

# The Outlook for Cotton and Cottonseed

**J. Berrye Worsham**  
President & CEO

**Cotton Breeders' Tour**  
July 2019

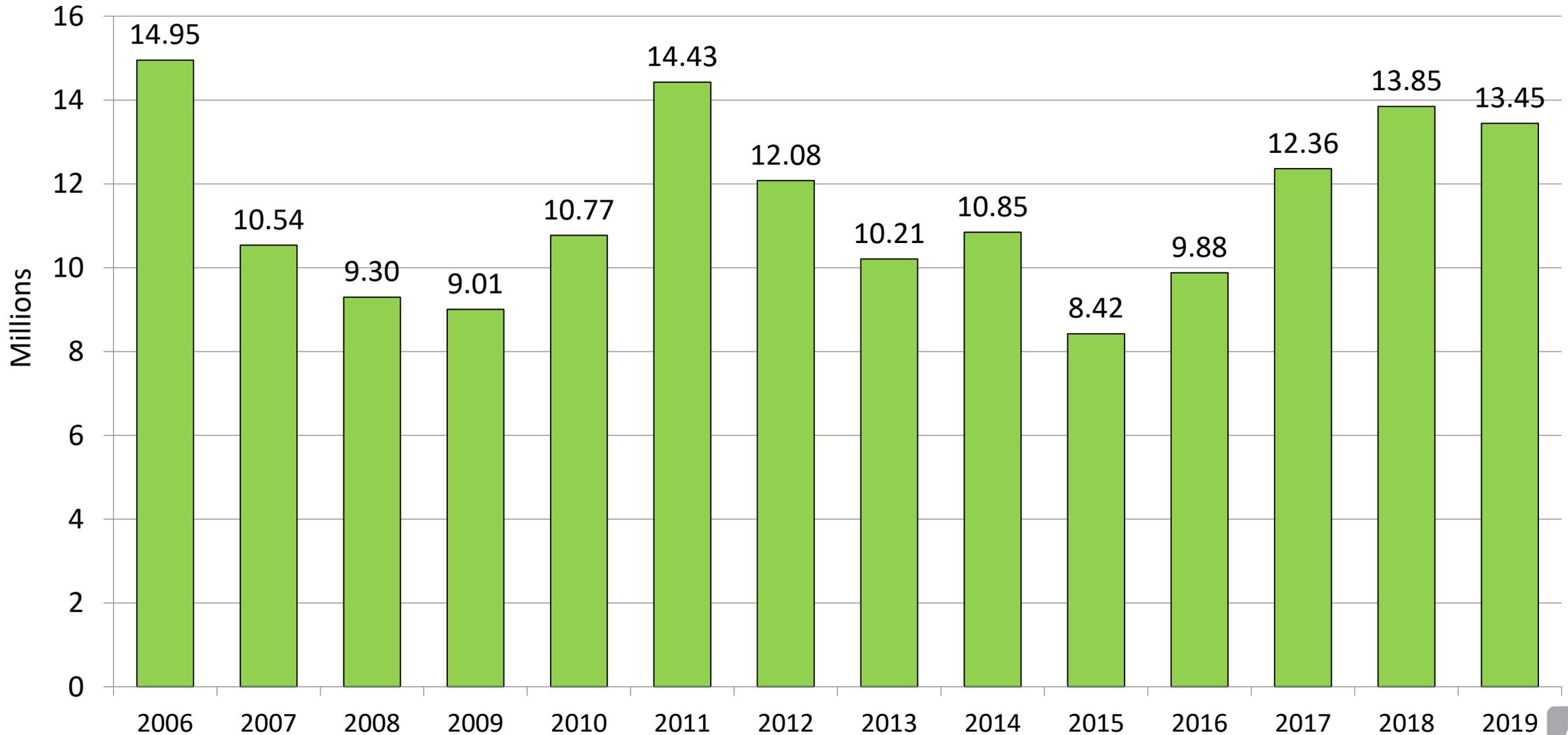


Cotton  
Incorporated

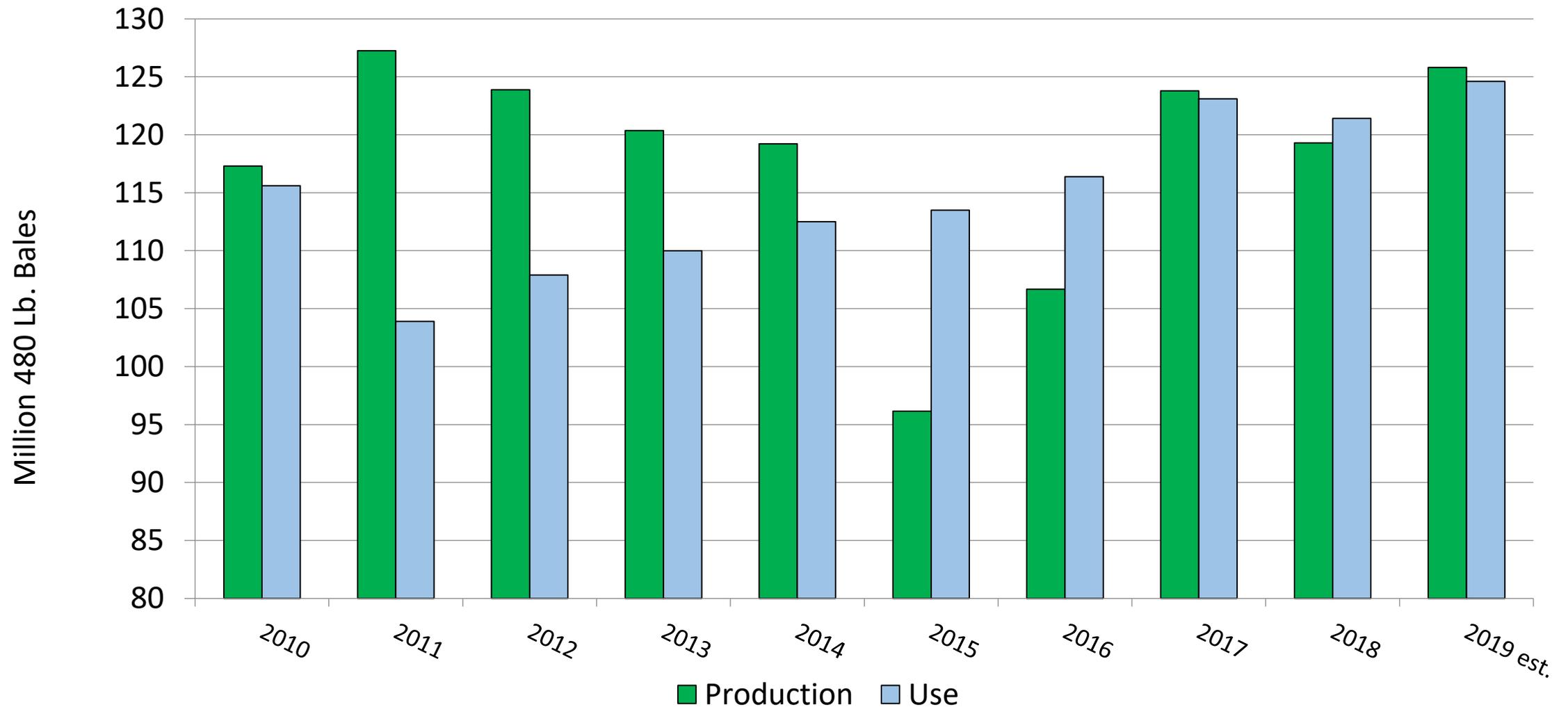
# Major Presentation Points

- World textile fiber market growing (population & economic growth)
- Cotton had significant headwinds over past decade
- Next 10 years should be better for cotton
- Sustainability will continue to become more important—could be advantage for cotton
- Alternative crops (corn & soybeans) not likely to take acres from cotton
- U.S. cotton acreage (except 2020) is likely to remain near current levels
- Large crops will put significant downward pressure on cottonseed prices
- Cottonseed research & promotion along with ULGCS critical to enhance seed value for growers

