

The Outlook for Cotton and Cottonseed

J. Berrye Worsham
President & CEO

Cotton Breeders' Tour
July 2019

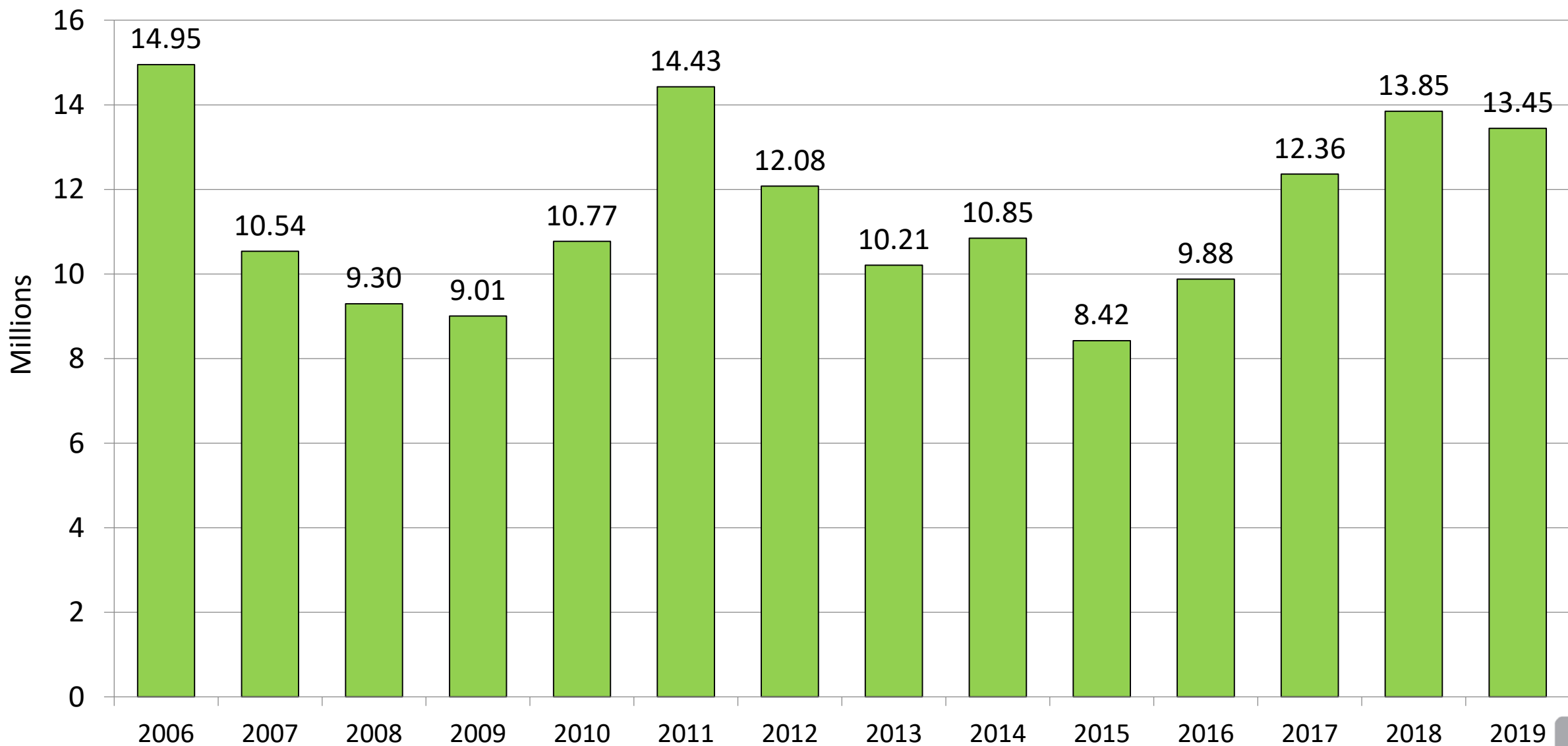


Cotton
Incorporated

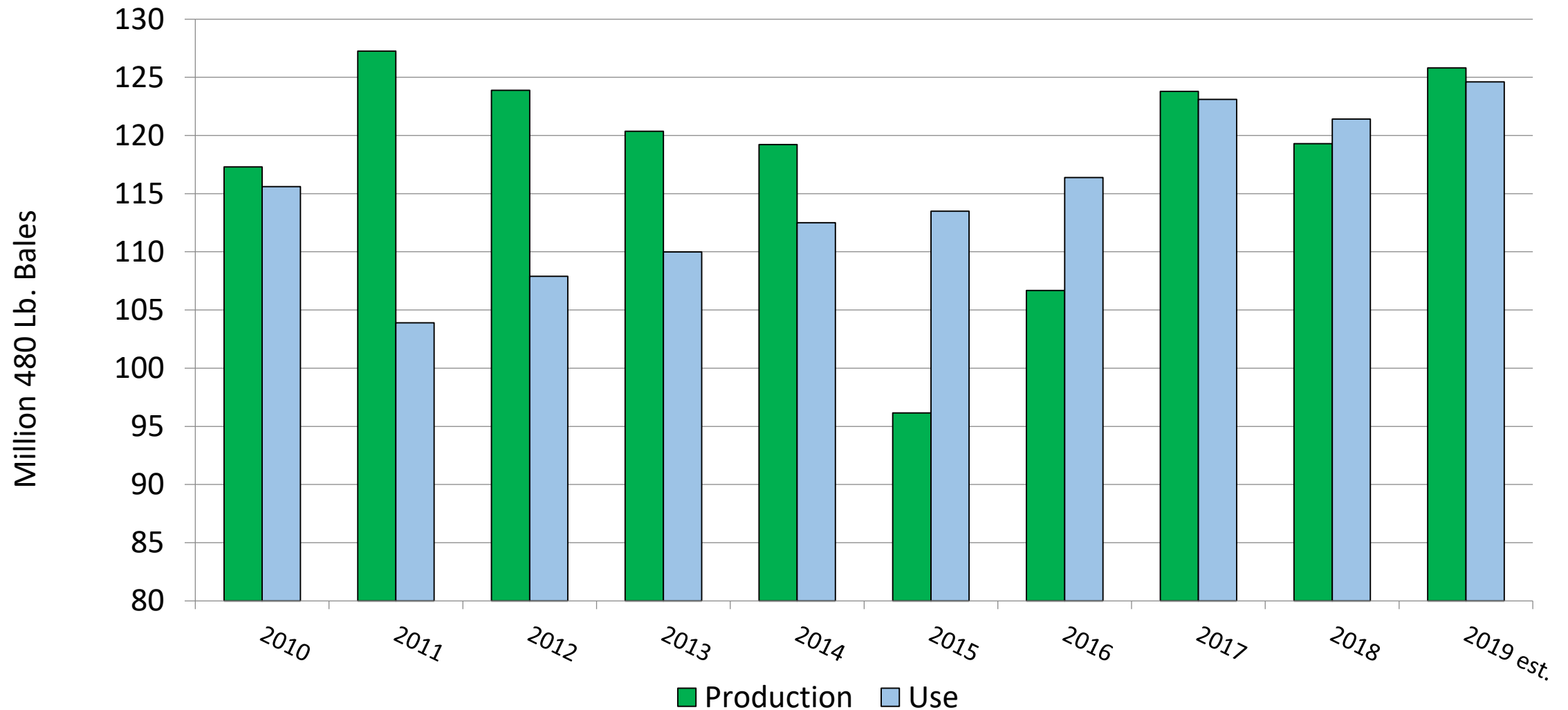
Major Presentation Points

- 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



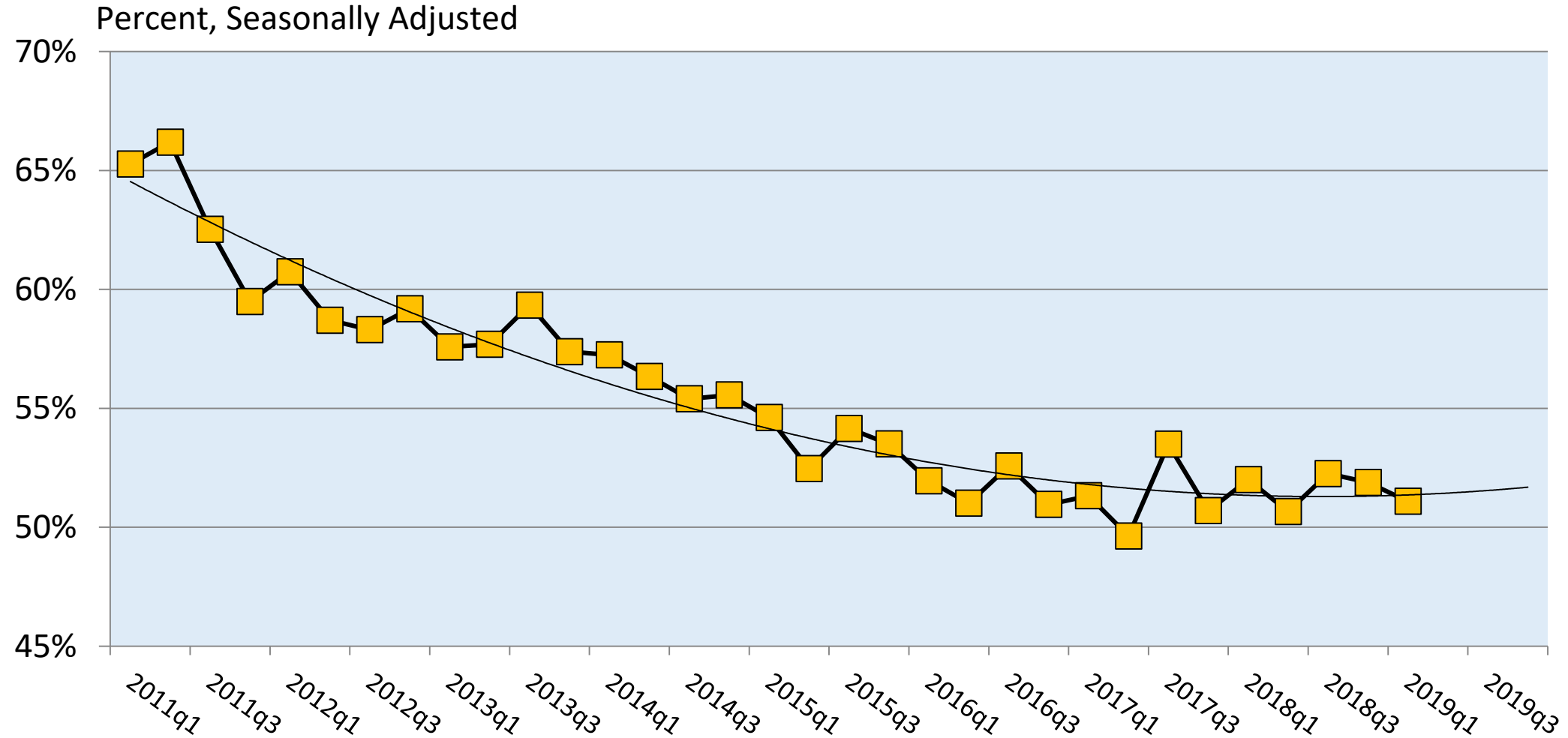
World Per Capita Cotton Demand



Source: USDA



Cotton's Share of Market – Major Apparel Categories



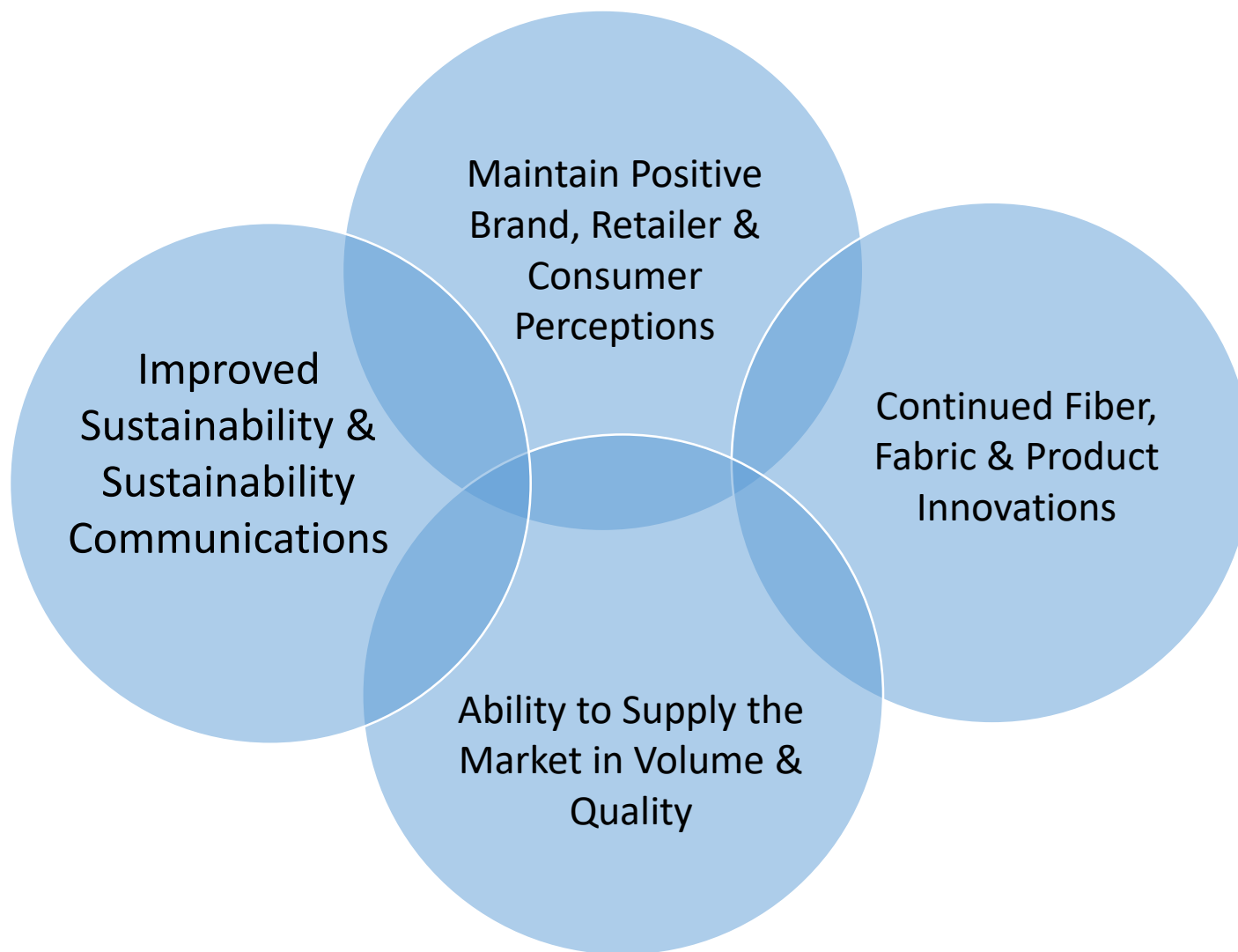
Source: Cotton Incorporated's Retail Monitor™



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:



82% Easy
Care



80% Fade
Resistance



78% Temperature
Control



77% Stain
Resistance



76% Wrinkle
