The Scoop on U.S. Wheat

2017 Spring Technical Conference

And

IAOM Joint District Meeting

Justin Gilpin

Kansas Wh**EAT** Commission

Manhattan, KS

jgilpin@kswheat.com

Overview

- A quick look at current milling crop
- 2017 HRW Crop preview
  - Planted Acreage
  - Current growing conditions
- Global wheat situation
- Kansas Wheat Innovation Center tours this afternoon

US Farmers investing in their industry

- Farmers through Wheat Commission checkoffs invest in:
  - Wheat variety development
  - Quality research
  - Market promotion through US Wheat and WFC

KANSAS WHEAT

Main Themes with 2016 HRW

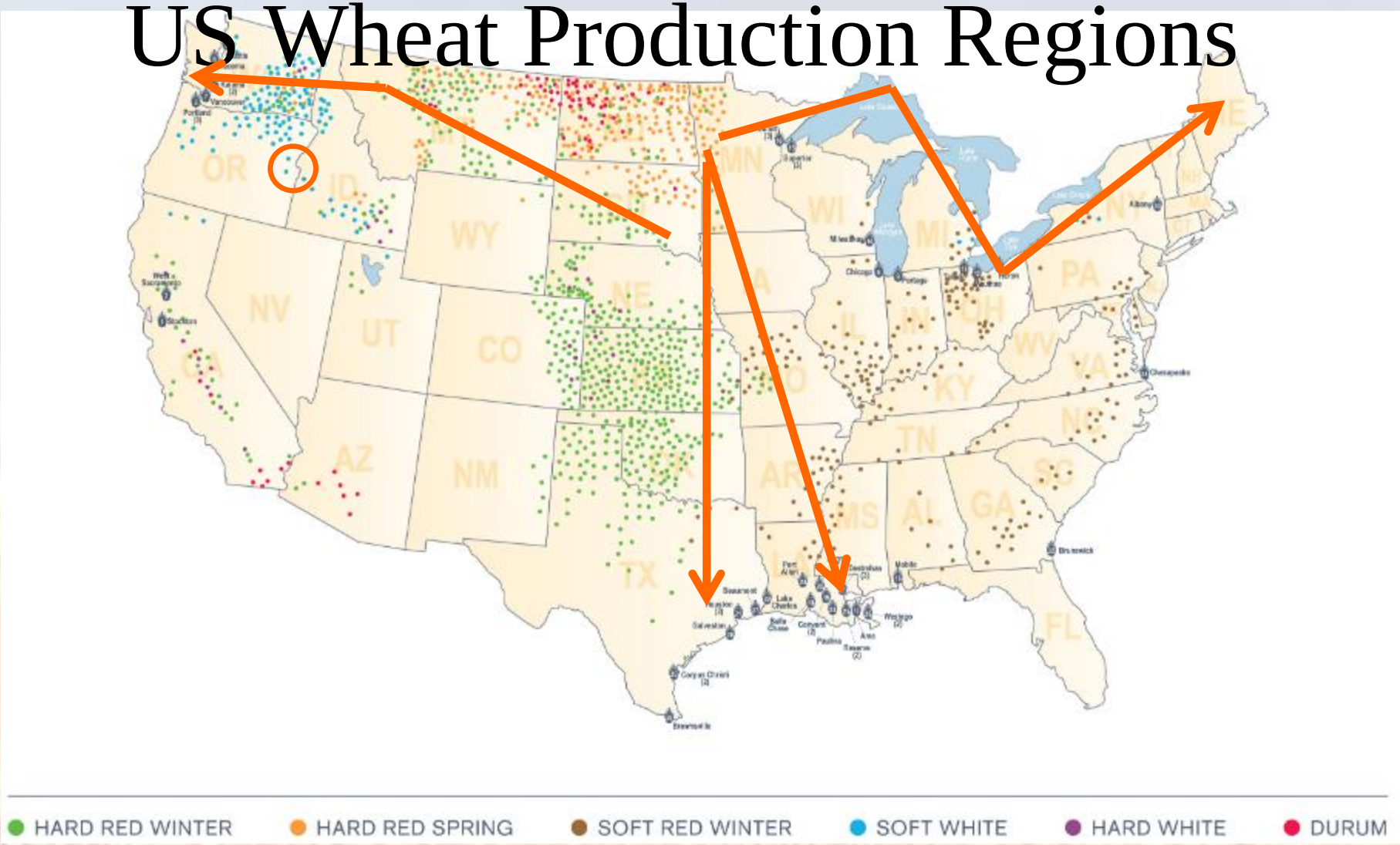
- Big Crop
  - Record yields across hard red winter regions
- Lower protein
  - Quality good; kernel characteristics noted
- Lowest prices in a decades
- Planted acres expected to be down affecting next year’s harvest


2016 Kansas Wheat
Yield Contest
WINNERS
Eastern
87.46
bu/ac
Spencer West
LeRoy, Kansas
Variety: Redhawk
NEW REGION RECORD
Central
109.38
bu/ac
Doug Keas
Plainville, Kansas
Variety: SY Wolf
NEW REGION RECORD
Western
121.48
bu/ac
Alec Horton
Leoti, Kansas
Variety: Joe
NEW CONTEST RECORD

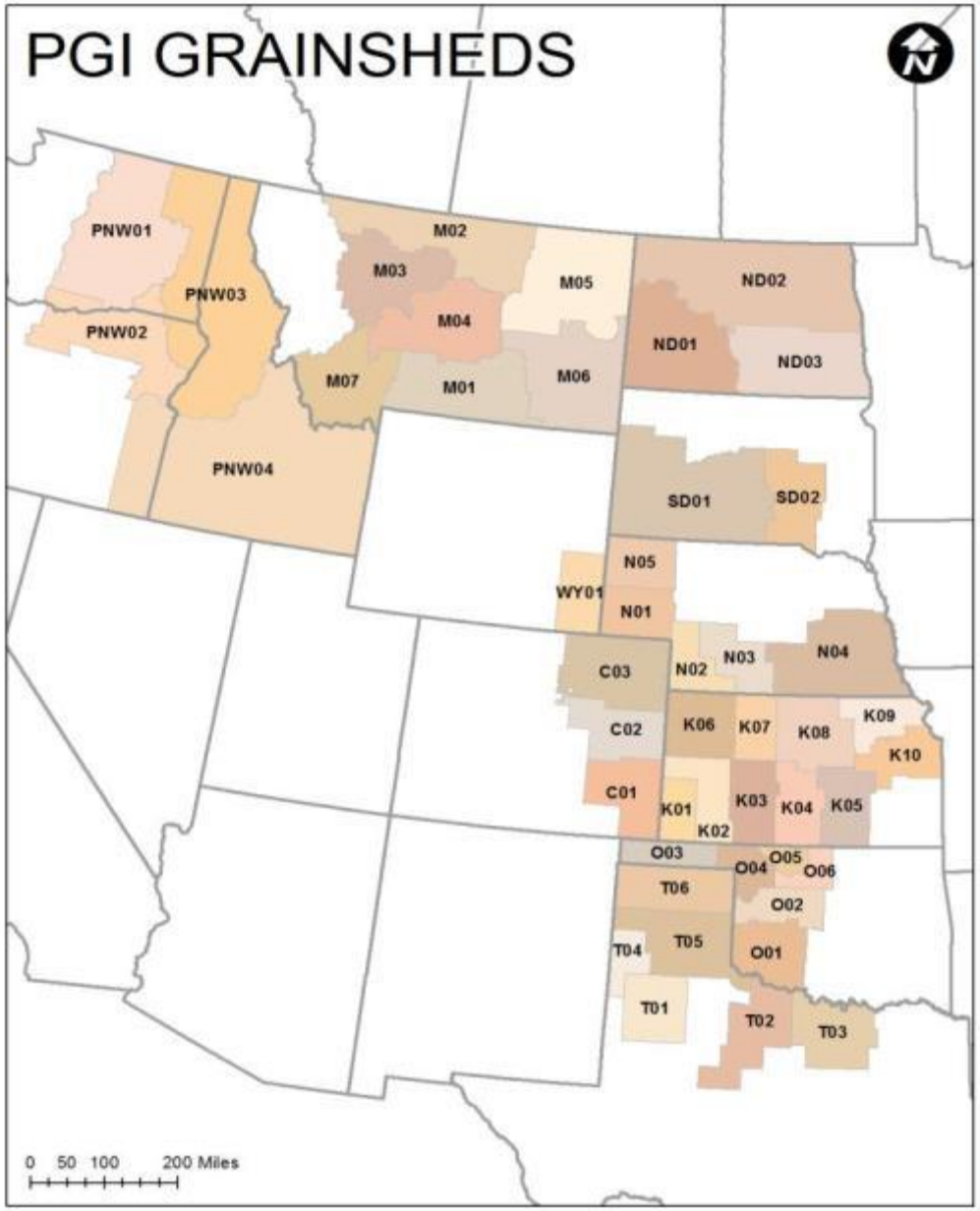
Yields resulted from

- Weather: plentiful rain fall and temperatures
  - Ideal filling period for wheat crop
  - Not limited by heat, drought or disease stress
- Good management
  - Farmers invested in this crop
- Improved genetics
  - Seeing the results of competitive variety development: Private companies and public Universities

US Wheat Production Regions

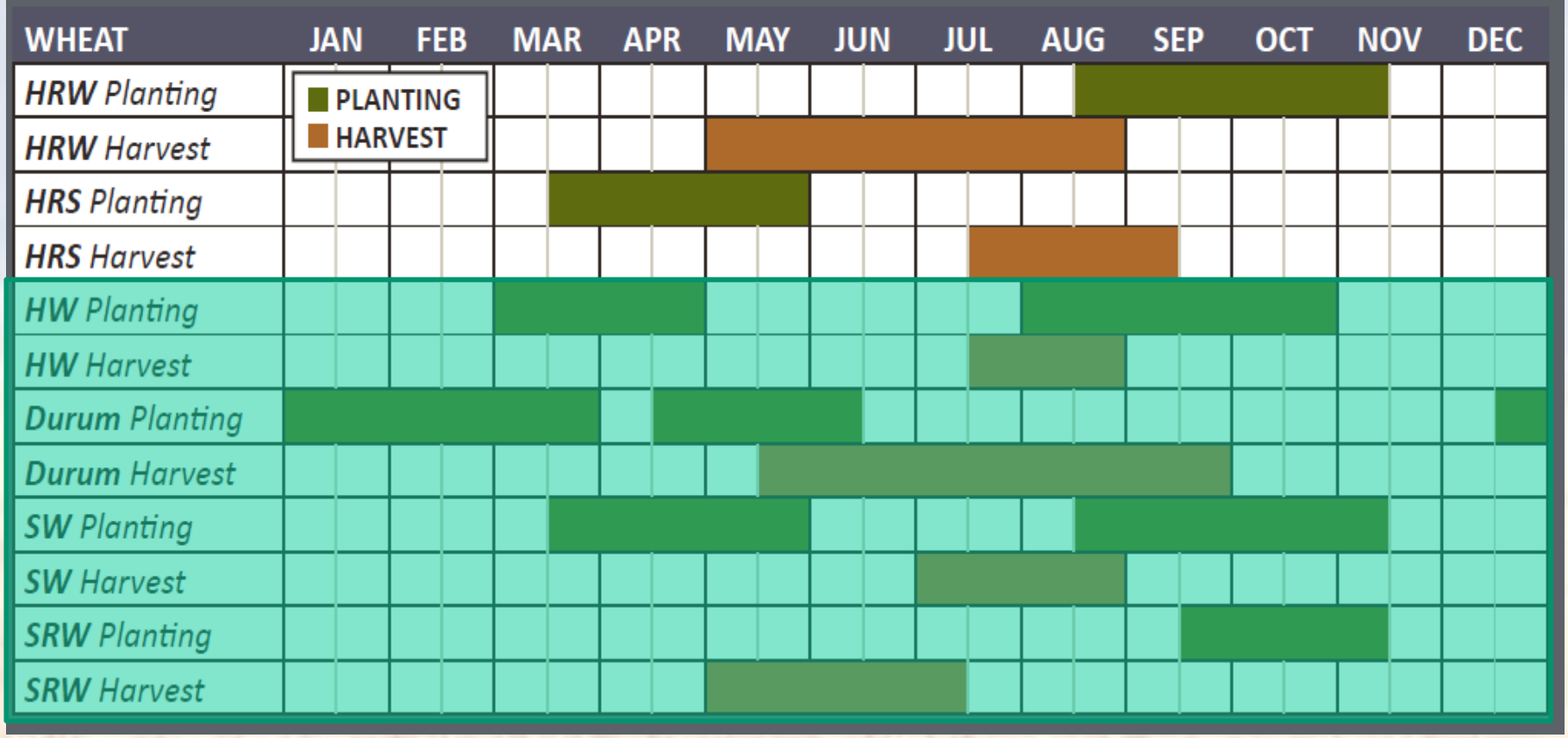


PGI GRAINSHEDS



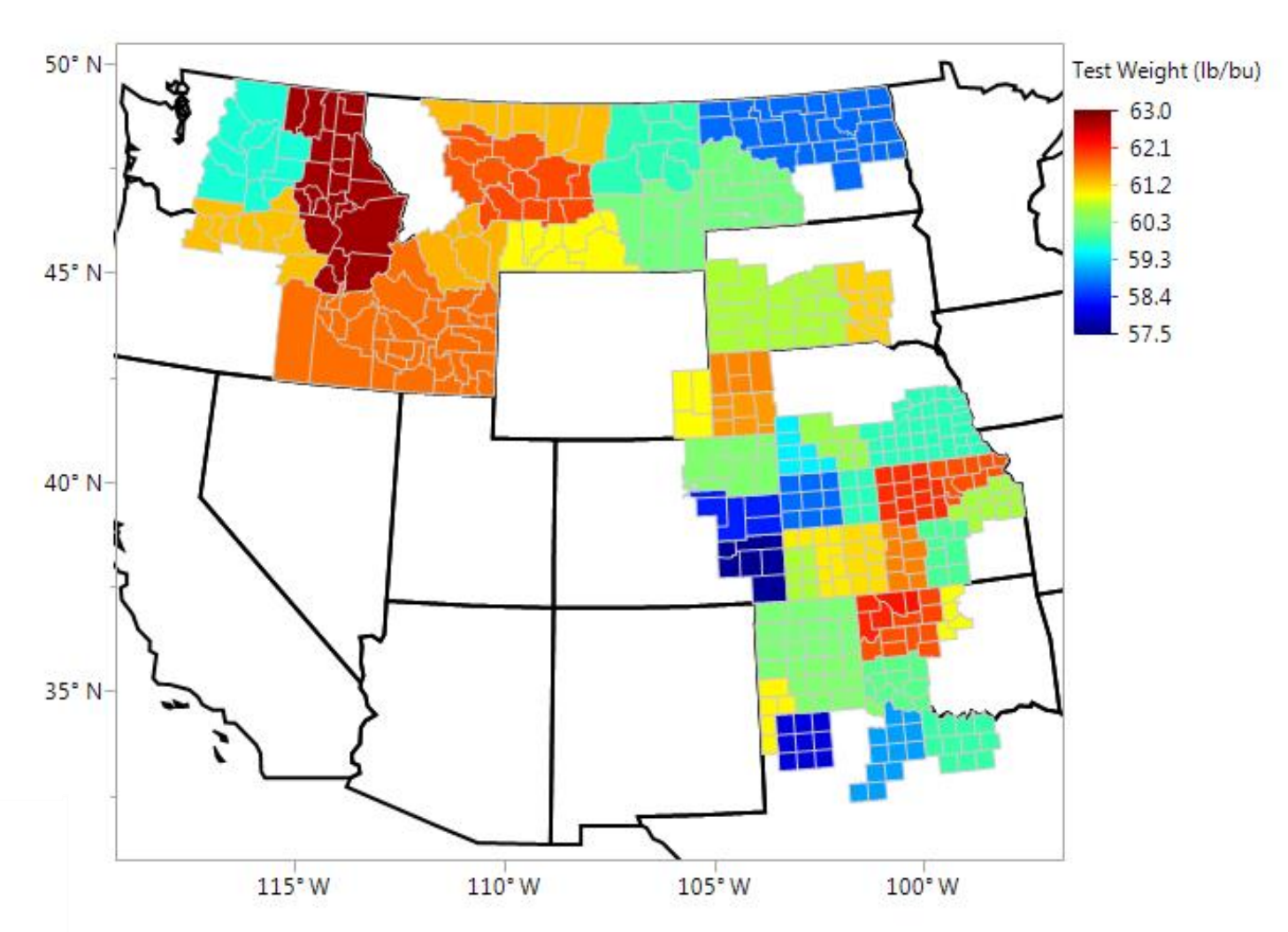
PGI
Plains Grains Inc.

