

NOTICE OF GRANT AND AGREEMENT AWARD

Award Identifying Number	2. Amendr	nent Number	3. Award /Project Per	iod	4. Type of award instrument:
NR233A750004G091			Date of Final Sign 09/01/2028		Grant Agreement
5. Agency (Name and Address)		6. Recipient Organiza	tion (Name	e and Address)	
USDA Partnerships for Climate-Smart Commodities c/o FPAC-BC Grants and Agreements Division 1400 Independence Ave SW, Room 3236 Washington, DC 20250 Direct all correspondence to FPAC.BC.GAD@usda.gov		TH CATTLE COMP THOUSAND HILLS 12925 PROSPERIT BECKER MN 5530 UEI Number / DUNS EIN:	LIFETIME Y AVE 8-8875	GRAZED K4P8W2GPC5H3 / 014721339	
7. NRCS Program Contact	and the second second second second	Administrative ontact	Recipient Program Contact		Recipient Administrative Contact
Name: LOREN MULDOWNEY	Name: MI	CHELE DEVANEY	Name: Matt Buhmanı	1	Name: Ryan Bartlett
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No. LN-A					
11. CFDA	12. Author	ity	13. Type of Action		14. Program Director
10.937	15 USC 71	14 et sea	New Agreement		Name: Matt Buhmann
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15. Project Title/ Description: Expands markets for climate-smart beef in the contiguous United States and supports farmer and rancher implementation and monitoring of climate-smart practices.					
16. Entity Type: R = Small Busi	ness				
17. Select Funding Type					
Select funding type:		⋉ Federal		⊠ Non-Federal	
Original funds total		\$4,467,050.00		\$4,385,609.00	
Additional funds total		\$0.00		\$0.00	
Grand total		\$4,467,050.00		\$4,385,609.00	
18. Approved Budget		,	, , , , , , , , , , , , , , , , , , ,	,	

Personnel	\$395,080.00	Fringe Benefits	\$106,672.00
Travel	\$119,010.00	Equipment	\$0.00
Supplies	\$0.00	Contractual	\$279,120.00
Construction	\$0.00	Other	\$3,567,168.00
Total Direct Cost	\$4,405,621.00	Total Indirect Cost	\$61,429.00
		Total Non-Federal Funds	\$4,385,609.00
		Total Federal Funds Awarded	\$4,467,050.00
		Total Approved Budget	\$8,852,659.00
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This agreement is subject to applicable USDA NRCS statutory provisions and Financial Assistance Regulations. In accepting this award or amendment and any payments made pursuant thereto, the undersigned represents that he or she is duly authorized to act on behalf of the awardee organization, agrees that the award is subject to the applicable provisions of this agreement (and all attachments), and agrees that acceptance of any payments constitutes an agreement by the payee that the amounts, if any, found by NRCS to have been overpaid, will be refunded or credited in full to NRCS.

Name and Title of Authorized Government Representative KATINA HANSON Acting Senior Advisor for Climate-Smart Commodities	Signature KATINA Digitally signed by KATINA HANSON HANSON Date: 2023.08.31 08:49:03 -05'00'	Date
Name and Title of Authorized Recipient Representative MATTHEW MAIER Owner	Signature Mark Mark	Date 8/30/23

NONDISCRIMINATION STATEMENT

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PRIVACY ACT STATEMENT

The above statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. Section 522a).

Statement of Work

Purpose

The purpose of this agreement, between the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) and T H Cattle Company, LLC (Recipient), is to build markets for climate-smart commodities and invest in America's climate-smart producers to strengthen U.S. rural and agricultural communities.

Objectives

The objectives of this project are to support the production and marketing of climate-smart commodities by providing voluntary incentives to producers and landowners, including early adopters, to implement climate-smart agricultural production practices, activities, and systems on working lands; measure/quantify, monitor and verify the carbon and greenhouse gas (GHG) benefits associated with those practices; and develop markets and promote the resulting climate-smart commodities.

Budget Narrative

The official budget summarized below and described in the attached Budget Narrative will be considered the total budget as last approved by the Federal awarding agency for this award.

Amounts included in this budget narrative are estimates. Reimbursement or advance liquidations will be based on actual expenditures, not to exceed the amount obligated.

TOTAL BUDGET \$8,852,659

TOTAL FEDERAL FUNDS \$4,467,050 PERSONNEL \$359,167 FRINGE BENEFITS \$96,975 TRAVEL \$108,191 **EQUIPMENT \$0** SUPPLIES \$0 CONTRACTUAL \$279,120 CONSTRUCTION \$0 OTHER \$3,562,168 (PRODUCER INCENTIVES \$1,650,792) TOTAL DIRECT COSTS \$4,405,621 INDIRECT COSTS \$61,429 TOTAL NON-FEDERAL FUNDS \$4,385,609 PERSONNEL \$0 FRINGE BENEFITS \$0 TRAVEL \$0 **EQUIPMENT \$0** SUPPLIES \$0 CONTRACTUAL \$765,100 **CONSTRUCTION \$0** OTHER \$3,421,658 (includes PRODUCER INCENTIVES \$3,385,408) TOTAL DIRECT COSTS \$4.186,758 INDIRECT COSTS \$198,851

Recipient has elected to use the de minimis indirect cost rate.

Recipient has elected to use unrecovered indirect costs as match in the amount of \$198,851.

Responsibilities of the Parties:

If inconsistencies arise between the language in this Statement of Work (SOW) and the General Terms and Conditions attached to the agreement, the language in this SOW takes precedence.

RECIPIENT RESPONSIBILITIES

Perform the work and produce the deliverables as outlined in this Statement of Work and attachments.

Ensure Paperwork Reduction Act (PRA) clearance is obtained prior to conducting data collection from producers or other project participants, including data collection performed by subrecipients.

Comply with the applicable version of the General Terms and Conditions.

Submit reports and payment requests to the ezFedGrants system as outlined in the applicable version of the General Terms and Conditions. Reporting frequency is as follows:

Performance Reports: Quarterly

SF425 Financial Reports: Quarterly

Detailed Progress Report: Quarterly

(The detailed progress report is in addition to the performance and financial reports referenced above and described in

the general terms and conditions)

Expected Accomplishments and Deliverables

See attached Benchmarks Table and associated Project Narrative.

Resources Required

See the Responsibilities of the Parties section for required resources, if applicable.

Milestones

See attached Benchmarks Table and associated Project Narrative.

GENERAL TERMS AND CONDITIONS

Please reference the below link(s) for the General Terms and Conditions pertaining to this award: https://www.fpacbc.usda.gov/about/grants-and-agreements/award-terms-and-conditions/index.html

Attachments:
Budget Narrative
Project Narrative
Benchmarks Table
Climate-Smart Practices List and Limitations
Data Dictionary
Climate-Smart Specific Terms and Conditions

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PARTNERSHIP FOR CLIMATE-SMART COMMODITIES

PROJECT NARRATIVE

i. Executive Summary

Project Title: Expanding opportunities for evidence-based, climate-smart grassfed beef by enhancing income streams through retail food channels and carbon markets for a producer network spanning the Rockies to the Northeast.

Requested Federal Funds – \$4,467,050 **Matching Funds** – \$4,385,609

A. Contact Information – Primary Applicant

Matt Buhmann, Product Manager, TH Cattle Company 12925 Prosperity Avenue, Becker MN 55308, mbuhmann@lifetimegrazed.com, 763-592-9023

B. List of Project Partners

Organization	Type	Role						
Intertribal Agriculture Council	Nonprofit	Needs assessment of tribal producers' transition to regenerative/grassfed and tribal beef brand. Producer incentives. Recruitment of tribal producers.						
TH Cattle Company	Small business	Primary applicant; grant management. Market- based producer incentive. Marketing program.						
Western Sustainability Exchange	Nonprofit	Model validation. Soil sampling method. Data interface on grasslands management and ecological outcomes.						

C. List of underserved/minority-focused project partners

Name	Type	Role
Intertribal Agriculture Council	Nonprofit	Outreach and recruitment of underserved producers from Tribal Nations. Development of tribal beef brand.
Western Sustainability Exchange	Nonprofit	Recruit of underserved producers – limited resource, women and tribal.

D. Compelling need for the project

It's the how, not the cow. Agriculture accounts for 10 percent of total U.S. greenhouse gas (GHG) emissions, not counting downstream activities like transportation of food and inputs and processing. Rising agriculture-related emissions are linked to loss of carbon-sequestering perennial grasslands; creation of liquid manure storage facilities from the rise of concentrated animal feeding operations; and crop production with chemical inputs to produce grain for animal feed.¹

Misinformation has influenced consumers to think all beef is bad for the planet. On the contrary, managed grazing mitigates climate change by reducing bare ground and promoting diverse, deep-rooted, perennial grasses, legumes, and forbs that sequester carbon, making 100% grassfed beef produced with true regenerative soil-health building practices one of the most climate-smart (climate-smart) commodities, and a premium product and marketing opportunity for prosperity of farmers and their communities and a more nutrient-dense food for consumers.

Grazing lands contain 20 percent of the world's soil organic carbon (C) stock, but have largely deteriorated due to poor management, fragmentation, and conversion to cropland. With the potential to sequester from 0.5 to 3 metric tons of carbon per acre, managed grazing is 16th among the top 76 solutions for limiting global warming to agreed targets that could sequester up to 26 gigatons of carbon dioxide by 2050 if adoption rises from 71.6 to 749 million hectares. This represents a lifetime net return of \$3.44 trillion for an investment of \$53 billionⁱⁱⁱ. Transition from cropland to grassland shows the greatest potential for C sequestration, ranging from 0.22 up to 8.0 Mg ha (Megagrams or metric ton per hectare, where 1 Mg = metric ton = 1.10 US ton) C per year^{iv}. Adoption of improved grazing management achieves the highest C sequestration rates for systems with higher stocking rates, greater forage production and utilization, and reduced fertilizer use. Shifting from feedlot to grazing in the finishing phase of beef production also offers a powerful overall GHG sink.

Our project is unique and compelling in the following ways:

- Focuses on grazing lands (pasture and rangeland) for livestock production not suitable for sustained production of crops for human food and conversion of cropland, where many climate-smart soil health initiatives explore cropland.
- Addresses single largest U.S. land use, the 655 million acres of grassland pasture and rangeland (29 percent of U.S. total).
- Provides a local food-system alternative to industrial agriculture by aggregating small producers in regional networks to achieve scale.
- Diversity of farm size and agroclimatic and soil conditions.
- Broad geographic reach Midwest, Southwest, Northeast, and Rocky Mountain regions
- Uses proven, practical farmer-based approach for ecological verification that can be easily and inexpensively administered.
- Develops practical and affordable methods to measure soil carbon, establish climate-friendly claims, and track climate-smart commodities/GHG outcomes through the supply chain that do not increase monitoring cost to farmers.
- Uses one of the few validated models of soil carbon dynamics of managed (episodic) grazing systems.
- Promotes a user-friendly dashboard to provide producers and consumers with access to grazing management and soil carbon outcomes.
- Market-based approach to production incentives of compensating farmers for business and opportunity costs and public benefit of ecosystem services through both commodity and carbon markets.
- Uses carbon credits to bridge the gap between cost of climate-smart practice plus value of
 ecosystem services versus what the commodity market is willing to pay, offering opportunity
 to study how to differentiate climate-friendly claims to address double-counting.

- Creates a climate-smart commodity market by capturing value for the producer with a price
 premium through the Savory Ecological Outcome Verification (EOV) seal, one of two
 schemes approved by FSIS for an on-package regenerative verification claim, and the Savory
 Land to Market supply roster, world's first sourcing solution for regenerative-verified beef.
- Led by a Savory hub and #1 U.S. regenerative verified grassfed beef brand in the natural grocers retail channel.
- Uses USDA Natural Resources Conservation Service practice standards to anchor producer incentives, framed as a suite of practices under a Soil Health Management System.

E. Approach to minimize transaction costs associated with project activities

Transaction costs of the project for producers are negligible. The project will use existing systems and processes to communicate with producers and pay them for product under the TH Cattle Company producer network and brand. Any training to facilitate participation can be addressed in verification visits and the existing continuing education program.

F. Approach to reduce producer barriers to implementing CSAF practices for the purpose of marketing climate-smart commodities

Climate-smart grazing produces value for two different markets – regenerative-verified beef for a commodity market of consumers and food brands and sequestered carbon for a carbon market of companies wishing to reduce their carbon footprint to meet sustainability commitments. This project explores market-based incentives for implementing climate-smart grazing practices that create value for producers in both commodity and carbon markets. Through the project, we seek to expand the regenerative grassfed beef market with: 1) market incentives for producers to address the regenerative cost differential; 2) product promotion activities to increase demand at the higher premium-price; and 3) participation in a carbon-credit project to pay producers for carbon sequestration ecosystem services. Having both commodity and carbon market elements allows the project to study how to address double-counting.

Climate-smart ranching is challenging. It requires a deep understanding of ecosystem processes (water and mineral cycles, energy flow that converts solar energy into grass and then beef, plant community succession and relationships) along with a set of skills in monitoring, moving livestock, managing plants, and feeding the soil biome for a healthy soil structure that sequesters carbon. Incentives help producers overcome this steep learning curve and make the paradigm shift in management thinking and decision-making, which have constrained adoption. Education and technical assistance must accompany financial incentives to raise environmental consciousness and to counter farmer risk aversion, in addition to building knowledge and skills. Adoption is more likely with access to practical information from a trusted, credible source tailored to local climate and soils and hands-on, on-farm, and experiential training delivered inperson by extension experts and peer learning networks. vi

Production incentive. Meat finished on grass is more labor- and knowledge-intensive than conventional feedlot-finished meat. Producers of the TH Cattle Company network are already well advanced in climate-smart regenerative grazing practices, motivated by environmental awareness. To allow farmers to make a living and their operation to be financially viable, price

must cover full cost of climate-smart regenerative practices, comprised of fixed and operational business costs and opportunity cost of time and labor (the farmer's paying themselves), plus the public benefits of ecosystem services. The objective is getting the market to recognize and compensate the full value.

The project will pay producers a market-based incentive per pound to cover the cost differential due to increased grazing management between climate-smart regenerative and conventional beef. The market incentive will be supported with retailer-facing business-to-business marketing activities to raise awareness of the benefits of climate-smart verified meat and increase demand at the higher premium price. Closing the cost differential between regenerative and conventional beef provides investment resources necessary for producers to gain economies of scale and efficiencies.

Carbon credit. The price of grassfed in current markets is double that of conventional meat in most categories, about as much as consumers are willing to pay under current market conditions. The carbon market fills the gap between what consumers and brands are willing to pay for the climate-smart beef as a commodity and the full public value of the environmental benefit the climate-smart grazing practice provides.

The Northern Great Plains Improved Grazing Carbon Project pays ranchers in MT and WY market rate on the carbon exchange on average \$15 per acre for 20 years to implement practices that increase soil carbon sequestration, such as more pasture splits to increase stocking density and livestock movement to reduce days grazed. The project has enrolled five ranches comprising 75,000 acres, with 250,000 in the pipeline, and seeks to expand to 1 million acres by 2025. The seven network producers in MT and WY comprising 134,755 acres can diversify their income streams by enrolling in the carbon credit program; network producers in other agroclimatic regions will have opportunity to participate as the program expands.

G. Geographic focus

Cattle are sourced from an EOV regenerative-verified producer network of 57 family farms comprising 200,000 total acres mostly in the Midwest, Southwest, Northeast, and Rocky Mountain regions, with a goal of expanding to 400,000 acres over the next five years. Existing producers are in the following states: AR 1; AZ 1; CA 1; GA 1; IA 2; KS 1; MI 1; MN 12; MO 2; MT 6; NH 1; NM 1; NY 5; OK 7; SD 1; VT 1; WI 12; WY 1

H. Project management capacity of partners

Project management capacity. As principal applicant, TH Cattle Company will be responsible for coordination of producers and partners, oversight, and grants management for the project. TH Cattle Company has previous experience managing the Expanding opportunities for evidence-based, climate-smart grassfed beef by enhancing income streams through retail food channels and carbon markets for a producer network spanning the Rockies to the Northeast. Additional investment through the grant will enhance accounting systems and data platforms for reporting on production, practices, EOV, soil C and GHG measurements, revenue, and costs. Partners are sub-awardees to TH Cattle Company as principal applicant and awardee.

Existing relations and experience working with producers. MN-based TH Cattle Companyvii, an independent farmer-owned producer network, brand, and Savory hub, has 20 years of experience raising and marketing regeneratively raised, lifetime grazed 100% grassfed beef. Owner and chief executive Matt Maier started the business by transitioning his own 120-acre family farm from extractive crop monoculture and regenerating the land base with holistic managed grazing. Matt has a sustainability commitment that is a primary motivation for undertaking and sustaining regenerative practices. Operations are supported by a product manager and producer liaison. As a Savory hub, TH Cattle Company provides holistic land management tools and training and ecological outcome monitoring and verification services. Western Sustainability Exchange (WSE) is a conservation organization that stewards western ranchlands for ecosystem health and ranch profitability through regenerative agriculture, offering technical assistance, training, peer-to-peer networking, and digital regenerative management digital tools. The Regenerative Ranch Guide establishes the baseline condition of an operation in eight regenerative management areas - soil, water, land, economics, people, livestock, grazing, and biodiversity, to a frame holistic management plan. The Land Health Dashboard tracks grazing management practices and ecological outcomes. viii Since 1994, WSE has facilitated regenerative stewardship on over 1.5 million acres and created a community of over 6,000 people in MT and WY committed to regenerative agriculture. With WSE, Native, a carbon project developer, manages the largest grazing carbon credit project in the United States that pays ranchers for sequestering carbon on grasslands through regenerative grazing practices ix. Intertribal Agriculture Council (IAC) is a national network that promotes conservation, development, and use of tribal agricultural resources for the betterment of tribal nations, representing more than 570 tribes across the country and reaching more than 80,000 producers through technical assistance and programs for marketing, branding, and connecting producers to USDA resources. In 2021, IAC's Technical Assistance Network has more than 13,000 interactions with producers across Indian Country. Every \$1 invested in IAC technical assistance yielded \$14.20 in economic access for Indian communities.

Experience with MMRV. As one of 13 North American Savory Hubs, **TH Cattle Company** trains the producers in its network on Savory EOV and regenerative grazing. EOV is one of two regenerative ecological outcome verification frameworks in use that includes indicators for soil health that get at the climate impacts of land management. In the United States, 1,000,000 acres are under ecological outcome verification. Thousand Hill is trained and experienced in EOV monitoring and regenerative grazing methods. With expertise developed in soil carbon/GHG MMRV from implementing the Northern Plains grasslands carbon credit market, **WSE** will advise on model validation in other biomes and project verification of greenhouse gas benefits and provide training and guidance on the soil sampling method.

Experience promoting climate-smart activities and marketing climate-smart commodities. **TH**Cattle Company is the leading regenerative grassfed beef brand, ranked #1 in the retail natural food channel distributing to all 50 states. TH Cattle Company is third-party certified for regenerative ag practices by the American Grassfed Association (AGA) and Savory Institute (EOV). Owner Matt Maier's 20 years of experience working in conventional food marketing will inform the project's marketing activities. TH Cattle Company is an approved brand on the Savory Land to Market roster, the world's first sourcing solution for verified regenerative

meat, dairy, leather, and wool based on EOV, one of two schemes approved by FSIS for on-package regenerative claims. Land to Market works on six continents with 100 or so brands and 90 percent of fashion houses, including General Mills, Timberland, Burberry, and New Balance. IAC monitors and markets the "Made/Produced by American Indians" trademark and directory and the regenerative Rege[N]ation pledge whereby Native American and Alaskan Native producers commit to indigenous, regenerative, climate-smart production practices. *.

ii. A plan to pilot climate-smart agriculture and/or forestry practices on a large-scale, including:

A. A description of CSAF practices to be deployed

Climate-smart commodity. Regenerative (EOV)-verified, 100% grassfed beef

Definition of regenerative grazing. Regenerative grazing, also called managed or prescribed grazing, is a 100% grassfed livestock production system for managing pasture and grasslands with sustainable practices like using deep-rooted native perennials, no-till, and no chemicals that leverage ecosystem processes and photosynthesis to sequester carbon in soil and plants and build soil health, biodiversity of pollinators and forage plants, fertility, and water retention. This method manages pasture use with intense, short grazing events and rest periods to leave adequate plant biomass for recovery. A critical aspect is matching forage demand to forage availability. The strategy requires paradigm shifts in thinking and practice to become a "grass farmer": 1) defining wealth in terms of the health of the land versus maximizing financial return; 2) redefining the product to be healthy soil and pasture that produces the beef versus the beef itself; and 3) focusing on building resilience to drive productivity.

Climate-smart practices. Practices that increase soil health are climate-smart in promoting carbon sequestration in plants and soil. Producers in the TH Cattle Company network implement a suite of practices within a Soil Health Management System^{xi} that restore and build soil function based on soil health principles of minimizing soil disturbance, covering the soil, increasing biodiversity, maintaining continuous living plants, integrating livestock, and knowing your context. The relevant NRCS Conservation Practice Standard is primarily **prescribed grazing** (528), while fencing (382) watering facility (614) and livestock water pipelines (516) are limited to as needed to support practice 528.

Network producers must attest by affidavit that cattle are produced according to brand protocols of no confinement feeding or grain byproducts, cattle always on the land, holistically managed grazing, and regeneratively raised. Producers must also show positive trends in biodiversity, soil health, and ecosystem function under Savory EOV and satisfy AGA Grassfed Standards for livestock production practices that include a forage-based diet derived from pasture, animal health and welfare, no antibiotics, and no added growth hormones. All practices, both in NRCS standards and TH Cattle Company Protocol, are verified through annual third-party inspection.

B. Plan to recruit producers and landowners, including estimated scale of the project

Scale of the project. The EOV regenerative-verified producer network of 57 family farms raises 30,000 cattle on 200,000 total acres mostly in areas of good grass east of the Rocky Mountains and south from the Midwest to OK following the growing season and with connection to processing, with a goal of expanding to 400,000 acres over the next five years. Farm size varies from 106 in NH to 79,040 acres in WY. The producer network markets 9,100 cattle a year, totaling 4,771,000 pounds of meat product.

Plan to recruit producers. To double production capacity, TH Cattle Company seeks to recruit 30 additional producers, of which 5-10 will be underserved. The 77 producers - 57 legacy producers plus an additional 20 producers to be recruited - will receive incentives under the grant program. Criteria to recruit new producers to the network are land stewardship ethic, commitment to regenerative grazing practices and improving the land, high standards of regenerative practice and commitment to TH Cattle Company producer protocol.

C. Plan to provide technical assistance, outreach, and training, including who will be conducting these activities, qualifications, and project timeline.

TH Cattle Company network producers have already made the regenerative transition and are implementing managed grazing according to Savory EOV and AGA standards. TH Cattle Company provides annual continuing education in EOV and AGA certifications and regenerative (climate-smart) management practices to network producers. During the annual EOV verification visit for soil testing and review of management practices, TH Cattle Company verifiers also deliver individualized peer-to-peer, hands-on, on-farm, and experiential training in-person. Training and technical assistance in EOV and holistic management will be provided to new and underserved producers by Savory Institute. TH Cattle Company will also be managing the technical assistance of all reporting and certification requirements for the grant.

D. Plan to provide financial assistance for producers/landowners to implement CSAF practices.

Producers will receive price-premium incentives. Network producers in MT and WY will have the opportunity to receive payment for carbon offsets. Detail below. TH Cattle Company pays for the expense of producers for EOV and AGA certifications and holistic management training, valued at \$765,100 in total over the 5 years as a project match.

E. Plan to enroll underserved and small producers participating and associated dollar amounts anticipated to go directly to producers, in the form of technical and financial assistance.

Economic benefits for producers, including underserved producers. The direct economic benefits are comprised of the price differential payment per pound and the carbon credit payment. For additional indirect estimated economic benefits, see Marketing Plan. Underserved tribal producers will receive the same level of incentives as other producers, plus start-up grants and a

special incentive for providing feeder calves to network finishers to facilitate the regenerative transition.

Proposed number of underserved producers to be enrolled. Out of the 57 legacy network farms, 15 are small farms, 1 is women-owned and one is owned by a farmer of color. The project has set targets to enroll an additional 5-10 underserved producers under this project as follows: # small producers and beginning; limited resource; veterans; women; Native American; and farmers of color, considering regional demographics.

Arizona, New Mexico, and Oklahoma account for more than half of U.S. farms with Native American producers, and Native Americans accounted for a sizable proportion of each state's producers: 59 percent for Arizona, 22 percent for New Mexico and 13 percent for Oklahoma. Three-fourths of American Indian/Alaska Native-operated farms are specialized in livestock production versus half of U.S. farms overall. Indian economies are depleted due to the systemically oppressive and compartmentalized food and agriculture system. The project has a special focus on enrolling tribal producers in the Southwest and Midwest as basis for a potential Tribal beef brand producing grassfed meat production leveraging traditional ecological knowledge and advancing tribal food sovereignty.