Resistance



75% Moisture
Management

2018 Cotton Incorporated Technologies



JCPENNEY
ADOPTS TOUGH COTTON™ TECHNOLOGY

TOUGH COTTON™ Technology



LUNYA
ADOPTS TransDRY® TECHNOLOGY

Moisture Management + Antimicrobial

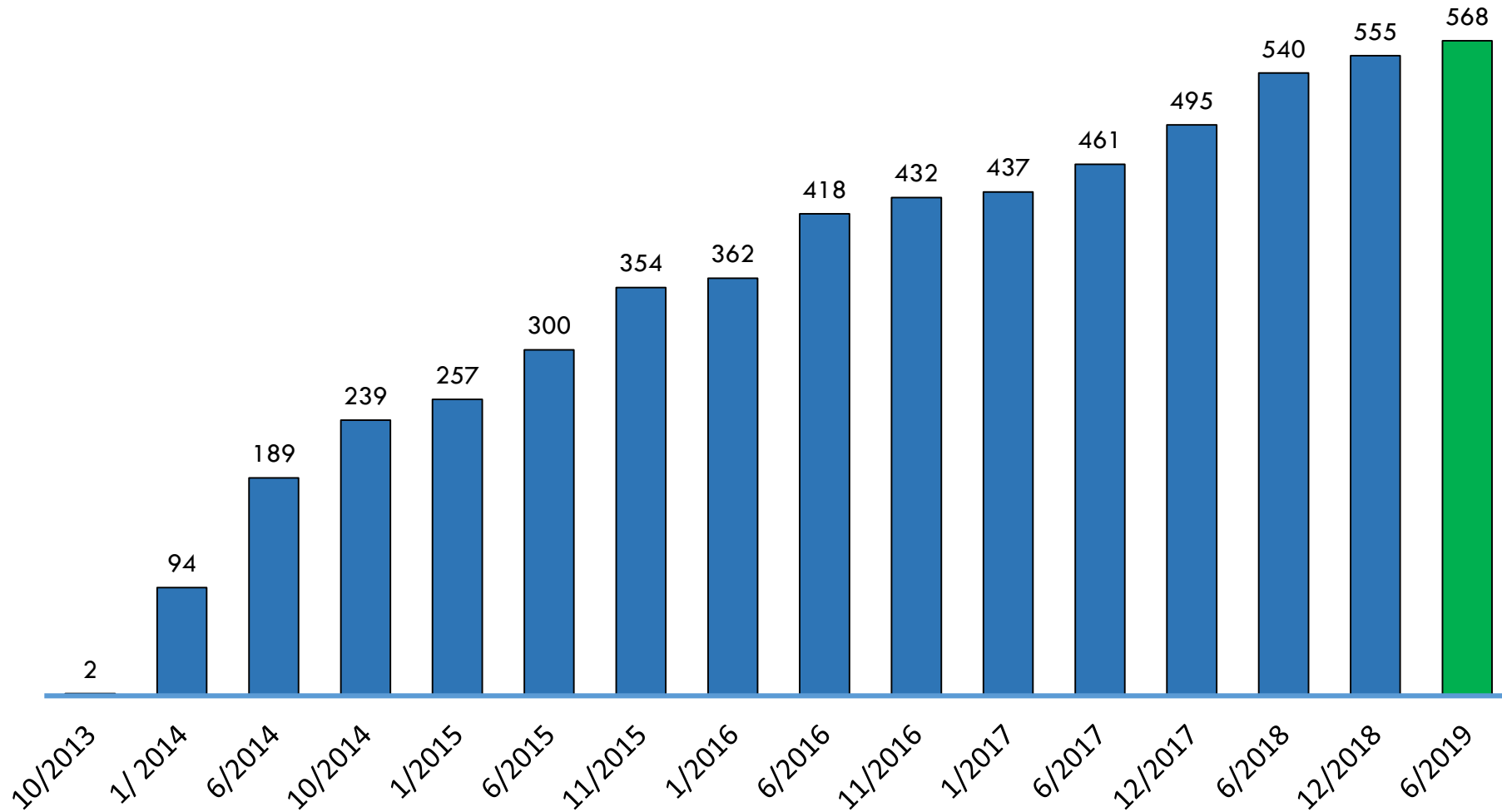


CALLAWAY APPAREL
ADOPTS SWEAT-HIDING TECHNOLOGY

SWEAT-HIDING Technology



Cotton LEADS™ Partners—Still Expanding



COTTON USA

U.S. Cotton Trust Protocol

**National
Cotton
Council**
OF AMERICA





Creatures in the deepest trenches of the sea are eating plastic

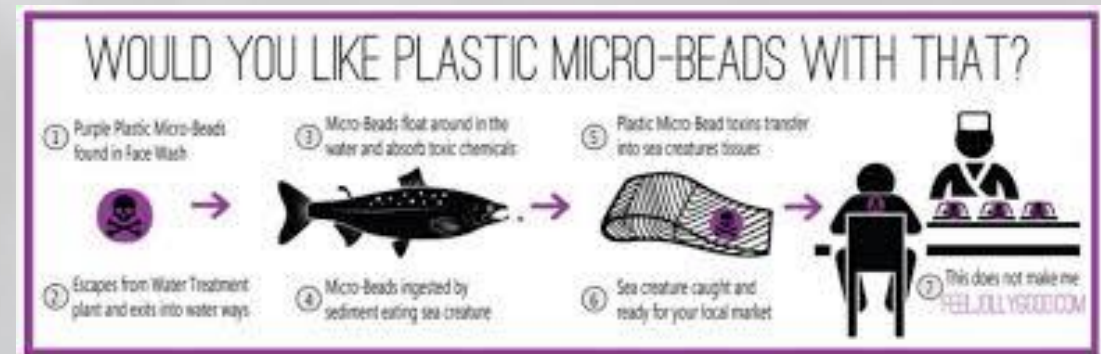
In six of the ocean's deepest crevasses, scientists found tiny shrimp-like creatures chomping on tiny bits of plastic.

