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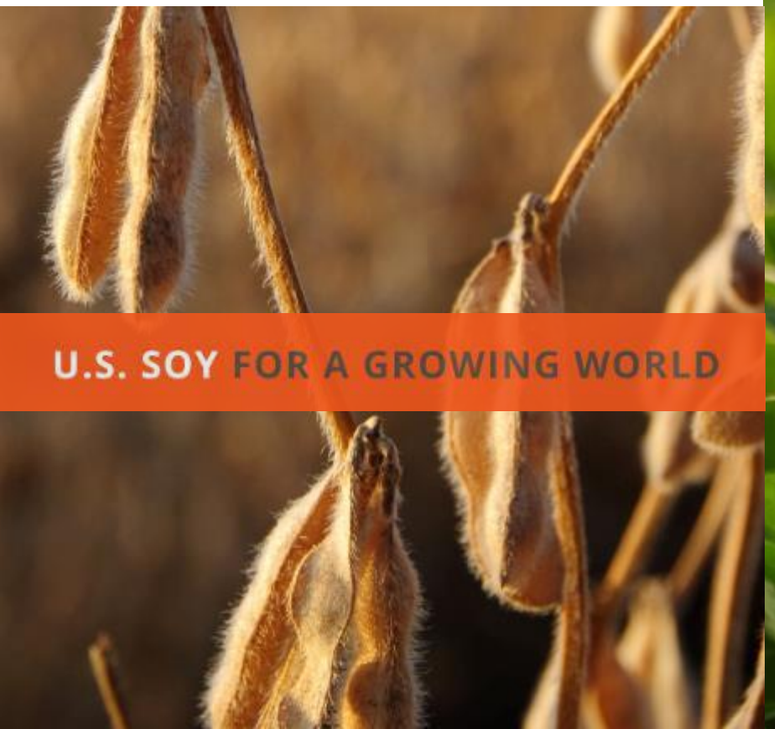
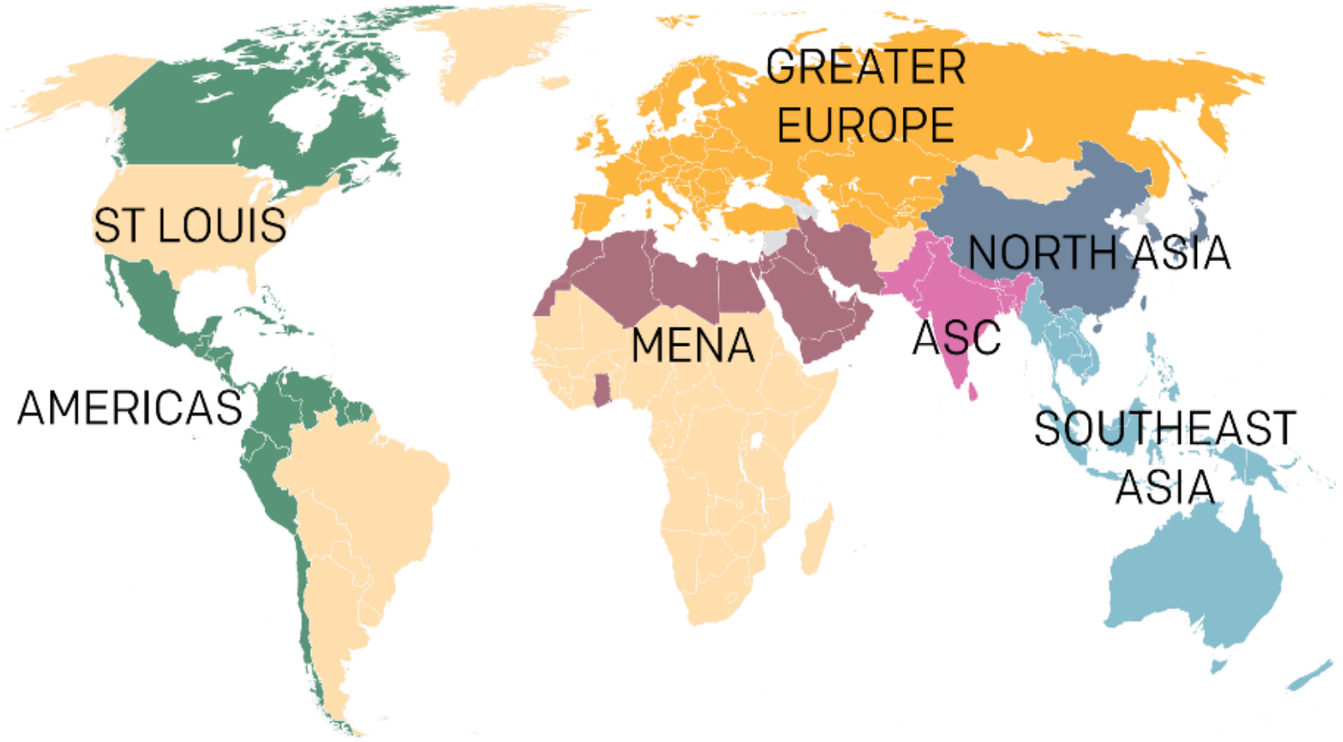


U.S. Soy: Partnership, Trade & Sustainability

Eugene Philhower
U.S. Soybean Export Council
Regional Representative, Northern Europe

U.S. Soybean Export Council

- Funded by the soybean farmers checkoff and U.S. Department of Agriculture – Foreign Agriculture Service (USDA-FAS)
- Operating in 70 countries with approximately 125 staff and contractors
- Non-profit trade association with 100 member companies
- Founded in 2005 building on 50 years on U.S. soy farmer international Investments thru American Soybean Association (ASA)



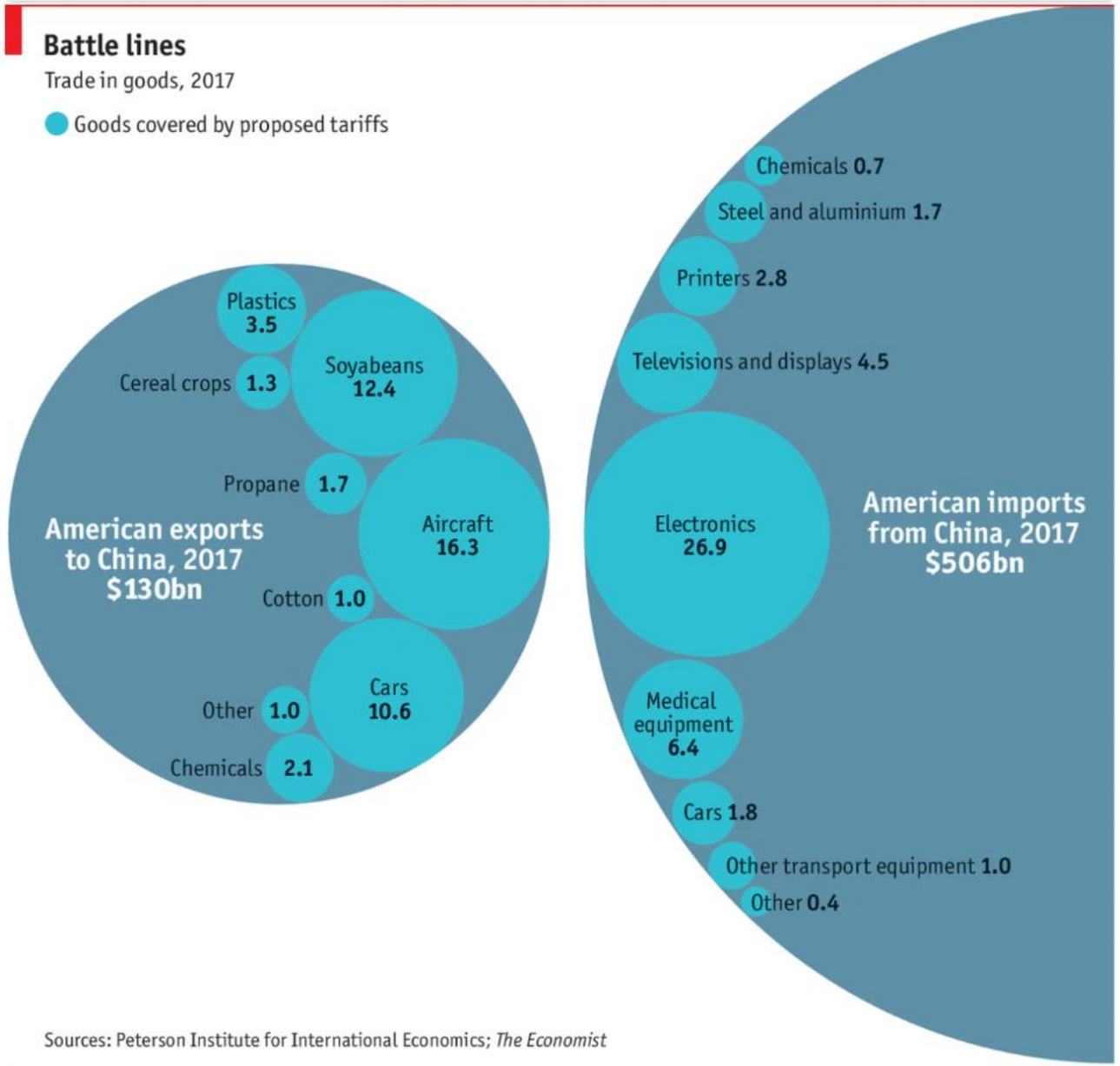
USSEC members

Trade Vital to U.S. Economy

- U.S. total exports of $2.3 trillion in 2017 (#3 globally)
  - 14% of total GDP
  - U.S. imported $2.9 trillion

