USDA

U.S. Department of Agriculture
Natural Resources Conservation Service

NOTICE OF GRANT AND AGREEMENT AWARD

1. Award Identifying Number	2. Amendment Number	3. Award /Project Period	4. Type of award instrument:
NR233A750004G046		Date of final signature - 05/15/2028	Grant Agreement

5. Agency (Name and Address)	6. Recipient Organization (Name 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	DAIRY FARMERS OF AMERICA, INC. 1405 N 98TH ST KANSAS CITY KS 66111-1865 UEI Number / DUNS Number: TV1VCBN3TC35 / 029855640 EIN:

7. NRCS Program Contact	8. NRCS Administrative Contact	9. Recipient Program Contact	10. Recipient Administrative Contact
Name: JOHN ANDERSON (b)(6)	Name: ADAM CARL	Name: Hansel New	Name: Hansel New

11. CFDA	12. Authority	13. Type of Action	14. Program Director
10.937	15 USC 714 et seq	New Agreement	Name: Hansel New (b)(6)

15. Project Title/ Description: Expands markets for climate-smart dairy and milk products in TX, NM, CO, KS, PA, NY, MD, NJ, CT, MA, VT, NH, ME and supports farmer implementation and monitoring of climate-smart practices.

16. Entity Type: Q = For-Profit Organization (Other than Small Business)

17. Select Funding Type

Select funding type:	☒ Federal	☒ Non-Federal
Original funds total	$44,866,449.00	$7,548,762.00
Additional funds total	$0.00	$0.00
Grand total	$44,866,449.00	$7,548,762.00

18. Approved Budget

Personnel	$0.00	Fringe Benefits	$0.00
Travel	$0.00	Equipment	$9,952,495.00
Supplies	$205,800.00	Contractual	$4,071,400.00
Construction	$0.00	Other	$30,636,754.00
Total Direct Cost	$44,866,449.00	Total Indirect Cost	$0.00
		Total Non-Federal Funds	$7,548,762.00
		Total Federal Funds Awarded	$44,866,449.00
		Total Approved Budget	$52,415,211.00

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	Signature		Date
KATINA HANSON Acting Senior Advisor for Climate-Smart Commodities	KATINA HANSON	Digitally signed by KATINA HANSON Date: 2023.06.12 11:08:36 -05'00'	
Name and Title of Authorized Recipient Representative	Signature		Date
JACKIE KLIPPENSTEIN SVP	Jackie Klippenstein	Digitally signed by Jackie Klippenstein Date: 2023.06.08 15:49:48 -05'00'	

NONDISCRIMINATION STATEMENT

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW., Washington, DC 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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 Dairy Farmers of America, Inc. (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 $52,415,211

TOTAL FEDERAL FUNDS $44,866,449
PERSONNEL $0
FRINGE BENEFITS $0
TRAVEL $0
EQUIPMENT $9,952,495
SUPPLIES $205,800
CONTRACTUAL $4,071,400
CONSTRUCTION $0
OTHER $30,636,754 (includes PRODUCER INCENTIVES $7,153,510)
TOTAL DIRECT COSTS $44,866,50
INDIRECT COSTS $0

TOTAL NON-FEDERAL FUNDS $7,548,762
PERSONNEL $2,150,200
FRINGE BENEFITS $0
TRAVEL $73,562
EQUIPMENT $0
SUPPLIES $0
CONTRACTUAL $0
CONSTRUCTION $0
OTHER $5,325,000 (includes PRODUCER INCENTIVES $0)
TOTAL DIRECT COSTS $7,548,762
INDIRECT COSTS $0

Recipient has elected to voluntarily waive indirect costs.

When equipment is purchased with Federal funds it must be used until no longer needed as described in the General Terms and Conditions and 2 CFR 200. If the residual value of the equipment is $5,000 or more at the time it is no longer needed, the recipient must request disposition instructions. The disposition instructions may direct the recipient to: 1) sell the equipment and return a proportionate share of the proceeds to the Federal agency; 2) transfer title to another eligible entity identified by the Federal agency; or 3) keep the equipment if desired and compensate the Federal agency for its proportionate share of the value.

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

Withheld pursuant to exemption

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of the Freedom of Information and Privacy Act

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Submission: Scaling Climate-Smart Dairy Markets — Delivering Value to U.S. Farmers Through Methane Emissions Reductions and Soil Carbon Sequestration

Section 1 – Executive Summary

Contact Information:
Hansel New, Director of Sustainability. Dairy Farmers of America, Inc. 1405 N 98th Street
Kansas City, Kansas 66111. Phone: 816-801-6941. Email: hnew@dfamilk.com

Project Partners
Dairy Farmers of America (DFA) will be the primary implementor supported by implementation Project Partners, Letter of Support providers and existing business partners including:

- Implementors: Dairy One Cooperative, Inc., MyFarms, LLC; Dairy Nutrition Management and Consulting, LLC (DNMC) AGPROfessionals
- Customers: Nestlé, Mars, Unilever, Barry Callebaut
- Industry groups: Dairy Management Inc., U.S. Dairy Export Council, National Milk Producers Federation, Global Dairy Platform, Innovation Center for U.S. Dairy
- Technical and knowledge experts: CoBank
- DFA farmer-owners

List of Underserved Community Partners
DFA is active in underserved rural communities across the country where many of our farmer-owners live and our more than 17,000 employees live and work. Our partner Dairy One is a part of this network as well. An external analysis showed that close to 40% of DFA facilities are in HUBZone designations that are typically areas of low median household incomes or high unemployment, or both. DFA has invested heavily in America's distressed communities and is providing good jobs to people who live in those communities.
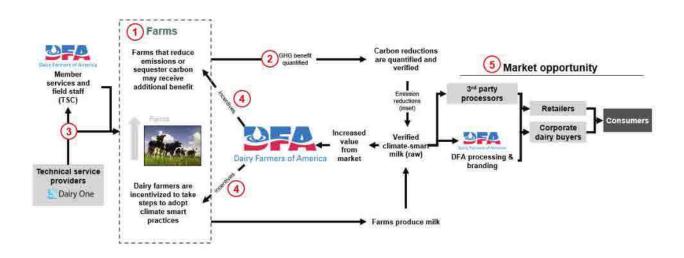
Compelling Need for the Project
The U.S. dairy industry is a contributor to the United States greenhouse gas (GHG) emissions, with approximately 13.5% of total U.S. agricultural GHG emissions and approximately 1.35% of total U.S. GHG emissions. This creates a compelling opportunity for dairy to deliver significant reductions that will impact not only the dairy industry but all of agriculture. DFA's proposed pilots outline a relatively fast pathway to reduce dairy emissions by nearly 30%, equating to 4% of U.S. agriculture and 0.4% of total U.S. GHG emissions.

There is an equally compelling opportunity to develop and market climate-smart dairy commodities. The U.S. market potential for climate-smart dairy is estimated at more than $20 billion, which could return $4.5 billion annually to America's dairy farmers.

The proposed DFA climate-smart pilots will directly connect the on-farm GHG reductions with the climate-smart dairy market opportunity. DFA will use its cooperative business model to ensure that the collective financial benefits are captured at the farm. This creates a compelling

opportunity to establish a powerful, self-sustaining circular economy model benefiting U.S. agriculture, including underserved producers operating in underserved U.S. communities.

The positive impact of scaling climate-smart dairy markets and delivering value to U.S. farmers through methane emissions reductions and soil carbon sequestration is tremendous. The alternative, where dairy risks falling into an extraction economy model with carbon reduction financial benefits leaking outside agriculture and away from underserved rural communities, is also a compelling reason for the project.

DFA's proposed project model:

The proposed pilot model is designed to connect the market opportunity (5) with the on-farm GHG emission program (1). The specific actions included in both these elements are detailed later in this proposal.

DFA will use its cooperative business model to ensure that the value captured in the market is returned to the farmer implementing climate-smart practices. This includes incentivizing farmers (4) who take even the most basic steps toward GHG emission reduction.

- The on-farm interventions planned in the pilots are estimated to reduce emissions on participating dairy farms by up to 30%, with an average marginal abatement cost across the five years of the pilot of approximately $45 per metric ton (MT) of CO2e (carbon dioxide equivalents) reduction ($45/MT CO2e) – a number that drops below $10 per MT CO2e in years 45 and is viewed favorably by USDA's own climate mitigation analysis[1]
- The market-generated benefits directly created from the on-farm GHG emission reductions are estimated to be between $60-100 per MT. These benefits will lag the emissions reductions as DFA builds the supply of climate-smart milk to fill demand

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[1] Pape, D., J. Lewandrowski, R. Steele, D. Man, M. Riley-Gilbert, K. Moffroid, and S. Kolansky, 2016. Managing Agricultural Land for Greenhouse Gas Mitigation within the United States. Report prepared by ICF International under USDA Contract No. AG-3144-D-14-0292. July 2016.

- Year five net benefits are projected between $30-70 per MT GHG reduction creating potentially billions of dollars if implemented industry-wide that could be distributed to farmers and rural communities

This proposal recognizes the need to provide the necessary education, tools and training for the farmers who participate. This will be executed by DFA staff and third-party project partners (3). The model identifies where DFA needs to develop and implement strong MMRV programs (2) to verify results that reinforce DFA's 30% absolute science-based scope 3 target.

Approach to Minimize Transaction Costs
Transactional costs will be minimized through a combination of focusing on existing efficiencies within DFA's extensive on-farm support networks and by leveraging project partners that bring substantial savings and efficiencies to the project. DFA is committed to maximizing the introduction and use of digital tools where possible.

DFA field staff are trained personnel who will be actively involved to support the project by recruiting farms to the climate-smart dairy program, providing regular check-ins with farms and serving as an additional resource to answer questions and provide guidance to DFA farmer-owners. These existing resources provide efficiency to keep costs at a minimum.

MyFarms was built to facilitate collaborative relationships between farmers and advisors and has created numerous integrations and capabilities that are proven to dramatically reduce the transactional costs related to GHG measurement activities.