PLANTING AND HARVEST DATES

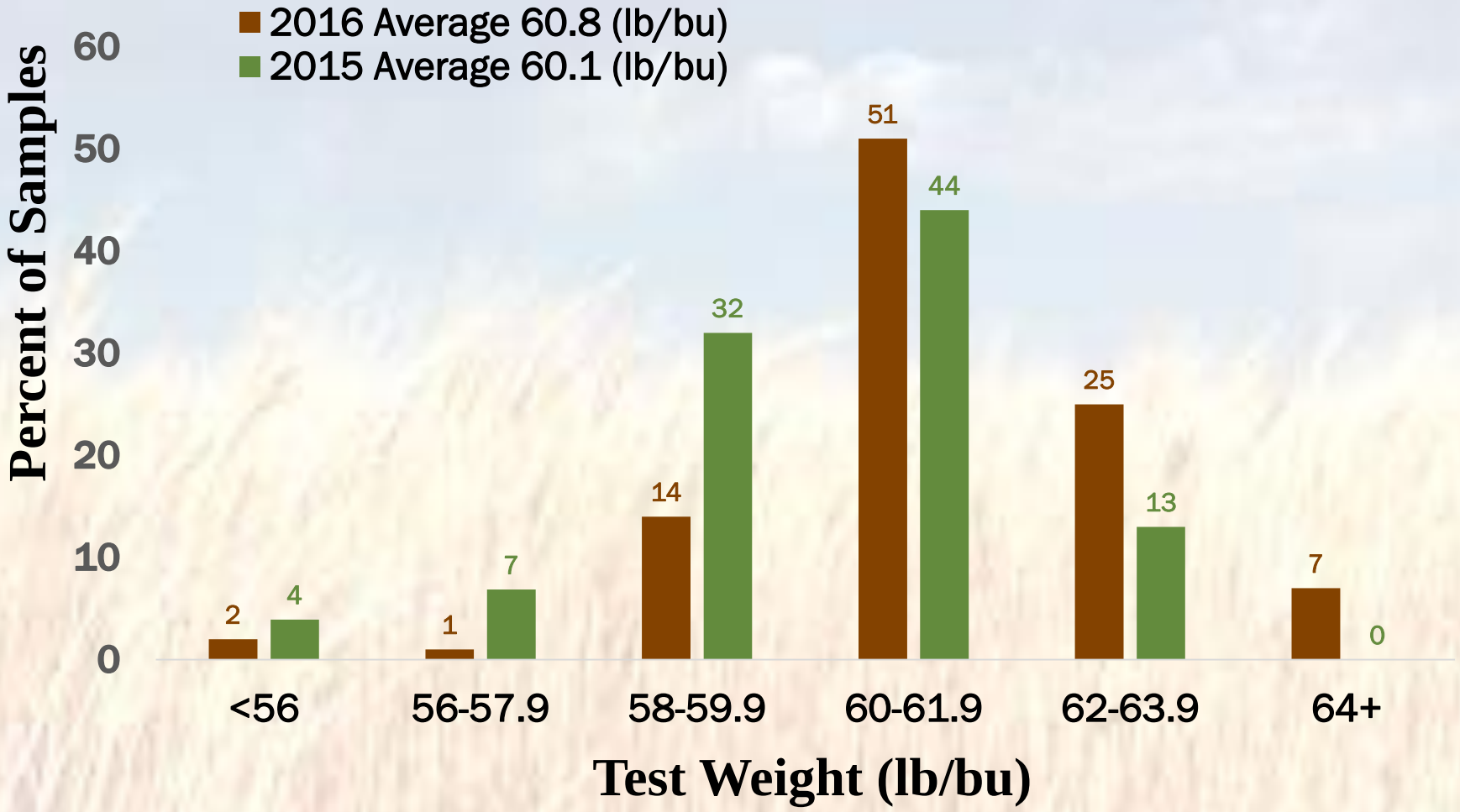


Kernel Characteristics

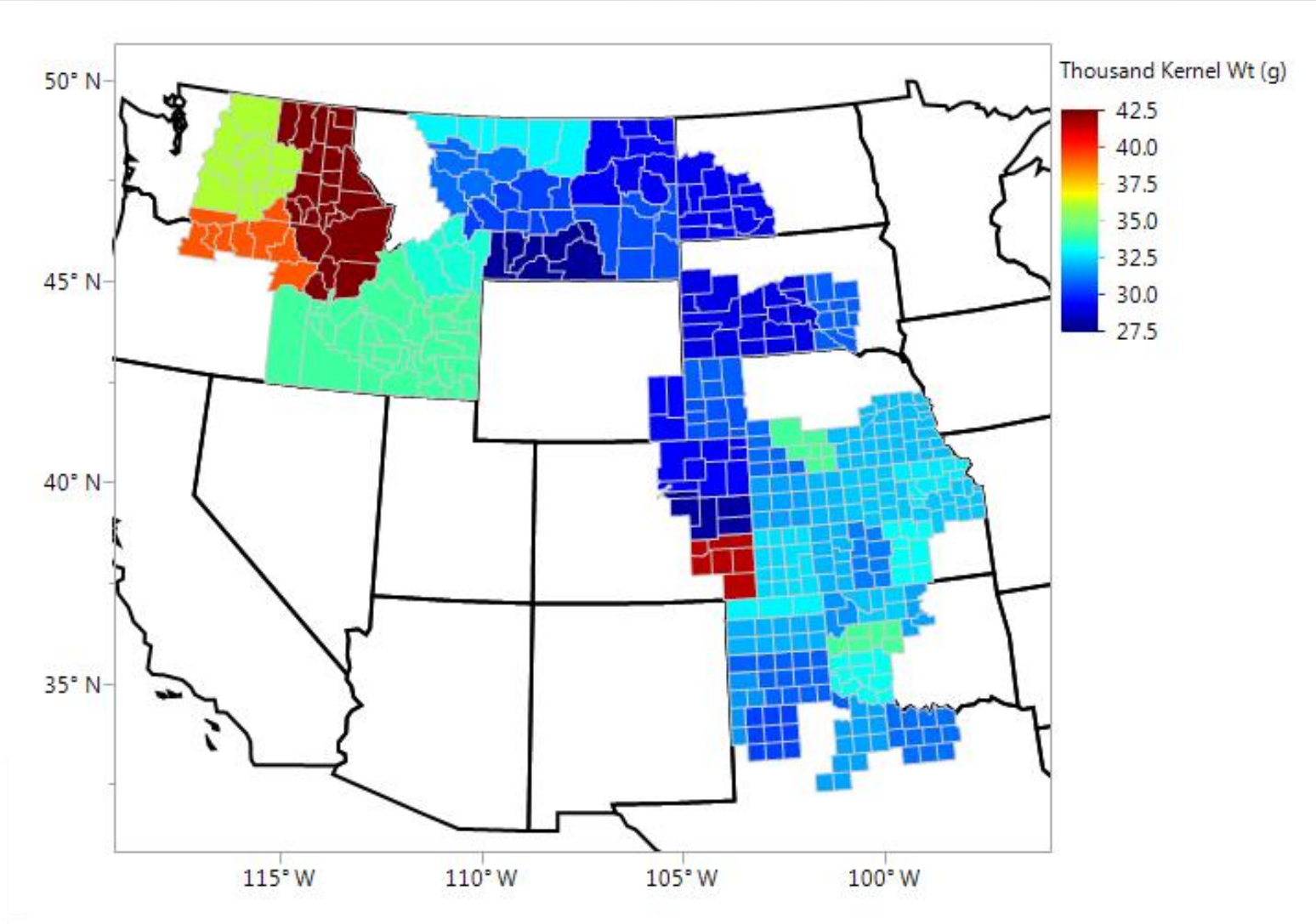
2016 Hard Red Winter Wheat Test Weight (lb/bu)



