2015 Durum Situation
&
2016 Outlook

National Pasta Association
March 2016

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Outline

1) 2015 Review

- World
- Canada

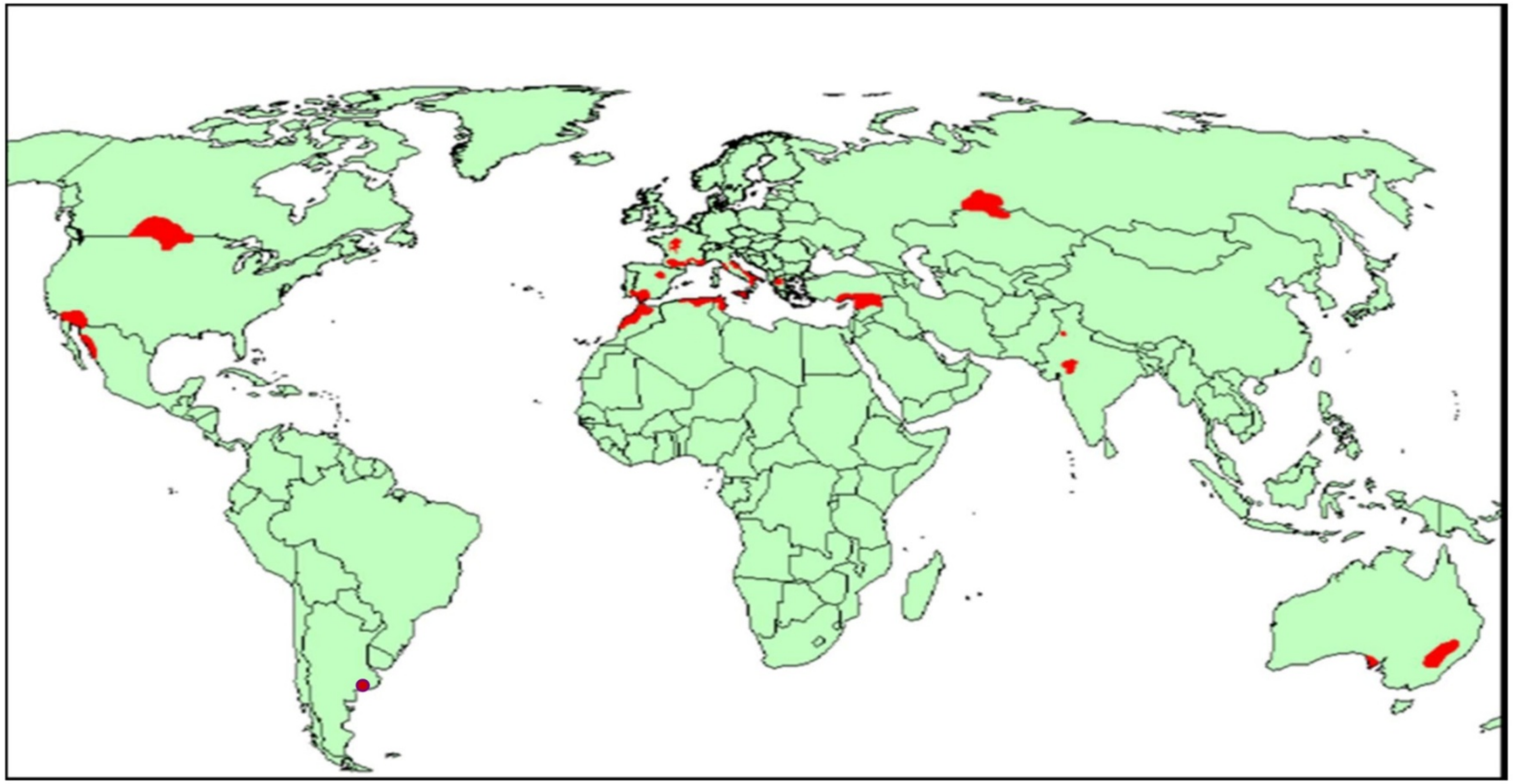
2) 2015 U.S. Review

- Production
- Demand
- Quality

3) 2016 Outlook

- World
- Canada
- U.S.

WORLD – Durum Geography



Major Durum Wheat Production Areas

2015 World Review

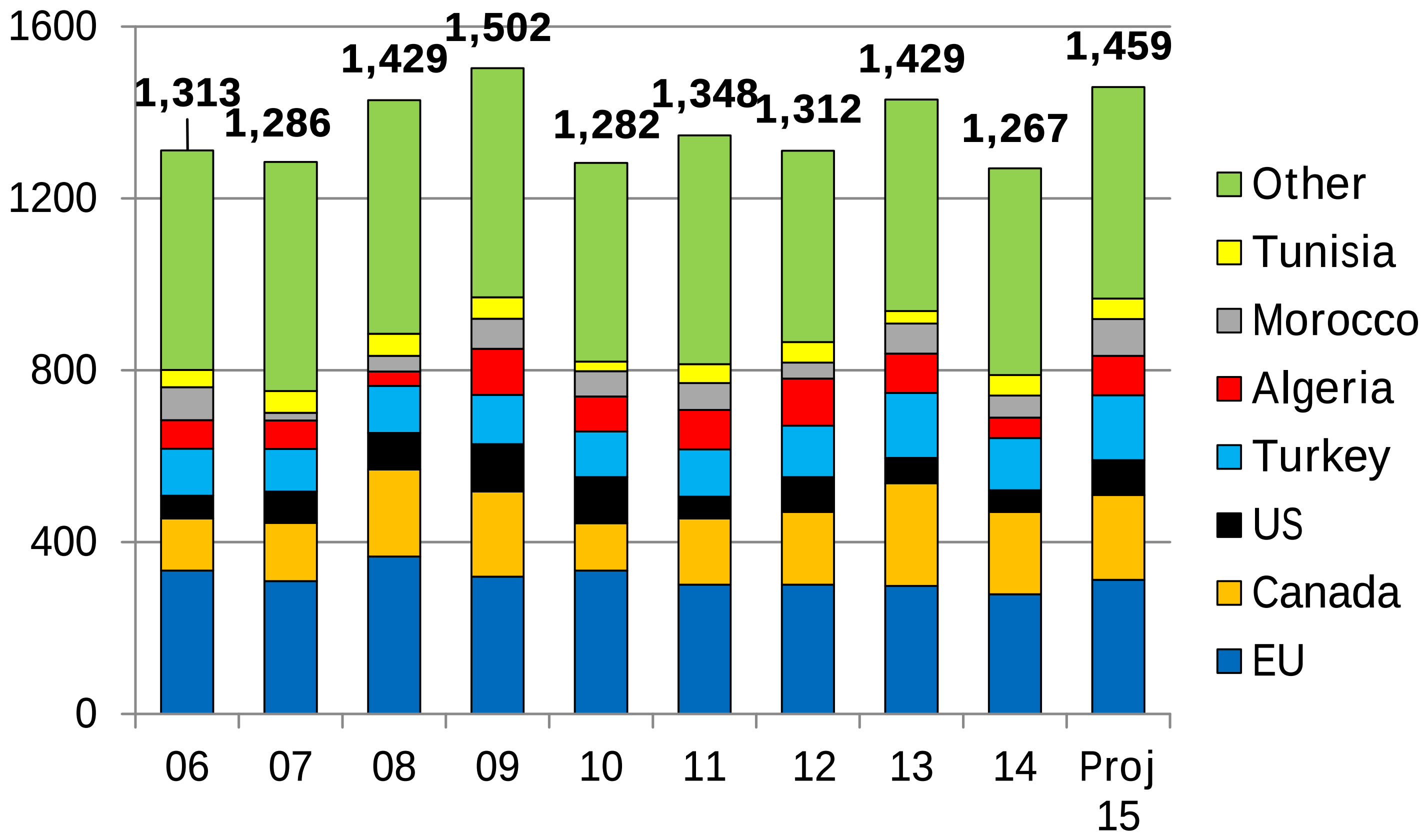
- World durum crop rebounded from 2014 (smallest since 2001)
  - Higher planted area & favorable weather
  - Largest gains in U.S., North Africa and Turkey
- Excellent quality in most areas
- World trade in durum has fallen sharply from 2014
  - Good domestic crops in North Africa
  - Improved quality in EU crop
  - Lower Canadian exports

2015 Prices

- Overall durum prices have fallen by nearly 50% from 2014 highs
- Durum prices still command price premium to all other wheat classes (favorable for steady to higher planted area in 2016)
- U.S. and Canadian Inland rail transportation costs and logistics vastly improved compared to fall 2014 and winter 2015

WORLD DURUM PRODUCTION

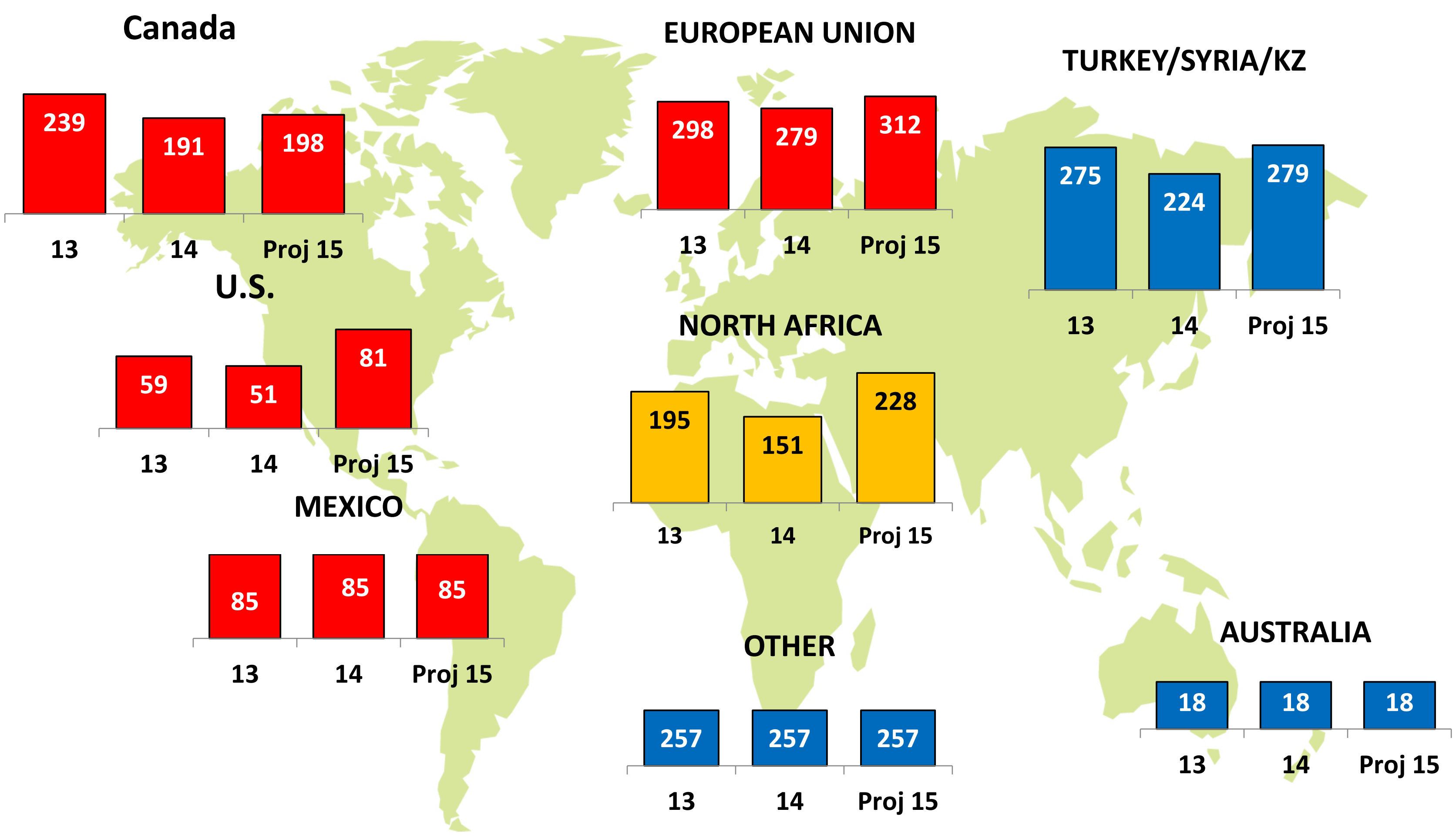
Million Bushels



Source: Int'l Grains Council
February 2016

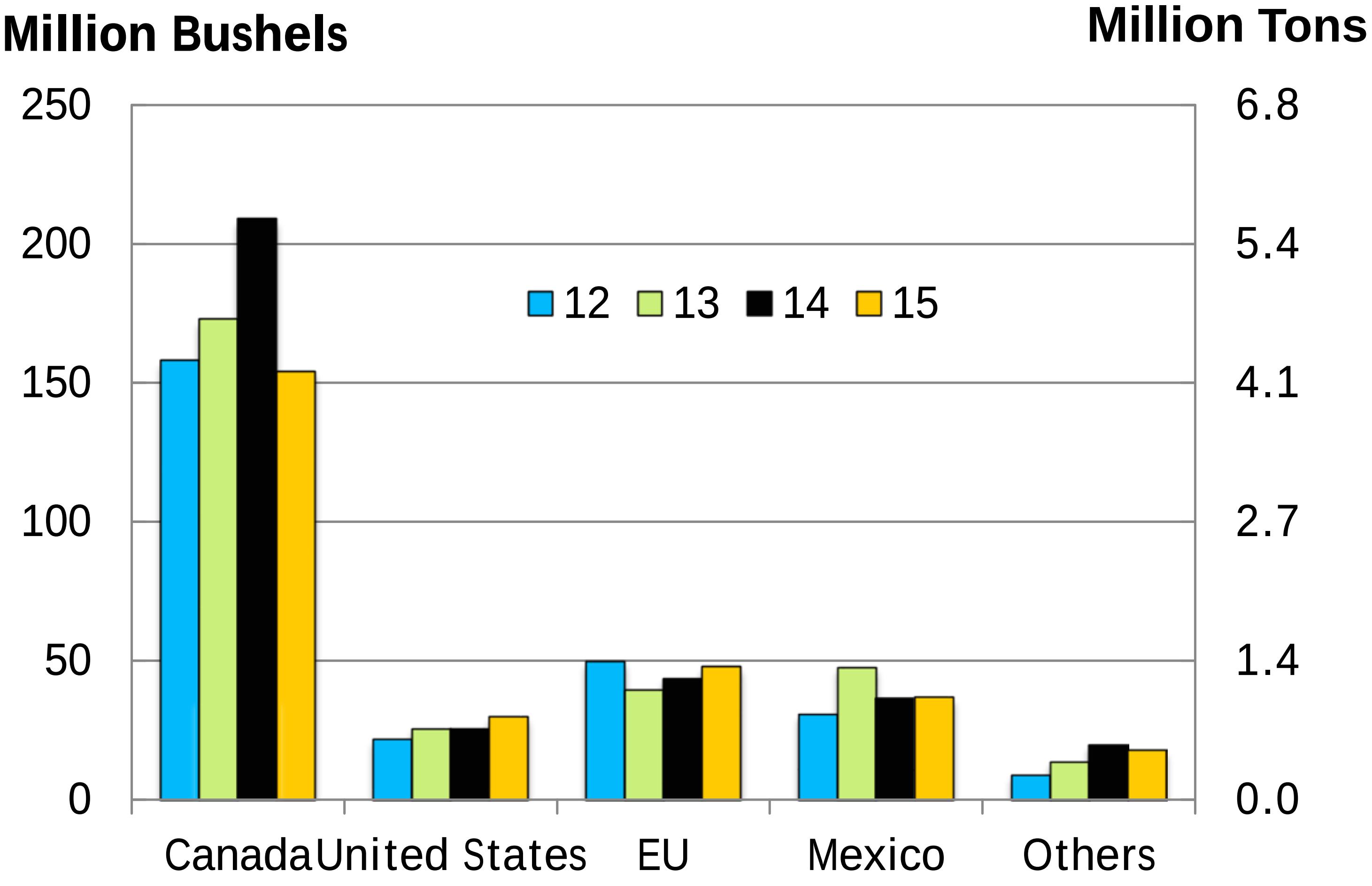
WORLD DURUM PRODUCTION

(Million Bushels)