# U.S. Upland Cotton Acres



# World Production & Use of Cotton



Source: USDA



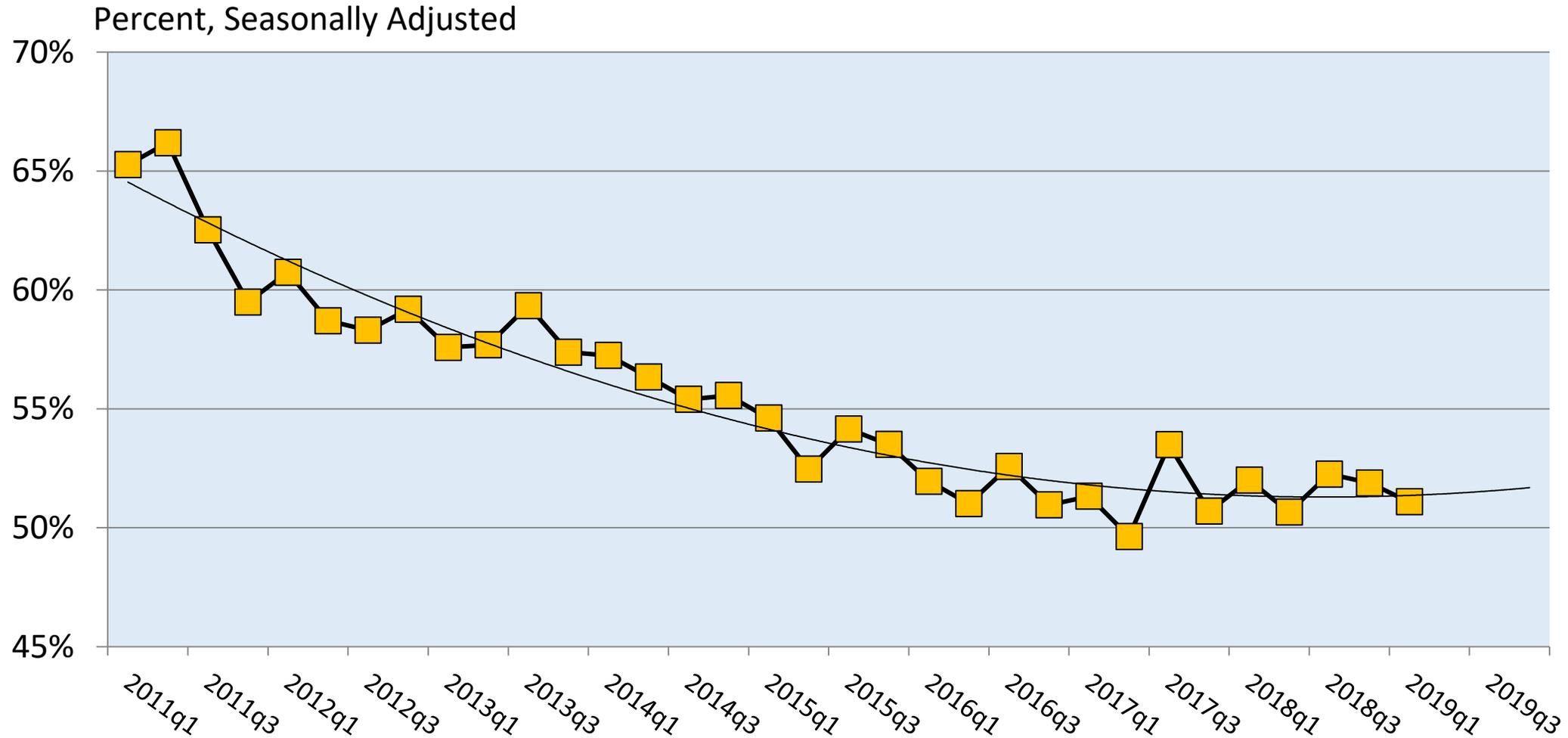
# World Per Capita Cotton Demand



Source: USDA



# Cotton's Share of Market – Major Apparel Categories



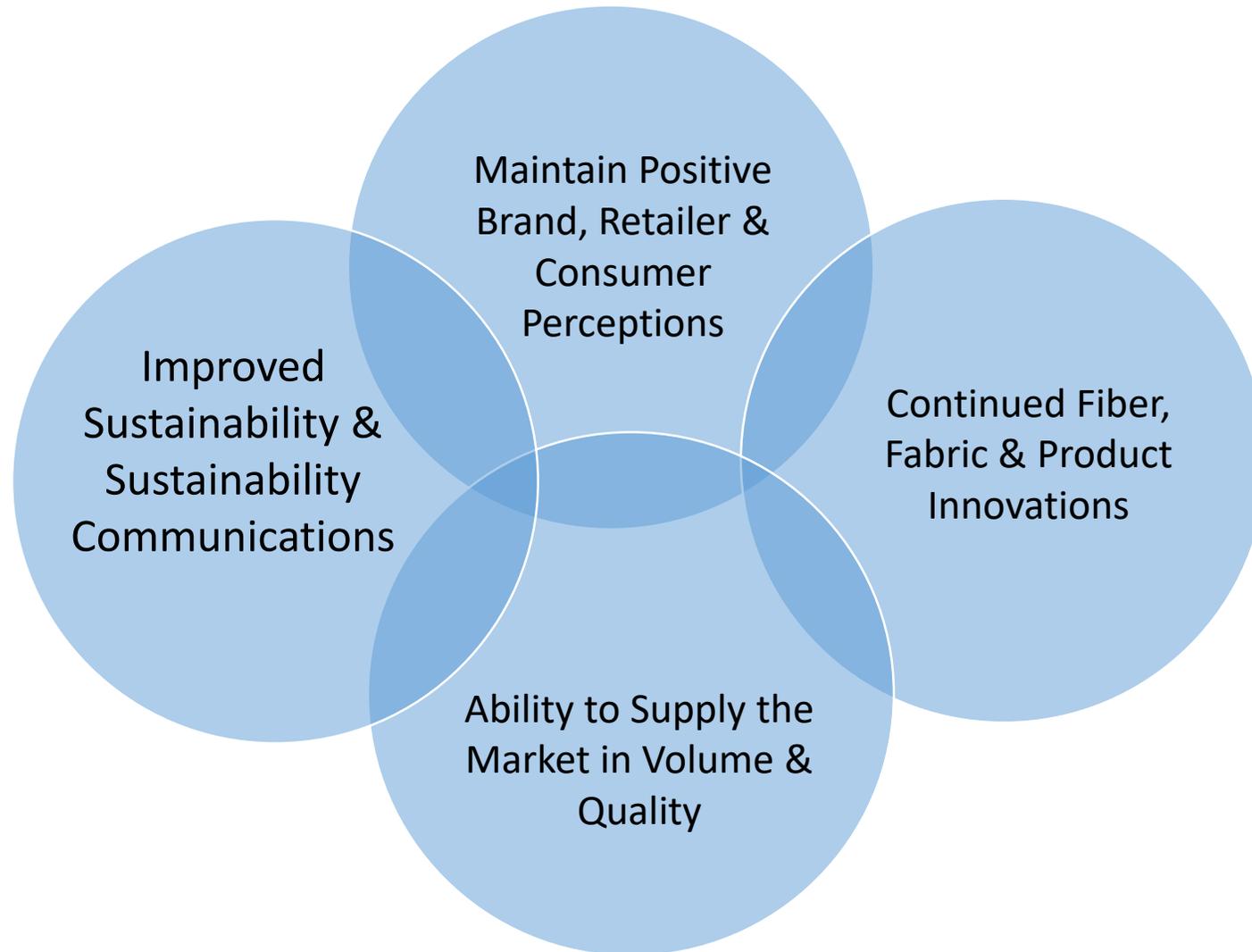
Source: Cotton Incorporated's Retail Monitor™



# Cotton's Recent Headwinds

- Financial Crisis
- Price Spike & Price Volatility
- Cheap Synthetic Fiber Prices
- Denim Market Weakness
- Fabric Weight Reductions
- Athletic Apparel Emergence
- Polyester Fashion Trend
- Sustainability Concerns

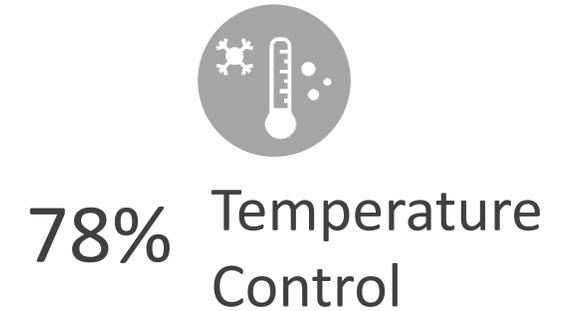
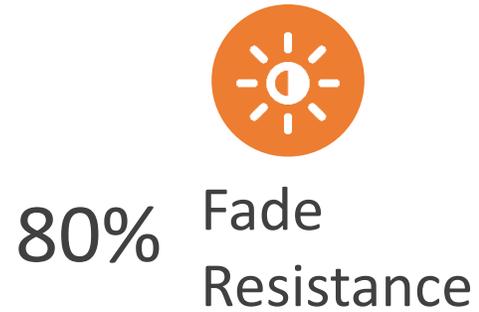
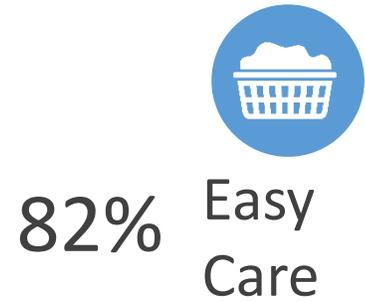
# KEY FACTORS FOR COTTON TO IMPROVE COMPETITIVENESS



# PERFORMANCE FEATURES

*Consumers want their clothing to do more, so they can do less*

*Percent saying the following features are appealing:*



# 2018 Cotton Incorporated Technologies



**JCPENNEY**  
ADOPTS TOUGH COTTON™ TECHNOLOGY

TOUGH COTTON™ Technology



**LUNYA**  
ADOPTS TransDRY® TECHNOLOGY

Moisture Management + Antimicrobial

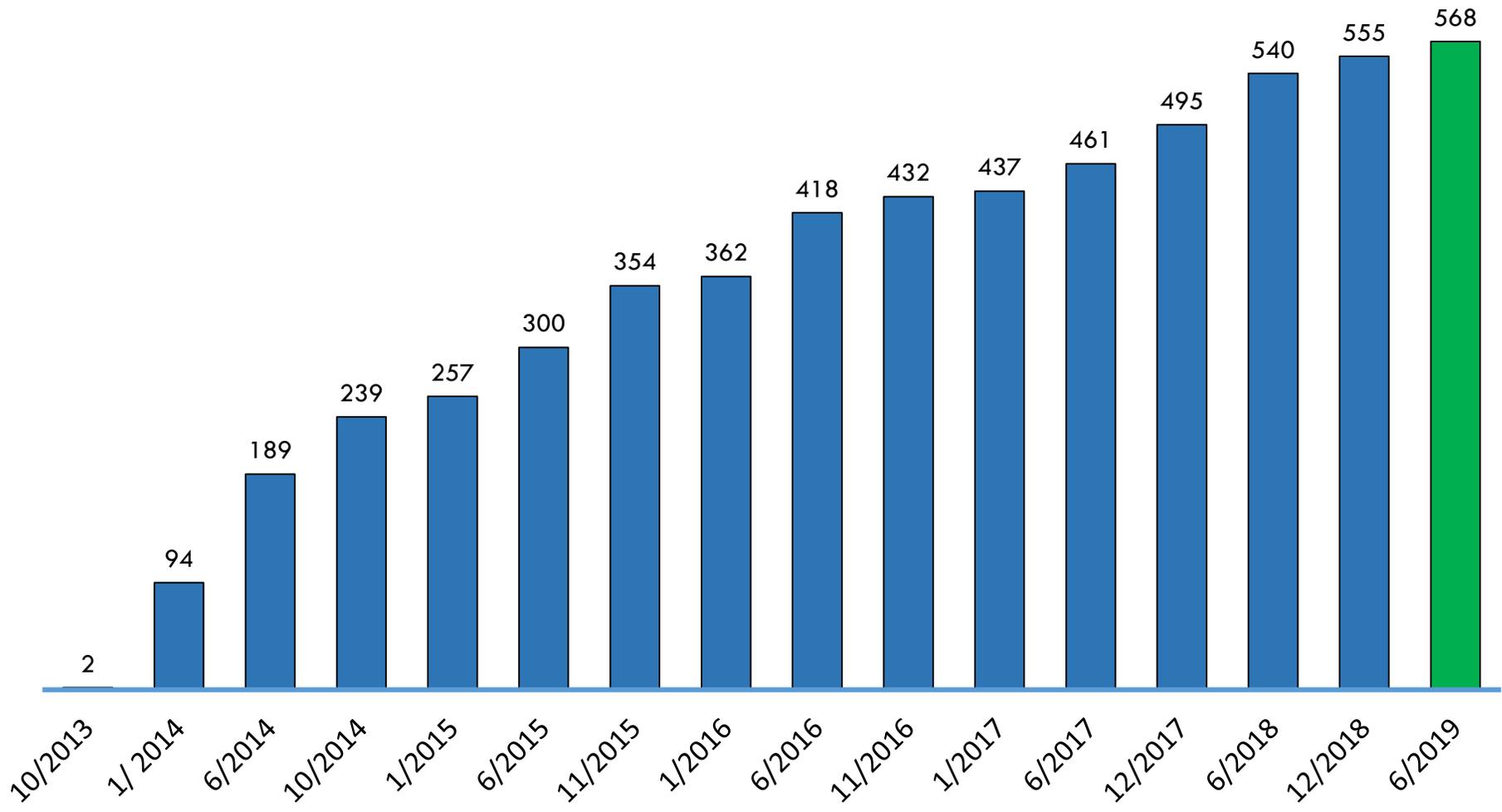


**CALLAWAY APPAREL**  
ADOPTS SWEAT-HIDING TECHNOLOGY

SWEAT-HIDING Technology



# Cotton LEADS™ Partners—Still Expanding



**COTTON USA**  
**U.S. Cotton Trust Protocol**

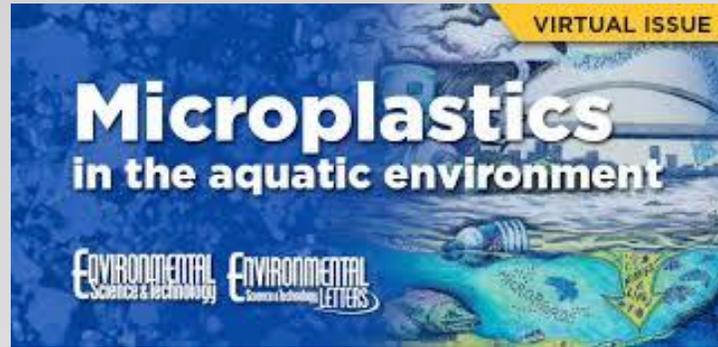




# Creatures in the deepest trenches of the sea are eating plastic

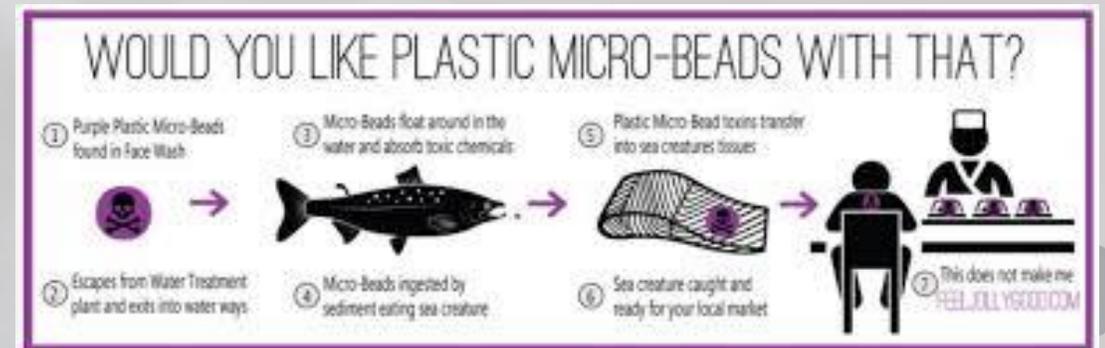
*In six of the ocean's deepest crevasses, scientists found tiny shrimp-like creatures chomping on tiny bits of plastic.*