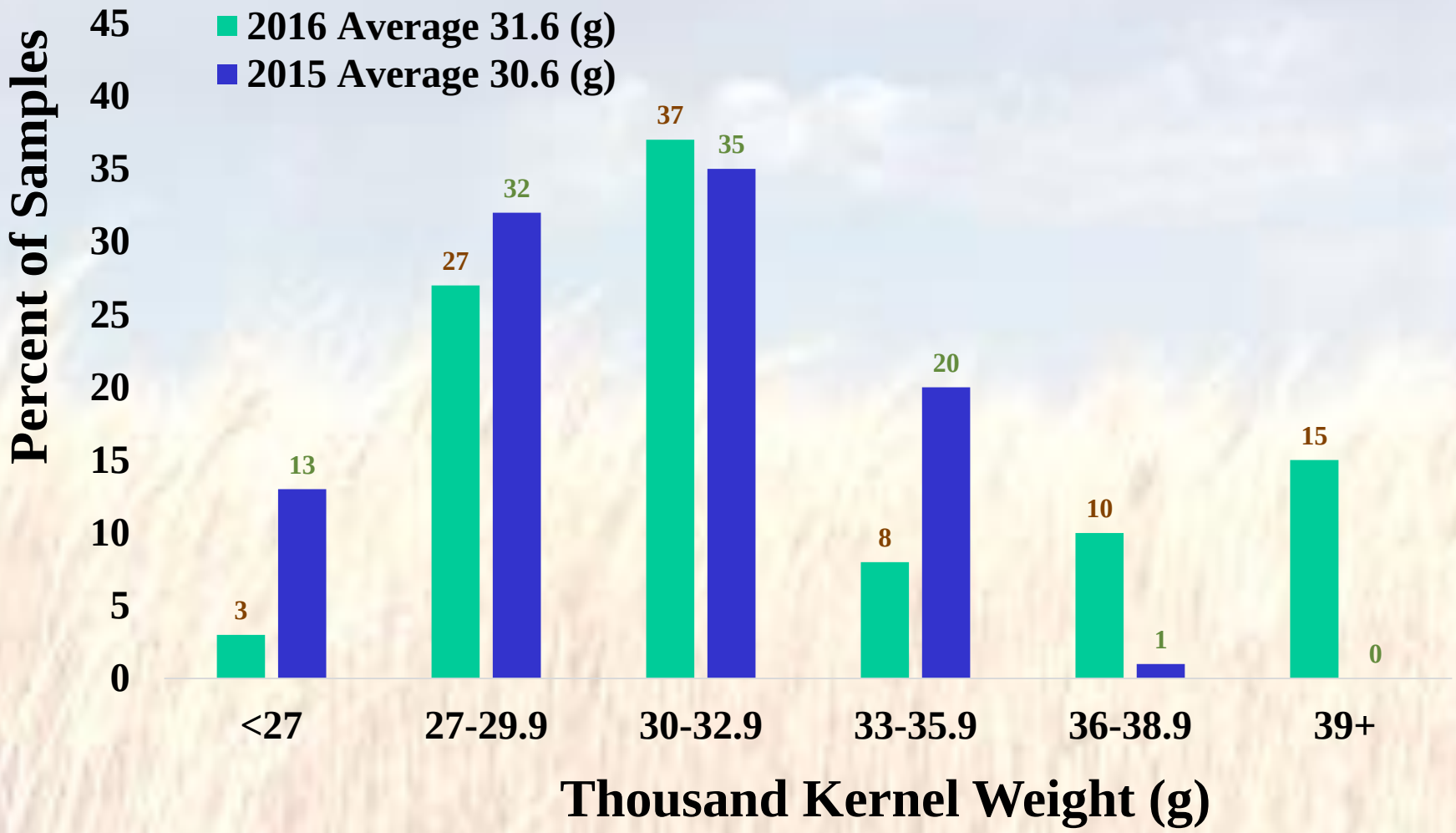
2016
PNW HRW - Test Weight Distribution



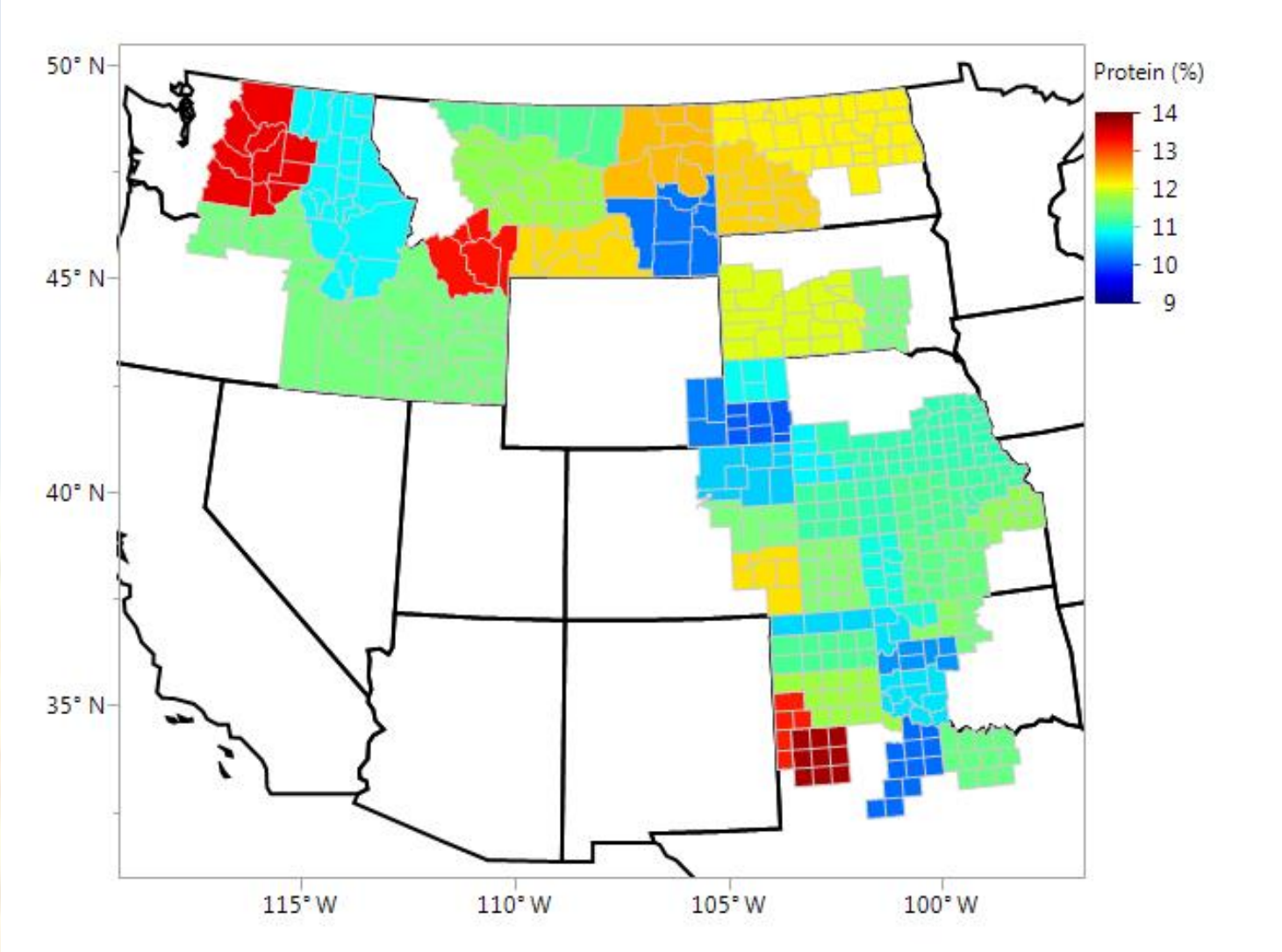
2016 Hard Red Winter Wheat



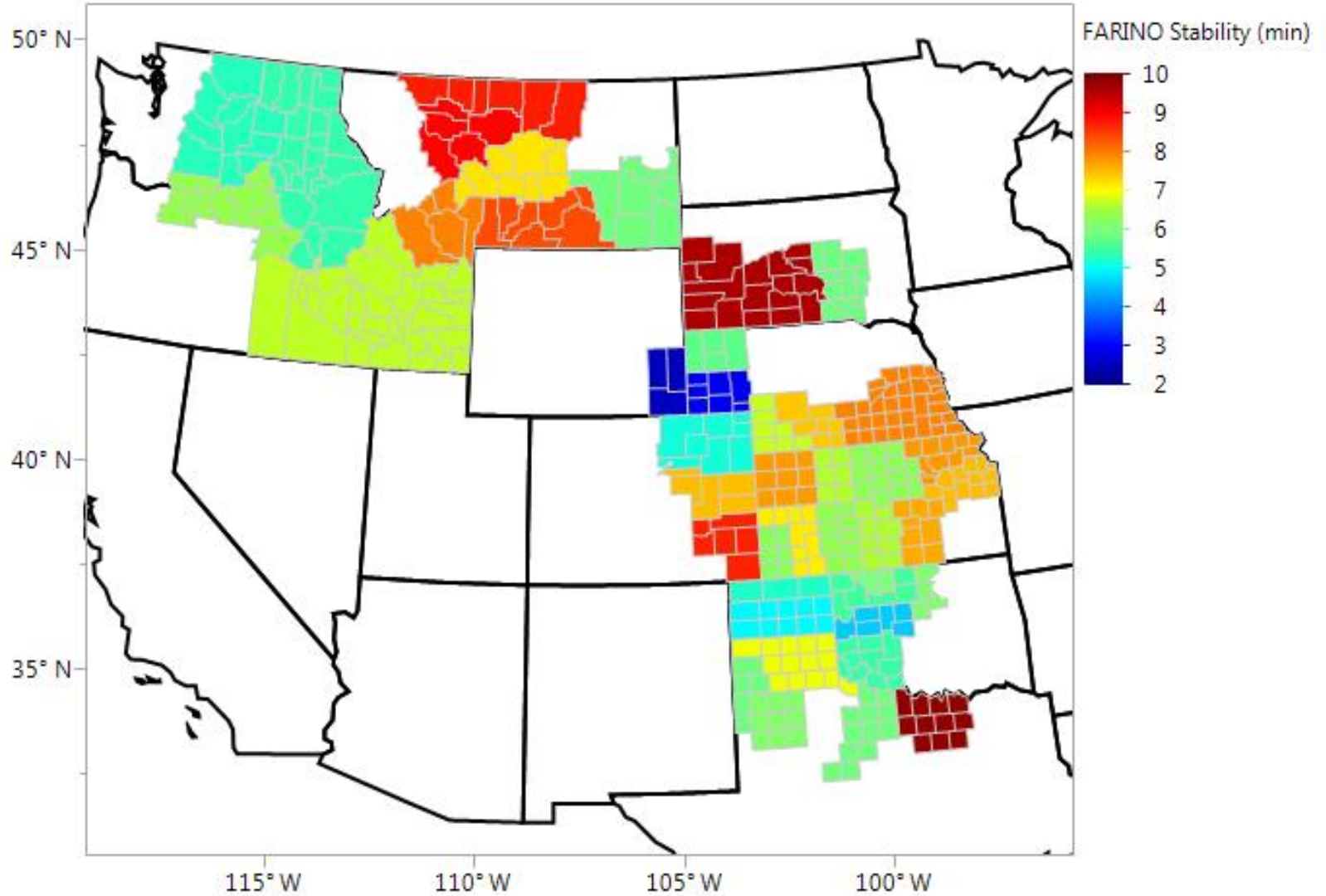
2016
PNW HRW - TKW Distribution



2016 Hard Red Winter Wheat Protein (12%mb), %



2016 Hard Red Winter Wheat Stability (min)

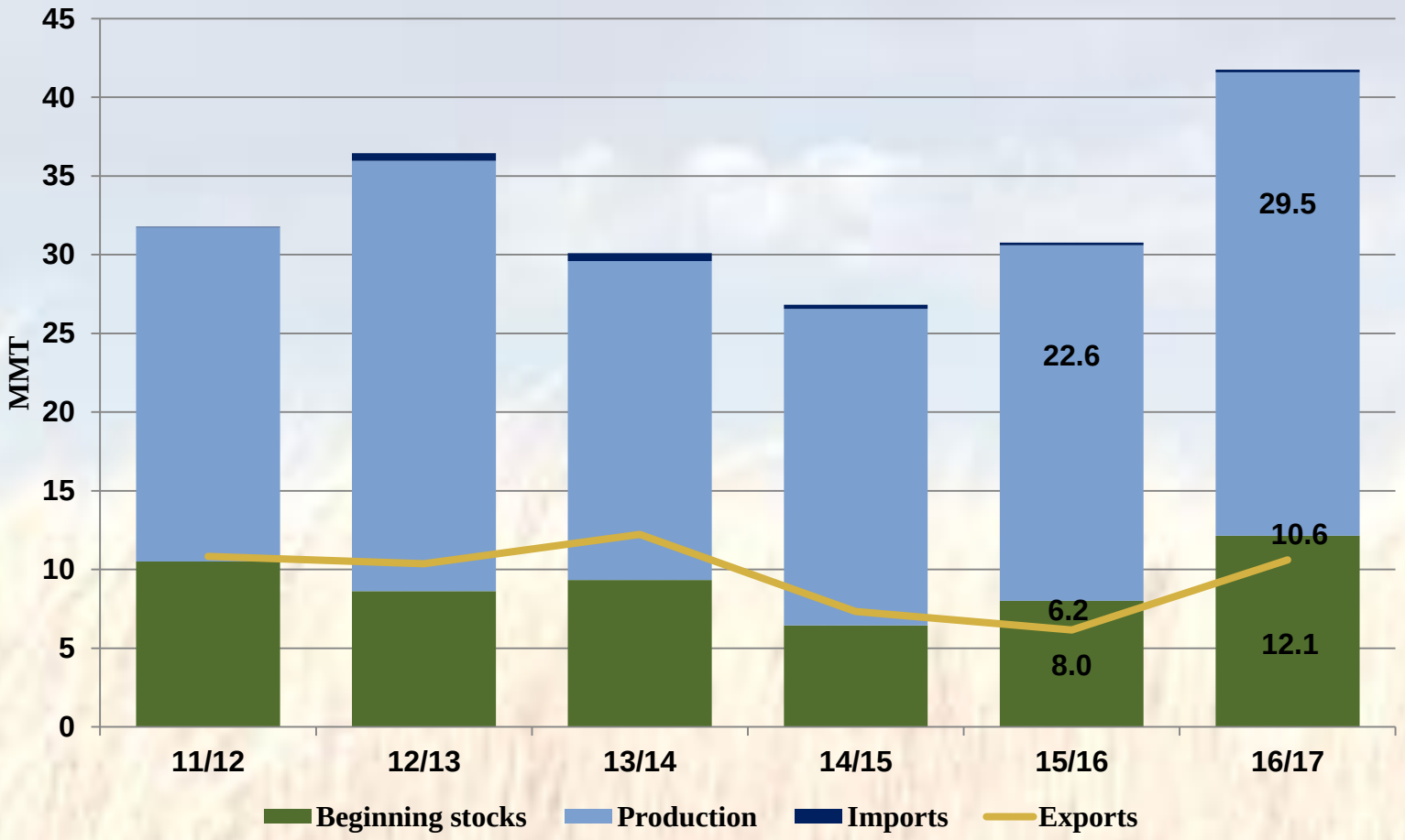


2016
PNW HRW – Bake Data

	Low Pro	Med Pro	High Pro	2016 AVG	2015 AVG	5-Year AVG
Pan Bread: Bake Absorption (%)	61.4	64.5	66.1	63.9	62.0	62.0
Crumb Grain and Texture (1-10)	5.2	6.0	6.1	5.7	6.4	6.3
Loaf Volume (cc)	764	843	894	829	850	818

Now, a quick look ahead

U.S. Hard Red Winter



Where Wheat Prices were At the time of Planting Decisions

- According to DTN Friday, November 12th
  - Average cash prices to farmers:
    - Spring wheat = $4.69 ($172.31 per mt)
    - Soft Red Winter = $3.61 ($132.63 per mt)
    - Hard Red Winter = $3.04 ($111.69 per mt)

Sideways after harvest lows

Factors driving HRW

- Record yields
- Lower protein
- Storage
- Carry market
- Creating Buying and Blending opportunities

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	0.2	0.2	1.3	1.1	0.5	0.9
Supply Total	30.8	41.8	22.5	22.0	14.5	14.5
Domestic Use	12.5	15.1	8.3	8.2	6.9	6.8
Exports	6.2	10.6	6.9	8.0	3.3	2.4
Use Total	18.6	25.7	15.1	16.2	10.2	9.2
Ending Stocks	12.1	16.0	7.4	5.7	4.3	5.3
Stocks-to-Use	65%	62%	49%	35%	42%	58%

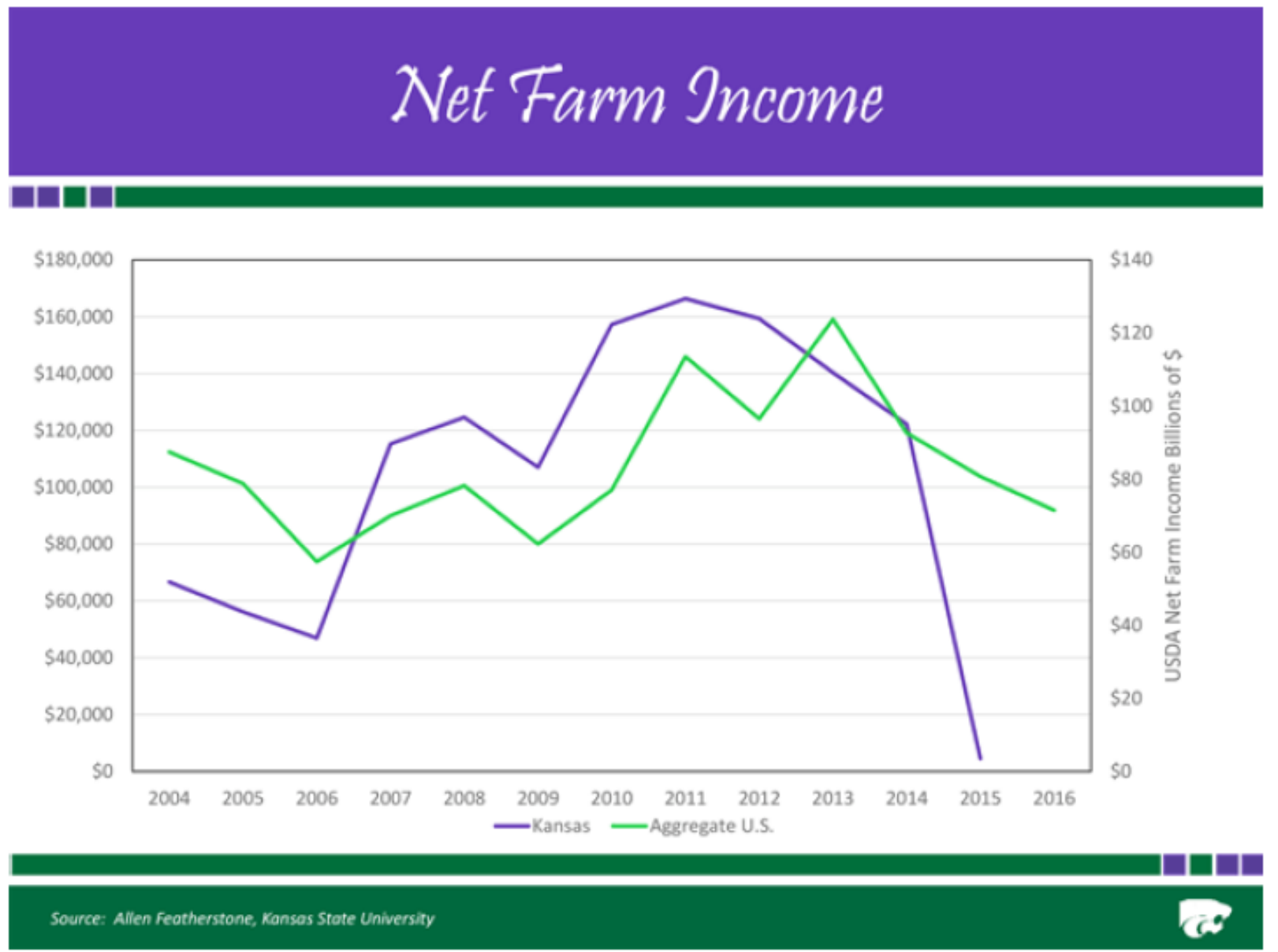
Wheat Prices at planting time

- According to DTN Friday, November 12th
  - Average cash prices to farmers:
    - Spring wheat = $4.69 ($172.31 per mt)
    - Soft Red Winter = $3.61 ($132.63 per mt)
    - Hard Red Winter = $3.04 ($111.69 per mt)
    - ***Soybeans = $9.42***
- Futures Prices Dec 16 contracts:
  - MGEX $5.19 (Basis back to farmers -$0.50)
  - CBOT $4.02 (Basis back to farmers -$0.41)
  - KCBT $4.09 (Basis back to farmers -$1.05)

Basis being paid back to the farmer

BASIS	Dodge	Colby	Goodland	Protection	Scott City	Sublette
03/10	**-115**	**-105**	**-112**	**-115**	**-115**	**-120, -115**
03/03	-115	-108	-112	-115	-115	-120, -115
02/24	-110	-100	-107	-110	-105	-115, -110
02/17	-110	-100	-107	-110	-105	-115, -115
02/10	-115	-100	-107	-115	-110	-125, -115
Date	**Concordia**	**Salina**	**Hutchinson**	**Wichita**	**Ark City**	
03/10	**-102**	**-90, -90**	**-100, -90**	**-95, -87**	**-90**	
03/03	-107	-100, -92	-105, -90	-100, -90	-101	
02/24	-100	-90, -85	-95, -80	-90, -80	-93	
02/17	-100	-95, -85	-95, -80	-90, -80	-93	
02/10	-100	-95, -85	-95, -80	-90, -80	-93	

Economic tough times for farmers

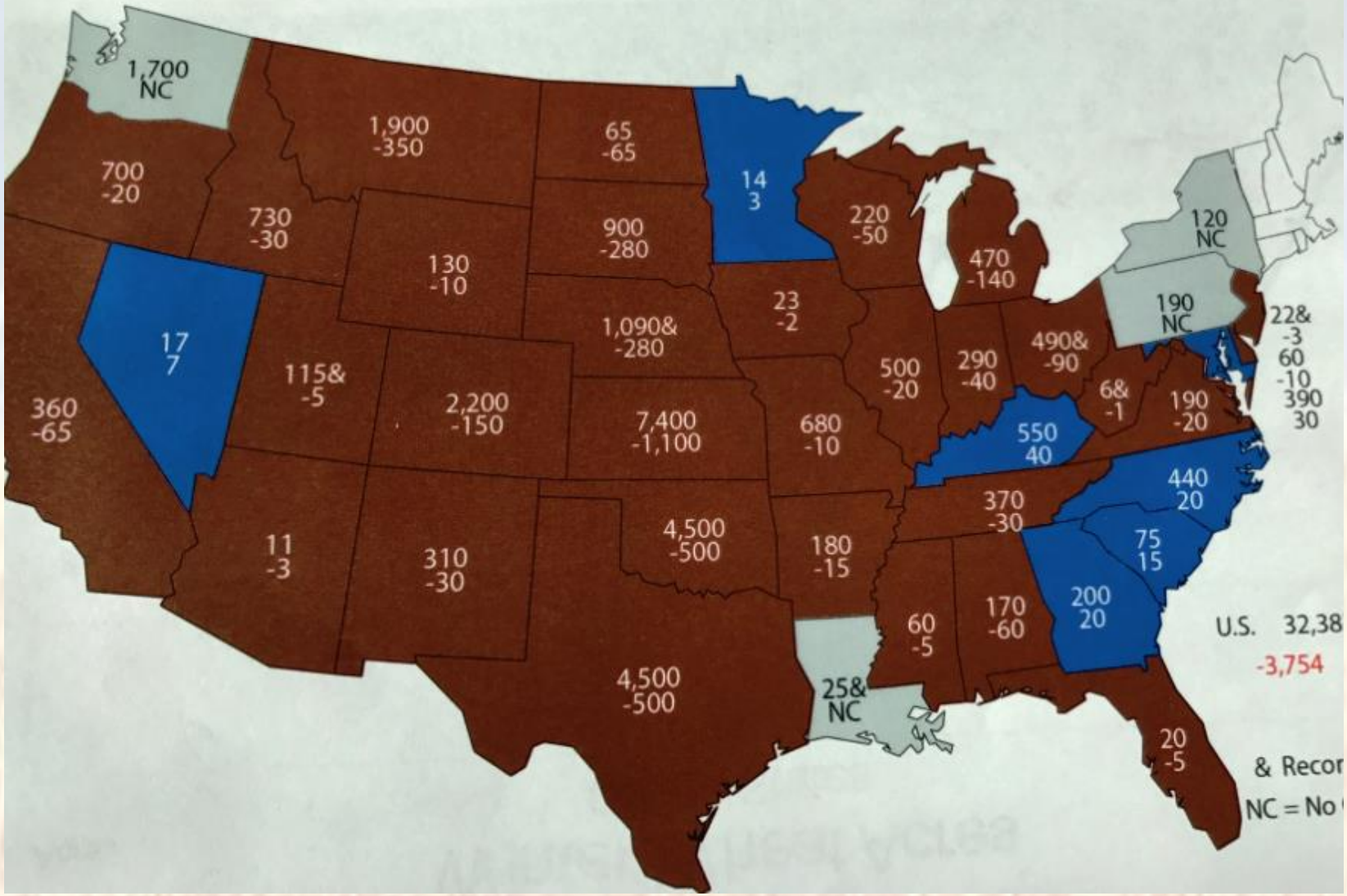


Kansas Wheat planted acres 1996-2016

2016 est. Lowest in 100 years; less than 7.4 mi acres

2017 Winter Wheat Planted Area

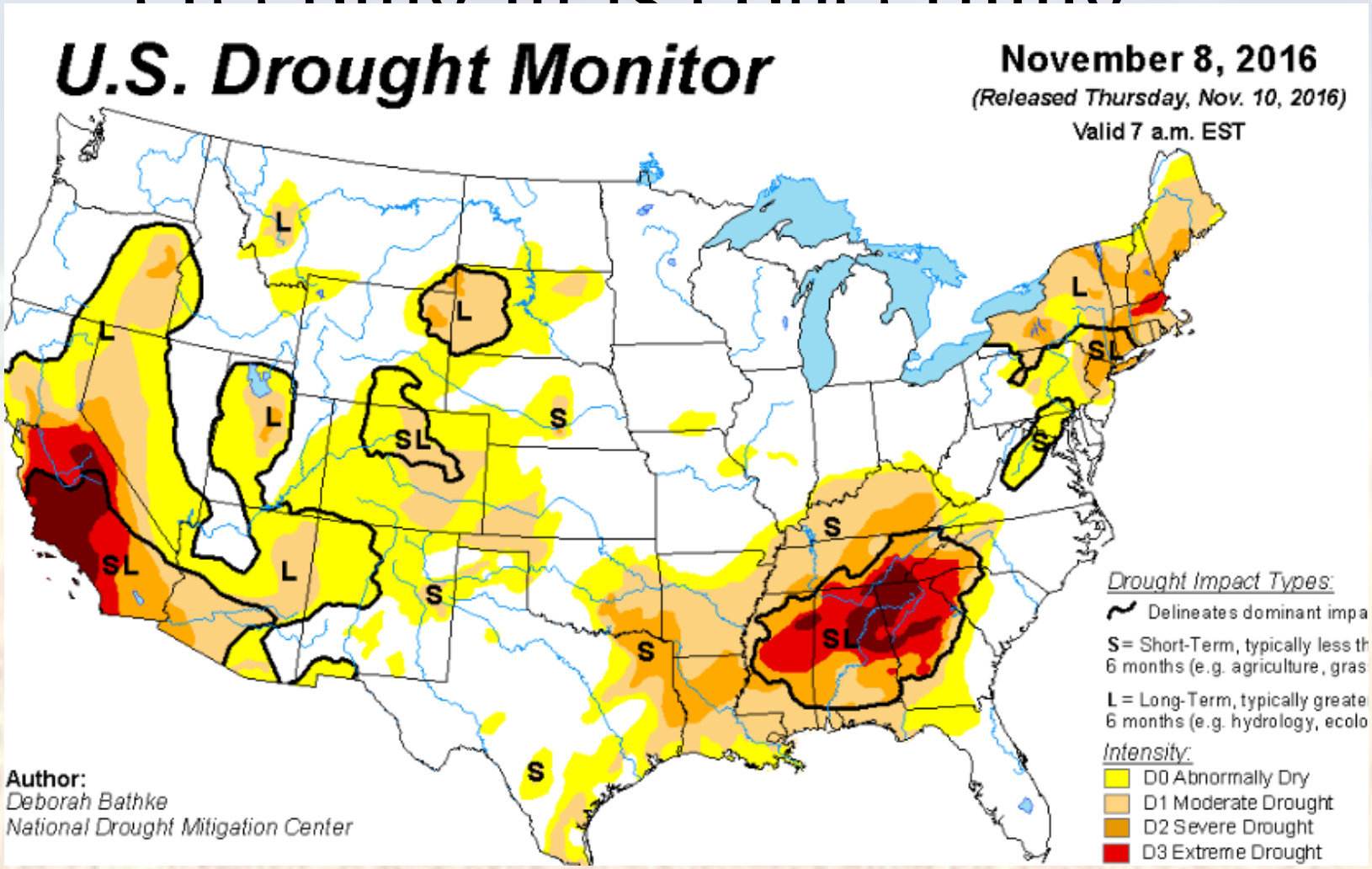
(000) Acres and Change From Previous Year