Partnerships with Environmental Justice/Minority Servicing Institutions/equity/small farmer representation organizations. Intertribal Agriculture Council (IAC) will conduct outreach and recruit small and underserved farmers to supply the producers network and promote fair market access for tribal producers. Many tribal producers are in the cow-calf production system of feedlot finishing. Land access and resource limitations can constrain the ability of tribal producers to grass-finish. To meet them where they are and start them on transition to managed grazing, IAC will refer tribal producers to sell feeder calves to finishers in the TH Cattle Company network at a premium and provide infrastructure grants for water systems and fencing. IAC will conduct needs assessments of barriers, opportunities, and support needed for tribal producers to transition to regenerative grassfed beef production and to develop a Tribal beef brand.

Associated dollar amounts anticipated to go directly to producers, in the form of technical and financial assistance. Producers will receive market incentive payment of \$0.10 per pound hot carcass weight (HCW) in addition to the market-based pricing established with TH Cattle Company and producer. Producers in MT, WY, and other regions still to be determined will receive the carbon credit payment of \$15 per acre on average (not from grant resources). Producers already receive EOV verification services and training in EOV verification and climate-smart grazing as matching funds provided by TH Cattle Company.

iii. A measurement/quantification, monitoring, reporting, and verification plan, including:

The project will employ a model-based approach to capture the soil carbon dynamics of grazing practices, which requires calibration with locality-specific measurements of precipitation, temperature, soil, vegetation, etc. for statistical validity and high confidence level. Field data is presently insufficient to validate that predicted and observed values align for most geographies, so there are few appropriate, tested soil carbon dynamic models that incorporate grazing effects

on production, biomass, nutrient cycling and other well-known interactions to confidently assess effects of management practices on soil organic carbon (SOC), and even fewer that explicitly account for different grazing management options like episodic vs continuous grazing xiii. The partnership is a research opportunity to improve the data set and models for calculating climate impacts of managed grazing.

Cornell Soil Health tests will be performed on samples taken by TH Cattle Company in years 1 and 4 at all participating producer locations. The Cornell Soil Health test measures several indicators including texture, predicted available water capacity, aggregate stability, organic matter, soil proteins, soil respiration, active carbon, soil pH, extractable phosphorus, extractable potassium, and minor elements. These results will then be used in furthering the application of the SNAPGRAZE methodology to other ecoregions, used in third-party verified climate-smart product declarations, along with entering into COMET-planner for ecological outcome results.

With WSE, the project will explore how to better use production, environmental, and financial data to analyze C/GHG footprint of climate-smart beef; financial returns to producers; and cost-effectiveness of climate-smart grazing practices in sequestering carbon and reducing emissions.

TH Cattle Company will contract a third-party to validate and integrate on-farm carbon sequestration and emission reduction calculation methodology for use in a product footprint assessment of climate-smart beef. Metrics to be included will be product carbon footprint, product carbon savings over conventional beef, and may include other metrics such as water footprint etc.

How producer privacy will be protected in data collection. Producer privacy in data collection will be protected with aggregation and anonymization.

A. Approach to greenhouse gas benefit quantification

For the entirety of the grant, TH Cattle Company will be utilizing COMET-planner for the quantification of greenhouse gas benefit. In addition to the COMET-planner calculation, TH Cattle Company will explore additional models to compare the results. One of the best available models of soil carbon dynamics for managed grazing system is SNAPGRAZExiv, developed for the Northern Plains carbon credit project. SNAPGRAZE accounts for management decisions on herd size and period of stay (days) in a pasture (defined grazing area), and the growing season length in days, and assesses effects of grazing management on SOC across a range of climates with only eight climate, soil, and management input variables. The project will use SNAPGRAZE to quantify the greenhouse gas benefit of the climate-smart grazing practices, currently validated for MT and WY. These results will then be verified through a third-party contracted through TH Cattle Company to then dive further into full supply chain impact. The climate-smart meat brand will partner with WSE to validate the model in biomes/geographies of the producer network in order to provide soil organic carbon data for both climate-smart commodity and carbon credit purposes. The project will collect measurements to establish a baseline for validating models in other biomes with different agroclimatic conditions, using select producers in the TH Cattle Company network as field sites. The project will use the MT Soil Carbon Standard Operating Protocol for collecting soil samples to determine the baseline

soil carbon values developed by WSE for the Northern Plains for the Montana Improved Grazing Project.

B. Approach to monitoring of practice implementation, including the anticipated number of farms and acres reached through project activities.

Monitoring of practices. Each network producer must develop a written pasture management and grazing plan updated annually describing how forage quantity and quality determine timing of livestock movement and the Integrated Pest Management program. Grazing records are kept on grazing dates and duration, animal numbers, and rainfall. The TH Cattle Company Producer Liaison and verifiers conduct a yearly visit to network producers to go over grazing, financial, and land plans. This would include verification that practices are to NRCS standards.

Number of farms and acres reached. The project will involve 57 legacy producers raising 30,000 cattle on 200,000 acres (80,972 hectares), up to 400,000 acres by project's end, plus 20 new producers to be recruited under this project.

C. Approach to reporting and tracking of greenhouse gas benefits.

Approach to reporting and tracking GHG benefits. Individual producer data by pasture and herd on management practices, livestock production, carbon sequestration and GHG emissions, EOV sustainability metrics, production costs, and revenues will be collected and reported from COMET-Planner. Network producers submit pasture management, grazing, and EOV information each year.

The project will also be using the WSE Land Health Dashboard for reporting and tracking GHG benefits. The Land Health Dashboard is a geo-referenced web-based app to make grazing and data on ecological outcomes, including soil health and soil carbon, easily accessible for land management decisions. The app allows farmers to measure and monitor ecological changes and trends over time by consistently logging grazing and observational data. Project data from soil carbon measurement will be logged into the dashboard database. The dashboard is also available to consumers of climate-smart beef for informing their purchasing decisions. https://westernsustainabilityexchange.org/land-health-dashboard/ TH Cattle Company will utilize sustainability data, including climate-friendly status, on TH Cattle Company single-ingredient regenerative beef products through a third-party Product Sustainability Portal.

Anticipated GHG benefit per project and commodity. The project involves 57 producers raising 30,000 cattle per year on 200,000 acres (80,972 hectares), increasing to 77 producers grazing 400,000 acres by project's end. Based on research on climate-smart practice adoption and soil C accrual, with a conservative sequestration rate of 0.41 Mg ha (metric ton) of C annually, the project will sequester 33,198 Mg ha of C per year initially (121,837 metric tons of CO₂ equivalent), 165,992 Mg ha of C in total over the five-year project period (609,190 metric tons of CO₂ equivalent), increasing to double that amount over the 5-year project with the increase in acreage and producers. With best practices, the C sequestration rate could be as high as 3.5 Mg C per hectare per year for transition from heavy continuous grazing to "adaptive multipaddock" (managed rotational) grazing^{xv}. We can also expect at minimum a 10% reduction in enteric methane from increased forage digestibility^{xvi} of 100 kg per cow each year (280 kg of

CO₂ equivalent) or 8,400 Mg total per year for a project total of 30,828 Mg (metric tons) of CO₂ equivalent.

Longevity. Soils further from C saturation accumulate C faster. For example, converting degraded cropland to managed rotational grazing yields sequestration rates as great as 8 Mg per hectare per year in the top 30 cm of soil for a 7-year duration. It is reasonable to assume that soil C sequestration would continue, possibly at a reduced rate, for several years into the future. Soil-based carbon pools can be protected from microbial activity that would release the carbon back to the atmosphere by continuously managing soils with no-till, covered soil, and deep-rooted pasture and cover plantings. xviii Given project producers intend to continue regenerative climate-smart grazing practices, the soil C gains and GHG benefits can be assumed to be stable over time. xviii

D. Approach to verification of greenhouse gas benefits.

The project will verify GHG benefits by verifying implementation of the climate-smart management practices through audits and annual on-farm visits of network producers, as the basis for calculation of the GHG benefits. WSE will further develop the project's approach to verifying greenhouse gas benefits, e.g., exploring use of remote sensing observations of time-series changes in biomass as proxy for grazing frequency and duration. TH Cattle Company will be partnering with an additional third-party verifier that will help quantify/qualify results into a climate-smart declaration for on package use.

E. Agreement to participate in the Partnerships Network.

The designated representative for TH Cattle Company to the USDA Partnership for Climate-Smart Commodities will be Matt Buhmann, Product Manager. As the primary applicant organization, TH Cattle Company commits Matt to attending the required virtual and in-person meetings in DC and has allocated staff time and travel funding accordingly. TH Cattle Company will also be hiring an additional staff member to help coordinate with grant partners and technical assistance.

iv. A plan to develop and expand markets for climate-smart commodities generated as a result of project activities

Barriers and opportunities. Small, regenerative meat producers face many marketing barriers: substantial cost differential between conventional vs. regenerative-verified meat and competition from cheaper feedlot and grassfed imports; low consumer awareness of definition of regenerative and value of climate-smart regenerative meat; no standardized/recognized verification for consumers and buyers of regenerative meat's climate-smart outcomes; and diseconomies of scale from sourcing from a large number of small, local producers and cooperatives. Fewer people (19%) are familiar with the term "regenerative agriculture" than organic (59%), sustainable farming (52%), soil health (33%), and specific practices like crop rotation (55%) and cover crops (25%). While consumers are interested in healthy and nutritious foods, three in 10 view regenerative agricultural practices as having the most beneficial impact on the land food is grown

on, most people are not currently willing to pay more for a product made with regenerative agriculture. xix

Brands are eager to embrace regenerative agriculture to meet corporate social responsibility and sustainability goals. Major food distributors, manufacturers, and retailers like General Mills and Walmart have committed to sourcing from farmers who use regenerative practices and promoting adoption of this practice on millions of acres of farmland by 2030^{xx}. For example, TH Cattle Company provides hides for Timberland regenerative leather line of boots. However, demand for regenerative product is much higher than available supply.

To further grow the market for grass-fed beef requires: 1) management training and technical assistance to produce high-quality, well-finished grass-fed beef year-round; 2) stronger grass-fed label standards and brand-building campaigns to educate consumers about U.S. grass-fed beef; 3) scale and aggregation to unlock supply chain efficiencies; and 4) establishing well-managed, scaled-up finishing systems to produce grass-fed beef at low cost. XXI A consistent definition of regenerative agriculture is needed for consumers that includes climate change and soil health outcomes distinct from the terms organic and sustainable.

A. Any partnerships designed to market resulting Climate-smart commodities

Market channel or role	Market partner
Grassfed producer collective based on a Savory hub	TH Cattle Company
Food retail marketing activities	TH Cattle Company Natural Grocers PCC Community Market National Co-op Grocers

Strategies for achieving scale and cost efficiencies and accessing mass-consumer markets, as well as capturing more value for the producer include: 1) identifying environmental value created with grassfed and climate-smart (regenerative EOV) seal; 2) connecting buyers to verified supply through a roster; 3) supply aggregation under producer networks, brands, and distribution hubs to provide sufficient demand to regularly meet supply; and 4) supply chain intermediation with processors, tanneries, and hide aggregators for whole animal utilization.

TH Cattle Company is a supply aggregator platform, establishing decentralized hubs or producer networks of verified farms anchored on 10 small decentralized, regional processing facilities and an exclusive, branded distributor. TH Cattle Company carries a complete line of beef products and prepared foods utilizing the whole animal carcass for cost efficiencies and maximum value for the producer.

TH Cattle Company is an approved EOV-verified brand on the Savory Land to Market supply roster. Land to Market connects regenerative-verified products to markets and delivers more value to producers by: 1) verifying ecological outcomes with EOV monitoring protocol; 2) identifying regenerative-verified product with L2M verification seal; connecting verified producers to buyers through verified supply roster; 3) supply chain intermediation for whole animal utilization. The Land to Market seal differentiates regeneratively grown products, and

thus creates new value streams and market opportunities for producers, while providing consumers assurance that their purchases advance positive environmental outcomes. EOV-linked to the Land to Market seal is the key way farmers capture value and price premium for climate-smart practices and access the climate-smart commodities market.

https://www.landtomarket.com/

Marketing activities. TH Cattle Company distributes product in all 50 states through 1,000 food co-ops and natural food stores like Natural Grocers, a small early-adopter niche market segment of environmentally aware retail buyers and consumers willing to pay a price premium for climate-smart commodities. TH Cattle Company also distributes through Publix. Achieving broader scale requires increasing shelf space at regional independent grocery chains like Fresh Thyme and Sprouts with 10-15,000 locations nationwide. Trade-facing retailer promotions to create demand at higher climate-smart premium price include product discounts, store promotions and consumer facing advertisement.

B. A plan to track climate-smart commodities through the supply-chain

The price premium for regenerative meat depends on the verification scheme with the ecological value communicated to consumers with labeling. Specialty niche products like regenerative-verified meat rely heavily on branding and labeling over media advertising to convey the product's value to consumers as climate-smart and facilitate movement of the product through procurement channels.

TH Cattle Company will partner with a third-party to assess and certify climate-friendly claims and make sustainability data available on 15 TH Cattle Company single-ingredient regenerative beef products through a Product Sustainability Portal to provide information to meet sustainability goals, inform sourcing decisions, and frame business- and consumer-facing messaging and product labeling.

Maximizing income by selling a climate-smart commodity and its associated GHG benefit creates a potential double-counting issue. This project will provide insight on how to differentiate climate-friendly claims and ownership for ecosystem service value created through commodity versus carbon markets from producing climate-smart beef with regenerative-verified practices. The project will look at mechanisms to convey ownership of the GHG benefits and how ownership is transferred through the supply chain, i.e., value-added claims through labeling to capture price premium claims vs contracts, i.e., product labeling vs contracts and carbon certificates. For example, for climate-smart beef products that are certified for a climate-friendly claim, the third-party certifier will provide use rights and guidance on what the claim is based on, how it can be used in labeling, and what to say in marketing.

For regenerative, carbon is one small piece of the ecosystem services provided that has potential market value. Whereas an absolute value is required by the carbon market to confer ownership contractually of an amount of carbon to be traded, experience with EOV is that the consumer in a commodity market may be satisfied with documentation of a positive trend.. Of particular interest are companies that might buy commodity and carbon credit, like Timberland, which purchases hides from TH Cattle Company for climate-smart footwear.

C. Estimate economic benefits for participating producers, including market returns

Revenue opportunities consist of price premiums for beef as determined by commodity markets and ecosystem payments based on improving ecological function through carbon credit markets.

Data suggest 90% of variation associated with cow-calf profitability is explained by costs, not income. The increase in profitability from adoption of climate-smart (soil health) management practices comes from: 1) increased pasture productivity and ecological function, i.e., deep ground cover and plant recovery translates to more and higher quality forage and increased days grazing; 2) change in end market - selling to a higher value vs commodity market, i.e., a from receiving a premium through certifications; 3) decreased input usage, including feed and chemical fertilizer, reducing vulnerability to shocks; 4) saved producer labor and time; and 5) diversifying the income stream (crops, livestock, ecosystem services) *xxii*. For example, one study found that eliminating nitrogen fertilizer combined with adopting managed grazing increased overall land productivity 30% *xxiii*.

Market returns. The per pound price premium for grassfed over conventional beef ranges from \$4.56 for ground beef, \$5.12 for chuck roast, and \$9.02 for sirloin steak, up to \$22.77 for tenderloin, making the price of grassfed roughly double that of conventional meat in most categories xxiv. A review of voluntary carbon markets applicable to grazing operations found payment varied from \$25 to \$40 per acre or \$8 to \$30 per metric ton CO2 equivalent. xxv. The Northern Plains carbon credit program pays \$15 per acre on average.

D. Post-project potential, including anticipated ability to scale project activities, likelihood of long-term viability beyond project period, and ability to inform future USDA actions to encourage climate-smart commodities.

Scalability. One million acres in the United States are currently under EOV verification. There is the opportunity to scale climate-smart grazing to 750,000 US family ranches. The supply aggregator model employed by TH Cattle Company of a network of small producers anchored by a small processor selling under a brand is easily scalable. TH Cattle Company aims to double its operations from 200,000 to 400,000 acres over the course of the five-year project with the capacity of producing over 22 million pounds of regeneratively-verified climate-smart beef products.

Long-term viability. The investment from USDA through the grant project will build the capacity of marketing and logistics of climate-smart systems (producer hub supply aggregator platforms; supply roster; supply chain intermediation; inventory, tracking, and UX supply chain data platforms; whole animal utility) sufficiently to achieve the necessary cost-efficiencies to scale and achieve viability beyond the grant period. Capturing the price premium of regenerative meat provides a farmer incentive to implement and maintain climate-smart grazing practices and enables investments in land management necessary for scaling up for efficiencies.

Informing USDA action and policy. This project will provide insights for future USDA programs and policy on defining climate-smart commodities, the connection between soil health practices and positive climate outcomes, and framing climate-smart marketing claims for climate-smart

beef. The project will also provide more field data to build the confidence level of models for estimating carbon sequestration from changes in management practices in grazing systems. Participation in both commodity and carbon markets provides an opportunity to study how to frame climate-impact claims to avoid double-counting aspect of dual revenue streams through commodity and carbon markets from producing regenerative meat.

End Notes

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	Year 1								Year 2							
Benchmark	1	Q4 2023		Q1 2024		Q2 2024		Q3 2024		Q4 2024		Q1 2025		Q2 2025		Q3 2025
Number of Producers involved		5		10		20		40		40		45		50		50
Number of Underserved Producers Involved		0		2		10		15		15		15		15		15
Number of Acres involved		7100		25000		75000		175000		175000		200000		250000		250000
Number of Head involved		7500		10000		12000		25000		25000		30000		35000		35000
Dollars provided to producers	\$	169,000	\$	338,000	\$	507,000	\$	676,000	\$	878,800	\$	1,081,600	\$	1,284,400	\$	1,487,200
GHG Benefits Mg CO2e Sequestered		26,399.1		119,353.9		398,218.0		1,048,901.1	- 5	1,699,584.2		2,443,221.9		3,372,769.2		4,302,316.4
Number of new marketing channels established		0		0		0		1		1		2		3		3
Number of marketing channels expanded		0		0		1		1		1		1		2		2
Number of measurement tools utilized		0		0		1		1		2		2		2		2
Retail Level Promotions		0		1		2		3				4		5		6
Producers enrolled in Land Health Dashboard		2		2		3		3		10		15		20		25
IAC Producers Onboarded		0		0		0		0		0		0		0		0
TH Products w/ On-pack Climate-Smart Claim		0		1		5		5		10		20		20		40
On-site Producer Training (CSAF practices)		0		0		20		40		40		40		70		90

	5.	Yea	ar 3		Year 4					
Benchmark	Q4 2025	Q1 2026	Q2 2026	Q3 2026	Q4 2026	Q1 2027	Q2 2027			
Number of Producers involved	50	55	55	.55	55	60	60			
Number of Underserved Producers Involved	20	20	20	20	20	22	22			
Number of Acres involved	250000	300000	300000	300000	300000	350000	350000			
Number of Head involved	35000	37500	37500	37500	37500	40000	40000			
Dollars provided to producers	\$ 1,730,560	\$ 1,973,920	\$ 2,217,280	\$ 2,460,640	\$ 2,753,010	\$ 3,045,380	\$ 3,337,750			
GHG Benefits Mg CO2e Sequestered	5,231,863.7	6,347,320.3	7,462,777.0	8,578,233.7	9,693,690.4	10,995,056.5	12,296,422.6			
Number of new marketing channels established	3	4	5	5	6	6	6			
Number of marketing channels expanded	2	2	3	3	3	3	4			
Number of measurement tools utilized	3	3	3	3	3	3	3			
Retail Level Promotions	6	7	8	9	10		11			
Producers enrolled in Land Health Dashboard	30	35	40	45	50	55	60			
IAC Producers Onboarded	3	3	3	3	5	5	5			
TH Products w/ On-pack Climate-Smart Claim	40	40	40	40	60	60	60			
On-site Producer Training (CSAF practices)	100	100	120	140	150	150	170			

	Year 5									
Benchmark	0	3 2027		Q4 2027		Q1 2028		Q2 2028		Q3 2028
Number of Producers involved		60		65		65		65		70
Number of Underserved Producers Involved	Ш	22		25		25		25		25
Number of Acres involved		350000		375000		375000		375000		400000
Number of Head involved		40000		42500		42500		42500		45000
Dollars provided to producers	\$	3,630,120	\$	3,981,640	\$	4,333,160	\$	4,684,680	\$	5,036,200
GHG Benefits Mg CO2e Sequestered	13	,597,788.8		14,992,109.6		16,386,430.5		17,780,751.3		19,268,026.9
Number of new marketing channels established		7		8		9		10		10
Number of marketing channels expanded		4		4		4		5		5
Number of measurement tools utilized		3		3		3		3		3
Retail Level Promotions		12		13				14		15
Producers enrolled in Land Health Dashboard		60		65		65		65		70
IAC Producers Onboarded		5		7		7		7		7
TH Products w/ On-pack Climate-Smart Claim		60		80		80		80		80
On-site Producer Training (CSAF practices)		200		220		220		240		275

Climate-Smart Practices and Limitations

Climate-Smart practices under this grant shall be limited to the following practices:

NRCS Practice Code	Practice Name
528	Prescribed Grazing
382	Fence (where needed to facilitate 528)
516	Livestock Pipeline (where needed to facilitate 528)
614	Watering Facility (where needed to facilitate 528)

All practices applied under this grant will follow NRCS practice standards unless noted below:

Practice Name	Alternative Practice Standards
none	



Partnerships for Climate-Smart Commodities Data Dictionary for Recipients February 2023 Version 1.0



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Overview of Reporting Requirements

Grant recipients are required to submit reports to document their performance under the Partnerships for Climate-Smart Commodity funding opportunity. These submissions will be required to use the Microsoft Excel workbook templates provided by USDA. The workbooks contain a series of worksheets that collect data in a standardized format to ensure data quality and allow for aggregation and summary of this information. The entire workbook must be submitted quarterly, with updates to all applicable worksheets. This guide is divided into three sections. The Overview of Reporting Requirements section summarizes the layout of the reporting workbook and presents the data elements included in each worksheet. It also describes additional documents that must be submitted to supplement the performance reports. The Data Definitions section provides descriptions and allowable response options for each data element. The guide also indicates whether each data element is required, applicable at times, or optional; as well as how frequently each data element must be updated. Finally, the Appendices contain practice and commodity lists that will be used for these reports. Reporting is necessary for USDA oversight of this effort. The data elements required for inclusion in the quarterly performance reports allow USDA to conduct selected audits to review whether producers are receiving federal funds from multiple sources for the same purpose; to determine whether GHG benefits from implementation of climate-smart agriculture and forestry (CSAF) practices are being estimated accurately; and for other purposes deemed appropriate by USDA.

The reporting worksheets collect information at four levels: project, partner, producer, and field. Descriptions of each level:

Project level: Information about activities and impacts at a whole project/aggregate level (i.e., reflecting all activities under the grant agreement). Some project-level reporting is further subdivided by commodity type or a combination of commodity and CSAF practice(s) (commodity x practice).

Partner level: Information about activities related to a single organization (recipient, subrecipient, contractor, or other partner) within a project.

Producer level: Information about individual producers who have one or more farms enrolled in a project. **Field level**: Information about individual fields enrolled in a project.

Certain data elements are required to be reported for each producer and field enrolled in a project. In order to minimize the burden associated with data collection and to enable USDA to match data to existing records, these producer- and field-specific records must use the producer's established FSA Farm, Tract and Field IDs, and report the State and County associated with the Farm ID. Associated data entered in conjunction with these data elements, such as Producer Name, must match the data contained in the customer's Business Partner record, and the Farm Operating Plan in Business File for that Farm ID. Disclosure of this information is protected under Section 1619 of the Food, Conservation, and Energy Act of 2008 (PL 110- 246), 7 U.S.C. 8791. Additionally, Departmental Regulation 4370-001 provides USDA's policies for collecting demographic data, including race, ethnicity and gender. Providing demographic information is voluntary and at the discretion of the customer. Demographic information is used by USDA for statistical purposes only and will not be used to determine an applicant's eligibility for programs or services for which they apply.

Note: For purposes of this guide, "farm" refers to the operation from which climate-smart commodities are produced and may represent farms, ranches, forests or other operations. Similarly, "field" refers to the individual land units at which climate-smart practices are being implemented to produce climate-smart commodities and may represent lots, farmsteads or other units, depending on the type of operation and commodity. The use of "Farm", "Tract" and "Field" align with the FSA definitions; for example, "A field is a part of a farm that is separated from the balance of the farm by a permanent boundary, such as; fences, permanent waterways, woodlands, croplines in cases where farming practices make it probable that this cropline is not subject to change, and other similar features."

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The following tables list the data elements included in each reporting worksheet, along with a brief description of each item.

Project Summary

These data will be collected about each project. Cumulative results are reported each quarter. Report last quarter's entry if there has been no change in this quarter.