Dairy One is an experienced Technical Service Coordinator (TSC) that will implement the climate-smart dairy program across the three pilot milksheds. Dairy One will approve and coordinate the Technical Assistance Providers (TAPs) during the pilot and actively manage the TAP's work to ensure strong fiscal responsibility. Dairy One has estimated TAP pricing during the five years of the pilot at under $10 per acre per year. Dairy One already works with many DFA farmer-owners.

Approach to Reduce Producer Barriers to Implementing CSAF Practices
DFA's project breaks down the barriers of implementing climate-smart practices by utilizing existing infrastructure to connect directly with dairy farmers to offer training and support. It also creates an incentive structure that makes adoption of practices on a small or large scale accessible and financially beneficial to all DFA's farmers.

DFA has designed a dairy farm incentive structure that includes the following proven elements:
- TAP assistance
- Cost-share opportunities to assist with starting climate-smart commodity practices
- A system that rewards farms for taking incremental steps to adopt even the most basic climate-smart farming practices

Geographic Focus
The extreme diversity of U.S. dairy farms means that different farms will require different tools and support levels to successfully integrate climate-smart practices. DFA has purposefully

selected three milksheds to engage farms representing diverse sizes, geographies, management practices and farmer backgrounds. The selected milksheds provide milk to DFA plants:

Pilot Milksheds	Massachusetts	New Jersey	Kansas	Total
Total farms	278	207	47	532
Participating farms - goal	112	83	33	228
Average herd size - cows	318	66	2,946	
Total cows	35,616	5,478	97,218	138,312
Total acres	71,232	10,956	194,436	276,624

- States noted represent the processing plant locations (actual milksheds cover 14 states)
- Products from these plants are sold across the U.S. and around the world

Project Management Capacity of Partners

All the identified project partners have available capacity and capabilities to execute the pilots. DFA is uniquely positioned and fully committed, supported by a deep and diverse partnership group, to deliver this comprehensive plan in support of USDA's climate-smart agriculture and forestry (CSAF) strategy.

- DFA's position ensures that its proposal positively impacts the entire U.S. dairy sector. As a leading global dairy cooperative, DFA has: 11,500 family dairy farmer-owners, including many women-led farms, minority-owned farms and diverse farming communities including Amish, Mennonite and Hutterite.
- 6,000 diverse supplying farms
- Approximately 26% of member farms are underserved or in underserved communities
- Annual revenue of $20 billion; nearly 18,000 employees, many who live and work in minority communities
- 400 locations in 48 states and overseas; more than 100 plants including partnerships with leading companies
- Active and committed DEI program
- Leading market positions and brands; successful innovation platforms; strong exports
- Broad range of resources and expertise to augment USDA funding support
- Extensive member engagement including expansive member services business group
- Farmer-owned and farmer-led through a grassroots governance structure

DFA has the scale, diversity and expertise to be the ideal USDA project partner, and USDA funding support is needed to accelerate and expand DFA's current GHG reduction activities.

Section 2 – Project Plan to Pilot Climate-Smart Agriculture Practices on a Large Scale

A. Description of the CSAF Practices

To support USDA's CSAF strategy, DFA will focus on three primary on-farm intervention strategies – accelerate regenerative agriculture, reduce enteric methane emissions and improve

manure management – which, when taken together, represent the largest impact areas for GHG mitigation and carbon sequestration benefits on dairy farms in the U.S.

1. Accelerate regenerative agriculture
Farms enrolled in this pilot will receive individualized regenerative agriculture plans from TSCs, which will be tailored to their operations to optimize financial and climate impact to their operations. In addition to GHG reduction and carbon sequestration benefits, regenerative agricultural practices also provide environmental co-benefits including improved water and air quality and increased wildlife habitat and biodiversity. Most dairy farmers in DFA's pilot milksheds grow their own crops (e.g., corn silage and alfalfa) to feed their herds, which enhances emissions reductions and carbon sequestration opportunities. This proposal incorporates regenerative agriculture practices of cover cropping, crop rotations, conservation tillage and replacing synthetic fertilizer with dairy manure, along with regenerative pasture practices (e.g., prescribed grazing and range planting). During the program's implementation farms that add or adopt pasture grazing practices into their operations may, when deemed appropriate for the operation, install fencing which would likely penetrate below the plow zone. In such cases, DFA's technical assistance providers will ensure that the farm's regenerative pasture program incorporates appropriate Natural Resources Conservation Service (NRCS) practice standards and cultural resource considerations. All practices will be implemented on land that is currently used for agricultural production.

2. Reduce enteric methane emissions
Approximately 35% of on-farm emissions are attributed to methane released through enteric fermentation[2]. DFA's comprehensive emissions reduction strategy recognizes the need for enteric emission reductions using a suite of best practices including increasing feed efficiency, a focus on herd health, and utilizing emission-reducing equipment, technologies, and feed additives.

A cow's stomach is one of nature's greatest recyclers, taking feedstuffs like grasses and agriculture byproducts that are indigestible to humans and breaking them down into usable energy via anaerobic microbial activity within the rumen. This enteric fermentation produces methane gas that is released when the cow belches. DFA is already engaged in a series of trials using Agolin, a feed additive that reduces enteric methane production; we plan to incorporate additional feed additive technologies such as 3-NOP and Agrovive as they become available during the five-year pilot duration.

Feed additives in scope for this project will be Generally Recognized as Safe by the Food and Drug Administration when they are on the market. Currently, Agolin is the only dairy feed additive with a known GHG benefit that is on the market, but the expectation is that 3-NOP/Bovaer will be approved for commercial sales in the coming years. Additionally, Agrovive is a plant inoculant, and its use will be piloted in conjunction with the University of Cornell to better understand the full suite of benefits. 3-NOP and Agrovive are not yet Generally Recognized as Safe by the FDA because they are not commercially available. We expect the

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[2] Thoma, *et al* "Regional analysis of greenhouse gas emissions from USA dairy farms: A cradle to farm-gate assessment of the America dairy industry circa 2008," International Dairy Journal, Volume 31, 2013, https://doi.org/10.1016/j.idairyj.2012.09.010

approval and commercialization of these feed additives in the coming years and will incorporate them as they become approved for use.

3. Improve manure management

Emissions from manure contribute to roughly one-third of on-farm emissions[1], so ensuring farms of all sizes benefit from carbon-reducing nutrient management plans and technologies like solid-liquid separators or Biofiltro systems is important to reduce GHG emissions from manure. Since large anaerobic digesters are out of scope for this pilot, solid-liquid separators and Biofiltro systems have been chosen as a practical way for farms of any size to mitigate manure-based emissions. Purchasing these systems, however, can be financially challenging for smaller farmers, so we propose a cost-share program with the farmer to aid in equipment purchases. For farms that are categorized as a CAFO operation or will be adopting emissions-reducing manure management practices as a result of participating in this program, DFA will work with our Technical Assistance Providers and internal experts to ensure that each farm has a compliant 590 plan.

Disposition of Equipment

Reducing emissions from manure and enteric requires large capital equipment purchases such as Biofiltro units, solid-liquid separators, and on-farm robotics. The farms that receive grant funding to purchase this equipment will agree, through a written agreement with DFA, to use the purchased equipment as intended for the life of the equipment even after the 5-year project. They also agree to keep the carbon reductions generated from the use of the equipment within the supply chain and not sell the carbon credits to outside entities. If the farm can no longer use the equipment as intended, DFA will be responsible for moving the equipment to a farm that can use it to the same effect as the original owner. DFA will ensure that the new owner of the equipment is held to the same use and management standards so that GHG reductions continue to occur and remain within the supply chain.

B. Plan to Recruit Dairy Producers on a Large Scale

DFA's structure, with seven regional offices across the country and more than 120 field staff, along with a growing number of farmer-focused sustainability specialists, enables DFA to efficiently recruit dairy producers for this pilot (and, later, at a larger scale).

DFA will recruit specifically in the three pilot areas of Garden City, Kan.; Bridgeton, N.J.; and Franklin, Mass. Similar recruitment opportunities for pilots are already underway on DFA member farms, such as piloting Agolin, integrating regenerative pasture practices, installing wind turbines and installing lagoon covers on farms. Tools DFA field staff would utilize for farmer recruitment include marketing materials and participating in field days. As part of DFA's in-kind support to this pilot, DFA will designate dedicated sustainability specialists to help with recruiting.

C. Plan to Provide Technical Assistance, Outreach, and Training

In addition to DFA's recruitment structure, DFA has a partnership with Dairy One to provide technical assistance, outreach and training for DFA's farmer-owners. Dairy One will serve as the TSC to help implement the practices DFA has included as part of the accelerating regenerative agriculture portion of this project. As defined in its proposal to DFA, as a TSC, Dairy One will

be responsible for training, technical support during project implementation, annual reporting, project summarization and organization of stakeholder meetings for farmer-to-farmer outreach. The company will identify TAPs as necessary to support the implementation and tracking of climate-smart practices as outlined within the scope of regenerative agriculture. Thus far, TAP's include Agricultural Consulting Services (ACS, a subsidiary of Dairy One) and AgProfessionals, an agricultural technical advisor that is already working on projects with DFA.

DFA will serve as the TSC for the reduce enteric methane emissions portion of this project. DFA Farm Services has established relationships with organizations and individuals capable of serving as TAPs for DFA's farmer-owners, including project partner DNMC. In addition to providing guidance on feed additive use, TAPs will help develop a plan to optimize feeding and feed rations which will enhance the effect of feed additives. Funding from this grant will be made available for a suite of technology options, such as SCiO cup, which provides comprehensive analysis of feed dry matter content; feed and herd management software and silage covers.

DFA will also serve as the TSC for the manure management portion of this project. DFA Farm Services has direct relationships with vendors and agricultural consultants who have previously sold solid-liquid separators and Biofiltro units and designed engineering plans for implementation on member farms. Discounts on equipment will be available through DFA Farm Services, as well as access to trained professionals to provide continuous training and troubleshooting to ensure participating farmers achieve maximum benefits from the equipment.

