

U.S. HRW Wheat Crop Update

**IAOM Central and Wheat State
District Meeting**

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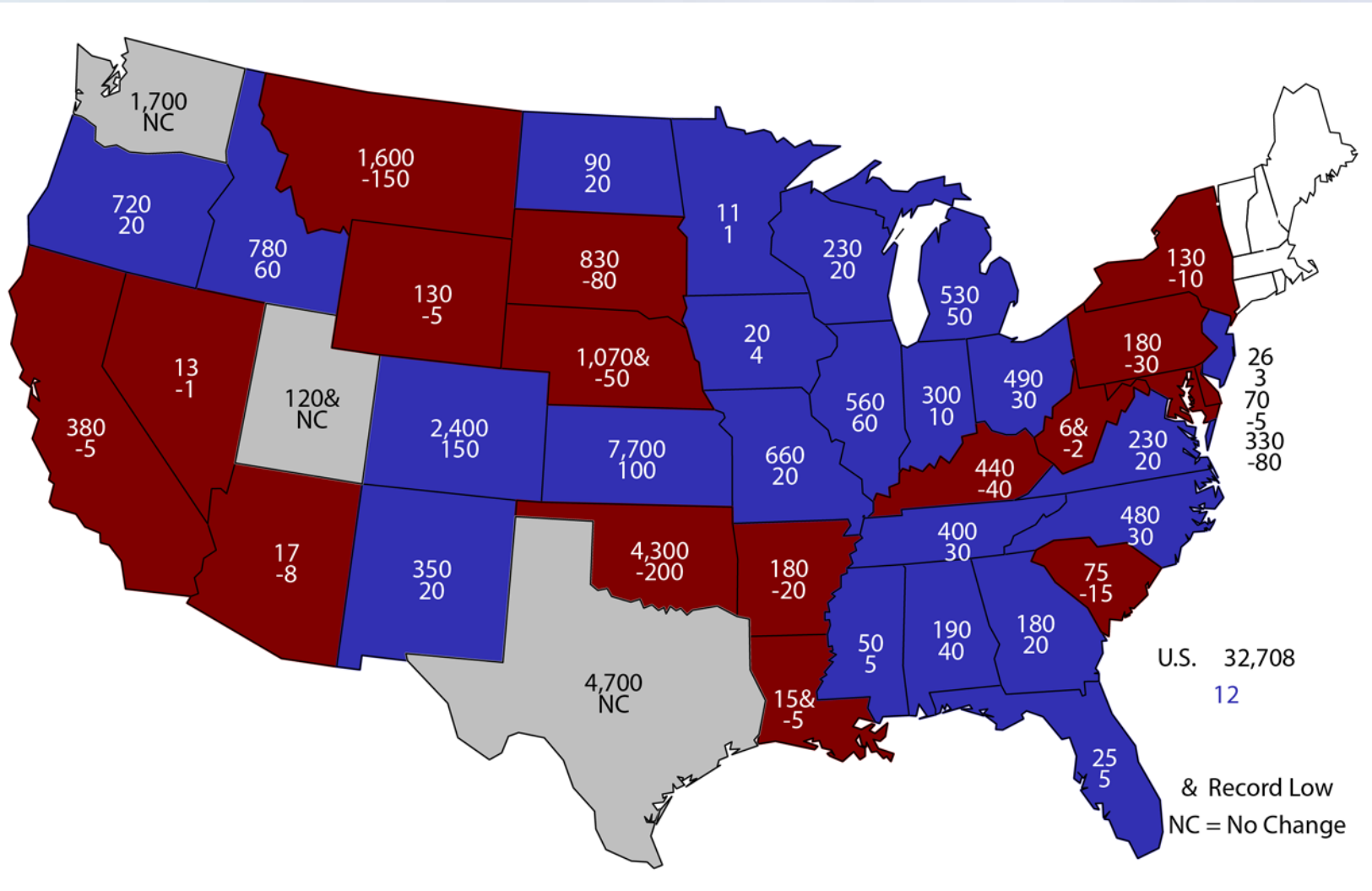
Overview

- US wheat crop review
 - Planted/Harvested
- 2018 Hard Red Winter wheat crop early yield and quality
 - Southern Plains; Central Plains; Northern Plains; Pacific Northwest
 - Quality data from Plains Grains Inc.

A photograph of a vast field of golden wheat, likely in a rural setting, under a clear blue sky with some light, wispy clouds. The wheat is in full bloom, and the perspective is from a low angle, looking across the field towards the horizon.

Outlook for US Hard Red Winter 2018 Production and Quality

2018 Winter Wheat Planted Area (000) acres and change from 2017





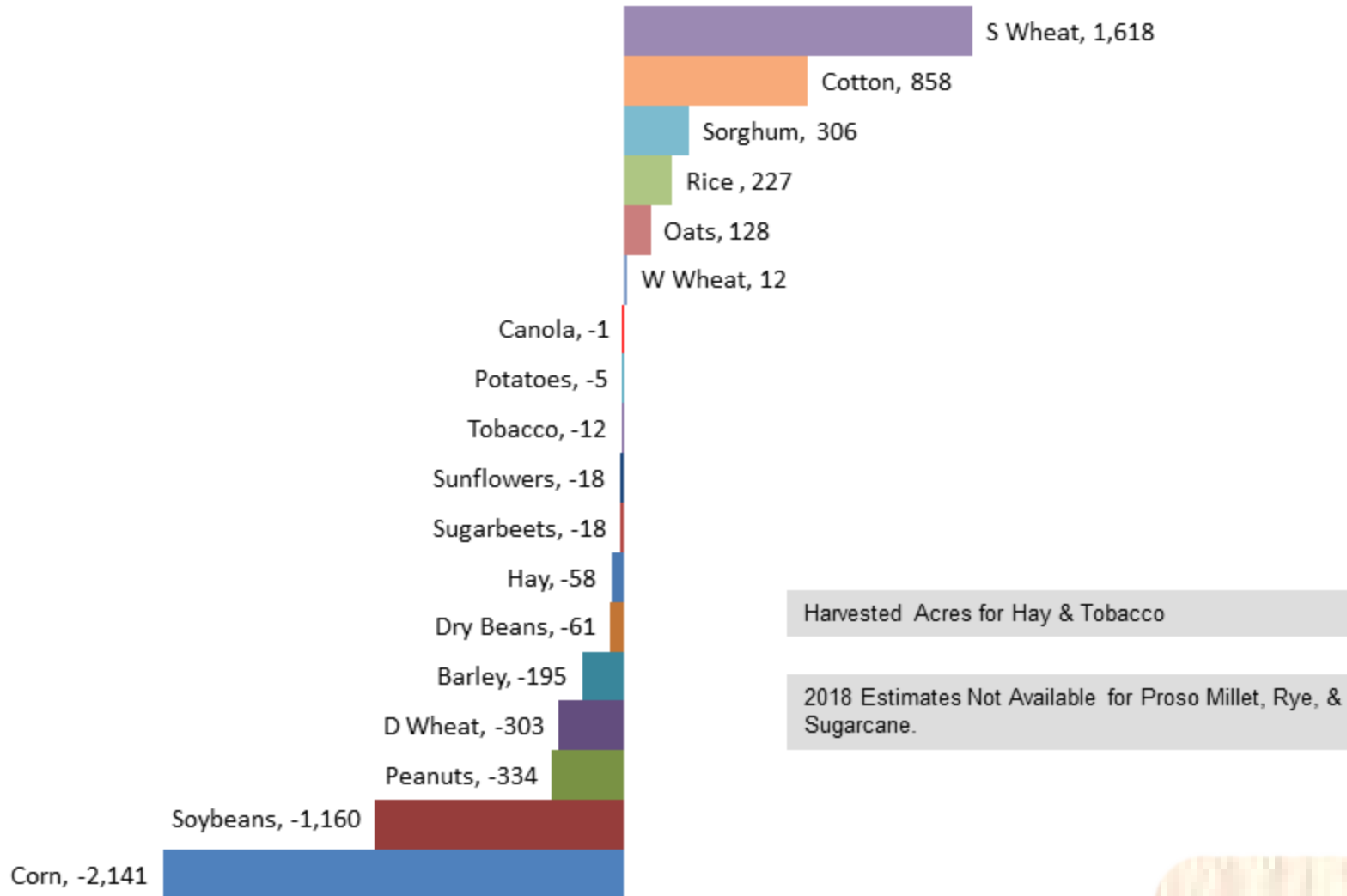
July 2018 Crop Production

Crop	Unit	July 2018	% Change From Previous Forecast	% Change From Previous Season
Wheat, Winter				
Harvested	Mil Ac	24.8	NC	-1.8
Yield	Bu/Ac	48.0	-0.8	-4.4
Production	Bil Bu	1.19	-0.4	-6.1
Production by Class				
Hard Red	Mil Bu	657	+1.1	-12.4
Soft Red	Mil Bu	303	-4.0	+3.6
White	Mil Bu	232	+0.2	+2.4

The 2018 winter wheat planted area, at 32.7 million acres, is up slightly from 2017. Of this total, 23.2 million acres are hard red winter wheat, 5.85 million acres are soft red winter wheat, and 3.64 million acres are white winter wheat.

