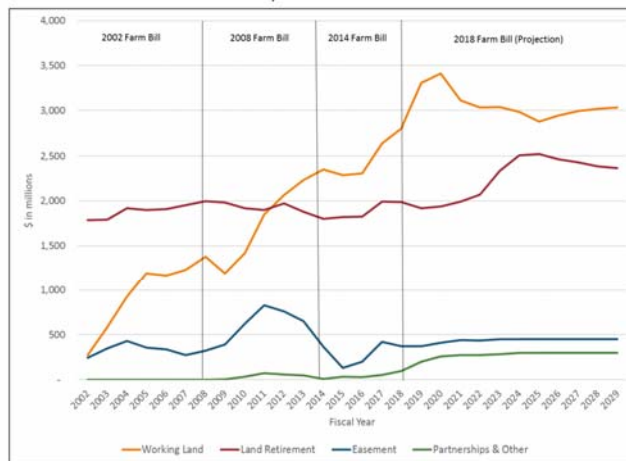


Farm Bill Conservation Programs

Nathan P. Hendricks and Micah Cameron-Harp
 Department of Agricultural Economics
 Kansas State University



Figure 4. Farm Bill Conservation Program Mandatory Spending, FY2002-F2029
 Outlays in millions of dollars



Source: CRS using CBO baseline data, FY2001-FY2019.

Notes: FY2002 through FY2018 include actual spending levels. FY2019 through FY2029 are projected spending levels. Chart does not include sequestration or savings from repealed programs. Working lands include the Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), Agricultural Management Assistance (AMA), and earlier programs; land retirement includes the Conservation Reserve Program (CRP) and subprograms; easement includes the Agricultural Conservation Easement Program (ACEP) and earlier programs; and other includes the Regional Conservation Partnership Program (RCPP) and other programs.

Source: CRS

Land Retirement Programs

Types of CRP

General

- Bids solicited during sign-up period
- Accepted by ranking Environmental Benefits Index (EBI)

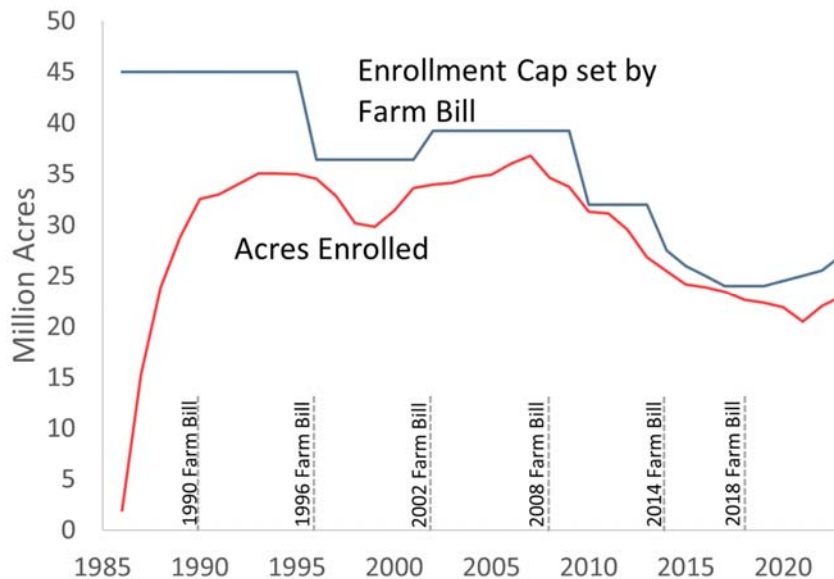
Continuous

- No bidding
- Address specific resource concerns
- Land must qualify

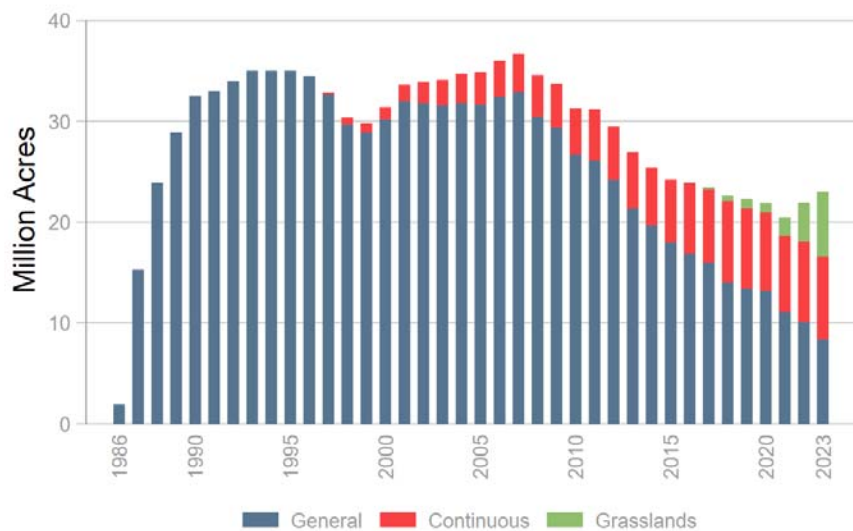
Grasslands

- Bids solicited during sign-up period
- Rent capped at 75% of grazing value
- Prioritize expiring CRP or environmentally sensitive land