Source: Int'l Grains Council
February 2016

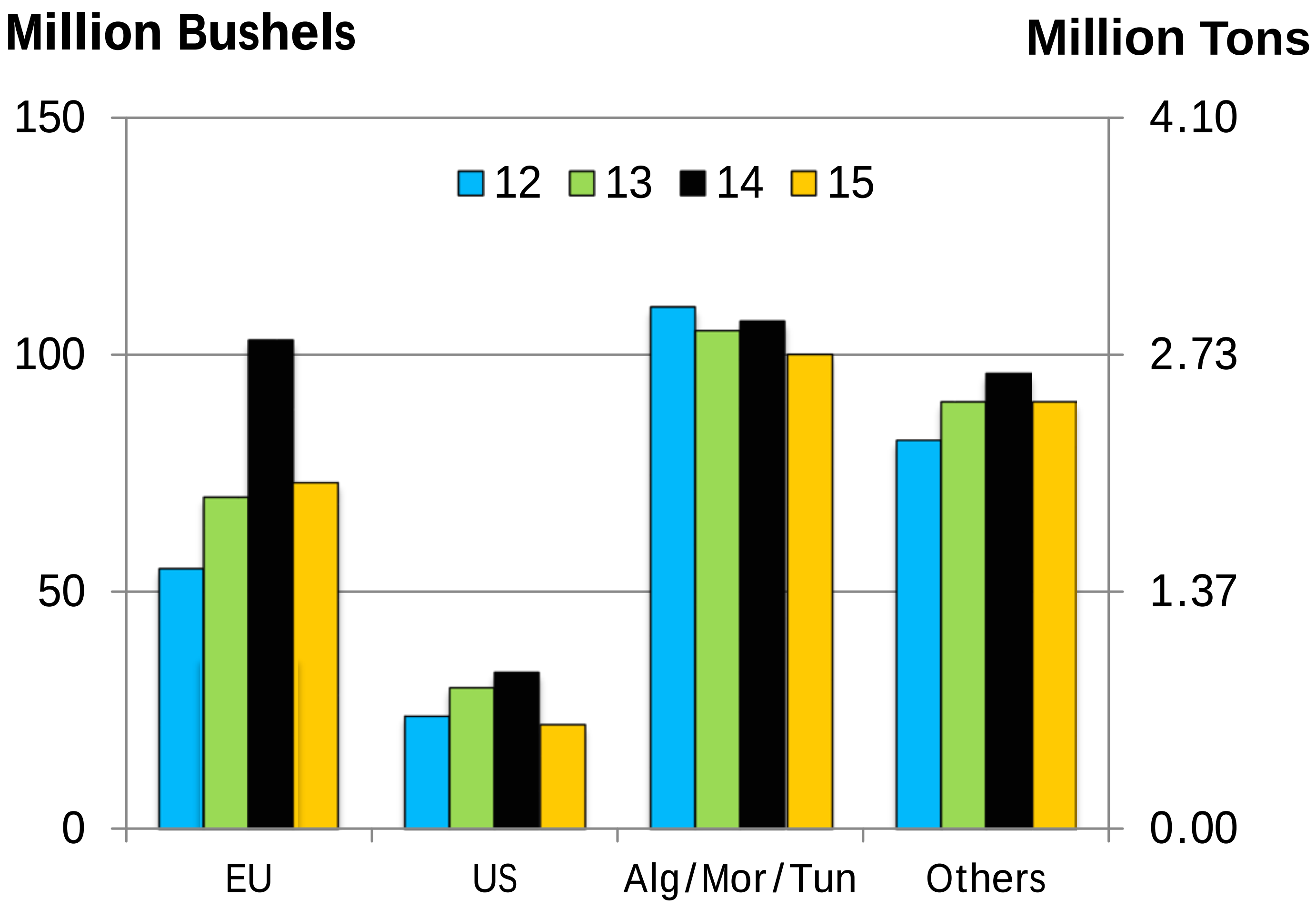
WORLD DURUM EXPORTS



Others includes Turkey, Kazak and Australia

Source: Int'l Grains Council
February 2016

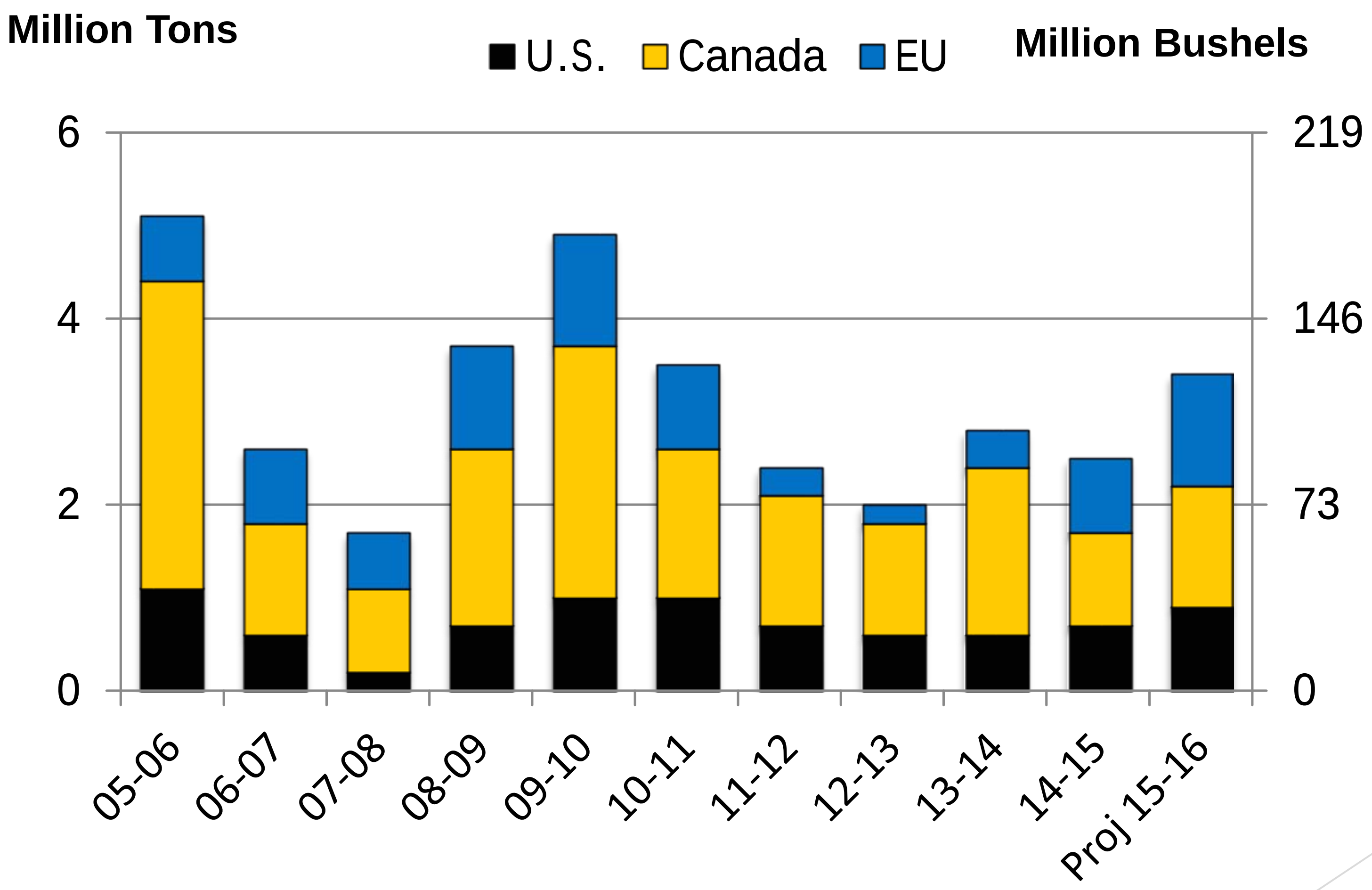
WORLD DURUM/SEMOLINA IMPORTS
(Pasta not included)



Source: Int'l Grains Council

Carryover Durum Stocks

U.S., Canada, European Union



Source: Int'l Grains Council
February 2016

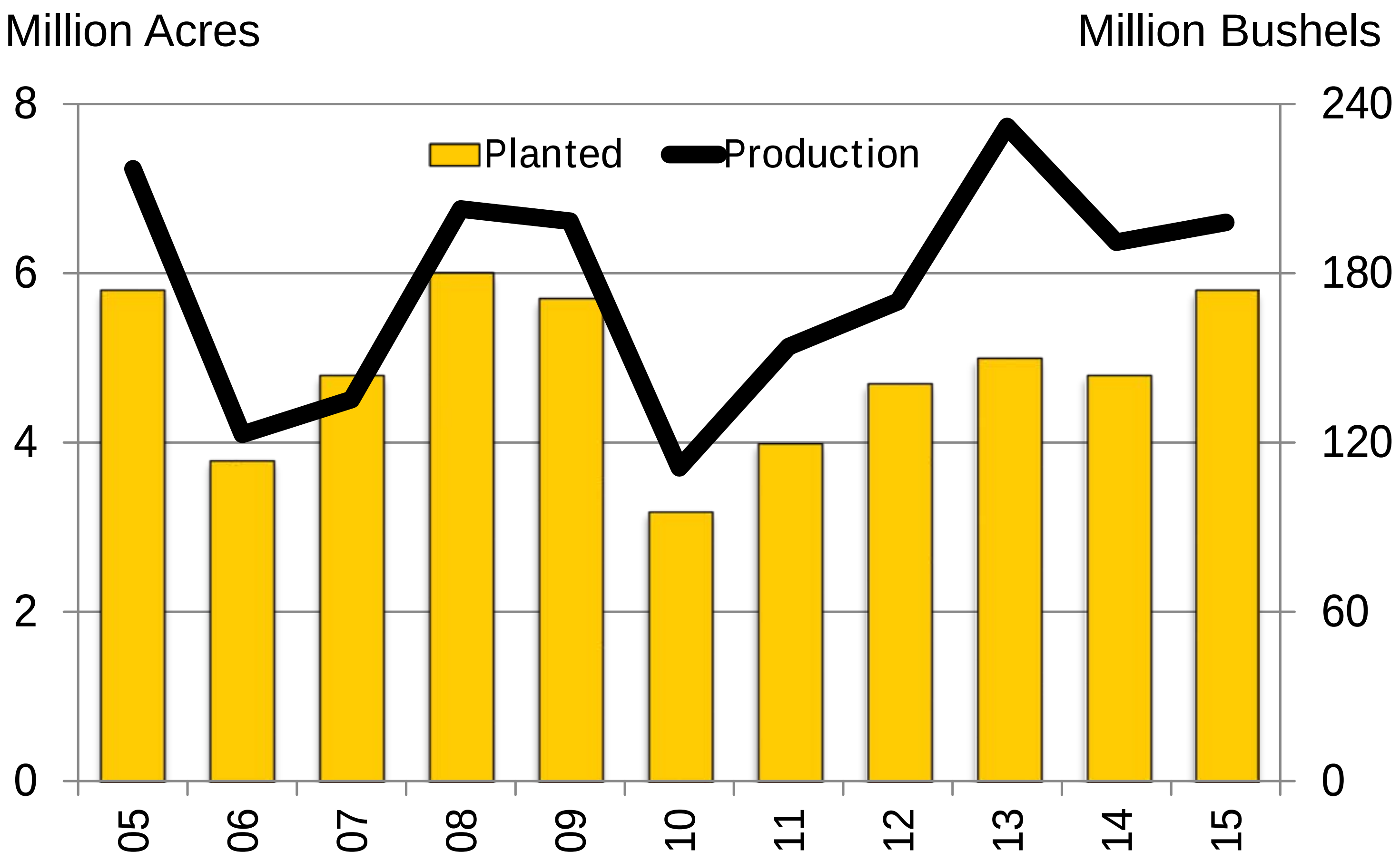
2015 Canadian Durum Situation

- ➢Planted area: 5.8 million acres, up from 4.8 million in 2014
- ➢Mid-summer drought impacted yields in some areas
- ➢Production of 198 million bushel. Compared to 191 million in 2014
- ➢Quality much improved over 2014
- ➢Final production ended higher than was anticipated mid-summer.
- ➢Export pace started slow due to drought uncertainty but pace has accelerated in recent months.

2015 Canadian Durum Situation

- Exports are 13% lower than 2014.
- Have been most successful into the North African region.
- Weaker Canadian dollar beneficial to exports and farm-level prices.
- Canadian producer prices are similar to U.S. producer prices.
- Improved transportation dynamics and rates compared to 2014, and also better marketing flows.
- Exports to U.S. have trended lower than recent years…will it pick-up into spring and early summer?

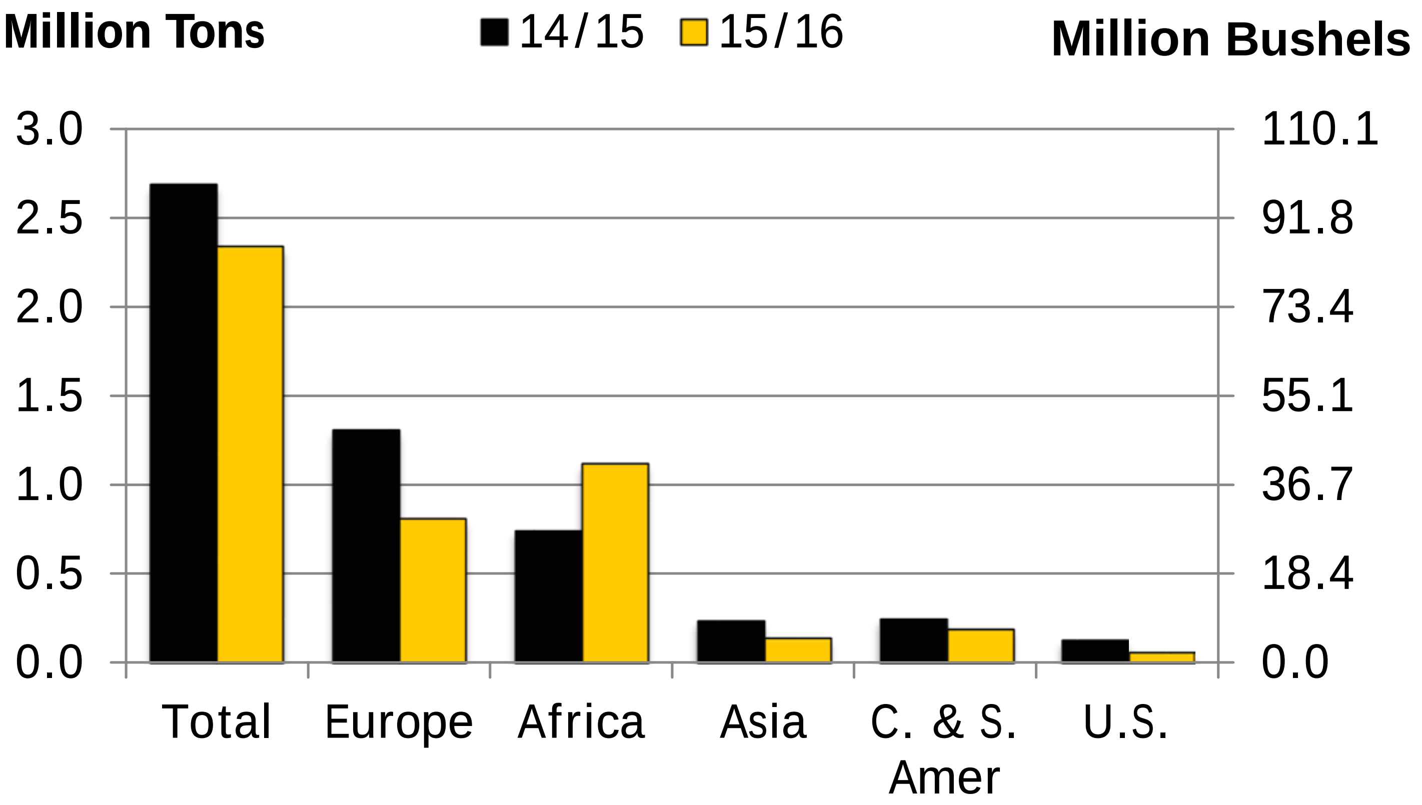
CANADIAN DURUM
PLANTED AREA / PRODUCTION