*By: Sarah Gibbens. Published February 28, 2019*



# Synthetic Fibers & Plastics

## Increasing Concerns



# MICROPLASTICS ISSUE

*Microplastics pollution is widespread*



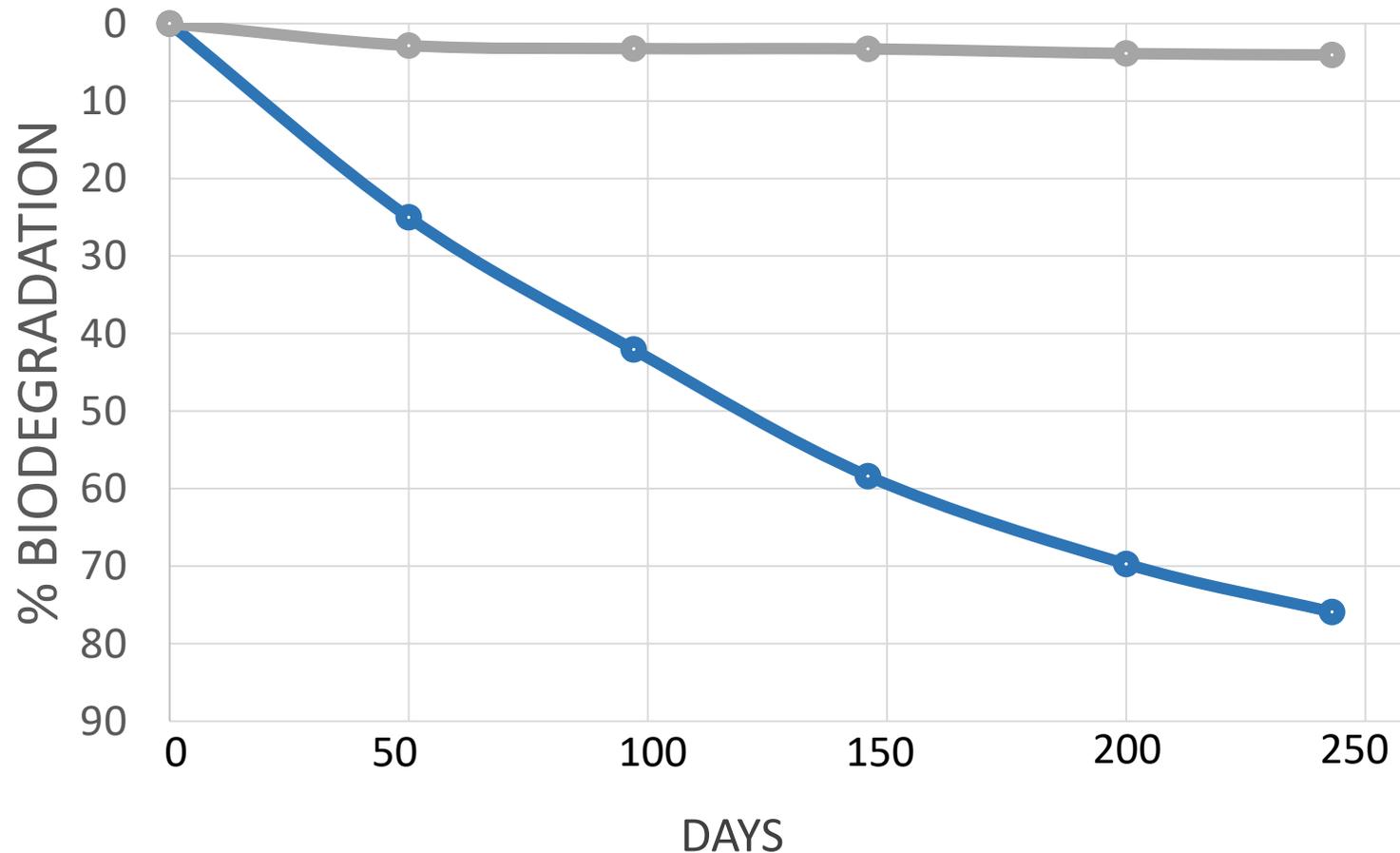
Source: Adventurers and Scientists for Conservation Microplastic Study



# MICROPLASTICS RESEARCH

*North Carolina State University research on microfiber degradation*

Aquatic Biodegradation – Results



76% Cotton

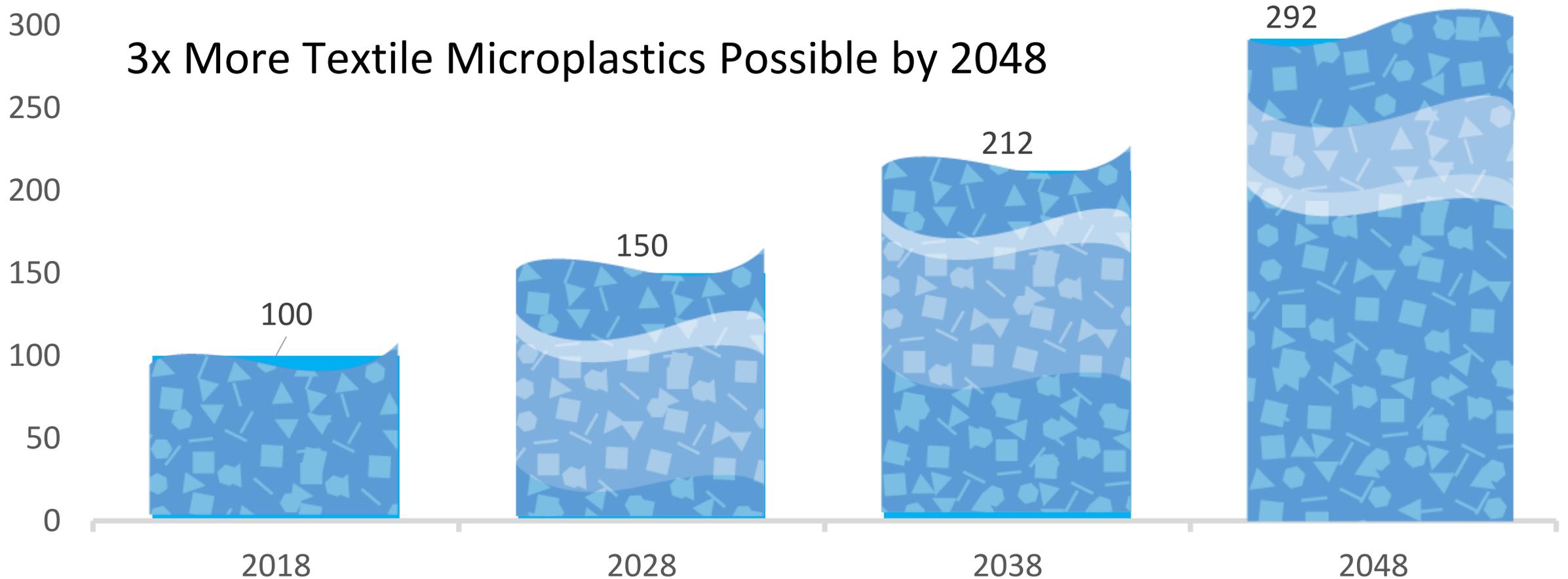
4% Polyester



# Index of Textile Aquatic Microplastics

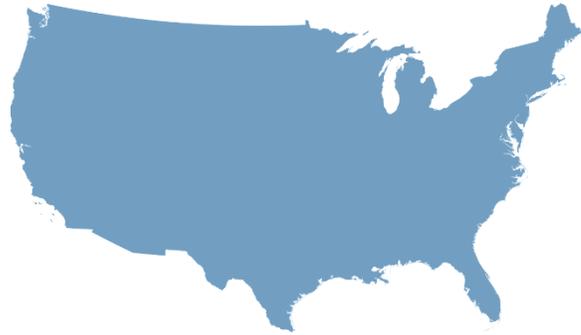
(Assumes 5.5%/yr. degradation rate & 3%/yr. future world production of synthetic fibers)

Index: 2018 = 100



# TOP ENVIRONMENTAL CONCERNS

*Issues vary across the globe*



## U.S.

- **Water Quality (81%)**
  - Air Quality (77%)
- Depletion of Natural Resources (76%)

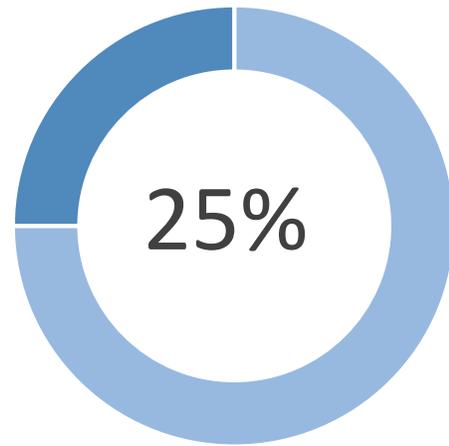


## Rest of World

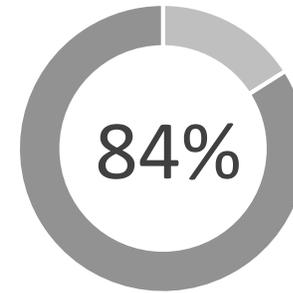
- Air Quality (89%)
- **Water Quality (87%)**
- Climate Change (86%)