To summarize, DFA is the primary grant recipient and will manage all top-level project management aspects within the entirety of the proposal. Underneath that, DFA will serve as the TSC for the enteric and manure focused arms of the project, and Dairy One will serve as the TSC for the regenerative agriculture portion. For the enteric section, DNMC has been identified to support as a TAP, and Dairy One (soil testing and consulting) along with AGPROfessionals (consulting) will be TAPs for implementation of the regenerative agriculture portion. DFA is working to identify a TAP/s for the manure management work and likely may also include expertise from either Dairy One or AGPROfessionals.

DFA's climate-smart proposal will be implemented over five years, from April 2023 to December 2027. Given the level of benefits and time needed for recruitment, the funds are somewhat backloaded for the enteric portion of the project.

D. Plan to Provide Financial Assistance for Producers/Landowners to Implement CSAF Practices
As a part of DFA's climate-smart proposal, initial funds from the USDA program will be focused in three ways:
- Compensating TAPs to 1) work directly with farms to implement regenerative agriculture practices, 2) ensure maximum enteric methane reductions from feed additive usage and 3) help install and consult on management of solid-liquid separators and Biofiltro units
- Providing a cost-share opportunity with the farmer on cover crop seed, grazing supplies, feed additives and manure management technologies

- Funding individual participation in feed additive trials to cover the technology needed to track and implement, such as the purchase of products like the SCiO cup

Per the model for the pilot, $3.6 million will be allocated towards TAPs to directly provide aid to participants and $34 million for funds toward farmers' purchases of cover crop seed, regenerative grazing supplies, feed additives and manure management technologies. An additional pool of just under $700 thousand will be utilized to ensure all participants in enteric feed additive trials have the technology necessary to track and ensure maximum GHG benefits.

To amplify USDA's climate-smart funding, DFA intends to develop and market climate-smart dairy products through its extensive manufacturing and sales network. DFA will capture the value from those climate-smart dairy offerings and return that value to its farmer-owners, with the goal of creating a self-funding circular rural economic model that will sustain the on-farm GHG emissions reductions.

E. Plan to Enroll Underserved and Small Producers
Unlike other industries, more than 90% of U.S. dairy farms are family owned. More than 26% of DFA's over 6,000 member farms belong to typically underserved communities, including Black and Hispanic communities, but also Amish, Mennonite and Hutterite communities. To better serve DFA's farmer-owners and identify emerging trends, DFA analyzes member farm sizes in quartiles or quintiles yearly. Per the latest updates, nearly 5,400 member farms contain fewer than 540 head of cattle per farm. In fact, the average farm size in the Bridgeton, N.J., milkshed is just 66 head of cattle. By selecting milksheds for the pilot that include small producers and those in underserved and minority populations, DFA is ensuring that each of these practices can be introduced on a diverse array of farms.

This DFA proposal was devised to test the potential for farms of various sizes to benefit from consumer interest in low - carbon dairy products. The farms which supply DFA's Massachusetts and New Jersey milk sheds, two of the identified milk sheds for this project, were selected in part because they tend to be smaller and more diverse.

Regarding the 173 farms who will have the opportunity to participate in this project in the New Jersey milk shed, milking on average 66 cows, we estimate that over 77 percent would meet the USDA gross farm income threshold definition of small farm. Many of those farms would likely also meet the USDA definition of underserved as the operation is women or veteran owned, and this project will give DFA the opportunity to record that demographic data. In the 278 farms in the Massachusetts milkshed, we estimate that 28% would be classified as a small farm under USDA's gross farm income definition. Again, this project will give us the opportunity to collect other meaningful demographic data for the participating farms.

To recruit farms to participate in this project, DFA will be holding several information sessions which will help farms in the milk-shed determine if they would be able to meet the on-farm requirements for a low carbon product. Until those meetings and farm self-assessments have been completed, DFA is unable to provide a specific number or percentage of underserved farms that will be engaged in the pilot.

DFA is committed, however, to ensuring small and underserved farms are provided with the opportunity to engage in these efforts and is prepared to offer resources and technical expertise. Additionally, as a national farmer-owned cooperative, DFA is confident that if the proposal yields positive results in terms of securing a value add for climate-smart dairy products through the market, that DFA will be able to replicate the project and offer opportunity for more of the Cooperative's farmer-owners to engage in this market driven opportunity.

The proposed plan will allocate the added value captured from the market to reward farmers who implement climate-smart practices even if they are only able to quantify incremental improvements. The proposed plan will keep carbon benefits inside the DFA value chain, protecting against the expansion of damaging extraction economic models that pull value out of rural communities and away from farmers.

Section 3 – Measurement/Quantification, Monitoring, Reporting and Verification Plan

A. <u>Approach to Greenhouse Gas Benefit Quantification and Methodology</u>

1. Accelerate regenerative agriculture
MyFarms, which was built to facilitate collaborative relationships between farmers and advisors, has built numerous integrations and capabilities that are proven to accurately quantify and track GHG emissions while dramatically reducing the transactional costs related to GHG measurement activities including:
- **SAFELink** – A tool used by advisors to enter data and perform analyses on behalf of a farmer, who can then see and edit the analyses done on their behalf
- **Field Boundaries** – To make setting up a farm as efficient as possible, farmers can import and export field boundary data to third-party systems
- **Fieldprint Platform** – Direct integration built with the Fieldprint Platform, which is supported by NRCS that returns the total GHG emissions for the unique production system used for the enrolled field. It also returns results generated by NRCS models (e.g., STEP, SCI, WEPP, and WEPS)
- **Copy Tools** – Uses satellite imagery to detect crop rotation, easing use and accuracy for field-specific operations data required by NRCS environmental models
- **COMET-Planner** – USDA funding would assist in MyFarms integrating the COMET-Planner GHG emissions reduction data associated with priority practices for every county in the DFA footprint. This allows quick estimation of the net carbon flux produced by each field, creating a scalable and cost-effective approach to GHG measurement

2. Reduce enteric methane emissions
A widely accepted baseline for feed additive trials comes from the 2006 Intergovernmental Panel on Climate Change's (IPCC) Guidelines for National Greenhouse Gas Inventories[3]. Benefits from feed additive trials and studies are often reported by different metrics. Due to the variation, it is most advantageous to utilize a proportional reduction for DFA's model and standardized baseline for enteric methane emissions. Baseline methane emissions will be calculated at

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[3] Intergovernmental Panel on Climate Change (IPCC), "Chapter 10 Emissions from Livestock and Manure Management" in 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 4 Agriculture, Forestry and other Land Use, Geneva, 2006

commencement of the GHG project to estimate current enteric emissions. Calculations are discussed below in Section 3, Part C.

3. Improve manure management
Associated reductions related to livestock manure are often reported across a series of different metrics; however, a good baseline for measurement comes from the U.S. Dairy LCA, and the use of a solid-liquid separator has been shown to decrease dairy manure emissions by upwards of 38%[4]. Therefore, a conservative benchmark of a 35% reduction in GHG emissions associated with the annual manure emissions baseline number, calculated per cow, will be utilized to quantify the GHG benefits created in the manure management arm of this program. Additionally, for farms that add a Biofiltro unit, our model estimates a 91% reduction in GHG emissions of captured manure per cow compared with the baseline.

B. Approach to Monitoring of Practice Implementation
DFA has selected three milksheds to highlight farms of different sizes, geographies, management practices and diverse backgrounds. Milksheds supplying three DFA manufacturing plants have been selected for this pilot: Garden City, Kan.; Franklin, Mass.; and Bridgeton, N.J. Approaches to monitoring practice implementation are organized according to regenerative agriculture practices, enteric emissions reduction and manure management.

Estimated Farm Participation Per Milkshed

Pilot Milksheds	Massachusetts	New Jersey	Kansas	Total
Total farms	278	207	47	532
Participating farms - goal	112	83	33	228
Average herd size - cows	318	66	2,946	
Total cows	35,616	5,478	97,218	138,312
Total acres	71,232	10,956	194,436	276,624

1. Accelerate regenerative agriculture
MyFarms has designed a comprehensive process to monitor key performance indicators for the program from farmer enrollment to practice verification, including:

- **Navigation Assistant** – Farmers and advisors can use this dashboard within MyFarms to immediately identify the next step in the enrollment process for the program. It will include six steps: enroll farmer, add fields, add machinery, add fieldprint, enroll fields and verify fields
- **Farmer Enrollment** – A digitally signed document that sets forth the understanding between the farmers and DFA, including the opportunity to receive financial support for regenerative agriculture practices after those practices have been verified by the farmer (see Section 3, Part D below) later in the production season

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[4] Horacio A. Aguirre-Villegas, Rebecca A. Larson, Mahmoud A. Sharara, "Anaerobic digestion, solid-liquid separation, and drying of dairy manure: Measuring constituents and modeling emission," Science of The Total Environment, Volume 696, 2019, 134059, ISSN 0048-9697, https://doi.org/10.1016/j.scitotenv.2019.134059.
(https://www.sciencedirect.com/science/article/pii/S0048969719340367)

- **Field Enrollment** – This process enables the farmer to calculate net carbon flux for each field and to explore its relationship with regenerative agriculture practices. MyFarms will calculate the financial reward associated with selected practices, to set a clear and accurate expectation in accordance with DFA's farmer compensation schedule, pending field verification. For program monitoring purposes, funds are obligated upon completing field enrollment
- **Field Verification** – This process verifies practices in enrolled fields. For program monitoring purposes, funds are billable upon completing field verification
- **Program Reporting** – DFA will run reports in the MyFarms portal to track the number of farmers, fields and acres enrolled in the program in real-time, along with funds obligated and billable to program participants

2. Reduce enteric methane emissions
The use of feed additives to reduce enteric emissions will be monitored by TAPs. DFA is currently in discussions with companies developing software programs that could utilize the feed makeup, the use of additives and various other factors to monitor changes without having to physically count the emissions being released from cows. This would help to maintain accuracy of monitoring and save on costs while doing so.

3. Improve manure management
Solid-liquid separator benefits would be accounted for like those with the enteric emissions reductions, primarily through modeling. DFA is in discussions to determine an appropriate TAP to monitor the manure emissions benefits that result on each farm that is chosen to install a solid-liquid separator.

