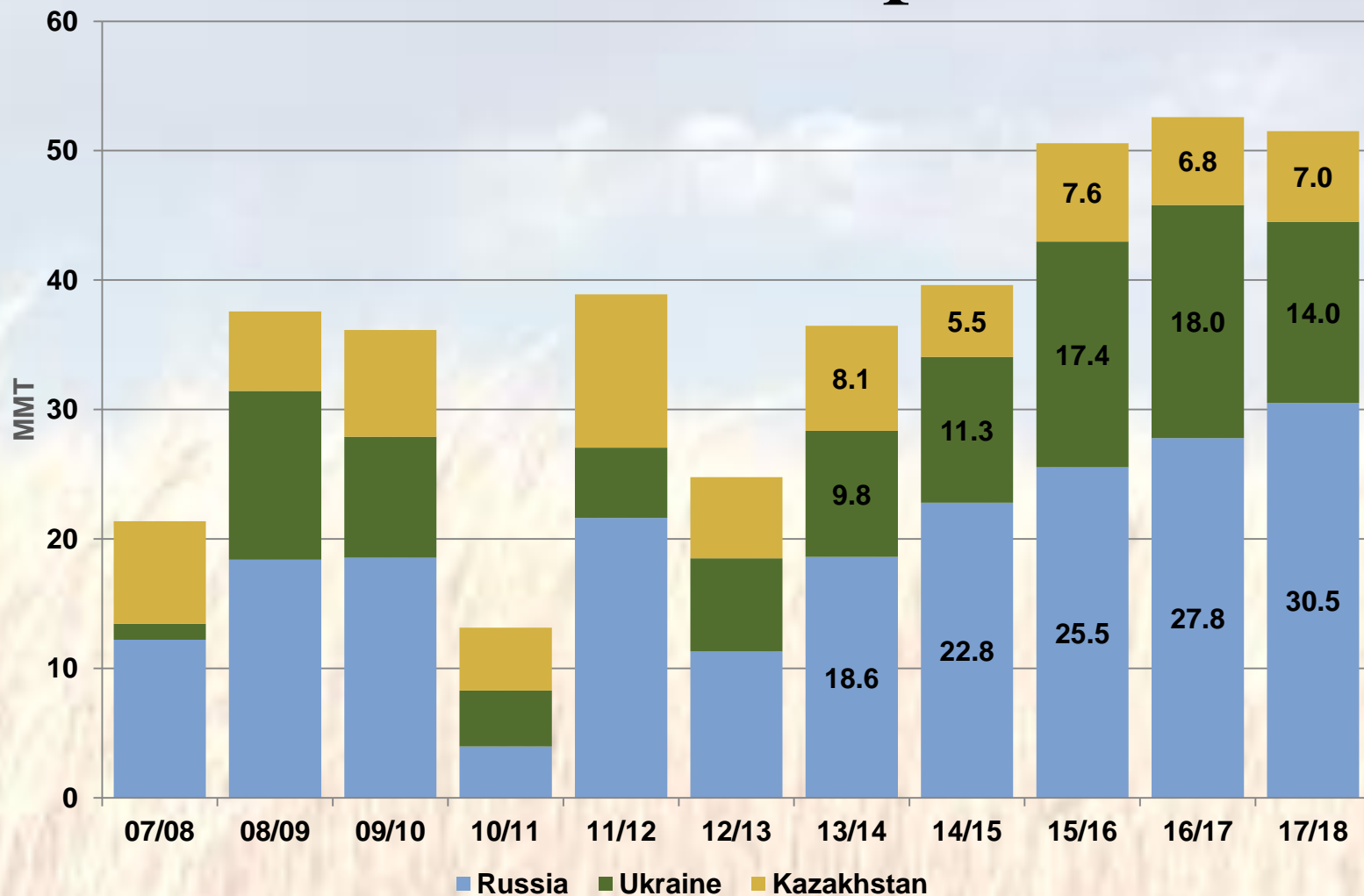
Top 10 Customers for U.S. Wheat

2017/18 vs. 2016/17



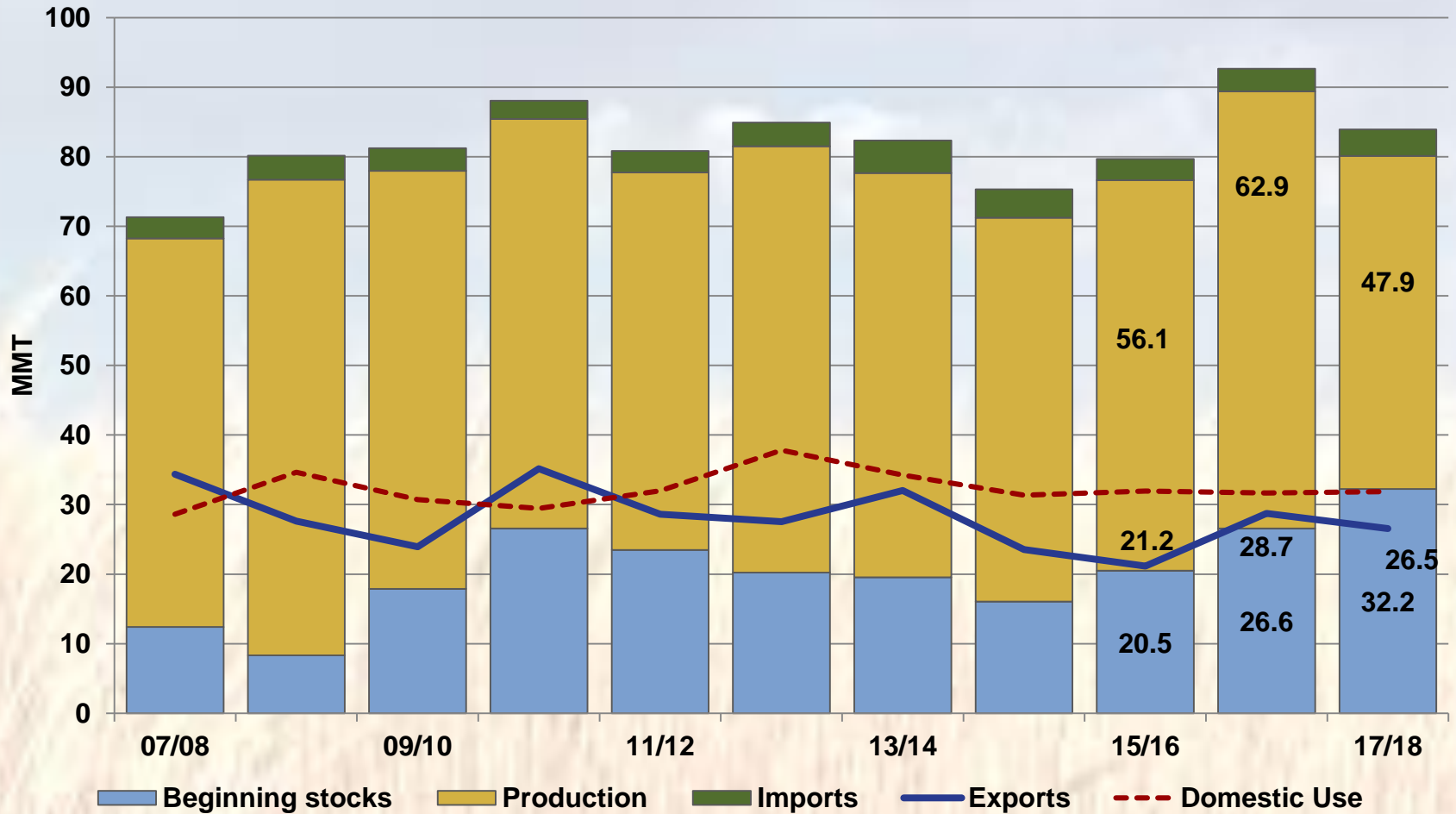
Source: USDA FAS export sales report July 7, 2017.

Black Sea Exports



U.S. Situation

U.S. Wheat Situation



U.S. Wheat

Supply and Demand

	HRW		HRS		SRW	
	16/17	17/18	16/17	17/18	16/17	17/18
	MMT					
Beginning Stocks	12.1	16.1	7.4	6.4	4.3	5.9
Production	29.5	20.6	13.4	10.5	9.4	8.3
Imports	<u>0.1</u>	<u>0.2</u>	<u>1.1</u>	<u>1.7</u>	<u>0.9</u>	<u>0.6</u>
Supply Total	41.7	37.0	22.0	18.6	14.6	14.8
Domestic Use	13.2	13.5	6.8	7.4	6.2	5.9
Exports	<u>12.4</u>	<u>11.3</u>	<u>8.7</u>	<u>7.9</u>	<u>2.5</u>	<u>2.4</u>
Use Total	25.6	24.8	15.6	15.3	8.7	8.4
Ending Stocks	16.1	12.2	6.4	3.3	5.9	6.4
Stocks-to-Use	63%	49%	41%	22%	67%	77%