CRP Enrollment



CRP Enrollment by Signup Type



2023 Signups

- General Signup 60
 - 1.07 million acres accepted
 - 0.03 million acres expiring
 - US: 90% accepted
 - KS 96% accepted
- Continuous Signup
 - Still enrolling
- Grassland Signup 205
 - 2.7 million acres accepted
 - US: 58% accepted
 - KS: 62% accepted

Working Lands Programs

Working Lands Programs

EQIP

- Contract to implement practice
- 50% of funds for livestock
- 10% of funds for wildlife

CSP

- Payments to maintain and improve conservation systems
- 5-year contracts with option to renew

EQIP

- Payment rate set when contract is signed.
- Length of contract depends on resource concern.
- Remember: It is a contract.
- Funding is allocated to different ranking categories. Ranking depends on...
 - Number of resource concerns treated.
 - Practices implemented.
 - Location within priority area.
- Average acceptance rate of 30-50%, but depends on initiative and location.
- Large demand for water quality practices and lot of funding allocated to this area also.

Partnership Programs

RCPP

- Partnership agreements to address specific resource concern in a region
- 5-year agreements

Examples of RCPP in Kansas

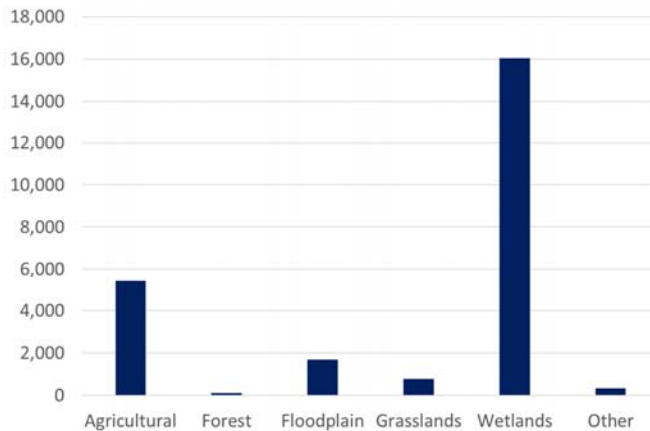
- South Fork Republican River in Cheyenne County: implement brush management and alternative livestock watering
- Groundwater Recharge and Sustainability Project in Wichita and Greeley counties: implement irrigation practices and restore playas

Easement Programs

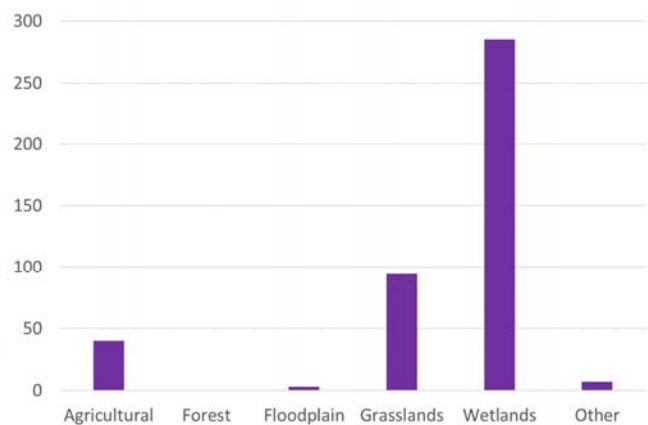
Agricultural Conservation Easement Program (ACEP)

- Agricultural Land Easements (ALE): limits non-ag uses of land
- Wetland Reserve Easement (WRE): protects wetlands
- 87% of easements are permanent

Number of easements in U.S.