C. Approach to Reporting and Tracking of Greenhouse Gas Benefits
1. Accelerate regenerative agriculture
DFA will use the MyFarms portal to access detailed reports at the field, farmer and milkshed level to summarize carbon fluxes based on total GHG emissions returned by the Fieldprint Platform, minus the GHG emissions reductions returned by COMET-Planner. The following COMET-Planner factors have been used to estimate the carbon sequestration and nitrous oxide reduction expected for farms in each milkshed that implement all of the regenerative agriculture practices.

	Massachusetts	Kansas	New Jersey
Reduction (MT CO2e/acre)	0.678	-0.198	-0.078
Sequestration (MT CO2e/acre)	1.111	1.831	0.839

Note: negative numbers indicate an emission of CO2e, while positive numbers indicate a sequestration or reduction.

This represents the climate benefits that could occur should a farm adopt all soil health practices and is intended to model potential. Some farms may only want to enroll one or two practices, and this will be recorded and tracked in the MyFarms application.

2. Reduce enteric methane emissions

Physical approaches to measuring enteric methane emissions are arduous and costly. In prior feed additive pilots that DFA has developed and implemented, an equation was utilized that represents emissions in a more cost-effective manner. Methane production is difficult to determine in herd-level studies. The equation[5] used to estimate methane emissions is:

Equation 1

$$CH_4 = -1260.4 + 1.9MY + 62.8MF - 18.4MP + 11.0DMI + 0.3BW + 28.3NDF - 0.8NDF2 + 1.9S - 2.8EE - RIF$$

where CH_4 (g cow^{-1} d^{-1}) is estimated methane emitted per cow, MY (kg d^{-1}) is milk yield, MF (%) is percent milk fat, MP (%) is percent milk protein, DMI (kg d^{-1}) is dry matter index, BW (kg) is the body weight, NDF (% dry matter) is neutral detergent fiber, S (% of dry matter) is the starch content, EE (% of DMI) is the ether extract, and RIF (% of dry matter) is rumen-inert fat.

This equation has been shown to be highly correlated with actual methane production. The enteric methane reductions associated with the feed additive incorporations will be verified by a GHG Governing Standard chosen by DFA to review the study's data and outcomes. Accounting in connection with such a project may include a Carbon Standard, the Gold Standard Value Chain GHG Project Guidance, the GHG Protocol Standard and/or the Scope 3 Standard. DFA is partnering with companies to develop software programs utilizing this formula to accurately track improvements. While modeling is the primary approach for measurement, Greenfeed units will be employed to periodically correlate this data. These systems are suitable for measuring both carbon dioxide and methane emissions in open-air environments (e.g., feedlots, barns, or pastures) for larger livestock such as dairy cows.

3. Improve manure management
Manure emission reduction estimates will trust the conservative estimate of a 35% reduction from baseline emissions when a solid-liquid separator is installed on a member farm and 91% reduction when a Biofiltro unit is installed. Project management support will ensure that the technologies are working properly, and the GHG benefits will be calculated on an annual basis relative to the size of the farm.

Total GHG benefits
According to the model developed for this pilot, the cost per metric ton of CO2e reduced from baseline over the course of five years is approximately $45 per MT CO2e, including the budget for marketing support. This marginal abatement cost is projected to drop below $10 per MT CO2e in pilot years 4-5.

Anticipated Longevity of GHG Benefits
Continued participation in the program allows for additional carbon sequestration each year practices are maintained within regenerative agriculture. For feed additive usage, reductions from enteric emissions are maintained while in use. Solid-liquid separators should maintain

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[5] Velarde-Guillén, J.; Pellerin, D.; Benchaar, C.; et al. Development of an equation to estimate the enteric methane emissions from Holstein dairy cows in Canada. Can J Anim Sci. 2019, 99.

reductions in manure emissions each year they are kept in operation. One measure of success from this large-scale pilot will be the long-term continuation of these practices.

D. Approach to Verification of Greenhouse Gas Benefits
1. Improve regenerative agriculture
MyFarms has designed an innovative approach to regenerative agriculture practice verification, which has the following characteristics:

- **Cost-effective** – Based on the data entered by the farmer in the Field Enrollment process (Navigation Assistant), the Field Verification process will enable the farmer to upload proof of practice adoption on each enrolled field
- **Methodical** – The number of steps in the Field Verification process will dynamically match the number of practices selected by the farmer on Field Enrollment plus one (Accuracy Confirmation). Dedicating one step to each practice enables the farmer to take a methodical approach to verifying practices across all applicable fields
- **Flexible** – Each practice will have two to five options available for verification. Examples of cost-effective verification methods include uploading seed or manure application receipts, uploading a geotagged and timestamped picture, uploading signed, government forms and receiving visual confirmation of reduced tillage practices (for example) by a TAP or TSC

2. Reduce enteric methane emissions
DFA will primarily use peer-reviewed calculated values to determine enteric reductions (see the methodology discussed in Section 3, Part C, Subpart 2). Variables such as the amount of feed additive fed to cows will be regularly validated by DFA support staff who will perform periodic audits to ensure all feed additives are being applied appropriately. DFA also plans to purchase and utilize multiple Greenfeed units, a turn-key system designed to measure gas fluxes of methane from individual animals. Data from these units would assist in establishing a correlation between the calculated emissions reductions and direct measurements of emission reductions in individual animals.

3. Improve manure management
The verification of GHG benefits from the installed solid-liquid separators and Biofiltro units will take place in a similar manner to that of the feed additive trials. DFA support staff will conduct regular check-ins to ensure that the technologies are operating and doing so effectively.
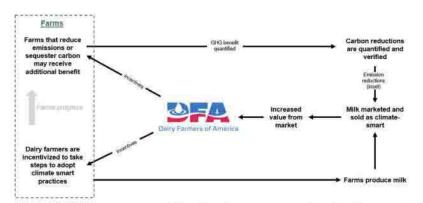
E. Agreement to Participate in Participants Network
The DFA project team, managed by Hansel New, is committed to participating in the partnership network and helping consolidate and share best practices.

Description of How DFA will Track Greenhouse Gas Benefits Through the Supply Chain
In 2020, DFA developed a comprehensive model to determine baseline GHG emissions. The GHG emissions benefits from DFA's program associated with reductions from improving soil health through regenerative agriculture practices, mitigation of enteric emissions and manure management are recorded in detail in a private third-party model completed annually to help DFA track GHG emissions. This model will track GHG emission reductions.

The GHG benefits of this project will be preserved using the "inset" carbon accounting model and will initiate a marketable value-added commodity that will be sold to consumers under brands that DFA owns as detailed in **Figure 2** below. Climate-smart dairy products will create added value, which will funnel back to the producers who choose to participate in this program.

Figure 2. DFA's Climate-Smart Dairy Strategy to Generate and Retain GHG benefits

The added value generated will be allocated to participating farmers using a points system DFA is developing that rewards farms for their GHG reductions. The amount of incentive farmers receive will vary with the types of practices employed and their GHG emissions reductions or carbon sequestration impact, volume of milk marketed through the program and level of engagement by the farmer. Farms have the choice of what combination of practices they will implement to increase their points system incentives. The intent of the award system is to incentivize farmer participation, not to cover all costs associated with farmers participating in the program. Further explained in the marketing plan, DFA farmer-owners will have multiple opportunities to participate in the proposed climate-smart commodities program. Members who wish to generate an emissions reduction certificate will be required to go through a third-party validation process to ensure integrity of the program. DFA has member farms that are already participating in other USDA-funded opportunities but will not be recruited for funding through this program based on those practices that are already being funded through other avenues with USDA. All practices will be implemented on land that currently in agricultural production, and there will not be any implementation of practices on non-agricultural land.

Section 4 – Plan To Develop And Expand Markets For Climate-Smart Commodities Generated As a Result Of Project Activities

DFA is taking a market-led approach to the USDA climate-smart funding opportunity. DFA hopes to develop and market a portfolio of climate-smart dairy products through our extensive manufacturing and sales network. DFA's goal is to capture the value from these climate-smart dairy offerings and return that value to our farmer-owners, creating a self-funding circular rural economic model that incentivizes continued on-farm GHG emission reductions. DFA engaged Bain & Company, a U.S. based market consulting firm, to conduct market research into consumers' perception of and willingness to buy climate-smart dairy products. This research was further supported with information from industry groups, DFA commercial business unit input, direct customer feedback and recent niche low- or no-carbon milk product launches' performance.

Drinking Milk

U.S. conventional drinking milk sales volume trends show a long-term steady decline while prices remain well below competitor products. Drinking milk has become commoditized.

Brand	Price at retail	Price per gallon
Fairlife	*$4.99 per 52 oz*	*$12.28*
Chobani® Oat milk	*$4.99 per 52 oz*	*$12.28*
Horizon® Organic	*$4.99 per half gallon*	*$9.98*
Silk® Almond milk	*$3.29 per half gallon*	*$6.58*
Conventional dairy	*$3.50 per gallon*	*$3.50*

Approximate current retail prices of milk and milk alternative beverages

The Bain & Company research suggests that 90% of consumers would convert to climate-smart dairy and 10% of those currently purchasing milk alternatives would purchase climate-smart dairy. This indicates some volume growth opportunity, but the clear financial driver will be increased value by repositioning the climate-smart dairy offering.

Figures are approximate – per gallon	Conventional milk	Zero-carbon milk
Retail price	**$3.50**	**$7.00**
Markup from wholesale (30-35%)	*($1.20)*	*($2.45)*
Wholesale price	**$2.30**	**$4.55**
Baseline SG&A, packaging, and distribution cost	*($0.60)*	*($0.60)*
Avg farmer income per gallon (2020)	($1.70)	($1.70)
Incremental income available to farmers		**+$2.25**
U.S. market size – millions of gallons		~450
U.S. market size – $ billions		~$3.2
Incremental income available to farmers - $ billion		~$1.0

The drinking milk pilots will test market different carbon reduction levels and value-added combinations. This will help create climate-smart market definitions and determine the optimal value-creating combination. The research projects a similar market size and incremental income available to farmers if we sell 25% GHG-reduced climate-smart milk at a lower retail price. This confirms the opportunity to create a new climate-smart drinking milk category, not simply a niche product.