U.S. Wheat

Supply and Demand

	White		Durum		Total	
	16/17	17/18	16/17	17/18	16/17	17/18
	MMT					
Beginning Stocks	2.0	2.9	0.8	1.0	26.6	32.2
Production	7.8	6.9	2.8	1.6	62.9	47.9
Imports	<u>0.2</u>	<u>0.2</u>	<u>0.8</u>	<u>1.1</u>	<u>3.2</u>	<u>3.8</u>
Supply Total	10.0	10.0	4.4	3.6	92.6	84.0
Domestic Use	2.7	2.7	2.8	2.4	31.7	31.9
Exports	<u>4.4</u>	<u>4.4</u>	<u>0.7</u>	<u>0.5</u>	<u>28.7</u>	<u>26.5</u>
Use Total	7.1	7.1	3.4	2.9	60.4	58.4
Ending Stocks	2.9	2.9	1.0	0.7	32.2	25.6
Stocks-to-Use	40%	41%	29%	24%	53%	44%

US Industry INCREASED usage of Hard Red Winter

- Has been a point of discussion, on overall US HRW quality last year. In my opinion, but, *the market has worked.*
- The US industry used over a million metric tons more of HRW than they did the previous year.
- With Spring wheat and winter wheat spreads widening; expect this to continue
- Market is rationing high pro springs and encouraging blending in lower pro winters
 - Winter wheats are having to buy their way into the dance

U.S. Wheat

Supply and Demand

	HRW		HRS		SRW	
	15/16	16/17	15/16	16/17	15/16	16/17
	MMT					
Beginning Stocks	8.0	12.1	5.8	7.4	4.2	4.3
Production	22.6	29.5	15.5	13.4	9.8	9.4
Imports	<u>0.2</u>	<u>0.1</u>	<u>1.3</u>	<u>1.0</u>	<u>0.5</u>	<u>1.0</u>
Supply Total	30.8	41.7	22.5	21.8	14.5	14.7
Domestic Use	12.5	14.5	8.3	7.5	6.9	5.9
Exports	<u>6.2</u>	<u>12.0</u>	<u>6.9</u>	<u>8.7</u>	<u>3.3</u>	<u>2.4</u>
Use Total	18.6	26.5	15.1	16.2	10.2	8.3
Ending Stocks	12.1	15.2	7.4	5.6	4.3	6.4
Stocks-to-Use	65%	58%	49%	35%	42%	76%

USDA will release wheat by class projections for 2017/18 in the July 12, 2017 WASDE.

Market's attention is on Spring Wheat conditions

- Dropped 20% good to excellent the last week of May and first week of June.
- Lowest ratings since 1992
- WQC Spring Wheat tour estimated a 38.3 yield. Lowest since 2008.

YIKES!!! RT [@blair_hynek](#): NW ND hrsw
ankle high & heading out.
pic.twitter.com/QeLRdvlhlj
[#wheatharvest17](#) [#Grow17](#)