Table 1. Project Summary elements

Data element name	Description	Frequency
Commodity type	Type of commodity(ies) incentivized by the project	Quarterly
Commodity sales	Indicates sales of the commodity(ies) related to the project occurred this quarter	Quarterly
Farms enrolled	Indicates enrollment activities occurred this quarter	Quarterly
GHG calculation methods	Methods used to calculate greenhouse gas (GHG) benefits	Quarterly
GHG cumulative calculation	Method used to calculate cumulative GHG benefits	Quarterly
Cumulative GHG benefits	Whole project estimate of total GHG (CO2e) emission reductions	Quarterly
Cumulative carbon stock	Whole project estimate of total carbon sequestration	Quarterly
Cumulative CO2 benefit	Whole project estimate of total CO2 emission reductions	Quarterly
Cumulative CH4 benefit	Whole project estimate of total CH4 emission reductions	Quarterly
Cumulative N2O benefit	Whole project estimate of total N2O emission reductions	Quarterly
Offsets produced	Amount of carbon offsets produced by project	Quarterly
Offsets sale	Name of marketplace where carbon offsets were sold	Quarterly
Offsets price	Price of carbon in offset sales	Quarterly
Insets produced	Amount of carbon insets produced by project	Quarterly
Cost of on-farm TA	Cost of on-farm technical assistance (TA) provided to producers	Quarterly
MMRV cost	Cost of measurement, monitoring, reporting, and verification (MMRV) activities	Quarterly
GHG monitoring method	Methods used by project to monitor GHG benefits (up to 5)	Quarterly
GHG reporting method	Methods used by project to report on GHG benefits (up to 5)	Quarterly
GHG verification method	Methods used to verify GHG benefits (up to 5)	Quarterly

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Partner Activities

These data will be collected at the project level. Each row in this worksheet will represent one organization involved in the project, including the recipient and all contributing partners. A partner is any organization that is receiving project funds or providing matching contributions (funds or in-kind contributions) to the project. While the recipient must complete one row for their own organization, not all data elements apply to the recipient. These exceptions are noted in the detailed descriptions of the specific elements in the *Data Definitions* section of this guide. Data are reported cumulatively each quarter. Report last quarter's entry if there has been no change in this quarter.

Table 2. Partner Activities elements

Description	Frequency
Unique ID for each partner	One-time
Name of partner organization	One-time
Type of organization	One-time
Partner point of contact name	As applicable
Partner point of contact email	As applicable
Start of partnership on project	One-time
End of partnership on project	As applicable
Indicator for partner organizations that have no prior work with the recipient	As applicable
Total amount requested to date by partner from recipient	Quarterly
Total amount of match contribution by partner to date	Quarterly
Total amount of match contribution by partner for incentives	Quarterly
Top 3 types of match contribution by partner, other than incentives	Quarterly
Value of match contributions by type	Quarterly
Top 3 types of training provided to the partner through project	Quarterly
Top 3 types of activities provided by this partner to producers or other partners	Quarterly
Approximate cost per activity type provided by partner to producers or other partners	Quarterly
Names of products supplied to producers as part of project activities or incentives	Quarterly
Supplier or source of products supplied to producers as part of project activities or incentives	Quarterly
	Unique ID for each partner Name of partner organization Type of organization Partner point of contact name Partner point of contact email Start of partnership on project End of partnership on project Indicator for partner organizations that have no prior work with the recipient Total amount requested to date by partner from recipient Total amount of match contribution by partner to date Total amount of match contribution by partner for incentives Top 3 types of match contribution by type Top 3 types of training provided to the partner through project Top 3 types of activities provided by this partner to producers or other partners Approximate cost per activity type provided by partner to producers or other partners Names of products supplied to producers as part of project activities or incentives Supplier or source of products supplied to producers as part of

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Marketing Activities

These data will be collected at the project level. Each row in this worksheet will correspond to one commodity for which the project enrolls fields and one marketing channel used to sell that commodity by the project or producers enrolled in the project. Data are reported for the current quarter and are not cumulative. If no sales of the commodity were reported during a quarter, do not complete this worksheet for that quarter.

Table 3. Marketing Activities elements

Data element name	Description	Frequency
Commodity type	Type of commodity incentivized by the project	Quarterly
Marketing channel type	Type of marketing channels used	Quarterly
Number of buyers	Number of buyers per marketing channel	Quarterly
Names of buyers	Names of buyers in the marketing channel	Quarterly
Marketing channel geography	Geography of marketing channel	Quarterly
Value sold	Value of commodity sold by marketing channel	Quarterly
Volume sold	Volume of commodity sold by marketing channel	Quarterly
Price premium	Price premium of commodity by marketing channel	Quarterly
Price premium to producer	Percent of price premium that goes to the producer	Quarterly
Product differentiation method	Top 3 types of product differentiation methods used	Quarterly
Marketing method	Top 3 types of marketing methods used	Quarterly
Marketing channel identification method	Top 3 ways marketing channel was identified	Quarterly
Traceability method	Top 3 types of supply chain traceability methods used	Quarterly

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Producer Enrollment

These data will be collected at the producer level about each farm enrolled in the project. In this worksheet, each row will correspond to one farm that has at least one field enrolled in the project. Data are reported when a producer first enrolls one or more fields in the project. If a producer is enrolled in the project for multiple years, review the farm characteristics each time a new contract is signed and provide any necessary updates. The quarterly submission should contain information about each farm initially enrolled in the project during that quarter and for updates to farms that have re-enrolled during that quarter, as applicable. If no farms are enrolled during that quarter, do not complete this worksheet for that quarter.

Table 4. Producer Enrollment elements

Data element name	Description	Frequency
Farm ID	Unique Farm ID assigned by FSA	
State or territory	State name (must match FSA farm enrollment data)	
County of residence	County name (must match FSA farm enrollment data)	
Producer data change	Indicator that producer data was updated at re-enrollment	As applicable
Producer start date	Contract start date	Enrollment
Producer name	Name of primary operator	Enrollment
Underserved status	Indicator the primary operator is considered underserved and/or a small producer	Enrollment
Total area	Total area of enrolled operation	Annual
Total crop area	Total crop area in enrolled operation enrolled	Annual
Total livestock area	Total livestock confinement, pasture and rangeland in enrolled operation	Annual
Total forest area	Total forest area in enrolled operation	Annual
Livestock type	Top 3 types of livestock on enrolled operation	Annual
Livestock head	Total livestock currently managed (by type)	Annual
Organic farm	Indicator that part of the farm is certified or transitioning organic	Annual
Organic fields	Indicator that any of the enrolled fields are certified or transitioning organic	Annual
Producer motivation	Motivation for participation	Annual
Producer outreach	Top 3 types of outreach provided to producer	Annual
CSAF experience	Indicator of prior implementation of CSAF practices at this farm	Annual
CSAF federal funds	Indicator of prior receipt of federal funds for CSAF practices	Annual
CSAF state or local funds	Indicator of prior receipt of state funds for CSAF practices	Annual
CSAF nonprofit funds	Indicator of prior receipt of nonprofit funds for CSAF practices	Annual
CSAF market incentives	Indicator of prior receipt of market incentives for CSAF practices	Annual

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Field Enrollment

These data will be collected about each field enrolled in the project. In this worksheet, each row corresponds to one field x commodity combination enrolled in the project. Generally, data are reported once for each field, at its initial enrollment. The quarterly submission should contain information about each field initially enrolled in the project during that quarter. If no fields are enrolled during that quarter, do not complete this worksheet for that quarter. If a field is enrolled for multiple years, any relevant changes, such as a new ID number or changes to the commodity or practice combinations should be entered in this worksheet during the quarter it is re-enrolled, or as applicable.

Table 5. Field Enrollment elements

Data element name	Description
Farm ID	Unique Farm ID assigned by FSA
Tract ID	Unique Tract ID assigned by FSA
Field ID	Unique Field ID assigned by FSA
State or territory of field	State name
Physical County of field	Physical county name must match FSA farm records
Prior Field ID	Previous Field ID when reconstitution of farm results in new Field IDs
Field data change	Indicator that field data has changed from initial enrollment
Contract start date	Start date of contract
Total field area	Size of enrolled field
Commodity category	Category of commodity(ies) produced
Commodity type	Type of commodity(ies) produced
Baseline yield	Average yield of commodity in 3 years prior to enrollment
Baseline yield location Location for which baseline yield is provided	
Field land use	Most common land use in field in past 3 years
Field irrigated	Most common irrigation type in field in past 3 years
Field tillage	Most common tillage in field in past 3 years
Practice past extent - farm	Extent of operation that implemented this practice prior to project enrollment
Field any CSAF practice	Indicator for prior CSAF practices in this field in past 3 years
Practice past use - this field	Indicator of prior use of this practice in this field in the past 3 years
Practice type	CSAF practice(s) that will be implemented in enrolled field (up to 7)
Practice standard	Organization that developed CSAF practice standard implemented in field
Planned practice implementation year	Year that practice is planned to be implemented
Practice extent	Area or number of animals for which practice is implemented
Follow-on questions	Follow-on questions by practice type (see Table 11)

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Farm Summary

These data will be collected about each farm enrolled in the project. In this worksheet, each row will correspond to one farm that has at least one field enrolled in the project. The quarterly submission should contain updates to any data elements that have changed for each farm enrolled in the project during that quarter. If there are no changes from the previous quarter, do not complete this worksheet for that quarter. Data are not cumulative.

Table 6. Farm Summary elements

Data element name	Description	Frequency
Farm ID	Unique Farm ID assigned by FSA	
State or territory	State name	
County of residence	County name	
Producer TA received	Type of technical assistance provided to producer	Quarterly
Producer incentive amount	Total financial incentive provided to the producer	Quarterly
Incentive reason	Top 4 reason(s) for financial incentives provided to producer	Quarterly
Incentive structure	Top 4 units on which financial incentives are structured	Quarterly
Incentive type	Top 4 type(s) of financial incentives provided to producer	Quarterly
Payment on enrollment	Extent of payment provided to producer upon enrollment	Quarterly
Payment on implementation	Extent of payment provided to producer upon implementation of CSAF practices	Quarterly
Payment on harvest	Extent of payment provided to producer upon harvest or slaughter	Quarterly
Payment on MMRV	Extent of payment provided to producer upon reporting or verification	Quarterly
Payment on sale	Extent of payment provided to producer upon sale of commodity	Quarterly

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Field Summary

These data will be collected about each field enrolled in the project for a commodity x practice(s) combination. In this worksheet, each row will correspond to one field x commodity x practice(s) combination enrolled in the project. Data for each field will be reported quarterly and are not cumulative. Report data for any elements that have an update in that quarter. Greenhouse gas benefit estimates must be entered upon practice completion or annually, as appropriate. If there are no changes from the previous quarter, do not complete this worksheet for that quarter. This worksheet includes a section to report the "official" estimate of GHG benefits – amounts of greenhouse gas emissions reduced and carbon sequestered – for the field. These quantities refer to the estimates that are used to calculate the project's aggregate impact (reported in Table 1). Tables 8 and 9 are used to report alternate estimates of the field-level GHG benefits when additional methods are used to model (Table 8) or measure (Table 9) these impacts. Any field that can use COMET-Planner must submit those results, either as the official or alternate model.

Table 7. Field Summary elements

Data element name	Description	Frequency
Farm ID	Unique Farm ID assigned by FSA	
Tract ID	Unique Tract ID assigned by FSA	
Field ID	Unique Field ID assigned by FSA	
State or territory of field	State name	
County of field	County name	
Commodity type	Type of commodity produced from field	Quarterly
Practice type	Type of practice(s) incentivized in field (up to seven)	Quarterly
Date practice complete	Date that practice implementation is certified complete	Quarterly
Contract end date	End date of contract	Quarterly
MMRV assistance provided	Indicator that MMRV assistance is provided to field	Quarterly
Marketing assistance provided	Indicator that marketing assistance provided for commodity from field	Quarterly
Incentive per acre or head Indicator that a per acre/head incentives is provided for the CSAF practice(s) on this field		Quarterly
Field commodity value	Value of commodity produced from field	Quarterly
Field commodity volume	Volume of commodity produced from field	Quarterly
Cost of implementation Total cost of practice implementation in field		Quarterly
Cost coverage	Percent of total cost of implementation of practice covered by project incentives	Quarterly
Field GHG monitoring Methods used to monitor GHG benefits in field (up to 3)		Quarterly
Field GHG reporting	Methods used to report on GHG benefits for field (up to 3)	Quarterly
Field GHG verification	Methods used to verify GHG benefits for field (up to 3)	Quarterly
Field GHG calculations	Methods used to calculate GHG benefits for field	Quarterly
Field official GHG calculation	Method used to calculate official GHG benefits for field	Quarterly
Field official GHG ER	Official estimate of total GHG emission reductions for field	Quarterly
Field official carbon stock	Official estimate of total carbon sequestration for field	Quarterly
Field official CO2 ER	Official estimate of total CO2 emission reductions for field	Quarterly
Field official CH4 ER	Official estimate of total CH4 emission reductions for field	Quarterly
Field official N2O ER	Official estimate of total N2O emission reductions for field	Quarterly
Field offsets produced	Amount of carbon offsets produced in field	Quarterly
Field insets produced	Amount of carbon insets produced in field	Quarterly
Other field measurements	Indicator that field data was collected for reasons other than GHG benefit estimation	Quarterly

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GHG Benefits - Alternate Modeled

If greenhouse gas benefits are modeled for the same field using multiple methods, the results for the alternate models are reported in this worksheet. The "alternate" models refer to those model results that were not used in the calculation of the project's aggregate impact (as reported in Table 1). Any field that can use COMET-Planner must submit those results, either as the official or alternate model. These data will be collected about the modeled GHG benefits for each field x commodity x practice(s) combination. In this worksheet, each row will correspond to one field enrolled in the project. Data are not cumulative. Each quarterly submission should include information for all fields that have new modeled data. Greenhouse gas benefit estimates must be entered upon practice completion or annually, as appropriate.

Table 8. GHG Benefits - Alternate Modeled elements

Data element name	Description	Frequency
Farm ID	Unique Farm ID assigned by FSA	
Tract ID	Unique Tract ID assigned by FSA	
Field ID	Unique Field ID assigned by FSA	
State or territory of field	State name	
County of field	County name	
Commodity type	Type of commodity(ies) produced from the field (up to 6)	Annual
Practice type	Type of practice(s) incentivized in field (up to 7)	Annual
GHG model	Model used to calculate GHG benefits	Annual
Model start date	Start date of model run	Annual
Model end date	End date of model run	Annual
Total GHG benefits estimated	Estimate of total GHG benefits for field	Annual
Total carbon stock estimated	Estimate of total change in carbon stock for field	Annual
Total CO2 estimated	Estimate of total CO2 emission reductions for field	Annual
Total CH4 estimated	Estimate of total CH4 emission reductions for field	Annual
Total N2O estimated	Estimate of total N2O emission reductions for field	Annual

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GHG Benefits - Measured

Projects must report the results of any carbon stock or greenhouse gas emission measurements in this worksheet. These data will be collected at the field level. Each row will represent a separate measurement method used to calculate GHG benefits for a given field. Data are reported once per year of measurement and are not cumulative. Each quarterly submission should include information for any field for which there are new soil samples or new calculations of annual GHG benefits based on actual measurements.

Table 9. GHG Benefits - Measured data elements

Data element name	Description	Frequency
Farm ID	Unique Farm ID assigned by FSA	
Tract ID	Unique Tract ID assigned by FSA	
Field ID	Unique Field ID assigned by FSA	
State	State name	
County	County name	
GHG measurement method	Method of measurement	Annual
Lab name	Entity that conducted analysis	Annual
Measurement start date	Start date of measurements	Annual
Measurement end date	End date of measurements	Annual
Total CO2 reduction calculated	Calculation of total CO2 reduction	Annual
Total carbon stock change calculated	Calculation of change in carbon stock	Annual
Total CH4 reduction calculated	Calculation of total CH4 reduction	Annual
Total N2O reduction calculated	Calculation of total N2O reduction	Annual
Soil sample result	Numeric result from soil sample	Annual
Measurement type	Type of analysis conducted	Annual

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Additional Environmental Benefits

Projects that track additional environmental benefits (e.g., water quality improvements) from enrolled fields report results in this worksheet. These data will be collected about each field. Each row in this worksheet will correspond to an enrolled field. Data are not cumulative. Estimates of environmental benefits must be entered upon practice completion or annually, as appropriate.

Table 10. Additional Environmental Benefits elements

Data element name	Description	Frequency
Farm ID	Unique Farm ID assigned by FSA	
Tract ID	Unique Tract ID assigned by FSA	
Field ID	Unique Field ID assigned by FSA	
State	State name	
County	County name	
Environmental benefits	Indicator that project tracks other environmental benefits	Annual
Reduction in nitrogen loss	Indicator that project tracks reductions in nitrogen loss	Annual
Amount	Amount	Annual
Purpose	Purpose of tracking those co-benefits	Annual
Reduction in phosphorus loss	Indicator that project tracks reductions in phosphorus loss	Annual
Amount	Amount	Annual
Purpose	Purpose of tracking those co-benefits	Annual
Other water quality	Indicator that project tracks other water quality improvements	Annual
Туре	Type of water quality metric being tracked	Annual
Amount	Amount	Annual
Purpose	Purpose of tracking those co-benefits	Annual
Water quantity	Indicator that project tracks reduced water use	Annual
Amount	Amount	Annual
Purpose	Purpose of tracking those co-benefits	Annual
Reduced erosion	Indicator that project tracks reductions in soil erosion	Annual
Amount	Amount	Annual
Purpose	Purpose of tracking those co-benefits	Annual
Reduced energy use	Indicator that project tracks reductions in energy use	Annual
Amount	Amount	Annual
Purpose	Purpose of tracking those co-benefits	Annual
Avoided land conversion	Indicator that project tracks reductions in land conversion	Annual
Amount	Amount	Annual
Purpose	Purpose of tracking those co-benefits	Annual
Improved wildlife habitat	Indicator that project tracks improvements in wildlife habitat	Annual
Amount	Amount	Annual
Purpose	Purpose of tracking those co-benefits	Annual

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Supplemental Data Submission

Project MMRV Plan

Definition of MMRV elements:

Measurement: Quantification of the greenhouse gas benefits (reduction or capture) using mathematical models and/or direct physical measurements in the field

Monitoring: Ongoing review and confirmation that the climate-smart practice has been implemented according to the agreed upon standard and documentation of any changes in the site, implementation, or GHG emissions impacts over time

Reporting: Documenting and sharing monitoring and measurement results with project partners, the recipient, and any third-party verification organization

Verification: Independent confirmation that measurement, monitoring and reporting information are complete, accurate and reliable.

Projects must submit an MMRV plan that includes details about how each of the following are addressed:

- · Quantification approach, including:
 - GHG models used
 - GHG measurement plan (if applicable)
 - Approach to quantifying additional environmental benefits, if applicable (e.g., water quality, habitat)
- Verification approach:
 - Compliance criteria
 - Verification plan/methodology
- Approach to ensuring:
 - Additionality
 - Permanence
 - Leakage
 - Impacts of weather
- Plan for non-compliance

If the project is using a specific MMRV methodology or approach developed by the recipient, a project partner, or an outside organization, the project can submit documentation associated with the methodology as long as the documentation addresses each of the above categories.

If the project is tracking other environmental benefits (as reported in the Additional Environmental Benefits worksheet), include a description of the methodology and tools used to track and report on these benefits.

Field modeled GHG benefit reports

Results from any models besides COMET-Planner used to estimate GHG benefits must also be submitted as a separate report. This includes projects running COMET-Farm. The full results of any model can be submitted in the native/standard format generated by the modeling tool and must include the following Unique IDs in the report or in the file name: State, County, Farm ID, Tract ID, Field ID.

Field direct measurement results

For any direct physical measurements in the field, measurement results must be submitted as a separate report and must include the following Unique IDs in the report or in the file name: State, County, Farm ID, Tract ID, Field ID. Measurement results reports must include the name of the equipment used for sampling or data collection, the name of the lab that analyzed the data, and the analytical method used.

Sample report types include soil analysis reports, summarized results of portable emissions analyzers or flux towers, water quality analyses, and plant species counts. These could be collected for the purposes of determining GHG emission reductions or carbon sequestration amounts, for calibration of tools or models, for tracking other environmental benefits, or for other reasons.

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Data Descriptions

This section provides descriptions and allowable response options for each data element. The guide also indicates whether each data element is required, applicable at times, or optional; as well as how frequently each data element must be updated.

Unique IDs

Project ID: Unique ID at the project level – "Award Identifying Number" shown on award documentation

Partner ID: Unique ID at the partner level - use EIN; if no EIN, a unique ID will be assigned for use in these reports

State or territory of operation: State or territory name

County of operation: Physical county name

Farm ID: Unique ID at the operation level assigned by Farm Service Agency (FSA)

Tract ID: Unique ID at the tract level assigned by FSA **Field ID:** Unique ID at the field level assigned by FSA

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Project Summary

Project Summary	
Commodity type	
Data element name: Commodity type	Reporting question: What climate-smart commodity types are produced by this project?
Description: Type of commodity incentivize	zed by the project. These commodities include those for whom
farmers are directly receiving incentives o	r other types of marketing support. See full list of commodity options
in Appendix B. List one commodity per rov	N.
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values: FSA commodity list
Logic: None – all respond	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly
Commodity sales	-
Data element name: Commodity sales	Reporting question: Did project activities result in sales this quarter of the commodity(ies) produced by this project?
Description: Indicator of sales of commod	ity(ies) related to project activities. If sales are reported, complete the
[[[[[[[[[[[[[[[[[[[is part of the quarterly performance report.
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	• Yes
	• No
Logic: None – all respond Required: Yes	
Data collection level: Project	Data collection frequency: Quarterly
Farms enrolled	
Data element name: Farms enrolled	Reporting question: Did the project enroll any producers or fields this quarter?
	rolled producers or fields. If enrollment activities occurred this quarter, eld Enrollment worksheets (Tables 4 and 5) as part of the quarterly
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	• Yes
	• No
Logic: None – all respond	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly
GHG calculation methods	
Data element name: GHG calculation	Reporting question: What methods is the project using to
methods	calculate GHG benefits?
Description: List the way(s) that GHG bend	efits are being measured and calculated by the project this quarter.
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	Models
	Direct field measurements
Logie: None all respond	Both Boguired: Yes
Logic: None – all respond	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly

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GHG cumulative calculation

Data element name: GHG cumulative Reporting question: What method(s) was used to calculate the

calculation total cumulative GHG benefits reported here?

Description: List the method(s) that was used to calculate the total cumulative GHG benefits reported by the

project this quarter.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Models

Direct field measurements

• Both

Logic: None – all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

Cumulative GHG benefits

Data element name: Cumulative GHG Reporting question: What are the project's estimated total GHG

benefits emission reductions (CO2eq) to date?

Description: Total cumulative estimated greenhouse gas emission reductions from practice implementation.

This is updated quarterly. If there are no changes, enter the same number as the previous quarter.

Data type: Decimal Select multiple values: No

Measurement unit: Metric tons CO₂eq Allowed values: 0-10,000,000

Logic: None – all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

Cumulative carbon stock

Data element name: Cumulative carbon Reporting question: How much carbon has the project

stock sequestered to date?

Description: Estimated total cumulative change in carbon stock based on practice implementation. This is updated quarterly. If there are no changes, enter the same numbers as the previous quarter. Conversion rate is

one ton of carbon = 3.67 tons of CO2eq.

Data type: Decimal Select multiple values: No

Measurement unit: Metric tons CO₂eq Allowed values: 0-10,000,000

Logic: None – all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

Cumulative CO2 benefit

Data element name: Cumulative CO2 Reporting question: What are the project's estimated total

benefit cumulative CO2 emission reductions to date?

Description: Estimated total cumulative carbon dioxide emission reductions based on practice implementation.

This is updated quarterly. If there are no changes, enter the same number as the previous quarter.

Data type: Decimal Select multiple values: No

Measurement unit: Metric tons CO₂ Allowed values: 0-10,000,000

Logic: None – all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

Cumulative CH4 benefit

Data element name: Cumulative CH4 benefit Reporting question: What are the project's estimated total

CH4 emission reductions to date?

Description: Estimated total cumulative methane reduction based on practice implementation. This is updated quarterly. If there are no changes, enter the same numbers as the previous quarter. Conversion rate is one ton

of CH₄ = 25 tons of CO₂eq.

Data type: Decimal Select multiple values: No

Measurement unit: Metric tons CH4 reduced in Allowed values: 0-10,000,000

CO₂eq

Logic: None – all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

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Cumulative N20 benefit

Data element name: Cumulative N2O benefit Reporting question: What are the project's estimated total

N2O emission reductions to date?

Allowed values: 0-10,000,000

Description: Estimated total cumulative nitrous oxide reduction based on practice implementation. This is updated quarterly. If there are no updated numbers enter the same number as the previous quarter.

Conversion rate is one ton of $N_2O = 298$ tons of CO_2eq .

Data type: Decimal Select multiple values: No

Measurement unit: Metric tons N2O reduced in

CO₂eq

Data collection level: Project Data collection frequency: Quarterly

Offsets produced

Logic: None - all respond

Data element name: Offsets produced Reporting question: How many carbon offsets have been

produced in the project?