Principal Crop Planted Acres (000)

2018 change from 2017

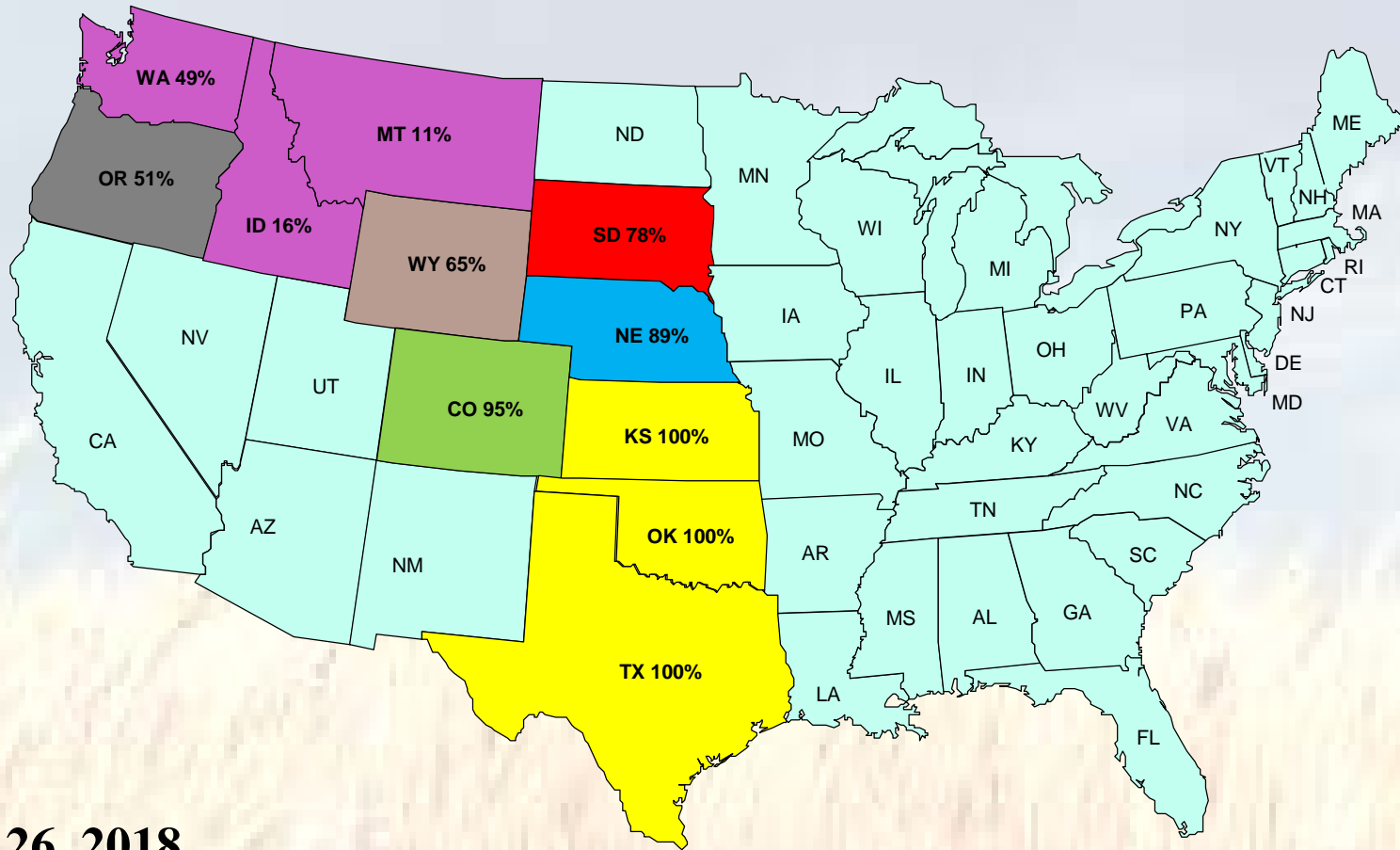


Winter Wheat Area Harvested, Yield, and Production - States and United States: 2017 and Forecasted July 1, 2018

State	Area harvested		Yield per acre			Production	
	2017	2018	2017	2018		2017	2018
				June 1	July 1		
	1,000 acres		bushels			1,000 bushels	
Colorado	2,020	2,050	43.0	40.0	37.0	86,860	75,850
Idaho	670	720	80.0	83.0	82.0	53,600	59,040
Kansas	6,950	7,300	48.0	37.0	38.0	333,600	277,400
Montana	1,590	1,450	42.0	48.0	50.0	66,780	72,500
Nebraska	1,020	1,000	46.0	45.0	48.0	46,920	48,000
Oklahoma	2,900	2,200	34.0	26.0	25.0	98,600	55,000
Oregon	690	710	63.0	54.0	54.0	43,470	38,340
South Dakota	520	730	40.0	54.0	52.0	20,800	37,960
Texas	2,350	1,800	29.0	27.0	30.0	68,150	54,000
Washington	1,650	1,650	73.0	73.0	76.0	120,450	125,400
United States	25,291	24,831	50.2	48.4	48.0	1,269,437	1,192,585

US Hard Red Winter Wheat

Harvest Progress and Overall Average Kernel Data to Date



July 26, 2018

Tst	Exp	MST	Pro %	DKG	TKW	FN	Grade	Test Weight	FM	DMG	S&B	DEF
378	500	11.4	12.6	0.5		385*	1HRW	60.6 79.7	0.2	0.2	1.2	1.6

July 20, 2018

Tst	Exp	MST	Pro %	DKG	TKW	FN	Grade	Test Weight	FM	DMG	S&B	DEF
293	500	11.2	12.8	0.5							385*	1HRW
60.2	79.2	0.1	0.2	1.2	1.6							

2018 HRW crop conditions

- “Mudded” in some of this crop in some areas.
- Most areas of the southern and central Plains had very little (some none!!!) moisture after planting (some not until harvest). AGAIN!!
- Late High Temperatures as crop finished out...AGAIN!!!!
- Virtually no disease and very few insect problems (correlates with no moisture)...vectors died of thirst!
 - CO & NE especially had Sawfly damage
 - Lodging issues when storms arrived.
- Hail Hail Hail and more Hail and Rain
 - CO, NE and KS
 - Storms and rains continue to prolong harvest.
- Overall, a varying conditions created varying results with both yields and quality, but overall this is a very sound and functional crop.

2018 HRW Crop Conditions

-Continued-

- <http://droughtmonitor.unl.edu/Maps/Animations.aspx>
- 2nd Lowest planted Winter Wheat acres on record.
- Highly variable growing conditions creating variable results!!!!
AGAIN!
- 2 years of back to back low protein high production years, needed to insure enough nitrogen was down.



2018 Southern Plains

- TX harvest
 - 54 million down AGAIN from 68 million bushels which was down from 90 million 2 years ago.
 - Test weights good; proteins above average and better than the last 2 years (especially in the Panhandle and High Plains).
- Oklahoma harvest lower with fewer acres AGAIN!!
 - 55 million bushels vs 90.7 million bushels last year vs 137 million bushels two years ago.
 - Test weights good and proteins very good especially moving west
- Overall, fewer acres planted and harvested AGAIN, but much better and proteins and quality overall considering the two previous years.

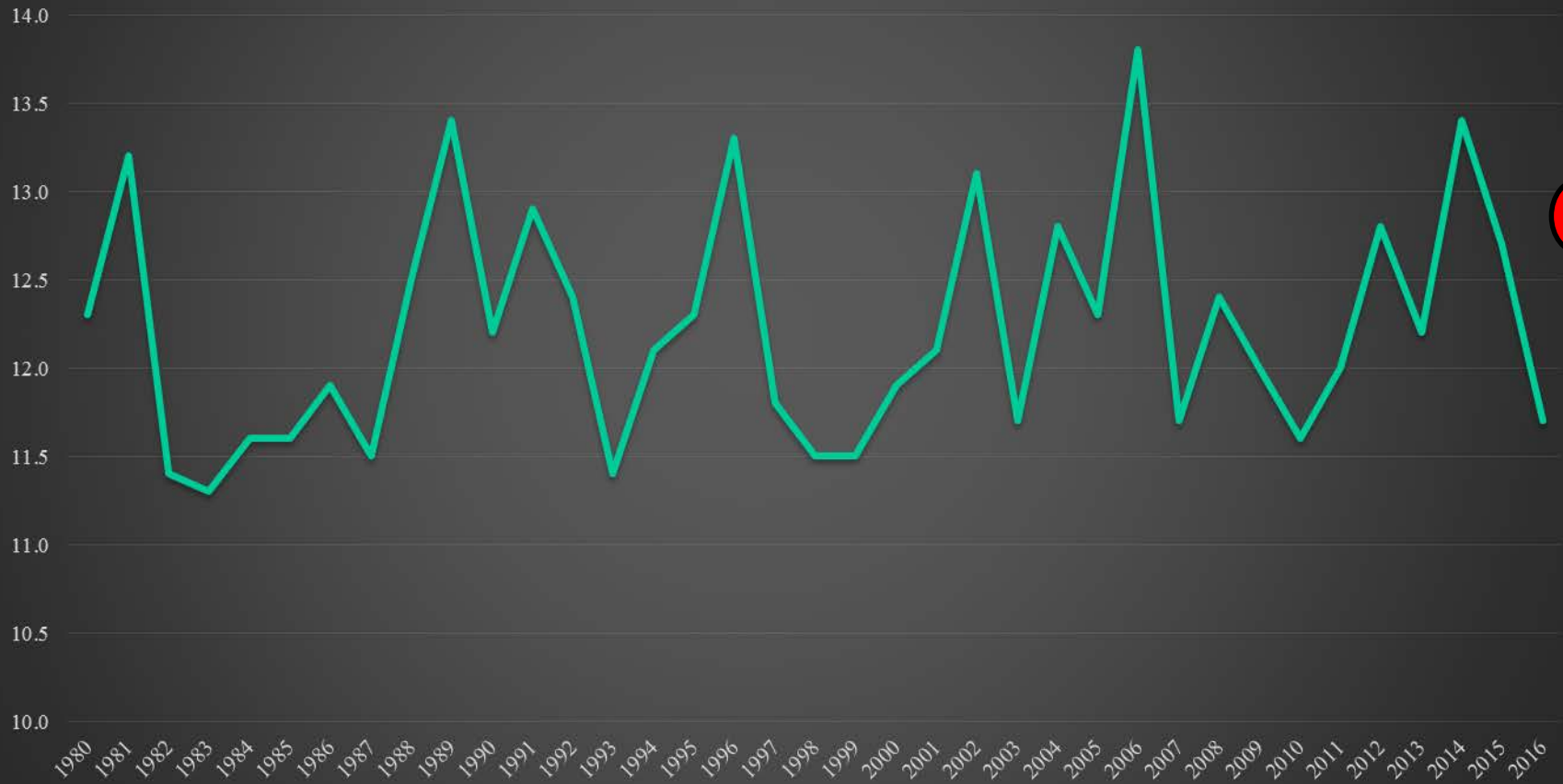
Colorado, Nebraska, South Dakota, Wyoming and Montana

