

# U.S. Sustainable Agriculture

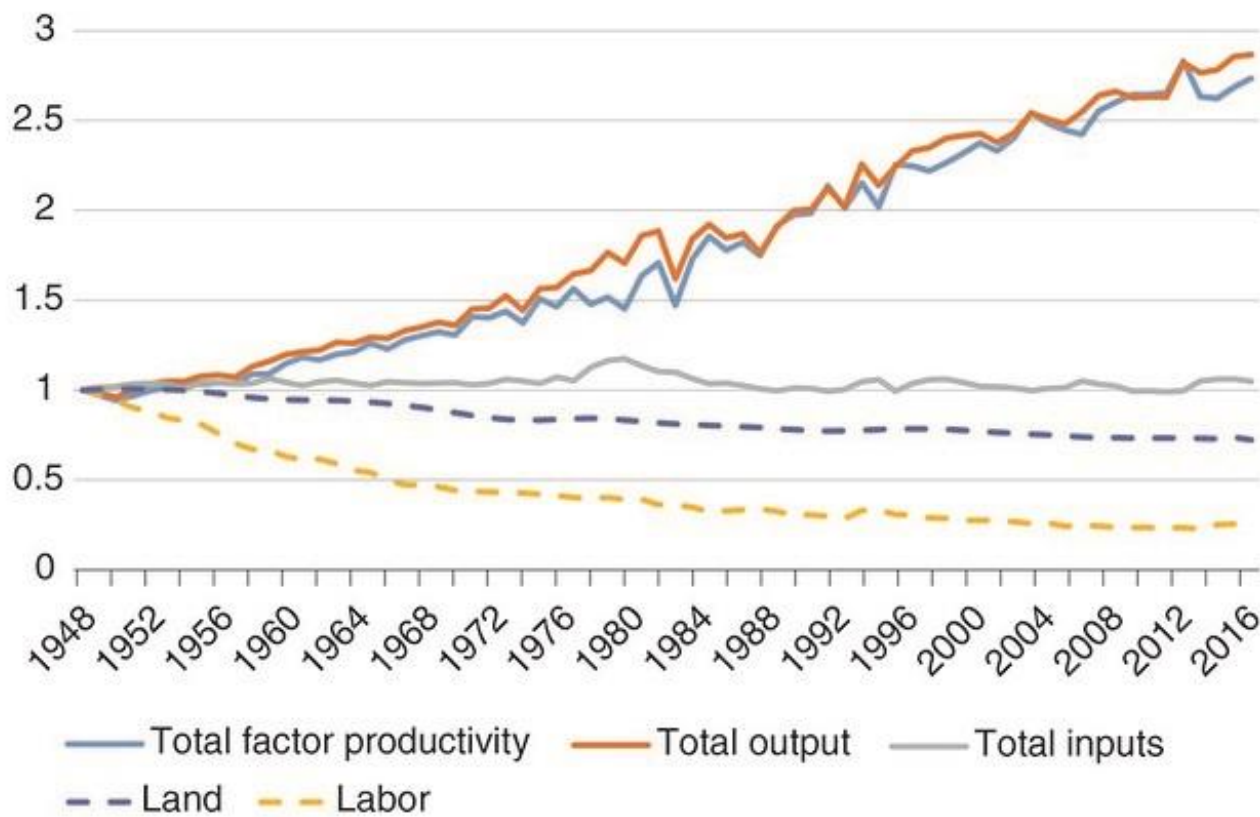
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Trade and Foreign Agricultural Affairs  
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### U.S. total factor productivity growth: 1948-2017

Index, 1948 = 1



Source: USDA, Economic Research Service using data compiled from the National Productivity data series, 1948-2017.

# Partnerships for Climate-Smart Commodities



U.S. DEPARTMENT OF AGRICULTURE

## PARTNERSHIPS FOR **CLIMATE-SMART** COMMODITIES

The U.S. Department of Agriculture is investing over **\$3.1 billion** in **141 selected** Partnerships for Climate-Smart Commodities projects.



Adoption of climate smart practices allows farmers access to new markets for climate smart commodities. By providing support for climate smart practice implementation, USDA can help farmers absorb risk associated with practices that often have high up front cost.



Marketing and promotion activities that will build and expand markets for the commodities being produced using climate-smart practices with premiums going to producers.



Greenhouse Gas Measurement, Monitoring, Reporting and Verification (MMRV) is critical to build consumer trust and build markets. Projects will test innovative MMRV systems for feasibility, affordability and low transaction costs.

# Partnerships for Climate-Smart Commodities



- Focused on creating **new opportunities and markets** for agriculture and forestry
- Focused on partnerships
- Voluntary and incentive-based
- Farmer, rancher, and landowner-led
- Accessible to small and/or underserved producers
- Accessible to early adopters

# Partnerships for Climate-Smart Commodities

## Practice Examples



- Cover crops
- Low-till or no-till
- Nutrient management
- Enhanced efficiency fertilizers
- Manure management
- Feed management to reduce enteric emissions
- Climate-smart pasture practices
- Agroforestry and afforestation on working lands
- Afforestation/ reforestation and sustainable forest management
- Planting for high carbon sequestration rate
- Maintaining and improving forest soil quality
- Alternate wetting & drying on rice fields
- Increase on-site carbon storage through Forest Stand Management
- Soil amendments, like biochar
- Buffers, wetland & grassland management & tree planting on working lands



## CLIMATE-SMART MARKETS FOR PRODUCERS

+21,000 Enrolled Farms

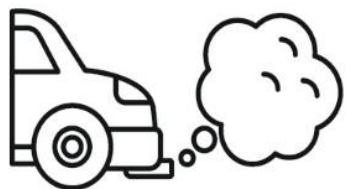
Connects producers to climate-smart markets, premiums, and incentives, helping them build more economically & environmentally resilient operations.