By: Sarah Gibbens. Published February 28, 2019



Synthetic Fibers & Plastics

Increasing Concerns



MICROPLASTICS ISSUE

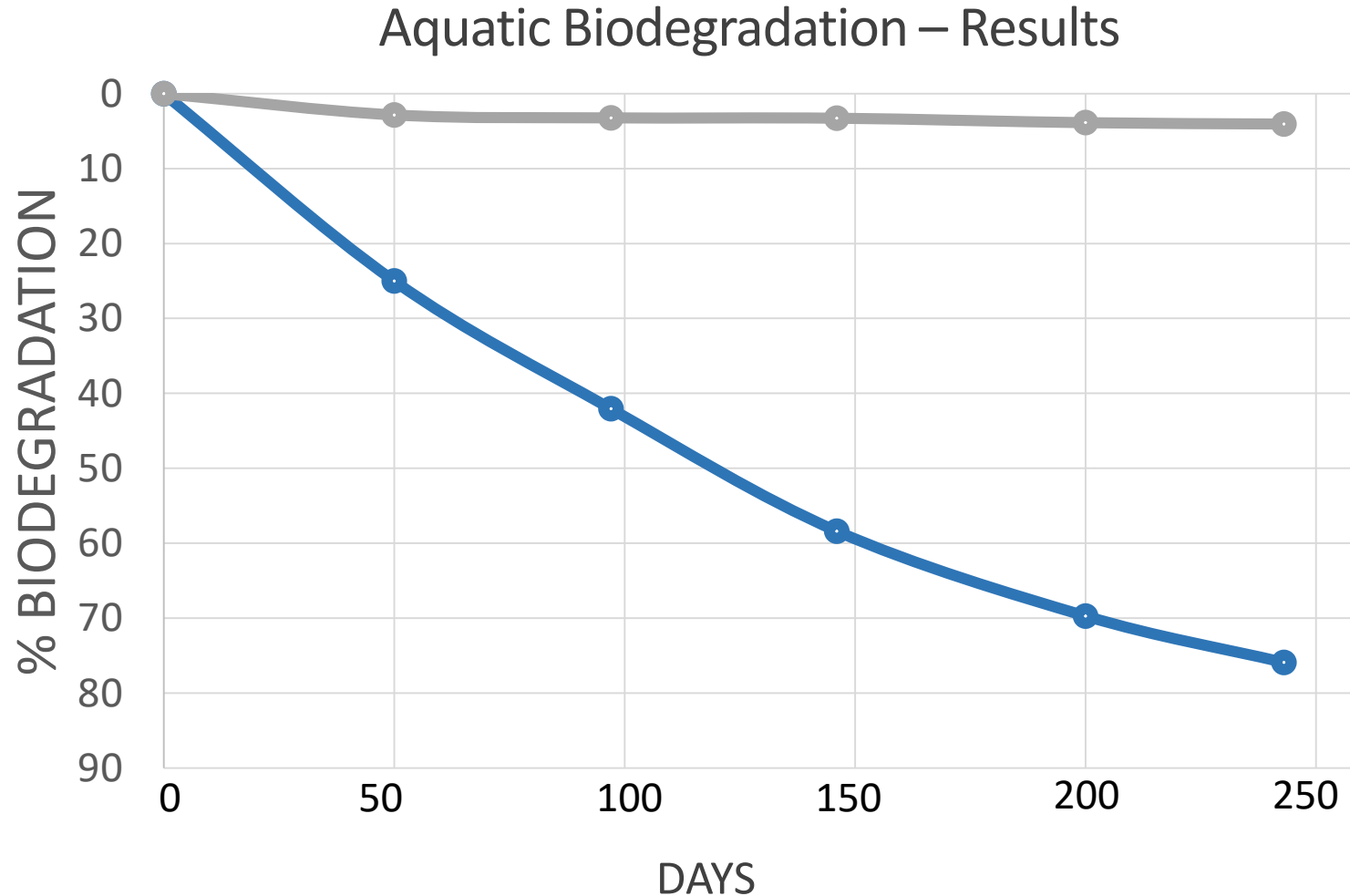
Microplastics pollution is widespread



Source: Adventurers and Scientists for Conservation Microplastic Study

MICROPLASTICS RESEARCH

North Carolina State University research on microfiber degradation



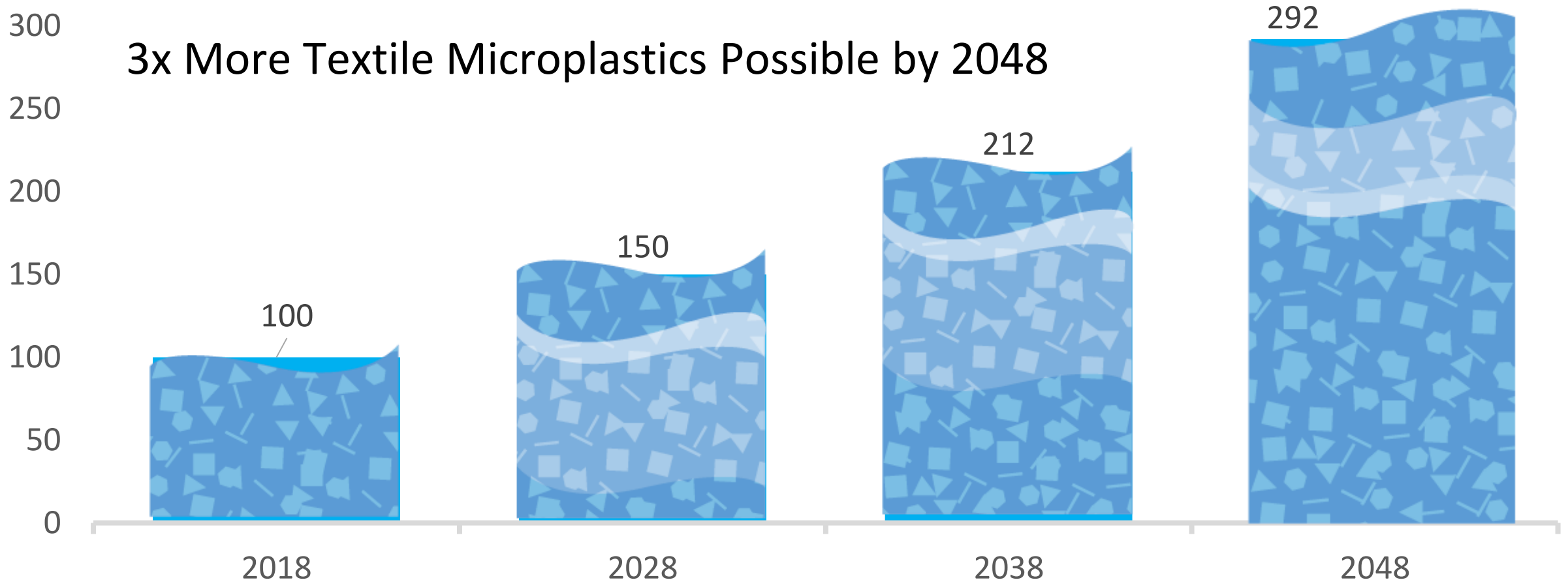
76% Cotton

4% Polyester

Index of Textile Aquatic Microplastics

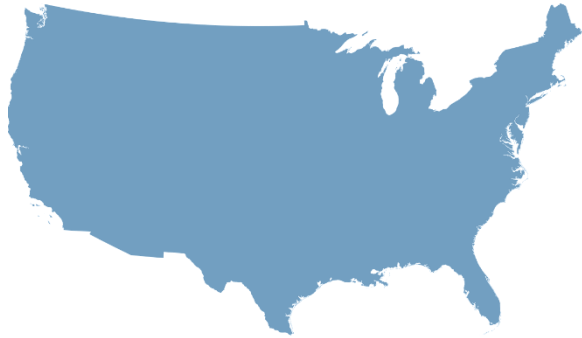
(Assumes 5.5%/yr. degradation rate & 3%/yr. future world production of synthetic fibers)

Index: 2018 = 100



TOP ENVIRONMENTAL CONCERNS

Issues vary across the globe



U.S.

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

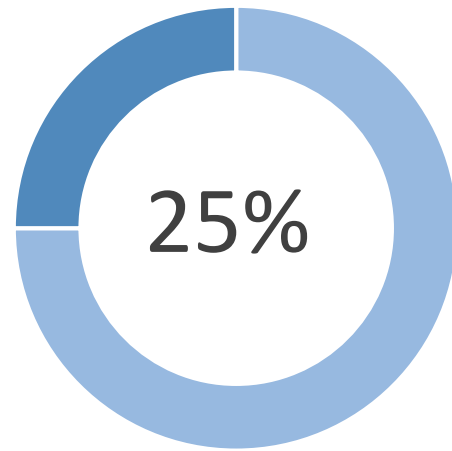


Rest of World

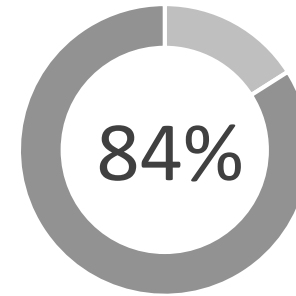
- Air Quality (89%)
- **Water Quality (87%)**
- Climate Change (86%)

CONSUMER AWARENESS AND CONCERN

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



Average aware
of issues

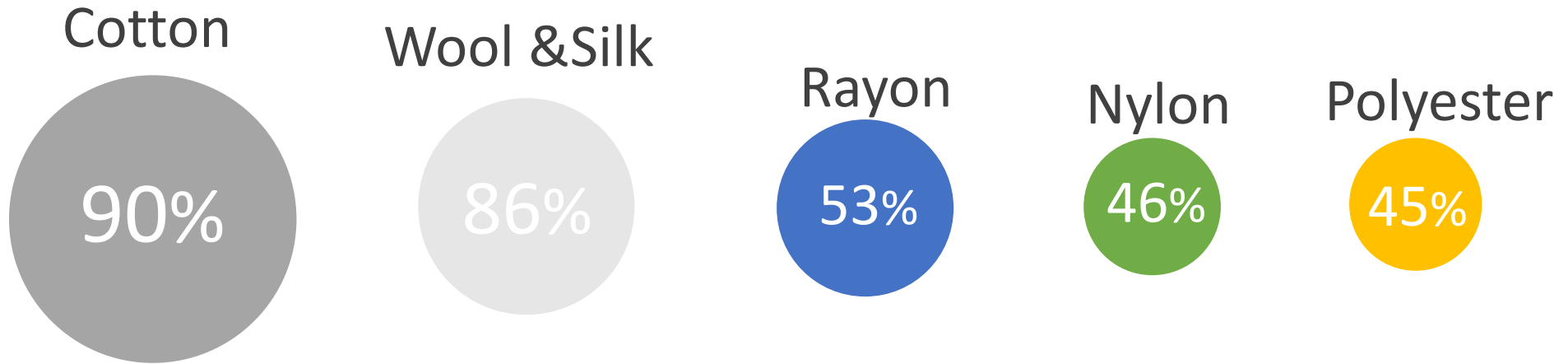


Concerned with
microfiber waste

SUSTAINABLE FABRICS

Cotton is considered most sustainable

Percent saying the following fibers are safe for the environment:

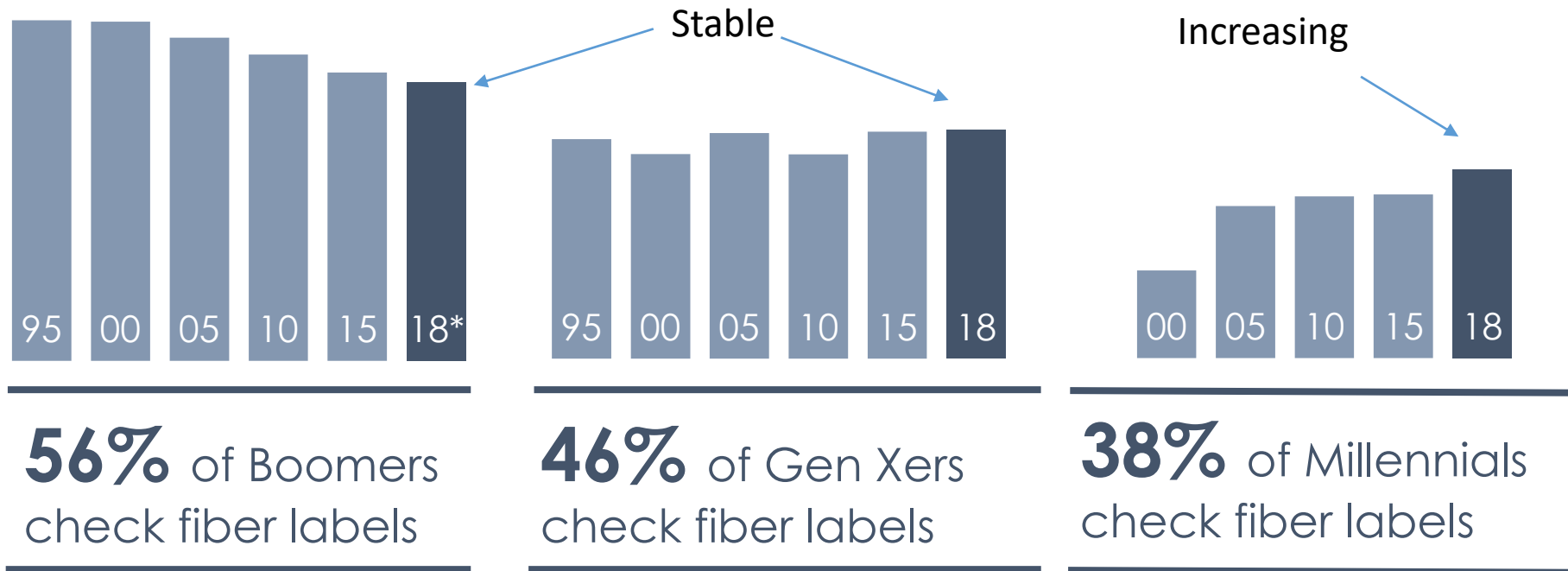


Source: CCI & Cotton Incorporated's 2018 *Global Lifestyle Monitor*



FIBER LABEL CHECKING INCREASES IN THE U.S.