- **Northeast Colorado, western Nebraska and NW Kansas benefited from good weather early, but harvest has been a different story. Protein have been generally lower in these areas.**
 - CO 87 to 76, mb; NE 47 to 48 mb; SD 21 to 38 mb; MT 67 to 73
 - Harvest themes stayed consistent as it moved north
 - Nebraska; little change in harvested acres
 - 1.0 million acres harvested
 - Production lower at 46 million bushels; 25 million bushels fewer.
 - South Dakota 520K vs 730K with a 12 bu/ac yield increase and extremely high quality!!
 - 17 million bushels increase over 2017.
 - **South Dakota averaged 61.8 lb/bu and 13.9% protein statewide**
 - Montana 140K fewer acres, but 8 bu/ac increase in yield.
 - 6 million bushels increase over last year in production to 72.5 mb.
 - Some stress in pockets should produce protein.
 - PNW ...a really good crop coming volume (relative) and quality!

Kansas early 2018 data

- Main story lines:
 - 2018 Production of 277 mb...2017 Production of 333 mb...2016 production of 454 mb
 - Above average protein (exception was NW corner of the state). Very good functional crop as per early testing.
- Yields variable; AGAIN!!! Late freeze made a significant difference (especially varieties that break dormancy early)
- Drought was a major factor across the SE $\frac{3}{4}$ of the state but especially west and southwest.
- Very good protein averages...
 - Extreme NW had a somewhat lower protein average (11.7%) than the average of the whole state at (12.8%) and lower protein extended into CO, WY and NE adjacent to that area of Kansas.
 - Kansas averaged 12.8% protein
- Bake evaluations just beginning, but look for this crop to perform very well and be highly functional.