- U.S. ag exports total $133 billion
  - Soy largest U.S. ag export at ~$25 billion
  - 120 million tons of soy, corn, wheat exported annually

- U.S. imports $121 billion in TVs and Mobile phones
- U.S. exports $138B oil/fuel, $131B aircraft, $130B vehicles
- 7 of top 15 U.S. trading partners in Europe

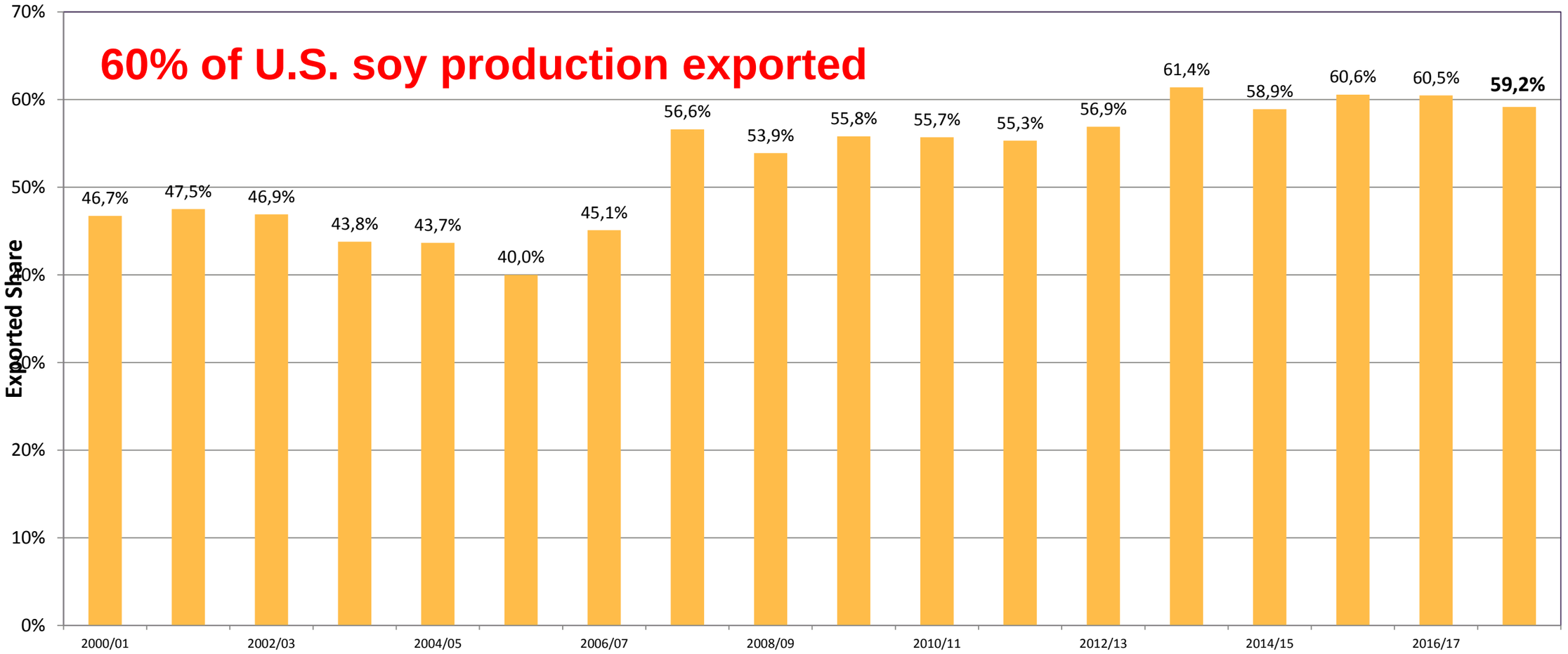


U.S. Soybean value To China = $12.4 billion

2nd largest U.S. export to China

Also, $2.3 billion in cotton and grains

Share U.S. Soybean Production Exported as Soybeans,Soymeal,Soyoil



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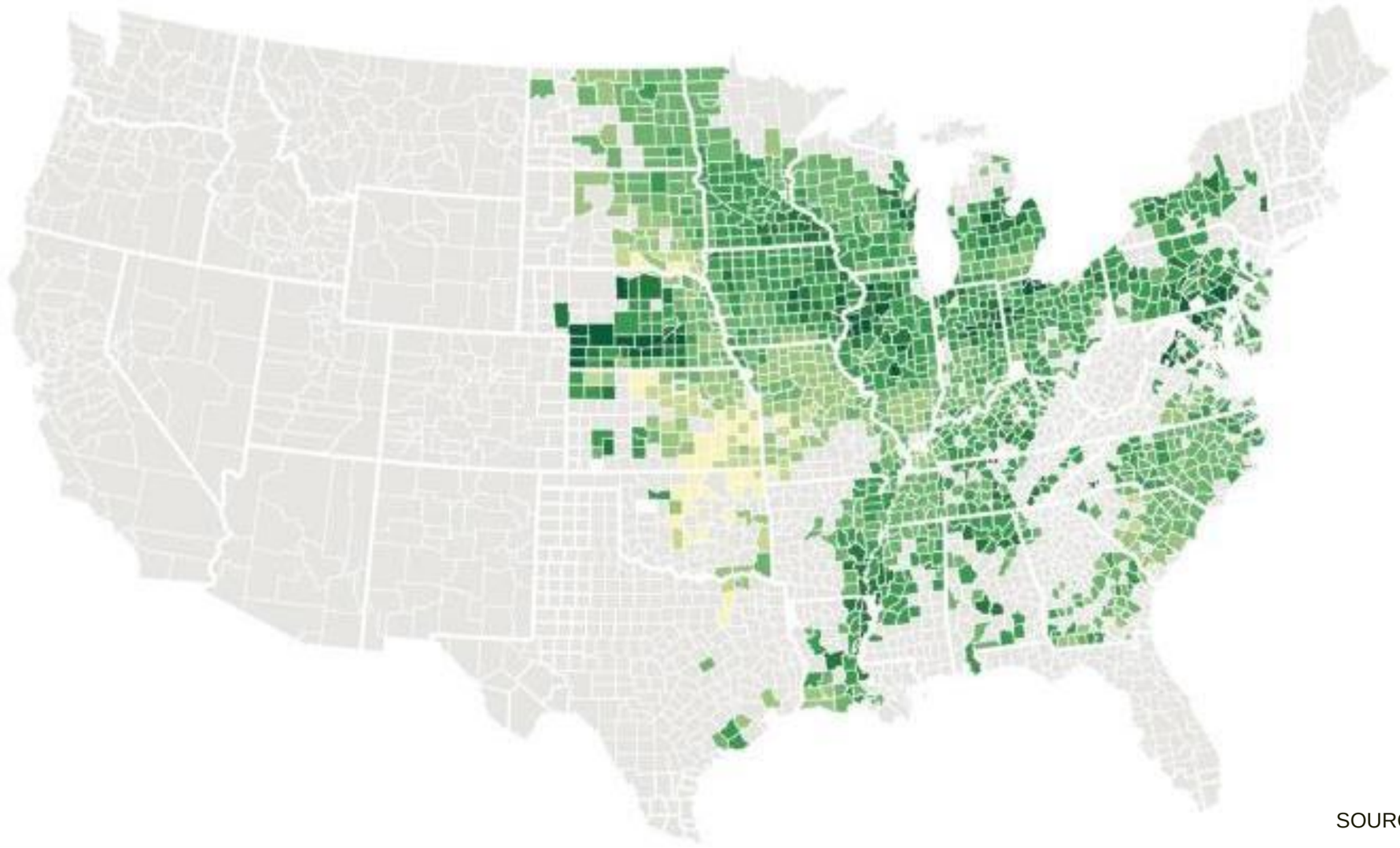
U.S. SOY FOR A GROWING WORLD