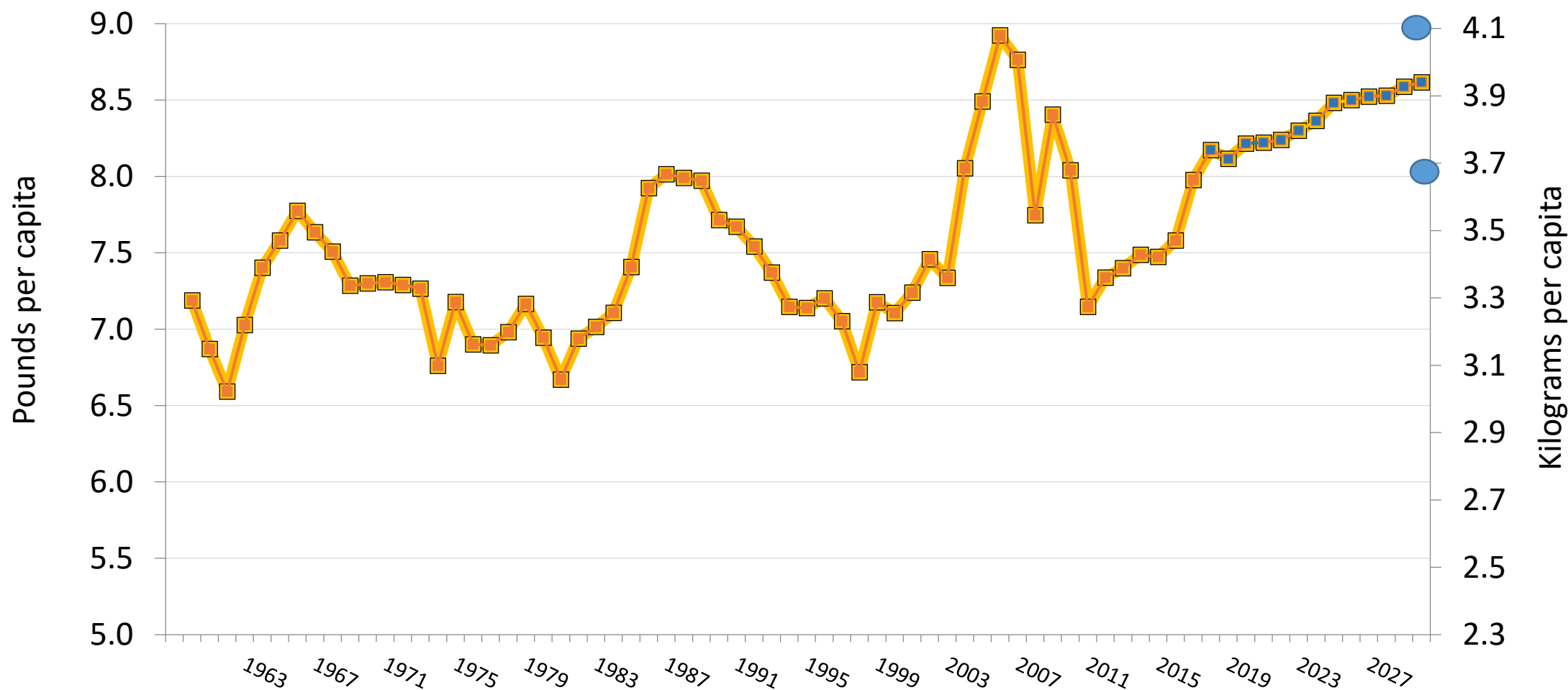
PERCENT ALWAYS/USUALLY CHECK FIBER CONTENT LABELS



*Partial year data, through June 2018

Source: Cotton Incorporated's Lifestyle Monitor™ Survey

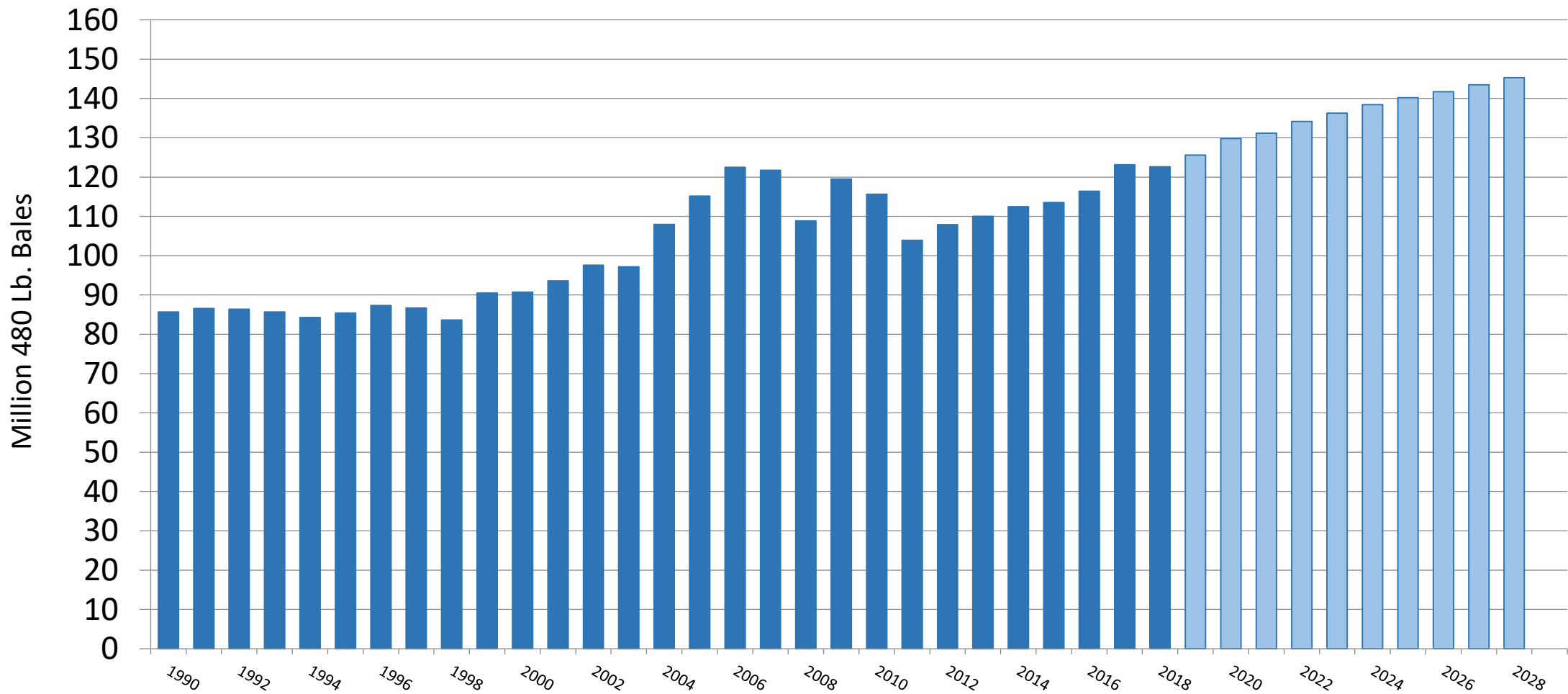
World Per Capita Cotton Demand



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**

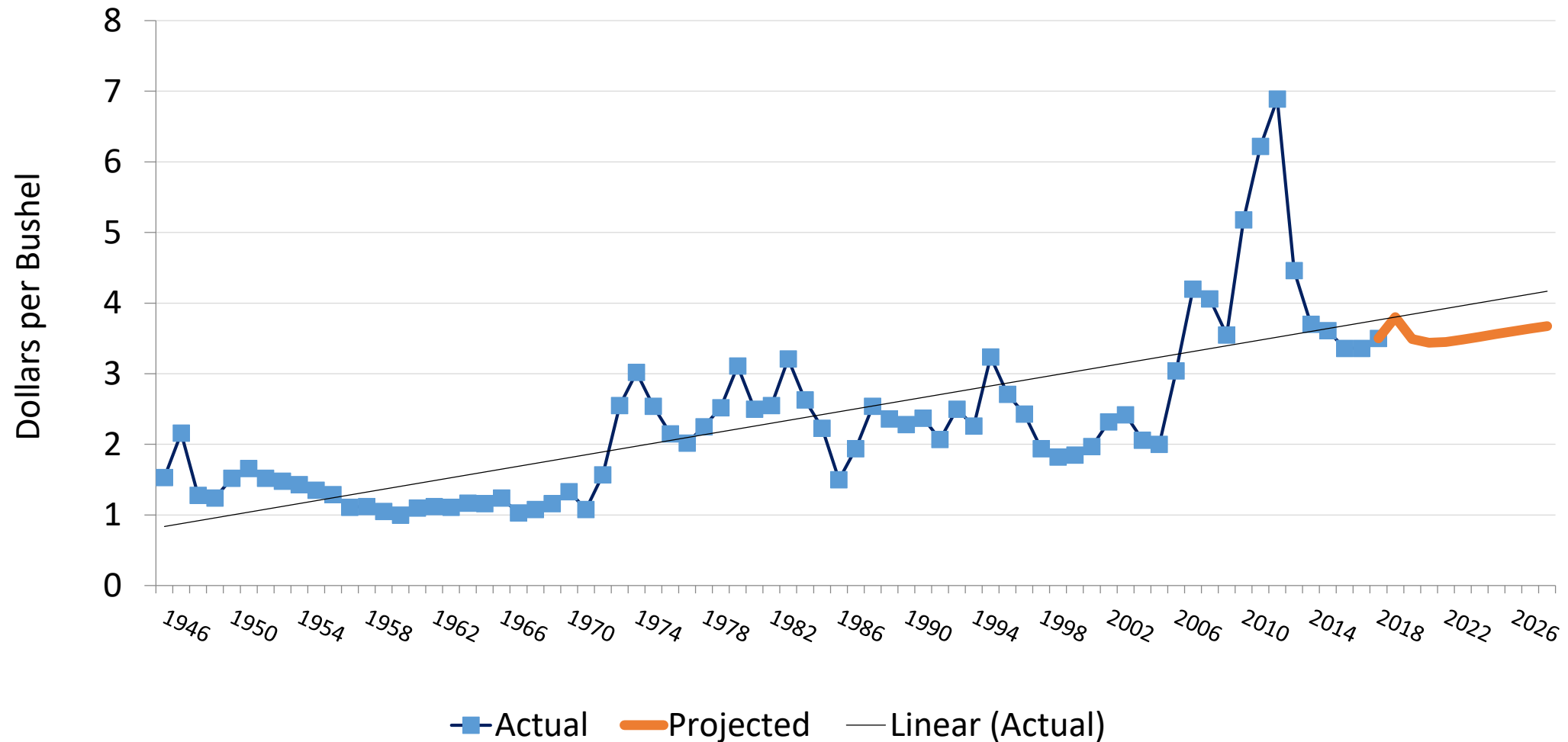
Moderately Responsive

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

Least Responsive