Kansas Historical Protein 1980-2016



NE Colorado, NW Kansas, Wyoming, Western Nebraska South Dakota

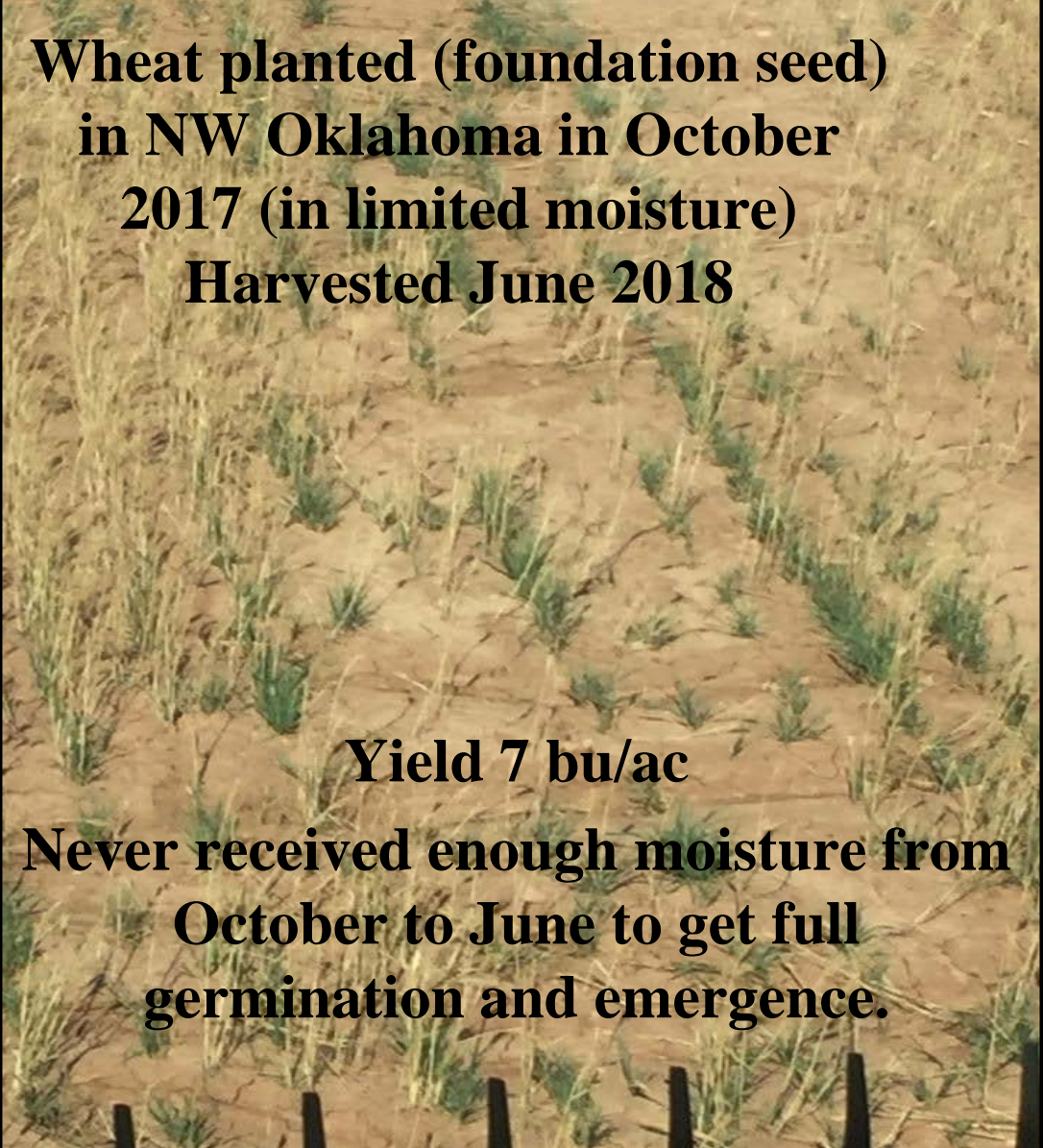
Above Average Number of Hail Storms



NE Colorado, NW Kansas, Wyoming, Western Nebraska South Dakota

Above Average Number of Hail Storms





**Wheat planted (foundation seed)
in NW Oklahoma in October
2017 (in limited moisture)
Harvested June 2018**

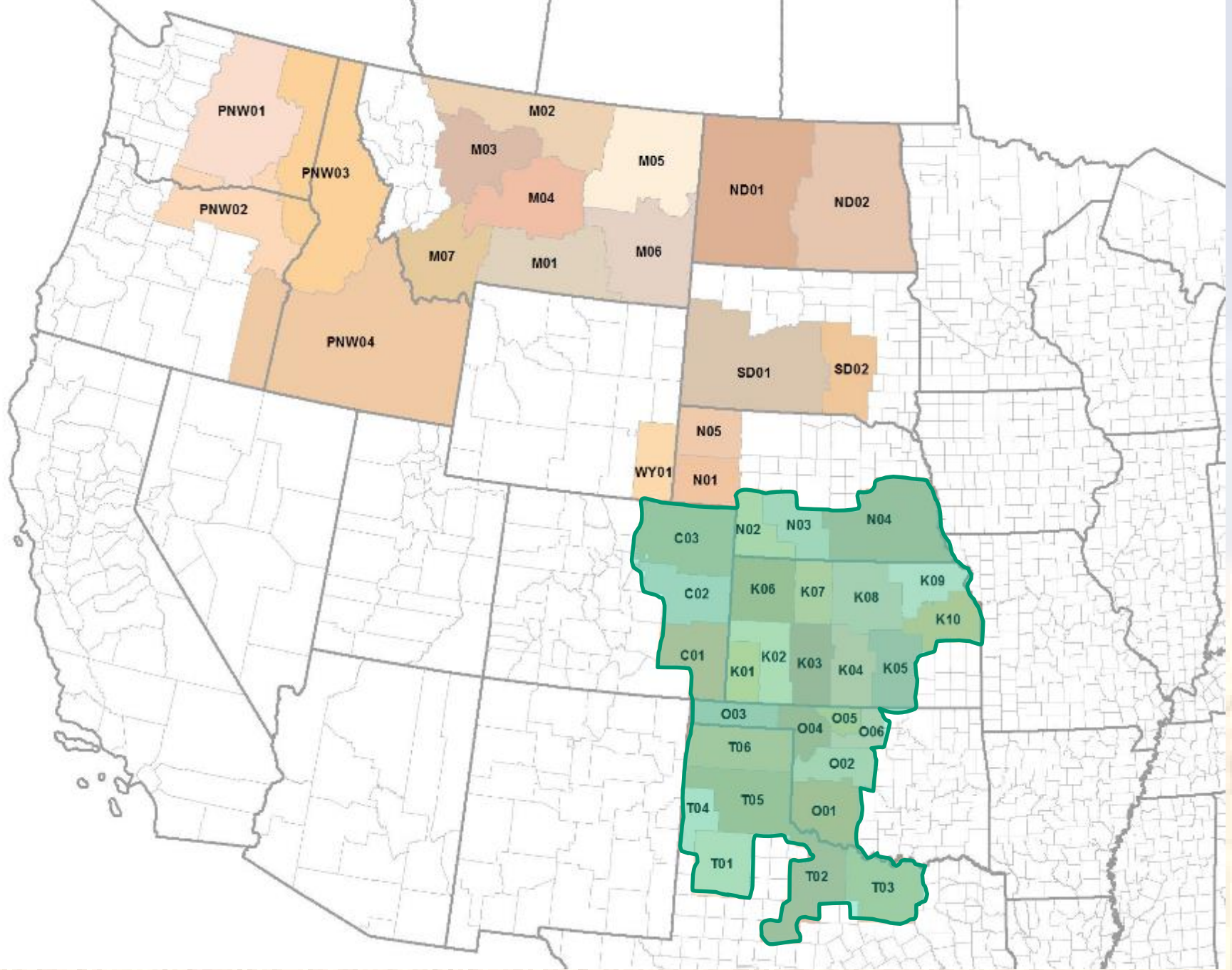
Yield 7 bu/ac

**Never received enough moisture from
October to June to get full
germination and emergence.**



2018

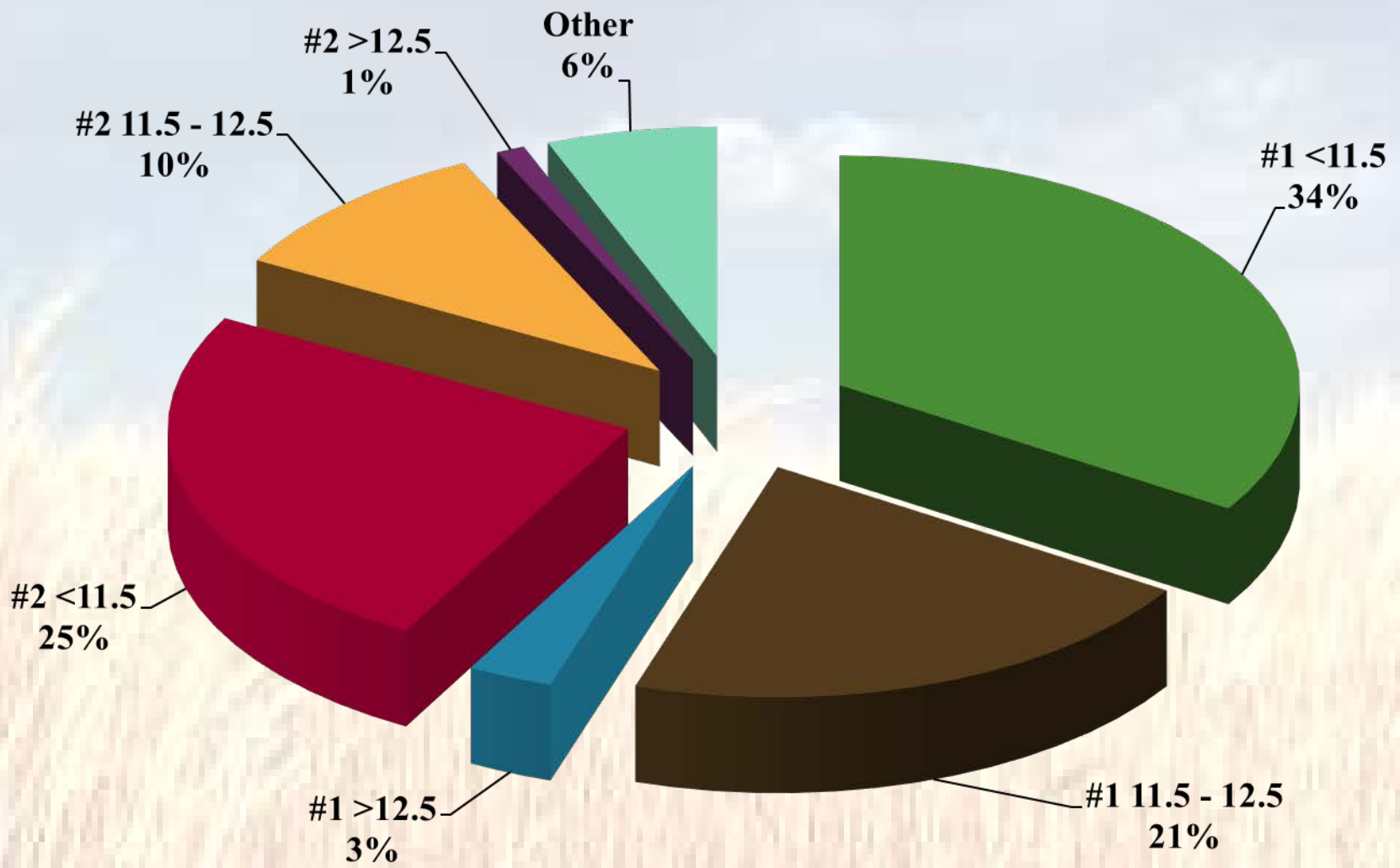
**YEAR OF THE
“BAKER/BLENDER”!**