U.S. Soybean Farming



SOURCE: U.S. Census of Agriculture, USDA

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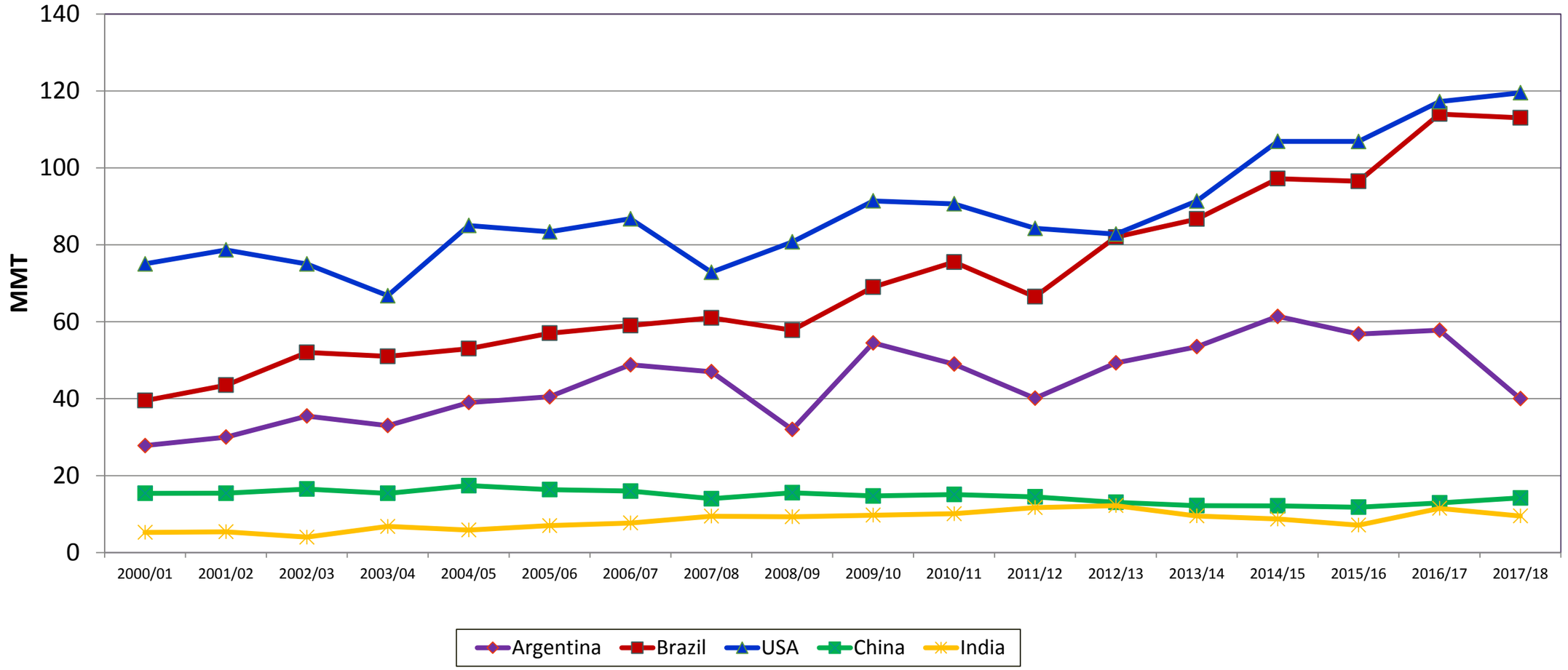
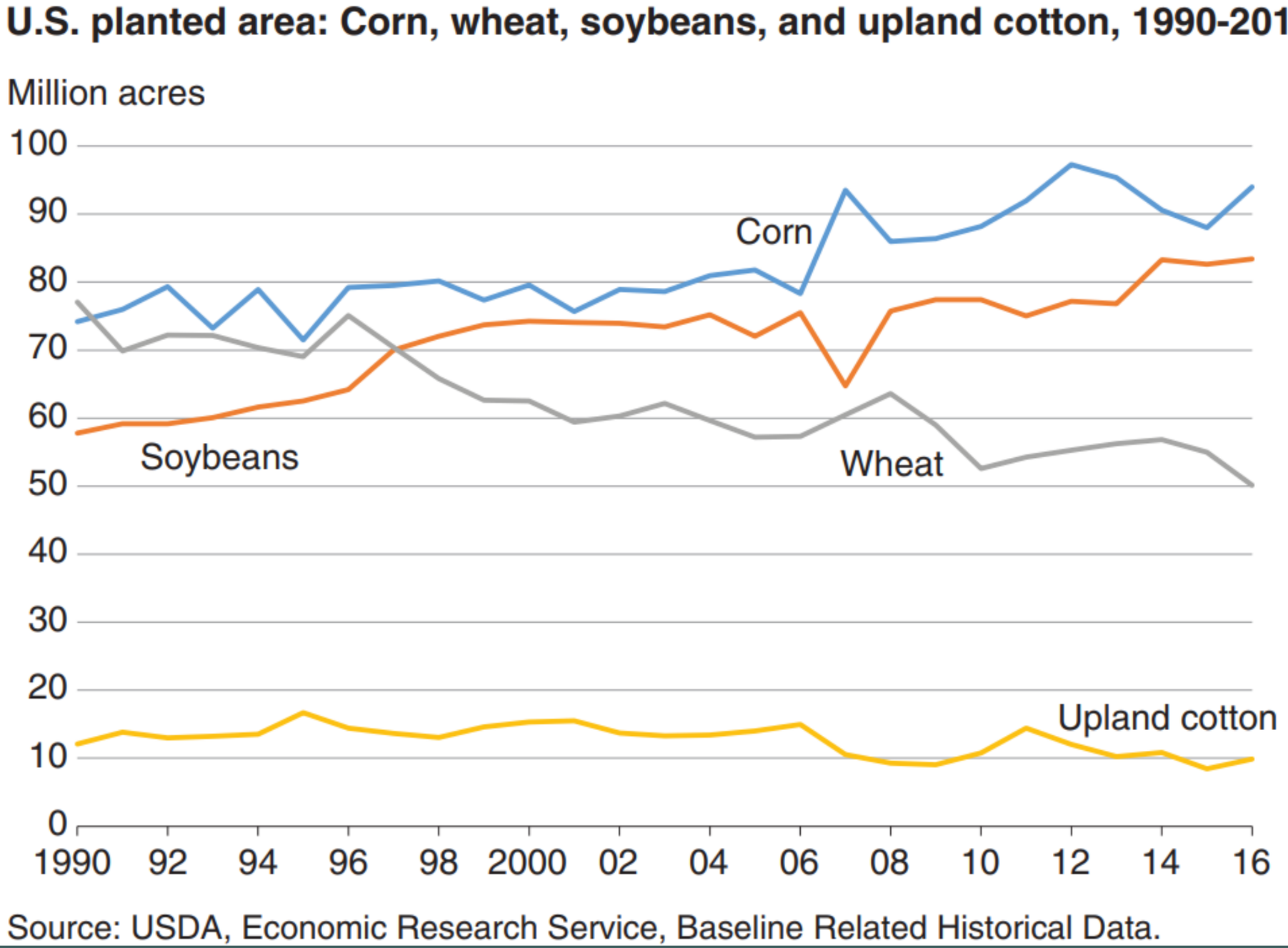
Grow soy on 34 million hectares of land

Soybean Production in U.S., Argentina, Brazil, China and India

2000/01 – 2016/17 and Forecast for 2017/18





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U.S. Wheat Plantings Lowest since 1919