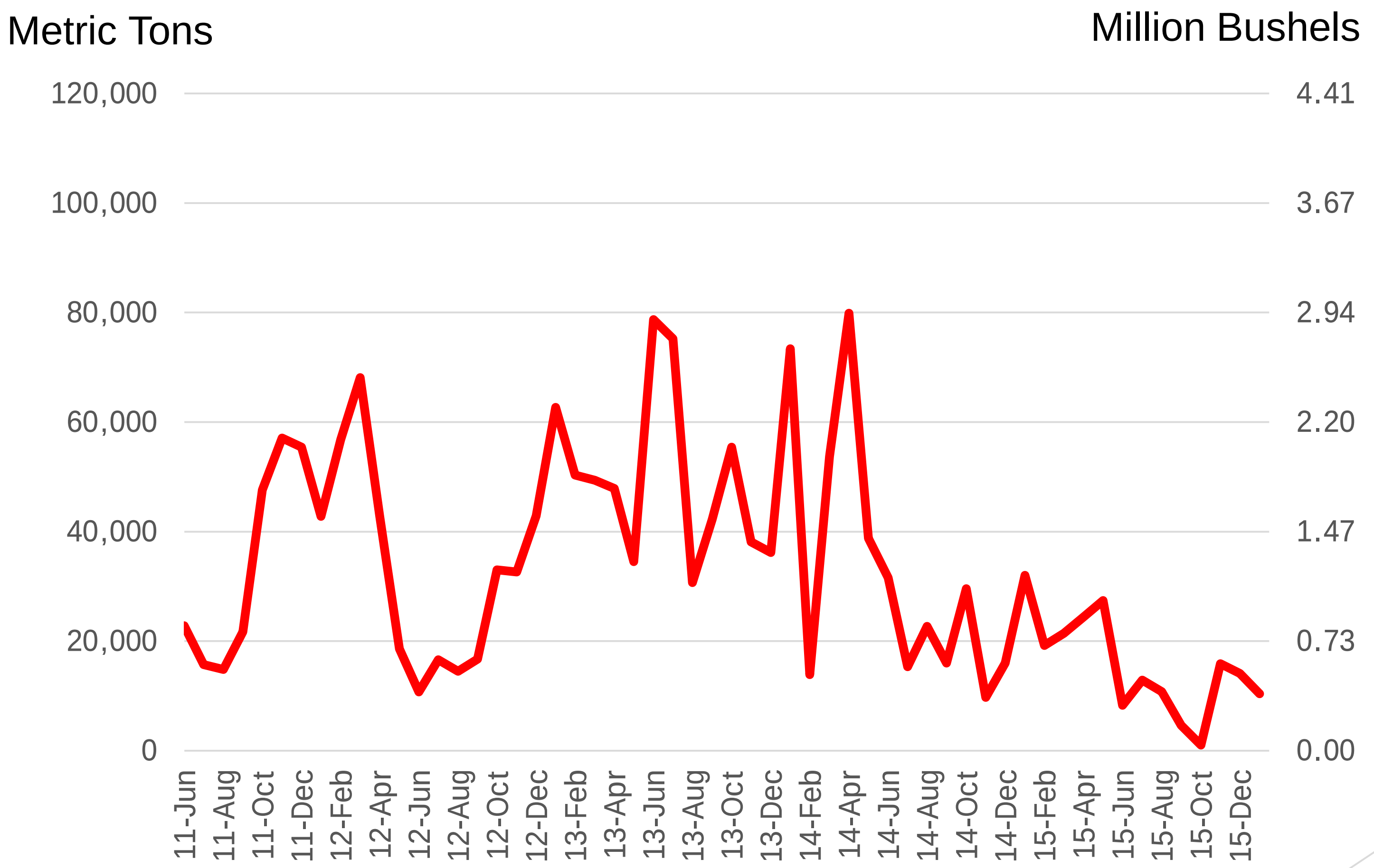
Source: Stats Canada
Dec 2015

CANADIAN DURUM EXPORTS

Shipments August - Jan

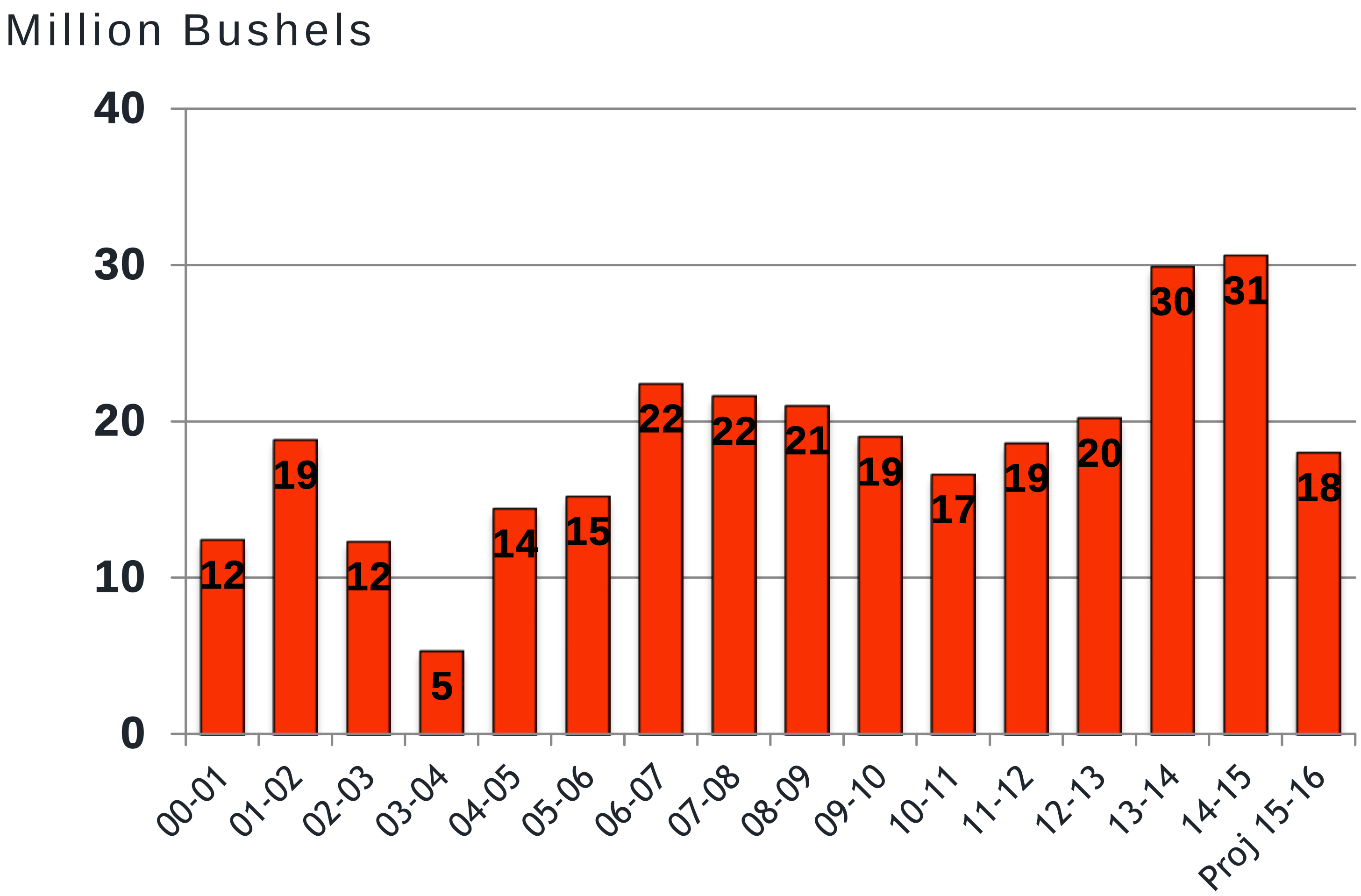


U.S. Monthly Imports of Canadian Durum



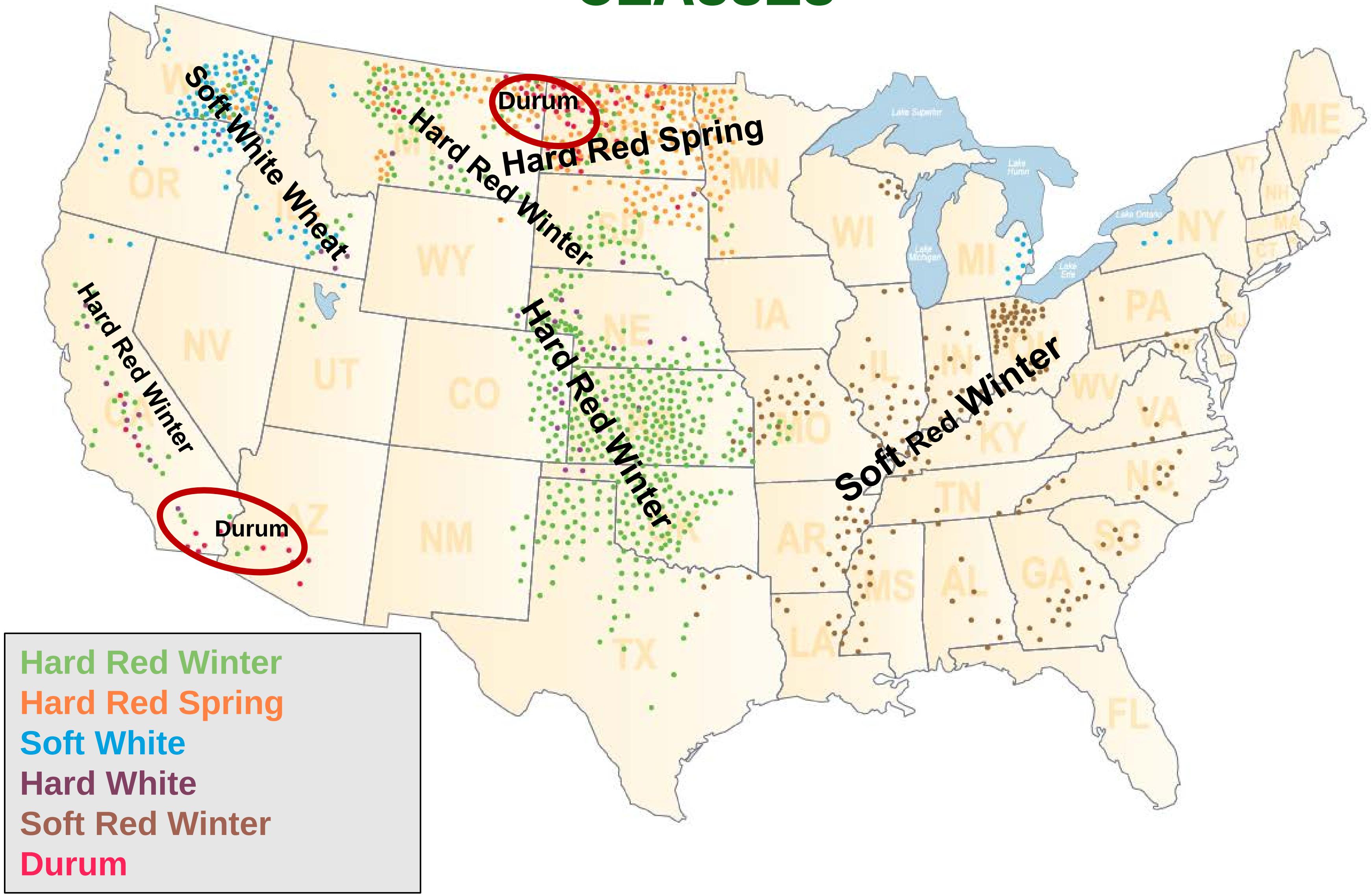
Source: Canadian Grain Commission

HISTORICAL U.S. IMPORTS OF CANADIAN DURUM



Source: US Census Bureau
****15-16 USDA Implied Projection***

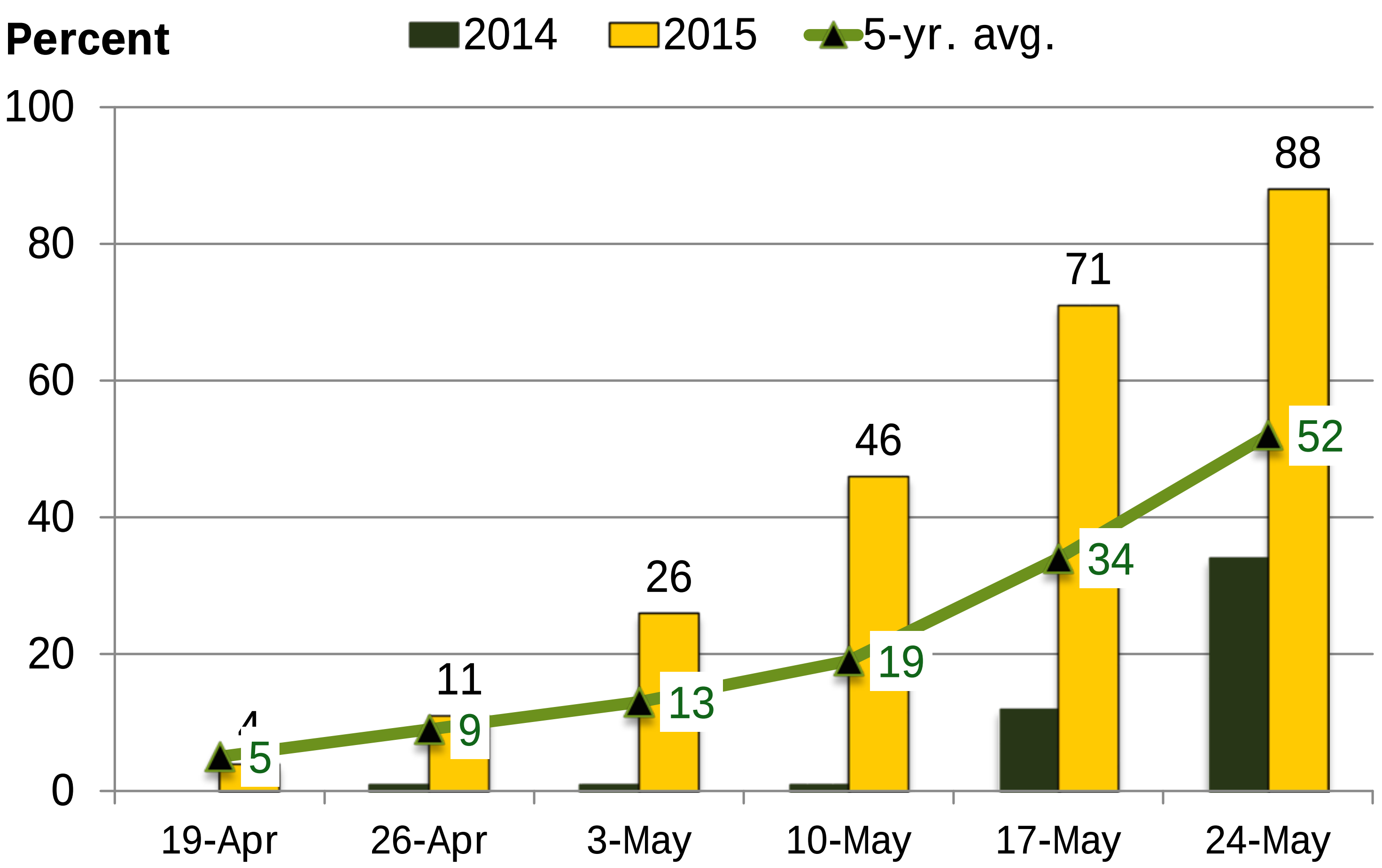
U.S. WHEAT PRODUCTION REGIONS / CLASSES



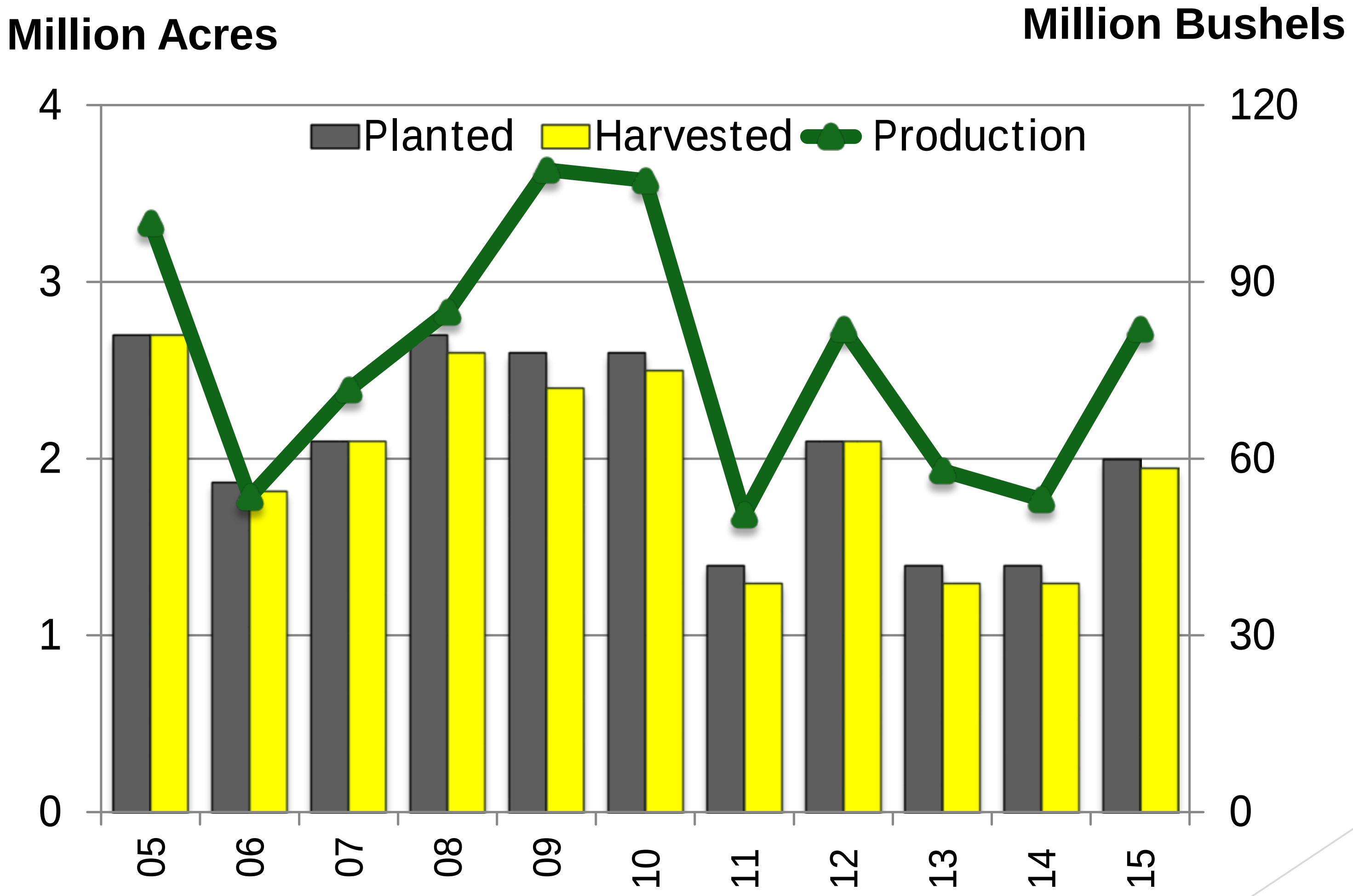
2015 U.S. Durum
Production / Quality

- U.S. acreage was up nearly 40%
  - Desert Durum -- +75%
  - Northern Durum -- +34%
- Price incentive and more favorable planting conditions across North Dakota / MT
- Desert Durum had some rare rain during harvest but mostly good quality