2017 Spring Wheat outlook

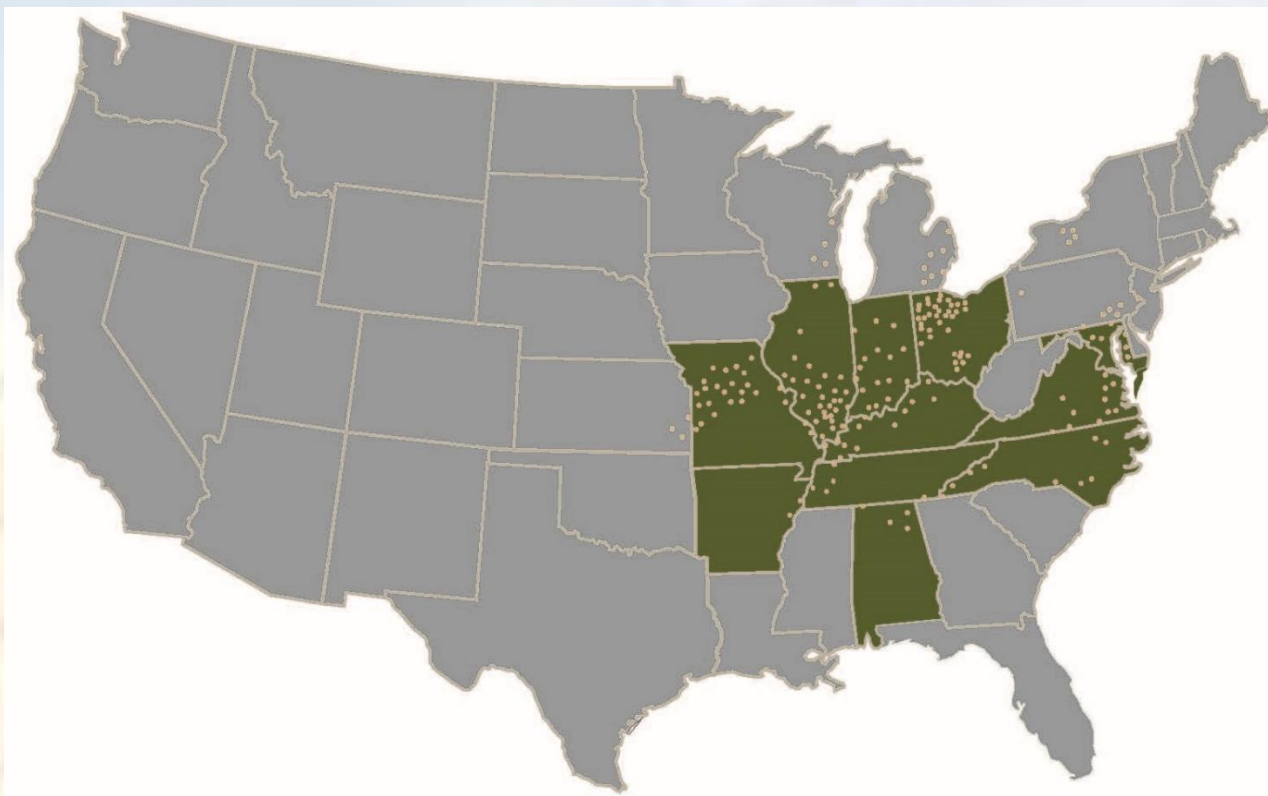
- Production impacted by drought; to be 20% lower than last year.
- Concerns with Canadian crop as well.
- Spring wheat tour did NOT estimate abandonment.
 - Expecting lowest yields in a decade, 38 bu per acre; lower yields and high abandonment.
- Little disease noted.
- Wide spreads with Minneapolis futures vs. KC and Chicago.
- USDA July report had ND at 196 vs. 270 LY
- Durum less than half of LY at 57 million bushels.

2017 Soft Wheat outlook

- Slightly larger year on year
 - SRW 305 vs. 345 mi bu
- SRW Planted aread down 9 %
 - 25% below 5-year average
- Early quality looked good. Some late rains.
- Soft red overall, test weights good, eye on vom and some falling numbers.
 - Avg. pro at 9.7%; FN 313; TKW 32.6
- White wheat just getting under way in OR, ID and MI; production about average out west.
 - Soft White total production slightly lower at 197 million bushels.
- HRW priced cheaper than SRW right now...

2017 SRW CQ (Courtesy US Wheat Associates)

- 11 States Surveyed
 - ~73% of Total SRW Production Represented
 - 74% of SRW Planted Area



US Corn and Bean crop

- Corn and Beans conditions:
 - Corn and bean good to excellent ratings dropped another 4 and 2% this week.
 - Concerns of heat stress.
 - Beans will be very critical for August.
- Wheat will continue to be a follower.
 - Spring wheat has kept wheat out of feed channels for now, but a lot of eyes are on the fall

So what does it all mean?

- Lower production in HRW country.
 - Proteins similar to last year...below average.
 - TW not bad but TKWs look really good...
 - Milling reports early have been very good.
 - Overall, expect a lot of blending.
- Historically speaking, this is an important year for logistics (buyers and operations) to be on the same page...
 - WIDE Premiums in the market place. 12.0% pro wheat is worth a dollar more than 11.0%! I don't know if I have ever seen that!
 - Millers and buyers will be playing the spread game trying to make "cents" of the market. How much lower pro winters can I put in here?
 - Elevator operators, be prepared for some head aches. Storage and blending will be issue for US millers to deal with.
 - Operations and Quality and Sourcing communications will be important.
- HRW vs. SRW vs. HRS....going to be interesting for domestic use...
- Plantings will be interesting this fall...up in springs...

Summary

- Variable year in wheat. You have your challenges ahead of you.
- Protein availability and premiums.
 - Market will work to ration supply, and the volatility will create opportunities for buyers.
- Expect good milling extractions on HRW.
 - Could be a great year for hard white wheat to be used interchangeably with HRW. Better protein, good milling characteristics.
- As for milling quality...
 - Well, you guys are good at what you do...this will be a good year for you to prove it...

Kansas Wheat Innovation Center



"Wheat farmers investing in their future."

Enjoy your Summer!... #wheatnribs