Number of easements in Kansas

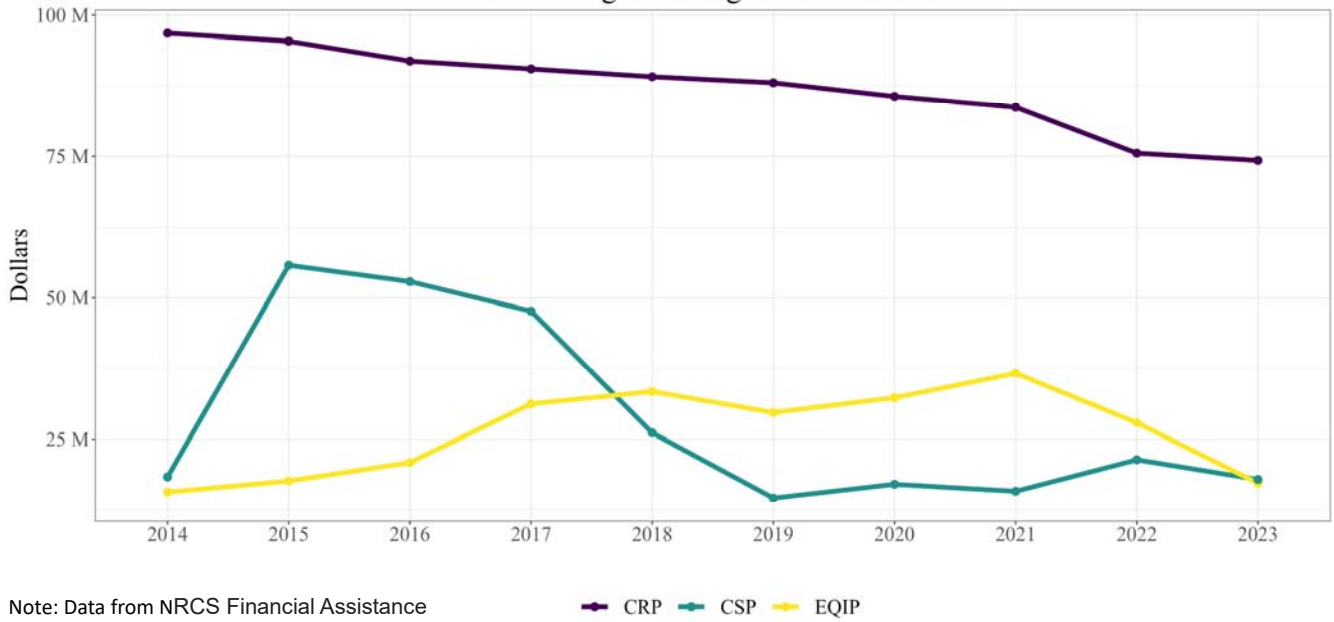


Inflation Reduction Act

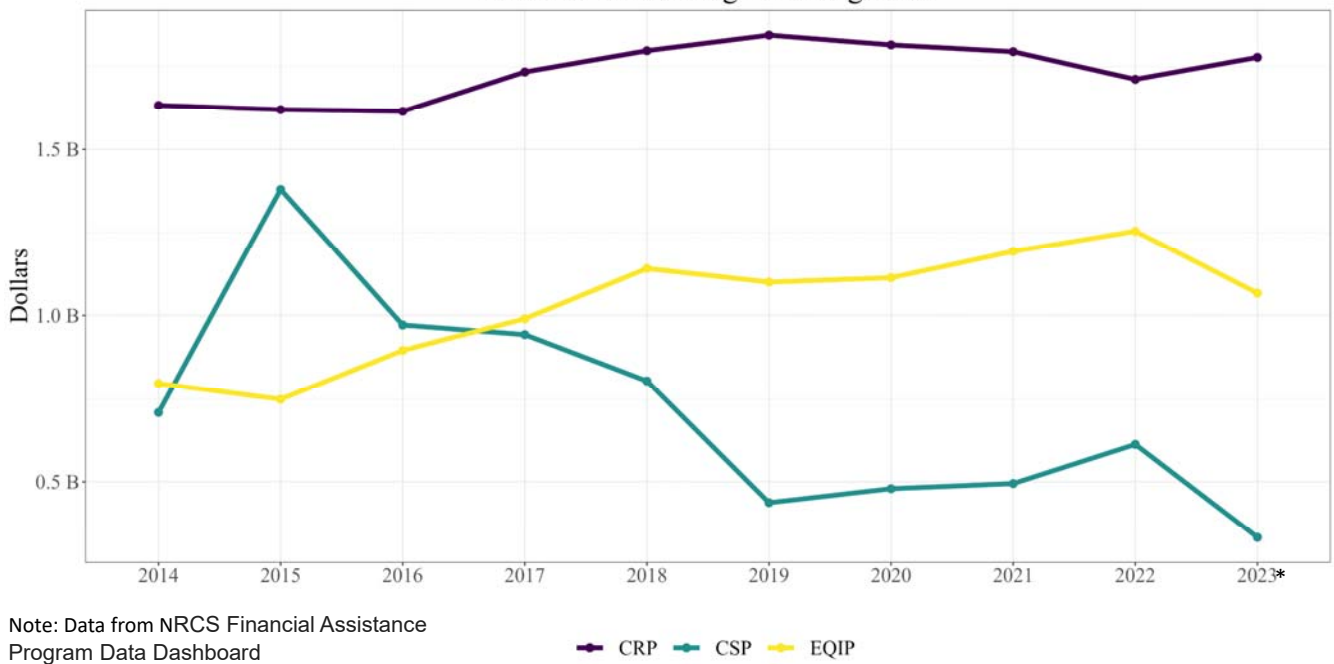
IRA Priorities

- Focused on climate-smart practices
- Already allocated some IRA dollars to existing initiatives this past year
- Typically, not funding structural practices