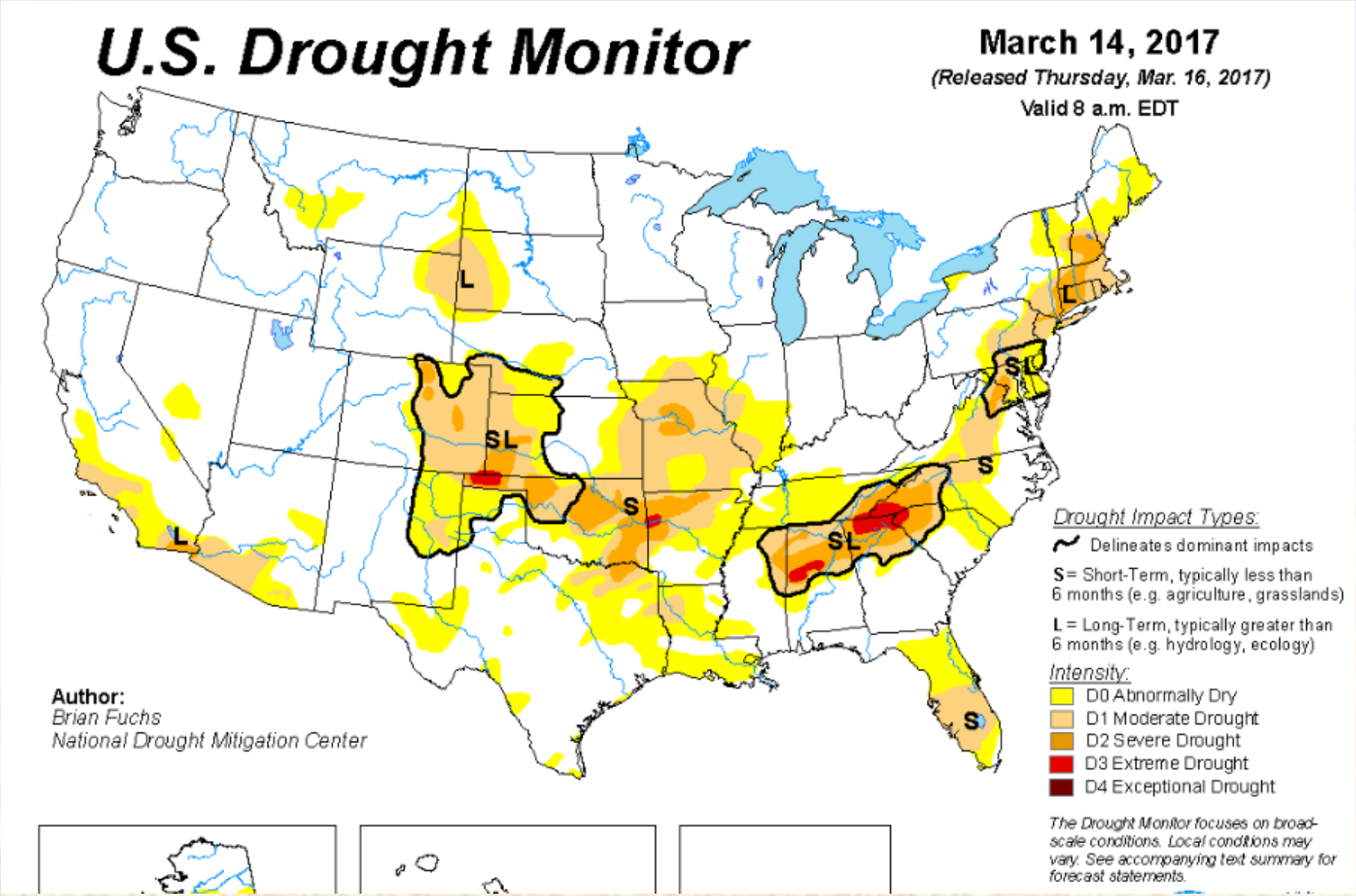
Not only are acres down…

- Current dry conditions
  - Kansas at only 40% good to excellent vs. 43% last week
- Emergence issues, may result in abandonment
- Low prices may influence management decisions

Acres that are planted, dryness creeping in is concerning



Situation has ***not*** improved…



KC July Futures

Trendline support needs to hold NOW, or this will become a very bearish looking chart.

WORLD WHEAT SUPPLY AND DEMAND SITUATION

MARCH 2017

Major data source: USDA World Agricultural Supply and Demand Estimates released March 9, 2017. Projections will change over the course of the year depending on weather and other developments.

Highlights of USDA's 2016/17 Supply and Demand Estimates

1. 2016/17 global wheat production to reach new record of 751 MMT
   - Global supplies estimate to reach new record of 991 MMT; up 4% from the 2015/16 record
   - Wheat production for Australia estimated at a record high 35.0 MMT, up 45% year over year
   - Argentina wheat production estimated at 16.0 MMT, 42% above 2015/16
2. Consumption forecast at 741 MMT, the fourth consecutive record high, up 4% from 2015/16
   - Chinese feed wheat consumption to climb 52% year over year to 16.0 MMT
   - Feed wheat usage expected to reach 2.80 MMT in Vietnam, compared to the 5-year average of 640,000 MT
   - U.S. feed wheat usage to rise 48% year over year to 6.12 MMT
3. World wheat trade projected at 181 MMT, 13% above 5-year average
   - Canadian exports to fall to 20.5 MMT, 7% below 2015/16
   - Indian imports to reach 5.50 MMT, the largest since 2006/07
   - US exports to reach 27.9 MMT, up 32% from 2015/16 and 5% above the 5-year average

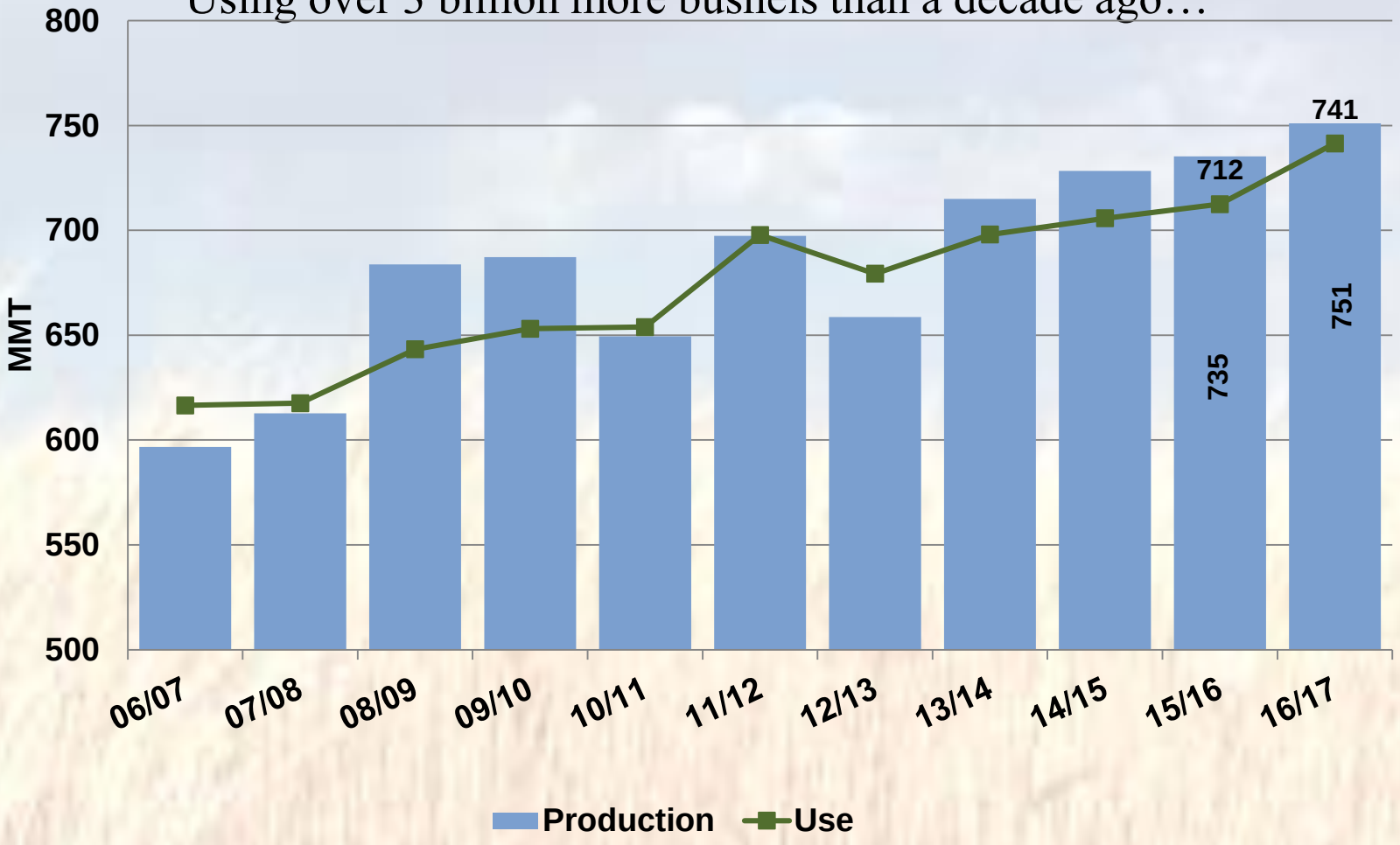
Highlights of USDA's 2016/17 Supply and Demand Estimates (Continued)

4. World beginning stocks estimated at record 240 MMT, up 10% year over year
   - Beginning stocks in Australia rose to 5.64 MMT, up 21% year over year
   - U.S. beginning stocks rose to an estimated 26.5 MMT, 30% above 2015/16 levels
5. Global ending stocks projected at record 250 MMT, 4% higher than 2015/16, if realized
   - Estimated Chinese ending stocks of 111 MMT account for 44% of global ending stocks, 59% greater than the 5-year average
   - Endings stocks in Australia projected at 7.33 MMT, up 30% year over year, if realized
   - U.S. ending stocks to grow 16% year over year to 30.7 MMT
6. U.S. farm gate average price forecast 21% lower in 2016/17
   - Projected average range: **$3.80 to $3.90/bushel ($140-$143/MT)***

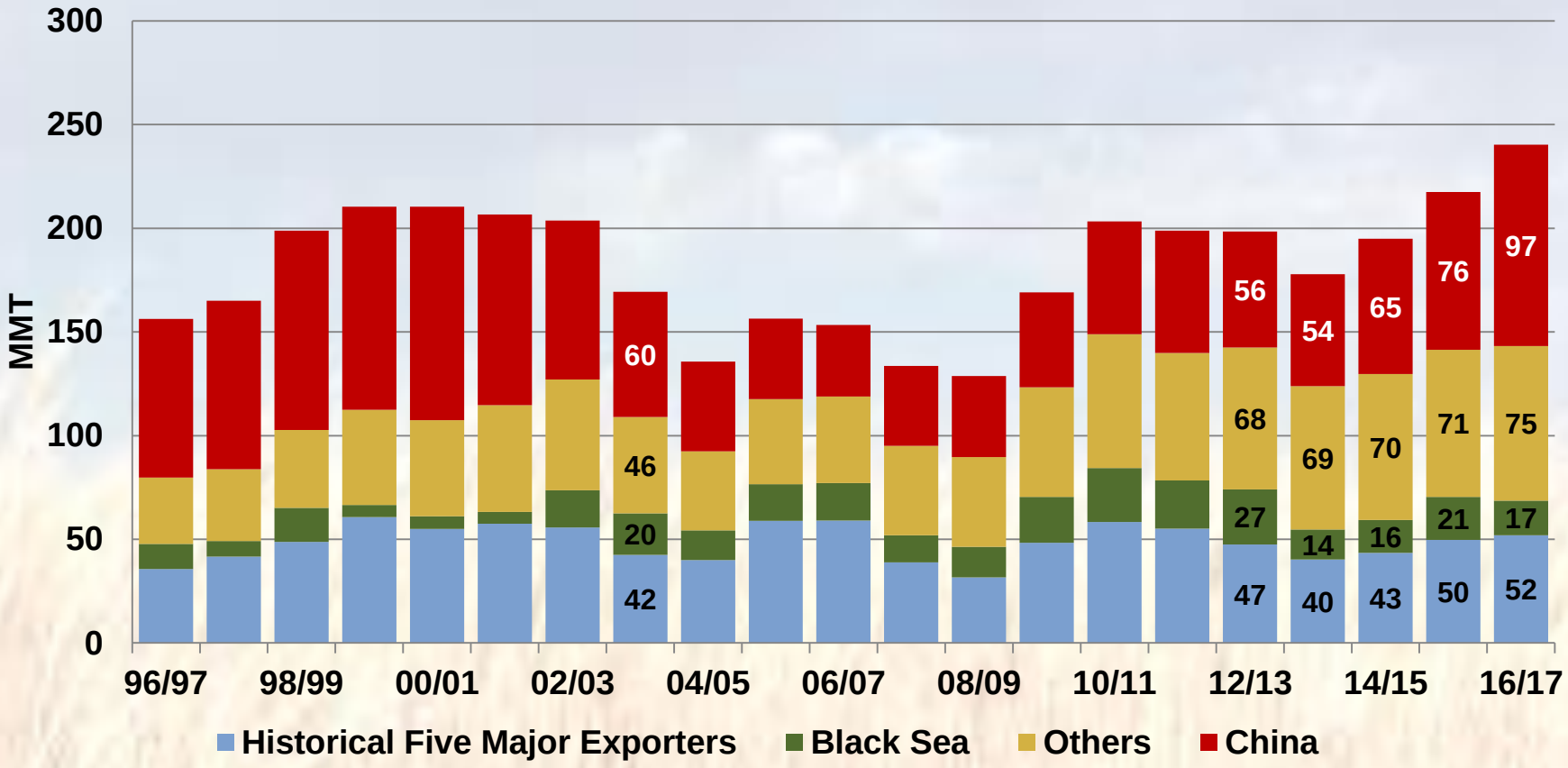
     Average U.S. farm gate price, marketing year weighted average