Total U.S. Dairy Market Opportunity

While the drinking milk segment consumer research was the most detailed, all major dairy market segments showed strong value growth potential driven by higher-valued offerings.

U.S. total estimated – $ billions	Drinking	Cheese-Butter-Yogurt	Ingredient	Total
Market value	$3.2	$10.0	$7.5	$20.7
Available for farmers	$1.0	$2.5	$1.0	$4.5

- Eight of DFA's 10 largest CPG customers have public GHG reduction commitments
- The proposed pilots detailed below cover all the dairy sectors noted above
- DFA will work with selected customer partners for each of the pilots

- DFA has a history of successfully executing projects with leading global food companies

DFA Climate-Smart Dairy Pilots
The selection criteria for the three proposed DFA climate-smart milk shed pilots included the markets into which the resulting climate-smart milk would be sold. Connecting the on-farm GHG emission actions directly to the climate-smart dairy marketing actions will allow DFA to test the economic viability across the entire value chain from farm to table.

- Franklin, Mass. – DFA Dairy Brands drinking milk
- Bridgeton, N.J. – Extended shelf-life specialty drinking milk
- Garden City, Kan. – DFA ingredient milk powders and cream

The three market pilots mirror the corresponding three milksheds in their diversity. Similarly, their success will create opportunities to quickly replicate the market pilots in new geographies.

DFA Dairy Brands Climate-Smart Milk
- The pilot will introduce climate-smart drinking milk
- DFA Dairy Brands has well-recognized regional milk brands throughout the U.S.
- The DFA Dairy Brand product portfolio includes conventional milk, flavored milk, creams and half-and-half
- DFA Dairy Brands fluid milk products are carried by major retailers and widely accessible to a diverse consumer base
- The Franklin plant has capacity to process, package and distribute pilot volumes
- DFA will partner with a major, local retailer to test launch the climate-smart products
- DFA Dairy Brands will offer the product to foodservice customers, increasing consumer awareness

Extended shelf-life Climate-Smart Milk
- The Bridgeton plant has capacity to process, package and distribute pilot volumes
- Initial consumer research demonstrates that a climate-smart claim may increase consumer appeal
- After additional research, DFA hopes to introduce the climate-smart claim on packages
- The pilot will test the ability to add additional value to an already a premium product
- Expand extended shelf-life milk distribution to the Northeast, reaching new consumers
- Grow the network of small, pasture-based dairy farms supplying the brand

DFA Ingredients Climate-Smart Milk Powders and Cream
- Milk powders and cream will be produced at DFA's world-class plant in Kansas
- Products will be marketed domestically and exported
- Products will create additional value based on the level of carbon reduction
- There has been strong interest expressed from several leading global food companies
- DFA will work with industry partners, like the U.S. Dairy Export Council, to promote climate-smart dairy exports
- The pilot will support U.S. global leadership in climate-smart agriculture

Marketing Support

The DFA proposal requests USDA funding support for the market development and product launches of climate-smart products. This funding will be matched by DFA commitments and extended with other in-kind support from DFA partners. DFA will engage with industry partners including Dairy Management Inc. and the U.S. Dairy Export Council to help support the creation of a climate-smart dairy category that benefits the entire U.S. dairy industry.

Marketing actions will include:
- Targeted omnichannel marketing campaign
- Retailer partnerships to drive communications near product points of sale
- Consumer education marketing materials noting the benefits of climate-smart dairy
- Product introduction sale and marketing tools to support product introduction
- Climate-smart dairy on package claim development

GHG Market Benefits and Longevity
The GHG market benefits have been quantified using the same model as was employed to quantify the GHG on-farm reduction benefits analysis. The model estimates that the market benefits will be between approximately $60-100 per MT of carbon reduction. The lower end reflects milk powder sales and the higher end drinking milk sales. Full market value will not be captured in the initial years as the market needs to be developed, standards agreed, consumers educated and the milk supply base expanded. This reinforces the need for USDA pilot funding support to accelerate the introduction of climate-smart dairy.

As a Cooperative owned and governed by farmers, no one is more invested in or uniquely positioned to develop and promote climate-smart products that will benefit future generations of dairy farmers. DFA's wide market reach, extensive customer relationships and leading brands ensure market benefits will be sustained and grown. This is further reinforced by the stated objective to help create a climate-smart dairy category that will support other dairy sector participants to further grow the market for climate-smart dairy products. The market benefits have longevity.

DFA CSC Project Quarterly Milestones

Revised: 3/16/2023
Replaces: NEW

This document describes estimated benchmarks for the execution of the Climate Smart Commodity Program. Numbers are roughly estimated projections only and will be adjusted during the project period to reflect real-world learnings while striving to deliver expected GHG benefits. The milestones in each table are cumulative throughout, that is, Q4 is the sum of Q1-Q3 plus achievements in Q4 and each year builds on the previous year.

YEAR 1 (2023)

	Q1*	Q2	Q3	Q4
Number of producers involved		50	150	200+
Number of underserved producers involved**		TBD	TBD	TBD
Number of acres involved		20,000	50,000	100,000
Number of head involved		30,000	80,000	120,000+
Dollars provided to producers (through cost share, equipment, and supplies)		0*	$4,000,000	$10,000,000
GHG Benefits (Metric Tons of CO_2e Reduced or Sequestered)		0*	50,000	120,000
Number of new marketing channels established***		0	0	0
Number of marketing channels expanded***		0	0	0
Number of measurement tools utilized		TBD	TBD	TBD
Outreach, training and other technical assistance		TAPs will be engaging farmers across regen ag, manure management, and enteric reductions		
Other MMRV and supply chain traceability attributes		Farms enrolled in MMRV and supply shed traceability tracked in Power BI dashboard		
Other measurements of work related to marketing of commodities			Consumer research begins	Consumer research continues
Demonstrated engagement of major partners		Narrative will be added when project gets underway		
Climate smart technologies employed		List will be provided	List will be provided	List will be provided

*Farm recruitment will begin in Q2; results will begin in Q3
**Will report after farms are demographically surveyed
***Marketing channels will be added in 2024

YEAR 2 (2024)

	Q1	Q2	Q3	Q4
Number of producers involved	200+	200+	200+	200+
Number of underserved producers involved**	TBD	TBD	TBD	TBD
Number of acres involved	120,000	150,000	170,000	200,000
Number of head involved	120,000+	120,000+	120,000+	120,000+
Dollars provided to producers (through cost share, equipment, and supplies)	$12,000,000	$14,000,000	$16,000,000	20,000,000
GHG Benefits (Metric Tons of CO2e Reduced or Sequestered)	140,000	170,000	210,000	240,000
Number of new marketing channels established			Consumer product test launch	
Number of marketing channels expanded			TBD	TBD
Number of measurement tools utilized		TBD	TBD	TBD
Outreach, training and other technical assistance	TAPs will be engaging farmers across regen ag, manure management, and enteric reductions			
Other MMRV and supply chain traceability attributes	Farms enrolled in MMRV and supply shed traceability tracked in Power BI dashboard			
Other measurements of work related to marketing of commodities	Validate consumer marketing data	Validate consumer marketing data	Targeted media campaign	Targeted media campaign
Demonstrated engagement of major partners	Narrative will be added when project gets underway			
Climate smart technologies employed	List will be provided			

YEAR 3 (2025)

	Q1	Q2	Q3	Q4
Number of producers involved	200+	200+	200+	200+
Number of underserved producers involved**	TBD	TBD	TBD	TBD
Number of acres involved	200,000	220,000	260,000	290,000
Number of head involved	120,000+	120,000+	120,000+	120,000+
Dollars provided to producers (through cost share, equipment, and supplies)	$22,000,000	$24,000,000	$25,000,000	$27,000,000
GHG Benefits (Metric Tons of CO_2e Reduced or Sequestered)	250,000	300,000	350,000	410,000
Number of new marketing channels established	Retail product distribution and B2B customer sales			
Number of marketing channels expanded	TBD	TBD	TBD	TBD
Number of measurement tools utilized	TBD	TBD	TBD	TBD
Outreach, training and other technical assistance	TAPs will be engaging farmers across regen ag, manure management, and enteric reductions			
Other MMRV and supply chain traceability attributes	Farms enrolled in MMRV and supply shed traceability tracked in Power BI dashboard			
Other measurements of work related to marketing of commodities	Targeted media campaign	Targeted media campaign	Targeted media campaign	Targeted media campaign
Demonstrated engagement of major partners	Narrative will be added when project gets underway			
Climate smart technologies employed	List will be provided			

YEAR 4 (2026)

	Q1	Q2	Q3	Q4
Number of producers involved	200+	200+	200+	200+
Number of underserved producers involved**	TBD	TBD	TBD	TBD
Number of acres involved	290,000	300,000	330,000	348,000
Number of head involved	120,000+	120,000+	120,000+	120,000+
Dollars provided to producers (through cost share, equipment, and supplies)	$27,000,000	$28,000,000	$29,000,000	$30,500,000
GHG Benefits (Metric Tons of CO2e Reduced or Sequestered)	420,000	430,000	450,000	470,000
Number of new marketing channels established	Retail product distribution and B2B customer sales			
Number of marketing channels expanded	TBD	TBD	TBD	TBD
Number of measurement tools utilized	TBD	TBD	TBD	TBD
Outreach, training and other technical assistance	TAPs will be engaging farmers across regen ag, manure management, and enteric reductions			
Other MMRV and supply chain traceability attributes	Farms enrolled in MMRV and supply shed traceability tracked in Power BI dashboard			
Other measurements of work related to marketing of commodities	Targeted media campaign	Targeted media campaign	Targeted media campaign	Targeted media campaign
Demonstrated engagement of major partners	Narrative will be added when project gets underway			
Climate smart technologies employed	List will be provided			

YEAR 5 (2027)