Required: Yes

Description: Total carbon offsets produced by enrolled project fields during the quarter. Offsets are defined as

having been verified and certified using an accepted standard and sold into the carbon marketplace.

Data type: Decimal Select multiple values: No

Measurement unit: Metric tons CO2eq Allowed values: 0-10,000,000

Logic: None – all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

Offsets sale

Data element name: Offsets sale Reporting question: To what marketplace(s) were carbon offsets

sold?

Description: Marketplaces to which carbon offsets produced by enrolled project fields were sold. Offsets are defined as having been verified and certified using an accepted standard and sold into the carbon marketplace.

List each marketplace name. Separate names with commas.

Data type: Text Select multiple values: NA

Measurement unit: Name Allowed values: Text

Logic: Respond if >0 to 'Offsets produced' Required: Yes

Data collection level: Project Data collection frequency: Quarterly

Offsets price

Data element name: Offsets price Reporting question: What was the average price of carbon

received for offsets?

Allowed values: 0-500

Description: Average price per metric ton paid for carbon offsets produced by enrolled project fields. Offsets are defined as having been verified and certified using an accepted standard and sold into the carbon marketplace.

Data type: Decimal Select multiple values: No

Measurement unit: Dollars per metric ton

Logic: Respond if >0 to 'Offsets produced'

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Insets produced

Data element name: Insets produced Reporting question: How many carbon insets have been

produced in the project?

Description: Total carbon insets produced by enrolled fields during the quarter. Insets are defined as having been verified and certified using an accepted standard and accounted for within Scope 3 emissions for a firm.

Data type: Decimal Select multiple values: No

Measurement unit: Metric tons CO₂eq Allowed values: 0-10,000,000

Logic: None – all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

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Cost of on-farm TA

Data element name: Cost of on-farm TA Reporting question: What is the total amount that has been

spent to provide on-farm TA?

Description: Total cost of any field- or practice-specific technical assistance provided by the project (by recipient or partners) to any producers. This is updated quarterly. If there are no changes, enter the same number as the

previous quarter.

Data type: DecimalSelect multiple values: NoMeasurement unit: DollarsAllowed values: \$0-\$50,000,000

Logic: None – all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

MMRV cost

Data element name: MMRV cost Reporting question: What is the total amount that has been

spent on MMRV activities?

Description: Total cost of all MMRV activities paid for by the project (recipient or partners). MMRV components are defined as measurement (calculations or estimations of GHG emissions), monitoring (ongoing review and confirmation that the climate-smart practices have been implemented according to the agreed upon standard and documentation of any changes in the site, implementation, or GHG emissions impacts over time), reporting (documenting and sharing monitoring and measurement results with project partners, the recipient, and any third-party verification organization), and verification (independent confirmation that measurement, monitoring and reporting information are complete, accurate and reliable). This is updated quarterly. If there are no changes, enter the same number as the previous quarter.

Data type: Decimal Select multiple values: No
Measurement unit: Dollars Allowed values: \$0-\$50,000,000

Logic: None – all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

GHG monitoring method

Data element name: GHG monitoring 1-5 Reporting question: How did the project monitor GHG benefits?

Description: Up to the five most common forms of monitoring GHG benefits used this quarter as part of MMRV requirements. Monitoring is defined as ongoing review and confirmation that the climate-smart practice has been implemented according to the agreed upon standard and documentation of any changes in the site, implementation, or GHG emissions impacts over time. Include up to 5 methods, based on which methods are most commonly used for this project. The worksheet provides five columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 5 GHG monitoring methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other GHG monitoring methods as free text.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Drones

Ground-level photos and videos

On-farm visit

Plot-based sampling

Producer records or attestation

Satellite monitoring or remote sensing

Soil metagenomics

Soil sensors

Water sensors

Other (specify)

Logic: None – all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

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GHG reporting method

Data element name: GHG reporting 1-5

Reporting question: How did the project track and report implementation of practices to reduce GHG emissions?

Description: Up to the five most common forms of tracking and reporting on practice implementation used this year as part of MMRV requirements. Reporting is defined as documenting and sharing monitoring and measurement results with project partners, the recipient, and any third-party verification organization. Include up to 5 methods, based on which methods are most commonly used for this project. The worksheet provides five columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 5 GHG reporting methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other GHG reporting methods as free text.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

- Automated devices
- Email
- Mobile app
- Paper
- Third-party actors
- Website
- Other (specify)

Logic: None – all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

GHG verification method

Data element name: GHG verification method 1-5

Reporting question: How did the project verify implementation

of practices to reduce GHG emissions?

Description: Up to the five most common forms of verifying practice implementation used this year as part of MMRV requirements. Verification is defined as independent confirmation that measurement, monitoring and reporting information are complete, accurate and reliable. Include up to 5 methods, based on which methods are most commonly used for this project. The worksheet provides five columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 5 GHG verification methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other GHG verification methods as free text.

Data type: List Select multiple values: No

Measurement unit: Category

Allowed values:

- Artificial intelligence
- Audit by recipient
- Computer modeling
- Photos
- Record audit
- Satellite imagery
- Site or field visit
- Third-party audit
- Other (specify)

Logic: None – all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

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Partner Activities

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Partner ID Unique Project ID for each partner

Partner name

Data element name: Name of partner organization Reporting question: What is the official name of the

recipient or partner organization?

Description: Legal name of recipient or partner organization

Data type: Text

Measurement unit: NA

Allowed values: Text

Allowed values: Text

Logic: None – all respond Required: Yes

Data collection level: Partner Data collection frequency: Partnership initiation

Partner type

Data element name: Type of partner organization Reporting question: What type of organization is this?

Description: Legal/financial structure of recipient or partner organization

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Commodity groups (501c5)

For-profitIndividualNonprofit

State or local agency

Tribal agencyUniversityRequired: Yes

Data collection level: Partner Data collection frequency: Partnership initiation

Partner POC

Logic: None - all respond

Data element name: Partner POC Reporting question: Who is the point of contact for

this project at the recipient or partner organization?

Description: Name of a point of contact for the recipient or partner organization

Data type: Text Select multiple values: NA

Measurement unit: NA Allowed values: Text

Logic: None – all respond Required: Yes

Data collection level: Partner Data collection frequency: Partnership initiation;

update as necessary

Partner POC email

Data element name: Partner POC email Reporting question: What is the point of contact's

email address?

Description: Email of the point of contact for the recipient or partner organization

Data type: Text Select multiple values: NA

Measurement unit: NA Allowed values: Text

Logic: None – all respond Required: Yes

Data collection level: Partner Data collection frequency: Partnership initiation;

update as necessary

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Partnership start date	
Data element name: Partnership start date	Reporting question: When did the partnership start?
Description: Date that the partner organization and	the recipient began formally partnering on the project
Data type: Date	Select multiple values: NA
Measurement unit: MM/DD/YYYY	Allowed values: 01/01/2023 - 12/31/2030
Logic: No response for recipient	Required: Yes
Data collection level: Partner	Data collection frequency: Partnership initiation
Partnership end date	=
Data element name: Partnership end date	Reporting question: When did the partnership end?
Description: Date that the partner organization and	the recipient stopped formally partnering on the project
Data type: Date	Select multiple values: NA
Measurement unit: MM/DD/YYYY	Allowed values: 01/01/2023 - 12/31/2030
Logic: No response for recipient	Required: Yes
Data collection level: Partner	Data collection frequency: Partnership end quarter
New partnership	
Data element name: New partnership	Reporting question: Is this a new partnership?
Data type: List Measurement unit: Category	Select multiple values: No Allowed values:
Logic: No response for recipient	YesNoI don't know
Logic: No response for recipient	 Yes No I don't know Required: Yes
Data collection level: Partner	YesNoI don't know
	 Yes No I don't know Required: Yes Data collection frequency: Partnership initiation Reporting question: What is the total amount of funding the partner has requested to date from this
Data collection level: Partner Partner total requested Data element name: Partner total requested Description: Cumulative (total) amount of funds tha recipient from the start of the partnership to the envalue must be the sum of all previous entries plus the there are no changes, report the value from the previous entries.	Yes No I don't know Required: Yes Data collection frequency: Partnership initiation Reporting question: What is the total amount of funding the partner has requested to date from this project? It the partner has requested reimbursement for from the d of the reporting quarter. For each quarter's data entry, the amount of funds requested in the reporting quarter. If vious quarter.
Data collection level: Partner Partner total requested Data element name: Partner total requested Description: Cumulative (total) amount of funds tha recipient from the start of the partnership to the envalue must be the sum of all previous entries plus the there are no changes, report the value from the previous type: Decimal	Yes No I don't know Required: Yes Data collection frequency: Partnership initiation Reporting question: What is the total amount of funding the partner has requested to date from this project? It the partner has requested reimbursement for from the d of the reporting quarter. For each quarter's data entry, the eamount of funds requested in the reporting quarter. If vious quarter. Select multiple values: NA
Data collection level: Partner Partner total requested Data element name: Partner total requested Description: Cumulative (total) amount of funds tha recipient from the start of the partnership to the envalue must be the sum of all previous entries plus the there are no changes, report the value from the predata type: Decimal Measurement unit: Dollars	Yes No I don't know Required: Yes Data collection frequency: Partnership initiation Reporting question: What is the total amount of funding the partner has requested to date from this project? If the partner has requested reimbursement for from the d of the reporting quarter. For each quarter's data entry, the amount of funds requested in the reporting quarter. If vious quarter. Select multiple values: NA Allowed values: \$0-\$100,000,000
Data collection level: Partner Partner total requested Data element name: Partner total requested Description: Cumulative (total) amount of funds tha recipient from the start of the partnership to the envalue must be the sum of all previous entries plus the there are no changes, report the value from the previous type: Decimal	Yes No I don't know Required: Yes Data collection frequency: Partnership initiation Reporting question: What is the total amount of funding the partner has requested to date from this project? It the partner has requested reimbursement for from the d of the reporting quarter. For each quarter's data entry, the eamount of funds requested in the reporting quarter. If vious quarter. Select multiple values: NA

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Data element name: Total match contribution

Reporting question: What is the total match value the organization has contributed to the project to date?

Description: Cumulative (total) value of funds and in-kind contributions (e.g., staff time, inputs, equipment rental, marketing support) that the partner has provided as a project match contribution from the start of the partnership to the end of the reporting quarter. For each quarter's data entry, the value must be the sum of all previous entries plus match contributions in the reporting quarter. If there are no changes, report the value from the previous quarter.

Data type: Decimal Select multiple values: NA

Measurement unit: Dollars Allowed values: \$0-\$100,000,000

Logic: None – all respond Required: Yes

Data collection level: Partner Data collection frequency: Quarterly

Total match incentives

Data element name: Total match incentives

Reporting question: What is the total value of match provided by this organization for producer incentives?

Description: Cumulative (total) value of funds for incentive payments directly to producers that the partner has provided as a project match contribution from the start of the partnership to the end of the reporting quarter. For each quarter's data entry, the value must be the sum of all previous entries plus match incentives in the reporting quarter. If there are no changes, report the value from the previous quarter.

Data type: Decimal Select multiple values: NA

Measurement unit: Dollars Allowed values: \$0-\$100,000,000

Logic: None – all respond Required: Yes

Data collection level: Partner Data collection frequency: Quarterly

Match type

Data element name: Match type 1-3

Logic: None - all respond

Reporting question: What types of match contributions has the organization provided to the project?

Description: Types of match contributions other than incentives provided directly to producers by the organization from the start of the partnership to the end of the reporting quarter. Enter up to the top three (in dollar value) types of match contributions provided. In-kind staff time could be used for technical assistance, marketing assistance, or other support to producers. Production inputs include seed, fertilizer, pesticides, equipment and other inputs for use in the field. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 match types are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other match types as free text.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Allowed values:

- Equipment rental or use
- In-kind staff time
- · Production inputs (reduced cost or free)
- Program income
- Software
- Other (specify)

Required: Yes

Data collection level: Partner Data collection frequency: Quarterly

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Match amount

Data element name: Match amount 1-3 Reporting question: What is the value of the match

contributions the organization provided to the

project?

Description: Cumulative (total) value of funds for each match type that the organization has provided as a project match contribution from the start of the partnership to the end of the reporting quarter. Enter amounts for up to the top three (in dollar value) match types. The worksheet provides three columns for this data element. Enter one value for each column. If fewer than 3 match types are used, leave unnecessary columns

blank.

Data type: Decimal Select multiple values: NA

Measurement unit: Dollars Allowed values: \$0-\$100,000,000

Logic: None – all respond Required: Yes

Data collection level: Partner Data collection frequency: Quarterly

Training type provided

Data element name: Training type 1-3 provided Reporting question: What types of training has the

organization provided to project partners?

Description: Types of training provided to the project partner as a result of participating in the project during the past quarter. Training can come from the recipient, a project partner organization (including other divisions of their own organization, or an outside organization. Enter up to the top three (in dollar value) types of partner training provided. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 training types are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other training types as free text.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Allowed values.

- Data collection
- Grant reporting
- Marketing opportunities
- Providing financial assistance
 Providing technical assistance
- Writing producer contracts
- Other (specify)

Required: Yes

Data collection level: Partner Data collection frequency: Quarterly

Activity by partner

Logic: None - all respond

Data element name: Activity 1-3 by partner Reporting question: What types of activities has the

organization provided to the project?

Description: Types of activities that the recipient or partner organization has provided during the reporting quarter. Enter up to the top three (in dollar value) types of activities undertaken. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 activity types are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other activity types as free text.

Data type: List Select multiple values: No

Measurement unit: Category

Allowed values:

Marketing support

- Marketing support
 MMRV support
- Producer outreach for enrollment.
- Technical assistance to producers
- · Training to other partner organizations
- Other (specify)

Logic: None – all respond Required: Yes

Data collection level: Partner Data collection frequency: Quarterly

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Activity cost

Data element name: Activity cost 1-3 Reporting question: What is the value of the activities

this organization has provided to the project?

Description: Cumulative (total) cost of each activity type that the organization has undertaken or offered from the start of the partnership to the end of the reporting quarter. Enter amounts for up to the top three (in dollar value) activity types. The worksheet provides three columns for this data element. Enter one value for each

column. If fewer than 3 activity types are provided, leave unnecessary columns blank.

Data type: Decimal

Select multiple values: NA

Measurement unit: Dollars Allowed values: \$0-\$100,000,000

Logic: None – all respond Required: Yes

Data collection level: Partner Data collection frequency: Quarterly

Products supplied

Data element name: Products supplied Reporting question: What products or supplies were

provided to enrolled fields?

Description: Name(s) of products supplied to enrolled producers as incentives or matching contributions. Enter the name of each product, including its brand. Separate each product name with a comma. If no products or

supplies were provided by the organization, leave the column blank.

Data type: Text Select multiple values: NA

Measurement unit: Name Allowed values: Text

Logic: None – all respond Required: Yes

Data collection level: Partner Data collection frequency: Quarterly

Product source

Data element name: Product source Reporting question: Which companies provided the

supplies?

Description: Name of firm or company from which supplies were obtained.

Data type: Text Select multiple values: NA

Measurement unit: Name Allowed values: Text

Logic: Respond if text entered for 'Products supplied' **Required:** Yes

Data collection level: Partner Data collection frequency: Quarterly

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Marketing Activities

Commodity type

Data element name: Commodity type Reporting question: What type of commodity is produced by

the farmers enrolled in this project?

Description: List a single commodity produced or marketed through incentives from this project. If multiple commodities are produced by the project, use additional rows of the worksheet to report each commodity. Use

the FSA commodity list in Appendix B and choose the commodity from the list. Select multiple values: No Data type: List

Measurement unit: Category Allowed values: FSA commodity list

Logic: None - all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

Marketing channel type

Data element name: Marketing channel Reporting question: What type of marketing channel is used to

sell this commodity?

Description: List a single type of marketing channel used to sell the commodity produced by farmers enrolled in the project. If a single commodity is marketed through multiple channels, use additional rows of the worksheet to report each combination of commodity and marketing channel. If "other" is chosen, use the additional column to enter the other marketing channel type(s) as free text.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Agricultural marketing board

Biorefinery

Commodity broker

Direct to consumer

Direct to institution

Direct to restaurant

Distributor (including grain elevators)

Food hub or cooperative

Food processor

Non-food byproducts processor

Retailer

USDA

Other (specify)

Logic: None - all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

Number of buyers

Data element name: Number of buyers Reporting question: How many buyers are there in this

marketing channel?

Description: List the number of individual firms or buyers in this marketing channel.

Data type: Integer Select multiple values: No Allowed values: 1-500 Measurement unit: Count

Logic: None - all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

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Names of buyers

Data element name: Names of buyers Reporting question: What are the names of all of the buyers in

this marketing channel?

Description: Provide the names of all buyers in this marketing channel. Separate each name with a comma.

Data type: Text Select multiple values: NA

Measurement unit: Name Allowed values: Text
Logic: None – all respond Required: Yes

Logic. None – an respond

Data collection level: Project Data collection frequency: Quarterly

Marketing channel geography

Data element name: Marketing channel Reporting question: What is the primary geography of the

geography marketing channel?

Description: The primary geography of the type of marketing channel. Primary geography means the scale at which most of the activity of buying and selling happens. Local means within a single state or directly neighboring states. Regional means within a five-to-ten state area. National means across the United States. International means specific locations outside of the United States. Global means across the world or not to a

specific international location.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

LocalRegionalNational

• Global Logic: None – all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

Value sold

Data element name: Value sold Reporting question: What is the value of the commodity sold in

this marketing channel?

Description: The dollar value of the commodity sold in this marketing channel this quarter (non-cumulative).

Data type: Decimal Select multiple values: No

Measurement unit: Dollars Allowed values: \$1-\$100,000,000

Logic: None – all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

Volume sold

Data element name: Volume sold Reporting question: What is the volume of the commodity sold

in this marketing channel?

Description: The volume of the commodity sold in this marketing channel this quarter (non-cumulative).

Data type: Decimal Select multiple values: No

Measurement unit: Number Allowed values: 1-100,000,000

Logic: None – all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

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USDA Partnerships for Climate-Smart Commodities Data Dictionary for Recipients February 2023

Volume sold unit

Data element name: Volume sold unit Reporting question: What is the unit of volume?

Description: The unit associated with the volume of the commodity sold in the marketing channel. If "other" is

chosen, use the additional column to enter the appropriate unit as free text.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Bales (500 pounds)

Bushels

Carcass pounds

Gallons

Kilograms

Linear board feet

Liveweight pounds

Metric tons

Pounds

Short tons

Other (specify)

Logic: None – all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

Price premium

Data element name: Price premium Reporting question: What price premium is received for the

commodity sold in this marketing channel?

Description: The price premium received for the commodity sold in this marketing channel this quarter. Price

premium is the amount received above a 'business as usual' price.

Data type: Decimal Select multiple values: No

Measurement unit: Dollars Allowed values: \$0.01-\$10,000

Logic: None – all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

Price premium unit

Data element name: Price premium unit Reporting question: What is the unit for the price premium?

Description: The unit associated with the price premium for the commodity sold in the marketing channel. If

"other" is chosen, use the additional column to enter the appropriate unit as free text.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Per bale (500 pounds)

Per bushel

Per carcass pound

Per gallon

Per kilogram

Per linear board foot

Per live pound

Per metric ton

Per ounce

Per short ton

Other (specify)

Logic: None – all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

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Price premium to producer

Data element name: Price premium to Reporting question: What percent of the price premium is producer

provided to the producer for the commodity sold in this

marketing channel?

Description: The percent of the price premium provided to the producer for the commodity sold in this marketing channel this quarter. Price premium is the amount received above a 'business as usual' price.

Data type: Decimal Select multiple values: No Allowed values: 0-100 Measurement unit: Percent

Logic: None - all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

Product differentiation method

Data element name: Product differentiation method 1-3 Reporting question: What methods are used

to differentiate climate-smart commodities in

this marketing channel?

Description: Provide the methods used to differentiate the climate-smart commodity in this market channel. Product differentiation methods are ways to distinguish or differentiate the climate-smart commodity in the marketplace. Include up to 3 methods, based on which methods are most commonly used for this project. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 product differentiation methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other product differentiation methods as free text.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

- Certification/verification for internal insetting
- Farm certification
- Label or badge used on packaging or marketing
- Third party certification/verification
- Trademark Other (specify)

Logic: None - all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

Marketing method

Data element name: Marketing method 1-3 Reporting question: What methods are used to market climate-smart commodities in this marketing channel?

Description: Provide the method(s) used to market this commodity in this market channel. Marketing method is the way that potential buyers of the climate-smart commodity are engaged by the project partners as the sellers or facilitators of sale. Include up to 3 methods, based on which methods are most commonly used for this project. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 marketing methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other marketing methods as free text

Data type: List Select multiple values: No

Allowed values: Measurement unit: Category

- Label or badge used on packaging or marketing materials
- Marketing partnership (e.g., promotion by buyer)
- Print marketing campaign
- Social media and digital marketing campaign
- Verbal marketing campaign (e.g., radio, word of mouth)

Other (specify)

Logic: None - all respond Required: Yes

Data collection level: Project Data collection frequency: Quarterly

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Marketing channel identification method

Data element name: Marketing channel identification method 1-3

Reporting question: What methods are used to generate interest in climate-smart commodities in this marketing channel?

Description: Provide the marketing channel identification method(s) used for this commodity in this market channel. Market channel identification methods are the ways that producers and project partners generate interest in purchasing the climate-smart commodity. Include up to 3 methods, based on which methods are most commonly used for this project. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 marketing channel identification methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other marketing channel identification methods as free text

Data type: List Select multiple values: No

Measurement unit: Category

Allowed values:

- Educational tours for buyers
- In-person lead generation
- Negotiated contracts with buyers
- · Partnership network or project partner
- Other (specify)
 Required: Yes

Logic: None – all respond

Data collection level: Project

Data collection frequency: Quarterly

Traceability method

Data element name: Traceability method

Reporting question: What traceability methods are used for climate-smart commodities in this channel?

Description: Provide the traceability method(s) used for the climate-smart commodity in this market channel. Traceability methods are ways to trace the climate-smart commodity or the climate-smart claims through the supply chain. Include up to 3 methods, based on which methods are most commonly used for this project. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 traceability methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other traceability methods as free text.

Data type: List Select multiple values: No

Measurement unit: Category

Allowed values:

- Barcode or unique ID
- Blockchain
- Book and claim
- Chain of custody
- Mass balance
- Recordkeeping
- Registry with certification
- Segregation
- Supply shed
- Volume proxy
- Other (specify)

Logic: None – all respond

Data collection level: Project

Required: Yes

Data collection frequency: Quarterly

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Producer Enrollment

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Farm ID Unique Farm ID assigned by FSA		
State or territory	State name (must match FSA farm enrollment data)	
County of residence	County name (must match FSA farm enrollment data)	

Producer data change

Data element name: Producer data change Reporting question: Is there new/updated

information for a producer who is re-enrolling in the

project?

Description: Indicates that there is new or updated information for a producer who had previously enrolled in

the project and is re-enrolling.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Yes
 No

Logic: None – all respond Required: Yes

Data collection level: Producer Data collection frequency: Re-enrollment

Producer start date

Data element name: Producer start date Reporting question: When did the producer enroll in

the project?

Description: Date that the producer enrolled in the project by signing their first contract.

Data type: Date Select multiple values: NA

Measurement unit: MM/DD/YYYY Allowed values: 01/01/2023 – 12/31/2030

Logic: None – all respond Required: Yes

Data collection level: Producer Data collection frequency: Initial enrollment

Producer name

Data element name: Producer name Reporting question: What is the name of producer

enrolled in the project?

Description: Name of the producer enrolled in the project; the name must match the name contained in the

customer's Business Partner record and the Farm Operating Plan in FSA Business File for that Farm ID.

Data type: Text Select multiple values: NA

Measurement unit: NA Allowed values: Text

Logic: None – all respond Required: Yes

Data collection level: Producer Data collection frequency: Initial enrollment

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Underserved status

Data element name: Underserved status

Reporting question: Is this producer considered an underserved and/or a small producer?

Description: Underserved status of the primary operator of the enrolled operation. Underserved producers generally include beginning farmers, socially disadvantaged farmers, veteran farmers, and limited resource farmers; women farmers and producers growing specialty crops are generally also included in these categories. Small farms are generally those with less than \$350,000 in annual gross cash farm income. Indicate whether this producer is considered underserved, a small producer, or both underserved and a small producer. Use "I don't know" if the producer declines to answer. Departmental Regulation 4370-001 provides USDA's policies for collecting demographic data, including race, ethnicity and gender. Providing demographic information is voluntary and at the discretion of the customer. Demographic information is used by USDA for statistical purposes only and will not be used to determine an applicant's eligibility for programs or services for which they apply.

Data type: List Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes, underservedYes, small producer
- · Yes, underserved and small producer
- No
- I don't know

Required: No

Data collection level: Producer Data collection frequency: Initial enrollment

Total area

Data element name: Total area Reporting question: What is the total area of the farm?