## CLIMATE-SMART PRACTICES

+5,000,000 Acres of Enrolled Working Land

Provides financial and technical assistance specifically for climate-smart practices that reduce greenhouse gas emissions and sequester carbon.



## COMPREHENSIVE DATA COLLECTION

Thousands of Metric Tons of Carbon Sequestered

Climate and environmental benefits associated with climate-smart practices progressively build over time, with +60 million metric tons of carbon estimated to be captured. Final numbers calculated at project completion (~5 years).

# AgriCapture Develops Market for Climate Friendly Rice

## 2023 Overview

- 30 farms across Mississippi Delta
- 20,000 acres grown
- \$1.6 million direct farmer incentives
- Certified identity preserved
- Additional 10% premium for suppliers
- Satellite imagery, geospatial modeling, and field data to monitor, measure, and verify
- 1,000+ tons of methane abated from atmosphere and 6.5 billion+ gallons of water saved



# Grown Climate Smart 2023 Overview

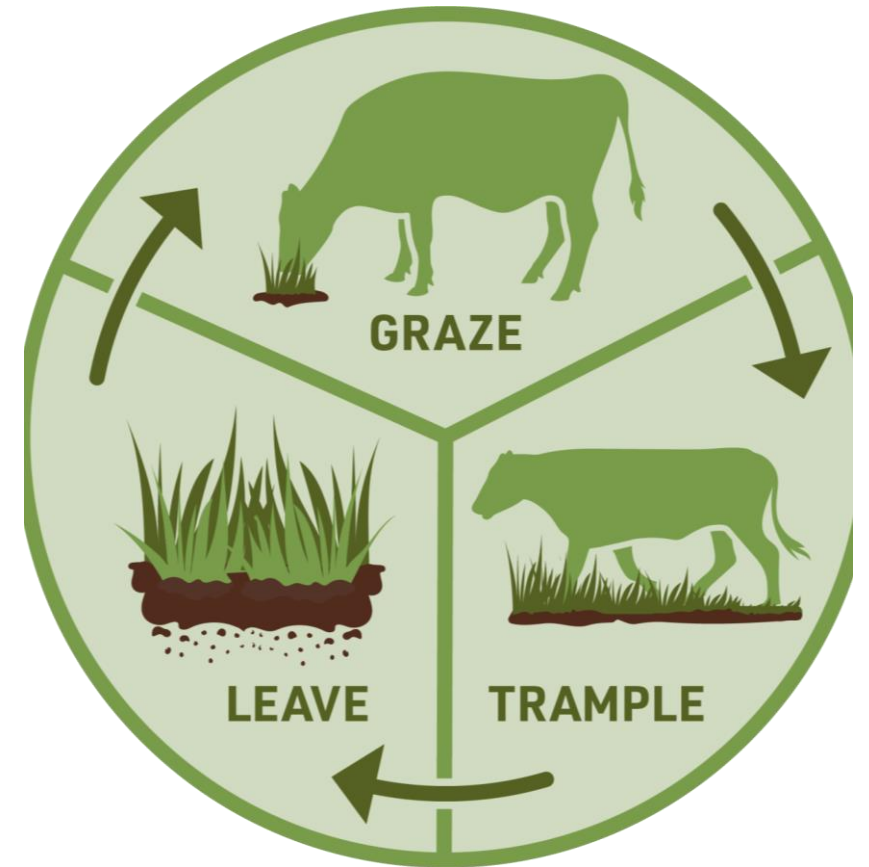
- 170 growers from 7 different states
- 235,000+ acres
- \$6.3 million in incentive payments directly to growers
- 70% of enrolled growers implementing two or more climate-smart practices
  - reduced or no-till
  - nutrient management plans
  - windbreak establishment or renovations





# TH Cattle Company

- Climate-Smart grazing produces value for two different markets
  - Regenerative-verified beef for a commodity market of consumers and food brands
  - Sequestered carbon for a carbon market of companies wishing to reduce their carbon footprint to meet sustainability commitments
- Regenerative grazing process helps to solve this problem by applying the rule of thirds: graze a third, trample a third, and leave a third.



# Gevo Farm-to-Flight

- Low-carbon-intensity corn to accelerate the production of sustainable aviation fuel
- Creating a market for carbon insets
- Sharing tools with farmers to help quantify the carbon intensity reductions
- No-till and low-till farming techniques
- High-potency microbial soil amendments
- Using manure in place of synthetic fertilizer
  - Biogas digester removes methane for use as an energy source
- Soil health analysis
- Uses renewable energy in production process
  - Wind power turbines for electricity