World Production and Use

Using over 3 billion more bushels than a decade ago…

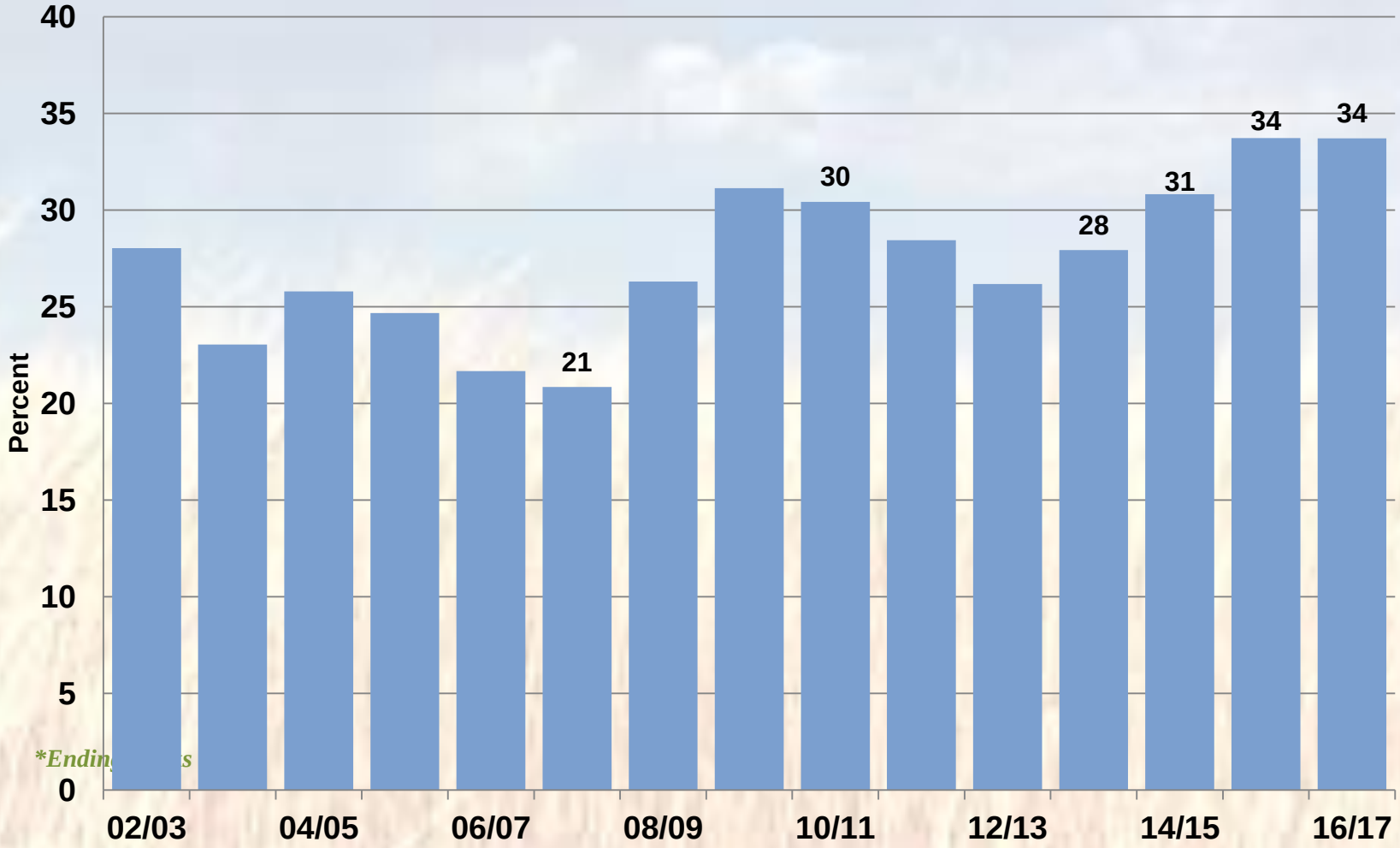


World Beginning Stocks



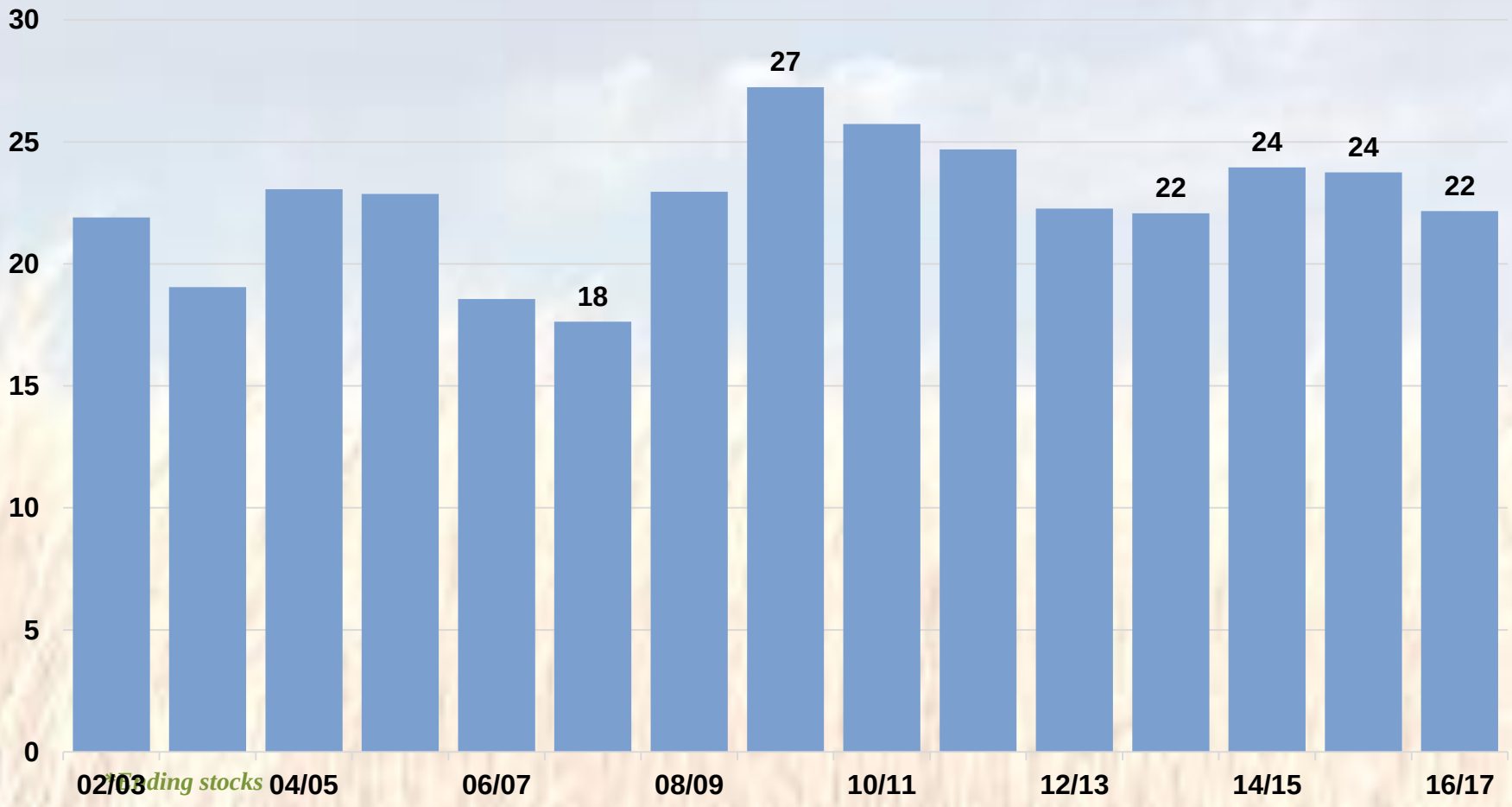
Historical Five Major Exporters include U.S., Canada, Australia, Argentina and EU-27.
Black Sea includes Russia, Ukraine and Kazakhstan.

Global Stocks*-to-Use Ratio



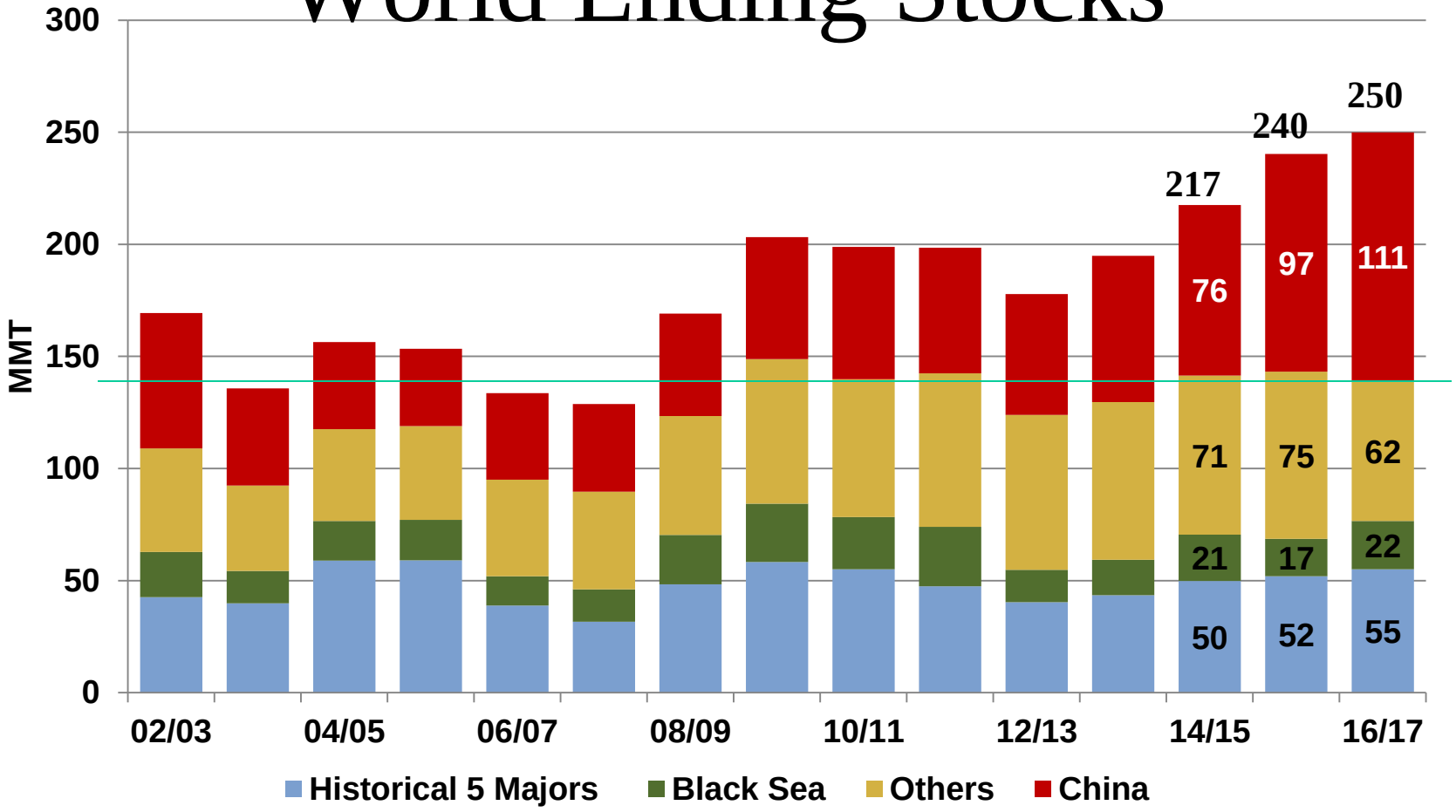
*Ending stocks

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



*Ending stocks

World Ending Stocks



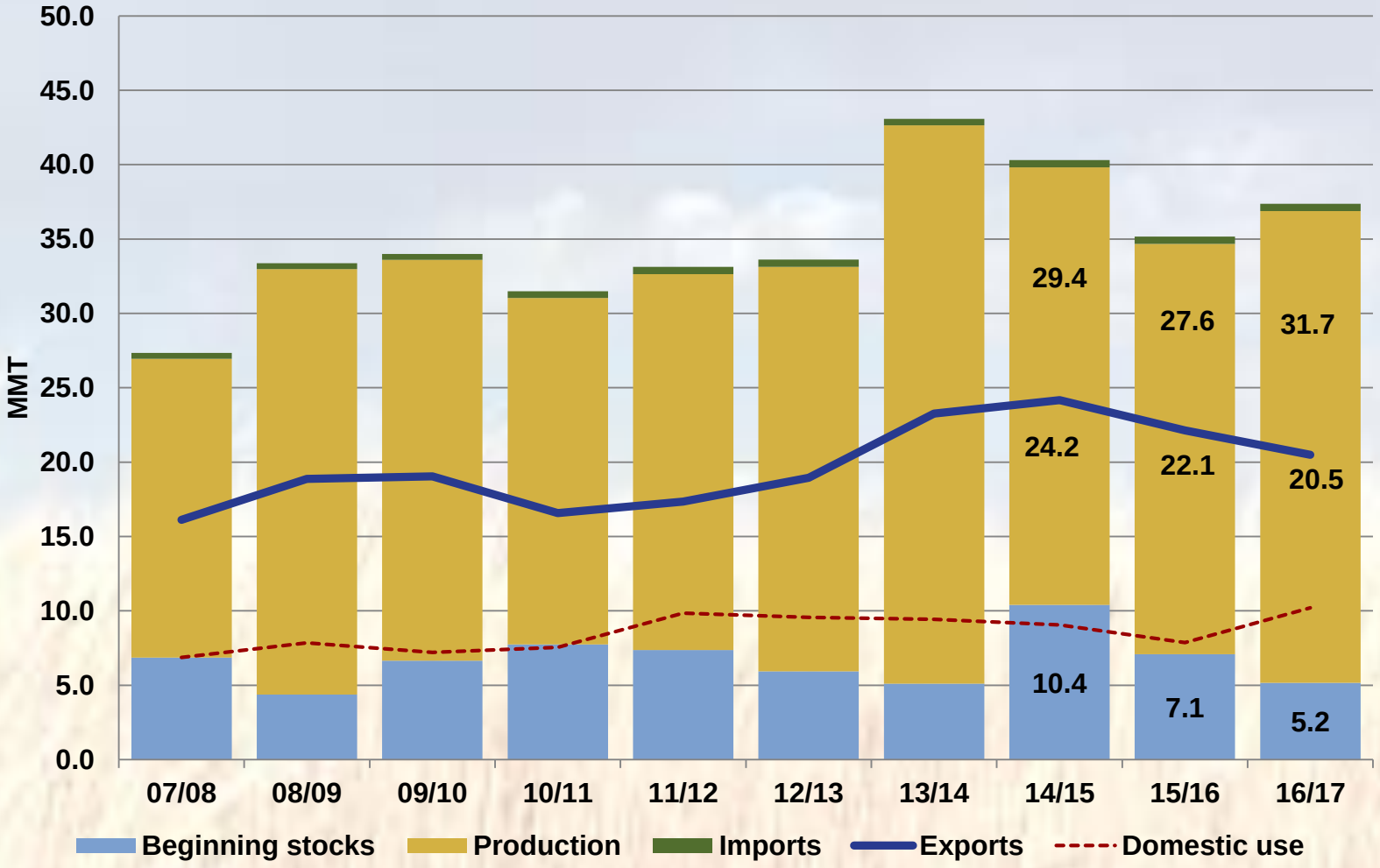
Historical Five Major Exporters include U.S., Canada, Australia, Argentina and EU-27.
Black Sea includes Russia, Ukraine and Kazakhstan.

U.S. WHEAT ASSOCIATES
The world's most reliable choice.