# CONSUMER AWARENESS AND CONCERN

*Microfiber waste is a top concern for those aware of fiber production issues*



Average aware  
of issues

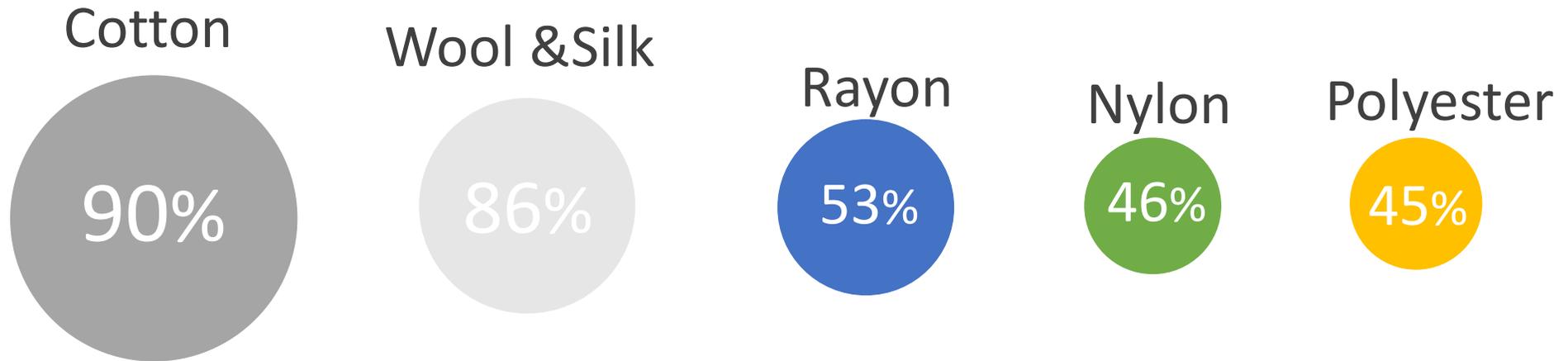


Concerned with  
microfiber waste

# SUSTAINABLE FABRICS

*Cotton is considered most sustainable*

*Percent saying the following fibers are safe for the environment:*

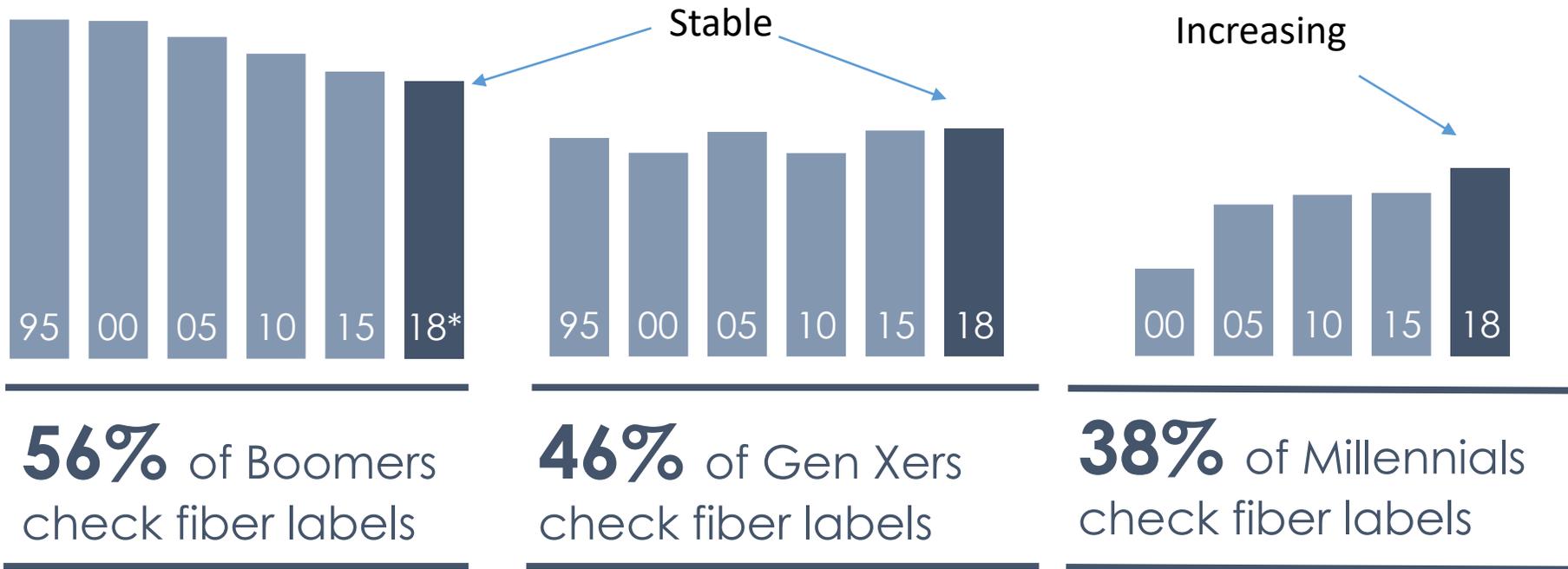


Source: CCI & Cotton Incorporated's 2018 *Global Lifestyle Monitor*



# FIBER LABEL CHECKING INCREASES IN THE U.S.

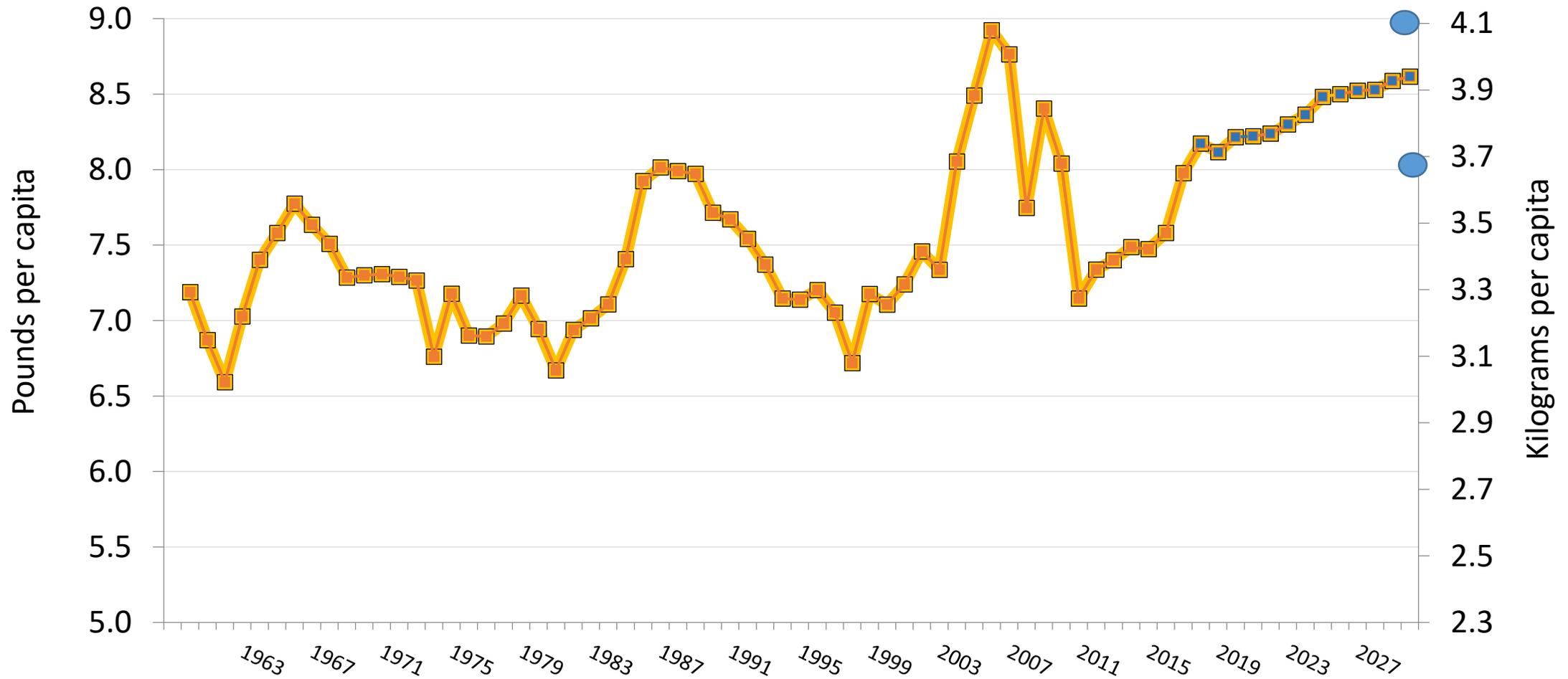
## PERCENT ALWAYS/USUALLY CHECK FIBER CONTENT LABELS



\*Partial year data, through June 2018

Source: Cotton Incorporated's Lifestyle Monitor™ Survey

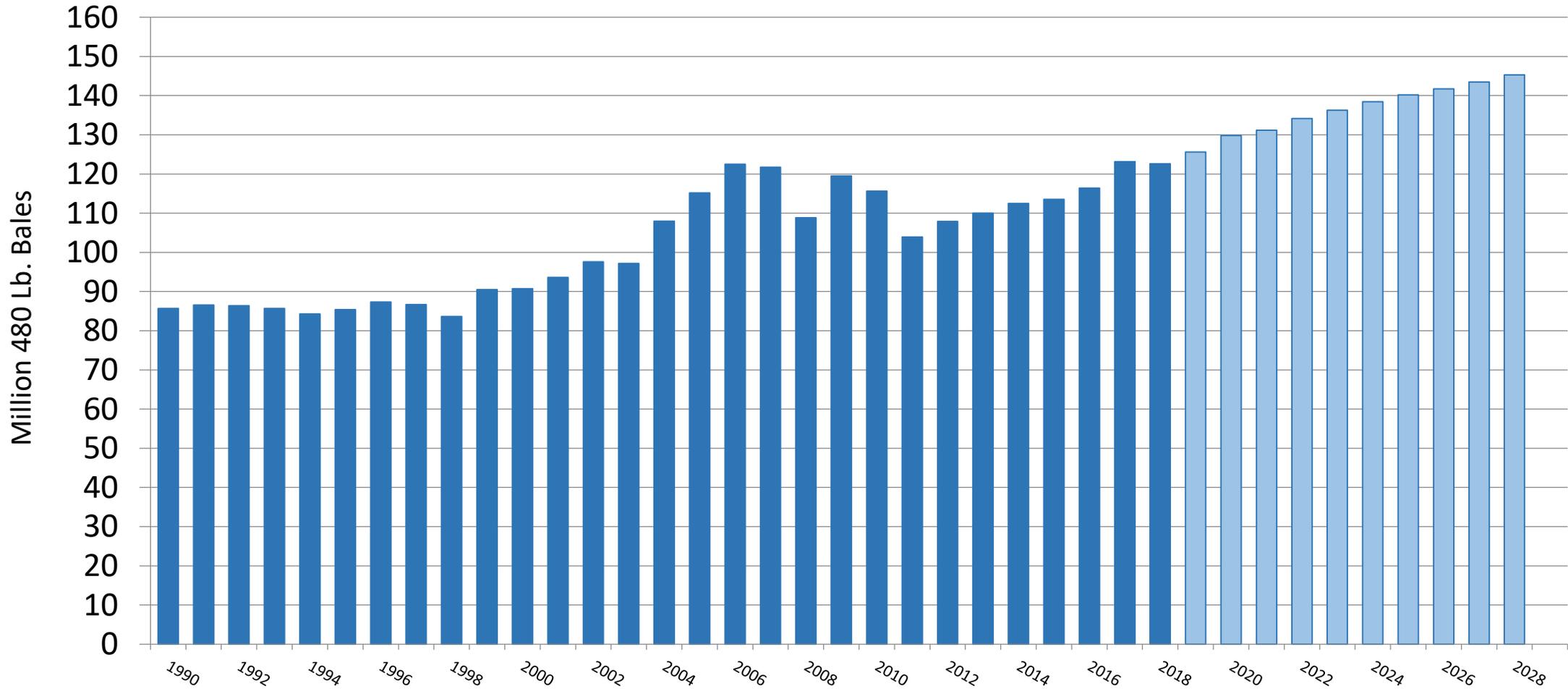
# World Per Capita Cotton Demand



Source: USDA for history. Cotton Incorporated World Fiber Demand & Supply Models for Projections