Description: Total area of the farm associated with the Farm ID. Report total area of the farm, even if only a portion of the farm is enrolled in the project. If a producer is enrolled in the project for multiple years, review the total area each time a new contract is signed and provide any necessary updates.

Data type: List Select multiple values: No

Measurement unit: Category

Logic: None - all respond

Allowed values:

- Less than 1 acre
- 1 to 9 acres
- 10 to 49 acres
- 50 to 69 acres
- 70 to 99 acres
- 100 to 139 acres
- 140 to 179 acres
 180 to 219 acres
- 220 to 259 acres
- 260 to 499 acres
- 500 to 999 acres
- 1,000 to 1,999 acres
- 2,000 to 4,999 acres
- 5,000 or more acres

Logic: None - all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment and subsequent enrollment(s), if applicable

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Total crop area

Data element name: Total crop area Reporting question: What percent of the current operation is

cropland?

Description: Area of the total farm that is currently used as cropland. If a producer is enrolled in the project for multiple years, review the total crop area each time a new contract is signed and provide any necessary

updates.

Data type: Integer Select multiple values: No
Measurement unit: Acres Allowed values: 0-100,000

Logic: None – all respond Required: Yes

Data collection level: Producer Data collection frequency: Initial enrollment and subsequent

enrollment(s), if applicable

Total livestock area

Data element name: Total livestock Reporting question: What amount of the current operation is used for

area livestock (by area)?

Description: Area of the total farm that is currently used for pasture, grazing, rangeland; or animal housing, feeding or milking. If a producer is enrolled in the project for multiple years, review the total livestock area each

time a new contract is signed and provide any necessary updates.

Data type: Integer Select multiple values: No Measurement unit: Acres Allowed values: 0-100,000

Logic: None – all respond Required: Yes

Data collection level: Producer Data collection frequency: Initial enrollment and subsequent

enrollment(s), if applicable

Total forest area

Data element name: Total forest area Reporting question: What amount of the current operation is forested

(by area)?

Description: Area of the total farm that is currently considered forest land use. Forest land use means that at least 10% of the land area is covered in trees that will be at least 13 feet tall when mature. If a producer is enrolled in the project for multiple years, review the total forest area each time a new contract is signed and

provide any necessary updates.

Data type: Integer Select multiple values: No
Measurement unit: Acres Allowed values: 0-100,000

Logic: None – all respond Required: Yes

Data collection level: Producer Data collection frequency: Initial enrollment and subsequent

enrollment(s), if applicable

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Livestock type

Data element name: Livestock type 1-3

Reporting question: What types of livestock are raised on the farm?

Description: Up to top three types of livestock (by head count) on the farm. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If there are fewer than 3 livestock types, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other livestock types as free text. If a producer is enrolled in the project for multiple years, review the livestock type each time a new contract is signed and provide any necessary updates.

Data type: List Select multiple values: No

Measurement unit: Category

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- Allowed values:
- Alpacas
- Beef cows
- Beefalo
- Buffalo or bison
- Chickens (broilers)
- Chickens (layers)
- Dairy cows
- Deer
- Ducks
- Elk
- Emus
- Equine
- Geese
- Goats
- Honeybees
- Llamas
- Reindeer
- Sheep
- Swine
- Turkeys
- Other (specify)

Required: Yes

Data collection frequency: Initial enrollment and subsequent enrollment(s), if applicable

Livestock head

Data element name: Livestock head 1-3

Logic: Respond if 'Total livestock area' >0

Data collection level: Producer

Reporting question: How many livestock (by type) are on this operation?

Description: Average annual head count for each type of livestock. Enter amounts for up to the top three livestock types by number. The worksheet provides three columns for this data element. Enter one value for each column. If there are fewer than 3 livestock types, leave unnecessary columns blank. If a producer is enrolled in the project for multiple years, review the average annual head count each time a new contract is signed and provide any necessary updates.

Data type: Integer Select multiple values: NA

Measurement unit: Head count Allowed values: 1-10,000,000

Logic: Respond if 'Total livestock area' >0 Required: Yes

Data collection level: Producer Data collection frequency: Initial enrollment and

subsequent enrollment(s), if applicable

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gan		

Data element name: Organic farm

Reporting question: Is any part of the farm currently USDAcertified organic or transitioning to USDA-certified organic?

Description: USDA-certified organic means that the farm has been certified by an accredited organic certifying agent or is transitioning to USDA-certified organic by not using any of the prohibited substances. Yes means that some or all of the farm is certified organic or transitioning to certified organic. No means that no part of the farm is certified organic or transitioning to certified organic. If a producer is enrolled in the project for multiple years, review the organic certification status of the farm each time a new contract is signed and provide any necessary updates.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Yes

No

I don't know

Logic: None - all respond Required: No

Data collection level: Producer Data collection frequency: Initial enrollment and

subsequent enrollment(s), if applicable

Organic fields

Data element name: Organic fields

Reporting question: Are any of the fields enrolled in the project currently USDA-certified organic or transitioning to USDA-certified organic?

Description: USDA-certified organic means that the operation has been certified by an accredited organic certifying agent or is transitioning to USDA-certified organic by not using any of the prohibited substances. Yes means that some or all of the fields enrolled in the project are certified organic or transitioning to certified organic. No means that no part of the fields enrolled in the project are certified organic or transitioning to certified organic. If a producer is enrolled in the project for multiple years, review the organic certification status of the enrolled fields each time a new contract is signed and provide any necessary updates.

Data type: List Select multiple values: No

Allowed values: Measurement unit: Category

Yes

No

I don't know

Logic: Respond if yes to 'Organic operation'

Required: No

Data collection level: Producer Data collection frequency: Initial enrollment and

subsequent enrollment(s), if applicable

Producer motivation

Data element name: Producer motivation

Reporting question: Which of the following was the primary

reason the producer enrolled in this project?

Description: Primary operator's motivation for enrolling in the project.

Select multiple values: No Data type: List

Measurement unit: Category

Allowed values:

Financial benefit

Environmental benefit

New market opportunity

Partnerships or networks

Other

Required: Yes Logic: None - all respond

Data collection level: Producer

Data collection frequency: Initial enrollment

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Daniel Street	brunupapren	CONTRACTOR STATES	200
Prog	ucer	outrea	cn

Data element name: Producer outreach 1- Reporting question: What types of outreach were provided to producers?

Description: Up to three most common types of outreach provided to producer prior to enrollment. Outreach activities are those focused on identifying and enrolling producers in the project. Outreach can come from the recipient or project partners. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If there are fewer than 3 outreach types, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other outreach types as free text.

Data type: List Select multiple values: Yes

Measurement unit: Category

Allowed values:

- Commodity organizations
- Conferences
- Cooperative extension
- Digital communications and resources
- Education workshops, field days, and town halls
- Existing partner networks
- Farm visits and one-on-one meetings
- General advertising
- Peer referrals and producer groups
- Phone calls
- Print communications and resources
- Retailers
- State agencies
- Targeted messaging using proprietary data
- Technical service providers
- Other (specify)

Logic: None – all respond

Data collection level: Producer

Required: Yes

Data collection frequency: Initial enrollment

CSAF experience

Data element name: CSAF experience

Reporting question: Has the primary operator implemented CSAF practices in the last ten years anywhere on the farm?

Description: Has this farm implemented climate-smart agriculture or forestry (CSAF) practices anywhere on the farm in the past 10 years or since the current primary operator took control (whichever time period is shorter)? CSAF practices are included in a list in Appendix A.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

- Yes
- No
- I don't know

Logic: None – all respond Required: Yes

Data collection level: Producer Data collection frequency: Initial enrollment

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CSAF federal funds

Data element name: CSAF federal funds Reporting question: Were prior CSAF practices supported by

federal funds?

Description: If this farm (under the primary operator) has implemented CSAF practices in the last ten years, was implementation supported by federal funds? Federal funds are defined as being from programs including, but not limited to, those from the Natural Resources Conservation Service ((NRCS), including through Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), Regional Conservation Partnership Program (RCPP), or related programs), the Farm Service Agency Conservation Reserve Program (CRP), as well as funds from other USDA programs or other federal agencies.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Yes

No

I don't know

Logic: Respond if yes to 'CSAF experience' Required: Yes

Data collection level: Producer Data collection frequency: Initial enrollment

CSAF state or local funds

Data element name: CSAF state or local Reporting question: Were prior CSAF practices supported by

unds state or local funds?

Description: If this farm (under the primary operator) has implemented CSAF practices in the last ten years, was implementation supported by state funds? State or local funds are those from state departments of agriculture or other state agencies, local water quality districts and other local agencies.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Yes

No

I don't know

Logic: Respond if yes to 'CSAF experience' Required: Yes

Data collection level: Producer Data collection frequency: Initial enrollment

CSAF nonprofit funds

Data element name: CSAF nonprofit funds Reporting question: Were CSAF practices supported by

nonprofit funds?

Description: If this farm (under the primary operator) has implemented CSAF practices in the last ten years, was implementation supported by nonprofit funds? Nonprofit funds are those offered directly from a nonprofit

organization to a producer.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Yes

• No

I don't know

Logic: Respond if yes to 'CSAF experience'

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment

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CSAF market incentives

Data element name: CSAF market incentives Reporting question: Were CSAF practices supported by market

incentives?

Description: If this farm (under the primary operator) has implemented CSAF practices in the last ten years, was implementation supported by market incentives? Market incentives include premiums paid by a commodity

buyer or by a consumer based on branding or labeling as a climate-smart commodity.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Yes

No

I don't know

Logic: Respond if yes to 'CSAF experience'

Required: Yes

Data collection level: Producer Data collection frequency: Initial enrollment

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Field Enrollment

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Farm ID	Unique Farm ID assigned by FSA	
Tract ID Unique Tract ID assigned by FSA		
Field ID Unique Field ID assigned by FSA		
State or territory of field State name (must match FSA farm enrollment data)		
County of field	County name (must match FSA farm enrollment data)	
Prior Field ID, if applicable	Prior Field ID assigned by FSA if there has been reconstitution of the fa resulting in a new Field ID during the field's enrollment in the project	

Field data change

Data element name: Field data change Reporting question: Has the information previously

reported for this field changed?

Description: Indicator that this entry is being used to report any relevant changes, such as a new Field ID number or changes to the commodity or practice combinations, for a field that has previously been enrolled in

the project.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

YesNo

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Re-enrollment

Contract start date

Data element name: Contract start date Reporting question: What is the start date of the

contract with the producer that includes this field?

Description: Start date listed on the contract that enrolls the field in the project.

Data type: Date Select multiple values: NA

Measurement unit: MM/DD/YYYY Allowed values: 01/01/2023 – 12/31/2030

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Initial enrollment

Total field area

Data element name: Total field area Reporting question: What is the total size of the

enrolled field?

Description: Total size of the field enrolled with the project.

Data type: Decimal Select multiple values: No Measurement unit: Acres Allowed values: .01-500

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Initial enrollment

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Commodity category	
Data element name: Commodity category	Reporting question: What category of
MONE PO SURO WARNES WARE YOURSELE WE NO 1250 MICROSINES	commodity(ies) is (are) produced from this field
Description: Category of commodity(ies) produced in fie	ld enrolled in the project
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	 Crops
	 Livestock
	 Trees
	 Crops and livestock
	 Crops and trees
	 Livestock and trees
7 - 7 - 17	 Crops, livestock and trees
Logic: None – all respond	Required: Yes
Data collection level: Field	Data collection frequency: Initial enrollment
Commodity type	
Data element name: Commodity type	Reporting question: What type of commodity is
water with the second	produced from this field?
Description: Type of commodity produced in field enrolle	
worksheet provides a drop-down list of the allowed value commodities in subsequent rows.	es. Choose the appropriate value. Enter additional
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values: FSA commodity list
Logic: None – all respond	Required: Yes
Data collection level: Field	Data collection frequency: Initial enrollment
	Data conection frequency. Initial enrollment
Baseline yield	Demanting acception. What is the becaling still
Data element name: Baseline yield	Reporting question: What is the baseline yield of this field?
그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그	rs prior to enrollment. Provide yield for the enrolled
field if possible. If not at field level, provide average annu	
	ual yield for the specific commodity for the operation. Select multiple values: No
field if possible. If not at field level, provide average annu	ver and a supply for the company of
field if possible. If not at field level, provide average annu Data type: Decimal	Select multiple values: No

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Base		

Data element name: Baseline yield unit Reporting question: Baseline yield unit

Description: Unit of average annual yield of commodity in enrolled field in 3 years prior to enrollment. The worksheet provides a drop-down list of choices for this data element. If "other" is chosen, use the additional

column to enter the appropriate yield unit as free text.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Animal units per acre

Bushels per acre

Carcass pounds per animal

Head per acre

Hundred-weights (or pounds) per head

Linear feet per acre

Liveweight pounds per animal

Pounds per acreTons per acre

Other (specify)
 Required: Yes

Data collection level: Field Data collection frequency: Initial enrollment

Baseline yield location

Logic: None - all respond

Data element name: Baseline yield location Reporting question: For what portion of the operation is the

baseline yield being reported?

Description: Location of the reported average annual yield of commodity in 3 years prior to enrollment. If

"other" is chosen, use the additional column to enter the appropriate location as free text.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Enrolled field

Whole operation

Other (specify)

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Initial enrollment

Field land use

Data element name: Field land use Reporting question: What is this field's land use history?

Description: Prior to enrollment, what was the most common land use for this field in the past 3 years?

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Crop land

Forest land

Non-agriculture

Other agricultural land

Pasture

Range

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Initial enrollment

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Field irrigated

Data element name: Field irrigated Reporting question: What is this field's irrigation history?

Description: Prior to enrollment, what was the most common irrigation practice on this field the past 3 years?

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

. Na ledantina

No irrigation

Center pivot

Drip-subsurface

Drip-surface

Flood/border

Furrow/ditch

Lateral/linear sprinklers

Micro-sprinklers

Seepage

Side roll

Solid set sprinklers

Supplemental

Surface

Traveling gun/towline

Wheel Line

Other

Required: Yes

Data collection level: Field Data collection frequency: Initial enrollment

Field tillage

Logic: None - all respond

Data element name: Field tillage Reporting question: What is this field's tillage history?

Description: Prior to enrollment, what was the most common tillage approach during the past 3 years?

Data type: List Select multiple values: No

Measurement unit: Category

Allowed values:

None

Conventional, inversion

Conventional, vertical

No-till, direct seed

Reduced till, inversion

Reduced till, vertical

Strip till

Other

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Initial enrollment

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Practice p	ast exten	t - '	farm
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Data element name: Practice past extent - Reporting question: What percent of the farm has

farm implemented this CSAF practice (combination) previously?

Description: Prior to enrollment, on what portion of the whole farm had this (these) CSAF practice(s) ever been used by the primary operator? If multiple practices are planned to be implemented in this field, enter the value that best corresponds to the farm's prior experience with the planned set of practices.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Never used

Used on less than 25% of operation

Used on 25-50% of operation
 Used on 51-75% of operation

· Used on more than 75% of operation

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Initial enrollment

Field any CSAF practice

Data element name: Field any CSAF practice Reporting question: What is this field's prior experience with

CSAF practices?

Description: Prior to enrollment, have any CSAF practice or practices been used in this field in the past 3 years?

CSAF practices are included in a list in Appendix A.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Yes
 No

I don't know
 Required: Yes

Data collection level: Field Data collection frequency: Initial enrollment

Practice past use - this field

Logic: None - all respond

Data element name: Practice past use - this F

ield

Reporting question: Have this CSAF practice (combination)

been implemented previously in this field?

Description: Prior to enrollment, had this (these) CSAF practice(s) been used in this field in the in the past 3 years? Enter yes if all of the practices had been used previously in this field; enter some if multiple practices are being implemented and one or more, but not all of the practices had been used previously in this field; and enter no if none of the practices had been used previously in this field.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

• Yes

SomeNo

I don't know

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Initial enrollment

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Practice type

Data element name: Practice type 1-7 Reporting question: What CSAF practice is being implemented

in this field through the project?

Description: Which CSAF practice or practices will be implemented on this field as part of enrollment in the project? CSAF practices are included in a list in Appendix A. The worksheet provides seven columns for this data element. Enter one value for each column. If there are fewer than 7 practices being implemented on this field through enrollment in the project, leave unnecessary columns blank.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values: See list in Appendix A

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Initial enrollment

Practice standard

Data element name: Practice standard 1-7 Reporting question: What standard does the CSAF practice

follow?

Description: Is the CSAF practice being implemented on the field as part of enrollment in the project following a defined practice standard? The worksheet provides seven columns for this data element. Enter one value for each column, corresponding to the practice types entered in the previous columns. If there are fewer than 7 practices being implemented on this field through enrollment in the project, leave unnecessary columns blank.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

NRCS

Other (specify)

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Initial enrollment

Planned practice implementation year

Data element name: Practice 1-7 Reporting question: What year is the CSAF practice planned to

implementation year be implemented?

Description: Year that the CSAF practice is planned to be implemented on the field. Use 2022 for early adopters, defined as fields that have the practice actively implemented in 2022 (prior to contract being signed for this project). The worksheet provides seven columns for this data element. Enter one value for each column, corresponding to the practice types entered in the previous columns. If there are fewer than 7 practices being implemented on this field through enrollment in the project, leave unnecessary columns blank.

Data type: Integer Select multiple values: No
Measurement unit: Year Allowed values: 2022-2030

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Initial enrollment

Practice extent

Data element name: Practice 1-7 extent Reporting question: To what extent is the practice

implemented?

Description: Total area, length, or head where the practice is being implemented in the field specified by the

contract.

Data type: Decimal Select multiple values: No Measurement unit: Extent Allowed values: .01-

100,000

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Initial enrollment

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Practice extent unit

Data element name: Practice 1-7 Reporting question: Unit for extent of practice implementation

extent unit

Description: Unit for extent of practice implementation on the field specified by the contract. If "other" is

chosen, use the additional column to enter the appropriate unit.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Acres

Head of livestock

Linear feet

Square feet

Other (specify)

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Initial enrollment

CSAF Practice Sub-questions

For certain practices, additional questions are asked that provide information necessary to estimate greenhouse gas benefits from implementation of the practice. See Table 11 in the CSAF Practice Sub-questions section for descriptions of individual questions to be answered depending on the CSAF practices selected.

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Farm Summary

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Farm ID	Unique Farm ID assigned by FSA	
State or territory	State name (must match FSA farm enrollment data)	
County of residence County name (must match FSA farm enrollment data)		

Producer TA received

Data element name: Producer TA received Reporting question: What types of technical assistance were provided to this producer?

Description: Did the recipient or any partner provide technical assistance (TA) to the producer this year? Technical assistance is any training, education, capacity building or other support provided by any project partner(s) directly to producers enrolled in the project. List up to the top three most common types of TA provided to this producer. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If there are fewer than 3 TA types, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other TA types as free text.

Data type: List Select multiple values: No

Measurement unit: Category Allo

Allowed values:

- Demonstration plots
- Equipment demonstrations
- Group field days or in-person field workshops
- Hotline
- One-on-one enrollment assistance
- One-on-one field visits
- One-on-one producer mentorship
- Producer networks and peer-to-peer groups
- Retailer consultation
- Social media/digital tools
- Train-the-trainer opportunities
- Virtual meetings or field days
- Webinars and videos
- Written materials
- None
- Other (specify)

Logic: None – all respond **Required:** Yes

Data collection level: Producer Data collection frequency: Quarterly

Producer incentive amount

Data element name: Producer incentive Reporting question: What is the total value of financial

amount incentives provided to this producer?

Description: Total incentive payment received by the producer from USDA project funds for the year (non-

cumulative). Do not include incentive payments made with partner match funds.

Data type: DecimalSelect multiple values: NAMeasurement unit: DollarsAllowed values: \$0-\$5,000,000

Logic: None – all respond Required: Yes

Data collection level: Producer Data collection frequency: Quarterly

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Incentive reason

Data element name: Incentive reason 1-4 Reporting question: Why were incentives provided to this producer?

Description: List up to four reasons for producer incentive payments. List the top 4 based on total value of the incentive for each reason. The worksheet provides four columns with a drop-down list of the allowed values. Choose one value for each column. If there are fewer than 4 reasons, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other reasons as free text.

Select multiple values: No Data type: List

Allowed values: Measurement unit: Category

- Avoided conversion
- Conference or training attendance
- Demographics/equity payment
- Enrollment
- Foregone revenue
- Historic data collection
- Identity preservation (supply chain tracing)
- Implementation of practices
- MMRV (e.g., data collection, reporting)
- Passing audit
- Price premium on output
- Yield change
- Other (specify)

Required: Yes

Data collection level: Producer Data collection frequency: Quarterly

Incentive structure

Logic: None - all respond

Data element name: Incentive structure 1-4 Reporting question: What are the units for the financial incentives provided to this producer?

Description: List the structures (units) corresponding to the top 4 (by dollar value) incentive payments to producers. Production unit is weight or volume (bushel, kilogram, ton). The worksheet provides four columns with a drop-down list of the allowed values. Choose one value for each column. If there are fewer than 4 structure types, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other structure types as free text.

Data type: List Select multiple values: No

Measurement unit: Category

Allowed values:

- Flat rate
- Per animal head
- Per area
- Per length
- Per production unit
- Per ton GHG
- Per tree
- Other (specify)

Logic: None - all respond Required: Yes

Data collection level: Producer Data collection frequency: Quarterly

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Incentive type

Data element name: Incentive type 1-4

Reporting question: What type of incentives were provided to each producer?

Description: List the top 4 types of incentive payments to producers (based on dollar value). The worksheet provides four columns with a drop-down list of the allowed values. Choose one value for each column. If there are fewer than 4 incentive types, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other incentive types as free text.

Data type: List Select multiple values: No

Measurement unit: Category

Allowed values:

- Cash payment
- Equipment loan
- · Guaranteed commodity premium payment
- Inputs and supplies
- Land rental
- Loan
- Paid labor
- Post-harvest transportation
 Tuition or fees for training
- Other (specify)

Required: Yes

Data collection level: Producer

Data collection frequency: Quarterly

Payment on enrollment

Logic: None - all respond

Data element name: Payment on

enrollment

Reporting question: What portion of the financial incentive is provided to the producer upon enrollment in the project?

Description: Any incentive payment provided to the producer upon enrollment/signing a contract, and not related to any implementation, MMRV or sales activities. Full payment means the full incentive amount for any contract held by the producer is paid upon enrollment. Partial payment means that only part of the full incentive amount for any contract held by the producer is paid upon enrollment. No payment means that none of the full incentive amount for any contract held by the producer is paid upon enrollment.

Data type: List Select multiple values: No

Measurement unit: Category

Allowed values:

- Full payment
- Partial payment
- No payment

Logic: None - all respond

Required: Yes

Data collection level: Producer Data collection frequency: Quarterly

Payment on implementation

Data element name: Payment on implementation

Reporting question: What portion of the financial incentive is provided to the producer upon implementation of the practices?

Description: Any incentive payment provided to the producer upon implementing the practices included in the contract. Full payment means the full incentive amount for any contract held by the producer is paid upon implementation. Partial payment means that only part of the full incentive amount for any contract held by the producer is paid upon implementation. No payment means that none of the full incentive amount for any contract held by the producer is paid upon implementation.

Data type: List Select multiple values: No

Measurement unit: Category Alle

Allowed values:

Full payment

Partial payment

 No payment Required: Yes

Data collection level: Producer

Logic: None - all respond

Data collection frequency: Quarterly

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Payment on harvest

Data element name: Payment on harvest

Reporting question: What portion of the financial incentive is provided to the producer upon harvest of the commodity?

Description: Any incentive payment provided to the producer upon harvesting or slaughtering the commodity included in the contract. Full payment means the full incentive amount for any contract held by the producer is paid upon harvest. Partial payment means that only part of the full incentive amount for any contract held by the producer is paid upon harvest. No payment means that none of the full incentive amount for any contract held by the producer is paid upon harvest.

Data type: List Select multiple values: No

Measurement unit: Category

Allowed values:Full paymentPartial payment

• No payment Logic: None – all respond Required: Yes

Data collection level: Producer Data collection frequency: Quarterly

Payment on MMRV

Data element name: Payment on MMRV

Reporting question: What portion of the financial incentive is provided to the producer upon completing MMRV requirements?

Description: Any incentive payment provided to the producer upon completing the annual MMRV requirements included in the contract. Full payment means the full incentive amount for any contract held by the producer is paid upon MMRV being complete. Partial payment means that only part of the full incentive amount for any contract held by the producer is paid upon MMRV being complete. No payment means that none of the full incentive amount for any contract held by the producer is paid upon MMRV being complete.

Data type: List Select multiple values: No

Measurement unit: Category

Allowed values:

Full paymentPartial paymentNo payment

Logic: None – all respond

Data collection level: Producer

Required: Yes

Data collection frequency: Quarterly

Payment on sale

Data element name: Payment on sale

Reporting question: What portion of the financial incentive is provided to producer upon sale of the commodity?