	Q1	Q2	Q3	Q4
Number of producers involved	200+	200+	200+	200+
Number of underserved producers involved**	TBD	TBD	TBD	TBD
Number of acres involved	290,000	300,000	330,000	348,000
Number of head involved	120,000+	120,000+	120,000+	120,000+
Dollars provided to producers (through cost share, equipment, and supplies)	$30,500,000	$30,500,000	$30,600,000	$30,600,000
GHG Benefits (Metric Tons of CO_2e Reduced or Sequestered)*	470,000	460,000	450,000	450,000
Number of new marketing channels established	Retail product distribution and B2B customer sales			
Number of marketing channels expanded	TBD	TBD	TBD	TBD
Number of measurement tools utilized	TBD	TBD	TBD	TBD
Outreach, training and other technical assistance	TAPs will be engaging farmers across regen ag, manure management, and enteric reductions			
Other MMRV and supply chain traceability attributes	Farms enrolled in MMRV and supply shed traceability tracked in Power BI dashboard			
Other measurements of work related to marketing of commodities	Targeted media campaign	Targeted media campaign	Targeted media campaign	Targeted media campaign
Demonstrated engagement of major partners	Narrative will be added when project gets underway			
Climate smart technologies employed	List will be provided			

*DFA's conservative estimate assumes a 10% YOY attrition rate from regenerative agriculture practices that may lead to less carbon sequestration at the end of the year than at the beginning of the year

Climate-Smart Practices and Limitations

Dairy Farmers of America (DFA)

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

NRCS Practice Code	Practice Name
313	Waste Storage Facility
317	Composting Facility
327	Conservation Cover
328	Conservation Crop Rotation
329	Residue and Tillage Management, No-Till
330	Contour Farming
332	Contour Buffer Strips
336	Soil Carbon Amendment
340	Cover Crop
342	Critical Area Planting
345	Residue and Tillage Management, Reduced Till
359	Waste Treatment Lagoon
376	Field Operations Emissions Reduction
393	Filter Strips
412	Grassed Waterway
511	Forage Harvest Management
512	Pasture and Hay Planting
585	Stripcropping
590	Nutrient Management
591	Amendments for Treatment of Agricultural Waste
592	Feed Management
595	Pest Management Conservation System
629	Waste Treatment
632	Waste Separation Facility
634	Waste Transfer

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

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

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

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

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

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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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<u>Field Enrollment</u>

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 CO_2 emission reductions for field	Quarterly
Field official CH4 ER	Official estimate of total CH_4 emission reductions for field	Quarterly
Field official N2O ER	Official estimate of total N_2O 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

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 CO_2 emission reductions for field	Annual
Total CH4 estimated	Estimate of total CH_4 emission reductions for field	Annual
Total N2O estimated	Estimate of total N_2O 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
Type	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

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

Commodity type

Data element name: Commodity type	**Reporting question:** What climate-smart commodity types are produced by this project?

Description: Type of commodity incentivized by the project. These commodities include those for whom farmers are directly receiving incentives or other types of marketing support. See full list of commodity options in Appendix B. List one commodity per row.

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

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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 commodity(ies) related to project activities. If sales are reported, complete the *Marketing Activities* worksheet (Table 3) as 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

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Farms enrolled

Data element name: Farms enrolled	**Reporting question:** Did the project enroll any producers or fields this quarter?

Description: Indicator that the project enrolled producers or fields. If enrollment activities occurred this quarter, complete the *Producer Enrollment* and *Field Enrollment* worksheets (Tables 4 and 5) as 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

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GHG calculation methods

Data element name: GHG calculation methods	**Reporting question:** What methods is the project using to calculate GHG benefits?

Description: List the way(s) that GHG benefits 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
	• Both
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 calculation

Reporting question: What method(s) was used to calculate the 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 benefits

Reporting question: What are the project's estimated total GHG emission reductions (CO_2eq) 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 CO_2eq	**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 stock

Reporting question: How much carbon has the project 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 CO_2eq.

Data type: Decimal	**Select multiple values:** No
Measurement unit: Metric tons CO_2eq	**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 benefit

Reporting question: What are the project's estimated total 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 CO_2	**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 CH_4 = 25 tons of CO_2eq.

Data type: Decimal	**Select multiple values:** No
Measurement unit: Metric tons CH4 reduced in CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** Yes
Data collection level: Project	**Data collection frequency:** Quarterly

Cumulative N20 benefit

Data element name: Cumulative N2O benefit

Reporting question: What are the project's estimated total N2O emission reductions to date?

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 CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** Yes
Data collection level: Project	**Data collection frequency:** Quarterly

Offsets produced

Data element name: Offsets produced

Reporting question: How many carbon offsets have been produced in the project?

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 CO_2eq	**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?

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	**Allowed values:** 0-500
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 CO_2eq	**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: 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

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

Unique IDs

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	**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

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-profit • Individual • Nonprofit • State or local agency • Tribal agency • University
Logic: None – all respond	**Required:** Yes
Data collection level: Partner	**Data collection frequency:** Partnership initiation

Partner POC

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?

Description: A new partnership means that the recipient and the partner organization have not had a formal working relationship (under contract or on a grant) prior to the start of the project.

Data type: List	**Select multiple values:** No
Measurement unit: Category	**Allowed values:** • Yes • No • I don't know
Logic: No response for recipient	**Required:** Yes
Data collection level: Partner	**Data collection frequency:** Partnership initiation

Partner total requested

Data element name: Partner total requested	**Reporting question:** What is the total amount of funding the partner has requested to date from this project?

Description: Cumulative (total) amount of funds that the partner has requested reimbursement for from the recipient 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 the amount of funds requested 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: No response for recipient	**Required:** Yes
Data collection level: Partner	**Data collection frequency:** Quarterly

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Total match contribution

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	**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:**
	• Equipment rental or use
	• In-kind staff time
	• Production inputs (reduced cost or free)
	• Program income
	• Software
	• Other (specify)
Logic: None – all respond	**Required:** Yes
Data collection level: Partner	**Data collection frequency:** Quarterly

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

Measurement unit: Category

Select multiple values: No

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

Logic: None – all respond	**Required:** Yes
Data collection level: Partner	**Data collection frequency:** Quarterly

Activity by partner

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

Measurement unit: Category

Select multiple values: No

Allowed values:
- 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

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.

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

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Marketing channel type

Data element name: Marketing channel type	**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

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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
Measurement unit: Count	**Allowed values:** 1-500
Logic: None – all respond	**Required:** Yes
Data collection level: Project	**Data collection frequency:** Quarterly

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
Data collection level: Project	**Data collection frequency:** Quarterly

Marketing channel geography

Data element name: Marketing channel geography	**Reporting question:** What is the primary geography of the 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:** • Local • Regional • National • 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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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

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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

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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 producer	**Reporting question:** What percent of the price premium is 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
Measurement unit: Percent	**Allowed values:** 0-100
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
Measurement unit: Category	**Allowed values:** • 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)
Logic: None – all respond	**Required:** Yes
Data collection level: Project	**Data collection frequency:** Quarterly

Traceability method

Data element name: Traceability method 1-3	**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	**Required:** Yes
Data collection level: Project	**Data collection frequency:** Quarterly

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Producer Enrollment

Unique IDs

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

Logic: None – all respond

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

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

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 area	**Reporting question:** What amount of the current operation is used for 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	**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)

Logic: Respond if 'Total livestock area' >0	**Required:** Yes
Data collection level: Producer	**Data collection frequency:** Initial enrollment and subsequent enrollment(s), if applicable

Livestock head

Data element name: Livestock head 1-3	**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

Organic farm

Data element name: Organic farm

Reporting question: Is any part of the farm currently USDA-certified 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

Measurement unit: Category

Allowed values:
- 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.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:
- Financial benefit
- Environmental benefit
- New market opportunity
- Partnerships or networks
- Other

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment

Producer outreach

Data element name: Producer outreach 1-3

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

Required: Yes

Data collection level: Producer

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

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 funds	**Reporting question:** Were prior CSAF practices supported by 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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<u>Field Enrollment</u>

Unique IDs

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 farm 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:** • Yes • No
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 commodity(ies) is (are) produced from this field?
Description: Category of commodity(ies) produced in field 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 • 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 produced from this field?
Description: Type of commodity produced in field enrolled in the project. See full list in Appendix B. The worksheet provides a drop-down list of the allowed values. Choose the appropriate value. Enter additional commodities in subsequent rows.	
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

Baseline yield

Data element name: Baseline yield	**Reporting question:** What is the baseline yield of this field?
Description: Average annual yield of commodity in 3 years prior to enrollment. Provide yield for the enrolled field if possible. If not at field level, provide average annual yield for the specific commodity for the operation.	
Data type: Decimal	**Select multiple values:** No
Measurement unit: Production per acre or animal	**Allowed values:** .01-100,000
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Initial enrollment

Baseline yield unit

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 acre
- Tons per acre
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Baseline yield location

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

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:**

- 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

Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Initial enrollment

Field tillage

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

Practice past extent - farm

Data element name: Practice past extent - farm	**Reporting question:** What percent of the farm has 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
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Initial enrollment

Practice past use - this field

Data element name: Practice past use - this field	**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 • Some • No • 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 implementation year	**Reporting question:** What year is the CSAF practice planned to 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

Practice extent unit

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

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.

Farm Summary

Unique IDs

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 1-3	**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	**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 amount	**Reporting question:** What is the total value of financial 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: Decimal	**Select multiple values:** NA
Measurement unit: Dollars	**Allowed 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.