# World Cotton Demand



Source: USDA and Cotton Incorporated

# Cotton Area: Responsiveness to World Cotton Price

## Highly Responsive

- **U.S.A.**
- **Australia**
- **Brazil**
- **Turkey**

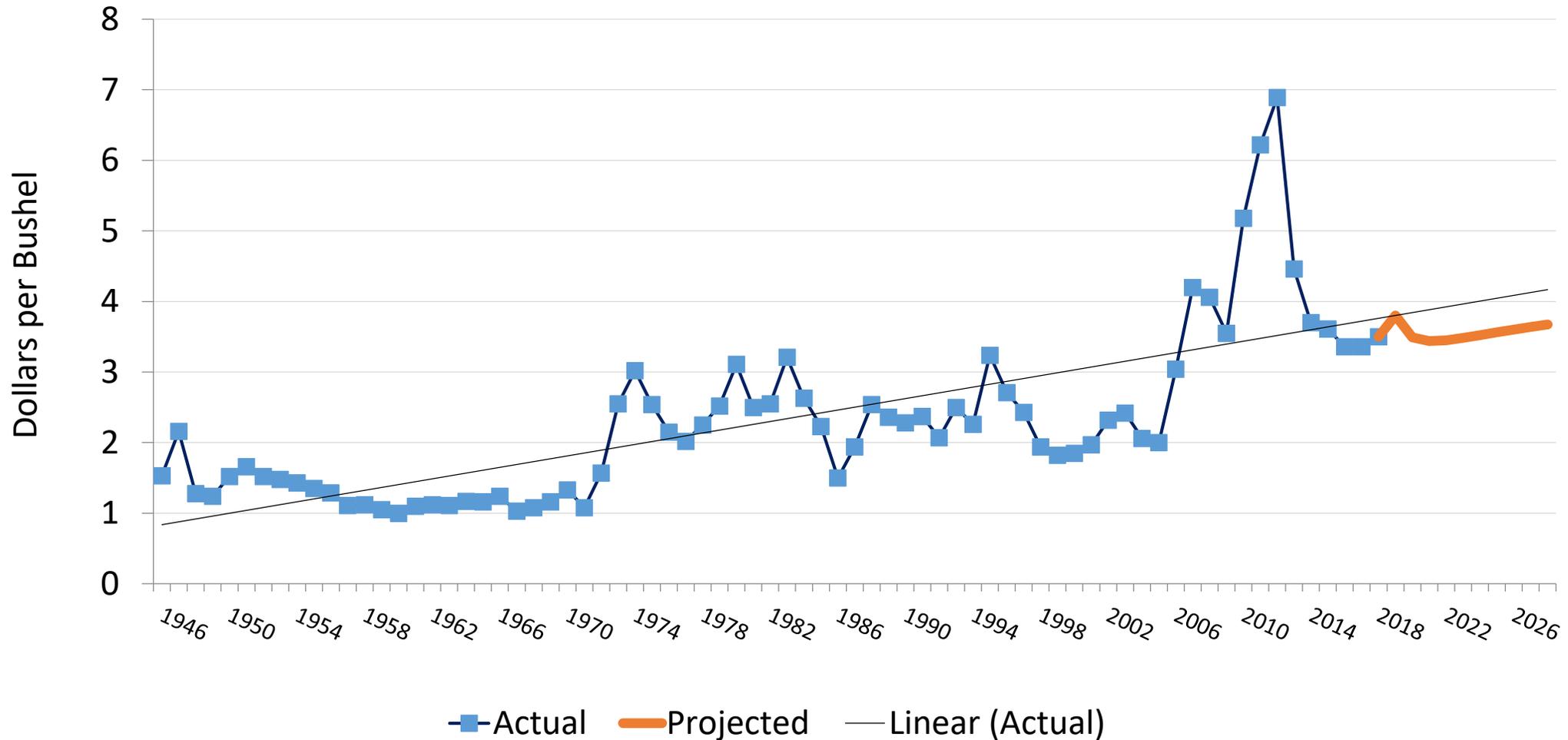
## Moderately Responsive

- **China**
- **India**
- **Rest of World**

## Least Responsive

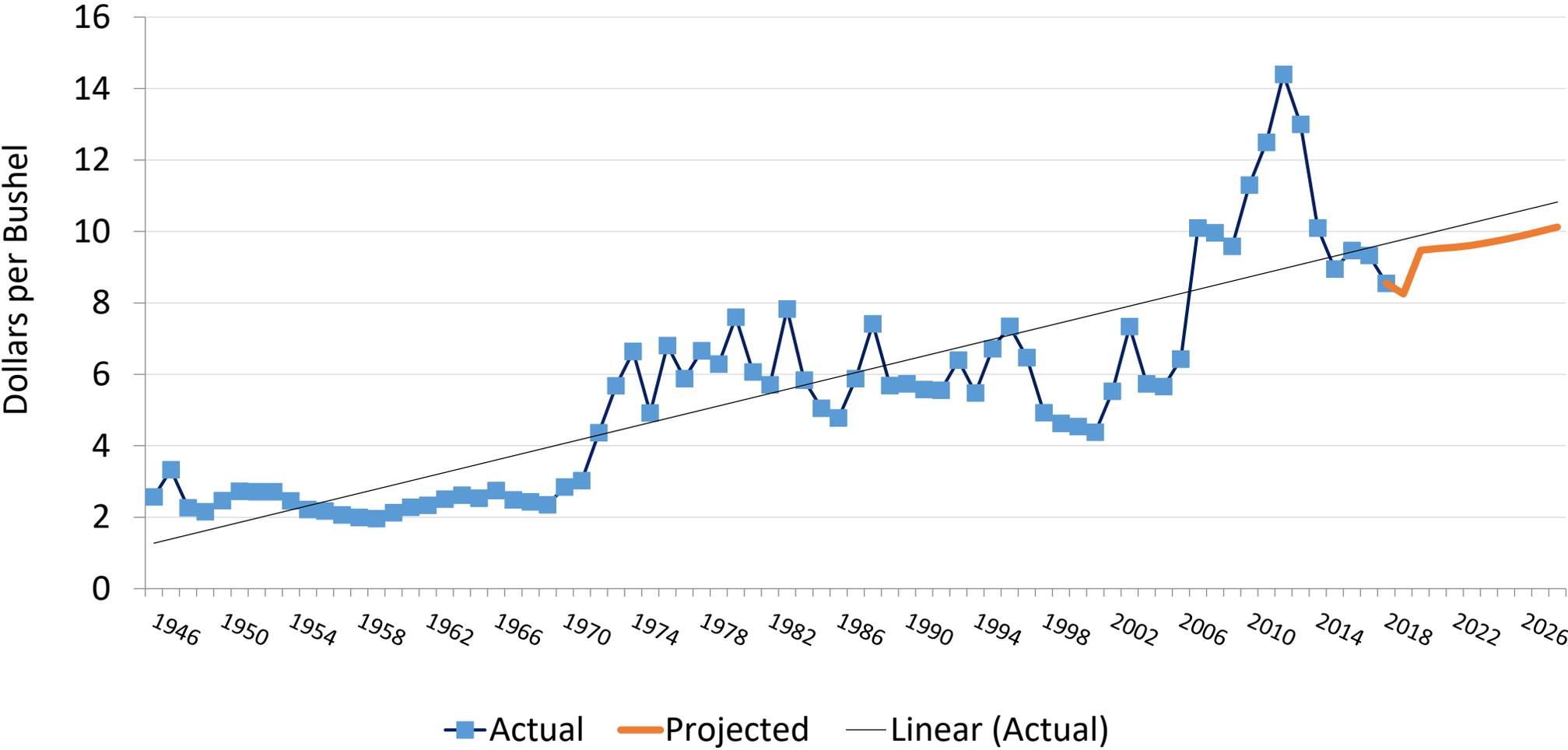
- **Pakistan**
- **Uzbekistan**

# U.S. Corn Price Received



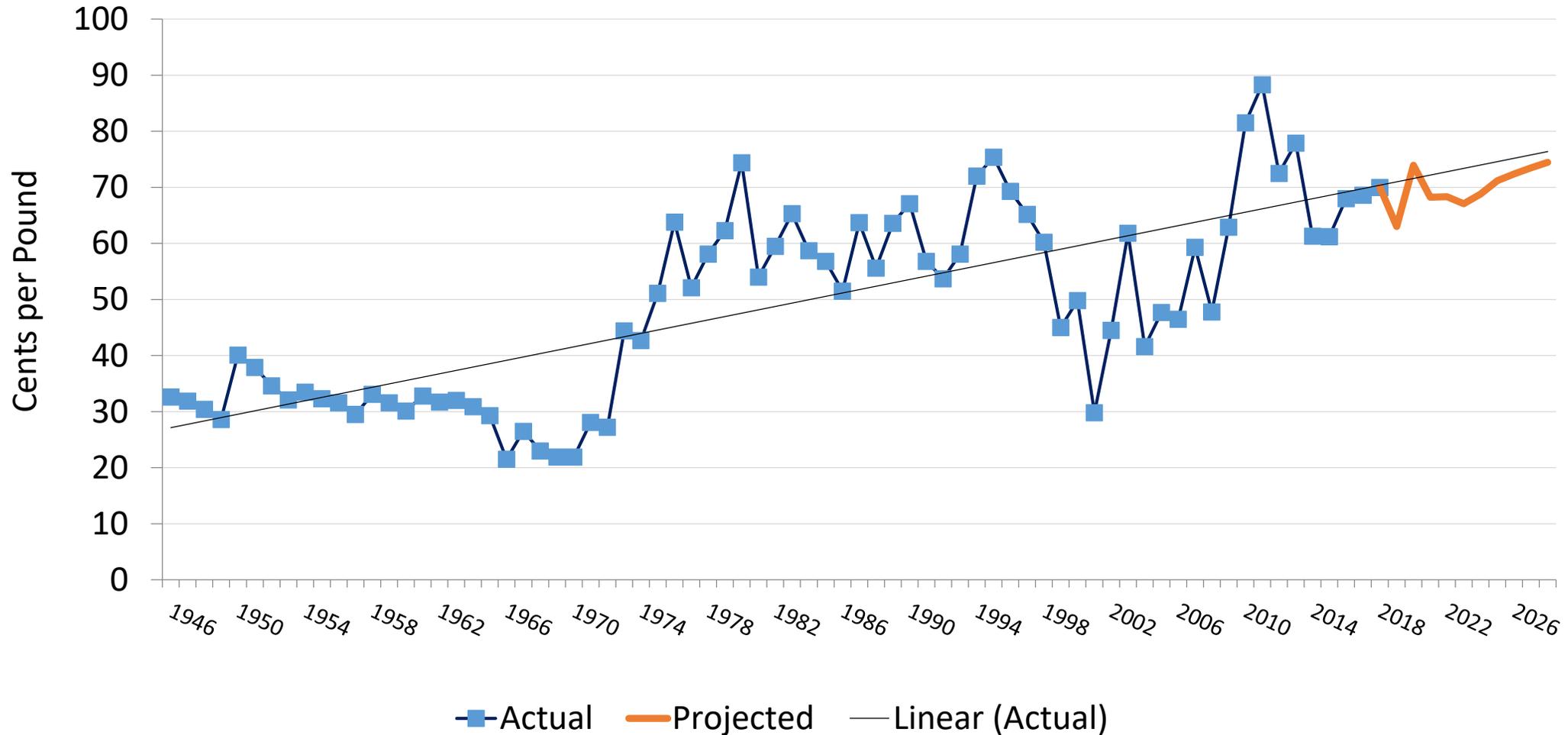
Source: USDA & Cotton Incorporated

# U.S. Soybean Price Received



Source: USDA & Cotton Incorporated

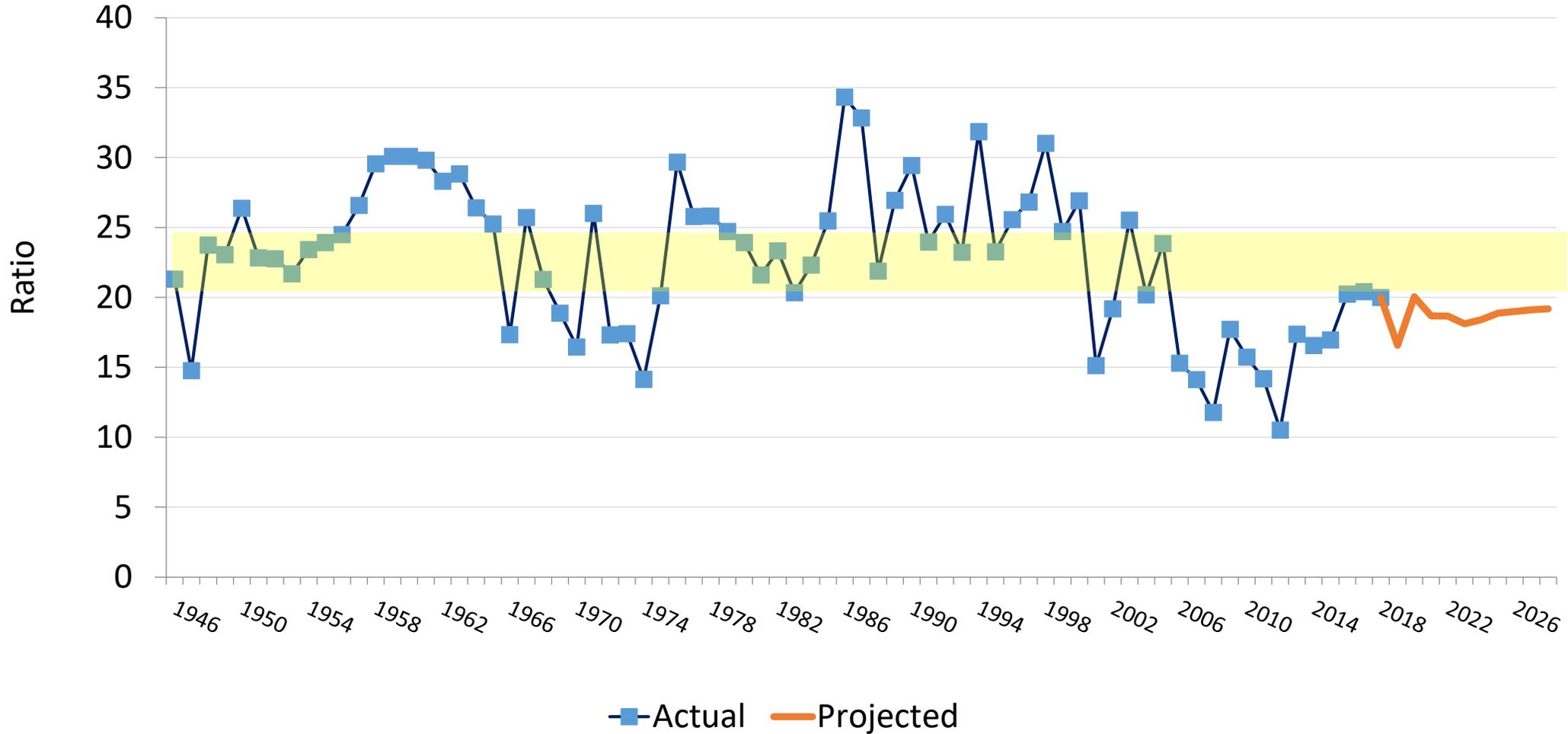
# U.S. Upland Cotton Price Received



Source: USDA & Cotton Incorporated

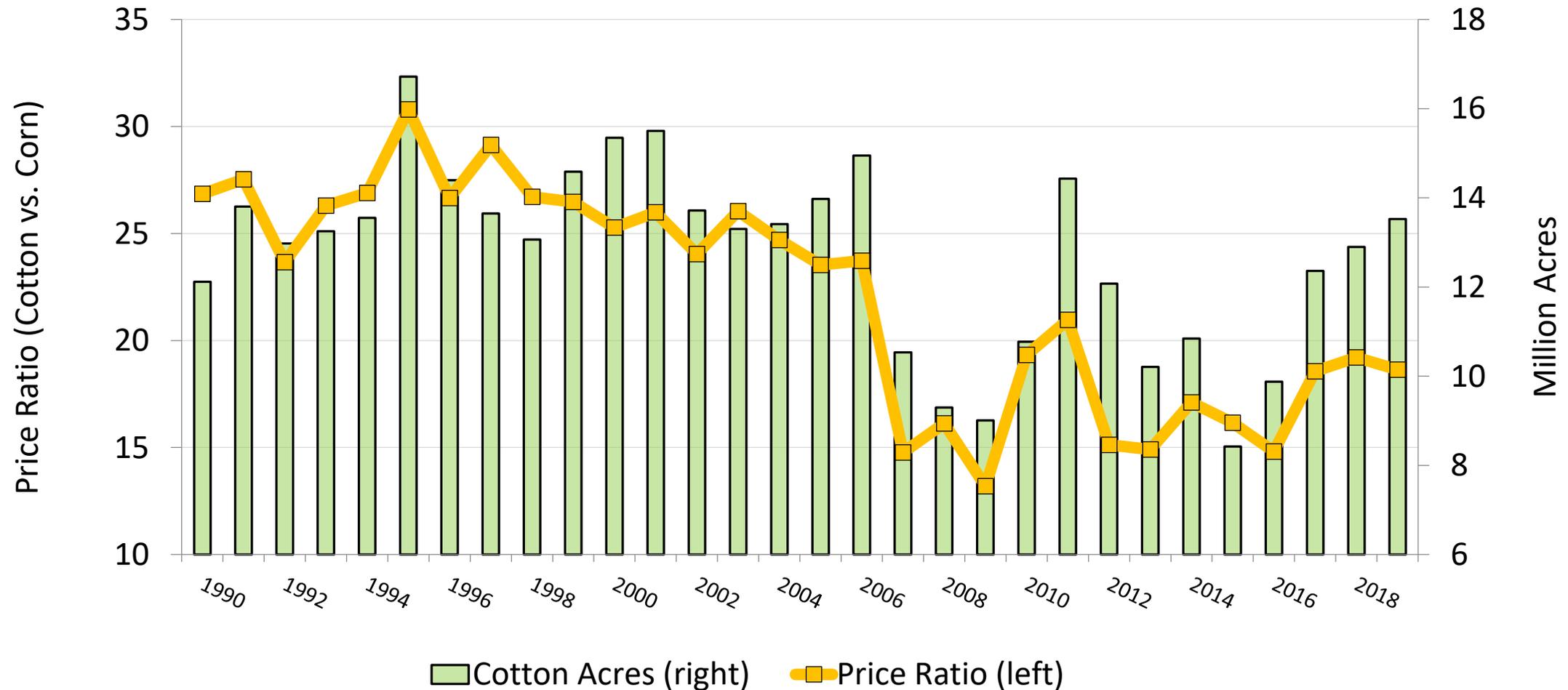
# Cotton/Corn Price Ratio

(Average Price Received Basis)