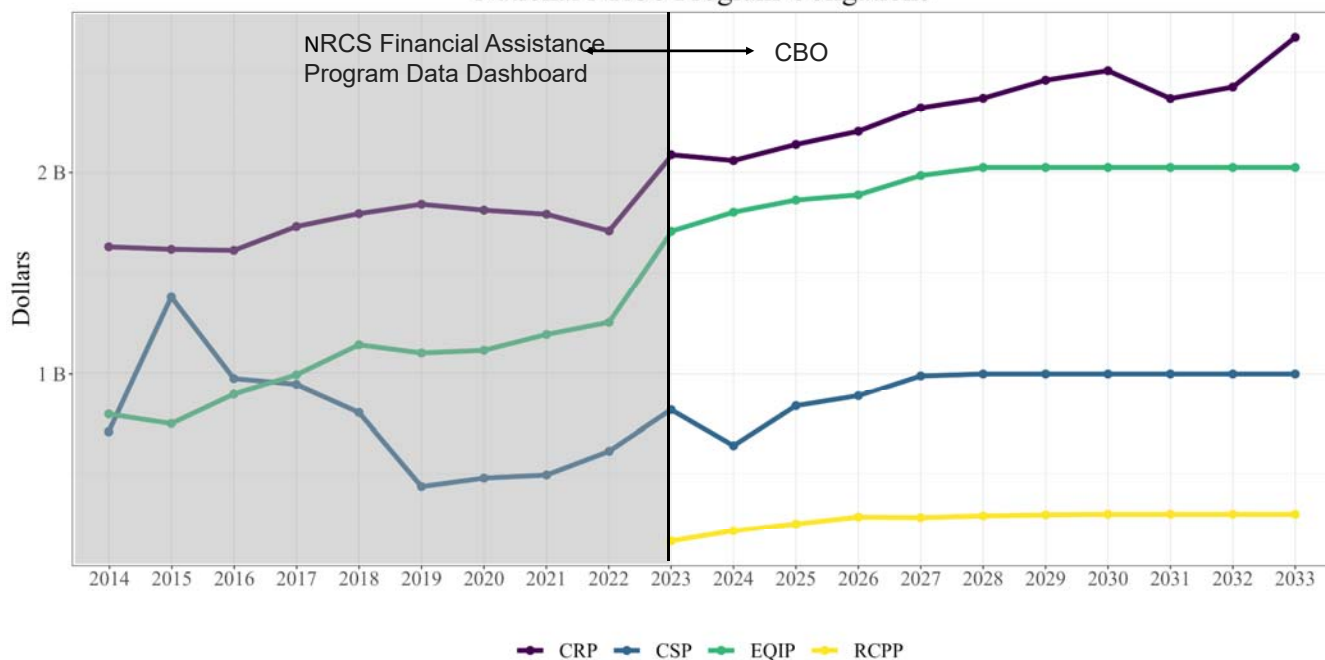
NRCS Program Obligations for Kansas



National NRCS Program Obligations



National NRCS Program Obligations

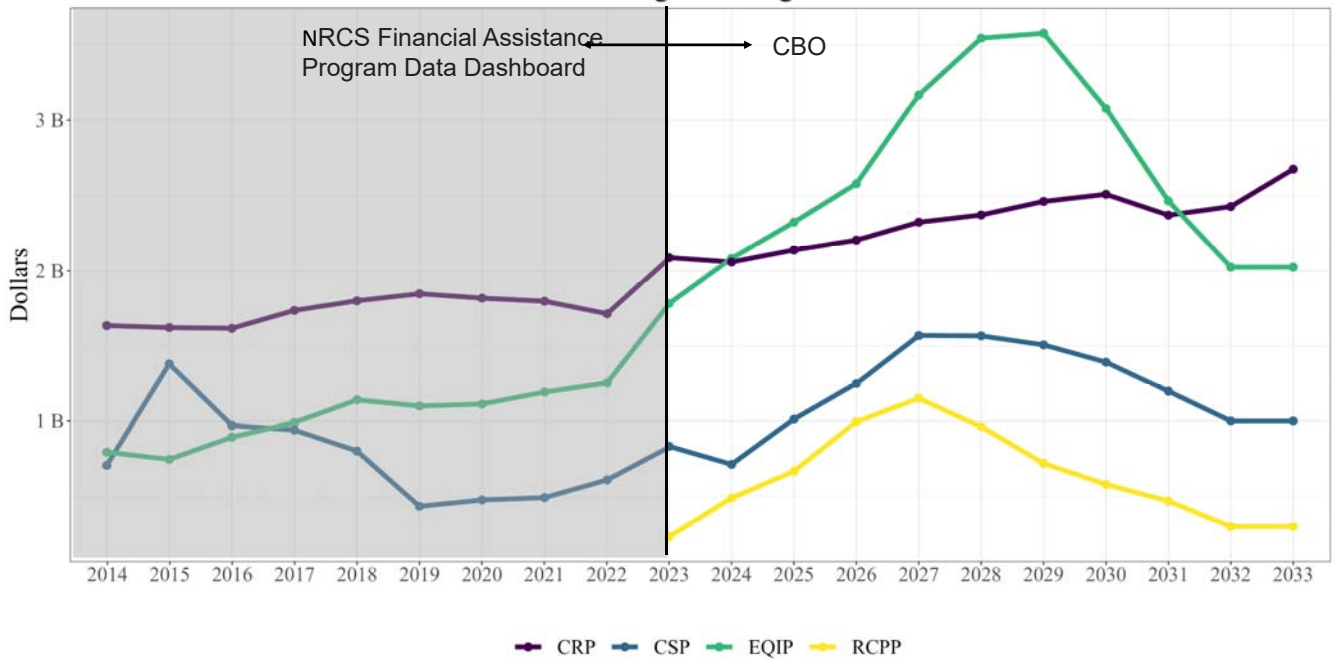


How might I.R.A. affect programs?

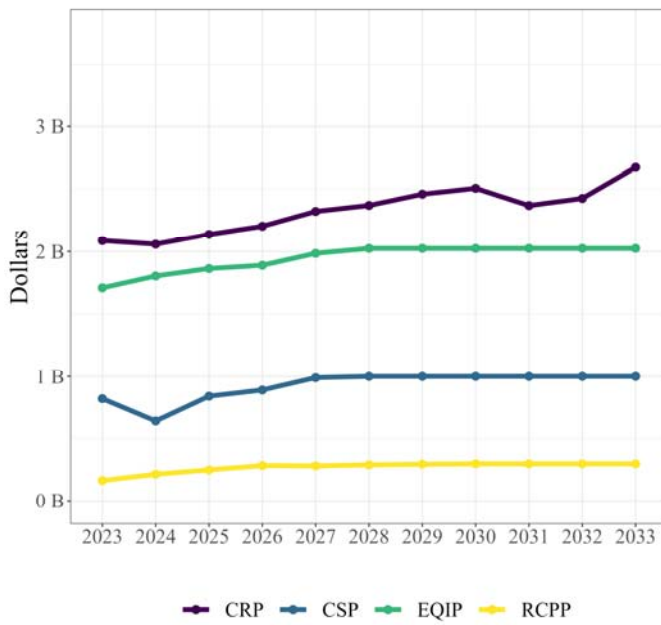
Program	Budget authority by year			
	2023	2024	2025	2026
EQIP	\$250 M	\$1,650 M	\$2,829 M	\$3,253 M
CSP	\$250 M	\$471 M	\$943 M	\$1,414 M
RCPP	\$250 M	\$754 M	\$1,414 M	\$2,263 M
ACEP	\$100 M	\$189 M	\$471 M	\$566 M

*Values from appendix to May 2023 CBO report: "Additional Funding Provided by P.L. 117-169 for USDA Conservation"