2016 Gulf Tributary HRW Grade Distribution*

*Partial

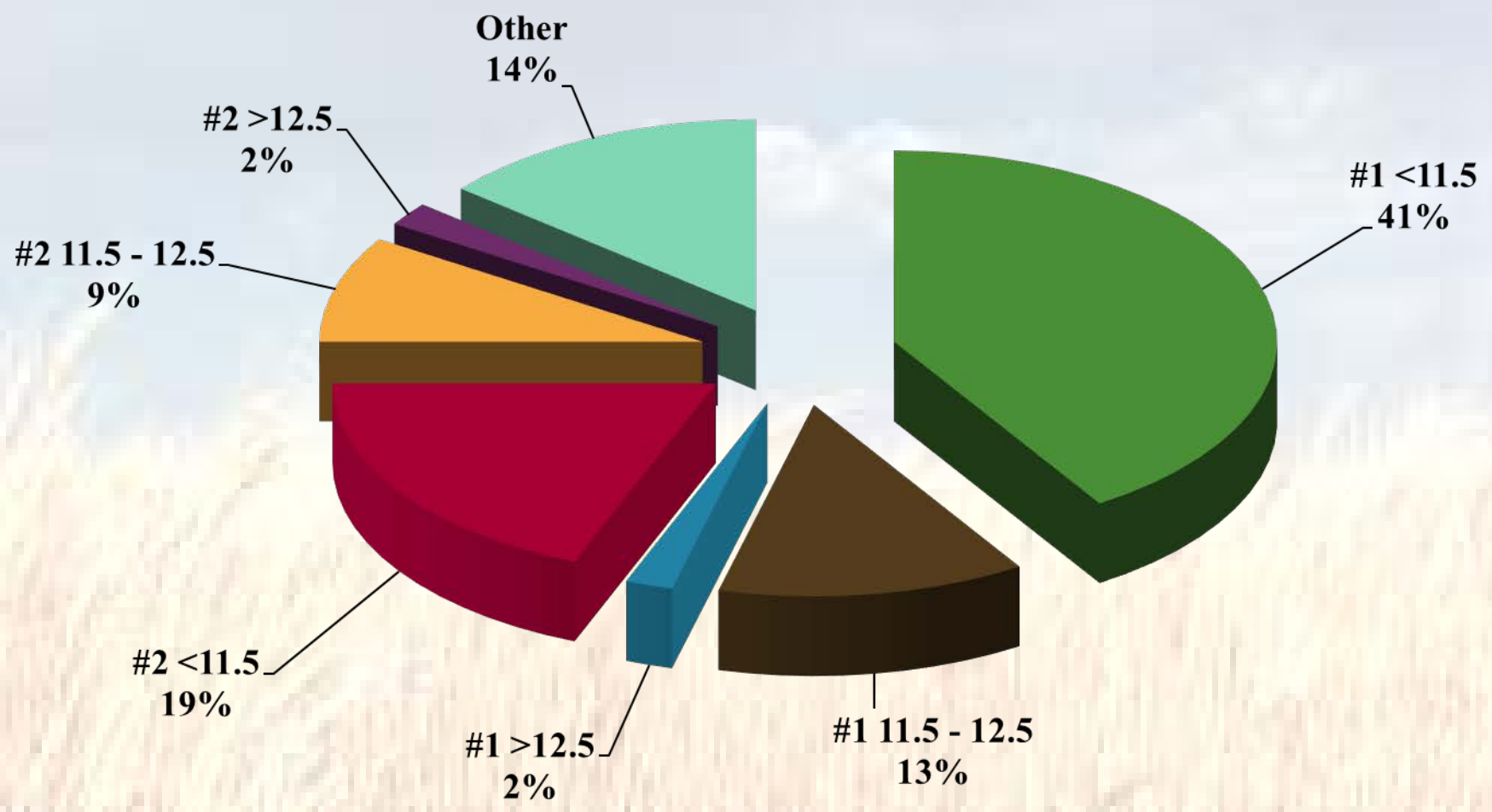


*Partial



2017 Gulf Tributary HRW Grade Distribution*

*Partial

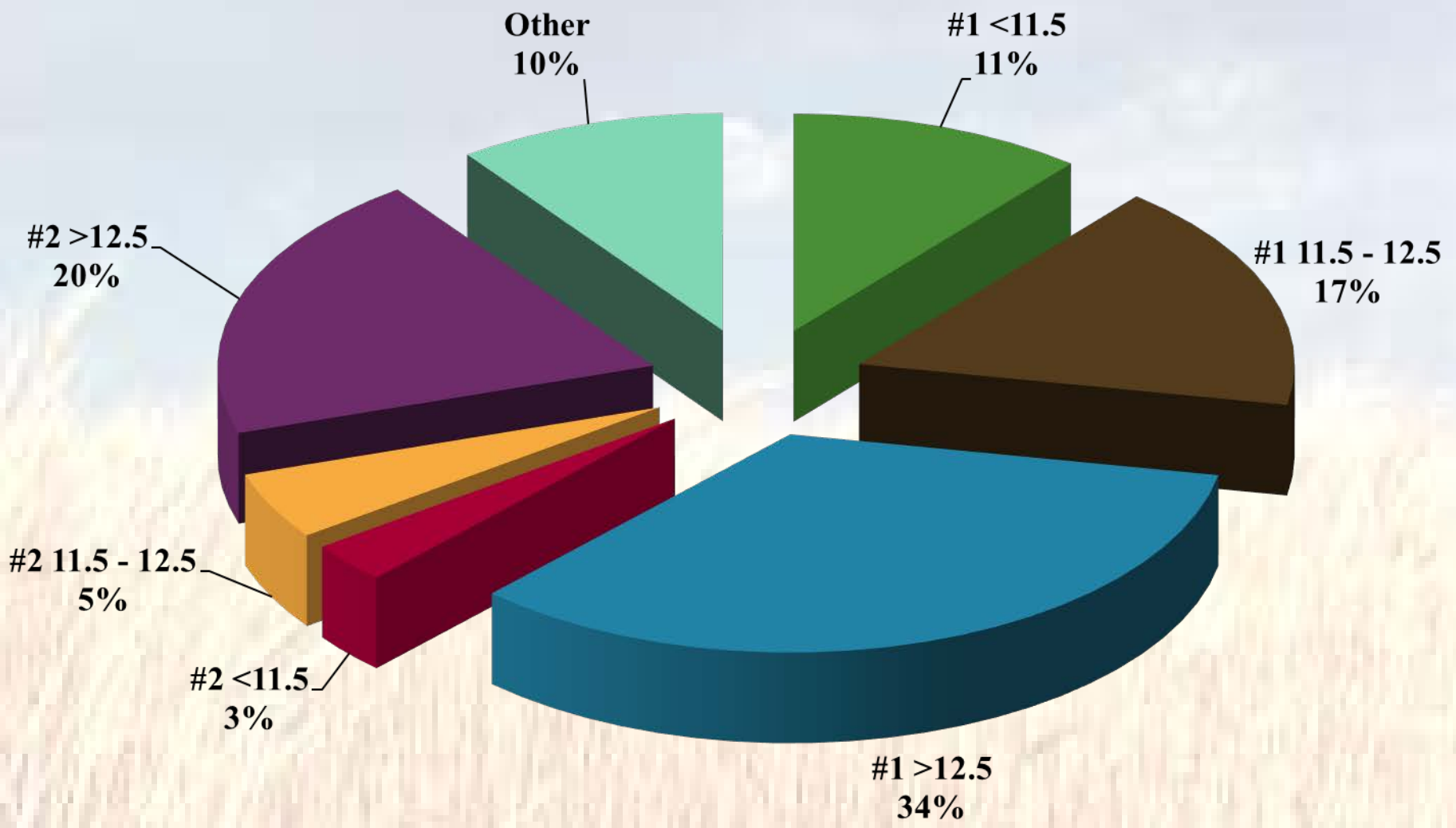


*Partial



2018 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



2018 Gulf HRW

Evaluation based on individual protein samples*

*Partial

Low Protein – Represents all samples less than 11.5% protein*.
(15%)

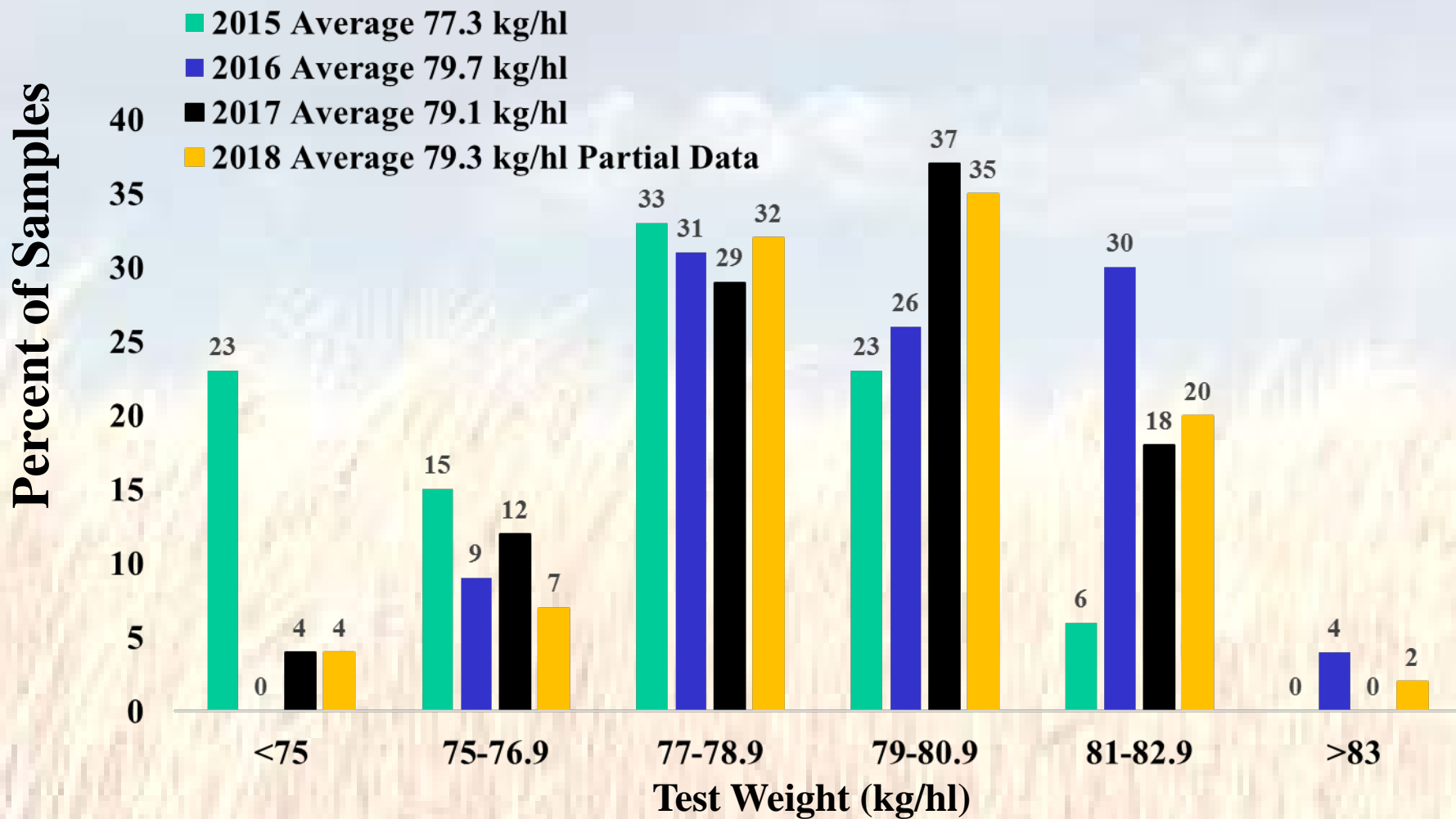
Med. Protein – Represents all samples between 11.5% and 12.5% protein*.
(23%)

High Protein - Represents all samples greater than 12.5% protein*.
(62%)