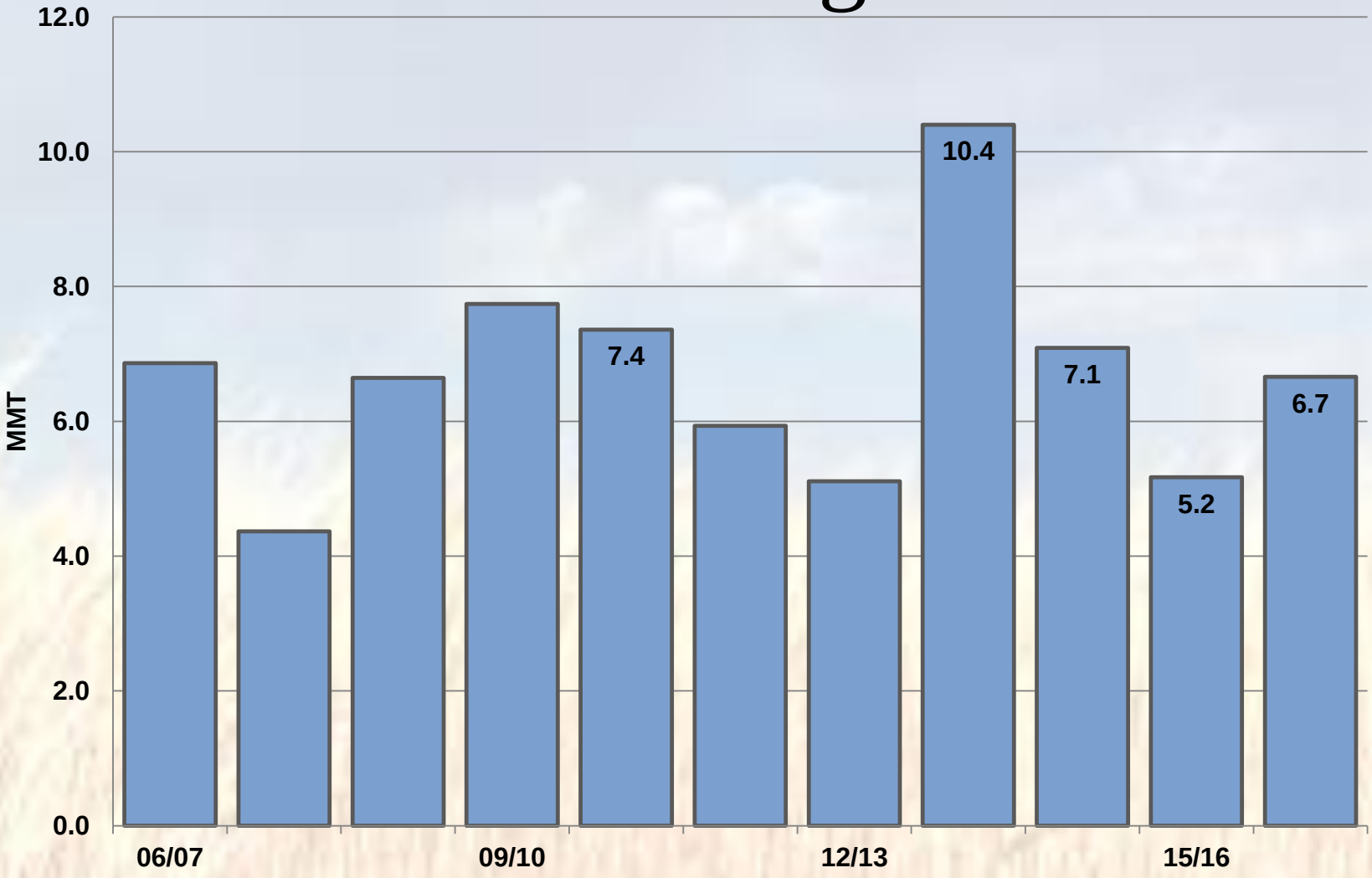
World and U.S. Wheat Supply and Demand

- Major Exporters
- Import Demand
- U.S. Situation by Class
- Outlook

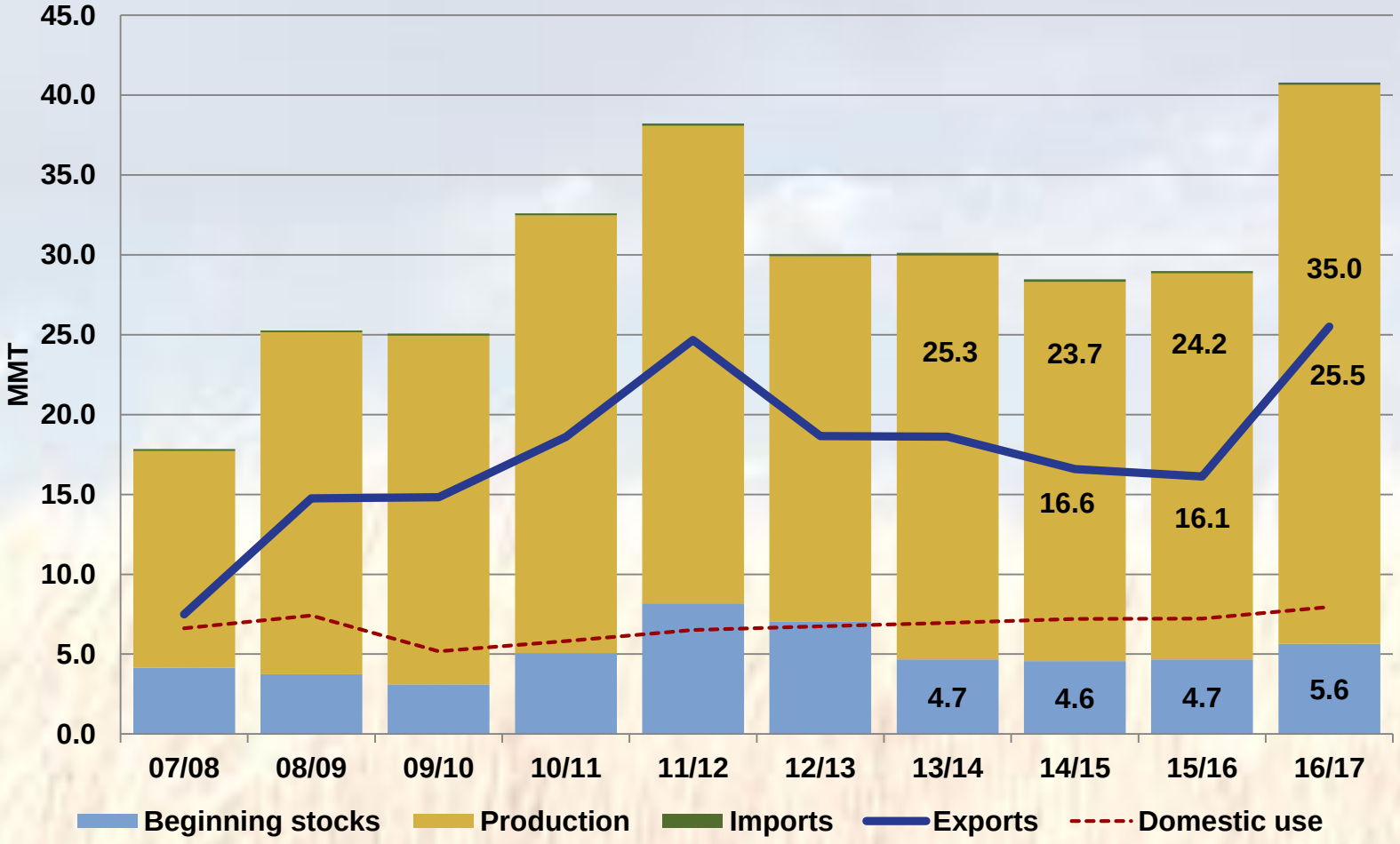
Canada Situation



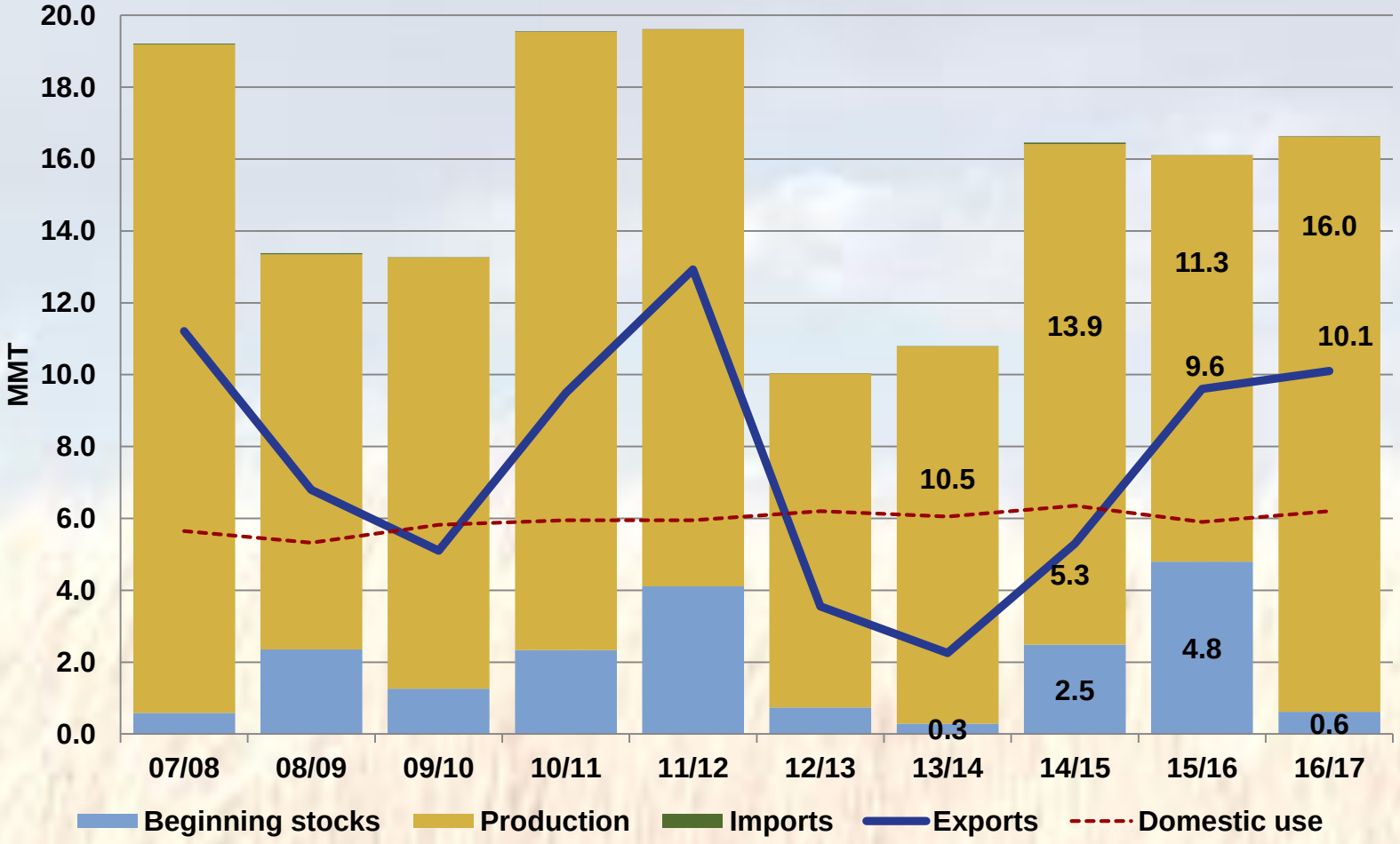
Canada Ending Stocks



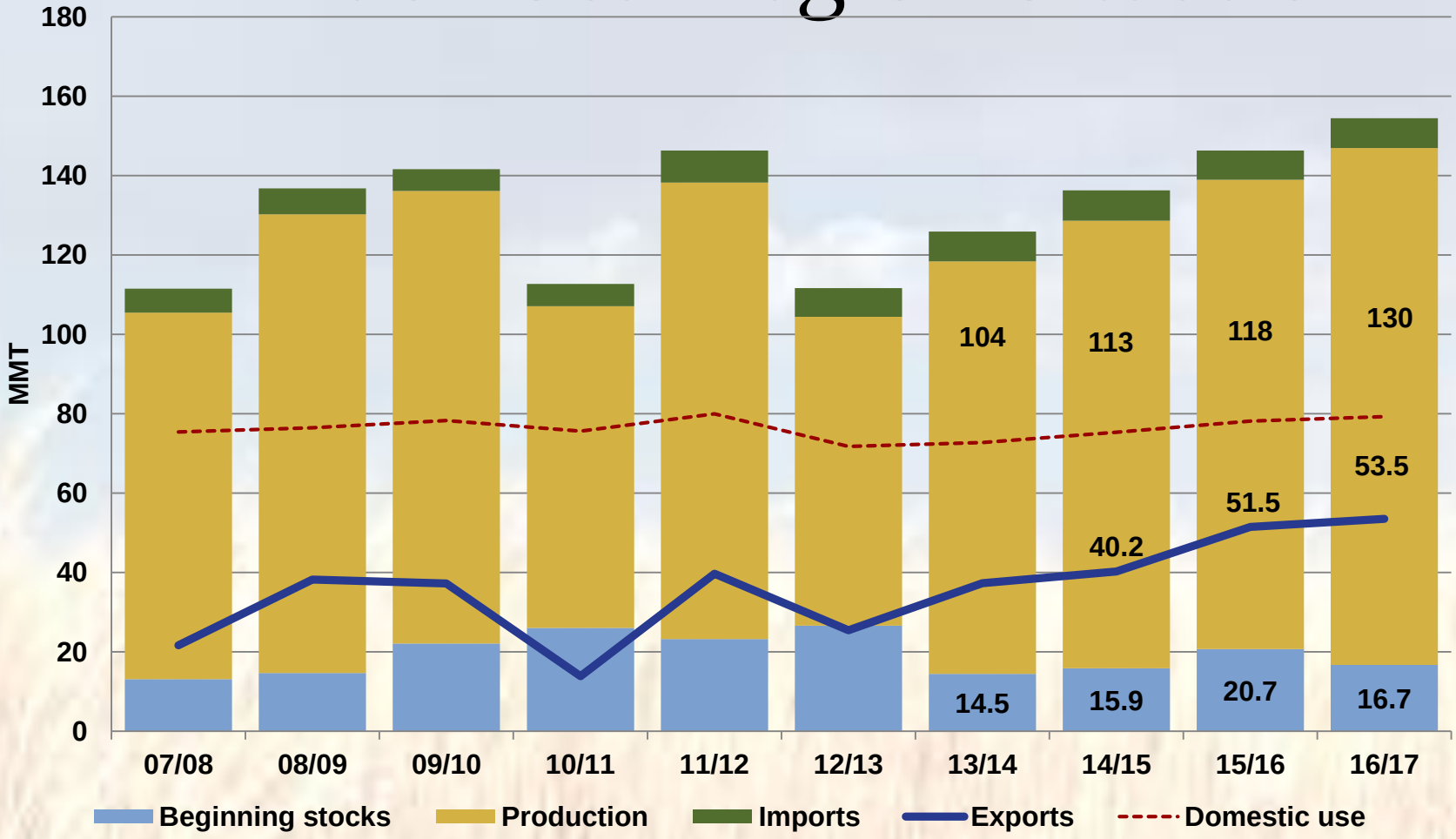
Australia Situation



Argentina Situation

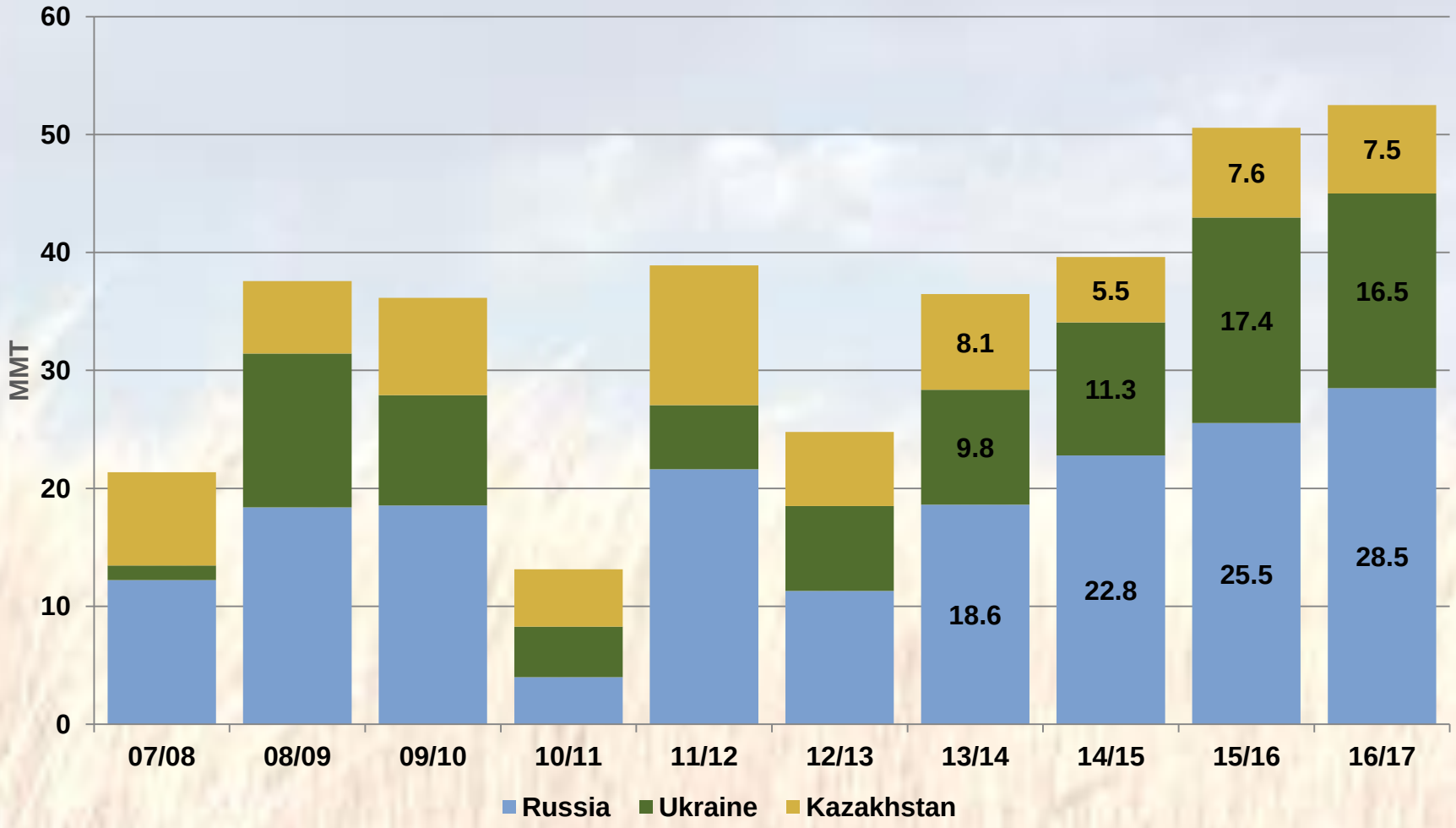


Black Sea Region Situation

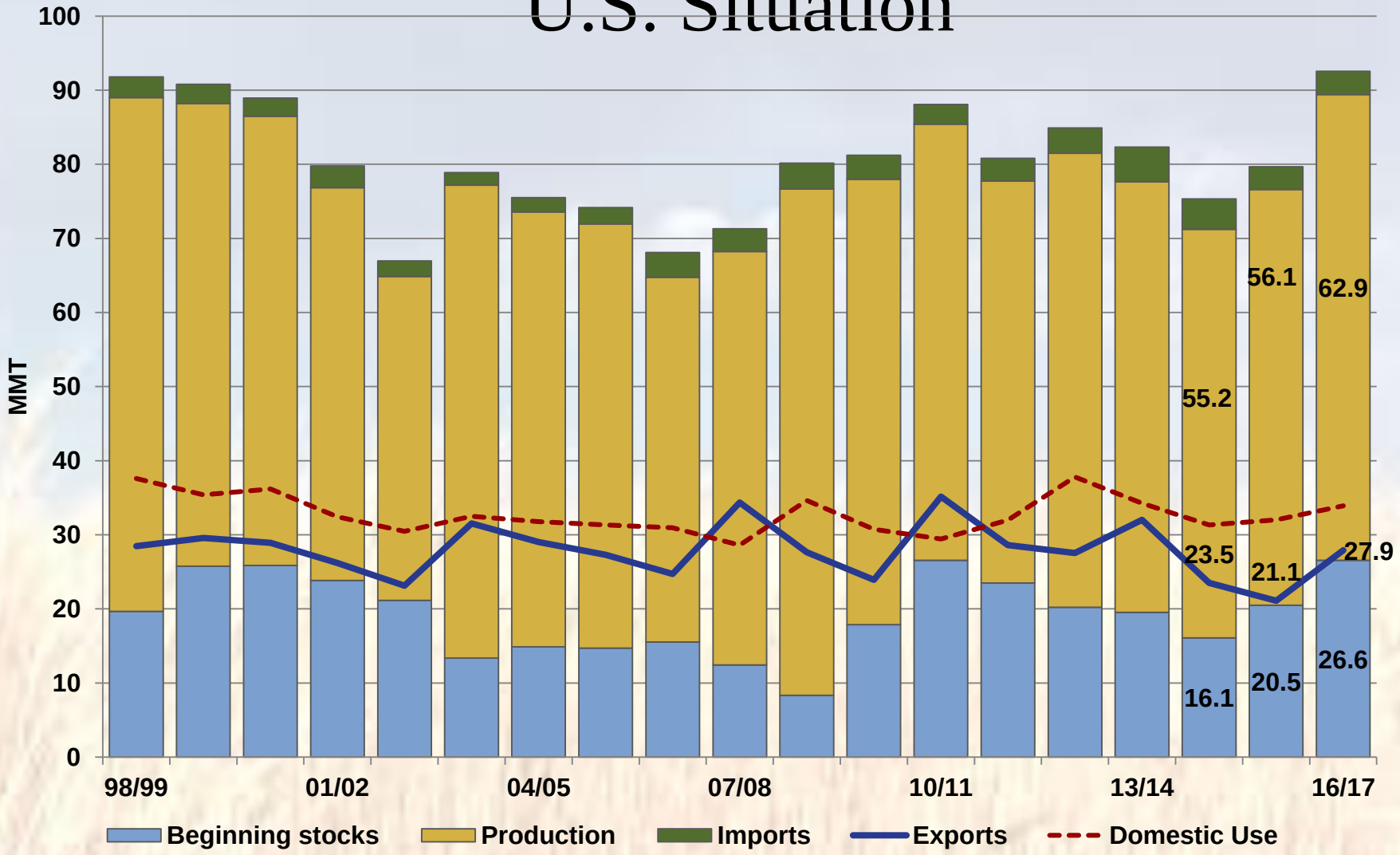


- **Russia, Ukraine and Kazakhstan** are the most important wheat producers in the Black Sea Region.