Description: Any incentive payment provided to the producer upon sale of the commodity included in the contract. Full payment means the full incentive amount for any contract held by the producer is paid upon sale. Partial payment means that only part of the full incentive amount for any contract held by the producer is paid upon sale. No payment means that none of the full incentive amount for any contract held by the producer is paid upon sale.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Full paymentPartial paymentNo payment

Logic: None – all respond Required: Yes

Data collection level: Producer Data collection frequency: Quarterly

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Field Summary

Unique IDs	Uni	qu	e l	Ds
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Farm ID	Unique Farm ID assigned by FSA	
Tract ID	Unique Tract ID assigned by FSA	
Field ID	Unique Field ID assigned by FSA	
State or territory of field	State name (must match FSA farm enrollment data)	
County of field County name (must match FSA farm enrollment data)		

Commodity type

Data element name: Commodity type Reporting question: What type of commodity is produced from

this field?

Description: Type of commodity produced in field enrolled in the project. See full list in Appendix B. The worksheet provides multiple columns with a drop-down list of the allowed values. Choose one value for each

column. Leave unnecessary columns blank.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values: FSA commodity list

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

Practice type

Data element name: Field practice type 1-7 Reporting question: What CSAF practice is being implemented

in this field through the project?

Description: Which climate-smart agriculture or forestry (CSAF) practice or practices are being implemented in this project? CSAF practices are included in a list in Appendix A. The worksheet provides seven columns for this data element. Enter one value for each column. If there are fewer than 7 practices being implemented on this field through enrollment in the project, leave unnecessary columns blank.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values: See list in Appendix A

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

Date practice complete

Data element name: Date practice complete Reporting question: When did the project certify CSAF practice

implementation as complete?

Description: Date that the project certifies that implementation of the CSAF practice is complete on the field. Use January of the year prior to contract year for early adopters, defined as fields that have the practice actively implemented in the year prior to a contract associated with this project is signed). The worksheet provides seven columns for this data element. Enter one value for each column, corresponding to the practice types entered in the previous columns. If there are fewer than 7 practices being implemented on this field through enrollment in the project, leave unnecessary columns blank.

Data type: Date Select multiple values: No

Measurement unit: MM/DD/YYYY Allowed values: 01/01/2023 - 12/31/2030

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

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Contract end date

Data element name: Contract end date Reporting question: Contract end date

Description: End date listed on the contract that enrolls the field in the project. If contract end date changes,

submit updated end date during the next quarter's reporting.

Data type: Date Select multiple values: No

Measurement unit: MM/DD/YYYY Allowed values: 01/01/2023 – 12/31/2030

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

MMRV assistance provided

Data element name: MMRV assistance provided Reporting question: Was MMRV assistance provided?

Description: Was any MMRV assistance provided to the primary operator for this field? MMRV assistance includes in-field support for the use of technologies, consultation on data collection and input, and other support related to MMRV. MMRV is defined a measurement (calculations or estimations of GHG emissions), monitoring (ongoing review and confirmation that the climate-smart practice has been implemented according to the agreed upon standard and documentation of any changes in the site, implementation, or GHG emissions impacts over time), reporting (documenting and sharing monitoring and measurement results with project partners, the recipient, and any third-party verification organization), and verification (independent confirmation that measurement, monitoring and reporting information are complete, accurate and reliable).

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Yes

No

I don't know

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

Marketing assistance provided

Data element name: Marketing assistance provided Reporting question: Was marketing assistance

provided?

Description: Was any marketing assistance provided to the primary operator for the commodity(ies) produced from this field? Marketing assistance includes guaranteeing the sale of the commodity(ies), providing a platform for the sale of the commodity(ies), providing a label, branding, or other support related to marketing.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Yes

• No

I don't know

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

Incentive per acre or head

Data element name: Incentive per acre or head Reporting question: Is this field receiving a per-acre or

per-head incentive?

Description: Is this field receiving an incentive payment to implement a specific CSAF practice or set of practices

on a per-acre or per-head (livestock) basis?

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Yes

No

I don't know

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

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Field commodity value

Data element name: Field commodity value Reporting question: What is the value of the commodity

produced on the enrolled field?

Description: The dollar value of the commodity produced on the enrolled field.

Data type: Decimal Select multiple values: No

Measurement unit: Dollars Allowed values: \$1-\$10,000,000

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

Field commodity volume

Data element name: Field commodity volume Reporting question: What is the volume of commodity

produced on the enrolled field?

Description: The volume of the commodity produced on the enrolled field

Data type: Decimal Select multiple values: No

Measurement unit: Number Allowed values: 1-10,000,000

Data collection level: Field Data collection frequency: Quarterly

Field commodity volume unit

Logic: None - all respond

Data element name: Field commodity volume Reporting question: What is the unit of volume?

unit

Description: The unit associated with the volume of the commodity produced on the enrolled field. If "other" is

Required: Yes

chosen, enter the appropriate value in the additional column.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Bushels

Carcass weight pounds

GallonsHead

Linear feet

Liveweight pounds

Pounds

Tons Other (specify)

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

Cost of implementation

Data element name: Cost of implementation Reporting question: What is the cost of practice

implementation in the field?

Description: Total annual estimated cost per unit of implementing the practice(s) in the enrolled field.

Data type: Decimal Select multiple values: No

Measurement unit: Dollars Allowed values: \$1-\$10,000,000

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

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Cost unit

Data element name: Cost unit Reporting question: What is the unit for cost?

Description: The unit associated with the cost of implementing CSAF practices in the field. If "other" is chosen,

enter the appropriate value in the additional column.

Data type: List Select multiple values: No

Measurement unit: Category

Allowed values:

Per acre

Per bushel

Per head

no because

Per linear foot

Per pound

Per ton

Other (specify)

Logic: None – all respond

Data collection level: Field Data collection frequency: Quarterly

Cost coverage

Data element name: Cost coverage Reporting question: What percent of the practice cost is

covered by the incentive?

Description: Estimated proportion of total annual cost of implementing the practice(s) that is covered by project

Required: Yes

incentives.

Data type: Integer Select multiple values: No Measurement unit: Percent Allowed values: 0-100

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

Field GHG monitoring

Data element name: Field GHG monitoring Reporting question: How were GHG impacts monitored in this

1-3 field?

Description: Up to the top three forms of monitoring GHG benefits as part of MMRV requirements. Monitoring is defined as ongoing review and confirmation that the climate-smart practice has been implemented according to the agreed upon standard and documentation of any changes in the site, implementation, or GHG emissions impacts over time. Include up to 3 methods, based on which methods are most commonly used for this field. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 GHG monitoring methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other GHG monitoring methods as free text.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Drones

Ground-level photos and videos

On-farm inspection

Plot-based sampling (e.g., soil, water)

Producer records or attestation

Satellite monitoring or remote sensing

Soil metagenomics

Soil sensors

Water sensors

Other (specify)

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

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Field GHG reporting

Data element name: Field GHG reporting **Reporting question:** How were GHG benefits reported for this field?

Description: Up to the top three forms of reporting on GHG benefits as part of MMRV requirements. Reporting is defined as documenting and sharing monitoring and measurement results with project partners, the recipient, and any third-party verification organization. Include up to 3 methods, based on which methods are most commonly used for this field. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 GHG reporting methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other GHG reporting methods as free text.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

- Automated devices
- Email
- Mobile app
- Paper
- Third-party actors
- Website
- Other (specify)

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

Field GHG verification

Data element name: Field GHG verification

Reporting question: How was implementation of practices to reduce GHG emissions verified for this field?

Description: Up to the top three of verification of GHG benefits as part of MMRV requirements. Verification is defined as independent confirmation that measurement, monitoring and reporting information are complete, accurate and reliable. Include up to 3 methods, based on which methods are most commonly used for this field. The worksheet provides three columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 3 GHG verification methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other GHG verification methods as free text.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

- · Artificial intelligence
- Computer modeling
- Recipient audit
- Photos
- Record audit
- Satellite imagery
- Site or field visit
- Third-party audit
- Other (specify)

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

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Field GHG calculations

Data element name: Field GHG Reporting question: What methods are used to calculate GHG

calculations benefits in this field?

Description: List the method(s) used to calculate GHG benefits in this field. If yes to direct physical

measurements, submit result reports (see Supplemental Data Submission - Field direct GHG measurement

results).

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Models

Direct field measurements

Both

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

Field official GHG calculation

Data element name: Field official GHG Reporting question: What method was used to calculate the

calculation official GHG benefits in this field?

Description: List the method used to calculate the official GHG benefits in this field that are reported as part of

the project's aggregate impact.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Models

Direct field measurements

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

Field official GHG ER

Data element name: Field official GHG Reporting question: What are the estimated total GHG emission

emission reductions reductions (CO2eq) in this field?

Description: Estimated greenhouse gas emission reductions from practice implementation in this field that are reported as part of the project's aggregate impact. This data element must be entered upon practice completion

or annually, as appropriate.

Data type: Decimal Select multiple values: No

Measurement unit: Metric tons CO₂eq Allowed values: 0-10,000,000

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

Field official carbon stock

Data element name: Field official carbon Reporting question: How much carbon has been sequestered in

stock this field?

Description: Estimated total change in carbon stock based on practice implementation in this field. This data element can be reported in any quarter and is cumulative for the year. Conversion rate is one ton of carbon =

3.67 tons of CO₂eq.

Data type: Decimal Select multiple values: No

Measurement unit: Metric tons CO₂eq Allowed values: 0-10,000,000

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

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Field official CO2 ER

Data element name: Field official CO2 Reporting question: What are the estimated total CO2 emission

emission reductions reductions in this field?

Description: Estimated total carbon dioxide emission reductions based on practice implementation in this field that are reported as part of the project's aggregate impact. This data element must be entered upon practice

completion or annually, as appropriate.

Data type: Decimal Select multiple values: No

Measurement unit: Metric tons CO₂ Allowed values: 0-10,000,000

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

Field official CH4 ER

Data element name: Field official CH4 emission Reporting question: What are the estimated total CH4

reductions emission reductions in this field?

Description: Estimated total methane emission reductions based on practice implementation in this field that are reported as part of the project's aggregate impact. This data element must be entered upon practice

Allowed values: 0-10,000,000

Allowed values: 0-10,000,000

completion or annually, as appropriate. Conversion rate is one ton of $CH_4 = 25$ tons of CO_2 eq.

Data type: Decimal Select multiple values: No

Measurement unit: Metric tons CH4 reduced in

CO₂eq

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

Field official N20 ER

Data element name: Field official N2O emission Reporting question: What are the estimated total N2O

reductions emission reductions in this field?

Description: Estimated total nitrous oxide emission reductions based on practice implementation in this field that are reported as part of the project's aggregate impact. This data element must be entered upon practice

completion or annually, as appropriate. Conversion rate is one ton of $N_2O = 298$ tons of CO_2eq .

Data type: Decimal Select multiple values: No

Measurement unit: Metric tons N2O reduced in

CO₂eq

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

Field offsets produced

Data element name: Field offsets produced Reporting question: How many carbon offsets have been

produced in this field?

Description: Total carbon offsets produced in the field during the quarter (not cumulative). Offsets are defined

as having been verified and certified using an accepted standard and sold into the carbon marketplace.

Data type: Decimal Select multiple values: No

Measurement unit: Metric tons CO₂eq Allowed values: 0-10,000,000

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

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Field insets produced

Data element name: Field insets produced Reporting question: How many carbon insets have been

produced in this field?

Description: Total carbon insets produced in the field during the quarter (not cumulative). Insets are defined as having been verified and certified using an accepted standard and accounted for within Scope 3 emissions for a

firm.

Data type: Decimal Select multiple values: No

Measurement unit: Metric tons CO₂eq Allowed values: 0-10,000,000

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

Other field measurement

Data element name: Other field Reporting question: Were data collected from the field for

measurement reasons other than GHG benefit estimation?

Description: Direct physical measurements or data collection taken in the field for any reason other than GHG benefits estimation. These reasons could include calibration of GHG estimation tools or models, tracking other environmental benefits (see Field environmental benefits report), and other reasons. If yes, submit

corresponding reports (see Supplemental data submission - Field direct measurement results).

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Yes

No

I don't know

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Quarterly

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GHG Benefits - Alternate Modeled

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Farm ID	Unique Farm ID assigned by FSA	
Tract ID	Unique Tract ID assigned by FSA	
Field ID	Unique Field ID assigned by FSA	
State or territory of field	State name (must match FSA farm enrollment data)	
County of field	County name (must match FSA farm enrollment data)	

Commodity type

Data element name: Commodity type 1-6 Reporting question: What type of commodity (ies) is produced

from this field?

Description: Type of commodity(ies) produced in field enrolled in the project. See full list of commodity options in Appendix B. The worksheet provides multiple columns with drop-down lists of the allowed values. Choose

one value for each column. Leave unnecessary columns blank

Data type: List Select multiple values: No

Measurement unit: Category Allowed values: FSA commodity list

Logic: None – all respond Required: If project calculates GHG benefits using multiple

methods

Data collection level: Field Data collection frequency: Annual

Practice type

Data element name: Practice type 1-7 Reporting question: What CSAF practice is being implemented

by this project?

Description: Which CSAF practice or practices are being implemented in this project? CSAF practices are included in a list in Appendix A. The worksheet provides seven columns for this data element. Enter one value for each column. If there are fewer than 7 practices being implemented by the project, leave unnecessary columns blank.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values: See list in Appendix A

Logic: None – all respond Required: If project calculates GHG benefits using multiple

methods

Data collection level: Field Data collection frequency: Annual

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GHG model

Data element name: GHG model Reporting question: What model was used for alternate calculation of GHG benefits?

Description: Select the model used for the alternate calculation of the field's GHG benefits.

Data type: List Select multiple values: No

Measurement unit: Category

Allowed values:

- ACC Calculator
- Agriculture, Forestry and Other Land Use (AFOLU) Carbon Calculator
- AIRES
- APEX
- · Bowen Ratio Energy Balance
- Carat-Calculator
- CArPE
- CDFA web-based calculator
- COMET-Farm
- COMET-Planner
- CoolFarm
- Cover Crop Explore
- CropTrak
- CultivateAl's FMIS
- DayCent-CR
- DNDC
- DSSAT
- Earth Optics
- EcoPractices
- EPIC
- Extrapolation based on literature
- FieldPrint
- Granular
- GREET
- gTIR
- IFSM
- IPCC default emissions factors & models
- itree
- Nitrogen Balance
- Nutrient Tracking Tool (NTT)
- RCD Project Tracker
- Revised Universal Soil Loss equation 2 (RUSLE2)
- RuFaS
- SAFE-Link
- SALUS (CIBO)
- SNAPGRAZE
- SquareRoots
- SWAT-C
- SYMFONI
- Truterra Sustainability Tool
- Verra
- WEPP
- YardStick
- Other (specify)

Logic: None – all respond

Data collection level: Field

Required: If project calculates GHG benefits using multiple methods

eld Data collection frequency: Annual

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Model start date	
Data element name: Model start date	Reporting question: For what time period are the GHG benefits modeled (model start date)?
Description: Date that the model parameter	rs begin.
Data type: Date	Select multiple values: NA
Measurement unit: MM/DD/YYYY	Allowed values: 01/01/1950 - 12/31/2030
Logic: None – all respond	Required: If project calculates GHG benefits using multiple methods
Data collection level: Field	Data collection frequency: Annual
Model end date	
Data element name: Model end date	Reporting question: For what time period are the GHG benefits modeled (model end date)?
Description: Date that the model parameter	rs end.
Data type: Date	Select multiple values: NA
Measurement unit: MM/DD/YYYY	Allowed values: 01/01/2023- 12/31/2030
Logic: None – all respond	Required: If project calculates GHG benefits using multiple methods
Data collection level: Field	Data collection frequency: Annual
Total GHG benefits estimated	
Data element name: Total GHG benefits estimated	Reporting question: What is the alternate estimate of the field's total GHG emission reductions?
Description: Total greenhouse gas emission using an alternate model.	reductions from practice implementation in the field estimated
Data type: Decimal	Select multiple values: No
Measurement unit: Metric tons CO₂eq	Allowed values: 0-10,000,000
Logic: None – all respond	Required: If project calculates GHG benefits using multiple methods
Data collection level: Field	Data collection frequency: Annual
Total carbon stock estimated	
Data element name: Total carbon stock estimated Description: Total change in carbon stock balternate model. Conversion rate is one ton Data type: Decimal	Reporting question: What is the alternate estimate of how much carbon has the field has sequestered? ased on practice implementation in the field estimated using an of carbon = 3.67 tons of CO₂eq. Select multiple values: No
Measurement unit: Metric tons CO₂eq	Allowed values: 0-10,000,000
Logic: None – all respond	Required: If project calculates GHG benefits using multiple methods
Data collection level: Field	Data collection frequency: Annual
Total CO2 estimated	2 12
Data element name: Total CO2 estimated	Reporting question: What is the alternate estimate of the field's total CO2 emission reductions?
Description: Total carbon dioxide emission using an alternate model.	reductions based on practice implementation in the field estimated
Data type: Decimal	Select multiple values: No
Measurement unit: Metric tons CO ₂	Allowed values: 0-10,000,000
Logic: None – all respond	Required: If project calculates GHG benefits using multiple methods
Data collection level: Field	Data collection frequency: Annual

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Total CH4 estimated	
Data element name: Total CH4 estimated	Reporting question: What is the alternat estimate of the field's total CH4 emission reductions?
Description: Total methane emission reductions based on praction an alternate model. Conversion rate is one ton of CH ₄ = 25 tons	
Data type: Decimal	Select multiple values: No
Measurement unit: Metric tons CH4 reduced in CO ₂ eq	Allowed values: 0-10,000,000
Logic: None – all respond	Required: If project calculates GHG benefits using multiple methods
Data collection level: Field	Data collection frequency: Annual
otal field N20 estimated	-
Data element name: Total N2O estimated	Reporting question: What is the alternate estimate of the field's total N2O emission reductions?
Description: Total nitrous oxide emission reductions based on using an alternate method. Conversion rate is one ton of N_2O =	V
Data type: Decimal	Select multiple values: No
Measurement unit: Metric tons N2O reduced in CO2eq	Allowed values: 0-10,000,000
Logic: None – all respond	Required: If project calculates GHG benefits using multiple methods
Data collection level: Field	Data collection frequency: Annual

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GHG Benefits - Measured

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Farm ID	Unique Farm ID assigned by FSA	
Tract ID	Unique Tract ID assigned by FSA	
Field ID	Unique Field ID assigned by FSA	
State or territory of field	State name (must match FSA farm enrollment data)	
County of field	County name (must match FSA farm enrollment data)	

GHG measurement method

Logic: None - all respond

Data element name: GHG measurement method

Reporting question: What measurement method is used to calculate GHG benefits?

Description: Field-based measurement method used to calculate GHG benefits. If "other" is chosen, enter the

appropriate value as free text in the additional column.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

 Emissions measurement unit

Flux towers

Litterbags

Plant measurements

 Portable emissions analyzers

Soil flux chambers

Soil samplesSoil sensors

Vehicle-mounted sensors

Other (specify)

Required: If a project conducts soil samples or takes carbon stock or greenhouse gas emission measurements in this

field

Data collection level: Field

Data collection frequency:
Annual

Lab name

Data element name: Lab name Reporting question: What is the name of the lab that

processed the measurement samples?

Description: Name of entity that received data and conducted analysis of samples.Data type: TextSelect multiple values: NoMeasurement unit: NAAllowed values: Free textLogic: None – all respondRequired: If applicable

Data collection level: Field Data collection frequency: Annual

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٠,	V-10	Ver	ana.	35787	31,550	ena e	02850	

Data element name: Measurement start date Reporting question: On what date did the

measurement start?

Description: Date that the measurements began. If it was a single point in time, use the same date for start date and end date. If multiple measurements took place over a time period, use the date that the measurements first

began.

Data type: Date Select multiple values: No

Measurement unit: MM/DD/YYYY Allowed values: 01/01/2023 – 12/31/2030

Logic: None – all respond Required: If a project conducts soil samples or takes

carbon stock or greenhouse gas emission

measurements in this field

Data collection level: Field Data collection frequency: Annual

Measurement end date

Data element name: Measurement end date Reporting question: On what date did the

measurement end?

Description: Date that the measurements began. If it was a single point in time, use the same date for start date and end date. If multiple measurements took place over a time period, use the date that the measurements

were completed.

Data type: Date Select multiple values: No

Measurement unit: MM/DD/YYYY Allowed values: 01/01/2023–12/31/2030

Logic: None – all respond Required: If a project conducts soil samples or takes

carbon stock or greenhouse gas emission

Data collection level: Field Data collection frequency: Annual

Total CO2 reduction calculated

Data element name: Total CO2 reduction calculated Reporting question: What are

the total measured CO2 emission reductions?

Description: Total annual CO2 emission reductions based on practice implementation in the field calculated

from in-field measurements.

Data type: Decimal Select multiple values: No

Measurement unit: Metric tons CO₂ Allowed values: 0-10,000,000

Logic: None – all respond Required: If a project takes

carbon stock or greenhouse gas emission measurements in this

field

Data collection level: Field Data collection frequency:

Annual

Total field carbon stock measured

Data element name: Total field carbon stock Reporting question: What is the total amount of

measured carbon sequestered based on repeat measurements

in this field?

Description: Change in carbon stock based on practice implementation in the field calculated from repeat soil sampling in this field. (Results for initial field soil samples should be reported in the 'Soil sample result' and

'Measurement type" columns.) Conversion rate is one ton of carbon = 3.67 tons of CO₂eq.

Data type: Decimal Select multiple values: No

Measurement unit: Metric tons CO₂eq Allowed values: 0-10,000,000

Logic: None – all respond Required: If a project conducts soil samples or takes

carbon stock measurements in this field

Data collection level: Field Data collection frequency: Annual

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Total CH4 reduction calculated			
Data element name: Total CH4 reduction calculated	Reporting question: What are the total measured CH4 emission reductions?		
Description: Total annual methane emission reductions b			
from in-field measurements. Conversion rate is one ton o			
Data type: Decimal	Select multiple values: No		
Measurement unit: Metric tons CH4 reduced in CO ₂ eq	Allowed values: 0-10,000,000		
Logic: None – all respond	Required: If a project conducts soil samples or takes carbon stock or greenhouse gas emission measurements in this field		
Data collection level: Field	Data collection frequency: Annual		
Total N20 reduction calculated			
Data element name: Total N2O reduction calculated	Reporting question: What are the total measured N2O emission reductions?		
Description: Total annual nitrous oxide emission reductio	5 5		
calculated from in-field measurements. Conversion rate is	S S S		
Data type: Decimal	Select multiple values: No		
Measurement unit: Metric tons N2O reduced in CO ₂ eq	Allowed values: 0-10,000,000		
Logic: None – all respond	Required: If a project conducts soil samples or takes		
	carbon stock or greenhouse gas emission		
81 W 8 1 1 8 8 1	measurements in this field		
Data collection level: Field	Data collection frequency: Annual		
Soil sample result			
Data element name: Soil sample result	Reporting question: What is the numeric result from this soil sample?		
Description: Results of measurement(s) taken to determine in a specified volume of soil).	ne the carbon stock of a soil (the tons of carbon found		
Data type: Decimal	Select multiple values: No		
Measurement unit: Amount	Allowed values: .00001-100,000		
Logic: None – all respond	Required: If a project conducts soil samples in this field		
Data collection level: Field	Data collection frequency: Annual		

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Soil sample result unit

Data element name: Soil sample result unit Reporting question: What is unit for the soil sample result?

Description: Unit for the corresponding soil sample result. The worksheet provides a drop-down list of choices for this data element. If "other" is chosen, use the additional column to enter the appropriate yield unit as free

text.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

PercentPpmGrams

Grams per cubic centimeter

Other (specify)

Logic: None – all respond Required: If a project conducts soil samples in this field

Data collection level: Field Data collection frequency: Annual

Measurement type

Data element name: Measurement type Reporting question: What type of analysis was conducted for

this soil sample?

Description: Type of soil analysis conducted. The worksheet provides a drop-down list of choices for this data element. If "other" is chosen, use the additional column to enter the appropriate yield unit as free text.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Organic matterTotal organic carbonBulk density

Other (specify)

Logic: None – all respond Required: If a project conducts soil samples in this field

Data collection level: Field Data collection frequency: Annual

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Additional Environmental Benefits

U	In	ic	111	P	11	S
·			44			,,

Farm ID	Unique Farm ID assigned by FSA	
Tract ID	Unique Tract ID assigned by FSA	
Field ID	Unique Field ID assigned by FSA	
State or territory of field	State name (must match FSA farm enrollment data)	
County of field	County name (must match FSA farm enrollment data)	

Environmental benefits

Data element name: Environmental Reporting question: Are environmental benefits other than

penefits GHGs being tracked in the field?

Description: Tracking of environmental benefits other than greenhouse gas emission reductions and carbon sequestration in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting

that can quantify benefits.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Yes
 No

I don't know

Logic: None – all respond Required: Yes

Data collection level: Field Data collection frequency: Annual

Reduction in nitrogen loss

Data element name: Reduction in nitrogen Reporting question: Are reductions in nitrogen losses being

ss tracked in the field?