*12% Moisture Basis

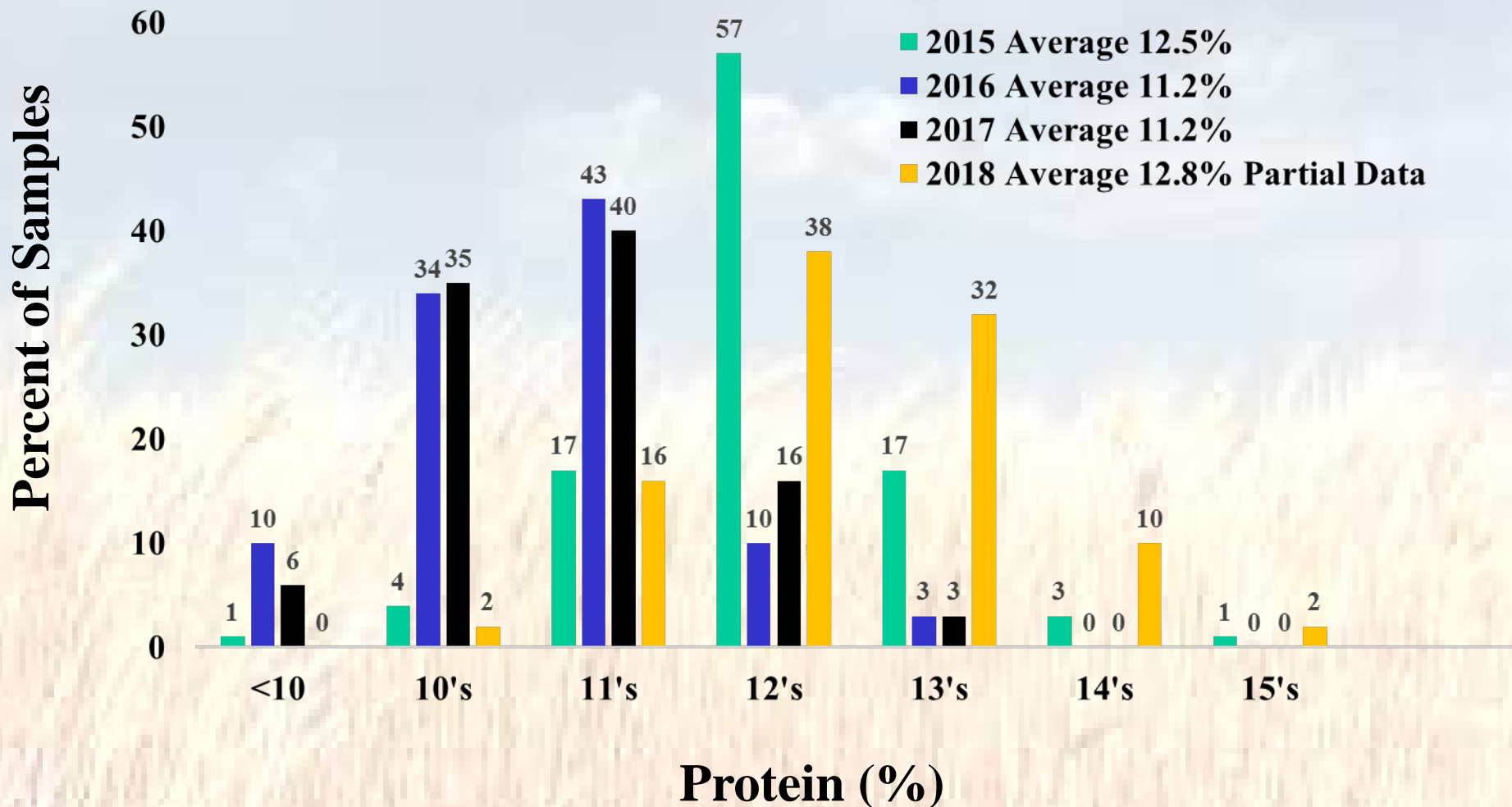


2015/2016/2017/2018 Partial GULF HRW - Test Weight Distribution





2015/2016/2017/2018 Partial GULF HRW – Protein Distribution

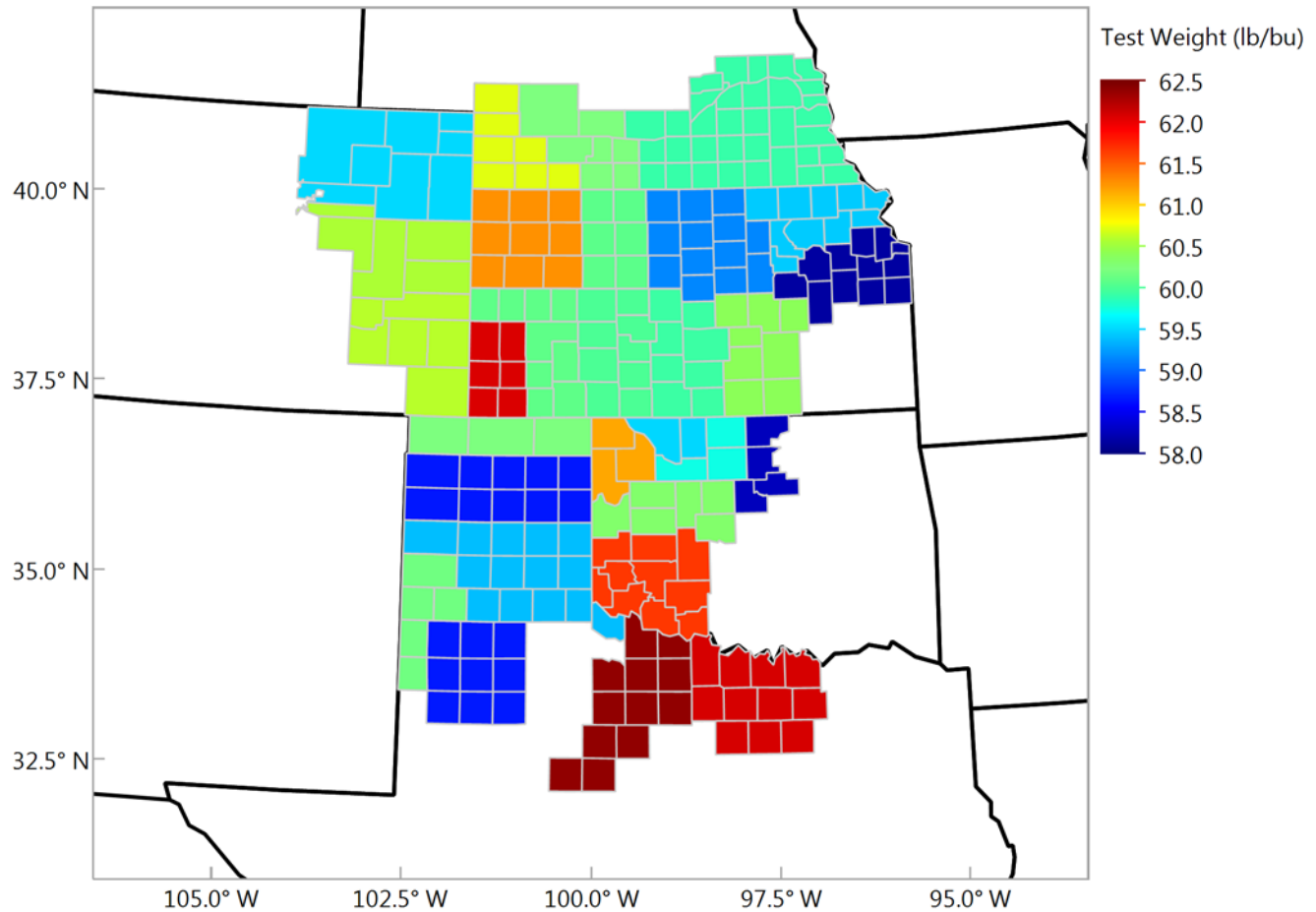


www.plainsgrains.org

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