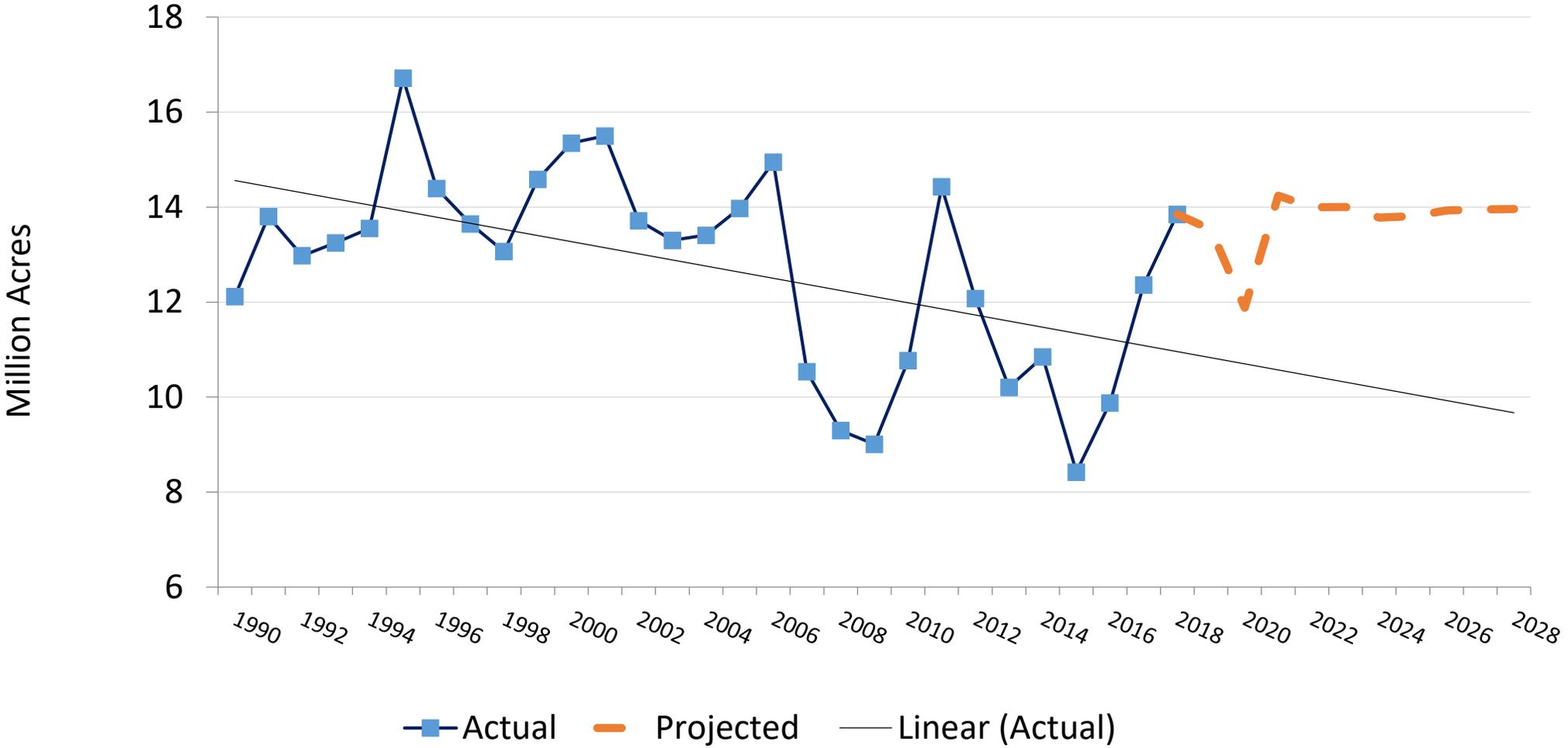
Source: USDA & Cotton Incorporated

# Cotton/Corn Futures Price Ratio at Planting Time vs. Upland Cotton Acres



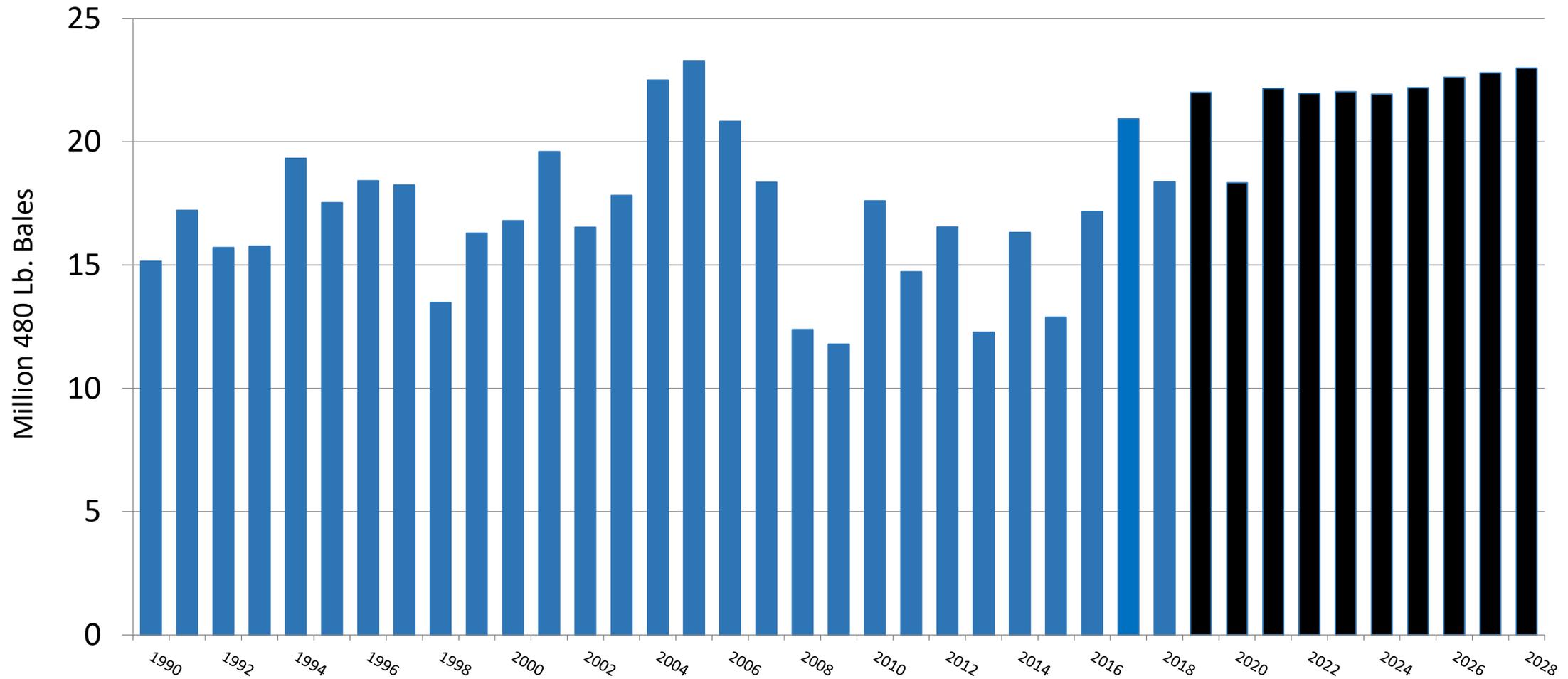
Source: USDA, CME Group, NCC.