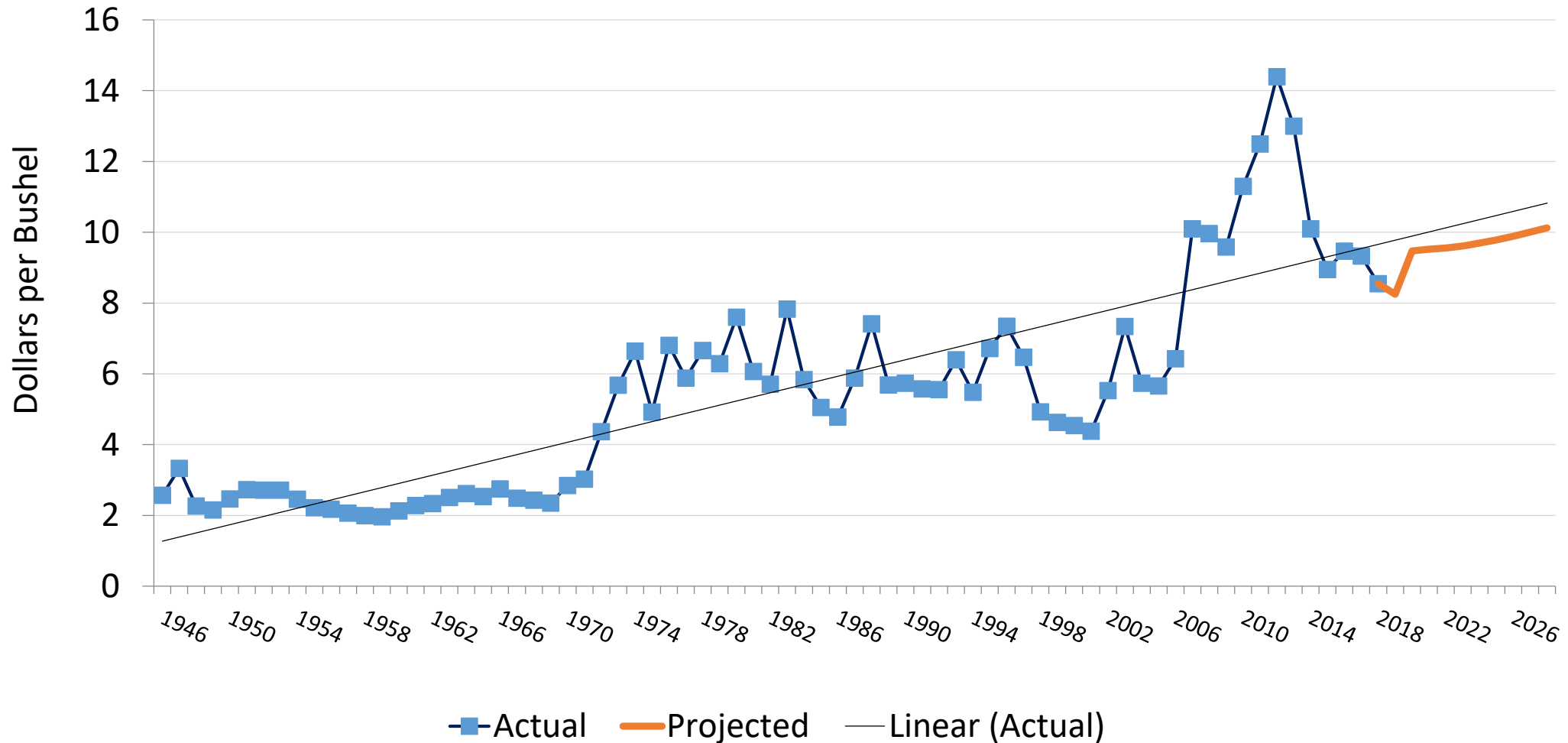
- **Pakistan**
- **Uzbekistan**

U.S. Corn Price Received



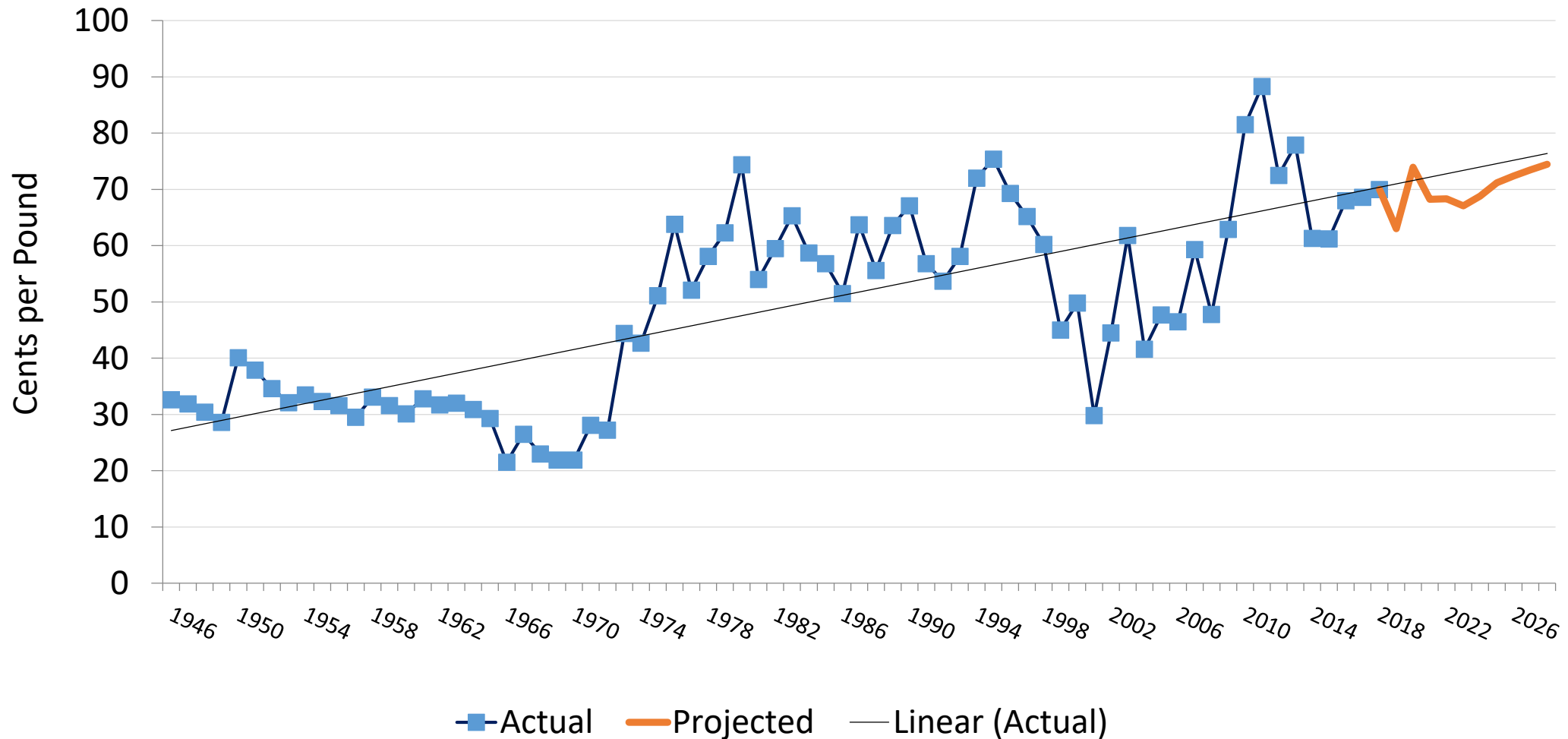
Source: USDA & Cotton Incorporated

U.S. Soybean Price Received



Source: USDA & Cotton Incorporated

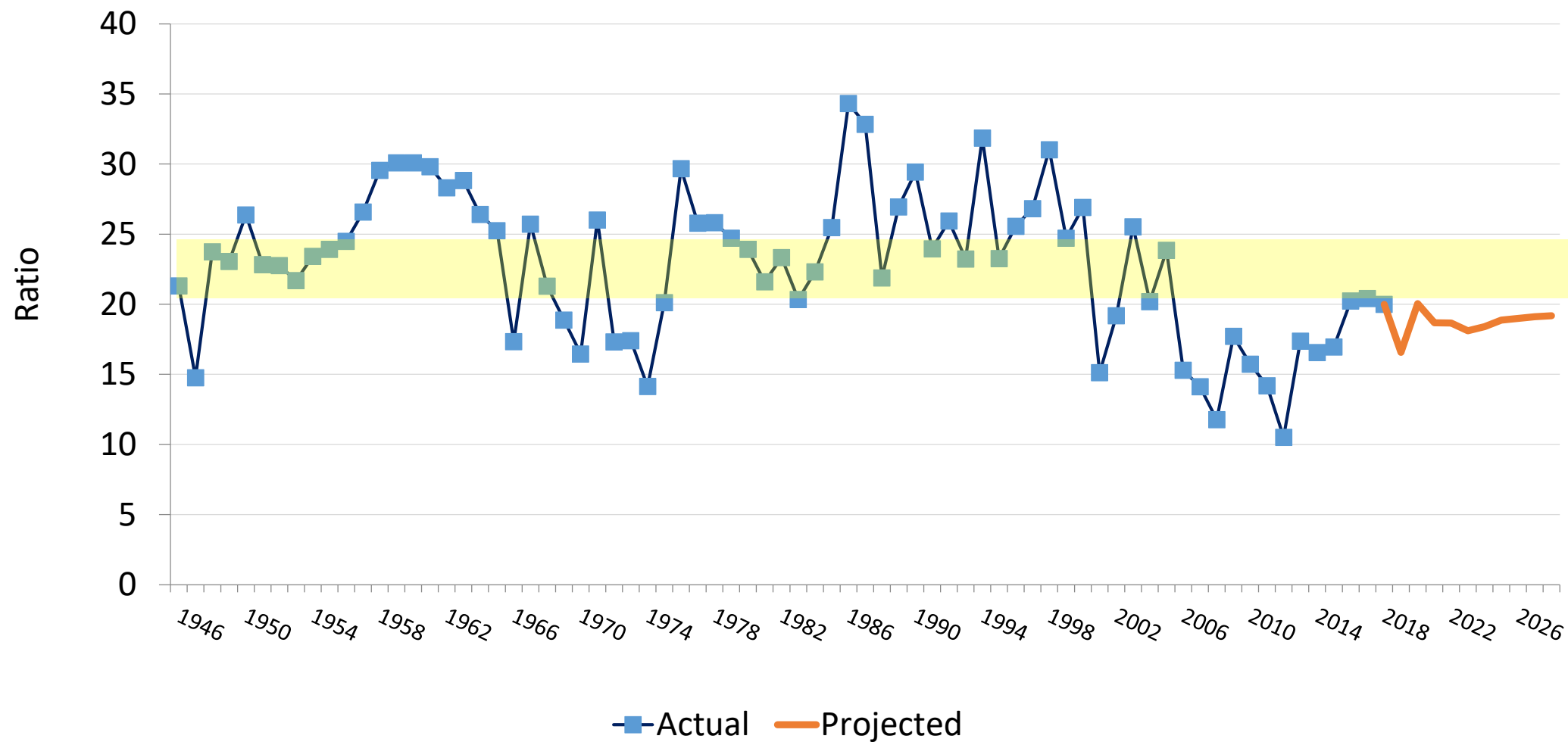
U.S. Upland Cotton Price Received



Source: USDA & Cotton Incorporated

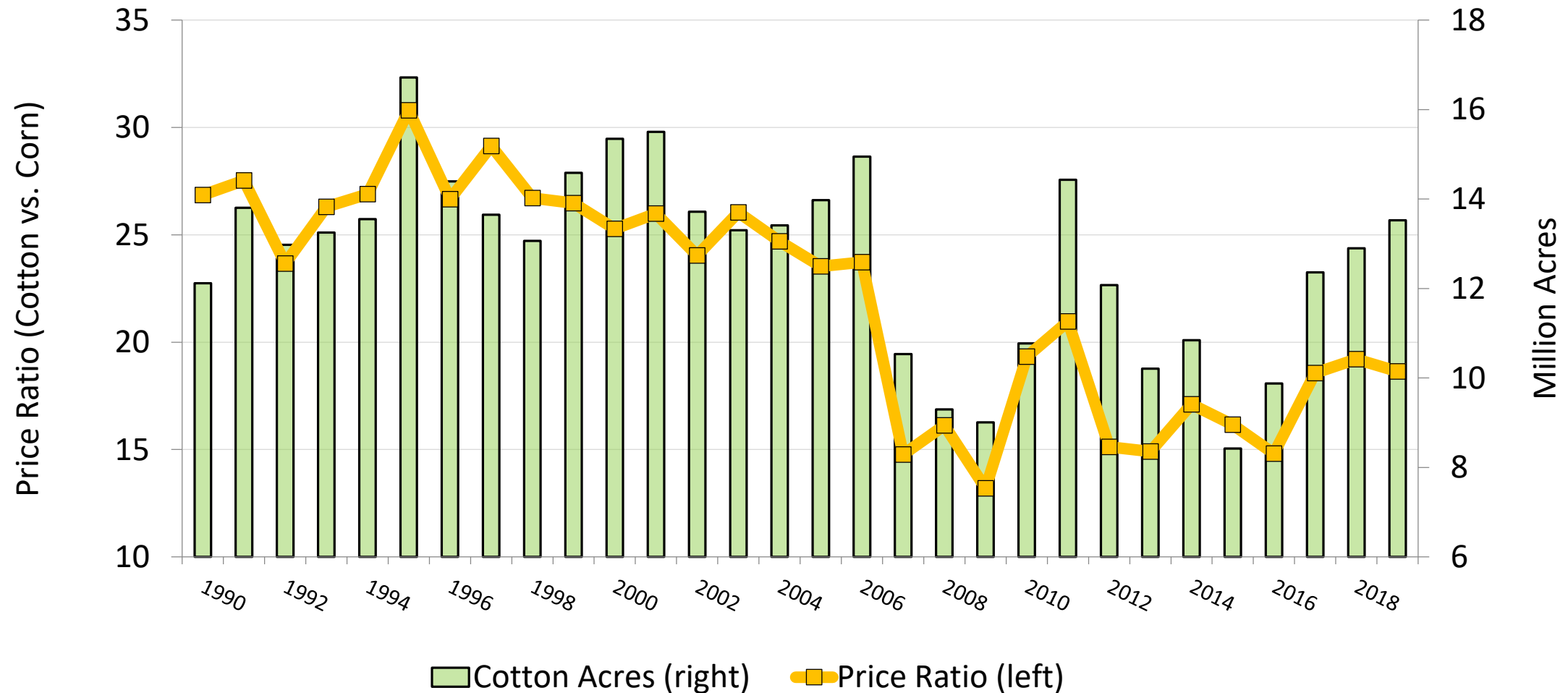
Cotton/Corn Price Ratio

(Average Price Received Basis)