- Good growing season in Northern U.S. with excellent harvest conditions
- Strong yields and excellent quality

N.D. Durum Planting Pace

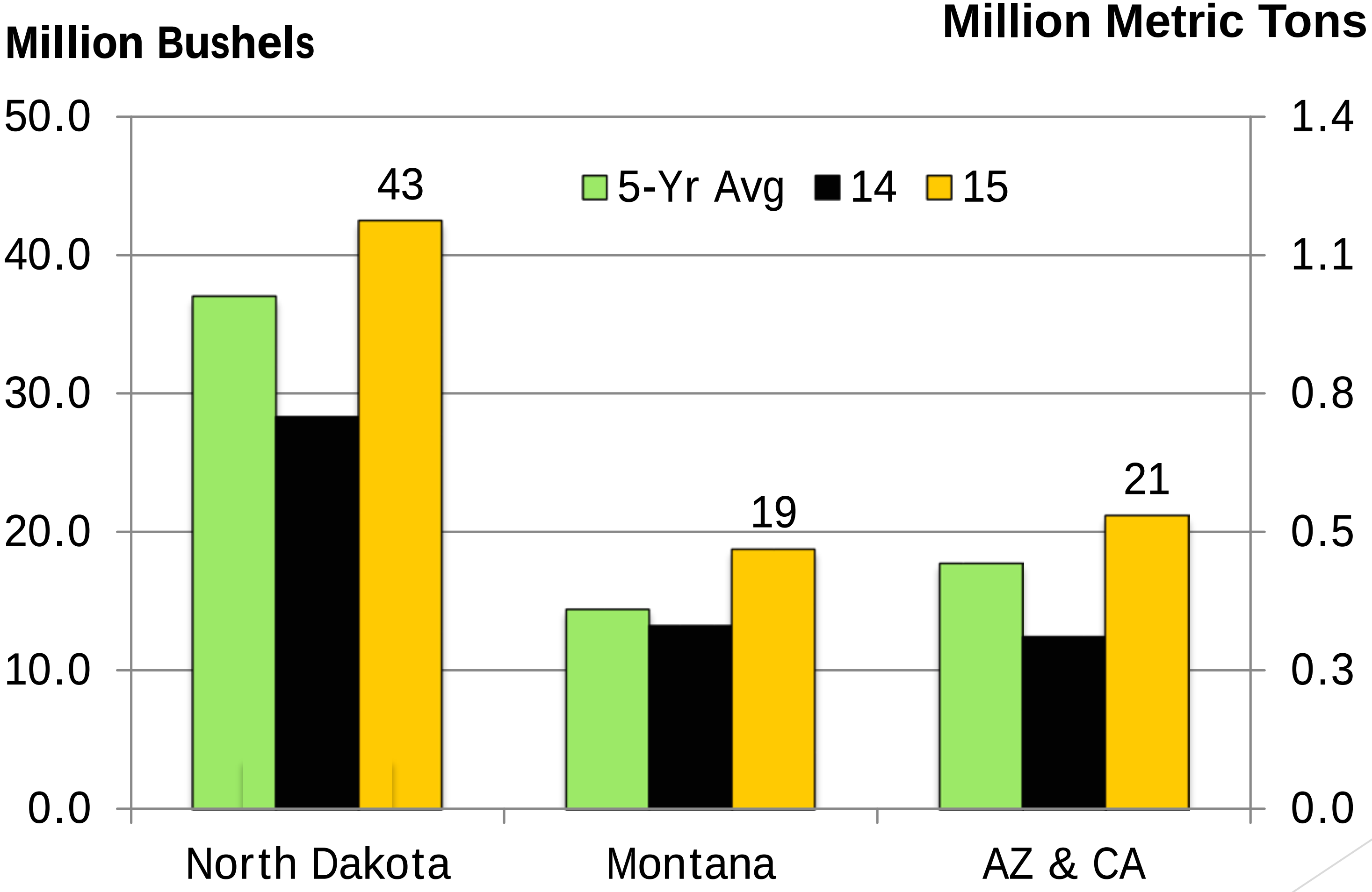


U.S. DURUM WHEAT
PLANTINGS & PRODUCTION



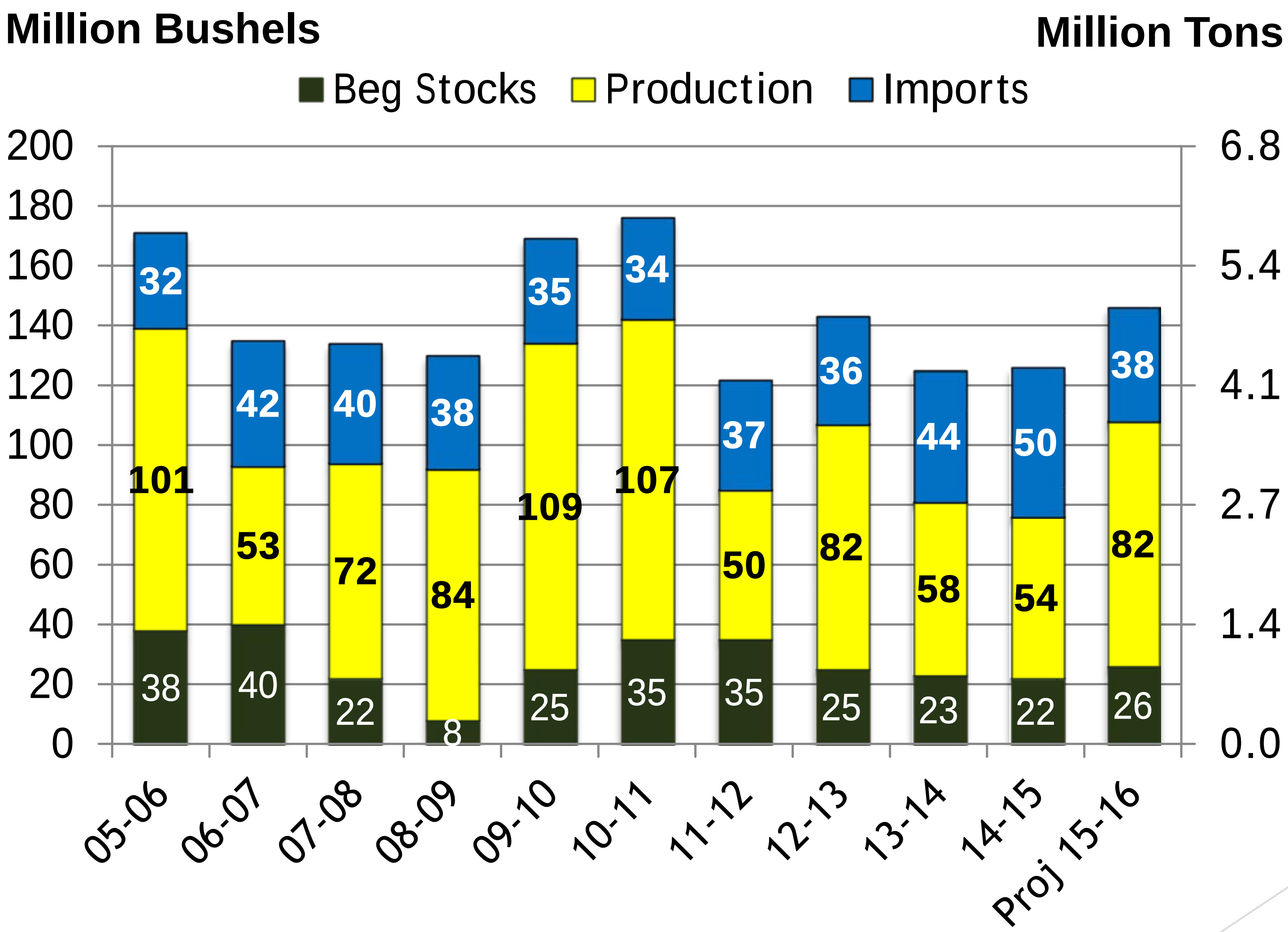
Source: USDA January 2016

U.S. DURUM
PRODUCTION BY STATE



Source: USDA October 2015

DURUM SUPPLIES IN THE U.S.

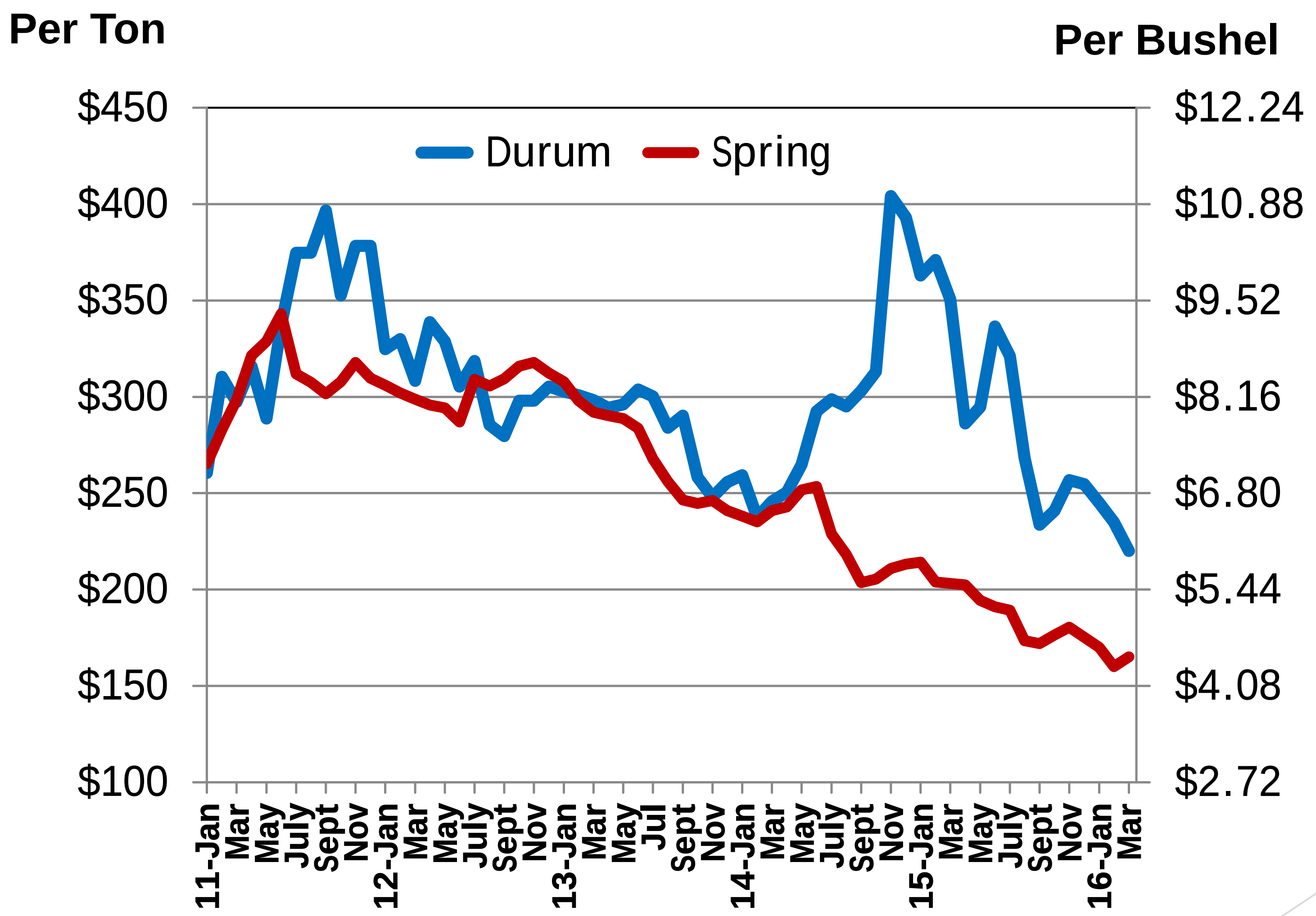


Source: USDA February 2016

2015 U.S. Durum
Demand / Prices

- Strong early season export sales, especially into Italy but have slowed in last few months due to strong U.S. dollar and pick-up in Canadian sales
- Domestic demand has remained strong
- Vastly improved rail rates and flows
- Producer prices were in the $6 – $7 per bushel range in first half of marketing year but have now fallen to $6 or less in most areas.