Data type: List | **Select multiple values:** No

Measurement unit: Category

Allowed values:
- 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)

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

Data collection level: Producer | **Data collection frequency:** Quarterly

Incentive structure

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

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)

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Quarterly

Payment on enrollment

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

Allowed values:
- Full payment
- Partial payment
- No payment

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Quarterly

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 payment • Partial 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 payment • Partial payment • No payment
Logic: None – all respond	**Required:** Yes
Data collection level: Producer	**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 payment • Partial payment • No payment
Logic: None – all respond	**Required:** Yes
Data collection level: Producer	**Data collection frequency:** Quarterly

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Field Summary
Unique IDs

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

USDA Partnerships for Climate-Smart Commodities Data Dictionary for Recipients
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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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USDA Partnerships for Climate-Smart Commodities Data Dictionary for Recipients
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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
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Quarterly

Field commodity volume unit

Data element name: Field commodity volume unit	**Reporting question:** What is the unit of volume?
Description: The unit associated with the volume of the commodity produced on the enrolled 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:** • Bushels • Carcass weight pounds • Gallons • Head • 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

USDA Partnerships for Climate-Smart Commodities Data Dictionary for Recipients
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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
- Per linear foot
- Per pound
- Per ton
- Other (specify)

Logic: None – all respond	**Required:** Yes
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 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 1-3	**Reporting question:** How were GHG impacts monitored in this 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 1-3	**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 1-3	**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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USDA Partnerships for Climate-Smart Commodities Data Dictionary for Recipients
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Field GHG calculations

Data element name: Field GHG calculations	**Reporting question:** What methods are used to calculate GHG 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 calculation	**Reporting question:** What method was used to calculate the 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 emission reductions	**Reporting question:** What are the estimated total GHG emission 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 CO_2eq	**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 stock	**Reporting question:** How much carbon has been sequestered in 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 CO_2eq.	
Data type: Decimal	**Select multiple values:** No
Measurement unit: Metric tons CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Quarterly

---

Field official CO2 ER

Data element name: Field official CO2 emission reductions	**Reporting question:** What are the estimated total CO2 emission 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 CO_2	**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 reductions	**Reporting question:** What are the estimated total CH4 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 completion or annually, as appropriate. Conversion rate is one ton of CH_4 = 25 tons of CO_2eq.

Data type: Decimal	**Select multiple values:** No
Measurement unit: Metric tons CH4 reduced in CO_2eq	**Allowed values:** 0-10,000,000
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 reductions	**Reporting question:** What are the estimated total N2O 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 CO_2eq	**Allowed values:** 0-10,000,000
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 CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Quarterly

---

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 CO_2eq	**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 measurement	**Reporting question:** Were data collected from the field for 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

Unique IDs

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

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
- CultivateAI'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	**Required:** If project calculates GHG benefits using multiple methods
Data collection level: Field	**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 parameters 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 parameters 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 reductions from practice implementation in the field estimated using an alternate model.	
Data type: Decimal	**Select multiple values:** No
Measurement unit: Metric tons CO_2eq	**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	**Reporting question:** What is the alternate estimate of how much carbon has the field has sequestered?
Description: Total change in carbon stock based on practice implementation in the field estimated using an alternate model. Conversion rate is one ton of carbon = 3.67 tons of CO_2eq.	
Data type: Decimal	**Select multiple values:** No
Measurement unit: Metric tons CO_2eq	**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

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 reductions based on practice implementation in the field estimated using an alternate model.	
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

Total CH4 estimated

Data element name: Total CH4 estimated	**Reporting question:** What is the alternate estimate of the field's total CH4 emission reductions?

Description: Total methane emission reductions based on practice implementation in the field estimated using an alternate model. Conversion rate is one ton of CH_4 = 25 tons of CO_2eq.

Data type: Decimal	**Select multiple values:** No
Measurement unit: Metric tons CH4 reduced in CO_2eq	**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 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 practice implementation in the field estimated using an alternate method. 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 CO_2eq	**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

GHG Benefits - Measured

Unique IDs

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

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 samples
- Soil sensors
- Vehicle-mounted sensors
- Other (specify)

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

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: Text

Select multiple values: No

Measurement unit: NA

Allowed values: Free text

Logic: None – all respond

Required: If applicable

Data collection level: Field

Data collection frequency: Annual

Measurement start date

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 measurements in this field
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 CO_2	**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 measured

Reporting question: What is the total amount of 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 CO_2eq.

Data type: Decimal	**Select multiple values:** No
Measurement unit: Metric tons CO_2eq	**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

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 based on practice implementation in the field calculated from in-field measurements. Conversion rate is one ton of CH_4 = 25 tons of CO_2eq.

Data type: Decimal	**Select multiple values:** No
Measurement unit: Metric tons CH4 reduced in CO_2eq	**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 reductions based on practice implementation in the field calculated from in-field measurements. 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 CO_2eq	**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

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 the carbon stock of a soil (the tons of carbon found in a specified volume of soil).

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:**

- Percent
- Ppm
- Grams
- 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

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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 matter
- Total organic carbon
- Bulk 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

Unique IDs

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 benefits

Reporting question: Are environmental benefits other than 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 loss

Reporting question: Are reductions in nitrogen losses being 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 name: Reduction in nitrogen loss amount

Reporting question: How much reduction in nitrogen losses 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

Reduction in nitrogen loss amount unit

Data element name: 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?

Description: Unit for the total amount of reduction in nitrogen losses that is measured and reported 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:** • 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?

Description: Purpose of tracking reduction in nitrogen losses 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 marketing • Producing insets • Producing offsets • I 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 phosphorus loss	**Reporting question:** Are reductions in phosphorus losses being tracked in the field?

Description: Tracking of reductions in phosphorus 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 phosphorus loss amount

Data element name: Reduction in phosphorus loss amount	**Reporting question:** How much reduction in phosphorus losses have been measured in the field?

Description: Total amount of reduction in phosphorus 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

Reduction in phosphorus loss amount unit

Data element name: Reduction in phosphorus loss amount unit	**Reporting question:** What is the unit for the reduction in phosphorus losses measured in the field?

Description: Unit for the total amount of reduction in phosphorus losses 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:** • 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 phosphorus loss purpose	**Reporting question:** What is the purpose of tracking reductions in phosphorus losses?

Description: Purpose of tracking reduction in phosphorus losses 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 marketing • Producing insets • Producing offsets • I don't know • Other (specify)
Logic: Respond if yes to 'Reduction in phosphorus loss'	**Required:** Yes
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 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

Other water quality type

Data element name: Other water quality type	**Reporting question:** What type of other water quality metric have been measured in the field?

Description: Type of other water quality metric (besides nitrogen loss and phosphorus loss reductions) that is measured in the 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:** • Sediment load reduction • Temperature • 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 amount	**Reporting question:** How much reduction in other water quality metrics have been measured in the field?

Description: Total amount of reduction in other water quality metrics 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 '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?

Description: Unit for the total amount of reduction in other water quality metrics 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:** • 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

Other water quality purpose

Data element name: Other water quality purpose	**Reporting question:** What is the purpose of tracking other water quality benefits?
Description: Purpose of tracking other water quality benefits 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 marketing • Producing insets • 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

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 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

Water quantity amount

Data element name: Water quantity amount	**Reporting question:** How much water conservation has been measured in the field?
Description: Total amount of water conservation 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?
Description: Unit for the total amount of water conservation or reduced use that is measured and reported 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:** • Acre-feet • Cubic feet • Other (specify)
Logic: Respond if yes to 'Water quantity'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Water quantity purpose

Data element name: Water quantity purpose	**Reporting question:** What is the purpose of tracking water conservation?
Description: Purpose of tracking water conservation or reductions in water 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 marketing • Producing insets • Producing offsets • I don't know • Other (specify)
Logic: Respond if yes to 'Water quantity'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Reduced erosion

Data element name: Reduced erosion	**Reporting question:** Is reduced soil erosion being tracked in the field?
Description: Tracking of reduced soil erosion 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

Reduced erosion amount

Data element name: Reduced erosion amount	**Reporting question:** How much erosion reduction has been measured in the field?
Description: Total amount of erosion reduction 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 erosion reduction from enrolled fields that is measured and reported by the project. 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:** • Tons • Other (specify)
Logic: Respond if yes to 'Reduced erosion'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Reduced erosion purpose

Data element name: Reduced erosion purpose	**Reporting question:** What is the purpose of tracking reduced erosion in the field?
Description: Purpose of tracking reduced erosion 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 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

Reduced energy use amount

Data element name: Reduced energy use amount	**Reporting question:** How much energy use reduction has been measured in the field?
Description: Total amount of energy use reduction 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 use'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Reduced energy use amount unit

Data element name: Reduced energy use unit	**Reporting question:** What is the unit for the energy use reduction measured in the field?
Description: Unit for the total amount of energy use reduction 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:** • Kilowatt hours • Other (specify)
Logic: Respond if yes to 'Reduced energy use'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Reduced energy use purpose

Data element name: Reduced energy use purpose	**Reporting question:** What is the purpose of tracking reduced 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 marketing • Producing insets • Producing offsets • I don't know • Other (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 conversion	**Reporting question:** Is avoided land conversion being tracked in 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 conversion amount	**Reporting question:** How much avoided land conversion has been measured in the field?

Description: Total amount of avoided land conversion 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 'Avoided land conversion'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Avoided land conversion amount unit

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

Avoided land conversion purpose

Data element name: Avoided land conversion purpose	**Reporting question:** What is the purpose of tracking avoided land conversion in the field?

Description: Purpose of tracking avoided land conversion 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 marketing • Producing insets • Producing offsets • I don't know • Other (specify)
Logic: Respond if yes to 'Avoided land conversion'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Improved wildlife habitat

Data element name: Improved wildlife habitat	**Reporting question:** Are improvements to wildlife habitat being tracked in the field?

Description: Tracking of improvements to wildlife in and around 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

Improved wildlife habitat amount

Data element name: Improved wildlife habitat amount	**Reporting question:** How much improved wildlife habitat has been measured in the field?

Description: Total amount of improved wildlife 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 habitat'	**Required:** Yes
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?

Description: Unit for the total amount of improved wildlife habitat that is measured in and around enrolled fields. 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 • Linear feet • Other (specify)
Logic: Respond if yes to 'Improved wildlife habitat'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Improved wildlife habitat purpose

Data element name: Improved wildlife habitat purpose	**Reporting question:** What is the purpose of tracking improved wildlife habitat in the field?