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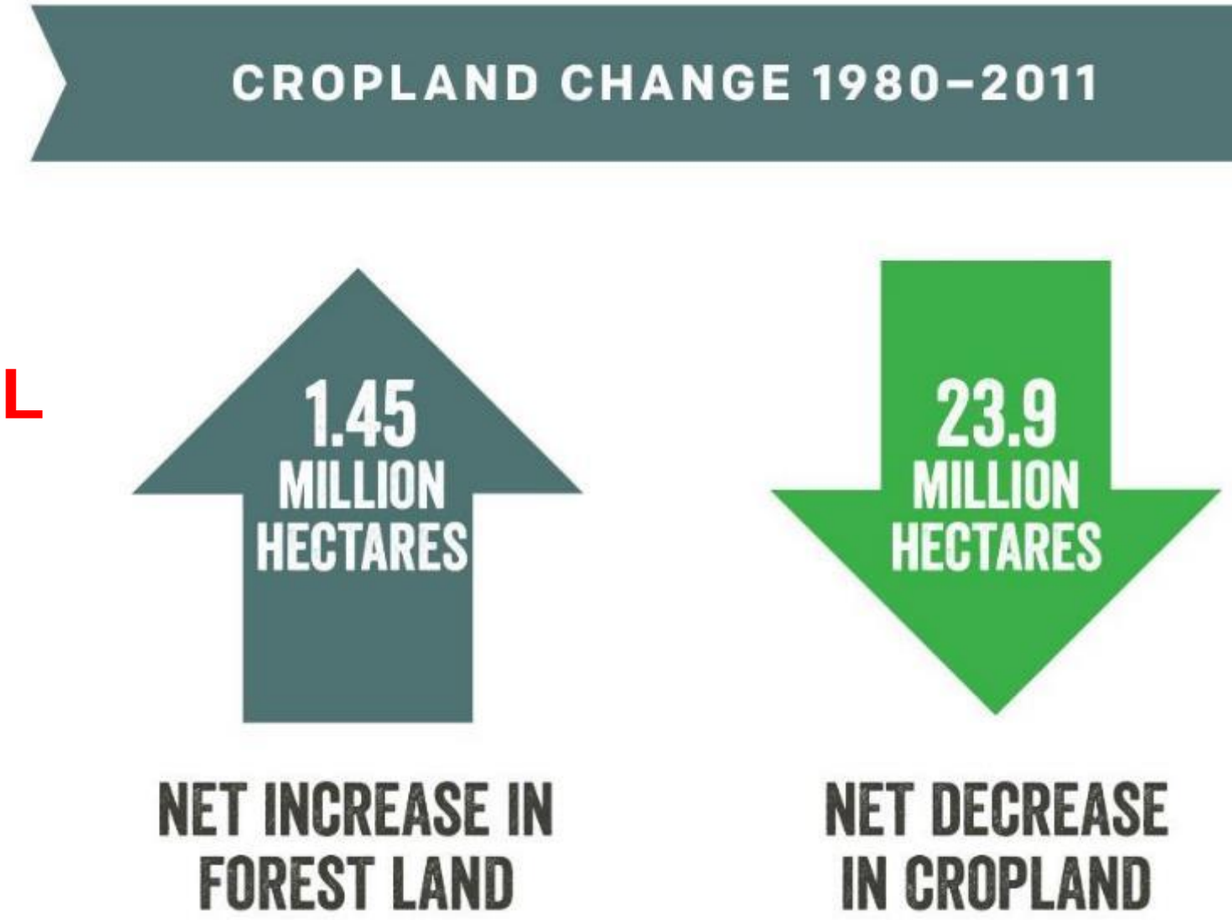
U.S. Cropland Decreased While Forest Land Increased

NON-TROPICAL SOY PRODCUTION



SOURCE: National Resource Inventory, USDA

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USA Forest - 1910 = 305 million hectares 2012 = 310 million hectares

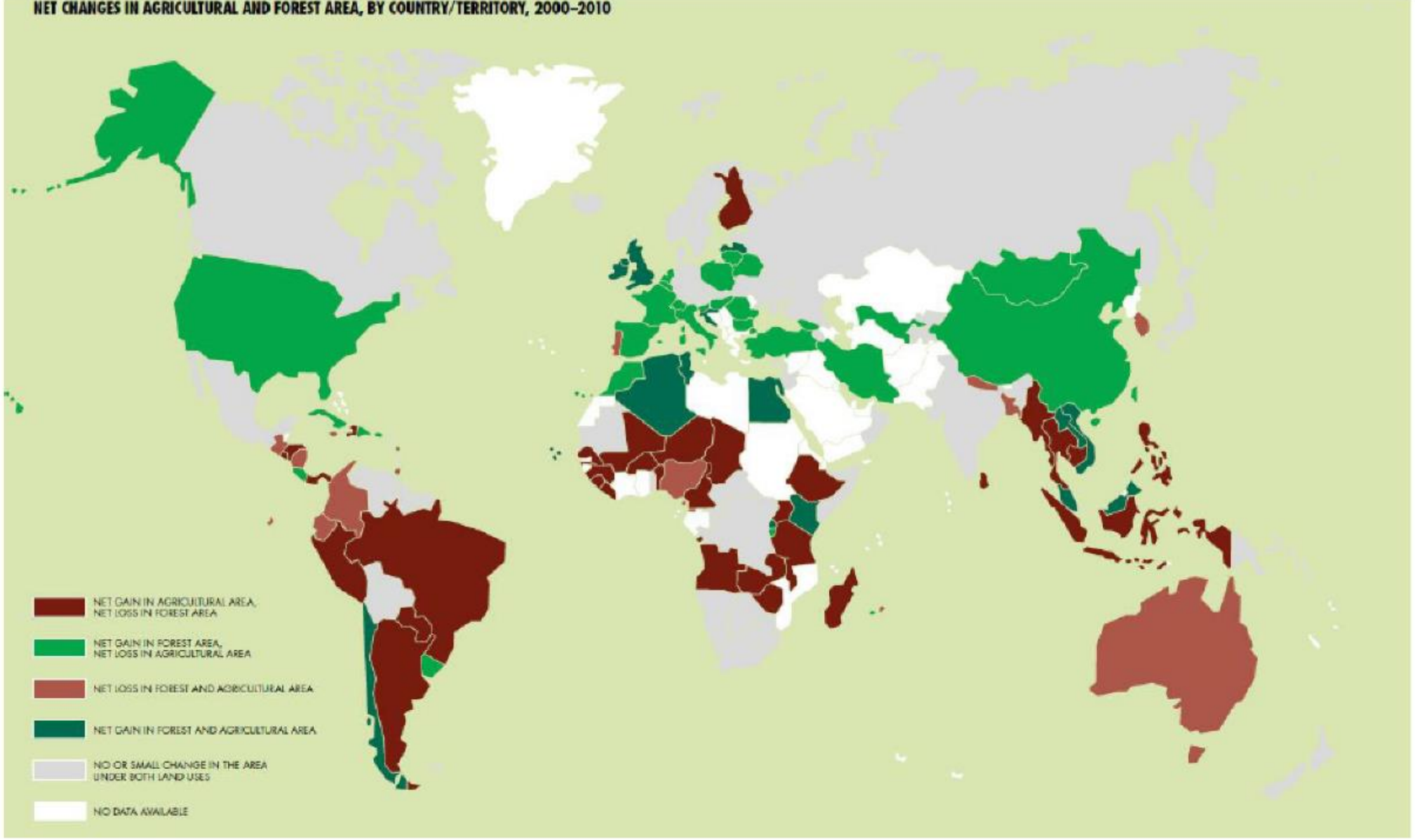

Figure 3-2: Net change in agricultural and forest area, by country. Source: FAO (2016).