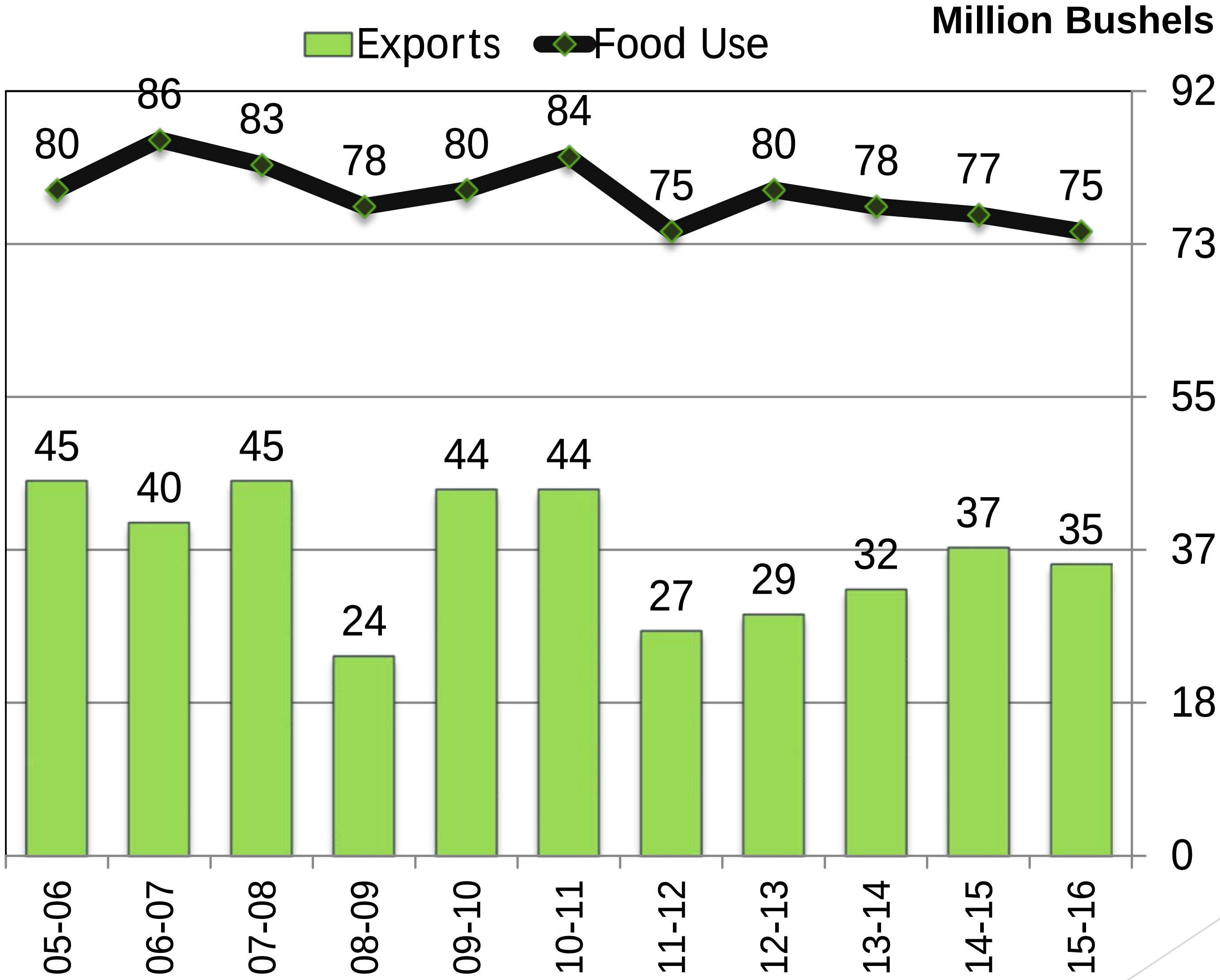
U.S. AVERAGE PRODUCER PRICES



Source: USDA, Annual Price Summary
March 2016

U.S. DURUM DEMAND

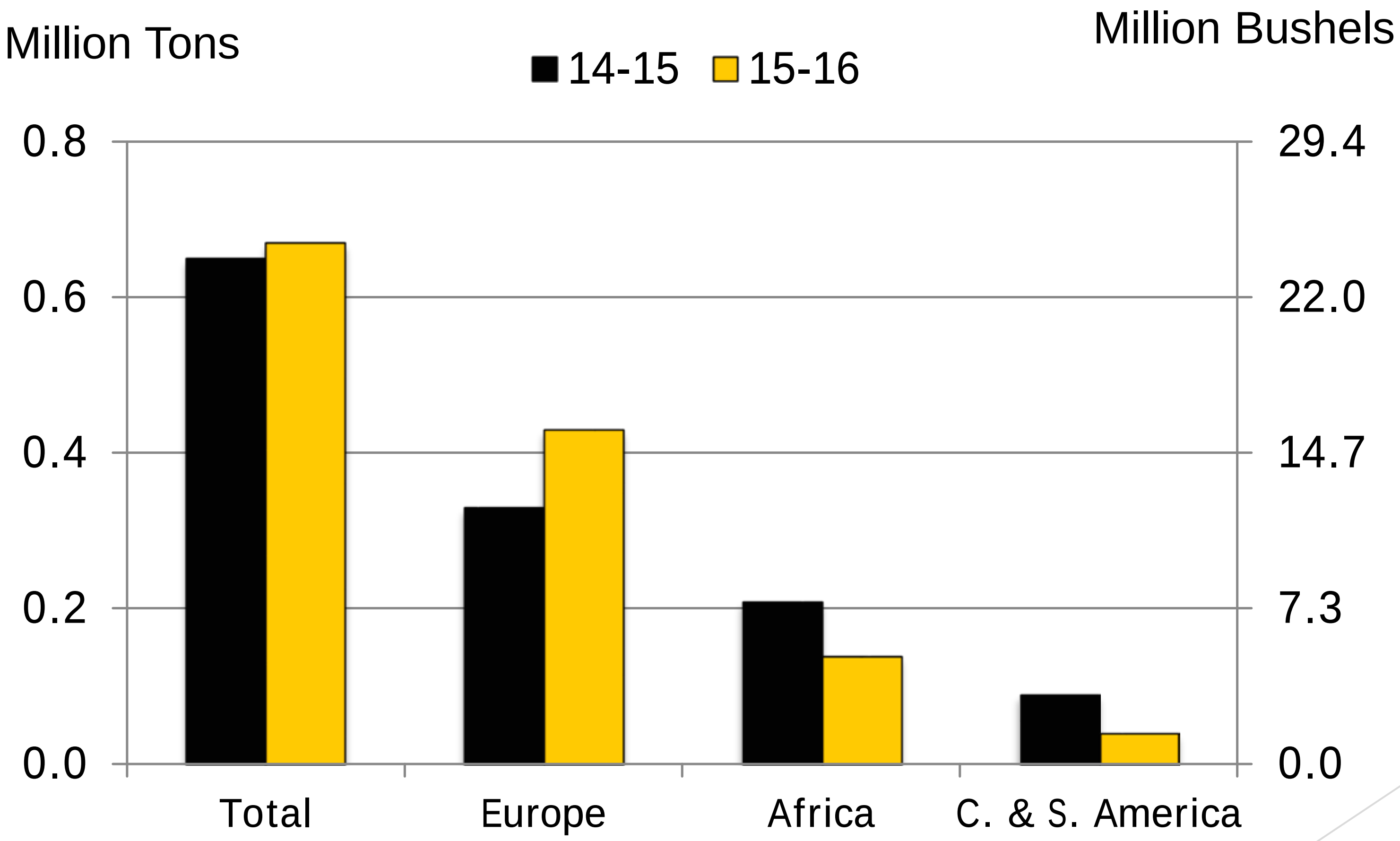
(Feed & Seed Use not reflected)



Source: USDA Projection Feb 2016

EXPORT PACE – U.S. DURUM

As of March 3, 2016

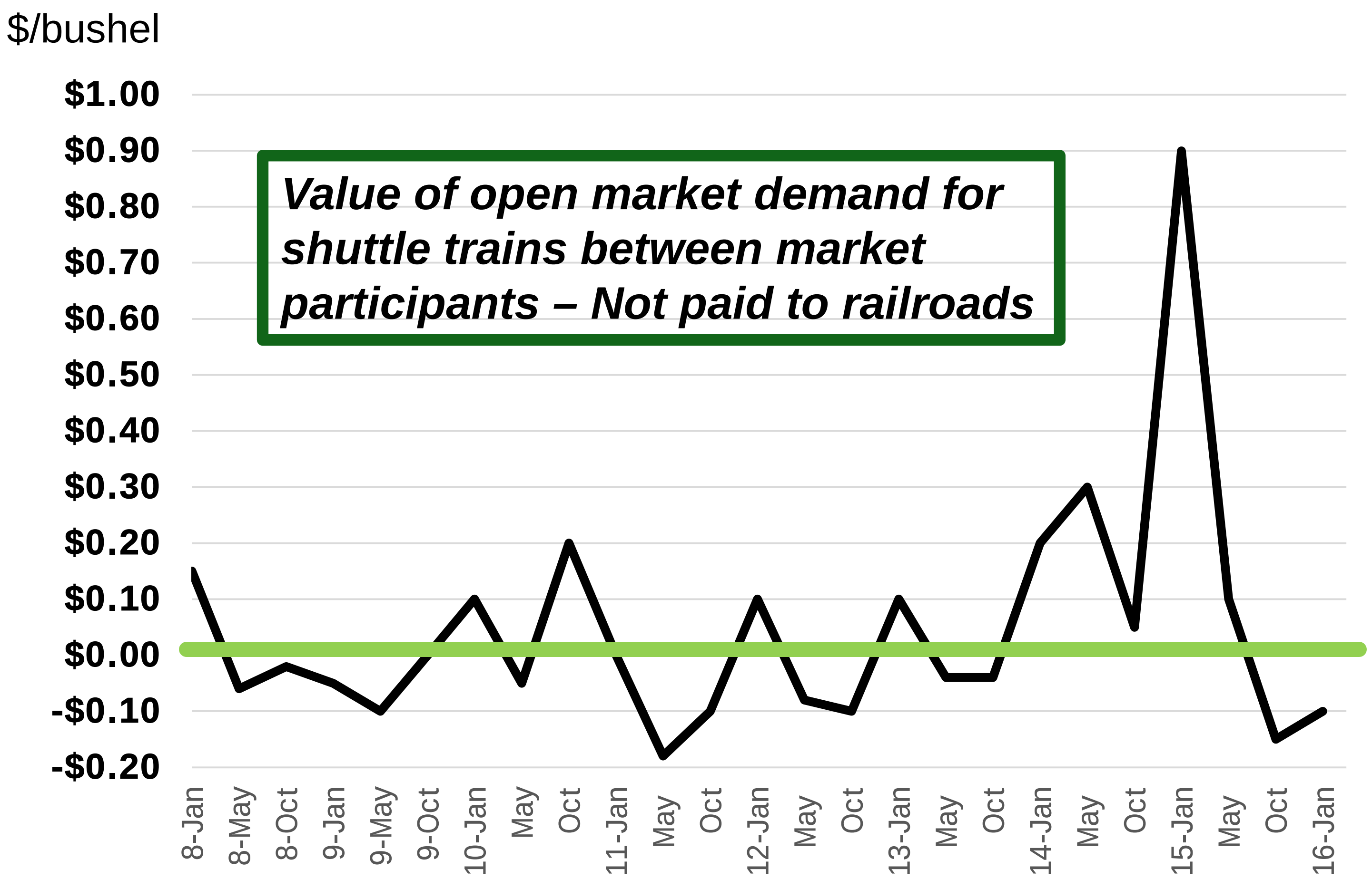


3/10/16

U.S. Rail Situation

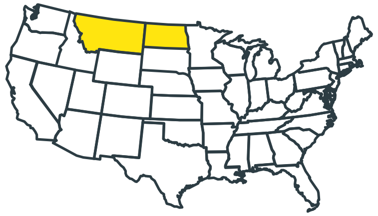
- Vastly improved rates, service and delivery times compared to a year ago.
  - Sharp drop in oil values
    - Volume of oil moving on railcars has slowed some, but biggest impact has been from “no new growth”
  - Railroad infrastructure improvements
    - Added double tracks to improve passing of trains
    - Crew size and equipment “caught up” to demand
  - Slack export demand for U.S. grains
  - Slow producer selling