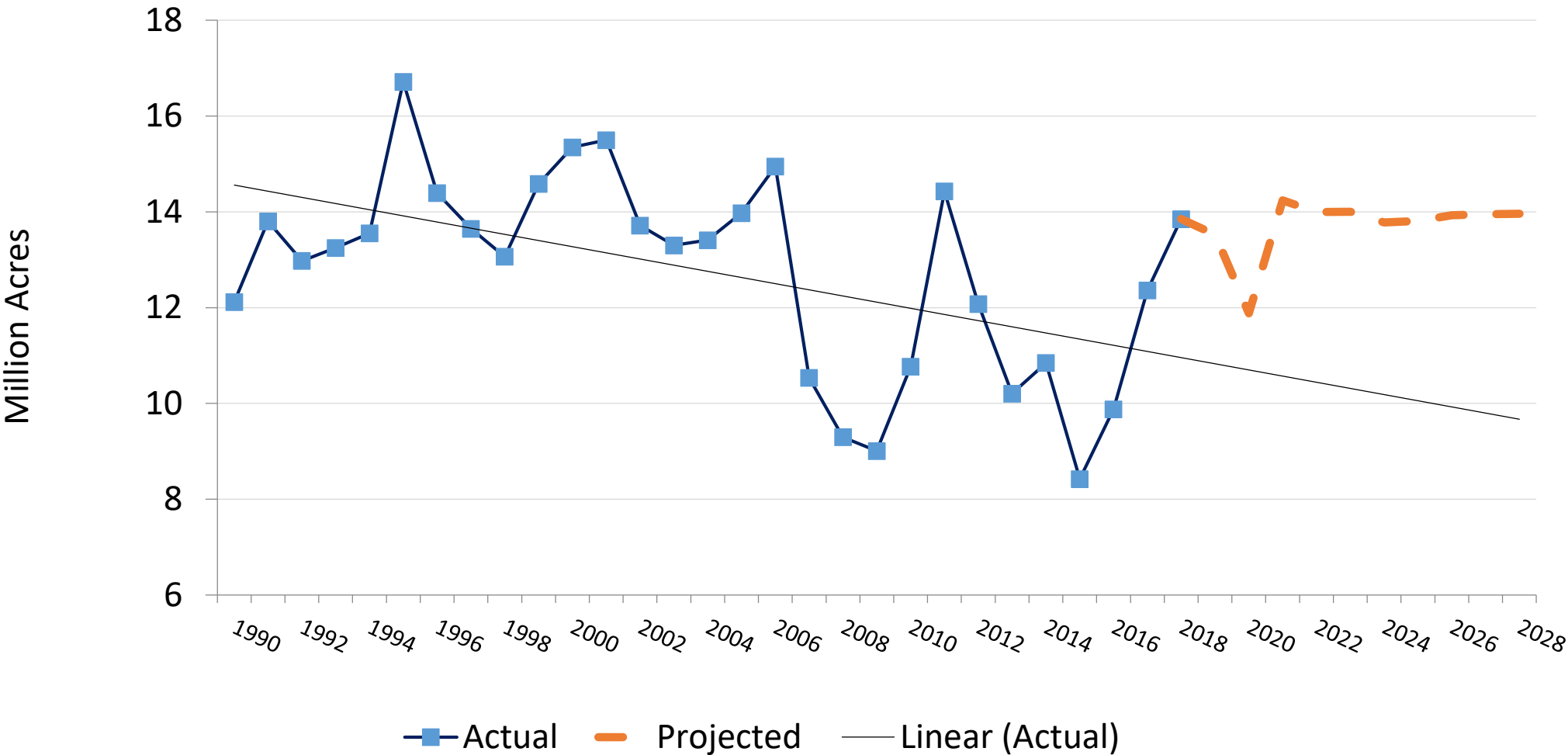
Source: USDA & Cotton Incorporated

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



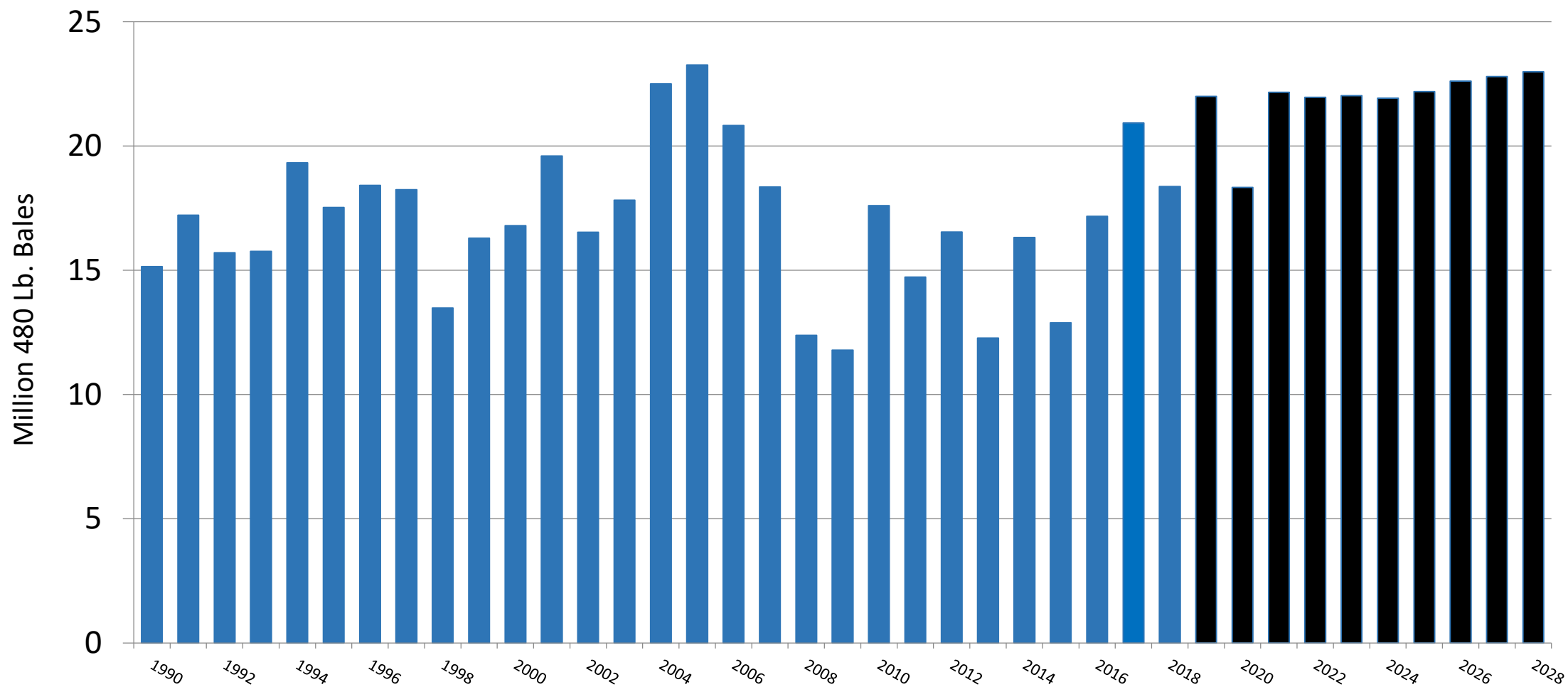
Source: USDA, CME Group, NCC.