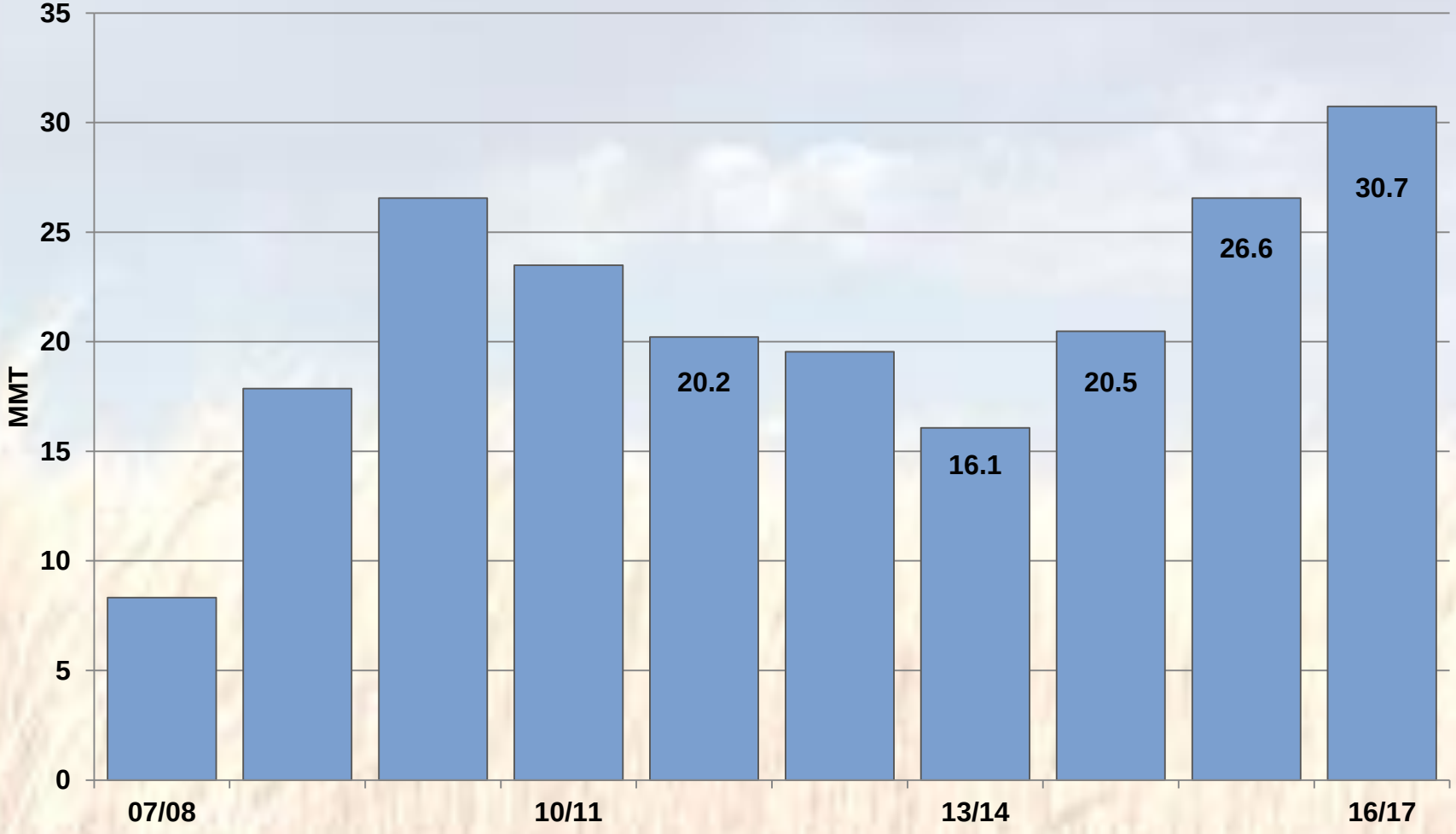
Black Sea Exports



U.S. Situation



U.S. Ending Stocks



World and U.S. Wheat Supply and Demand

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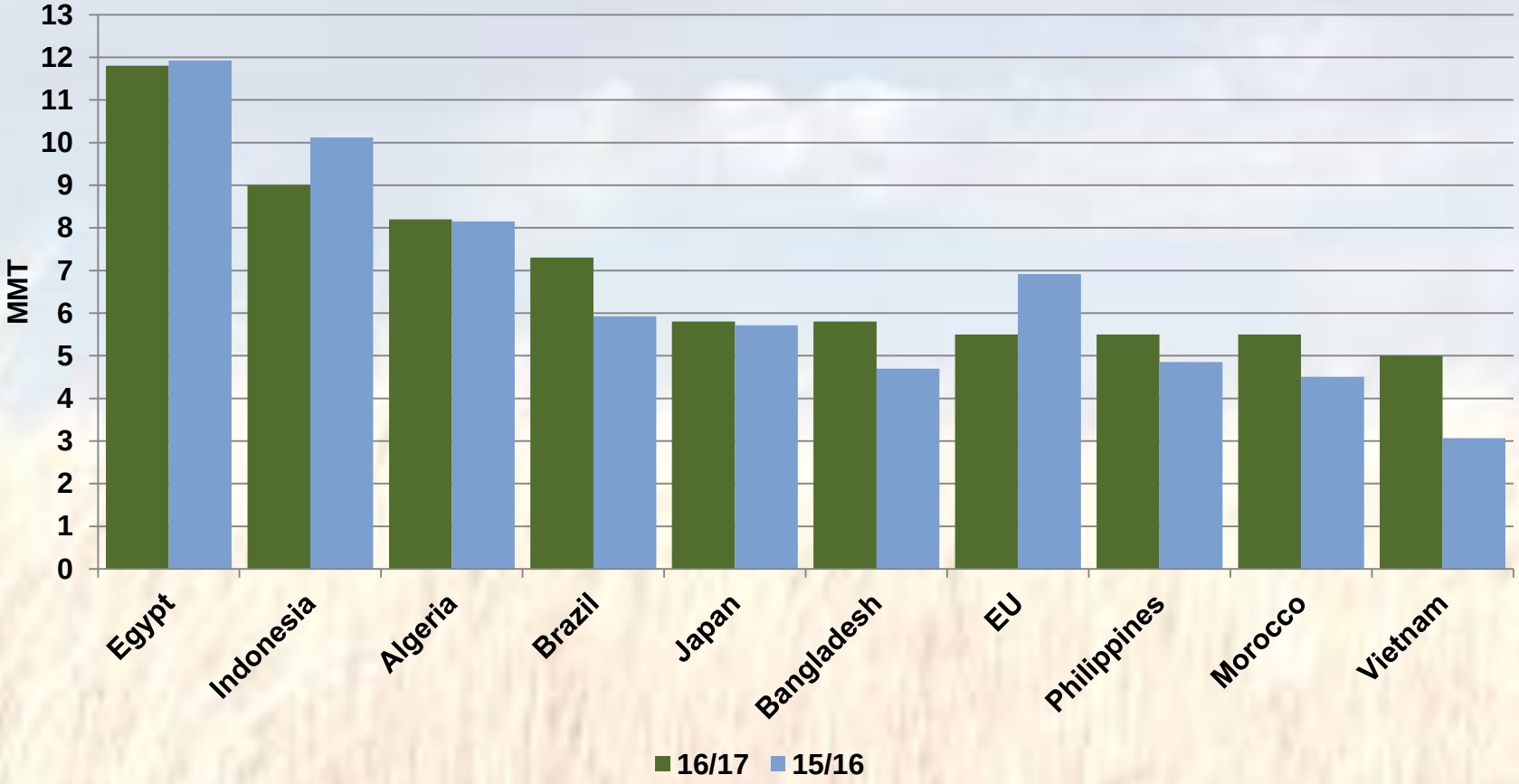
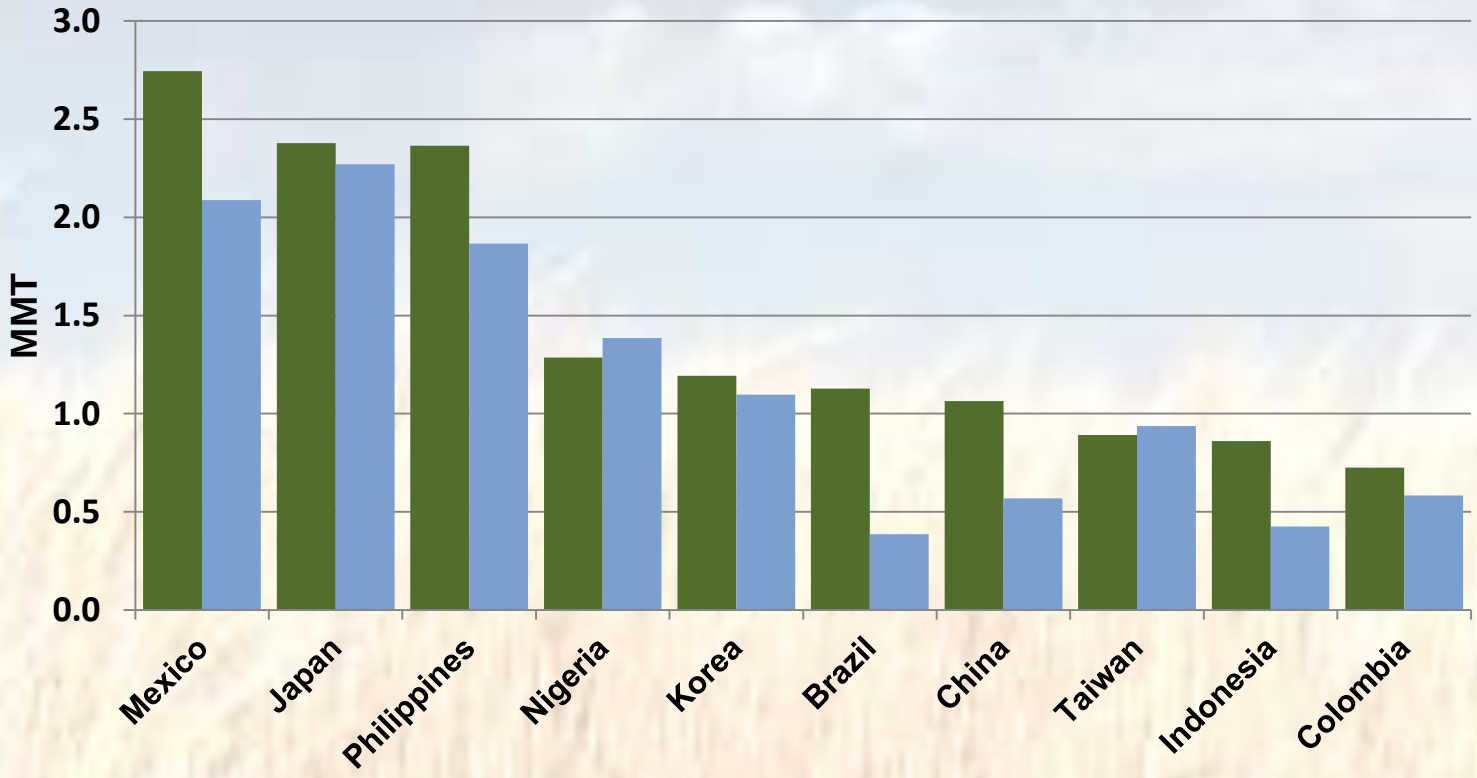
Major World Wheat Importers

(from all origins)



Top 10 Customers for U.S. Wheat

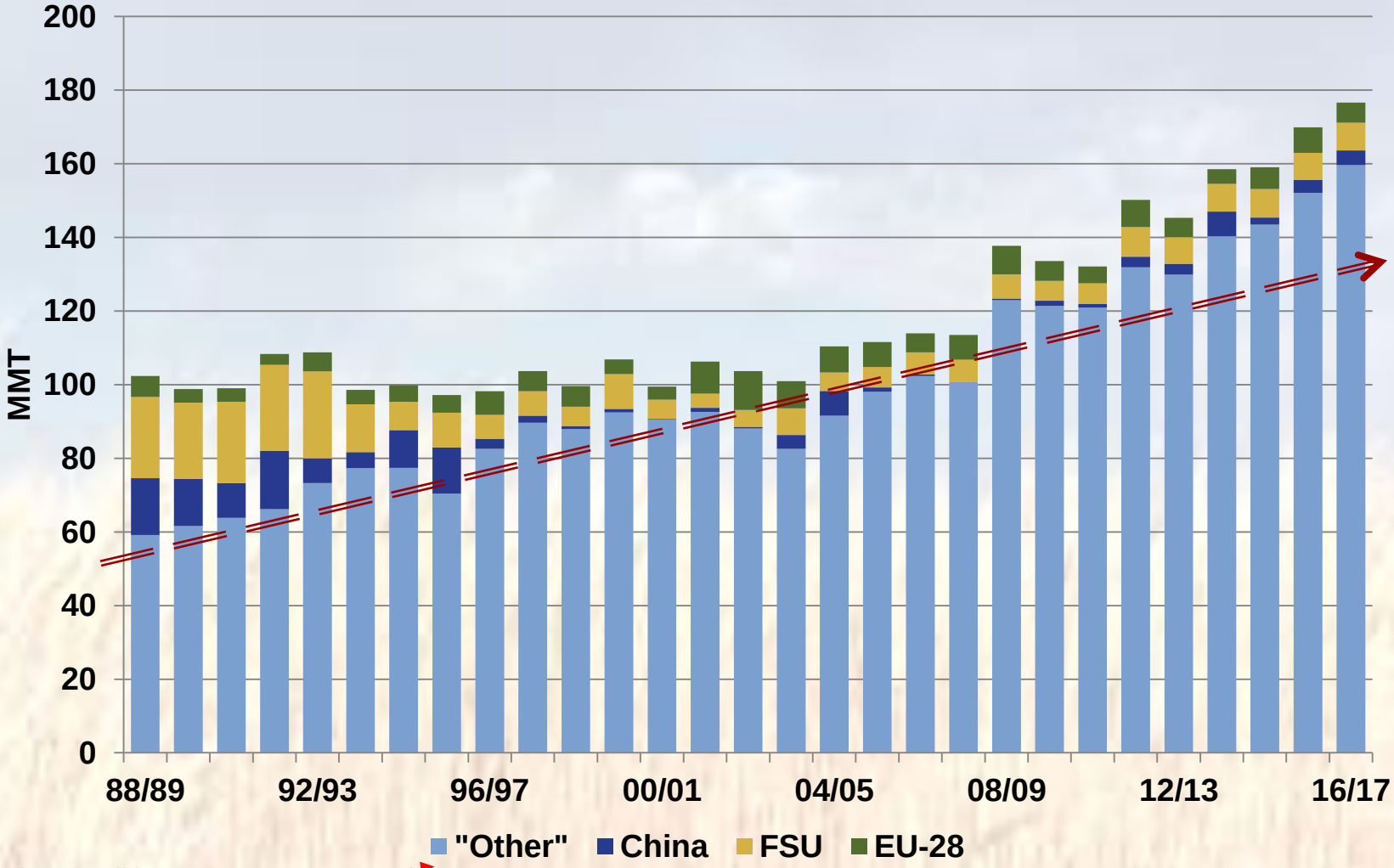
2016/17 vs. 2015/16



Source: USDA FAS export sales report March 9. 2017.