Secondary Rail Market - Shuttles
Premium/Discount to Tariff

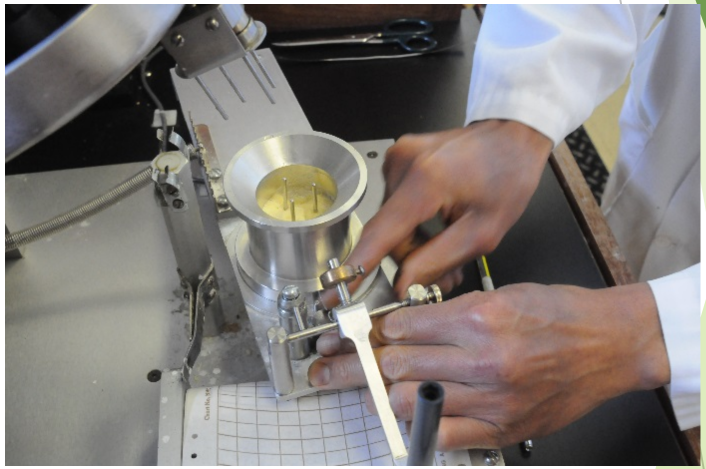


Source: USDA

US Northern Durum
2015 Quality

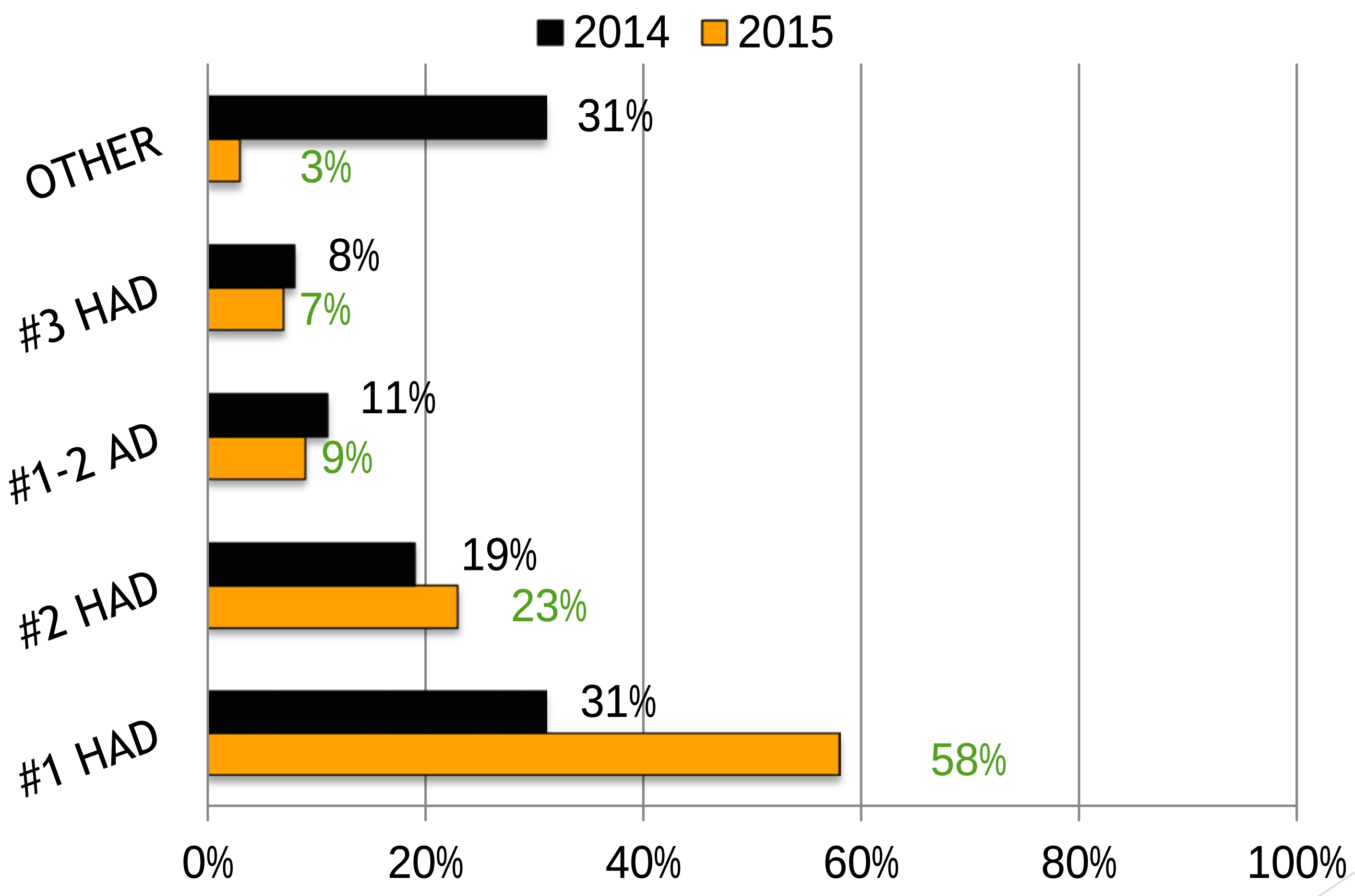


- Quality data based on 204 producer samples collected during harvest from fields, farm bins and elevators.
- Crop averages #1 Hard Amber Durum.
- High protein, high vitreous kernel, high falling numbers and low kernel moisture.
- DON levels sharply reduced from recent years.
- Similar mill extraction levels with lower ash and speck counts.
- Mixing properties weaker than typical but excellent pasta color scores and slight improvement in cooked firmness.

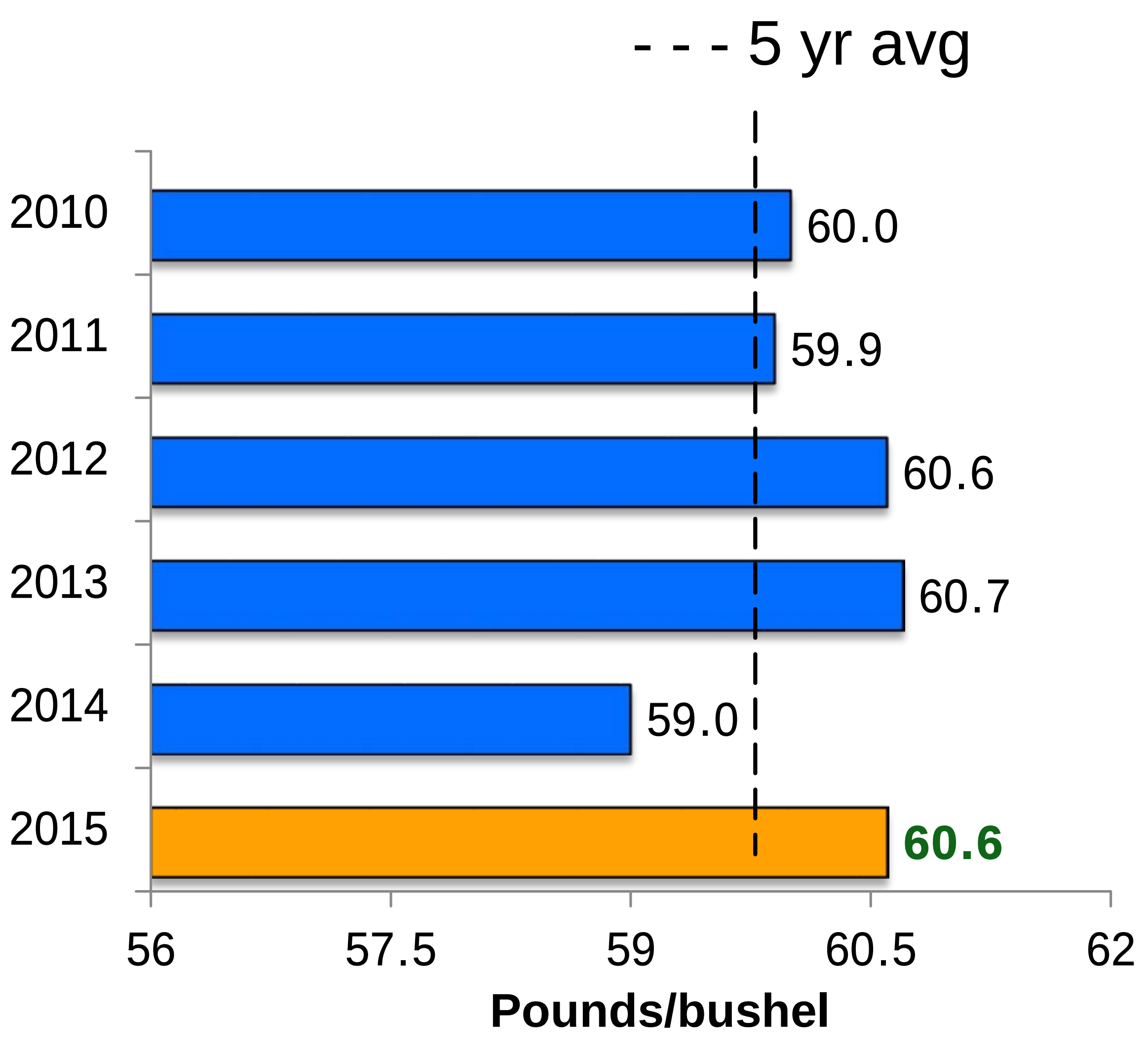


Source: North Dakota State University
Durum Wheat Quality Lab
Plant Sciences Department

U.S. Northern Durum
Grade Distribution

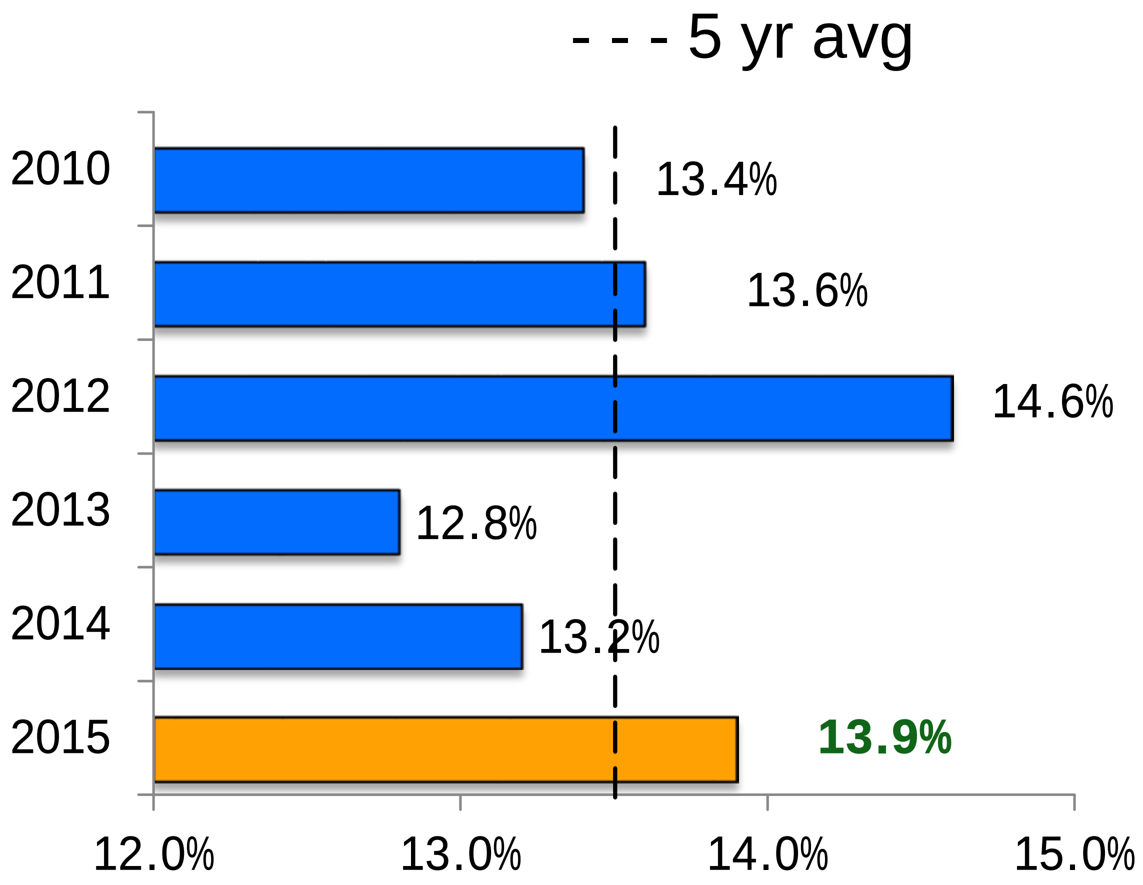


U.S. Northern Durum
Test Weight



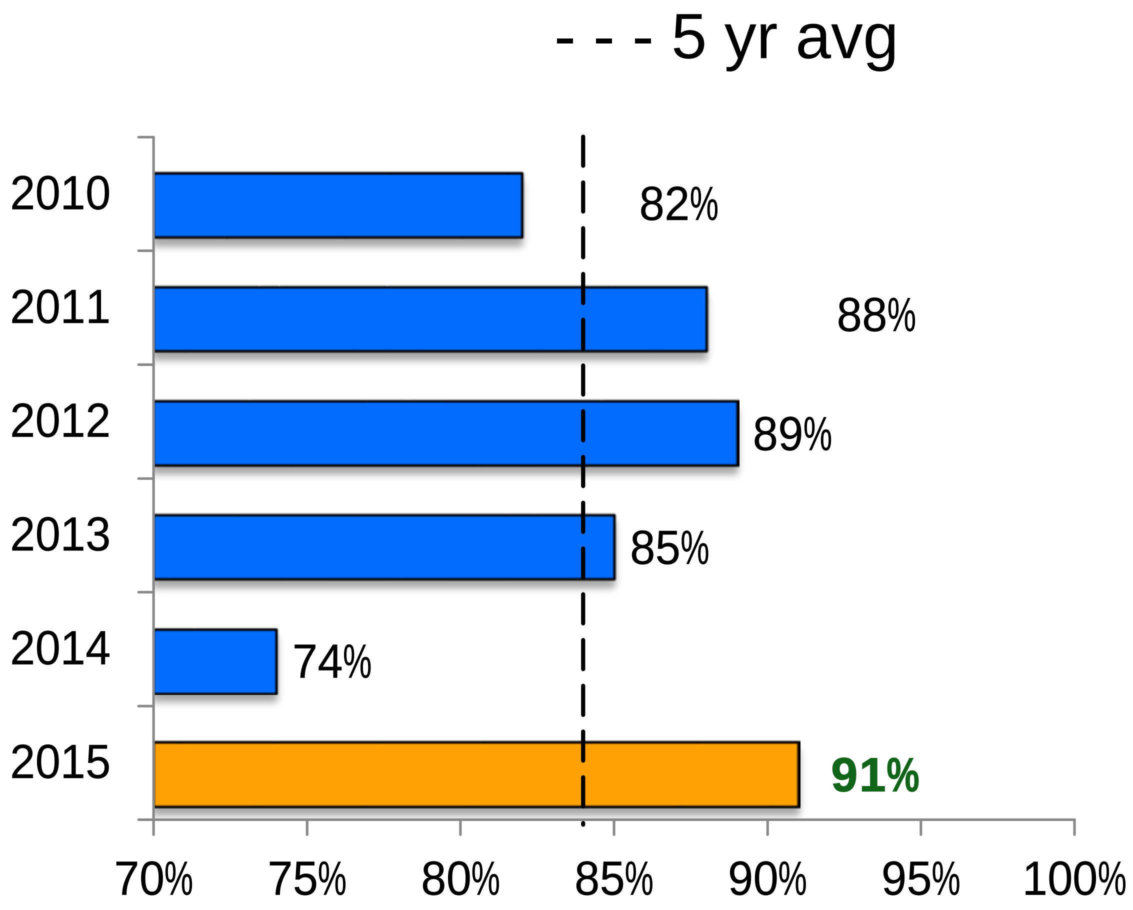
U.S. Northern Durum

Protein Content (12% moisture basis)



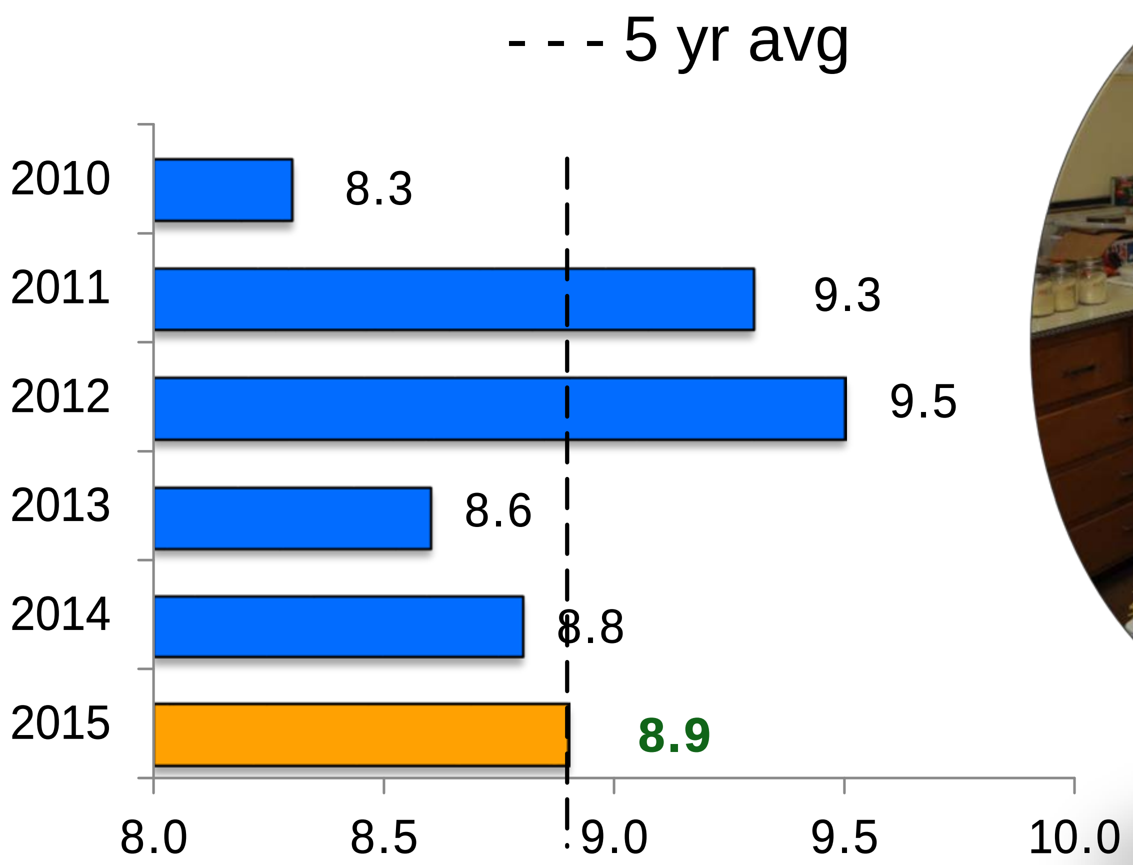
U.S. Northern Durum

Vitreous Kernel Content



U.S. Northern Durum

Pasta Color Score



A pasta sample with a score of 8.0 or higher is considered to have good quality.