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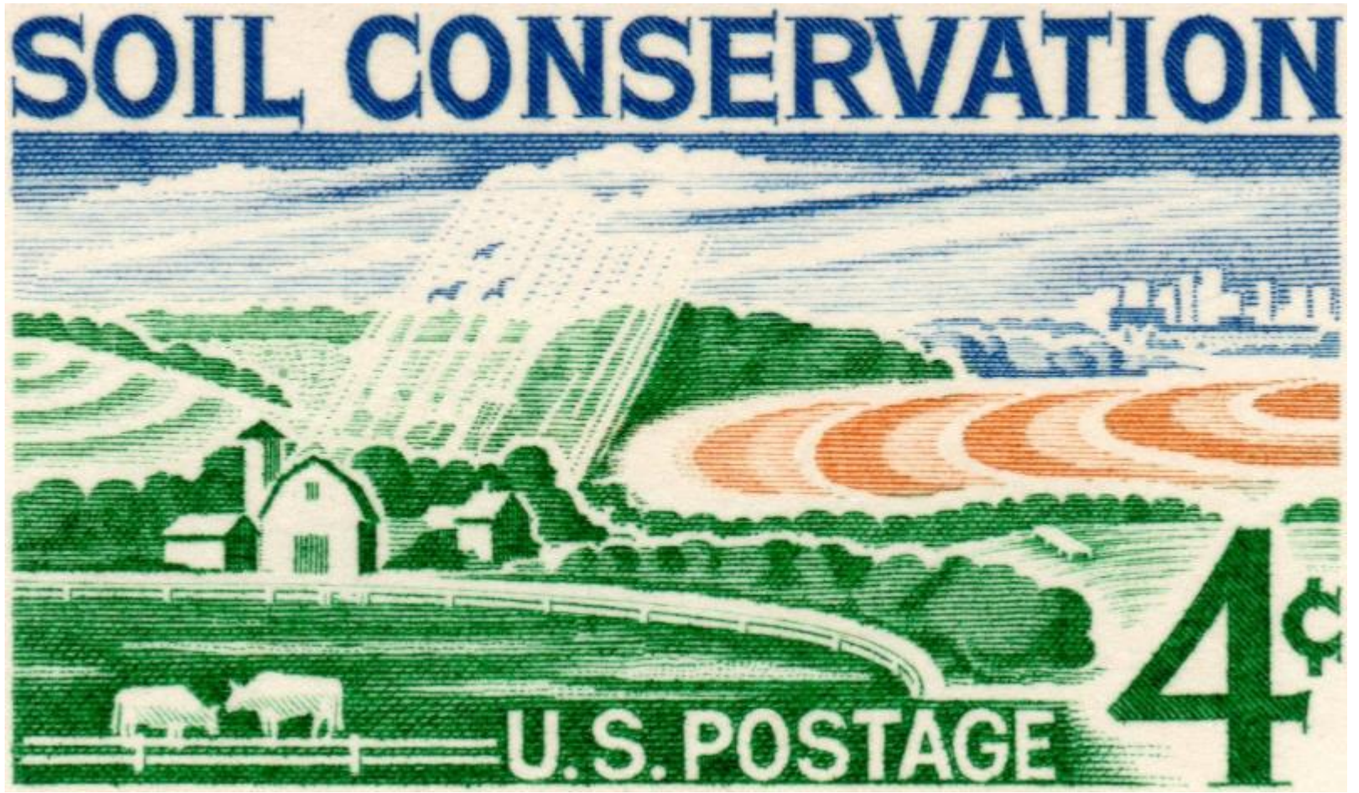
Wide Regional Variance in Impact on Forest by Agriculture

Ag Conservation Improvement for Over 80 years

USDA invests over $5.5 billion annually in conservation programs with over **12,000 employees** in conservation and compliance

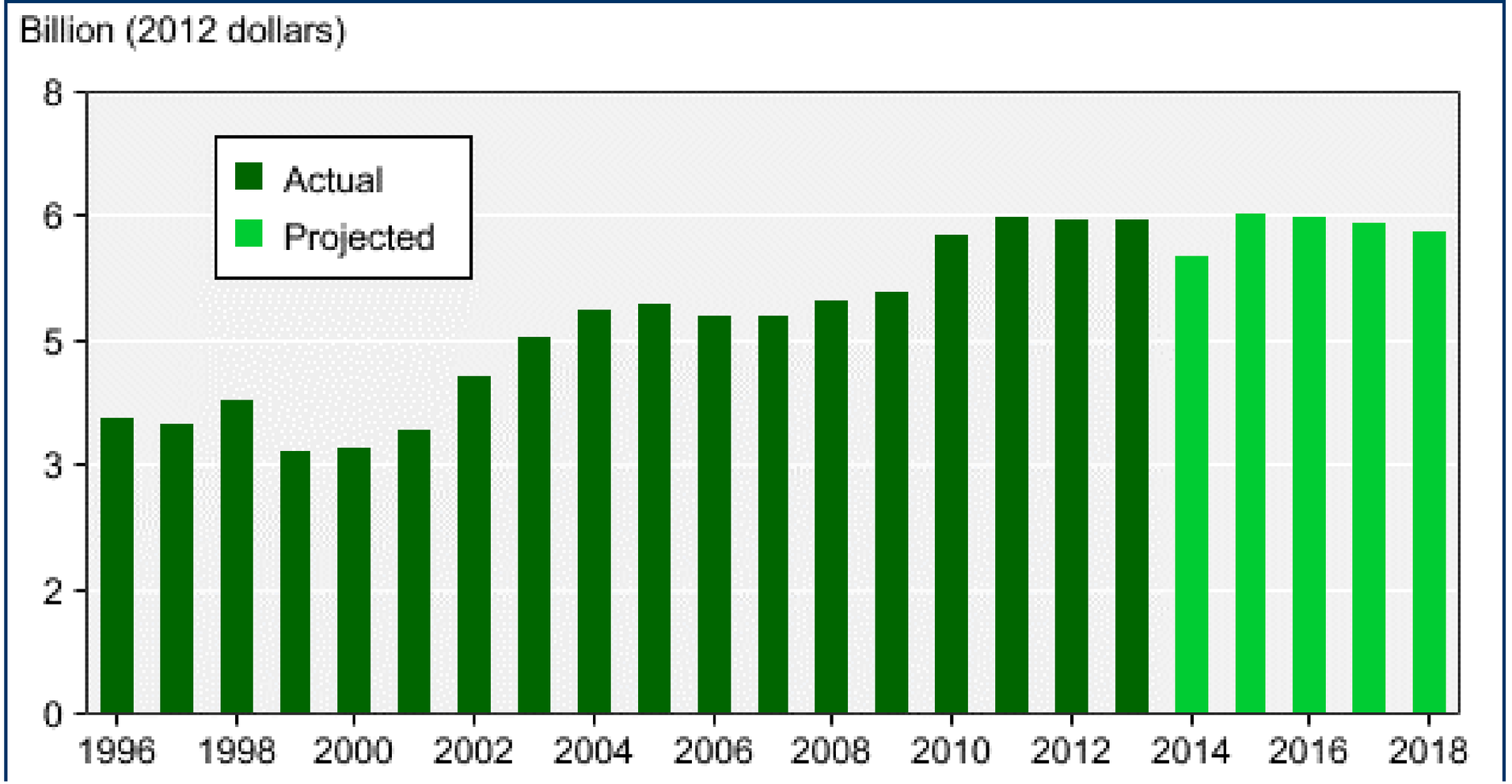
USDA has conservation offices in over 2,200 locations including almost every county in the U.S.

United States Department of Agriculture
NRCS
Natural Resources Conservation Service



1959 stamp highlights Contour plowing and cover crops

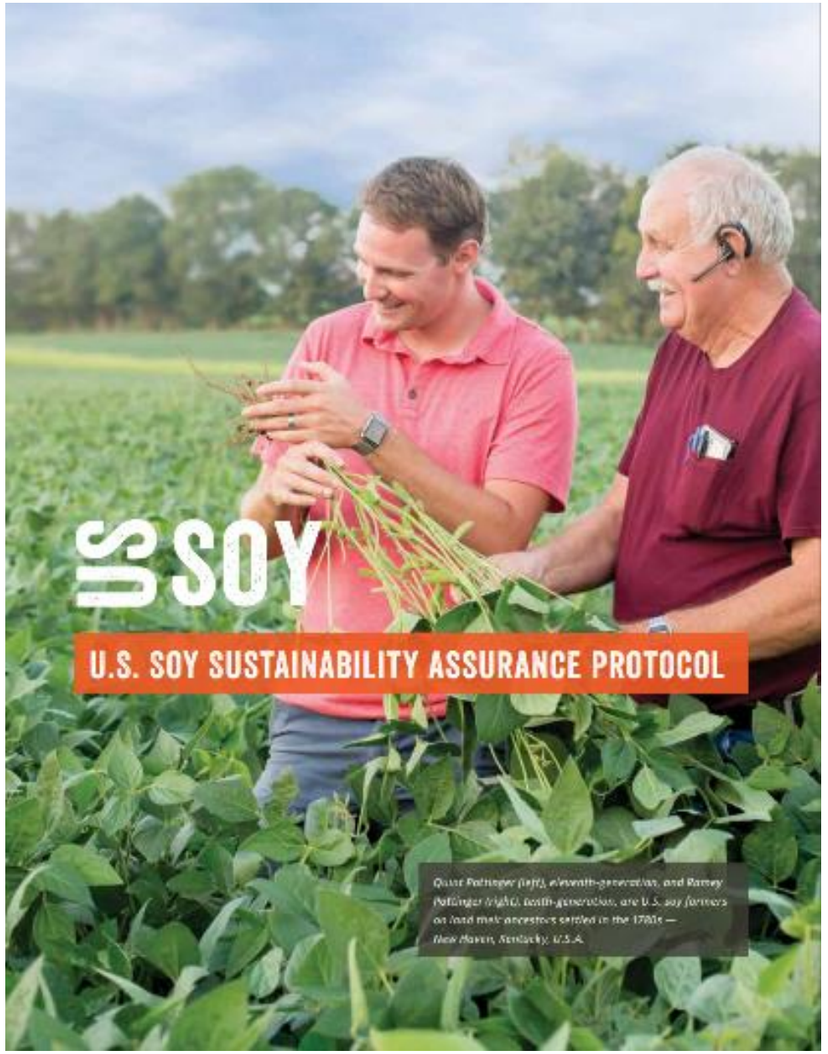
Annual spending for major USDA conservation programs, 1996-2018 1/