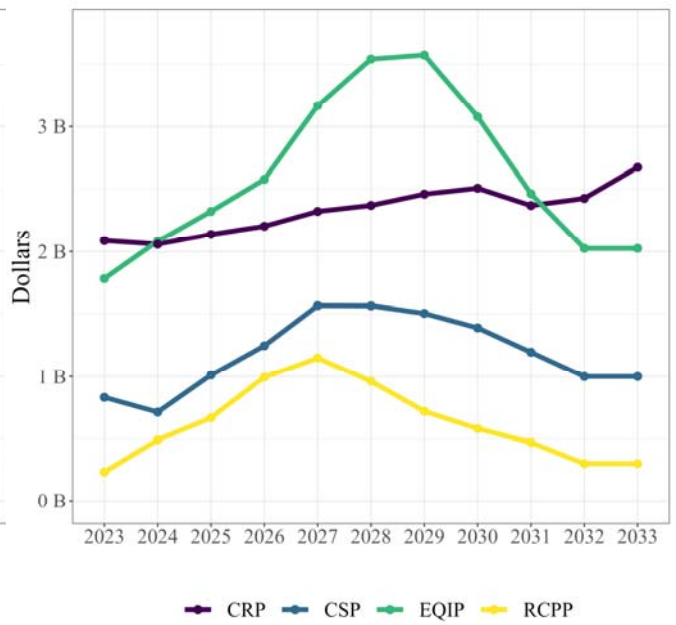
National NRCS Program Obligations with IRA



Without IRA



With IRA



Climate-Smart Commodities

(not Farm Bill, authorized through CCC)

Climate-Smart Commodities

- Implemented through grants to partners
- USDA stated objectives:
 - Pay farmers to implement practices
 - Pilot methods to quantify, monitor, report, and verify GHG benefits
 - Develop markets
- \$3.125 billion over 5 years (about 40% as large as EQIP)
- Where can I find the opportunities? [Project Dashboard](#)

Primary Practices (relevant to KS)

- Cover crops
- Low-till or no-till
- Nutrient management
- Enhanced efficiency fertilizers
- Manure management
- Feed management to reduce enteric emissions
- Buffers, wetland and grassland management, and tree planting on working lands
- Climate-smart pasture practices, such as prescribed grazing or legume interseeding
- Soil amendments, like biochar

Example 1

National Fish and Wildlife Foundation (for Farmers for Soil Health)

[Link to Project Enrollment Opportunities: Home - Farmers for Soil Health](#)

Short Summary: The project expands markets for climate-smart corn and Soybeans in the Midwest, Great Lakes, and Chesapeake Bay (IL, IN, IA, KS, KY, MN, MI, MO, NE, OH, SD, TN, ND, NC, MD, DE, NY, WI, PA and VA) and supports farmer implementation and monitoring of climate-smart practices that reduce greenhouse-gas emissions or sequester carbon.

Full Description:
Farmers for Soil Health Climate-Smart Commodities Partnership

This project proposes to accelerate long-term cover crop adoption by creating a platform to incentivize farmers. The platform will quantify, verify, and facilitate the sale of ecosystem benefits, creating a marketplace to generate demand for climate-smart commodities. This project plans to support the implementation of more than 1 million acres of crop crops across 20 states. It also plans to enable corn and Soybeansbean commodity groups to achieve greenhouse gas emission reduction goals while supporting their farmer members and advancing more productive and sustainable practices, using remote sensing, satellite imagery and other data science techniques while "ground-truthing" with a statistically significant set of soil samples from participating fields and a marketplace interface powered by an integrated monitoring, reporting and verification platform. The project includes a 20 percent reserve for underserved producers and a survey plan to assist with recruitment.

Lead Partner: National Fish & Wildlife Foundation

Other Major Partners: Farmers for Soil Health (National Corn Growers Association, the United Soybeansbean Board, and the National Pork Board**), National Center for Appropriate Technology*, National Association of Conservation Districts*, Soil Health Institute*, University of Missouri*, The Sustainability Consortium*, Data Transmission Network*, MBSH Consulting*.

Primary States Expected: IL, IN, IA, KS, KY, MN, MI, MO, NE, OH, SD, TN, ND, NC, MD, DE, NY, WI, PA, VA

Major Commodities: Corn, Soybeans

Approximate Funding Ceiling: \$95,000,000

Approved Federal Funding: \$95,000,000

Non-Federal Match: \$2,877,195

Monitoring Highlights:

DTN plans to use remote sensing, satellite imagery and other data science techniques to passively capture and assess much of the sustainability data needed (GHG emissions reduction practices), thereby minimizing the effort/cost that farmers would otherwise incur. Satellite imagery is planned to be "ground-truthed" with a statistically significant set of soil samples from participating fields.

Marketing Highlights:

A marketplace interface powered by an integrated monitoring, reporting and verification platform is planned to market climate-smart agricultural commodities to interested parties (i.e., biofuel, food, animal feed, package goods companies etc.). This program plans to enable each commodity group to achieve their industry-wide goals on GHG emission reductions while also supporting their farmer members in advancing more productive and sustainable practices.