2016/17 2015/16

World Wheat Imports



Trend in "other" importers denoted ( )

World and U.S. Wheat Supply and Demand

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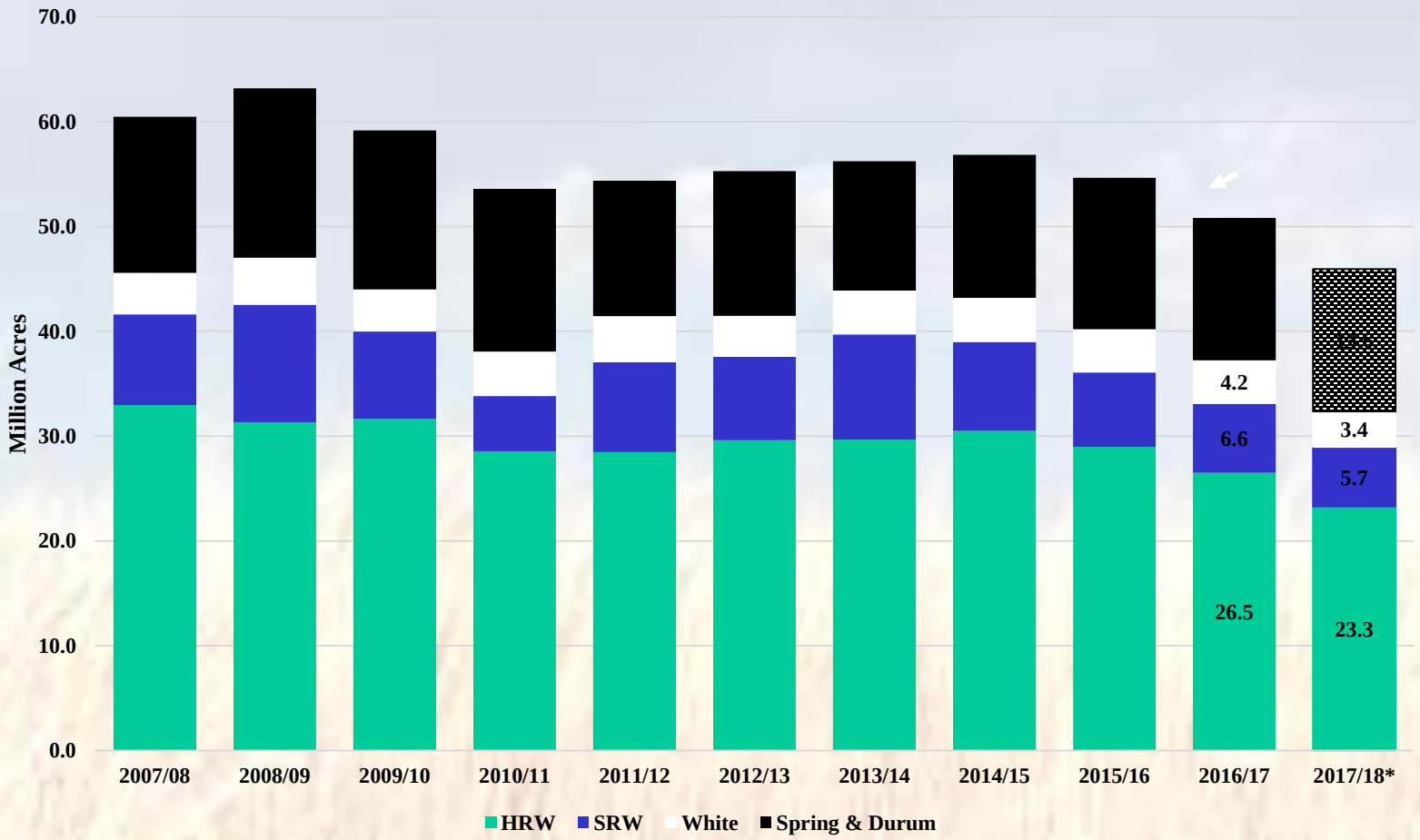
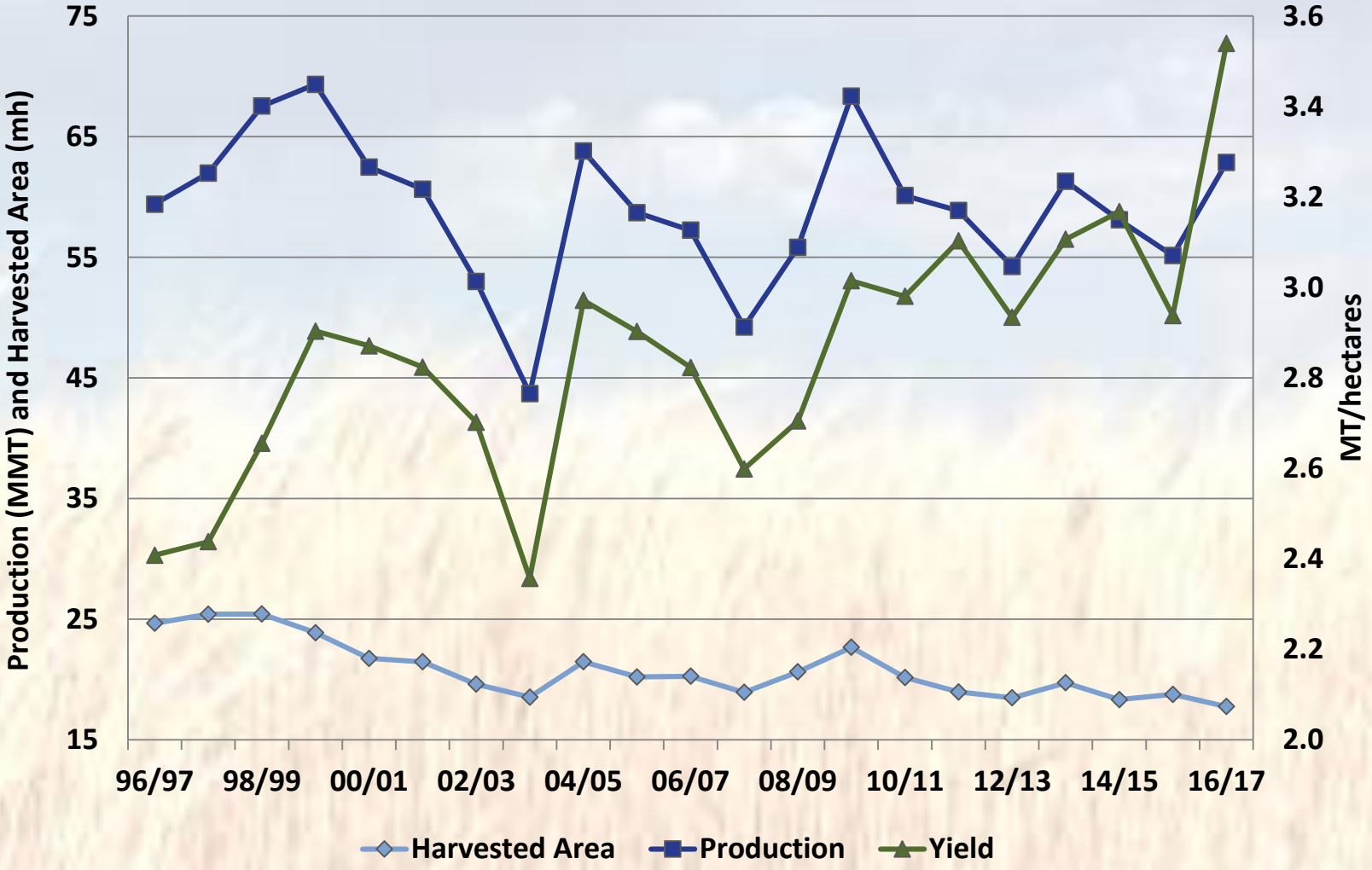
U.S. Wheat Plantings by Class

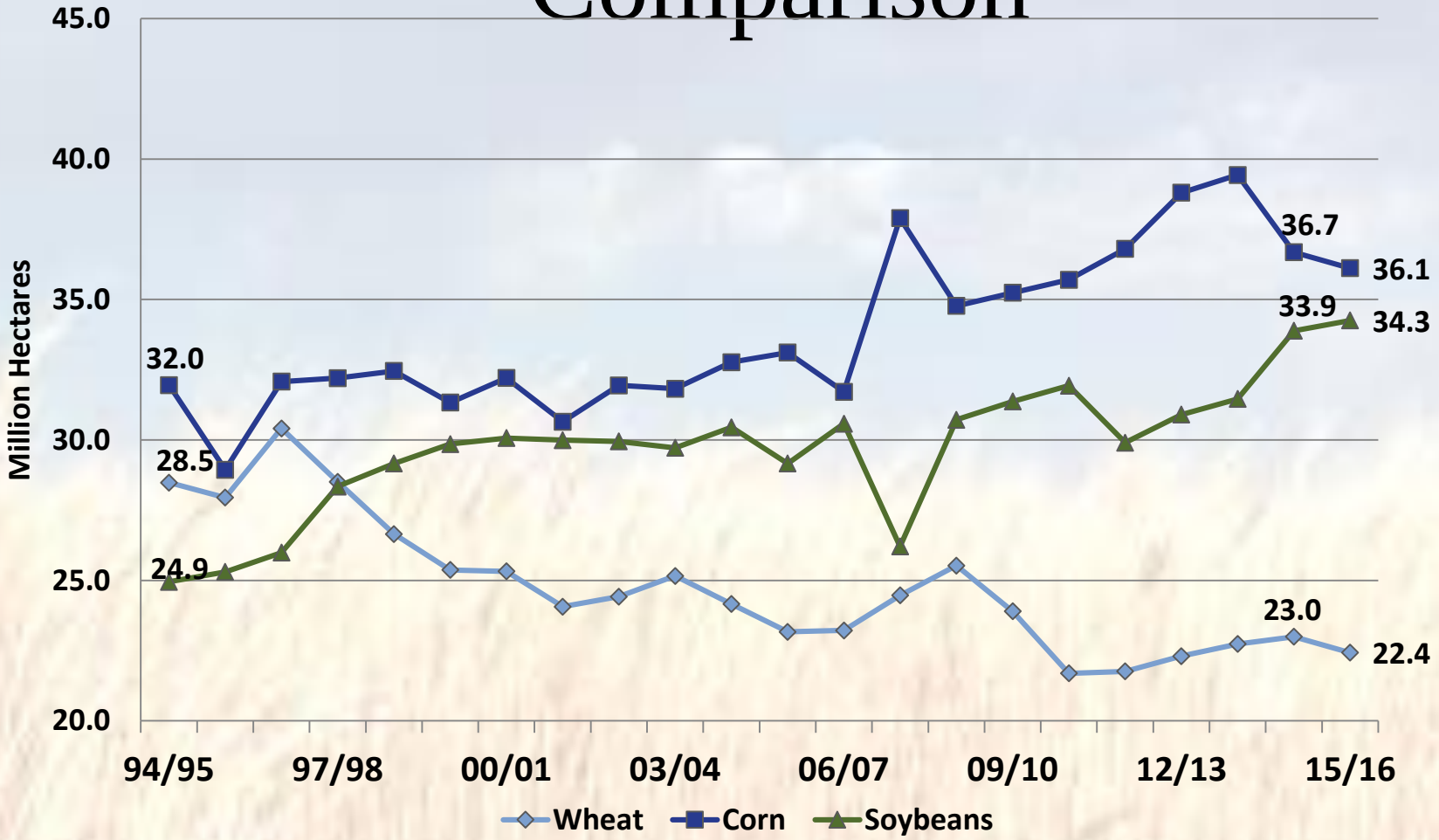


**Source: USDA Winter Wheat Seedings Report January 12, 2016*
2017 USDA Grain and Oilseeds Outlook, February 23-24, 2017

U.S. Wheat Area and Production



U.S. Crop Planted Area Comparison



Source: USDA Acreage Report, June 30, 2016

Summary

- Global production at 751 MMT, fourth consecutive record high, if realized
  - Argentina wheat production increased to 16.0 MMT, 32% above the 5-year average
  - Wheat production in Australia expected to exceed 5-year average by 39% at 35.0 MMT
- Global ending stocks to rise to a record 250 MMT up 4% from 2015/16
  - Ending stocks in the EU to fall to 9.94 MMT, down 29% from 2015/16 if realized
  - US ending stocks to be largest since 1987/88 at 30.7 MMT
- World consumption and trade expected to grow in 2016/17
  - Argentine exports estimated at 10.1 MMT, up 5% year over year
  - US exports to reach 27.9 MMT up 32% from 2015/16, 5% above the 5-year average

So what does it mean to you?

- A lot of old crop still around, expect slow new crop transitions
  - Kansas production last year was 467 million, may be closer to 250 million this year…
- Wheat Buyers will cram elevators full
- Protein premiums may back off so wheat buyers may load up on lower pro, cheap stuff…
- Enjoy this year's extractions while you can

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

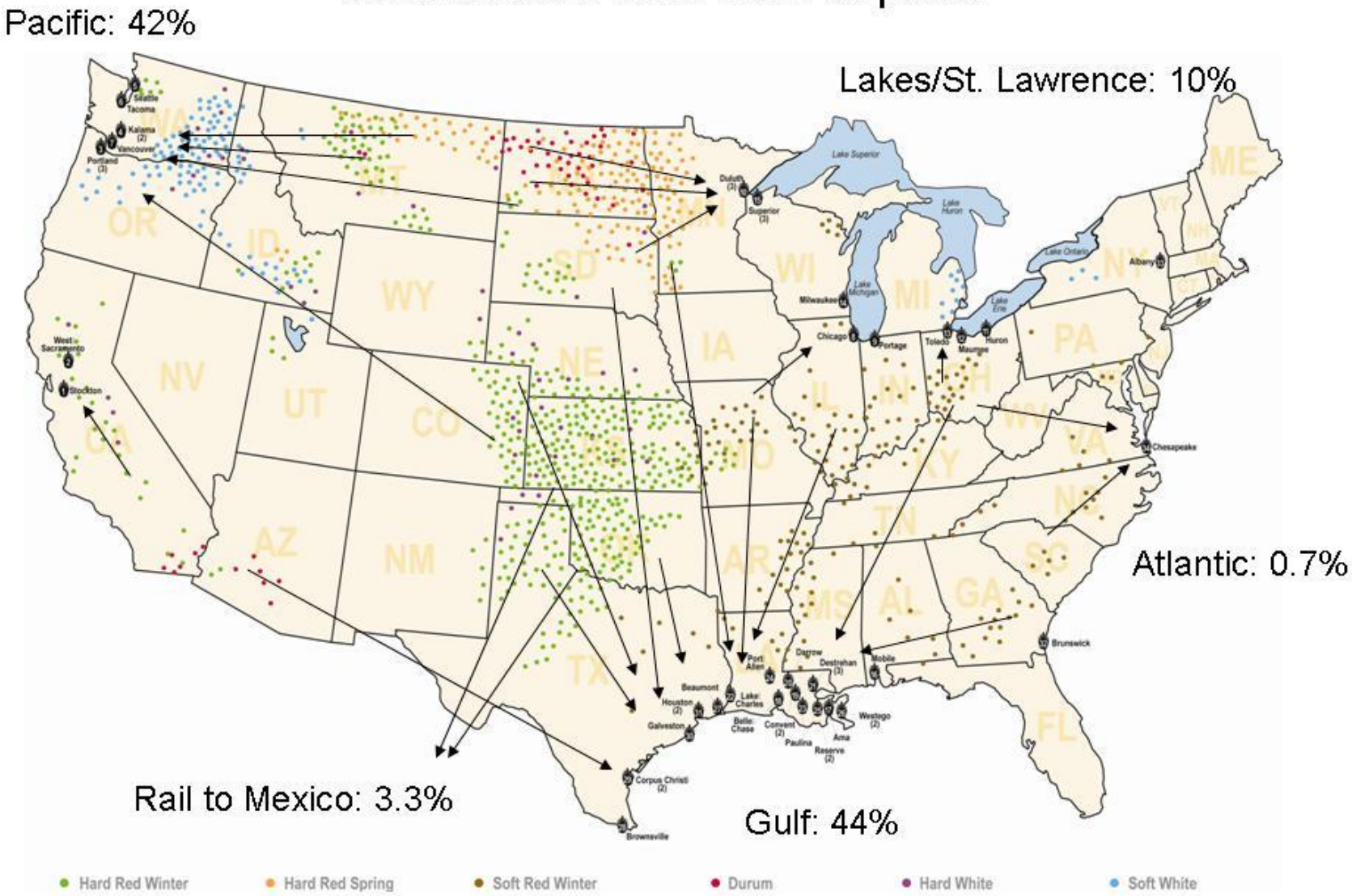
Versatile weak gluten wheat with excellent milling and baking characteristics for cookies and crackers, also used for blending.

Kansas Hard White Wheat

- Promoting it as High Plains Platinum
- Improved varieties
- Kansas Grew about 15 million bushels this year

MY 2004/05

Wheat flows from farm to ports



Hard White Wheat

- Better quality
  - Test weights, absorptions
- Darn near Identity preserved
- Can be used interchangeably with hard red
- Find ways to innovate to add value. That is the ***"new" Science of Milling is Innovation!***

Enjoy your March Madness… **#wheatnribs**

Go Cats!