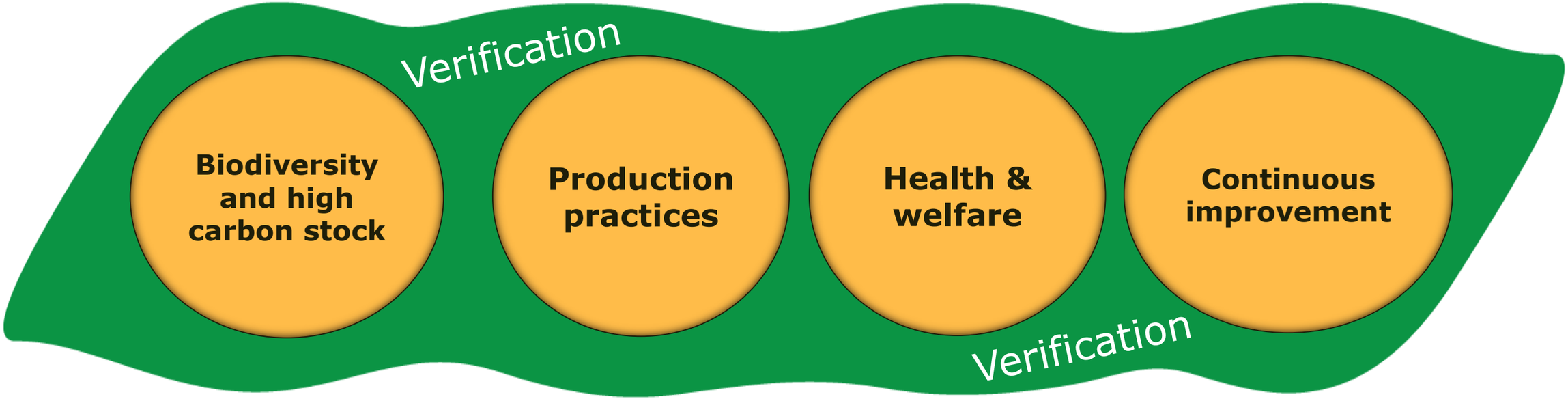
Nearly $6 Billion in annual USDA Conservation Programs

U.S. Soybean Sustainability Assurance Protocol (SSAP)

- Based on U.S. national system of conservation laws
- Participation determined annually
  - currently 95%+
- Quantifiable metric based results
- Third party audit
  ~ 20,000 annually
- Verified Sustainable
- Aggregate/mass balance approach



The four pillars of the SSAP



U.S. Soybean Sustainability Assurance Protocol (SSAP)

- Positive benchmark against the FEFAC Soy Sourcing Guidelines
- Meets Consumer Goods Forum soy guidelines
- Approved for use by Unilever (USA) in mayonnaise
- Approved by Global Aquaculture Alliance BAP
- Working with Aquaculture Stewardship Council
- Aquaculture program in China with Carrefour
- Member of Duralim (French Sustainability)
- Application for Renewable Energy Directive (RED)
- Field to Market coordinates additional production metrics

SSAP provided to the industry without cost


Continuous
Improvement

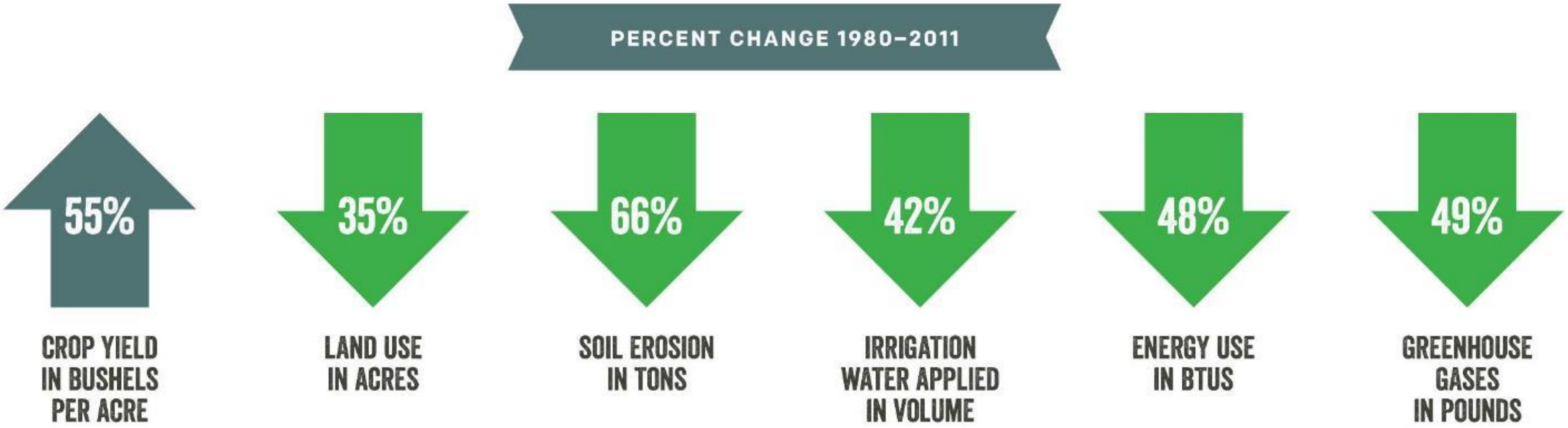
Conservation Examples

Cover crops

Take land out of production for federal payment

No-till with waterways

Reduction in resource impacts to produce soybeans



INDEX OF PER BUSHEL RESOURCE IMPACTS TO PRODUCE SOYBEANS, UNITED STATES, 1980-2011

SOURCE: National Indicators Report, FTM

U.S. soybean farmer sustainability goals by 2025

Key Performance Indicators	Unit of Measure	Total Potential Reduction
Land Use	Planted acres per bushel	10%
Soil Erosion	Tons per bushel	25%
Energy Use	BTUs per year	10%
GHG Emissions	Pounds CO2e per year	10%

U.S. SOY CONTINUOUS IMPROVEMENT STRATEGY

1. Define	A. Define Sustainability for the enterprise B. Define Key Performance Indicators C. Select metrics for KPIs
2. Measure	A. Benchmark KPI metrics B. Set goals for each KPI C. Develop strategy to meet goals
3. Implement	A. Implement the strategy B. Measure, Assess and report results C. Adapt strategy to improve outcomes

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SUSTAINABLE DEVELOPMENT GOALS