Equity Highlights:

The project plans to reserve (until the third and final enrollment period) up to 20% of the total financial assistance to go directly to underserved and small producers. Using DTN's precision digital marketing, this project will prioritize communication to the 30,650 underserved and small farmers. FSH will adjust communication frequency to ensure participation equity. This data resource may also be used by partner groups, such as NCAT-ATTRA and local conservation staff, to combine with their own knowledge and acquaintance with under-served and small farmers who are interested in soil health and sustainability practices

Available Practices: 340 Cover Crops

Example 2

National Sorghum Producers Association

Link to Project Enrollment Opportunities: <https://sorghumgrowers.com/climatesmart/>

Short Summary: Expands markets for climate-smart sorghum in CO, KS, NE, NM, OK, TX and Tribal areas and supports farmer implementation and monitoring of climate-smart practices.

Full Description:

National Sorghum Producers Partnerships for Climate-Smart Commodities Project

This project will implement climate-smart production practices across hundreds of thousands of acres of sorghum working lands, with the goal of reducing hundreds of millions of pounds of carbon emissions and developing markets for sorghum as a climate-smart commodity. The project plans to have all enrolled producers document their practices and related acreage in an established and proprietary EcoPractices platform, a platform currently used by Nestlé and Danone to track and monitor climate-smart practices implemented by other commodity farmers in select and limited areas of their supply chains. Furthermore, GHG benefits beyond the farmgate plan to be quantified using the Greenhouse Gases, Regulated Emissions, and Energy Use in Technologies (GREET) model. In addition to farm-level monitoring of practices using the EcoPractices platform, the project plans to engage Prairie View A&M University, an HBCU, Texas Tech University, an HSI, Texas A&M University, an HSI, and Kansas State University to execute a technical program aimed at quantifying the value of emissions reductions associated with irrigation water use reduction and nitrate leaching, volatilization and runoff mitigation techniques. The project plans to collaborate with sorghum producers to take advantage of added value, primarily in the California fuel market with climate-smart sorghum being sold to ethanol companies for use in ethanol production, resulting in low carbon fuel credits for fuel purchasers and an incremental market premium for sorghum producers. The project plans for a minimum percentage of this project's budgeted funds and technical assistance for small and historically underserved sorghum producers/landowners. Partners will conduct outreach to Black, woman, and Native farmers specifically.

Lead Partner: National Sorghum Producers Association**

Other Major Partners: KS Black Farmers Assoc., Piroña Tribe of Indians of OK, KS AgriWomen, Women Managing the Farm, CO, KS, NM, OK & TX Sorghum Assoc., United Sorghum Checkoff, Prairie View A&M, CO State, TX Tech, TX A&M, KS State and OK State Univ., NM & KS Depts of Agriculture, Field to Market, RIFE, Trust in Food™, Natl. Cotton Council, Amer. Coalit. for Ethanol, KS Water, Pheasants'Quail Forever™, Salk Institute, Danforth Center, Galvanize Clim. Solut., Arable™, Argonne Natl Lab, Sust Envir Consult™, ServTech™, **, Danone, Kashi, Bayer Crop Sci, ADM, Conestoga Energy, KS Ethanol, Pratt, West Plains & Energy, Nu Life Market, CoBank, & High Plains Farm Credit, Northrup ag™, **, Princeton, White Energy, Carbon A List, Sero Ag Strategies*

Primary States Expected: CO, KS, NM, OK, TX, Tribal

Major Commodities: Sorghum

Approximate Funding Ceiling: \$65,000,000

Approved Federal Funding: \$64,999,998

Non-Federal Match:

Monitoring Highlights:

The project plans to have all enrolled producers document their practices and related acreage in an established and proprietary EcoPractices platform, a platform currently used by Nestlé and Danone to track and monitor climate-smart practices implemented by other commodity farmers in select and limited areas of their supply chains. Furthermore, GHG benefits beyond the farmgate plan to be quantified using the Greenhouse Gases, Regulated Emissions, and Energy Use in Technologies (GREET) model. In addition to farm-level monitoring of practices using the EcoPractices platform, the project plans to engage Prairie View A&M University, an HBCU, Texas Tech University, an HSI, Texas A&M University, an HSI, and Kansas State University to execute a technical program aimed at quantifying the value of emissions reductions associated with irrigation water use reduction and nitrate leaching, volatilization and runoff mitigation techniques.