# U.S. Upland Cotton Acres



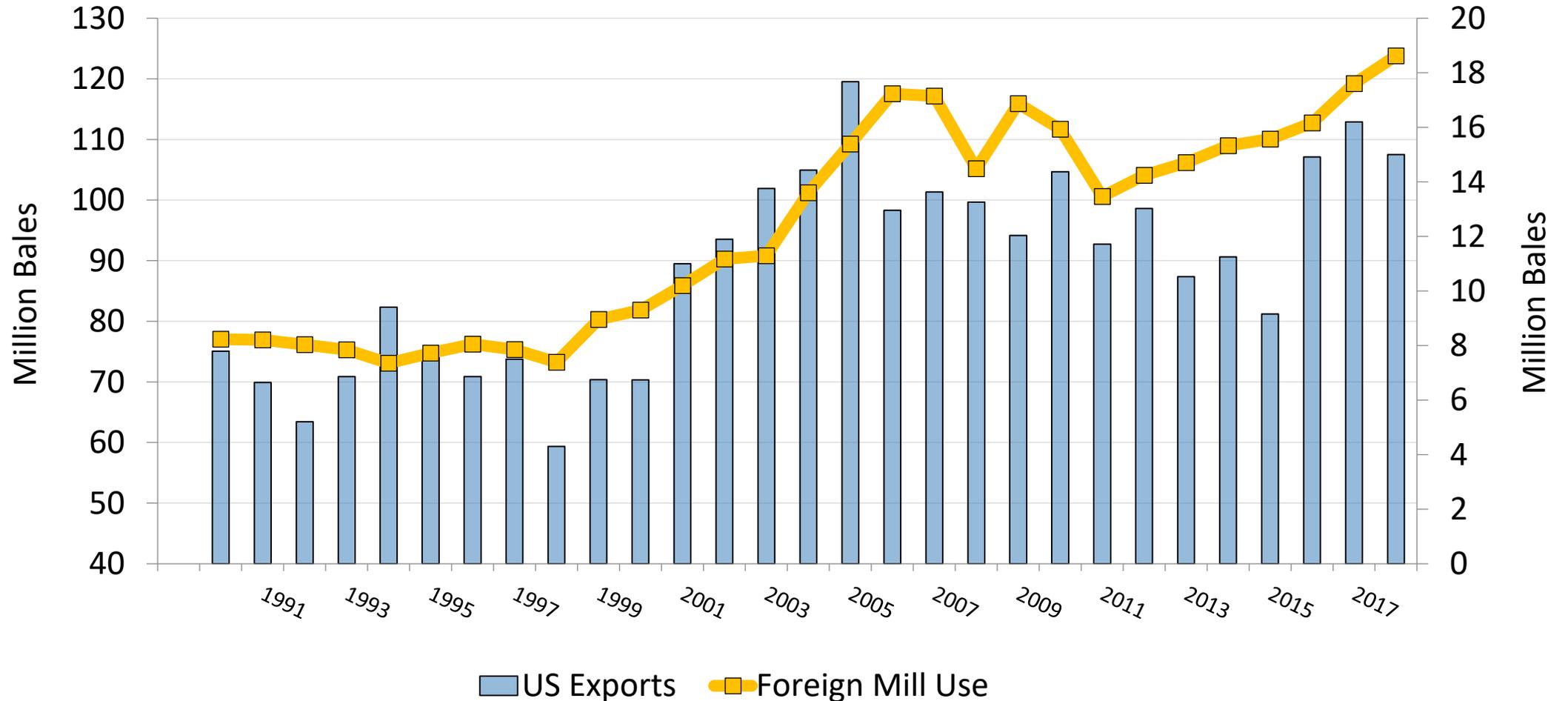
Source: USDA & Cotton Incorporated

# Total U.S. Cotton Production



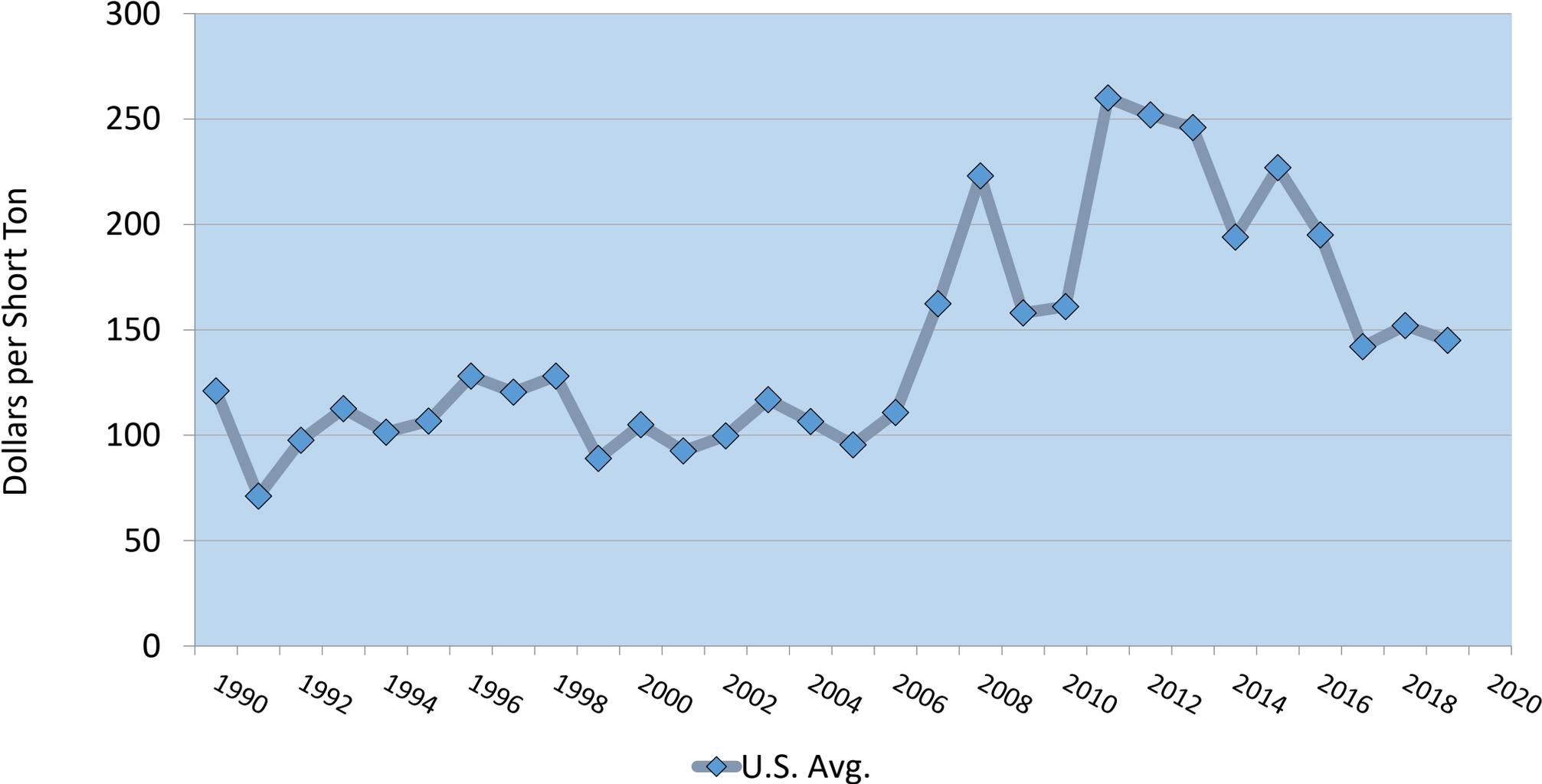
Source: USDA & Cotton Incorporated

# U.S. Exports vs. Non-U.S. Mill Demand



Source: USDA

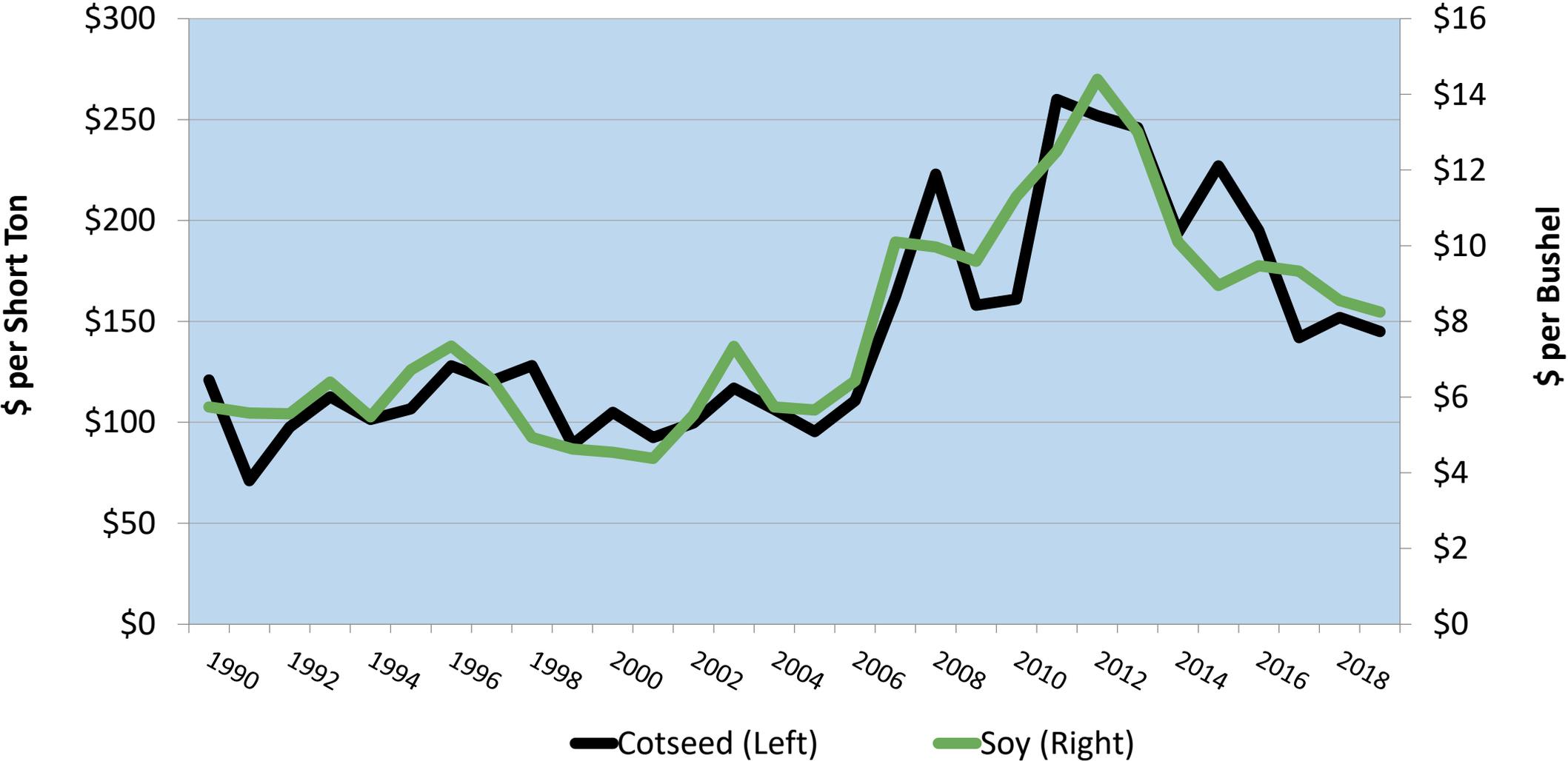
# Cottonseed Prices



Source: USDA

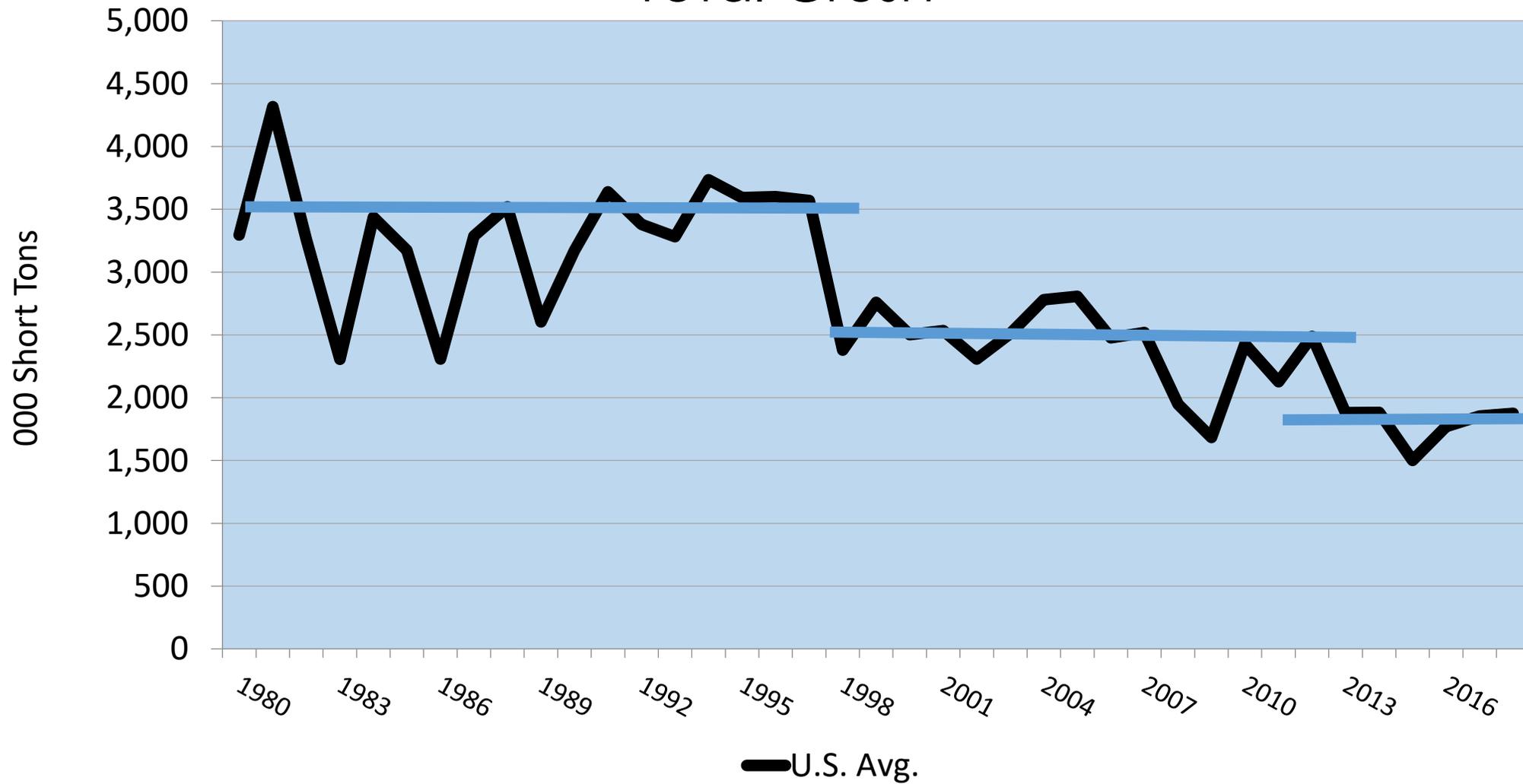


# Cottonseed Prices vs. Soybean Price



# Cottonseed

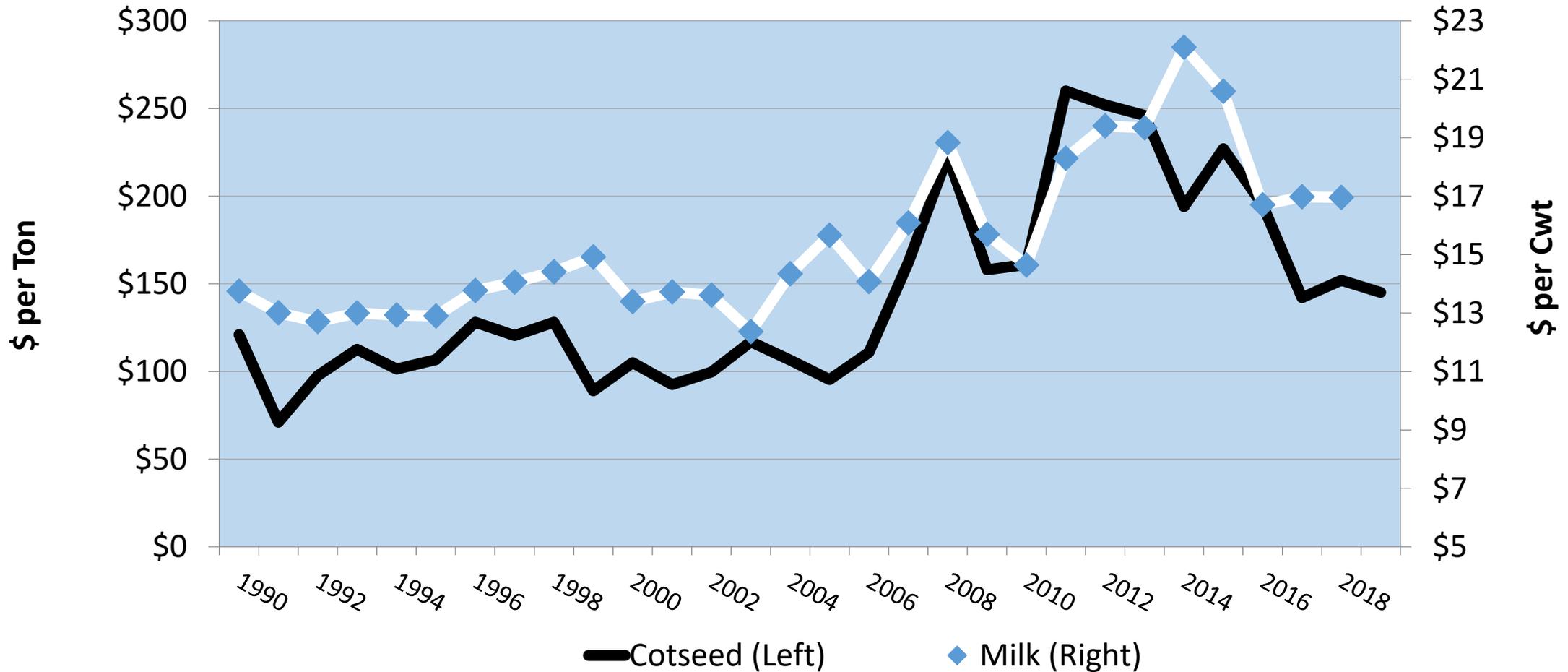
## Total Crush



Source: USDA



# Cottonseed Price vs. Milk Price

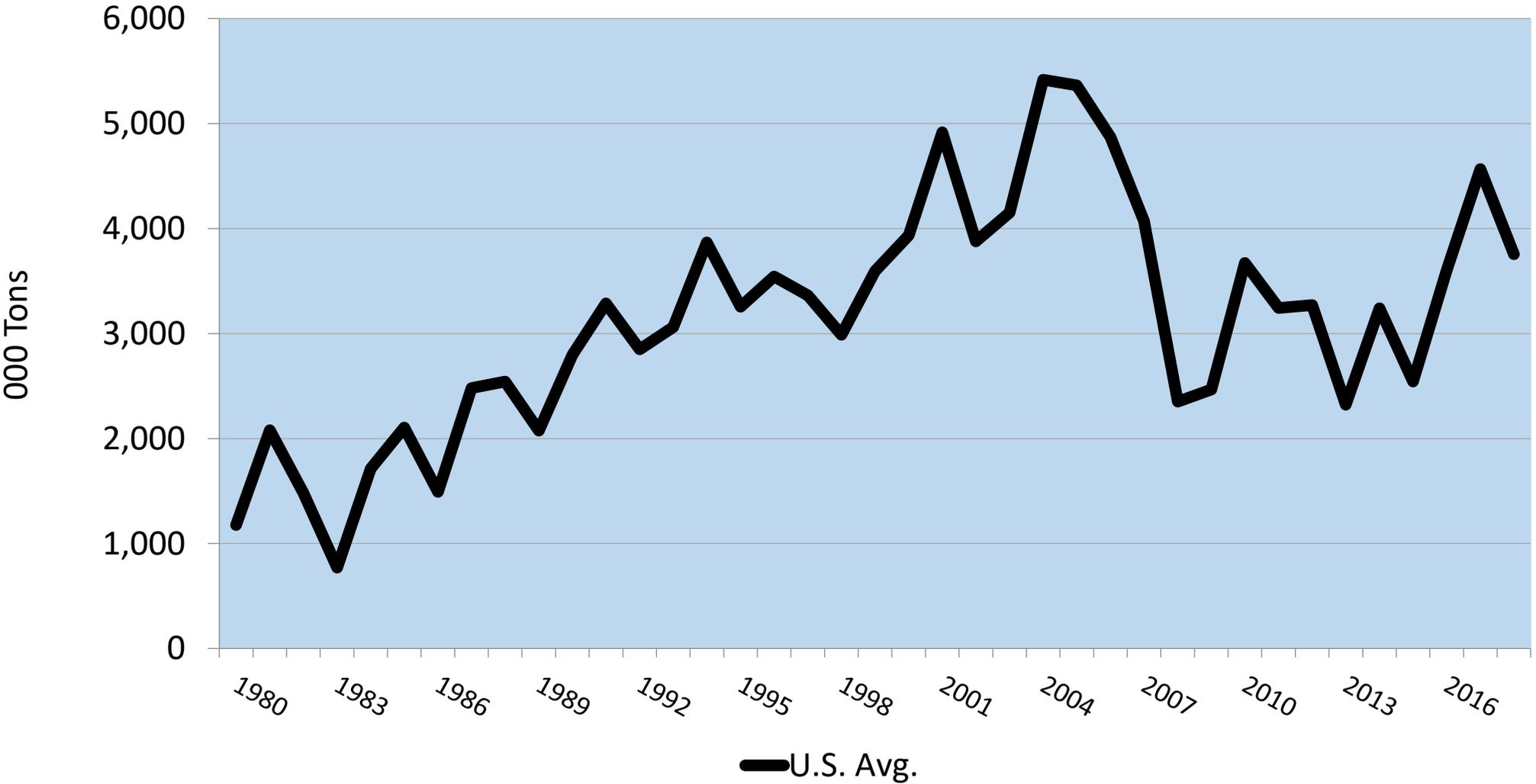


Source: USDA



# Cottonseed

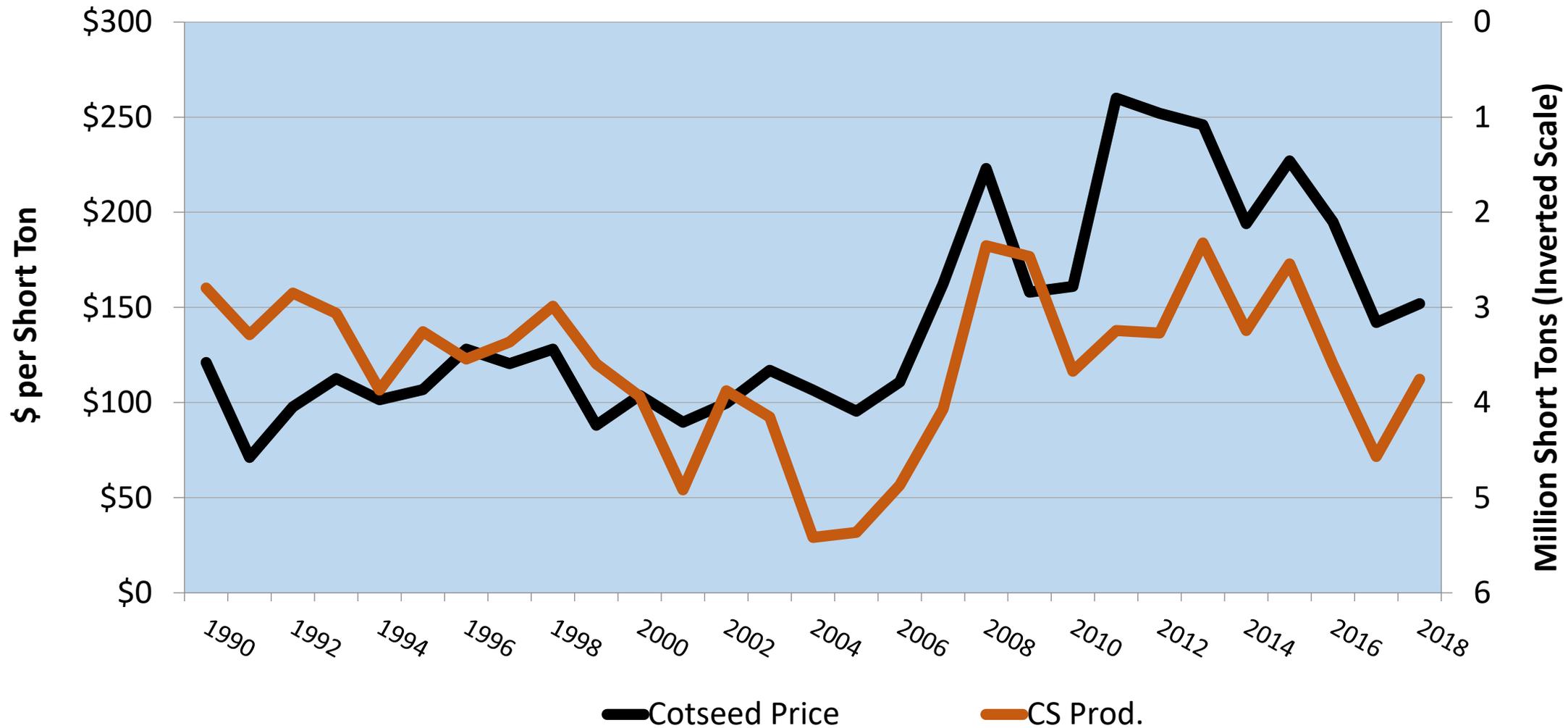
## Total U.S. Production Less Crush



Source: USDA



# Cottonseed Price vs. Cottonseed Production - Crush



Source: USDA



# WHOLESEED MARKETING



"Best Small Booth Award" World Dairy Expo 2018

# COTTONSEED OIL MARKETING



**COTTONSEED OIL**  
Performance &  
Point of Difference



Cottonseed yields a shelf- and supply-stable cooking oil that emerging science suggests can help lower LDL cholesterol, as compared to olive oil. Alone, or as part of a proprietary blend, cottonseed oil is a flavor-neutral choice that enhances the taste of and texture of any fried food.