U.S. SOY FOR A GROWING WORLD

U.S. soy conservation speaks the language of global conservation

GHG reduction, biodiversity, forest, labor

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INNOVATION

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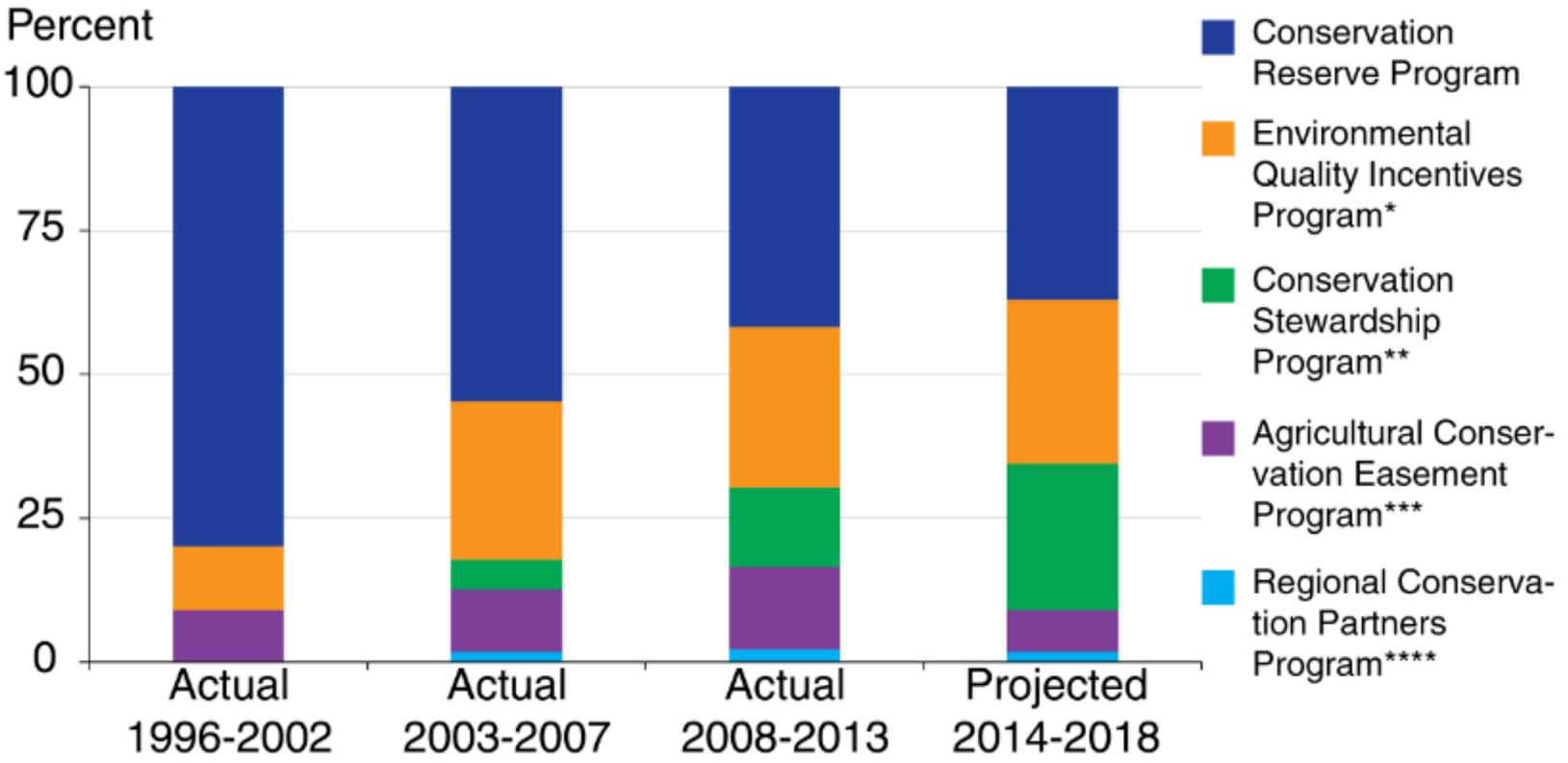
Share of conservation spending by major programs and predecessors in the 2014 and previous farm acts



USDA NRCS

United States Department of Agriculture
Natural Resources Conservation Service

Resource Stewardship Evaluation

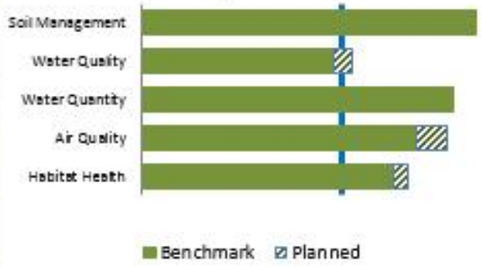
Operation: Brown **State:** Delaware **Date:** 9/11/2015

Operator: **County:** Kent County **Site ID:** Field 3

Assessor: Lauster **Land Use:** Cropland **Farm #**

Tract #

Cropland Stewardship Objectives

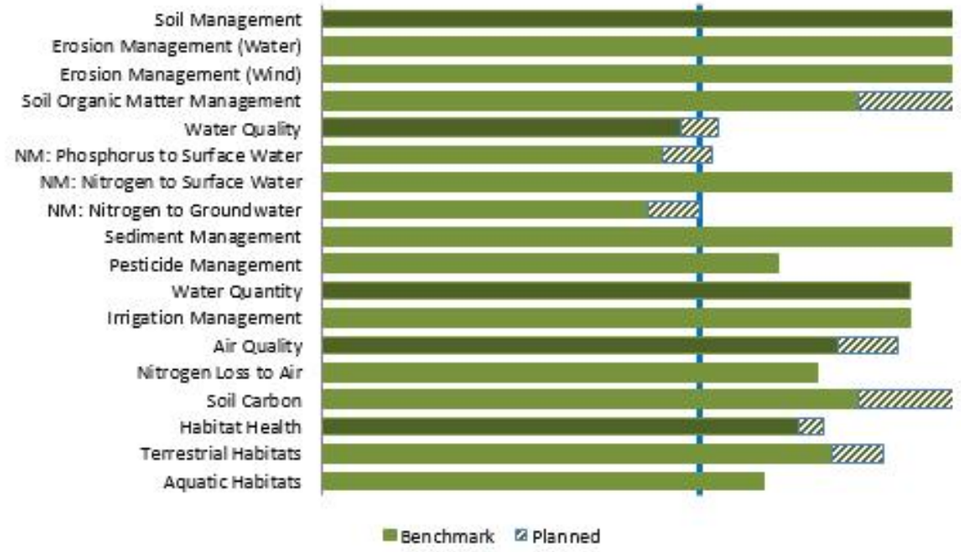


USDA NRCS

United States Department of Agriculture
Natural Resources Conservation Service

Resource Stewardship Evaluation

Cropland Stewardship Achievement



Conservation Practices and Management Techniques

Benchmark	Planned
Residue and Tillage Management, No-Till Crop residue (328) >=1 and < 2 Crop Residue Nutrient Application Rate - Adjust based on Pre-sidedress Nitrogen Test (PSNT) or Late Spring Soil Nitrate Test Nutrient Application Rate - Adjust based on	Residue and Tillage Management, No-Till Crop residue (328) >=1 and < 2 Crop Residue Nutrient Application Rate - Adjust based on Pre-sidedress Nitrogen Test (PSNT) or Late Spring Soil Nitrate Test Nutrient Application Rate - Adjust based on Cover Crop - Mid Season Establishment

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Farm, Watershed & National Levels Focus

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- Precision farming (GPS technology) can be accurate to the centimeter
- Reduces use of inputs
  - Seeds
  - Fertilizer
  - Herbicides
  - Pesticides

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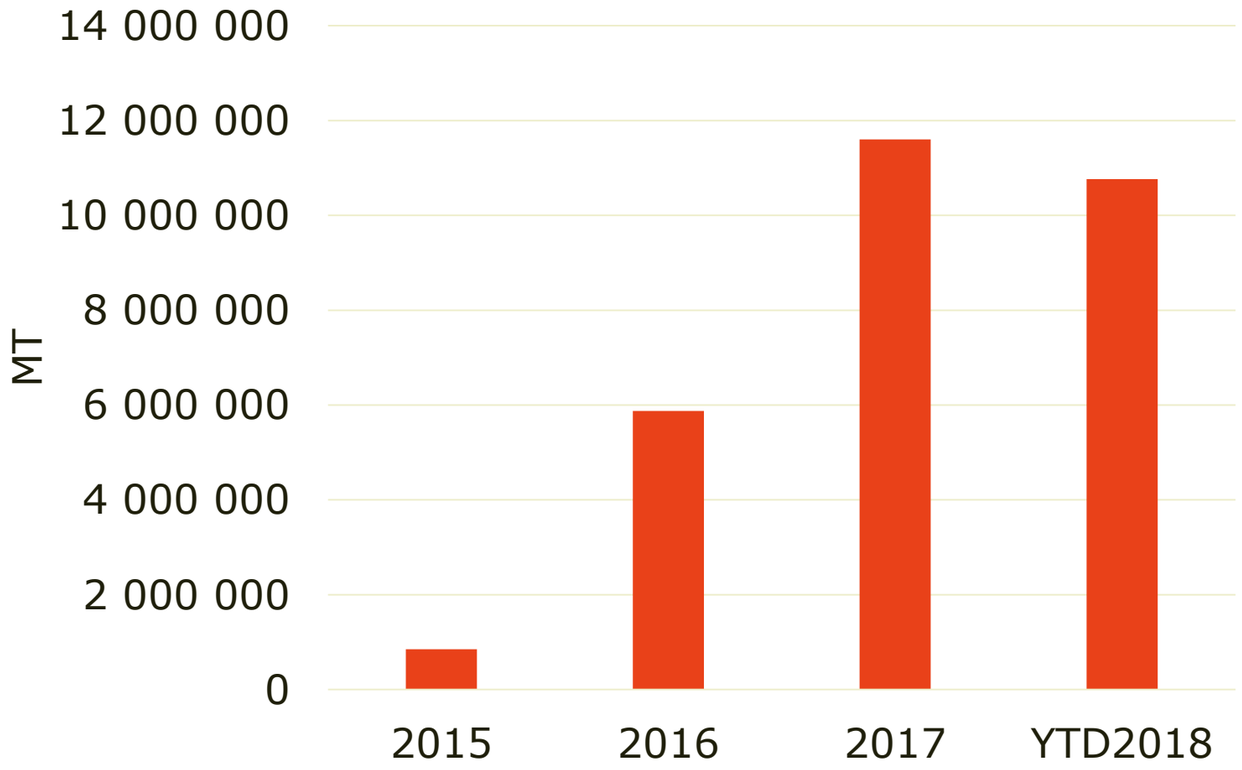
Biotechnology enhances sustainability