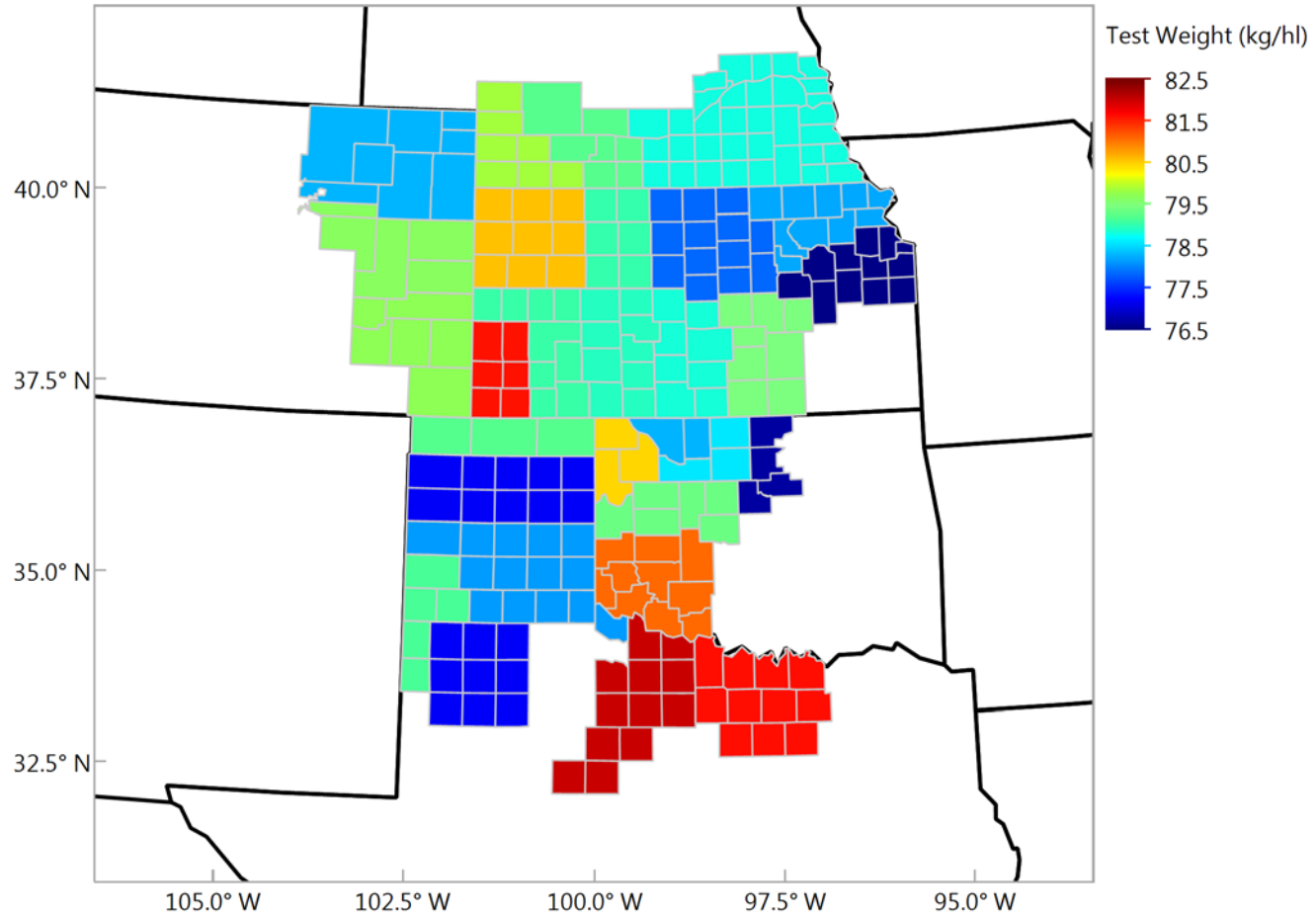
Test Weight, lbs/bu

Individual Samples

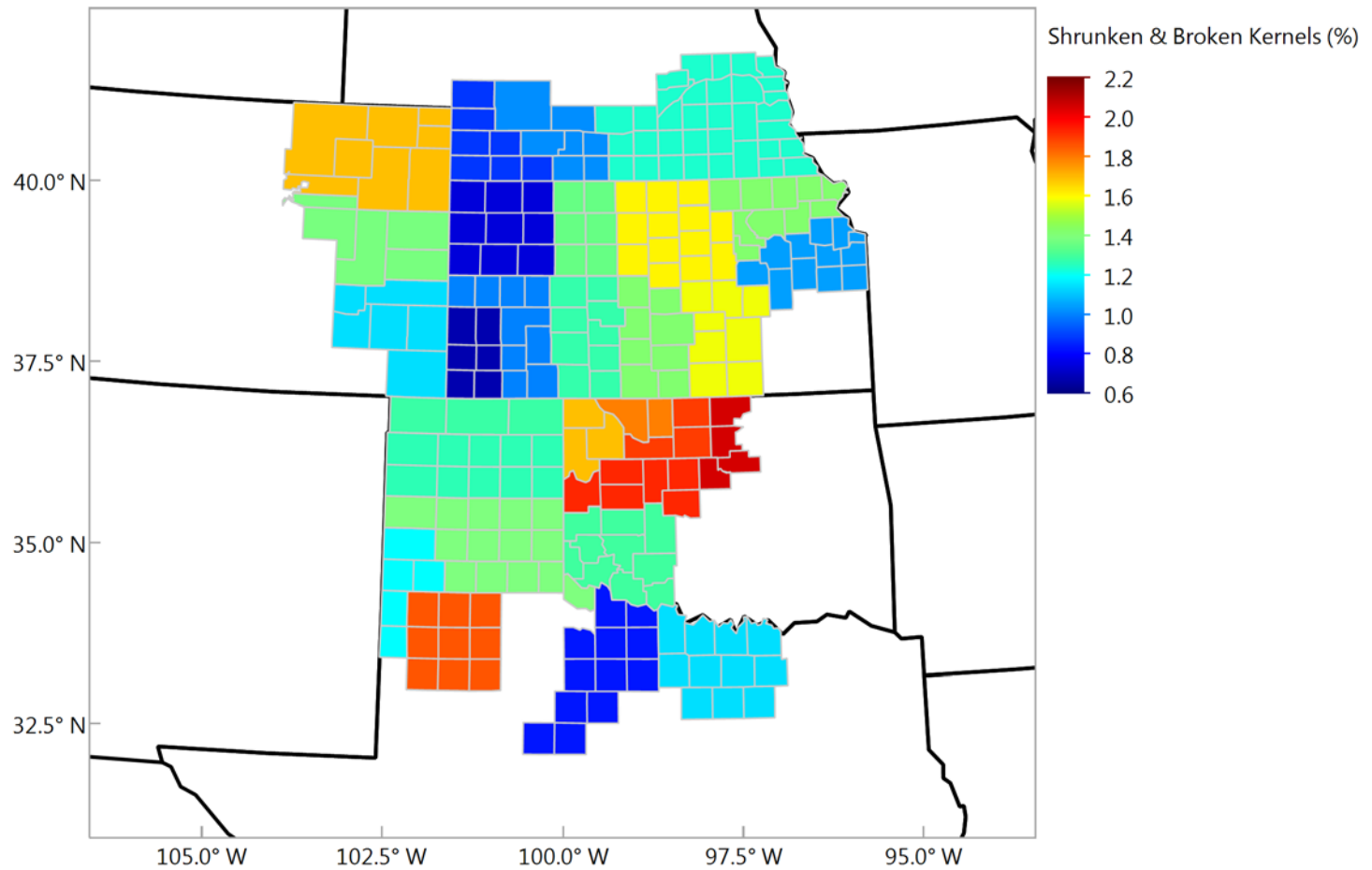


Test Weight, kg/hl

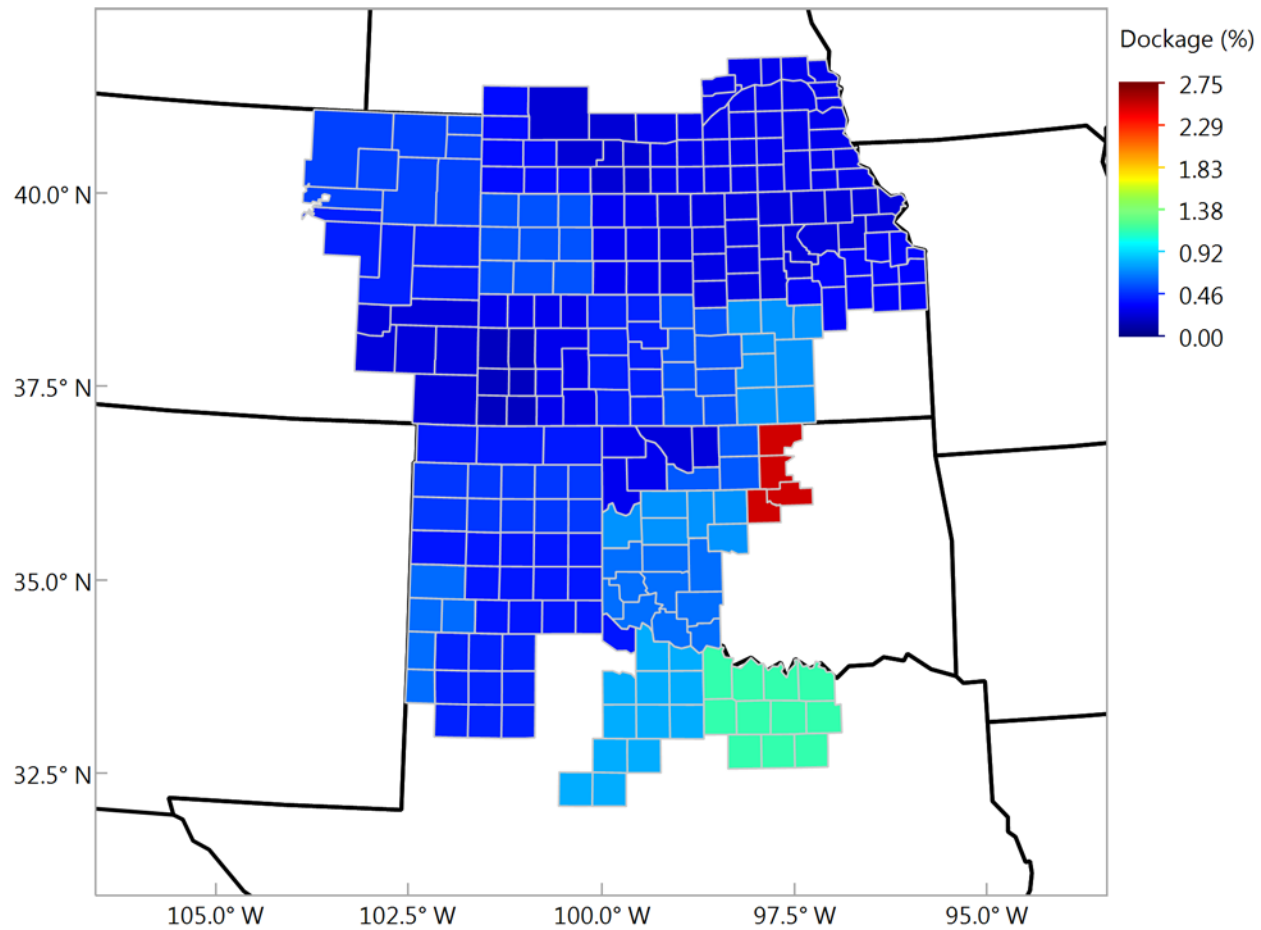
Individual Samples



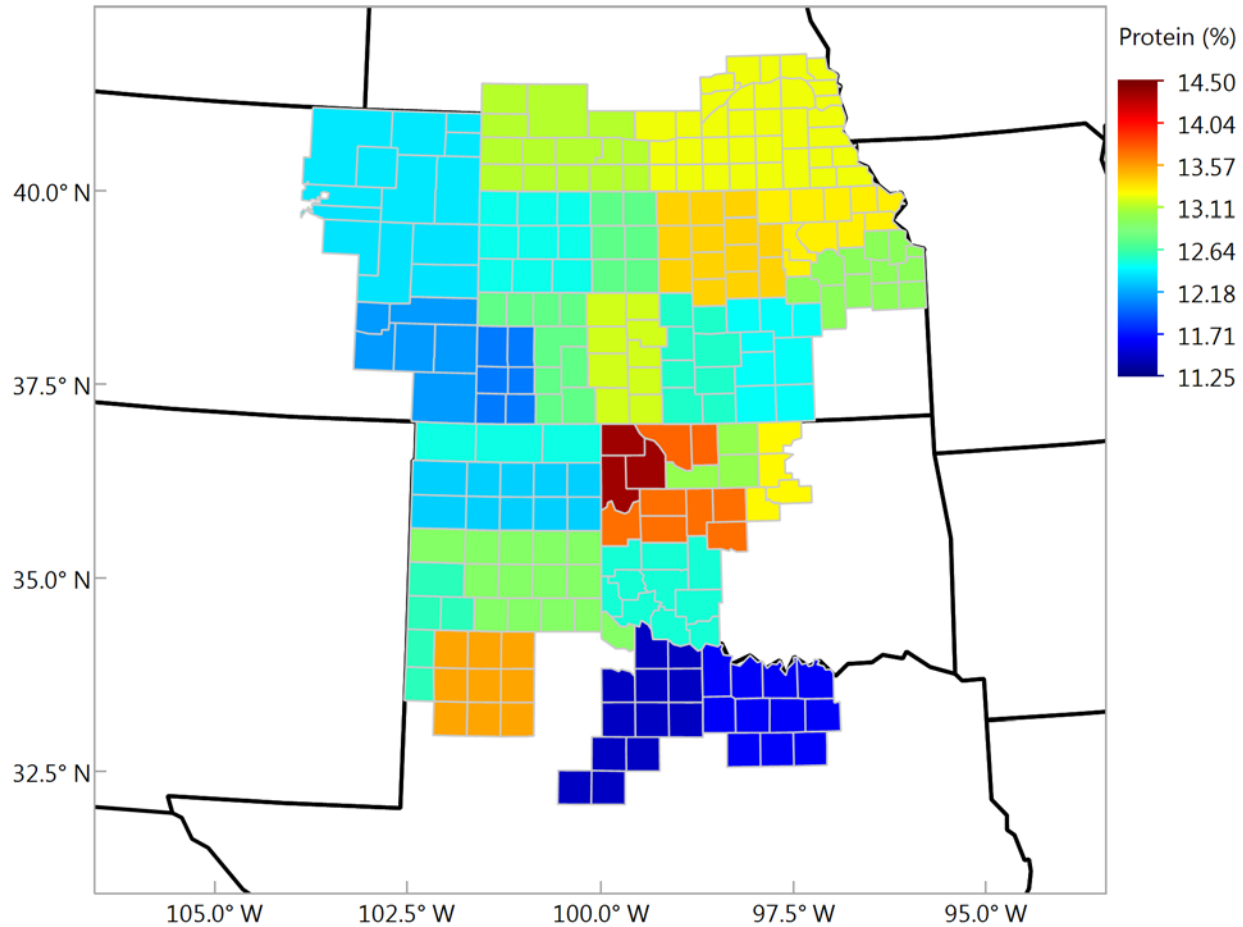
Shrunken & Broken, % Individual Samples



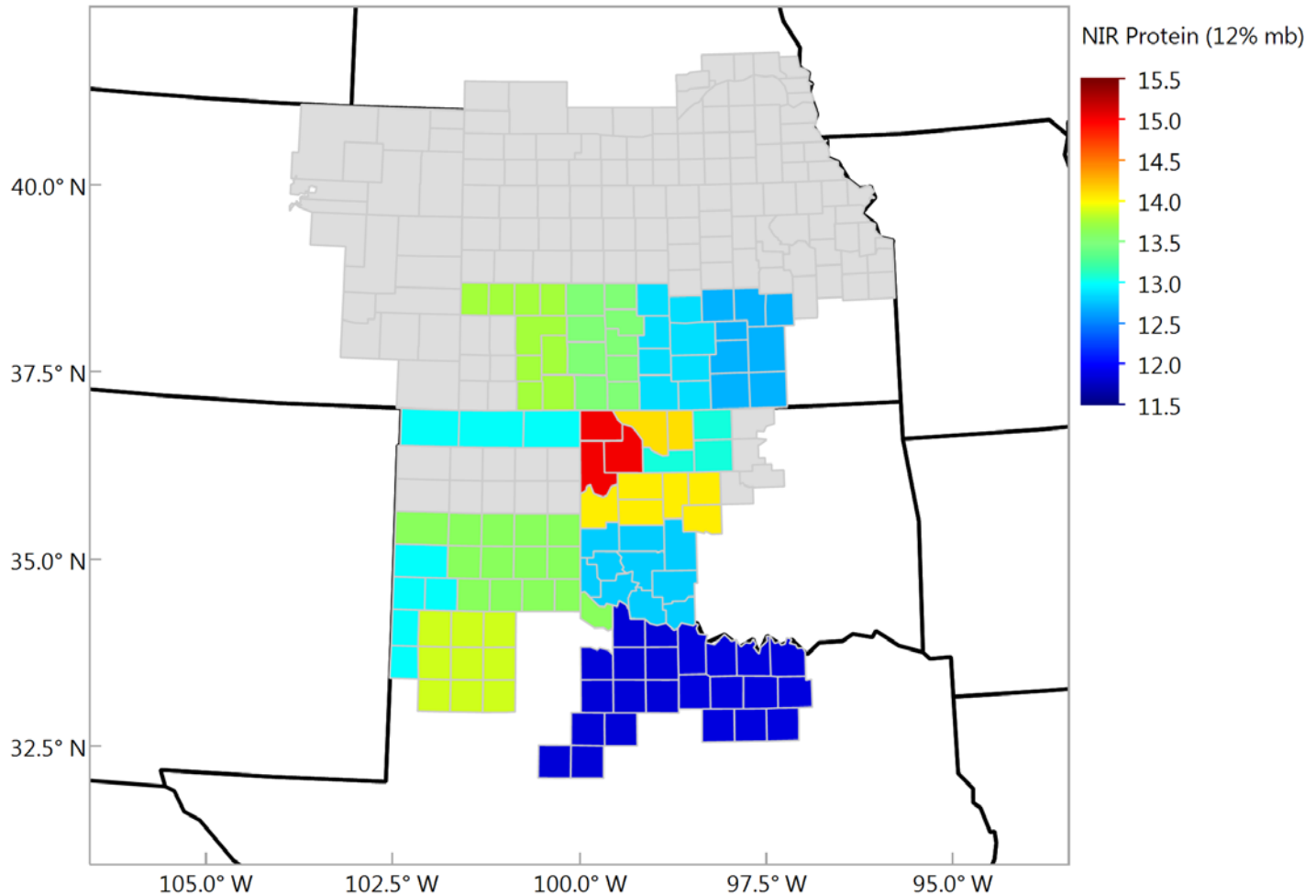