Description: Tracking reductions in nitrogen losses in the enrolled field. Tracking means at a minimum using

some form of monitoring and reporting that can quantify benefits.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Yes

No

I don't know

Logic: Respond if yes to 'Environmental

benefits'

Required: Yes

Data collection level: Field Data collection frequency: Annual

Reduction in nitrogen loss amount

Data element Reporting question: How much reduction in nitrogen losses

name: Reduction in nitrogen loss amount have been measured in the field?

Description: Total amount of reduction in nitrogen losses that is measured and reported in the enrolled field.

Data type: Decimal Select multiple values: No

Measurement unit: Amount Allowed values: 0-1,000,000

Logic: Respond if yes to 'Reduction in

nitrogen loss'

Required: Yes

Data collection level: Field Data collection frequency: Annual

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February 2023	
Reduction in nitrogen loss amount unit	
	Reporting question: What is the unit for how much reduction in nitrogen losses have been measured in the field? uction in nitrogen losses that is measured and reported in the appropriate value as free text in the additional column. Select multiple values: No
Measurement unit: Category	Allowed values:
	Kilograms
	Metric tons
	• Pounds
	Other (specify)
Logic: Respond if yes to 'Reduction in nitrogen loss'	Required: Yes
Data collection level: Field	Data collection frequency: Annual
Reduction in nitrogen loss purpose	
Data element name: Reduction in nitrogen loss purpose	Reporting question: What is the purpose of tracking reduction in nitrogen losses?
appropriate value as free text in the addition	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	Commodity marketing
	Producing insets
	Producing offsetsI don't know
	Other (specify)
Logic: Respond if yes to 'Reduction in nitrogen loss'	Required: Yes
Data collection level: Project	Data collection frequency: Annual
Reduction in phosphorus loss	
Data element name: Reduction in	Reporting question: Are reductions in phosphorus losses being
phosphorus loss	tracked in the field?
(A)	norus losses in the enrolled field. Tracking means at a minimum
using some form of monitoring and reporting Data type: List	Select multiple values: No
The same of the sa	SET WITH SET OF THE SE
Measurement unit: Category	Allowed values: • Yes
	• No
	I don't know
Logic: Respond if yes to 'Environmental benefits'	Required: Yes
Data collection level: Field	Data collection frequency: Annual
Reduction in phosphorus loss amount	<u> </u>
Data element name: Reduction in	Reporting question: How much reduction in phosphorus losses
phosphorus loss amount	have been measured in the field?
Description: Total amount of reduction in ph	osphorus losses that is measured in the field.
Data type: Decimal	Select multiple values: No
Measurement unit: Amount	Allowed values: 0-1,000,000
Logic: Respond if yes to 'Reduction in phosphorus loss'	Required: Yes
Data collection level: Field	Data collection frequency: Annual

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Reduction in phosphorus loss amount unit	
Data element name: Reduction in	Reporting question: What is the unit for the reduction in
phosphorus loss amount unit	phosphorus losses measured in the field?
	duction in phosphorus losses that is measured in the enrolled field. If
"other" is chosen, enter the appropriate val	ue as free text in the additional column.
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	 Kilograms
	Metric tons
	 Pounds
	Other (specify)
Logic: Respond if yes to 'Reduction in phosphorus loss'	Required: Yes
Data collection level: Field	Data collection frequency: Annual
Reduction in phosphorus loss purpose	
Data element name: Reduction in	Reporting question: What is the purpose of tracking reductions
phosphorus loss purpose	in phosphorus losses?
Description: Purpose of tracking reduction i	n phosphorus losses in the enrolled field. If "other" is chosen, enter
the appropriate value as free text in the add	ditional column.
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	Commodity marketing
	 Producing insets
	 Producing offsets
	I don't know
	Other (specify)
Logic: Respond if yes to 'Reduction in	Required: Yes
phosphorus loss'	·
Data collection level: Field	Data collection frequency: Annual
Other water quality	
Data element name: Other water quality	Reporting question: Are other water quality metrics being
	tracked in the field?
Description: Project tracking of other water	quality metrics in the enrolled field. Tracking means at a minimum
using some form of monitoring and reportir	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
and the second the second of t	• Yes
	• No
	I don't know
Logic: Respond if yes to 'Environmental	Required: Yes
E 526 E	

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Data collection frequency: Annual

benefits'

Data collection level: Field



Other water quality type	
Data element name: Other water quality	Reporting question: What type of other water quality metric
type	have been measured in the field?
measured in the field. If "other" is chosen, e	tric (besides nitrogen loss and phosphorus loss reductions) that is enter the appropriate value as free text in the additional column.
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	 Sediment load reduction
	Temperature
5.50 3.3	Other (specify)
Logic: Respond if yes to 'Other water quality'	Required: Yes
Data collection level: Field	Data collection frequency: Annual
Other water quality amount	
Data element name: Other water quality	Reporting question: How much reduction in other water quality metrics have been measured in the field?
Passerintian: Total amount of reduction in of	ther water quality metrics that is measured in the enrolled field.
- 176 or or 50	Select multiple values: No
Data type: Decimal	and the second s
Measurement unit: Amount	Allowed values: 0-1,000,000
Logic: Respond if yes to 'Other water quality'	Required: Yes
Data collection level: Field	Data collection frequency: Annual
Other water quality amount unit	
Data element name: Other water quality amount unit	Reporting question: What is the unit for the reduction in other water quality metrics measured in the field?
	duction in other water quality metrics that is measured in the appropriate value as free text in the additional column. Select multiple values: No
Measurement unit: Category	Allowed values:
incasarement unit category	Degrees F
	Kilograms
	Kilograms per liter
	Metric tons
	• Pounds
	Other (specify)
Logic: Respond if yes to 'Other water quality'	Required: Yes
Data collection level: Field	Data collection frequency: Annual

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Other water quality purpose	
Data element name: Other water quality	Reporting question: What is the purpose of tracking other water
purpose	quality benefits?
	r quality benefits in the enrolled field. If "other" is chosen, enter the
appropriate value as free text in the addition	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	Commodity marketing
	Producing insets Producing effects
	 Producing offsets I don't know
	Other (specify)
Logic: Respond if yes to 'Other water quality'	Required: Yes
Data collection level: Field	Data collection frequency: Annual
Water quantity	5 5
Data element name: Water quantity	Reporting question: Is water conservation being tracked in the field?
Description: Tracking of water conservation	or reduction in use in the enrolled field. Tracking means at a
minimum using some form of monitoring an	nd reporting that can quantify benefits.
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	• Yes
	• No
	I don't know
Logic: Respond if yes to 'Environmental benefits'	Required: Yes
Data collection level: Field	Data collection frequency: Annual
Water quantity amount	
Data element name: Water quantity	Reporting question: How much water conservation has been
amount	measured in the field? ation or reduction that is measured in the field.
Data type: Decimal	Select multiple values: No
Measurement unit: Amount	Allowed values: 0-1,000,000
Logic: Respond if yes to 'Water quantity'	Required: Yes
Data collection level: Field	Data collection frequency: Annual
Water quantity amount unit	
Data element name: Water quantity amount unit	Reporting question: What is the unit for the amount of water conservation measured in the field?
그리면 교통으로 2016 10대 이름은 10대는 10대를 5명하게 5명하는 10대를 10대로 12대를 10대로 12대를 10대로 1대를 11대로 12대로 1대를 10대로 1대로 1대로 1대로 1대로 1대로 1대로 1대로 1대로 1대로 1	ater conservation or reduced use that is measured and reported in
The street of th	the appropriate value as free text in the additional column.
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	Acre-feet
	Cubic feet
Lasia Dassand if was to Office a constitut	Other (specify) Required Yes
Logic: Respond if yes to 'Water quantity'	Required: Yes
Data collection level: Field	Data collection frequency: Annual

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Water quantity purpose	
Data element name: Water quantity	Reporting question: What is the purpose of tracking water
purpose	conservation?
and an analysis and the first and the second of the second	ervation or reductions in water use in the enrolled field. If "other" is
chosen, enter the appropriate value as free	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	Commodity marketing
	Producing insets
	Producing offsets
	I don't knowOther (specify)
Logic: Respond if yes to 'Water quantity'	Required: Yes
Data collection level: Field	Data collection frequency: Annual
Reduced erosion	Data concetton requestey. Almaai
Data element name: Reduced erosion	Reporting question: Is reduced soil erosion being tracked in the
	field?
	n in the enrolled field. Tracking means at a minimum using some
form of monitoring and reporting that can q	Washing to the conference of t
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	• Yes
	• No
Logic: Respond if yes to 'Environmental	I don't know Required: Yes
benefits'	nequired. 1es
Data collection level: Field	Data collection frequency: Annual
Reduced erosion amount	27 59
Data element name: Reduced erosion	Reporting question: How much erosion reduction has been
amount	measured in the field?
Description: Total amount of erosion reduct	ion that is measured in the enrolled field.
Data type: Decimal	Select multiple values: No
Measurement unit: Amount	Allowed values: 0-1,000,000
Logic: Respond if yes to 'Reduced erosion'	Required: Yes
Data collection level: Field	Data collection frequency: Annual
Reduced erosion amount unit	
Data element name: Reduced erosion unit	Reporting question: What is the unit for the amount of erosion reduction measured?
Description: Unit for the total amount of ero	osion reduction from enrolled fields that is measured and reported
	e appropriate value as free text in the additional column.
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	• Tons
	 Other (specify)
Logic: Respond if yes to 'Reduced erosion'	Required: Yes

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Data collection frequency: Annual

Data collection level: Field

Reduced erosion purpose	
Data element name: Reduced erosion	Reporting question: What is the purpose of tracking reduced
purpose	erosion in the field?
and the control of th	osion the enrolled field. If "other" is chosen, enter the appropriate
value as free text in the additional column.	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	 Commodity marketing
	 Producing insets
	 Producing offsets
	 I don't know
	Other (specify)
Logic: Respond if yes to 'Reduced erosion'	Required: Yes
Data collection level: Field	Data collection frequency: Annual
Reduced energy use	
Data element name: Reduced energy use	Reporting question: Is reduced energy use being tracked in the field?
Description: Tracking of reduced energy use	in the enrolled field. Tracking means at a minimum using some
form of monitoring and reporting that can qu	uantify benefits.
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
alliants the bowers in the control of the entire control of the first state of the control of th	• Yes
	• No
	I don't know
Logic: Respond if yes to 'Environmental benefits'	Required: Yes
Data collection level: Field	Data collection frequency: Annual
Reduced energy use amount	
Data element name: Reduced energy use	Reporting question: How much energy use reduction has been
amount	measured in the field?
Description: Total amount of energy use red	uction that is measured in the enrolled field.
Data type: Decimal	Select multiple values: No
Measurement unit: Amount	Allowed values: 0-1,000,000
Logic: Respond if yes to 'Reduced energy	Required: Yes
use'	
Data collection level: Field	Data collection frequency: Annual
Reduced energy use amount unit	
Data element name: Reduced energy use	Reporting question: What is the unit for the energy use
unit	reduction measured in the field?
	ergy use reduction that is measured in the enrolled field. If "other"
is chosen, enter the appropriate value as fre	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	Kilowatt hours
	Other (specify)
Logic: Respond if yes to 'Reduced energy use'	Required: Yes
Data collection level: Field	Data collection frequency: Annual

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Reduced energy use purpose

Data element name: Reduced energy use Reporting question: What is the purpose of tracking reduced

urpose energy use in the field?

Description: Purpose of tracking reduced energy use in the enrolled field. If "other" is chosen, enter the

appropriate value as free text in the additional column.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Commodity marketingProducing insetsProducing offsets

I don't knowOther (specify)

Logic: Respond if yes to 'Reduced energy

use'

Required: Yes

Data collection level: Field Data collection frequency: Annual

Avoided land conversion

Data element name: Avoided land Reporting question: Is avoided land conversion being tracked in

conversion the field?

Description: Tracking of avoided land conversion in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits. Land conservation means land use changing from agricultural uses to non-agricultural uses.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Yes
 No

I don't know

Logic: Respond if yes to 'Environmental

benefits'

Required: Yes

Data collection level: Field Data collection frequency: Annual

Avoided land conversion amount

Data element name: Avoided land Reporting question: How much avoided land conversion has

conversion amount been measured in the field?

Description: Total amount of avoided land conversion that is measured in the enrolled field.

Data type: DecimalSelect multiple values: NoMeasurement unit: AmountAllowed values: 0-1,000,000

Logic: Respond if yes to 'Avoided land

conversion'

Required: Yes

Data collection level: Field Data collection frequency: Annual

Avoided land conversion amount unit

Data element name: Avoided land Reporting question: What is the unit for the amount of avoided

conversion unit land conversion measured in the field?

Description: Unit for the total amount of avoided land conversion that is measured in the enrolled field. If

"other" is chosen, enter the appropriate value as free text in the additional column.

Data type: List Select multiple values: No

Measurement unit: Category Allowed values:

Acres

Other (specify)

Logic: Respond if yes to 'Avoided land

conversion'

Required: Yes

Data collection level: Field Data collection frequency: Annual

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February 2023	uma semantan sesantan sesantan dan diadah dibidah dibi
Avoided land conversion purpose	
Data element name: Avoided land conversion purpose Description: Purpose of tracking avoided la appropriate value as free text in the addition	Reporting question: What is the purpose of tracking avoided land conversion in the field? nd conversion in the enrolled field. If "other" is chosen, enter the onal column.
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	Commodity marketing
	Producing insets
	Producing offsets
	I don't know Other (coesify)
Logic: Respond if yes to 'Avoided land	Other (specify) Required: Yes
conversion'	Required. 103
Data collection level: Field	Data collection frequency: Annual
Improved wildlife habitat	
Data element name: Improved wildlife	Reporting question: Are improvements to wildlife habitat being
habitat	tracked in the field?
- 112-	wildlife in and around the enrolled field. Tracking means at a
minimum using some form of monitoring an Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
weasurement unit. Category	• Yes
	• No
	I don't know
Logic: Respond if yes to 'Environmental	Required: Yes
benefits'	D. J
Data collection level: Field	Data collection frequency: Annual
Improved wildlife habitat amount	Describe and the second of the
Data element name: Improved wildlife habitat amount	Reporting question: How much improved wildlife habitat has been measured in the field?
	dlife habitat that is measured in and around the enrolled fields.
Data type: Decimal	Select multiple values: No
Measurement unit: Amount	Allowed values: 0-1,000,000
Logic: Respond if yes to 'Improved wildlife	Required: Yes
habitat'	2
Data collection level: Field	Data collection frequency: Annual
Improved wildlife habitat amount unit	
Data element name: Improved wildlife habitat unit	Reporting question: What is the unit for the amount of improved wildlife habitat measured in the field?
	nproved wildlife habitat that is measured in and around enrolled priate value as free text in the additional column. Select multiple values: No
Measurement unit: Category	Allowed values:
measurement unit. category	Acres
	Linear feet
	Other (specify)
Laster Decembed if use to (Impressed wildlife	Described Ves

Logic: Respond if yes to 'Improved wildlife

habitat'

Required: Yes

Data collection level: Field Data collection frequency: Annual

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Data collection level: Field

mproved wildlife habitat purpose		
Data element name: Improved wildlife habitat purpose	Reporting question: What is the purpose of tracking improved wildlife habitat in the field?	
	wildlife habitat in the enrolled field. If "other" is chosen, enter the nal column.	
Data type: List	Select multiple values: No	
Measurement unit: Category	Allowed values:	
	 Commodity marketing 	
	 Producing insets 	
	Producing offsets	
	I don't know	
	Other (specify)	
Logic: Respond if yes to 'Improved wildlife habitat'	Required: Yes	

Data collection frequency: Annual

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CSAF Practice Sub-questions

For some CSAF practices, there is an additional set of questions that are unique to each practice. Responses to these questions are needed to verify estimated GHG benefits of these practices. If a field is implementing a CSAF practice with an NRCS CPS code in Table 11, answer the follow-up questions listed next to the relevant practice name in the table. Use the *Supplemental Reporting Workbook – CSAF Practice Sub-questions* to report the required information.

Table 11. Follow-on questions for select CSAF practices

Practice name and code	Follow-up question	Options (select one)
Alley Cropping (CPS 311)	Species category (select most common/extensive type if using more than one)	Coniferous trees Deciduous trees Shrubs
	Species density (number of trees planted per acre)	1-10,000
Anaerobic Digester (CPS 366)	Waste storage system prior to installing anaerobic digester	Aerobic lagoon Anaerobic digester (complex mix) with energy generation Anaerobic digester (plug flow) with energy generation Anaerobic lagoon Composting Covered lagoon (no energy generation or flaring Covered lagoon with energy generation Covered lagoon with flaring Daily spread Deep bedding pack Deep pit Dry lot Dry stacking/solid storage Pasture/range/paddock Poultry with bedding Poultry without bedding (e.g., high rise) Slurry tank/basin
	Digester type	Covered lagoon with energy generation Covered lagoon with flaring Covered lagoon (no energy generation or flaring Complex mix with energy generation Plug flow with energy generation Other (specify)
	Additional feedstock source (select most common if using more than one)	Food waste Straw or bedding Wastewater Other (specify)

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		Coal
		Diesel
		Electricity
		Gasoline
	Fuel type before installation	Kerosene
	r der type before installation	Liquified petroleum gas (LPG)
		Natural gas
		Propane
		Wood
		Other (specify)
	Fuel amount before installation	0-1,000,000
		Cubic feet (natural gas)
	Fuel amount unit before	Gallons (diesel, gasoline, propane, LPG, kerosene
	Fuel amount unit before installation	Kilowatt-hours (electricity)
	installation	Pounds (wood, coal)
Combustion System		Other (specify)
Improvement (CPS 372)		Coal
		Diesel
		Electricity
		Gasoline
	For I among the street House	Kerosene
	Fuel type after installation	Liquified petroleum gas (LPG)
		Natural gas
		Propane
		Wood
		Other (specify)
	Fuel amount after installation	0-1,000,000
		Cubic feet (natural gas)
	Fuel amount unit after	Gallons (diesel, gasoline, propane, LPG, kerosene
		Kilowatt-hours (electricity)
	installation	Pounds (wood, coal)
		Other (specify)
		Brassicas
Conservation Cover	Species category (select most	Grasses
(CPS 327)	common/extensive type if	Legumes
	using more than one)	Non-legume broadleaves
		Shrubs

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Conservation Crop Rotation	Conservation crop type	Brassica Broadleaf Cool season Grass Legume Warm season
	Change implemented	Added perennial crop Reduced fallow period Both
(CPS 328)	Conservation crop rotation tillage type	Conventional (plow, chisel, disk) No-till, direct seed Reduced till Strip till None Other (specify)
:	Total conservation crop rotation length in days	1-120
	Strip width (feet)	1-100
Contour Buffer Strips (CPS 332)	Species category	Grasses Forbs Mix
	Species category (select most common/extensive type if using more than one)	Brassicas Forbs Grasses Legume Non-legume broadleaves
Cover Crop (CPS 340)	Cover crop planned management	Grazing Haying Termination
and the property of the proper	Cover crop termination method	Burning Herbicide application Incorporation Mowing Rolling/crimping Winter kill/frost
Critical Area Planting (CPS 342)	Species category (select most common/extensive type if using more than one)	Grass Grass legume/forb mix Herbaceous woody mix Perennial or reseeding Shrubs Trees
	Crude protein (percent)	0-100
	Fat (percent)	0-100
Feed Management (CPS 592)	Feed additives/supplements	Chemical Edible oils/fats Seaweed/kelp Other (specify)
Field Border (CPS 386)	Species category (select most common/extensive type if using more than one)	Forbs Grasses Mix Shrubs

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	Strip width (feet)	20-1,000
Filter Strip (CPS 393)	Species category (select most common/extensive type if using more than one)	Forbs Grasses Mix Shrubs
Forest Farming (CPS 379)	Land use in previous year	Forest Multi-story cropping Pasture/grazing land Row crops Other agroforestry
Forest Stand Improvement (CPS 666)	Purpose for implementation	Maintain or improve forest carbon stocks Maintain or improve forest health and productivity Maintain or improve forest structure and composition Maintain or improve wildlife, fish, and pollinator habitat Manage natural precipitation more efficiently Reduce forest pest pressure Reduce forest wildfire hazard
Grassed Waterway (CPS 412) Species category (select most common/extensive type if using more than one)		Flowering Plants Forbs Grasses
Hedgerow Planting (CPS	Species category (select most common/extensive type if using more than one)	Grasses Shrubs Trees
422)	Species density (number of trees planted per acre)	1-10,000
Herbaceous Wind Barriers (CPS 603)	Species category (select most common/extensive type if using more than one)	Forbs Grasses Mix Shrubs
23/11/6/3 (6/ 3 003)	Barrier width (feet)	1-1,000
	Number of rows	1-100
Mulching (CPS 484)	Mulch type	Gravel Natural Synthetic Wood
	Mulch cover (percent of field)	0-100

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Nutrient management (CPS 590)	Nutrient type with CPS 590	Biosolids Commercial fertilizers Compost EEF (nitrification inhibitor) EEF (slow or controlled release) EEF (urease inhibitor) Green manure Liquid animal manure Organic by-products Organic residues or materials Solid/semi-solid animal manure Wastewater
	Nutrient application method with CPS 590	Banded Broadcast Injection Irrigation Surface application Surface application with tillage Variable rate
	Nutrient application method in the previous year	Banded Broadcast Injection Irrigation Surface application Surface application with tillage Variable rate
	Nutrient application timing with CPS 590	Single pre-planting Single post-planting Split pre- and post-planting Split post-planting
	Nutrient application timing in the previous year	Single pre-planting Single post-planting Split pre- and post-planting Split post-planting
	Nutrient application rate with CPS 590	0-20,000
	Nutrient application rate unit with CPS 590	Gallons per acre Pounds per acre
	Nutrient application rate change	Decrease compared to previous year Increase compared to previous year No change
Pasture and Hay Planting	Species category (select most common/extensive type if using more than one)	Cool-season broadleaf Cool-season grass Warm-season broadleaf Warm-season grass
(CPS 512)	Termination process	Grazing Haying (i.e., cutting and baling) Other (specify)
Prescribed Grazing (CPS 528)	Grazing type	Cell grazing Deferred rotational Management intensive Rest-rotation

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		Forbs
	Species category (select most	Grasses
Range Planting (CPS 550)	common/extensive type if using more than	Legumes
	one)	Shrubs
	84311	Trees
Residue and Tillage	5 Z 9 W	None
Management – No-till (CPS 329)	Surface disturbance	Seed row only
M M		None
Residue and Tillage		Seed row/ridge tillage for
Management – Reduced	Surface disturbance	planting
Till (CPS 345)	Surface distarbance	Shallow across most of the soil
1111 (cr 3 343)		surface
		Vertical/mulch
	Species category (select most	Coniferous trees
Riparian Forest Buffer	common/extensive type if using more than	Deciduous trees
(CPS 391)	one)	Shrubs
(0.3331)	Species density (number of trees planted per acre)	1-10,000
		Ferns
	Consider anti-construction for first and and	Forbs
Riparian Herbaceous	Species category (select most	Grasses
Cover (CPS 390)	common/extensive type if using more than	Legumes
N 262	one)	Rushes
		Sedges
		Concrete
D - f 1 C 1 CDC	Roof/cover type	Flexible geomembrane
Roofs and Covers (CPS		Metal
367)		Timber
		Other (specify)
	Species category (select most	Coniferous trees
	common/extensive type if using more than	Deciduous trees
Cilvonacturo (CDC 201)	one)	Forage
Silvopasture (CPS 381)	S	Shrubs
	Species density (number of trees planted per acre)	1-10,000
	Strip width (feet)	1-1,000
		Erosion resistant crops
Stripcropping (CPS 585)	Crop category (select most common/extensive	Fallow
CARLOTTERS AND MARKS TO CARDON LOSS. SE ESSECTE SE	type if using more than one)	Sediment trapping crops
	Number of strips	2-100
	Species category (select most	Coniferous trees
Tues (Charles Carelly)	common/extensive type if using more than	Deciduous trees
Tree/Shrub Establishment	one)	Shrubs
(CPS 612)	Species density (number of trees planted per acre)	1-10,000
	Species category (select most	Grasses
Vegetative Barrier (CPS	common/extensive type if using more than	Grass forb mix
vegetative partier (CF)		
601)	one)	Grass legume mix