2016 World Outlook

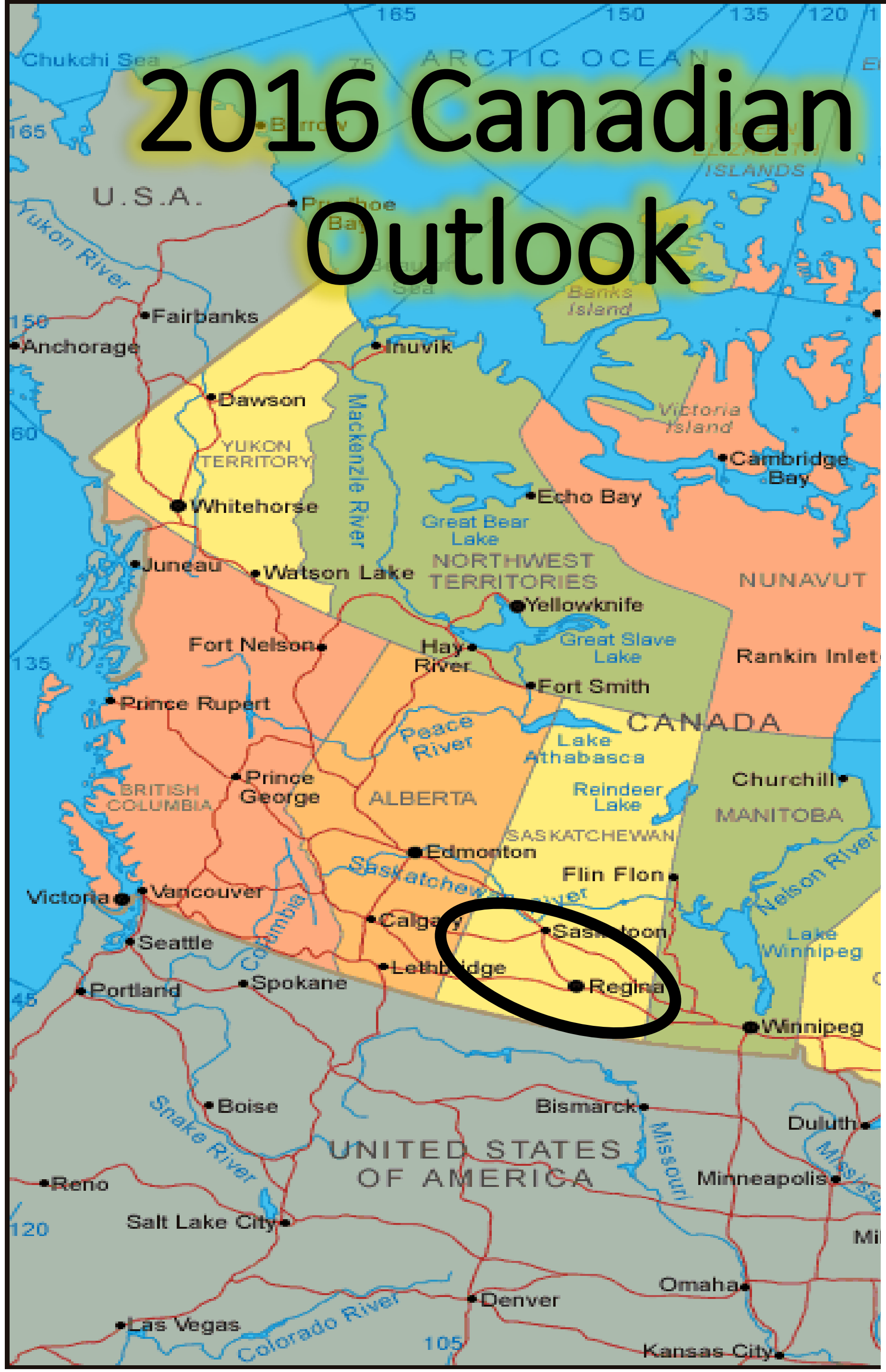
- **Planted area expected to expand for second straight year**
  - **EU planted area: up 10% in France, by some estimates. Steady to higher in Italy. Spain was dry at planting…impact on acres?**
  - **Canadian and Northern U.S. acres expected steady to higher**
- **Areas already planted in generally good condition…with exception of North Africa**
  - **Parts of Morocco quite dry, as well as Algeria …will be key to get improved moisture pattern**
- **Carry-in stocks at 290 million bushels, up 25% from June 2015**

2016 Canadian Outlook

Agricultural Canada projecting just 2% increase in Canadian durum…only 115,000 acre gain

- Many private analysts not much higher and some even thinking reduced acres..
- Pulse crops like peas and lentils providing acre competition
- Also…Hard Red Spring stocks situation and market dynamics a bit tighter compared to United States
- Still Ag Canada is anticipating stronger % rebound in production: Up 10% to 217 million bushels on improved yields over 2015 (drought)?
- Production region has received lower than normal snowfall….timely early season moisture will be important

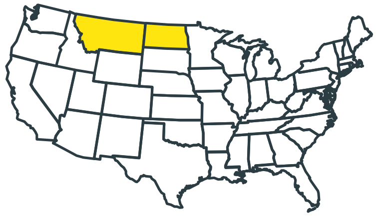
2016 Canadian Outlook



Agricultural Canada demand projections

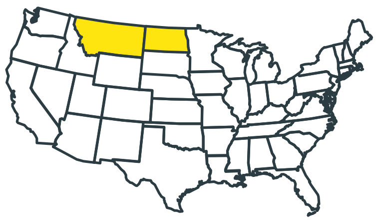
- Exports to rebound by 10-15% to 180 million bushels
- Domestic use to fall slightly to 28 million bushels on marginal declines in feed use
- Ending stocks to grow slightly to 55 million bushels by June 2017.
- June 2016 -- 48 million bushels
  June 2015 -- 37 million bushels
- Trend in Canadian $ will be key factor in late spring and early summer for exports

U.S. Northern Durum
2016 Outlook



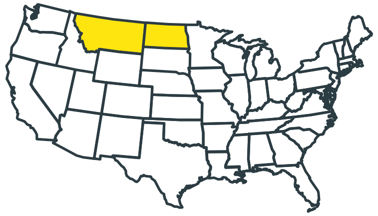
- Durum acres will increase but 2016 cropping decisions challenging and acre gains may be tempered
- *“Not what will make the most money but rather what will lose the least”*
- Peas, Lentils and Malt Barley most attractive
  - India drought driving market shortage
  - Strong growth in micro-breweries
- Crop rotations important however, so this may limit level of shift to non-wheat crops
- On-farm durum inventories up 30-50% in North Dakota and Montana over 2014

U.S. Northern Durum
2016 Outlook



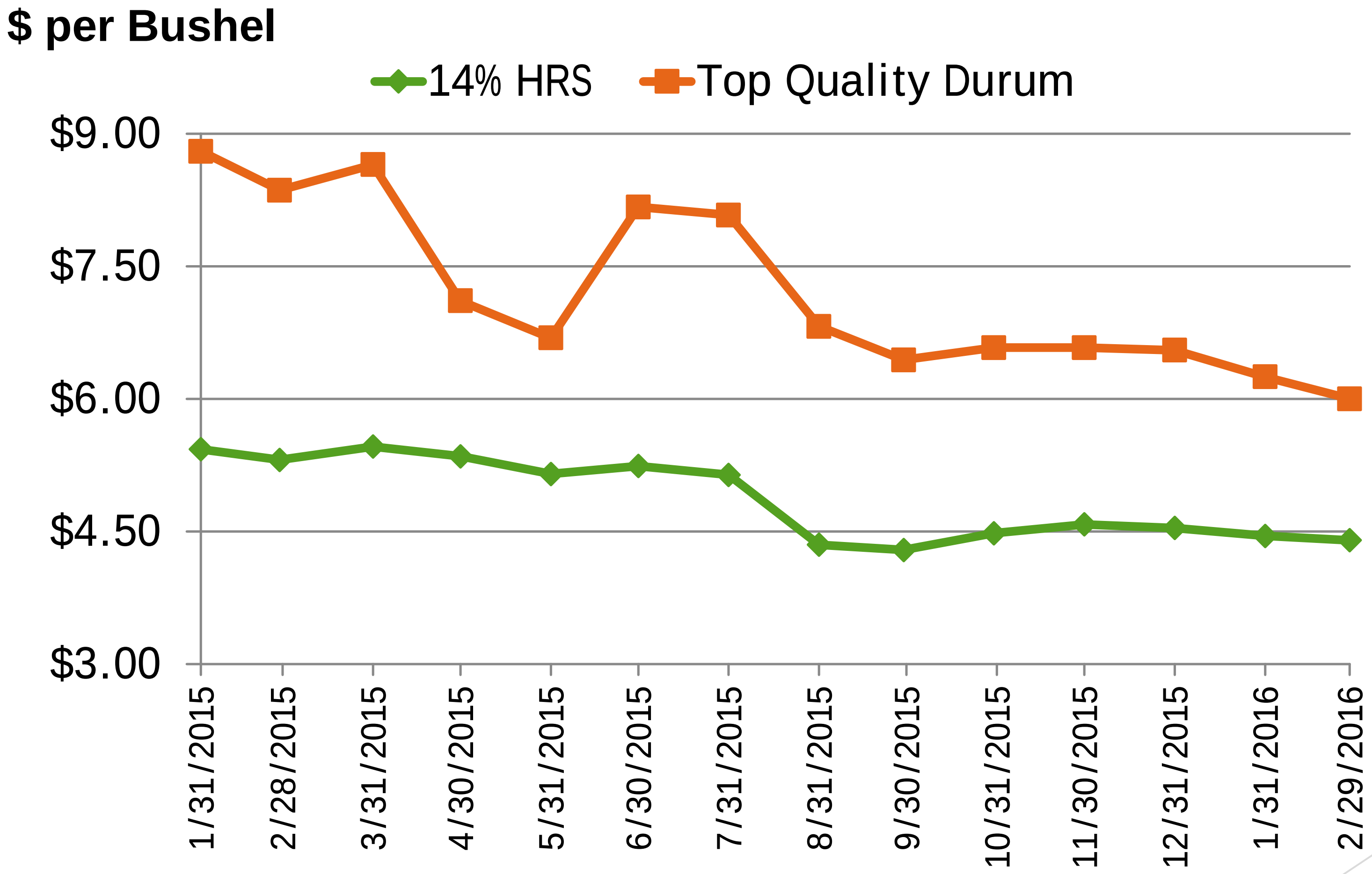
- Harvest time durum prices favorable to Hard Red Spring but added quality risk
- New crop prices offered (Aug/Sept)
  - Durum: $5.40 - $5.50 / bushel range
  - Hard Red Spring: $4.30 / $4.50
- Crop Insurance price coverage levels are about **$.60/bushel lower** in 2016
  - Durum:
    - 2016 $5.72 / bushel
    - 2015 $6.32 / bushel

U.S. Northern Durum
2016 Outlook

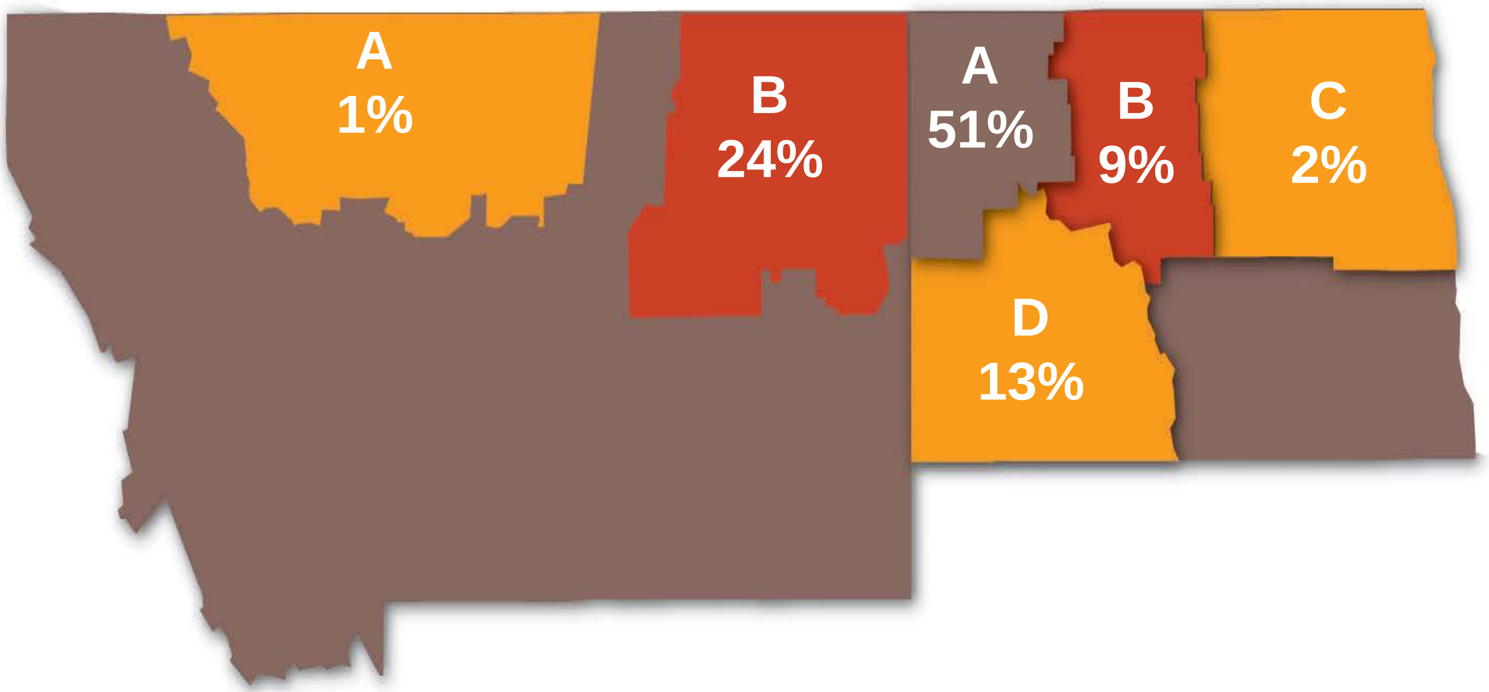


- North Dakota and Montana durum acres were 1.7 million in 2015
  - 2 million acres? 18% gain?
- Different dynamics than Desert Durum region (acres fell)..but nearly 20% gain seems strong
  - Around +10% more realistic
- Dry, mild winter favorable for early planting season, but also makes timely rains critical
- North Dakota has had above average yields 3 straight years...current moisture flows not looking favorable for 4th straight year...but too early yet..