Dockage, % Individual Samples



Wheat Protein, % Individual Samples

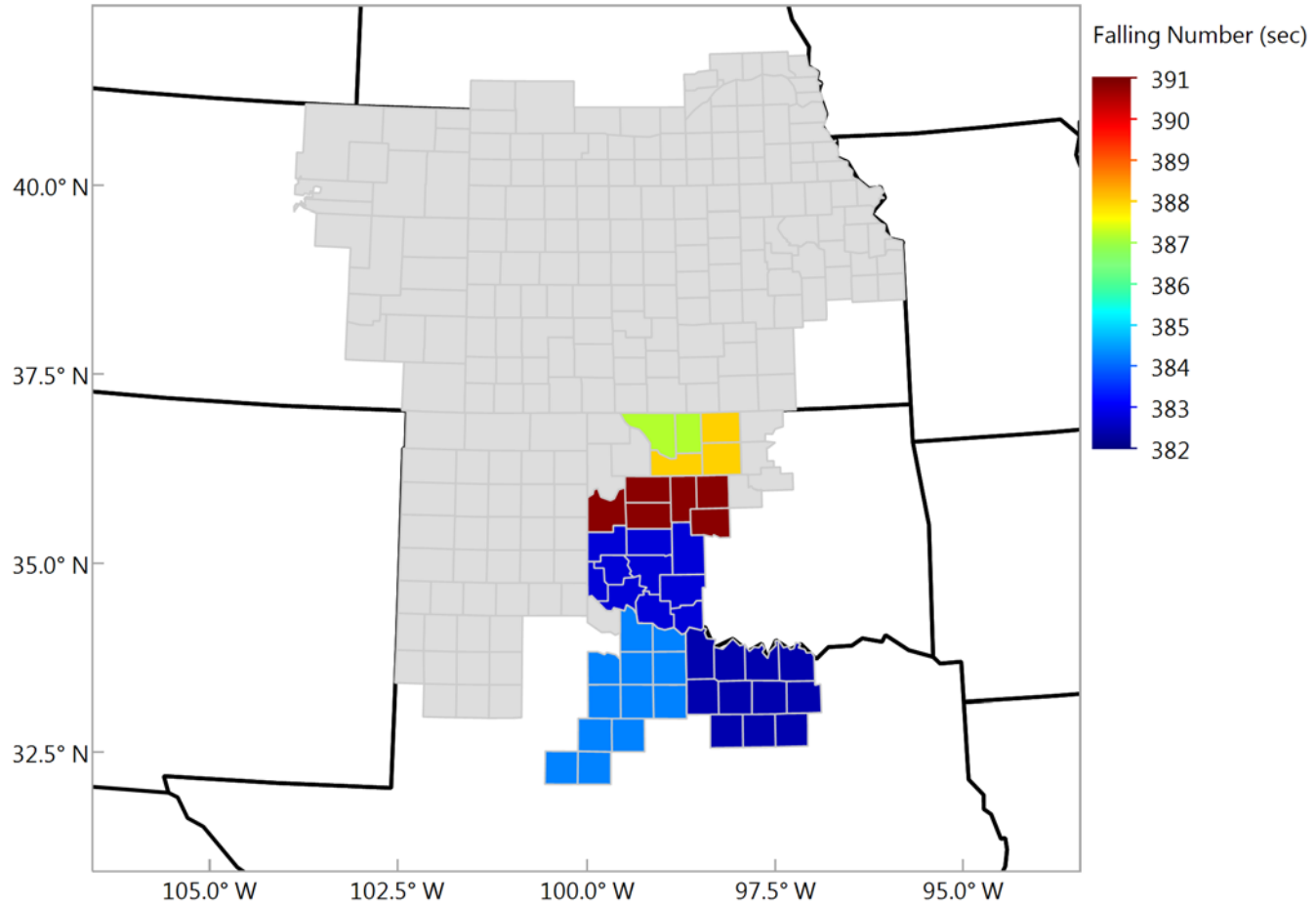


Wheat Ash (12% mb), % Individual Samples



Falling Number, sec

Individual Samples





PLAINS GRAINS INC.

2018 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 2018 HRW crop go to:

www.plainsgrains.org