Marketing Highlights:

The project plans to collaborate with sorghum producers to take advantage of added value, primarily in the California fuel market with climate-smart sorghum being sold to ethanol companies for use in ethanol production, resulting in low carbon fuel credits for fuel purchasers and an incremental market premium for sorghum producers.

Equity Highlights:

The project plans for a minimum percentage of this project's budgeted funds and technical assistance for small and historically underserved sorghum producers/landowners. Partners will conduct outreach to Black, woman, and Native farmers specifically.

Available Practices: 216 Soil Health Testing, 217 Soil and Source Testing for Nutrient Management, 218 Carbon Sequestration and Greenhouse Gas Mitigation Assessment, 328 Conservation Crop Rotation, 329 Residue and Tillage Management - No Till, 330 Contour Farming, 332 Contour Buffer Strips, 333 Amending Soil Properties with Gypsum Products, 334 Controlled Traffic Farming, 340 Cover Crops, 345 Residue and Tillage Management - Reduced Till, 376 Field Operations Emissions Reduction, 386 Field Borders, 393 Filter Strips, 442 Sprinkler System, 443 Irrigation System - Surface and Subsurface, 449 Irrigation Water Management, 590 Nutrient Management, 336 Soil Carbon Amendment, E328A Resource Conserving Crop Rotation

Example 3

South Dakota State University

Link to Project Enrollment Opportunities: <https://www.sdstate.edu/climate-smart>

Short Summary: Expands markets for climate-smart beef & bison in CO, GA, IA, KS, MN, MO, MT, NE, NC, ND, SC, SD, WY, tribes & supports farmers & ranchers with implementation & monitoring of climate-smart practices.

Full Description:

The Grass is Greener on the Other Side: Developing Climate-Smart Beef and Bison Commodities

This project will create market opportunities for beef and bison producers who utilize climate-smart agriculture grazing and land management practices. The project will guide and educate producers on climate-smart practices most suited for their operations, manage large-scale climate-smart data that will be used by producers to improve decision-making, and directly impact market demand for climate-smart beef/bison commodity markets. The project will use COMET for calculating GHG benefits. SmartScore.ai will be used to develop software & warehouse to store data. Yardstick will also be used to measure soil profile organic carbon & bulk density. C-Lock will measure and monitor greenhouse gas emissions from the beef and bison. The project will market climate smart beef & bison meat with a certification of how the livestock were grown and fed. The animals will be tracked from birth through finish. 30.7% of total direct funds in this project will go to historically underserved producers.

Lead Partner: South Dakota State University

Other Major Partners: South Dakota State extension*, SDSU Center for Excellence for Bison Studies*, National Bison Association**, Agspre*, Tanka fund*, Buffalo Ridge Cattle Company**, Cold Creek Buffalo Company**, Millborn Seeds**, SmartScore.ai**, Yard Stick*, Texas A & M*, C-Lock*

Primary States Expected: CO, GA, IA, KS, MN, MO, MT, NE, NC, ND, SC, SD, WY, Tribal Lands

Major Commodities: Beef, Bison

Approximate Funding Ceiling: \$80,000,000

Approved Federal Funding: \$80,000,000

Non-Federal Match: \$81,329,688

Monitoring Highlights:

The project will use COMET for calculating GHG benefits. SmartScore.ai will be used to develop software & warehouse to store data. Yardstick will also be used to measure soil profile organic carbon & bulk density. C-Lock will measure and monitor greenhouse gas emissions from the beef and bison.

Marketing Highlights:

The project will market climate smart beef & bison meat with a certification of how the livestock were grown and fed. The animals will be tracked from birth through finish.

Equity Highlights:

30% of total direct funds in this project will go to historically underserved producers.

Available Practices: 327 Conservation Cover, 338 Prescribed Burning, 340 Cover Crops, 381 Silvopasture, 390 Riparian Herbaceous Cover, 512 Pasture and Hay Planting, 528 Prescribed Grazing, 550 Range Planting, 645 Upland Wildlife Habitat Management

Looking forward

Title 2 Farm Benefits

- Do farmers benefit from title 2 payments? Yes
- Do farmers benefit more from title 1 payments? Yes
- Old supply management objectives of CRP don't make sense
- Instead, achieve environmental benefits with minimal production losses
- Important for Farm Bill coalition and preventing future regulation

Will IRA funds get moved to Farm Bill?

- Supporters: Increase Farm Bill baseline
- Opposition: Less control of how it gets spent and want it targeted to climate change initiatives

Conclusion

- General signup CRP is becoming a minor portion
- Next 5-10 years will see a large increase in working lands payments
- Farmers will have choices between multiple sources of payments, even for the same practice