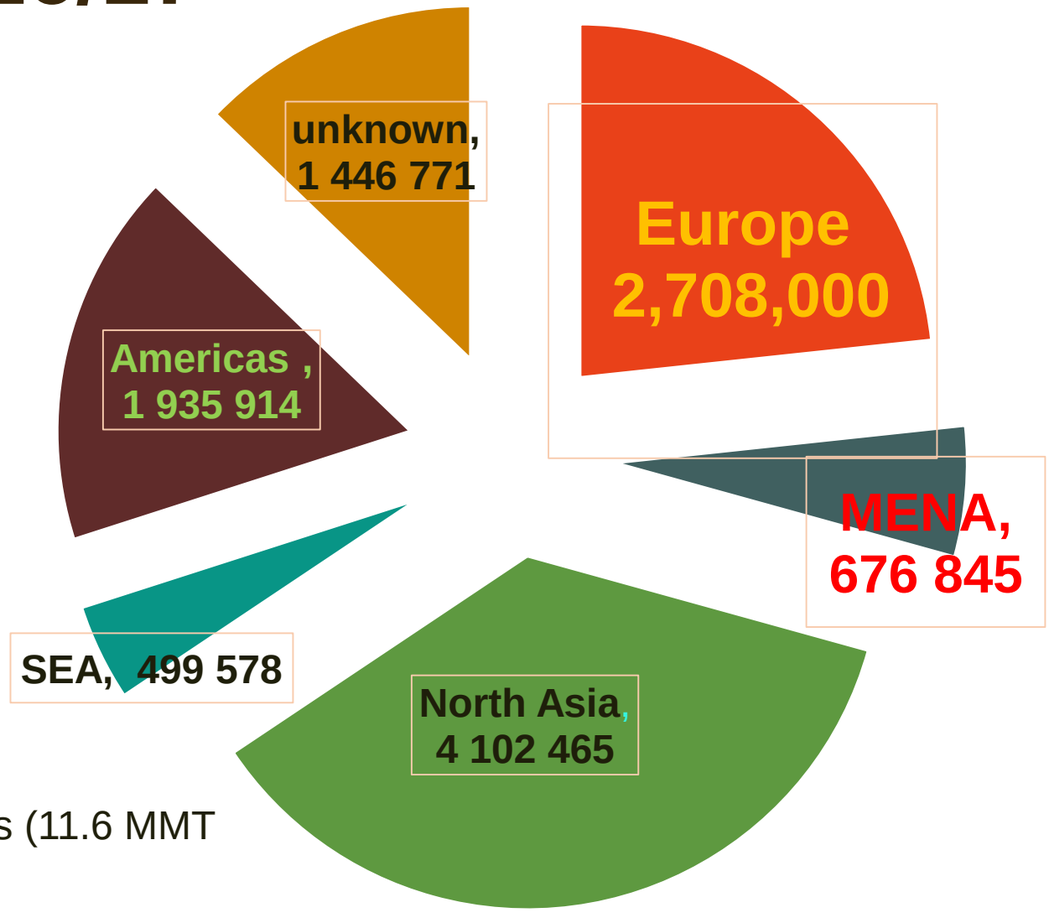
- Biotech soybeans improve weed control
- Allows increased use of no-till and direct drilling into crop stubble
- Crop residue creates a mulch layer for earthworm populations and soil microbes and improves soil structure
- Reduce fuel use and GHG emissions
- Reduce soil erosion

Verified-sustainable SSAP Gaining Momentum

- Over 28 Million tons verified in 3 years
- Over 50 U.S. soy exporters requesting SSAP Certificates
- Includes soybeans, meal, oil, hulls, isolates



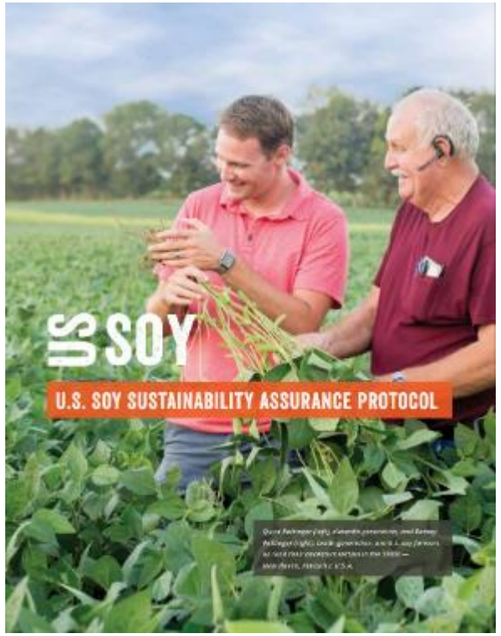
SSAP CERTIFICATES MY 2016/17



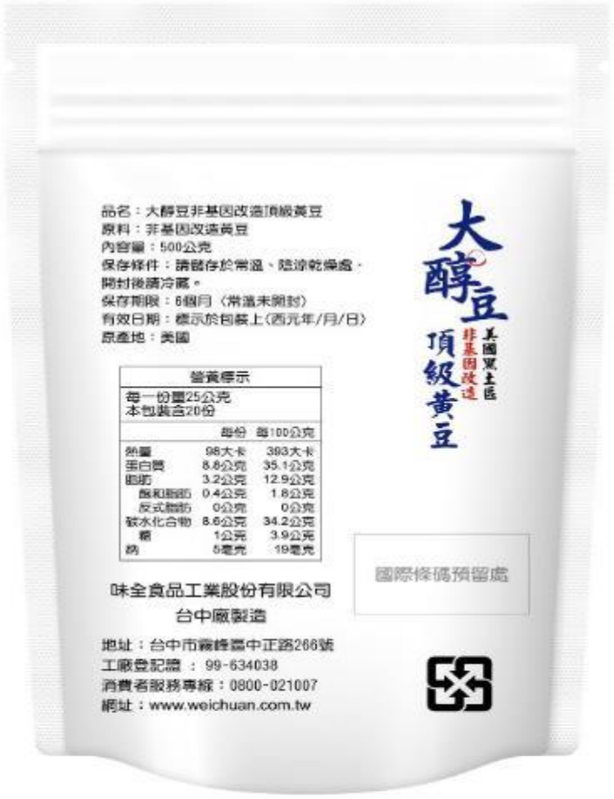
SSAP Certificates (11.6 MMT total)

- **45% of U.S. exports to region under SSAP**
- **Europe 2.7 MMT of SSAP**
- **MENA – 676,000 MT of SSAP**
- SSAP = 16% of U.S. soy exports
- SSAP = 5% of total exported soy globally
- RTRS ~ 3MMT (cost ~$2 ton)

Over 2,200 shipments totaling **10.7 million tons** of SSAP certified U.S. soy this year



Sustainable U.S. Soy Logo



Pilot program being rolled out in North Asia (Taiwan, Korea, Japan, China) and in the Philippines.

SUSTAINABLE U.S. SOY™

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