- 🔥 High Smoke Point (420°)
- 🔥 Transfat-free
- 🔥 Highly stable
- 🔥 Low Flavor Reversion
- 🔥 Strong shelf life
- 🔥 Low Fryer Turnover
- 🔥 Versatile (Frying, baking, salad dressings)
- 🔥 Neutral Flavor
- 🔥 Commercially Available
- 🔥 Proved to Reduce LDL ("Bad") Cholesterol



**COTTONSEED OIL**  
Potato Flavor That's Fit  
For a King



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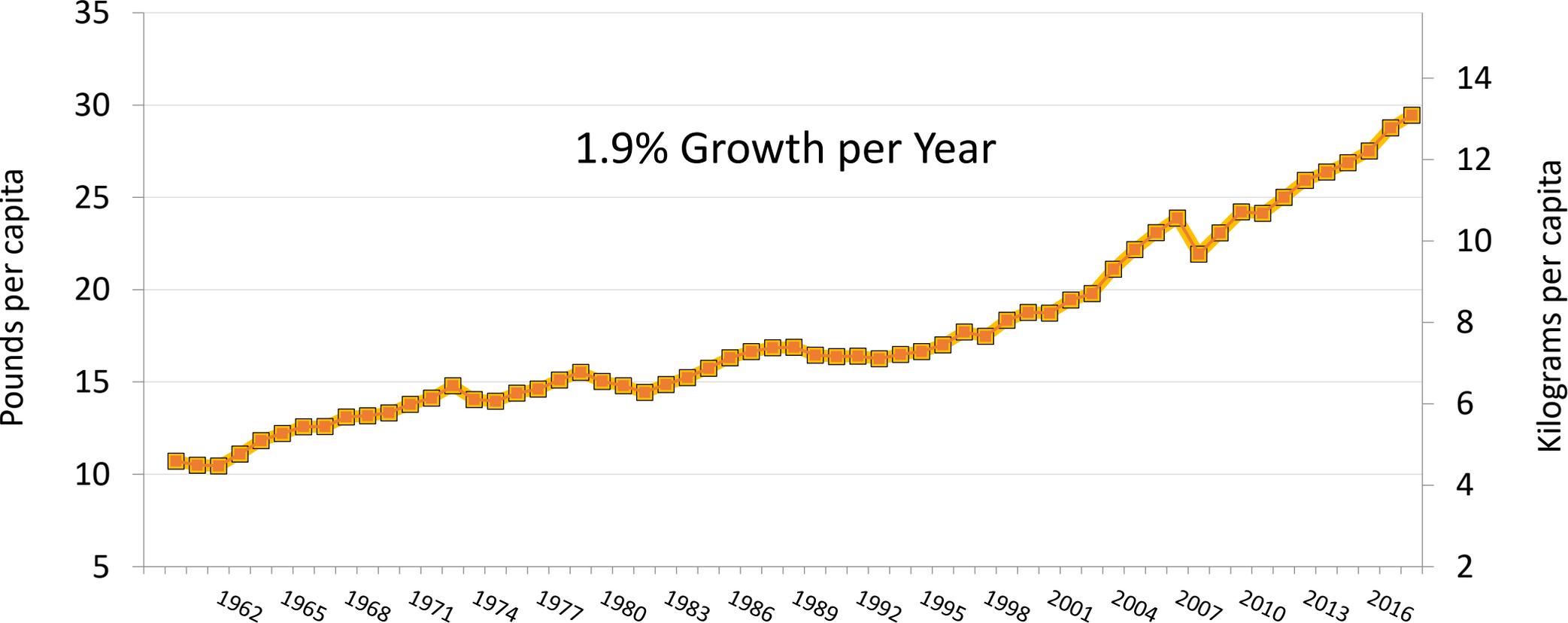
**COTTONSEED OIL**  
Setting the Gold Standard  
for Flavor Neutrality



Cottonseed is flavor neutral to let the flavors of the food shine through. It is also a shelf- and supply-stable cooking oil that emerging science suggests can help lower LDL cholesterol, as compared to olive oil. Alone, or as part of a proprietary blend, cottonseed oil is a flavor-neutral choice that enhances the taste of and texture of any fried food.

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# World Per Capita Total Fiber Demand



Source: USDA, Fiber Organon, PCI Fibers