U.S. Upland Cotton Acres



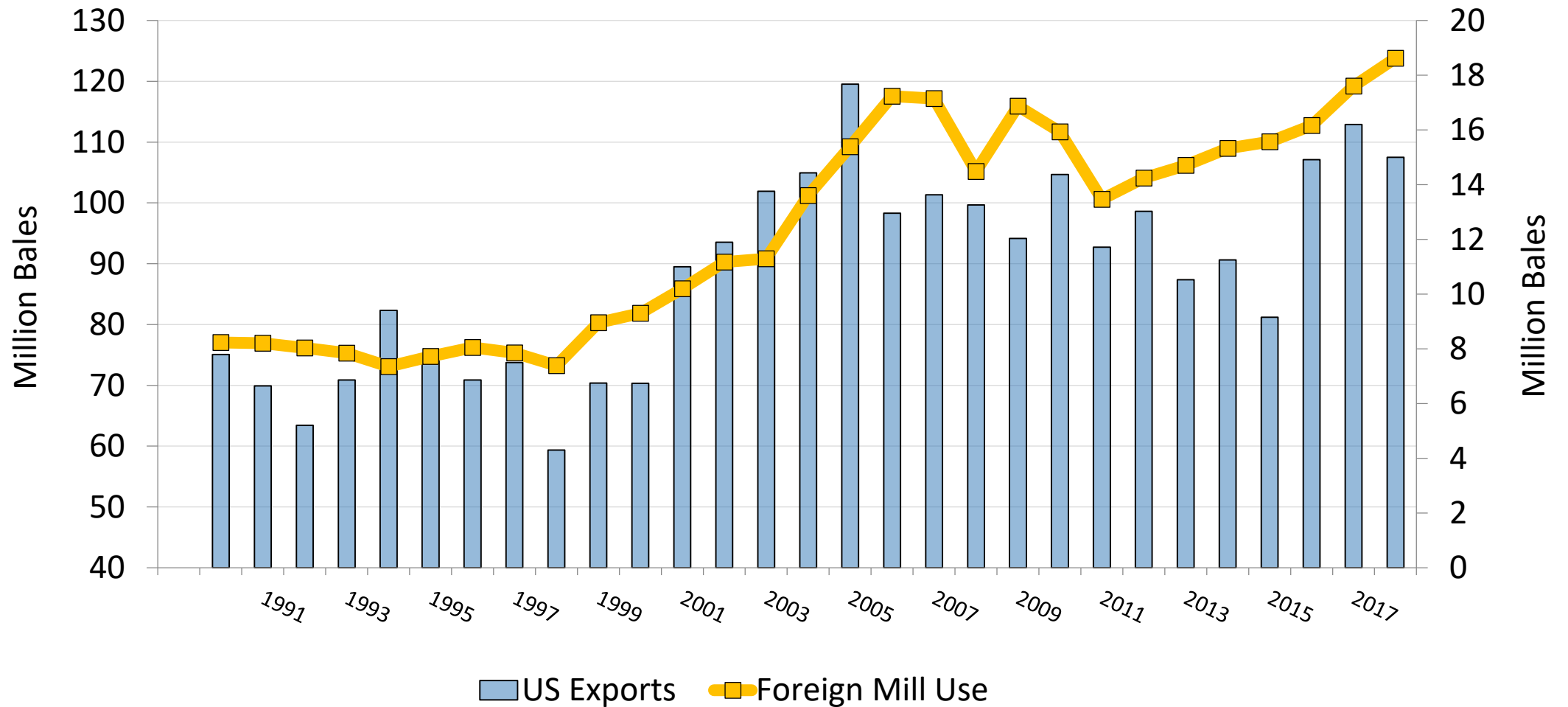
Source: USDA & Cotton Incorporated

Total U.S. Cotton Production



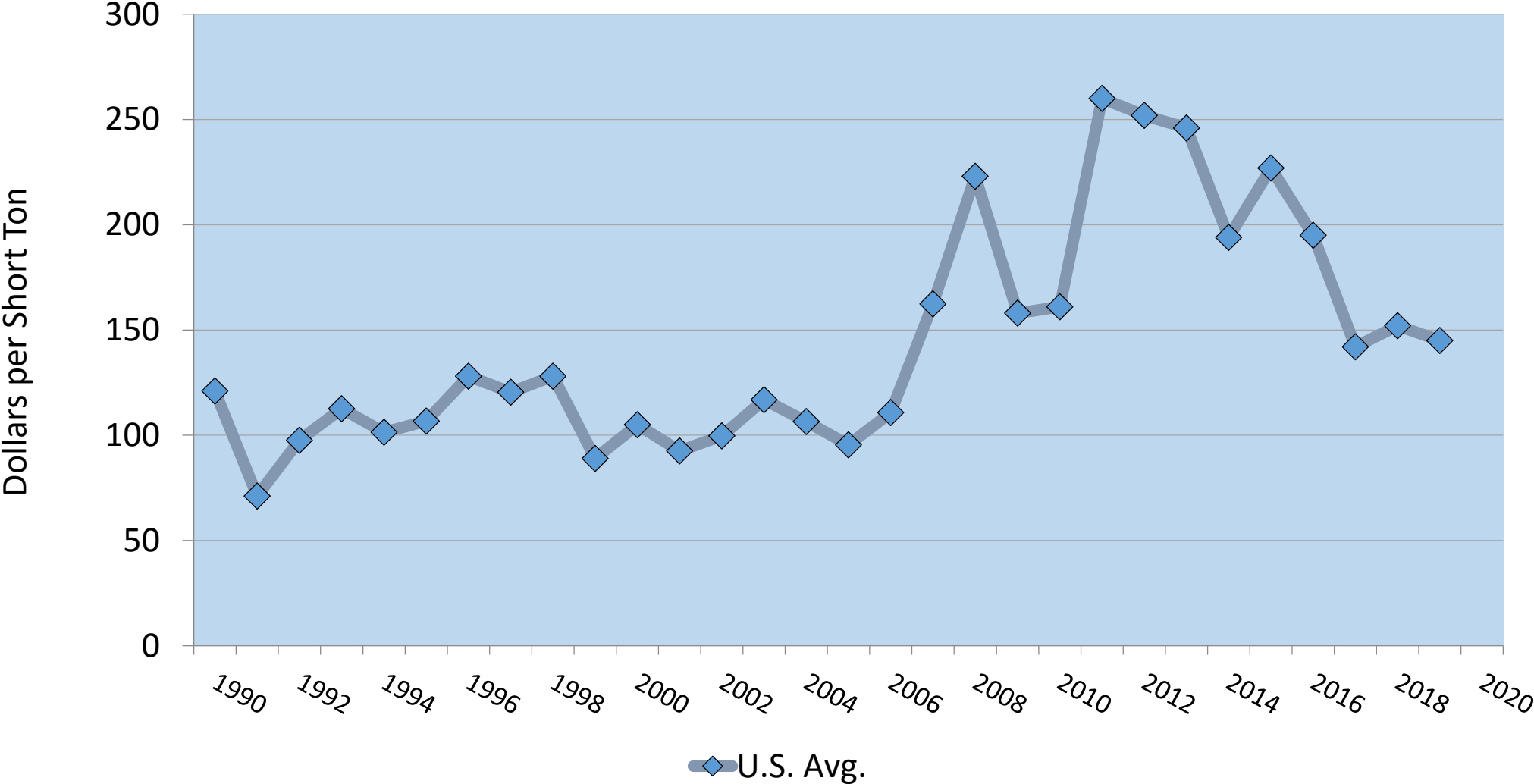
Source: USDA & Cotton Incorporated

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



Source: USDA

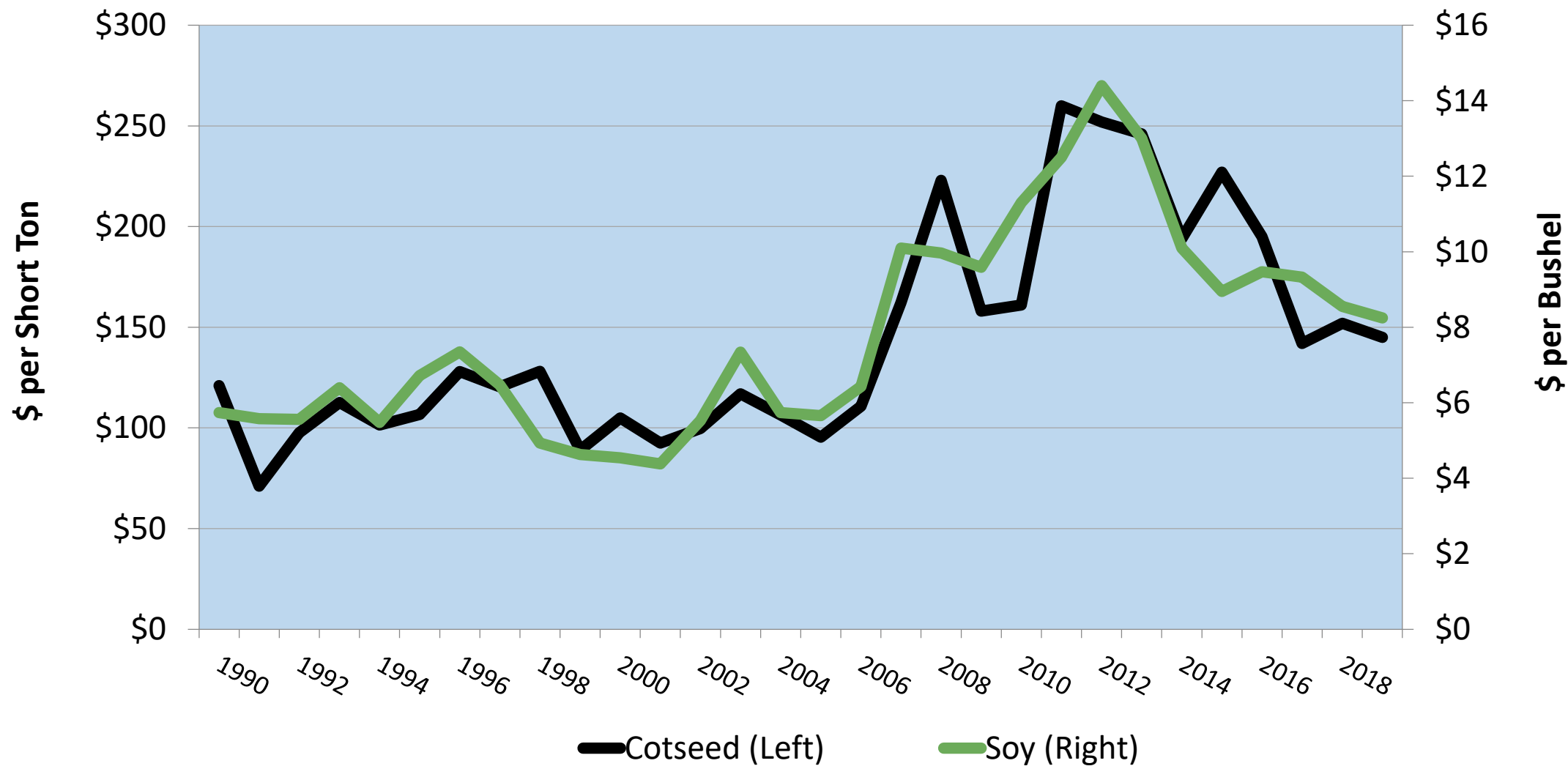
Cottonseed Prices



Source: USDA

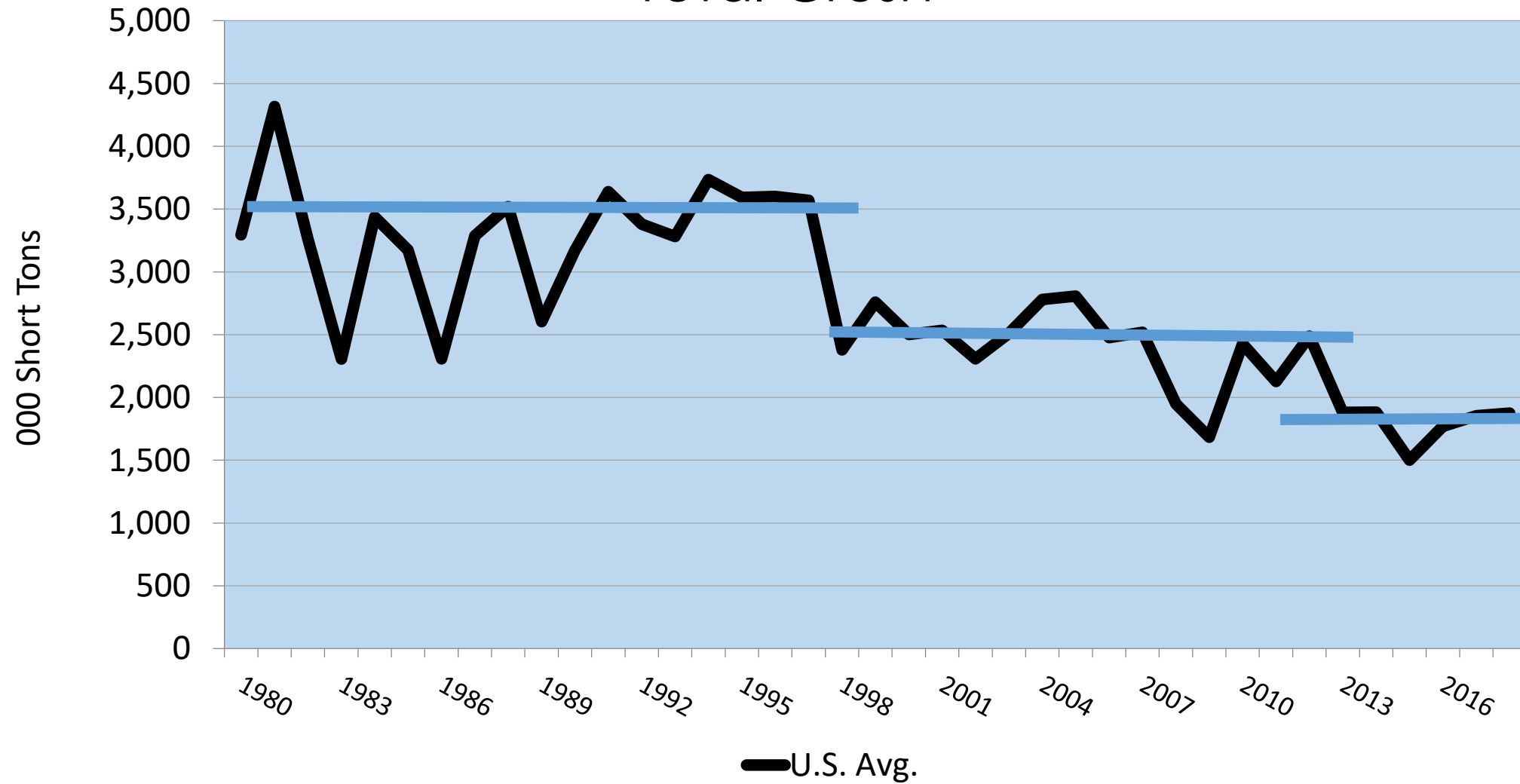


Cottonseed Prices vs. Soybean Price



Cottonseed

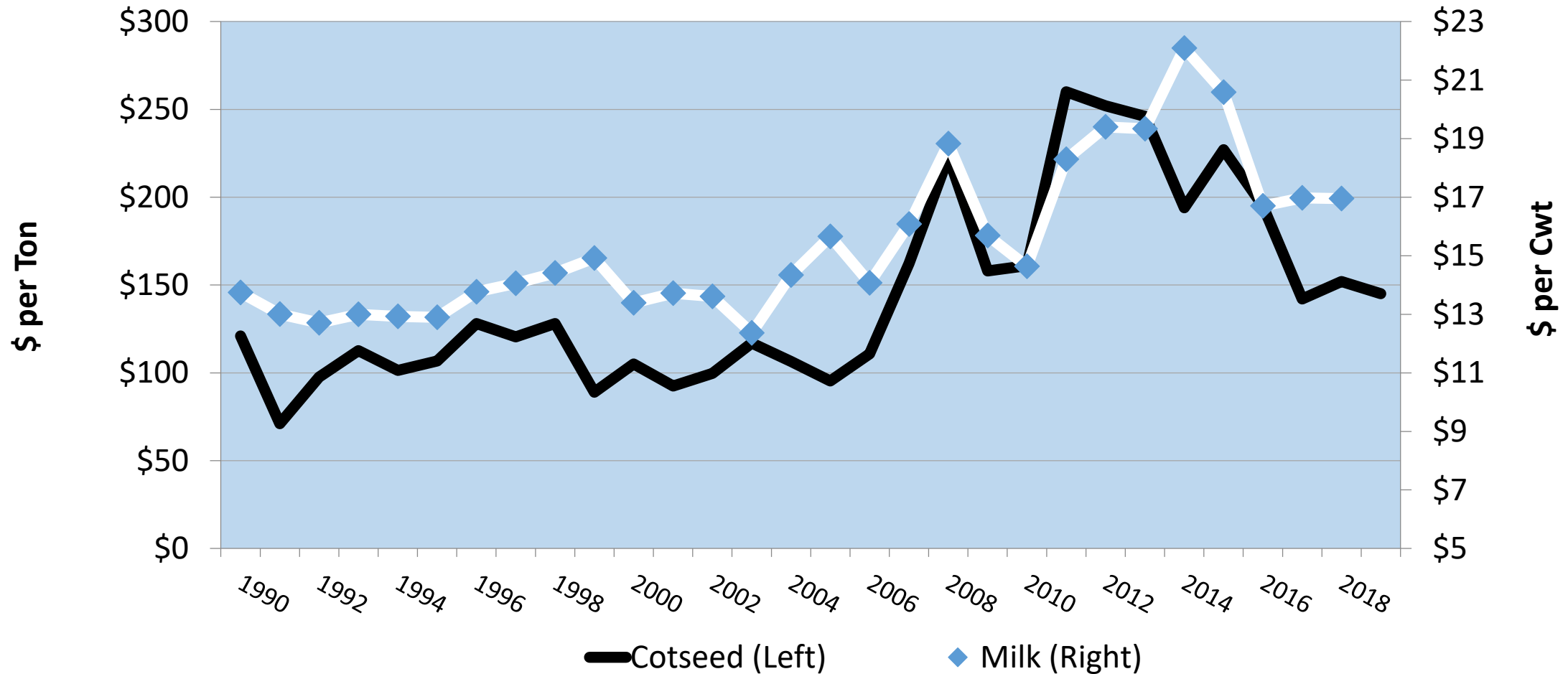