N.D. Wheat Bids
Monthly Average



Approximate historical share of regional production by crop area

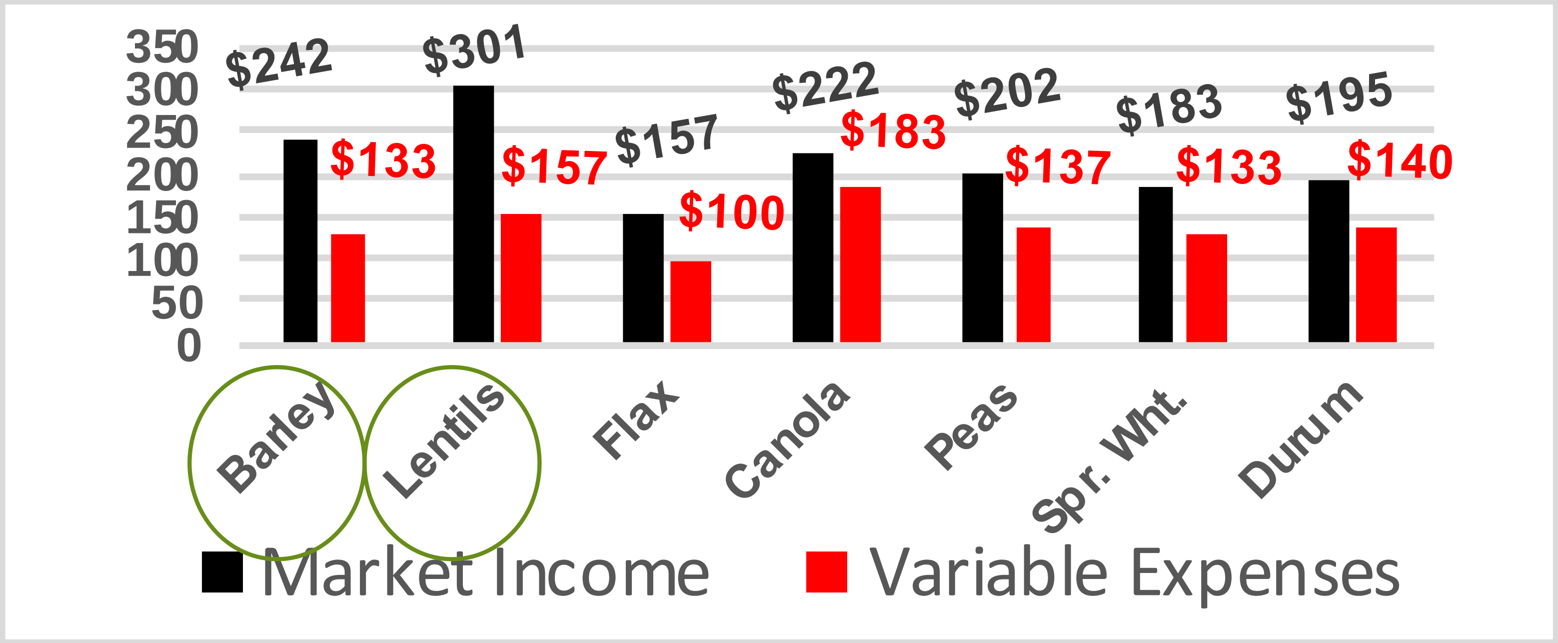


2016 Projected Crop Budgets

Northwest North Dakota (Durum Area)

Fixed costs are about $70-80 per acre

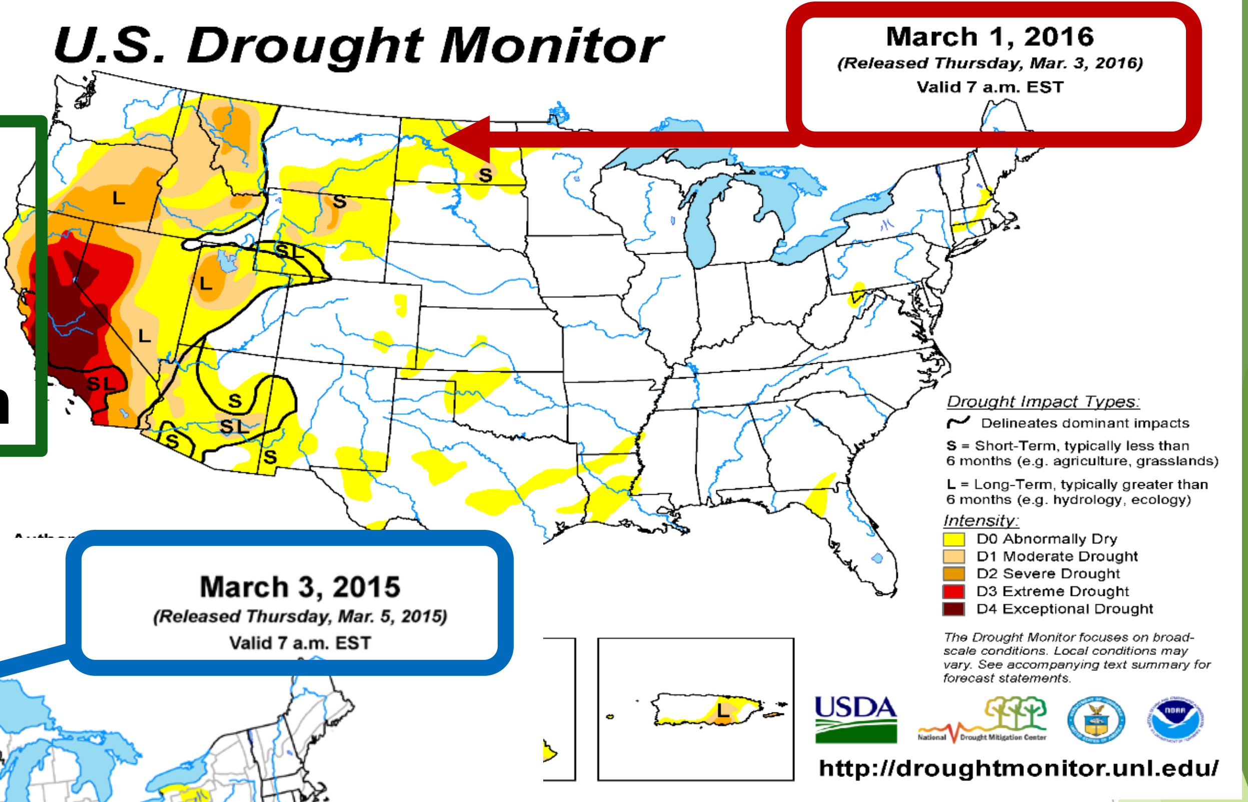
$ Per Acre

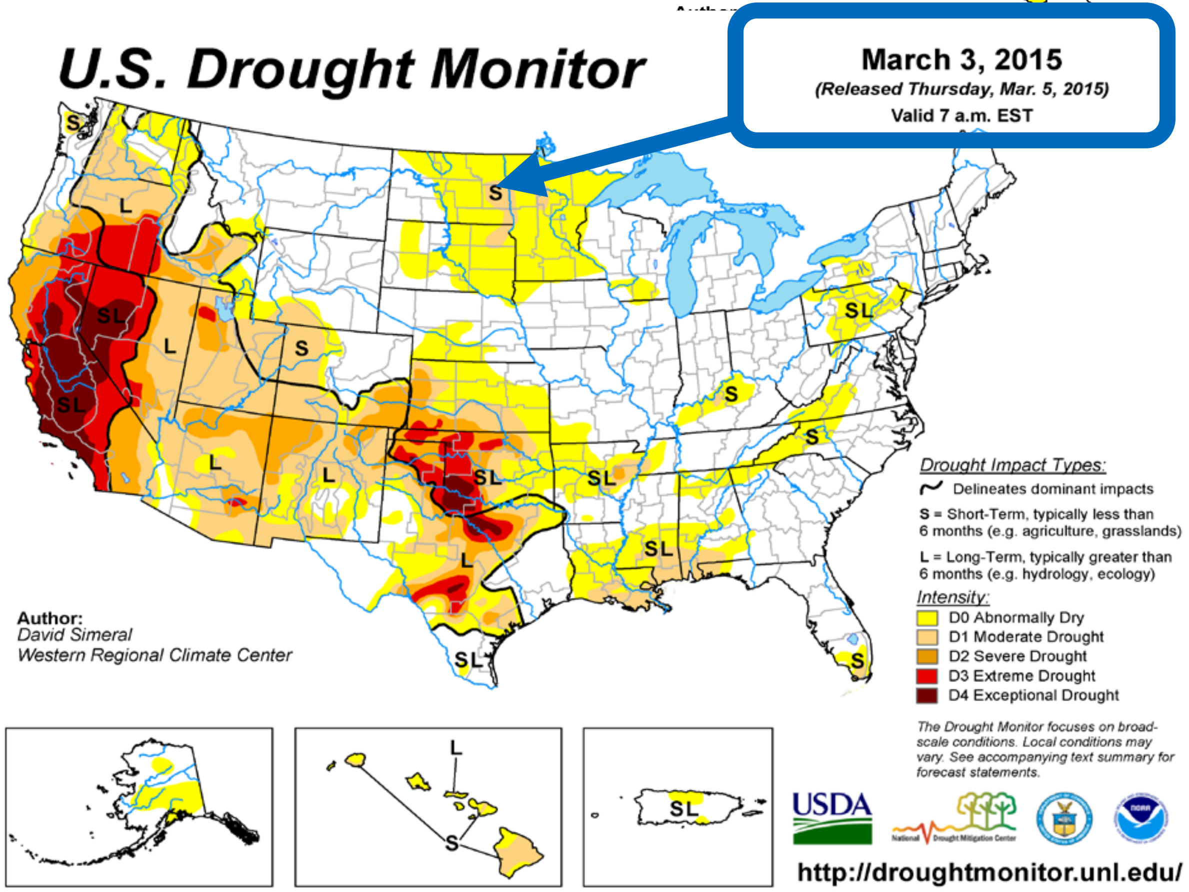


Prices: **HRS $5.20 (14% protein)**
Durum $5.40 (Top Milling)
– Durum revenue based on 90% factor

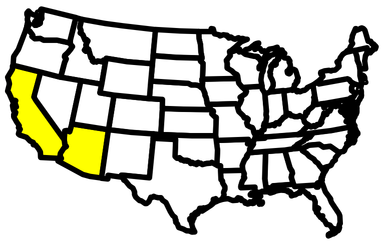
Source: NDSU Dec 2015

This year drought conditions have shifted westward toward durum region





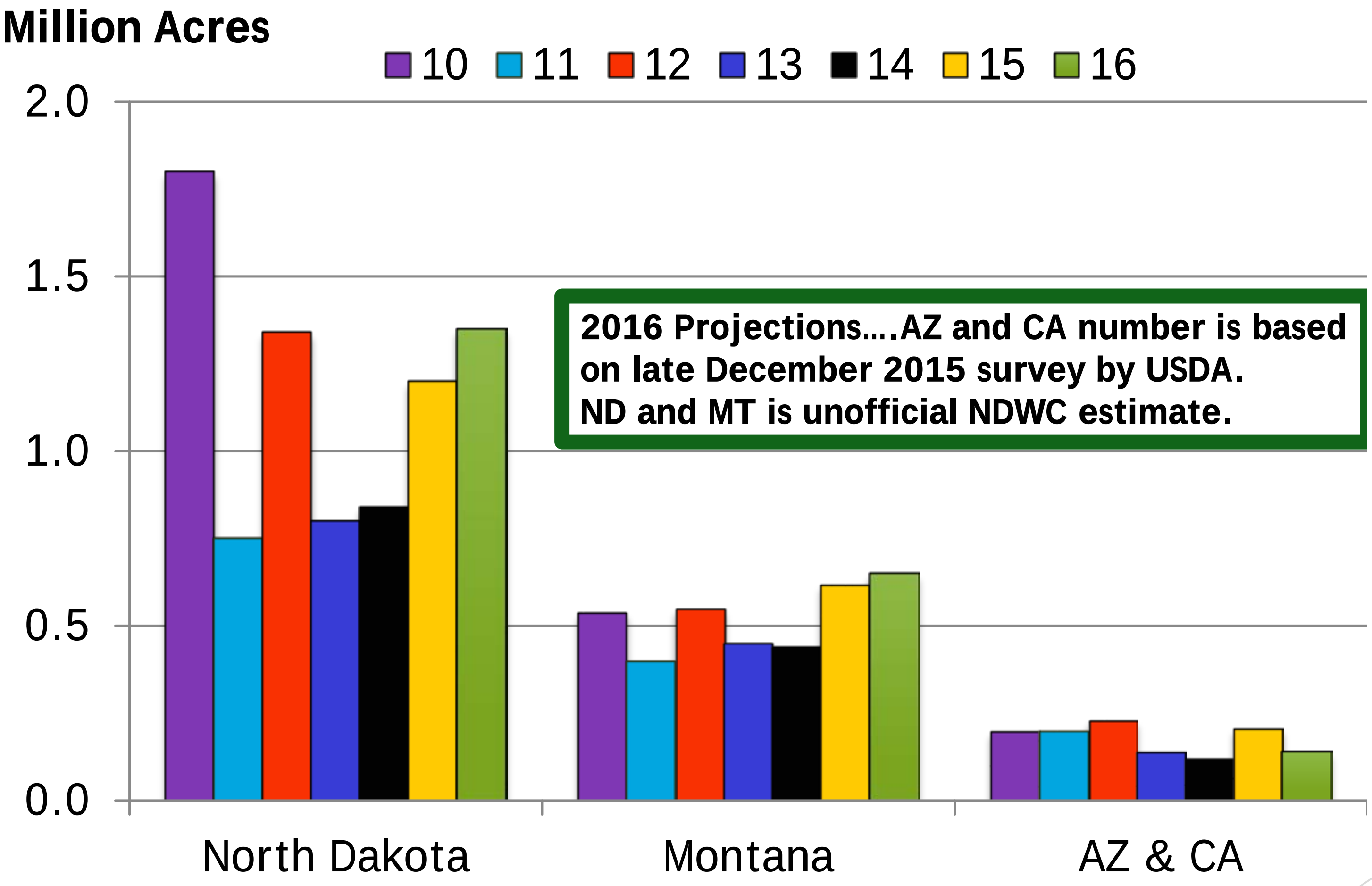
U.S. Desert Durum 2016 Outlook



- Planted area down by 33% from 2015 at 140,000 acres
  - Not a “water cost or restriction issue”
  - Durum contract prices during Oct-Dec 2015 period not high enough to cover cropping costs
- Some private industry experts feel USDA survey too high -- closer to 120,000 acres
- Production will likely fall to 12-14 million bushels, compared to 21 million in the 2015 harvest
- More “open” market durum anticipated this year
  - Low contract prices at planting
  - Some quality issues in 2015 crop (producer discounts)
- Current crop growth favorable but warmer than normal temperatures have pushed crop ahead in development pace

U.S. DURUM

PLANTINGS BY STATE



Source: USDA --- 2016 NDWC Unofficial

U.S. DURUM WHEAT PRODUCTION

Acres-Bushels

	Planted	Harvested	Yield	Production
2010	2.6	2.5	42.4	107.2
2011	1.4	1.3	38.5	50.5
2012	2.1	2.1	39.0	82.0
2013	1.4	1.3	43.3	58.0
2014	1.4	1.3	39.7	53.1
2015	1.94	1.9	43.5	82.5
2016**	**2.15**	**2.10**	**40.5**	**85.0**
5 Yr Avg	1.65	1.61	40.7	65.3
10 Yr Avg	2.00	1.95	38.5	75.2

Source: USDA 2010-2015
**Unofficial NDWC Proj for 2016

U.S. DURUM SUPPLY & DEMAND

Million Bushels

	13-14	14-15	15-16	Unofficial 16-17	Change
Beg Stocks	23	22	26	**34**	**+31%**
Production	58	54	82	**85**	**+5%**
Imports	44	50	38	**38**	**0%**
Tot Supply	125	126	146	**157**	**+8%**
Dom Use	73	63	78	**80**	**+3%**
Exports	31	37	35	**38**	**+9%**
Tot Use	103	100	113	**118**	**+4%**
End Stocks	22	26	34	**39**	**+18%**
S/U Ratio	21%	26%	30%	**34%**	

Source: March 2016
Unofficial NDWC projection

SUMMARY

- **U.S. and world durum area projected higher in 2016.**
- **Production gains dependent on growing season weather.**
- **Both area and production gains may be less than anticipated.**
- **Late summer and fall 2016 Durum values/prices are about 10-20% lower than current levels.**
- **Inventories are building in key export countries but durum stocks still tighter than overall world wheat stocks.**
- **Prices are below the cost of production for most crop options for U.S. producers – Makes it difficult to project acre trends**
- **With durum, “quality variable” can be larger and more dominant price driver than production**
- **Key factors to watch going forward:**
  - **U.S. $ trend and Canadian dollar trend -- EU economy**
  - **Planting conditions across northern U.S. and Canada**
  - **Current drought conditions in parts of North Africa**
  - **Transition time period from “El Nino to La Nina”**

THANK YOU

QUESTIONS?