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	Separation type	Chemical (e.g., salts, polymers) Mechanical (e.g., screens, presses)
Waste Separation Facility	<u> </u>	Settling basin
(CPS 632)	·	Bedding
	Most common use of solids	Field applied
		Other (specify)
		Aerobic lagoon
		Anaerobic digester (complex mix) with
		energy generation
		Anaerobic digester (plug flow) with
		energy generation
		Anaerobic lagoon
		Composting
		Covered lagoon (no energy generation
		or flaring)
Waste Storage Facility (CPS	Waste storage system prior to	Covered lagoon with energy generation
313)	installing your waste storage facility	Covered lagoon with flaring
313)	mstalling your waste storage facility	Daily spread
		Deep bedding pack
		Deep pit
		Dry lot
		Dry stacking/solid storage
		Pasture/range/paddock
		Poultry with bedding
		Poultry without bedding (e.g., high rise
		Slurry tank/basin
1999 AS 155 PER 1993	22 6 8 8 P	Biological
Waste Treatment (CPS 629)	Treatment type	Chemical
		Mechanical
		Aerobic lagoon
		Anaerobic digester (complex mix) with
		energy generation
		Anaerobic digester (plug flow) with
		energy generation
		Anaerobic lagoon
	Waste storage system prior to installing waste treatment lagoon	Composting
		Covered lagoon (no energy generation
		or flaring)
		Covered lagoon with energy generation
		Covered lagoon with flaring
Waste Treatment Lagoon		Daily spread
(CPS 359)		Deep bedding pack
A State South Section 1		Deep pit
		Dry lot
		Dry stacking/solid storage
		Pasture/Range/Paddock
		Poultry with bedding
		Poultry without bedding (e.g., high rise)
		Slurry tank/basin
	S	Yes
	Is there a lagoon cover/crust?	
	Is there lagoon aeration?	No
		Yes
		No

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Windbreak/Shelterbelt Establishment and	Species category (select most common/extensive type if using more than one)	Coniferous trees Deciduous trees Shrubs	
Renovation (CPS 380)	Species density (number of trees planted per acre)	1-10,000	

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Appendix A: Climate-smart Agriculture and Forestry Practices

All NRCS Practice Standards	(not limited to climate-smart	practices)

309, Agrichemical Handling Facility 390, Riparian Herbaceous Cover 311, Alley Cropping 391, Riparian Forest Buffer

313, Waste Storage Facility 393, Filter Strip 314, Brush Management 394, Firebreak

315, Herbaceous Weed Treatment 395, Stream Habitat Improvement and Management

316, Animal Mortality Facility 396, Aquatic Organism Passage 317, Composting Facility 397, Aquaculture Pond 318, Short Term Storage of Animal Waste and By-Products 398, Fish Raceway or Tank

319, On-Farm Secondary Containment Facility 399, Fishpond Management

320, Irrigation Canal or Lateral 400, Bivalve Aquaculture Gear and Biofouling Control

324, Deep Tillage 402, Dam

325, High Tunnel System 410, Grade Stabilization Structure 326, Clearing and Snagging 412, Grassed Waterway

420, Wildlife Habitat Planting 327, Conservation Cover 328, Conservation Crop Rotation 422, Hedgerow Planting 329, Residue and Tillage Management, No Till 423, Hillside Ditch

330, Contour Farming 428, Irrigation Ditch Lining

331, Contour Orchard and Other Perennial Crops 428A, Irrigation Water Conveyance, Ditch and Canal Lining,

332, Contour Buffer Strips Plain Concrete

333, Amending Soil Properties with Gypsum Products 428B, Irrigation Water Conveyance, Ditch and Canal Lining,

334, Controlled Traffic Farming Flexible Membrane 336, Soil Carbon Amendment 428C, Irrigation Water Conveyance, Ditch and Canal Lining, 338, Prescribed Burning Galvanized Steel 340, Cover Crop 430, Irrigation Pipeline

342, Critical Area Planting 432, Dry Hydrant 345, Residue and Tillage Management, Reduced Till 436, Irrigation Reservoir

348, Dam, Diversion 441, Irrigation System, Microirrigation

350, Sediment Basin 442, Sprinkler System

443, Irrigation System, Surface and Subsurface 351, Well Decommissioning 447, Irrigation and Drainage Tailwater Recovery 353, Monitoring Well 355, Groundwater Testing 449, Irrigation Water Management

450, Anionic Polyacrylamide (PAM) Application 356, Dike and Levee

359, Waste Treatment Lagoon 453, Land Reclamation, Landslide Treatment 360, Waste Facility Closure 455, Land Reclamation, Toxic Discharge Control

362, Diversion 457, Mine Shaft and Adit Closing

366, Anaerobic Digester 460, Land Clearing

367, Roofs and Covers 462, Precision Land Forming and Smoothing

368, Emergency Animal Mortality Management 464, Irrigation Land Leveling 371, Air Filtration and Scrubbing 466, Land Smoothing

372, Combustion System Improvement 468, Lined Waterway or Outlet

373, Dust Control on Unpaved Roads and Surfaces 472, Access Control 374, Energy Efficient Agricultural Operation 484, Mulching

375, Dust Management for Pen Surfaces 490, Tree/Shrub Site Preparation 376, Field Operations Emissions Reduction 500, Obstruction Removal

378, Pond 511, Forage Harvest Management

379, Forest Farming 512, Pasture and Hay Planting 380, Windbreak/Shelterbelt Establishment and Renovation 516, Livestock Pipeline

520, Pond Sealing or Lining, Compacted Soil Treatment 381, Silvopasture

382, Fence 521, Pond Sealing or Lining, Geomembrane or 383, Fuel Break Geosynthetic Clay Liner

384, Woody Residue Treatment

521A, Pond Sealing or Lining, Flexible Membrane 386, Field Border 521B, Pond Sealing or Lining, Soil Dispersant 388, Irrigation Field Ditch 521C, Pond Sealing or Lining, Bentonite Sealant

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521D, Pond Sealing or Lining, Compacted Clay Treatment

522, Pond Sealing or Lining - Concrete

527, Sinkhole Treatment 528, Prescribed Grazing 533, Pumping Plant

543, Land Reclamation, Abandoned Mined Land 544, Land Reclamation, Currently Mined Land 548, Grazing Land Mechanical Treatment

550, Range Planting

554, Drainage Water Management

555, Rock Wall Terrace 557, Row Arrangement 558, Roof Runoff Structure

560, Access Road

561, Heavy Use Area Protection 562, Recreation Area Improvement

566, Recreation Land Improvement and Protection

570, Stormwater Runoff Control

572, Spoil Disposal 574, Spring Development 575, Trails and Walkways 576, Livestock Shelter Structure

578, Stream Crossing

580, Streambank and Shoreline Protection

582, Open Channel

584, Channel Bed Stabilization

585, Stripcropping

587, Structure for Water Control

588, Crosswind Ridges 589, Cross Wind Trap Strips 590, Nutrient Management

591, Amendments for Treatment of Agricultural Waste

592, Feed Management

595, Pest Management Conservation System

600, Terrace

601, Vegetative Barrier 602, Equitable Relief

603, Herbaceous Wind Barriers

604, Saturated Buffer 605, Denitrifying Bioreactor 606, Subsurface Drain 607, Surface Drain, Field Ditc

607, Surface Drain, Field Ditch 608, Surface Drain, Main or Lateral

609, Surface Roughening

610, Salinity and Sodic Soil Management

612, Tree/Shrub Establishment

614, Watering Facility 620, Underground Outlet 629, Waste Treatment 630, Vertical Drain 632, Waste Separation Facility

633, Waste Recycling 634, Waste Transfer

635, Vegetated Treatment Area 636, Water Harvesting Catchment 638, Water and Sediment Control Basin

640, Waterspreading 642, Water Well

643, Restoration of Rare or Declining Natural Communities

644, Wetland Wildlife Habitat Management 645, Upland Wildlife Habitat Management

646, Shallow Water Development and Management 647, Early Successional Habitat Development-Mgt

649, Structures for Wildlife

650, Windbreak/Shelterbelt Renovation

654, Road/Trail/Landing Closure and Treatment

655, Forest Trails and Landings 656, Constructed Wetland 657, Wetland Restoration 658, Wetland Creation 659, Wetland Enhancement 660, Tree-Shrub Pruning 666, Forest Stand Improvement

670, Energy Efficient Lighting System 672, Energy Efficient Building Envelope 736, Crop By-Product Transfer, interim 724, Water Treatment Facility, interim 735, Waste Gasification Facility, interim

737, Reduced Water and Energy Coffee Conveyance

System, interim

740, Pond Sealing and Lining, Soil Cement, interim

751, Individual Terrace, interim 753, Infiltration Ditch, interim 755, Well Plugging, interim

770, Livestock Confinement Facility, interim 775, Drainage Ditch Covering, interim 782, Phosphorus Removal System, interim 800, Controlling Existing Flowing Wells, interim

803, Water Well Disinfection, interim

805, Amending Soil Properties with Lime, interim

808, Soil Carbon Amendment, interim

809, Conservation Harvest Management, interim 810, Annual Forages for Grazing Systems, interim

812, Raised Beds, interim

815, Groundwater Recharge Basin or Trench, interim

817, On-Farm Recharge, interim

818, Water Conservation System, interim

821, Low Tunnel Systems, interim 823, Organic Management, interim

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Other CSAF Practices
Traditional or cultural practices
Microbial products
Solar power generation
Grain bin construction
Pre-season drainage

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Appendix B: Commodity List

CROPS CINNAMON HYBRID POPLAR TREES

ALFALFA CLOVER IDLE ALMONDS COCONUTS INDIGO

AMARANTH GRAIN COFFEE ISRAEL MELONS
APPLES CORN JACK FRUIT

APRICOTS COTTON ELS JERUSALEM ARTICHOKES

ARONIA (CHOKEBERRY) **COTTON UPLAND JICAMA ARTICHOKES CRANBERRIES JOJOBA ASPARAGUS** CRENSHAW MELON JUJUBE **ATEMOYA** CRUSTACEAN **JUNEBERRIES AVOCADOS CUCUMBERS** KENAF **BAMBOO SHOOTS** KHORASAN **CURRANTS BANANAS** DASHEEN **KIWIBERRY** BARLEY DATES **KIWIFRUIT**

BEANS DURIAN KOCHIA (PROSTRATA)

BEETS EGGPLANT KOHLRABI

BIRDSFOOT/TREFOIL EINKORN KOREAN GOLDEN MELON

BLUEBERRIES ELDERBERRIES KUMQUATS BREADFRUIT LAMBS EAR **EMMER** BROCCOFLOWER FIGS LEEKS BROCCOLI **FINFISH LEMONS** BROCCOLINI FLAX **LENTILS BRUSSEL SPROUTS FLOWERS LESPEDEZA** FORAGE SOYBEAN/SORGHUM **BUCKWHEAT** LETTUCE CABBAGE GAILON LIMES GARLIC CACAO LONGAN **CACTUS GENIP** LOQUATS CAIMITO **GINGER** LYCHEE CALABAZA MELON GINSENG MANGOS **CALALOO** GOOSEBERRIES **MANGOSTEEN**

CAMELINA GOURDS MAPLE SAP
CANARY MELON GRAPEFRUIT MAYHAW BERRIES
CANARY SEED GRAPES MEADOWFOAM
CANEBERRIES GRASS MILKWEED
CANISTEL GREENS MILLET

CANOLA GROUND CHERRY MIXED FORAGE
CANTALOUPES GUAMABANA/SOURSOP MOHAIR

CARAMBOLA (STAR FRUIT) **GUAR** MOLLUSK **CARROTS GUAVA** MORINGA **CASHEW GUAVABERRY MULBERRIES GUAYULE CASSAVA MUSHROOMS** CAULIFLOWER HAZEL NUTS MUSTARD CELERIAC **HEMP NECTARINES CELERY HERBS** NIGER SEED NON CHERIMOYA **HESPERALOE CHERRIES** HONEY OATS CHESTNUTS **HONEYBERRIES** OKRA CHICORY/RADICCHIO HONEYDEW **OLIVES ONIONS** CHINESE BITTER MELON HOPS

CHRISTMAS TREES HORSERADISH ORANGES
CHUFAS HUCKLEBERRIES PAPAYA

TURKEYS

USDA Partnerships for Climate-Smart Commodities Data Dictionary for Recipients February 2023

PARSNIP STRAWBERRIES PASSION FRUITS SUGAR BEETS **PAWPAW** SUGARCANE LIVESTOCK **PEACHES SUNFLOWERS ALPACAS PEANUTS** SUNN HEMP **BEEF COWS PEARS TANGELOS BEEFALO**

PEARS TANGELOS BEEFALO
PEAS TANGERINES BUFFALO OR BISON
PECANS TANGORS CHICKENS (BROILERS)
PENNYCRESS TANGOS CHICKENS (LAYERS)
PEPPERS TANNIER DAIRY COWS

PERENNIAL PEANUTS TARO DEER TEA **DUCKS** PERIQUE TOBACCO TEFF **PERSIMMONS ELK** PINE NUTS TI **EMUS PINEAPPLE** TOBACCO CIGAR WRAPPER **EQUINE PISTACHIOS TOBACCO BURLEY GEESE TOBACCO BURLEY 31V GOATS**

PITAYA/DRAGONFRUIT **PLANTAIN TOBACCO CIGAR BINDER HONEYBEES PLUMCOTS** TOBACCO CIGAR FILLER LLAMAS **PLUMS** TOBACCO CIGAR FILLER BINDER REINDEER **POMEGRANATES** TOBACCO DARK AIR CURED SHEEP **POTATOES TOBACCO FIRE CURED SWINE**

TOBACCO FLUE CURED

PRUNES TOBACCO MARYLAND

PSYLLIUM TOBACCO VIRGINIA FIRE CURED

PUMMELO TOMATILLOS PUMPKINS TOMATOES QUINCES TREES TIMBER QUINOA TRITICALE **RADISHES TRUFFLES RAISINS TURNIPS RAMBUTAN** VETCH RAPESEED WALNUTS WAMPEE RHUBARB RICE WASABI RICE SWEET WATERMELON WAX JAMBOO FRUIT RICE WILD

RUTABAGA WHEAT

RYE WILLOW SHRUB
SAFFLOWER WINTER MELON
SAPODILLA WOLFBERRY/GOJI

SAPOTE YAM

SCALLIONS SESAME SHALLOTS SORGHUM

SORGHUM DUAL PURPOSE

SORGHUM FORAGE

POTATOES SWEET

SOYBEANS SPELT SQUASH

STAR GOOSEBERRY

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Partnerships for Climate-Smart Commodities Additional Specific Terms and Conditions February 2023

I. Overarching Statement

The following award terms and conditions are applicable to Partnerships for Climate-Smart Commodities agreements and are in addition to the USDA FPAC General Terms and Conditions. The award recipient must abide by all terms of this grant including, but not limited to, the General Terms and Conditions, the terms in the Funding Opportunity and associated Frequently Asked Questions, and this addendum. The recipient must also deliver on the planned objectives in the project narrative and budget narrative associated with this grant.

II. Eligibility and Highly Erodible Lands and Wetlands Compliance

In order to be eligible for an incentive payment as a part of the Partnerships for Climate-Smart Commodities, a producer must:

- Establish Farm Records with the Farm Service Agency (FSA) (have farm, tract, and field numbers in place);
- Complete an AD-2047 (Customer Data Worksheet to facilitate the collection of customer data for Business Partner Record);
- Certify highly erodible land conservation (HEL) and wetland conservation (WC) compliance via Form AD-1026, Highly Erodible Land Conservation (HELC) and Wetland Conservation (WC) Certification; and
- Certify that they are not a foreign person or entity.

Farm, tract, and field numbers are required for the producer, and ultimately the Partnerships for Climate-Smart Commodities recipient, to report climate-smart practice implementation to USDA, as well as to certify and maintain HELC/WC compliance. This will require that some producers who do not already have these numbers, like perennial crop growers or feedlots, establish these records with USDA's FSA. Farm, tract, field numbers, producer name, and Core Customer I.D. (CCID) will be provided by the recipient to the National Program Officer as a part of routine grant reporting. Recipients must ensure that producers receiving financial assistance or incentives through this project use the same name as is included in the relevant FSA Business File for that Farm ID in any contracts or similar documentation kept by the recipient.

Producers are not bound by the payment limitations and the adjusted gross income (AGI) limitations that are in place for other USDA programs.

In order to demonstrate HELC/WC compliance for Partnerships for Climate-Smart Commodities incentive payments, producers will need to request a copy of their subsidiary print from their

USDA FSA field office. The Subsidiary Print includes print year specific eligibility related information about a selected producer. The producer will then provide this documentation to the Partnerships for Climate-Smart Commodities recipients as proof of compliance. A current year subsidiary print will be required for each crop year that the producer receives a payment, and HELC/WC eligibility information is provided under the AD-1026 and Conservation Compliance sections of subsidiary (determined by year, which can change at any time during the year or in a subsequent year). As is the case already, field offices will not be expected to provide documentation to anyone besides the producer themselves (and must always comply with Section 1619 limitations if they ever do provide documentation to third parties). Producers must have control of the land for the term of their beneficiary contract.

Recipients are responsible for determining producer eligibility within the funding opportunity requirements. Recipients must inform producers of eligibility requirements and direct them to local USDA offices for requested information as necessary, including but not limited to, farm and tract establishment and Highly Erodible Land and Wetland Compliance determinations. Privacy of producers is a priority throughout this process, and recipients are responsible for maintaining producer privacy in the process.

At minimum, the recipient will collect and review subsidiary reports from participating producers. They will ensure that the producer is listed as "compliant" in all sections of the conservation compliance portion of subsidiary and "certified" for AD-1026 before an incentive payment is made. If payments to a producer span more than one Federal fiscal year, the recipient will review an updated subsidiary print each fiscal year to ensure that the status is still compliant.

III. Other Environmental and Cultural Resources Reviews

A Finding of No Significant Impact (FONSI) was signed by USDA NRCS on August 26, 2022. A copy of the Programmatic Environmental Assessment for Partnerships for Climate-Smart Commodities is available at www.usda.gov/climate-smart-commodities. USDA may determine that additional environmental and cultural resources review is needed for any particular action under Partnerships for Climate-Smart Commodities. The recipient must not execute any beneficiary contracts under this grant agreement prior to receipt of a letter from USDA that specifically details:

- further procedures deemed appropriate by the Agency to ensure a completed National Environmental Policy Act (NEPA) review and all appropriate consultation requirements are met, and
- 2) additional instructions for any unanticipated discoveries or conditions.

A resolution of support is required for projects on Tribal lands from the governing body of the Tribe with jurisdiction over that land, if the applicant is not the Tribe nor an entity owned or

operated by that Tribe. USDA may approve alternative documentation for resolutions when USDA deems necessary and legally sufficient.

IV. Producer Benefits

USDA encourages the recipient to disclose to participating producers the manner and amount for which any market premiums derived from the development of the relevant climate-smart commodity will be shared between participating parties, including producers. USDA will be monitoring producer benefits, in particular those to small and underserved producers, throughout the grant period. Recipients agree that their project(s) will implement a plan for engaging small and underserved producers as laid out in this agreement.

V. Producer Data Protection and Disclosure

Recipients must ensure each producer has convenient access to any data collected from that producer or the producer's land and any associated modeling as part of the project. The recipient must provide each producer applying for benefits under this grant a description in writing of how their information, including but not limited to data about their farm and commodities, will be utilized, protected and shared as applicable.

VI. Other Data and Reporting Requirements

In addition to the reporting information provided in the statement of work and General Terms and Conditions, USDA will provide a template for the Detailed Progress Report, also known as the Partnerships for Climate-Smart Commodities (PSCS) Project Reporting Workbook. Within 30 calendar days of execution of this grant, a copy of this workbook will be posted at www.usda.gov/climate-smart-commodities or an alternative location provided to the recipient by the National Program Officer. USDA may provide updates to the PCSC Project Reporting Workbook or submission methods to streamline the data collection process and/or reduce the burden on the recipient throughout the grant period. Generally, these updates will be provided at least 3 months in advance of any required changes. The recipient must not transfer any data to foreign governments or foreign entities without prior approval from USDA.

USDA will provide a Technical Contact for this grant. The Technical Contact will have the responsibility of technical oversight for USDA for the project. The recipient is responsible for providing the technical assistance required to successfully implement and complete the project. The recipient must comply with any requests for information from the Technical Contact. The Technical Contact for this award is the National Program Officer assigned to this grant.

Prior to execution of this grant, the recipient must provide a shapefile depicting the project boundary for enrollment under this grant. Producer enrollment may not occur outside this boundary without modification of this grant.

Within 30 calendar days of execution of this grant, the recipient must provide to the National Program Officer a website address where enrollment information will be posted for producers for the project associated with this grant. Recipients will be responsible for the following reports:

- Submit quarterly performance reports that include a written progress report, as well as
 additional reporting on specific data elements contained in the most up-to-date version
 of the Partnerships for Climate-Smart Commodities Project Reporting Workbook.
 Additional information about each reported element is described in the Data Dictionary.
- Submit supplemental reports required to validate greenhouse gas (GHG) benefit data, including: (1) an initial project MMRV plan, (2) field-modeled GHG benefit reports, and (3) field-direct GHG measurement results, as applicable. Additional information about these reports is in included in the Data Dictionary.
- Submit copies of project outputs and deliverables (e.g., fact sheets, reports) as attachments in ezFedGrants along with quarterly performance reports.
- Report the version of COMET-Planner used to estimate GHG benefits of the project within each quarterly performance report. As COMET-Planner is updated, recipients must adopt the latest version of the tool as directed by USDA for use in performance reports.

Recipients must designate an individual as a member of the USDA Partnerships for Climate-Smart Commodities Learning Network (Partnerships Network); this representative should be identified in the Project Narrative for this grant. Each project includes a plan for up to two Partnerships Network virtual meetings and two in-person meetings a year during the project duration. Dates and other details on events will be posted at www.usda.gov/climate-smart-commodities or an alternative location provided to the recipient by the National Program Officer.

The Partnerships Network will be co-chaired by representative from the USDA Office of the Chief Economist and the Farm Production and Conservation Mission Area. The Partnerships Network will inform synthesis reports to be assembled by USDA on a range of topics related to the implementation of Partnerships for Climate-Smart Commodities projects, including:

- Lessons-learned as projects are implemented;
- Options for providing technical assistance;
- Procedures for measurement/quantification, monitoring, reporting, and verifying GHG benefits;
- Options for tracing climate-smart commodities through the supply chain;
- Mechanisms for reducing costs of implementation;
- A forum for discussion and learning regarding approaches to climate-smart agriculture and forestry implementation (including but not limited to deployment and

measurement/quantification, monitoring, reporting, tracking, and verification of associated greenhouse gas benefits and marketing of climate-smart commodities).

- Synthesis of outcomes; and
- Opportunities for USDA and others to inform future approaches to generating new and expanded markets for climate-smart commodities.

The Partnerships Network topics to be discussed will cover at minimum the areas described in previous FAQs and will evolve with USDA's ongoing project data analysis efforts and with input from the project recipients on the kinds of sessions that will be most helpful to them in building the diverse climate-smart markets associated with their projects. Participation may include at least one interview a year and include questions related to the following areas:

- Technical assistance approaches, methods, and successes and/or challenges
- Producer outreach approaches, methods, and successes and/or challenges
- Monitoring, measurement, reporting, and verification (MMRV) approaches, methods, and successes and/or challenges
- Marketing approaches, methods, and successes and/or challenges
- Partnership approaches, methods, and successes and/or challenges
- Data collection and storage approaches, methods, and successes and/or challenges
- Supply chain approaches, methods and successes and/or challenges, including approaches to traceability
- Supply chain benefits and demand for climate-smart commodities
- Perspectives on program design, climate-smart commodity definitions, and future approaches or opportunities
- Project successes and stories

USDA may also request producer exit reports at a later date. Additional marketing and branding-related requirements may be provided by USDA, including signage related to Partnerships for Climate-Smart Commodities.

VII. Competition and Anti-Competitive Practices

In connection with this grant, recipients may not prohibit or otherwise limit a producer from changing the provider of other services or materials not included as part of this grant. Recipients may not condition, limit, steer, or discriminate in their provision or sale of non-project business functions or products to producers based on their participation or non-participation in or use of any services provided as part of this grant. Additionally, funds in this agreement shall not be used for purposes or activities related to mergers or acquisitions.

VIII. Suspension and Disbarment

The provisions governing Suspension and Disbarment in subsection 1.a.8 shall also apply to fraud, embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or violations of the Federal civil antitrust or unfair trade practice laws.

IX. Special provisions for awards to for-profit entities as recipients

This section contains provisions that apply to awards to for-profit entities. These provisions are in addition to other applicable provisions of these terms and conditions, or they make exceptions from other provisions of the terms and conditions for awards to for-profit entities. For-profit entities that receive awards have two options regarding audits:

- A financial related audit of a particular award in accordance with Generally Accepted Government Auditing Standards issued by the Comptroller General of the United States, in those cases where the for-profit entity receives awards under only one USDA program; or, if awards are received under multiple USDA programs, a financial related audit of all awards in accordance with Generally Accepted Government Auditing Standards issued by the Comptroller General of the United States; or
- 2) An audit that meets the requirements contained in 2 CFR 200 subpart F.

For-profit entities that receive annual awards totaling less than the audit requirement threshold in 2 CFR 200 subpart F are exempt from USDA audit requirements for that year, but records must be available for review by appropriate officials of Federal agencies or the Government Accountability Office.

X. Non-Disparagement

Recipients may not engage in any advertising deemed by USDA as disparaging to another agricultural commodity or competing product, or in violation of the prohibition against false and misleading advertising. Disparagement is defined as anything that depicts other commodities in a negative or unpleasant light via overt or subjective video, photography, or statements. Comparative advertising is allowable, provided the presentation of facts is truthful, objective, not misleading, and supported by a reasonable basis.