Total Crush



Source: USDA



Cottonseed Price vs. Milk Price

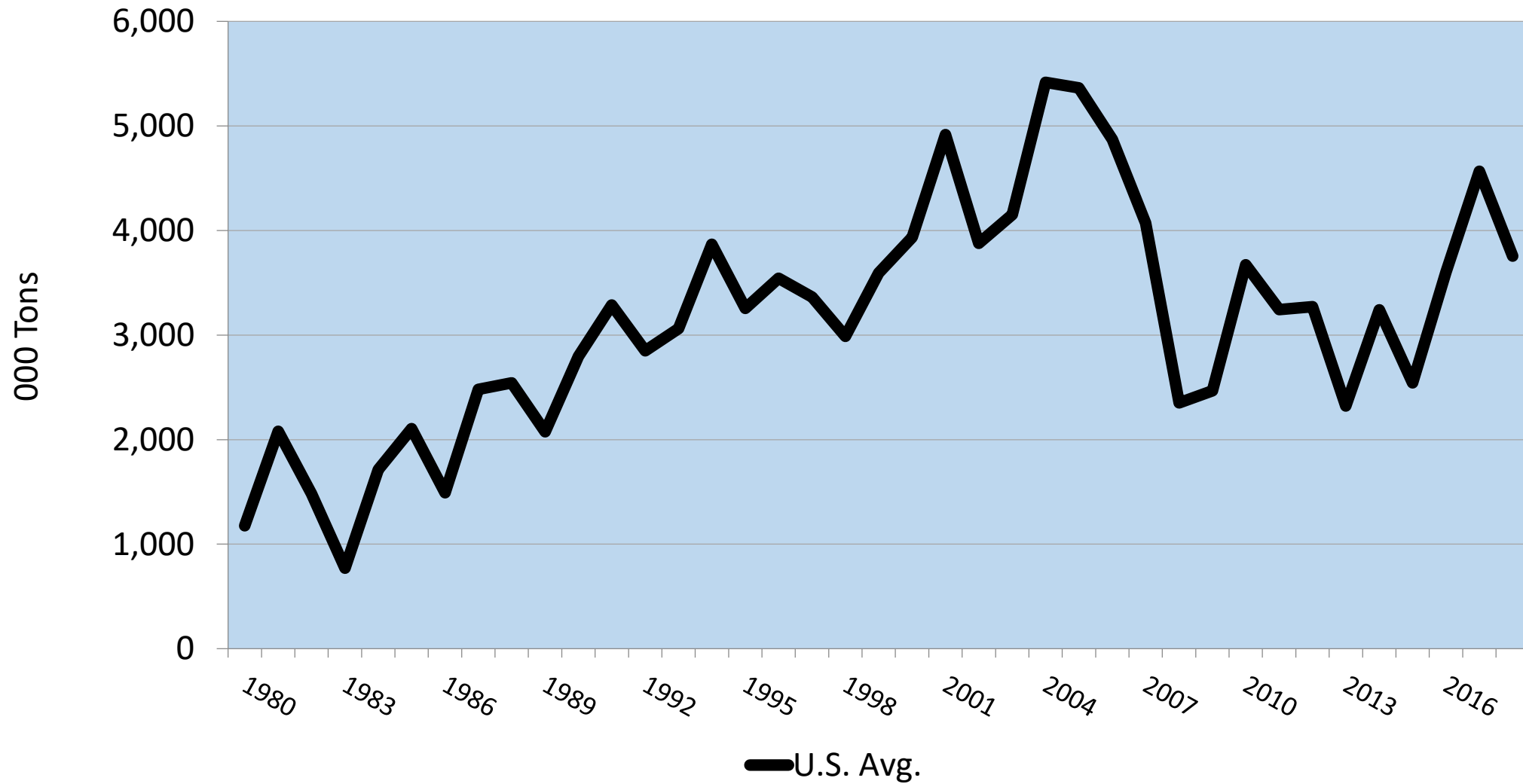


Source: USDA



Cottonseed

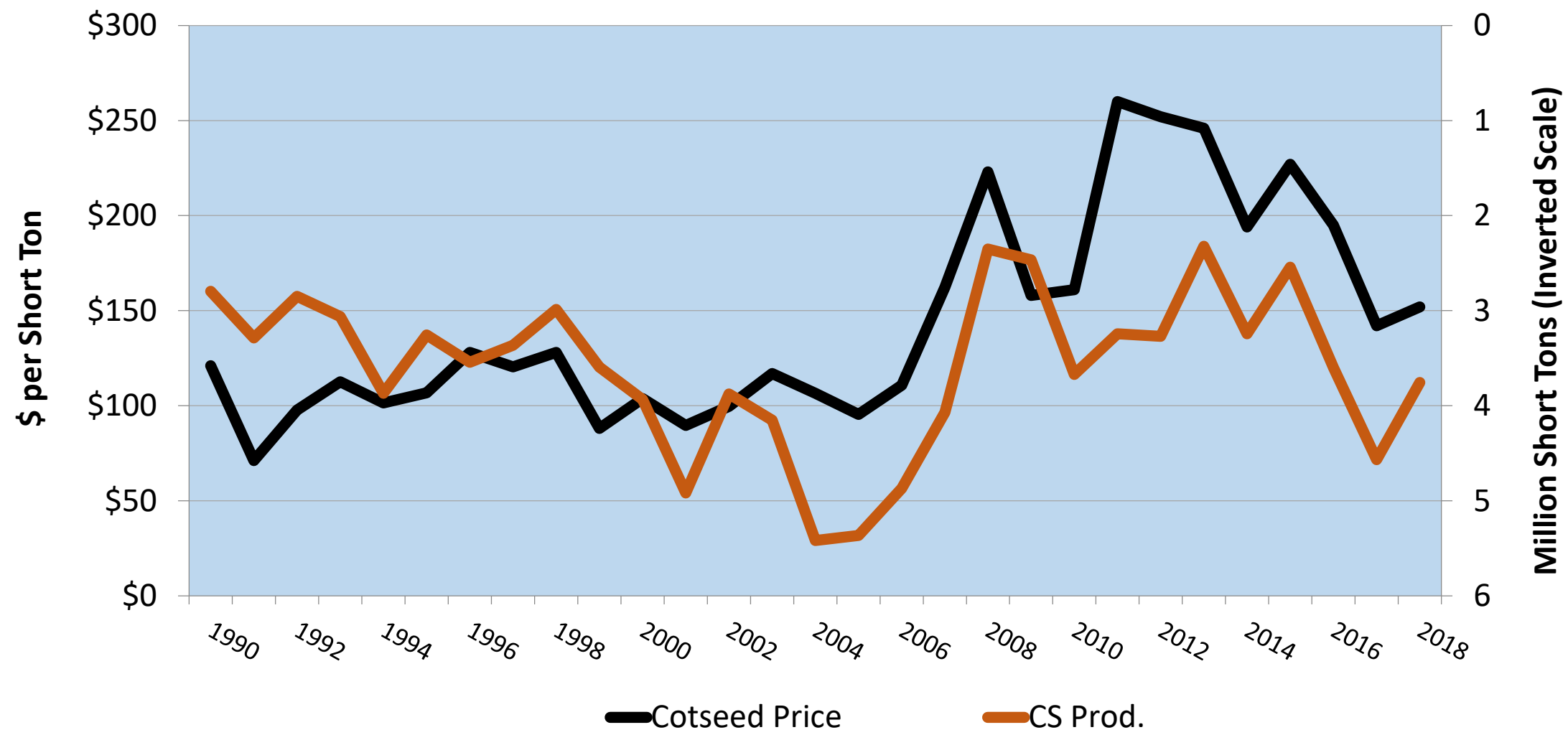
Total U.S. Production Less Crush



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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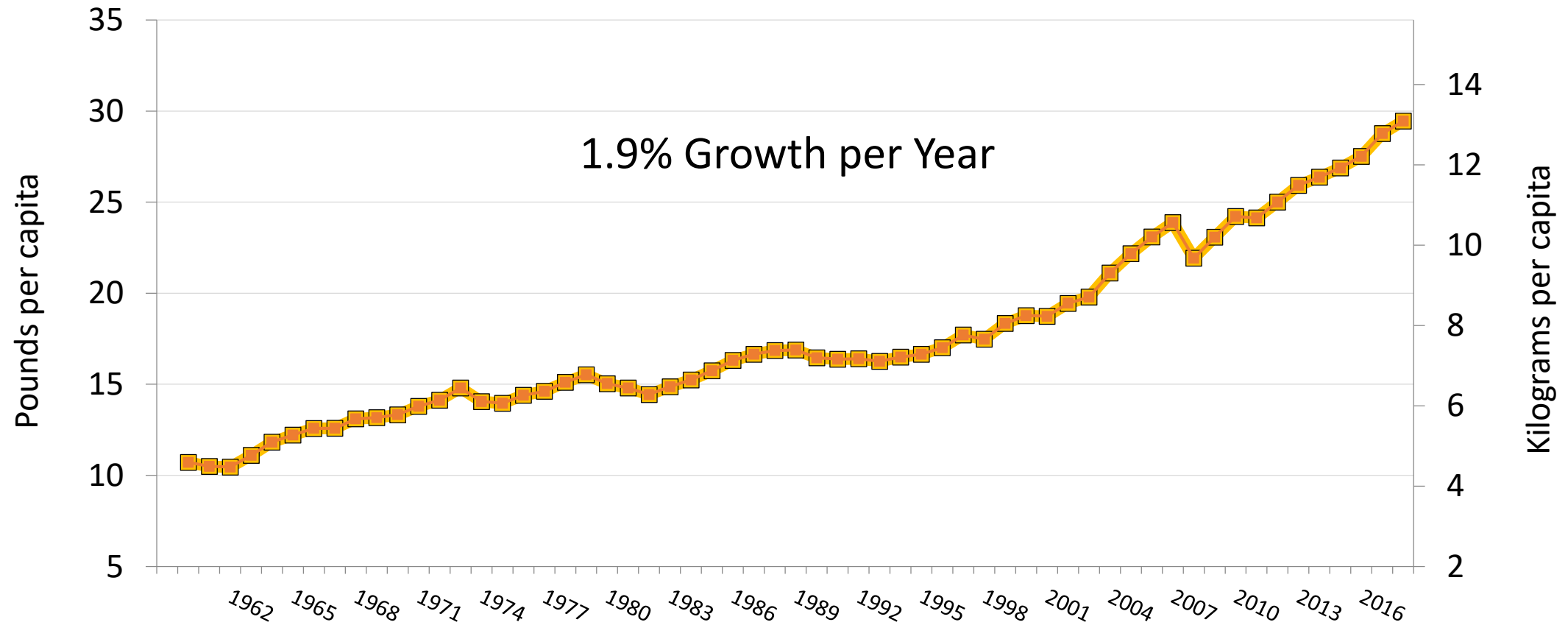
COTTONSEED OIL Setting the Gold Standard for Flavor Neutrality



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