Description: Purpose of tracking improved wildlife habitat 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 marketing
	• Producing insets
	• Producing offsets
	• I don't know
	• Other (specify)
Logic: Respond if yes to 'Improved wildlife habitat'	**Required:** Yes
Data collection level: Field	**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)

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

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Conservation Crop Rotation (CPS 328)	Conservation crop type	Brassica Broadleaf Cool season Grass Legume Warm season
	Change implemented	Added perennial crop Reduced fallow period Both
	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
Contour Buffer Strips (CPS 332)	Strip width (feet)	1-100
	Species category	Grasses Forbs Mix
Cover Crop (CPS 340)	Species category (select most common/extensive type if using more than one)	Brassicas Forbs Grasses Legume Non-legume broadleaves
	Cover crop planned management	Grazing Haying Termination
	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
Feed Management (CPS 592)	Crude protein (percent)	0-100
	Fat (percent)	0-100
	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 422)	Species category (select most common/extensive type if using more than one)	Grasses Shrubs Trees
	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
	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

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 (CPS 512)	Species category (select most common/extensive type if using more than one)	Cool-season broadleaf Cool-season grass Warm-season broadleaf Warm-season grass
	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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Range Planting (CPS 550)	Species category (select most common/extensive type if using more than one)	Forbs Grasses Legumes Shrubs Trees
Residue and Tillage Management – No-till (CPS 329)	Surface disturbance	None Seed row only
Residue and Tillage Management – Reduced Till (CPS 345)	Surface disturbance	None Seed row/ridge tillage for planting Shallow across most of the soil surface Vertical/mulch
Riparian Forest Buffer (CPS 391)	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
Riparian Herbaceous Cover (CPS 390)	Species category (select most common/extensive type if using more than one)	Ferns Forbs Grasses Legumes Rushes Sedges
Roofs and Covers (CPS 367)	Roof/cover type	Concrete Flexible geomembrane Metal Timber Other (specify)
Silvopasture (CPS 381)	Species category (select most common/extensive type if using more than one)	Coniferous trees Deciduous trees Forage Shrubs
	Species density (number of trees planted per acre)	1-10,000
Stripcropping (CPS 585)	Strip width (feet)	1-1,000
	Crop category (select most common/extensive type if using more than one)	Erosion resistant crops Fallow Sediment trapping crops
	Number of strips	2-100
Tree/Shrub Establishment (CPS 612)	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
Vegetative Barrier (CPS 601)	Species category (select most common/extensive type if using more than one)	Grasses Grass forb mix Grass legume mix
	Barrier width (feet)	3-1,000

Waste Separation Facility (CPS 632)	Separation type	Chemical (e.g., salts, polymers)
		Mechanical (e.g., screens, presses)
		Settling basin
	Most common use of solids	Bedding
		Field applied
		Other (specify)
Waste Storage Facility (CPS 313)	Waste storage system prior to installing your waste storage facility	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
Waste Treatment (CPS 629)	Treatment type	Biological
		Chemical
		Mechanical
Waste Treatment Lagoon (CPS 359)	Waste storage system prior to installing waste treatment lagoon	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
	Is there a lagoon cover/crust?	Yes
		No
	Is there lagoon aeration?	Yes
		No

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Windbreak/Shelterbelt Establishment and Renovation (CPS 380)	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

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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

311, Alley Cropping

313, Waste Storage Facility

314, Brush Management

315, Herbaceous Weed Treatment

316, Animal Mortality Facility

317, Composting Facility

318, Short Term Storage of Animal Waste and By-Products

319, On-Farm Secondary Containment Facility

320, Irrigation Canal or Lateral

324, Deep Tillage

325, High Tunnel System

326, Clearing and Snagging

327, Conservation Cover

328, Conservation Crop Rotation

329, Residue and Tillage Management, No Till

330, Contour Farming

331, Contour Orchard and Other Perennial Crops

332, Contour Buffer Strips

333, Amending Soil Properties with Gypsum Products

334, Controlled Traffic Farming

336, Soil Carbon Amendment

338, Prescribed Burning

340, Cover Crop

342, Critical Area Planting

345, Residue and Tillage Management, Reduced Till

348, Dam, Diversion

350, Sediment Basin

351, Well Decommissioning

353, Monitoring Well

355, Groundwater Testing

356, Dike and Levee

359, Waste Treatment Lagoon

360, Waste Facility Closure

362, Diversion

366, Anaerobic Digester

367, Roofs and Covers

368, Emergency Animal Mortality Management

371, Air Filtration and Scrubbing

372, Combustion System Improvement

373, Dust Control on Unpaved Roads and Surfaces

374, Energy Efficient Agricultural Operation

375, Dust Management for Pen Surfaces

376, Field Operations Emissions Reduction

378, Pond

379, Forest Farming

380, Windbreak/Shelterbelt Establishment and Renovation

381, Silvopasture

382, Fence

383, Fuel Break

384, Woody Residue Treatment

386, Field Border

388, Irrigation Field Ditch

390, Riparian Herbaceous Cover

391, Riparian Forest Buffer

393, Filter Strip

394, Firebreak

395, Stream Habitat Improvement and Management

396, Aquatic Organism Passage

397, Aquaculture Pond

398, Fish Raceway or Tank

399, Fishpond Management

400, Bivalve Aquaculture Gear and Biofouling Control

402, Dam

410, Grade Stabilization Structure

412, Grassed Waterway

420, Wildlife Habitat Planting

422, Hedgerow Planting

423, Hillside Ditch

428, Irrigation Ditch Lining

428A, Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete

428B, Irrigation Water Conveyance, Ditch and Canal Lining, Flexible Membrane

428C, Irrigation Water Conveyance, Ditch and Canal Lining, Galvanized Steel

430, Irrigation Pipeline

432, Dry Hydrant

436, Irrigation Reservoir

441, Irrigation System, Microirrigation

442, Sprinkler System

443, Irrigation System, Surface and Subsurface

447, Irrigation and Drainage Tailwater Recovery

449, Irrigation Water Management

450, Anionic Polyacrylamide (PAM) Application

453, Land Reclamation, Landslide Treatment

455, Land Reclamation, Toxic Discharge Control

457, Mine Shaft and Adit Closing

460, Land Clearing

462, Precision Land Forming and Smoothing

464, Irrigation Land Leveling

466, Land Smoothing

468, Lined Waterway or Outlet

472, Access Control

484, Mulching

490, Tree/Shrub Site Preparation

500, Obstruction Removal

511, Forage Harvest Management

512, Pasture and Hay Planting

516, Livestock Pipeline

520, Pond Sealing or Lining, Compacted Soil Treatment

521, Pond Sealing or Lining, Geomembrane or Geosynthetic Clay Liner

521A, Pond Sealing or Lining, Flexible Membrane

521B, Pond Sealing or Lining, Soil Dispersant

521C, Pond Sealing or Lining, Bentonite Sealant

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 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

Appendix B: Commodity List

CROPS

ALFALFA	CINNAMON	HYBRID POPLAR TREES
ALMONDS	CLOVER	IDLE
AMARANTH GRAIN	COCONUTS	INDIGO
APPLES	COFFEE	ISRAEL MELONS
APRICOTS	CORN	JACK FRUIT
ARONIA (CHOKEBERRY)	COTTON ELS	JERUSALEM ARTICHOKES
ARTICHOKES	COTTON UPLAND	JICAMA
ASPARAGUS	CRANBERRIES	JOJOBA
ATEMOYA	CRENSHAW MELON	JUJUBE
AVOCADOS	CRUSTACEAN	JUNEBERRIES
BAMBOO SHOOTS	CUCUMBERS	KENAF
BANANAS	CURRANTS	KHORASAN
BARLEY	DASHEEN	KIWIBERRY
BEANS	DATES	KIWIFRUIT
BEETS	DURIAN	KOCHIA (PROSTRATA)
BIRDSFOOT/TREFOIL	EGGPLANT	KOHLRABI
BLUEBERRIES	EINKORN	KOREAN GOLDEN MELON
BREADFRUIT	ELDERBERRIES	KUMQUATS
BROCCOFLOWER	EMMER	LAMBS EAR
BROCCOLI	FIGS	LEEKS
BROCCOLINI	FINFISH	LEMONS
BRUSSEL SPROUTS	FLAX	LENTILS
BUCKWHEAT	FLOWERS	LESPEDEZA
CABBAGE	FORAGE SOYBEAN/SORGHUM	LETTUCE
CACAO	GAILON	LIMES
CACTUS	GARLIC	LONGAN
CAIMITO	GENIP	LOQUATS
CALABAZA MELON	GINGER	LYCHEE
CALALOO	GINSENG	MANGOS
CAMELINA	GOOSEBERRIES	MANGOSTEEN
CANARY MELON	GOURDS	MAPLE SAP
CANARY SEED	GRAPEFRUIT	MAYHAW BERRIES
CANEBERRIES	GRAPES	MEADOWFOAM
CANISTEL	GRASS	MILKWEED
CANOLA	GREENS	MILLET
CANTALOUPES	GROUND CHERRY	MIXED FORAGE
CARAMBOLA (STAR FRUIT)	GUAMABANA/SOURSOP	MOHAIR
CARROTS	GUAR	MOLLUSK
CASHEW	GUAVA	MORINGA
CASSAVA	GUAVABERRY	MULBERRIES
CAULIFLOWER	GUAYULE	MUSHROOMS
CELERIAC	HAZEL NUTS	MUSTARD
CELERY	HEMP	NECTARINES
CHERIMOYA	HERBS	NIGER SEED
CHERRIES	HESPERALOE	NONI
CHESTNUTS	HONEY	OATS
CHICORY/RADICCHIO	HONEYBERRIES	OKRA
CHINESE BITTER MELON	HONEYDEW	OLIVES
CHRISTMAS TREES	HOPS	ONIONS
CHUFAS	HORSERADISH	ORANGES
	HUCKLEBERRIES	PAPAYA

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PARSNIP	STRAWBERRIES	
PASSION FRUITS	SUGAR BEETS	
PAWPAW	SUGARCANE	LIVESTOCK
PEACHES	SUNFLOWERS	ALPACAS
PEANUTS	SUNN HEMP	BEEF COWS
PEARS	TANGELOS	BEEFALO
PEAS	TANGERINES	BUFFALO OR BISON
PECANS	TANGORS	CHICKENS (BROILERS)
PENNYCRESS	TANGOS	CHICKENS (LAYERS)
PEPPERS	TANNIER	DAIRY COWS
PERENNIAL PEANUTS	TARO	DEER
PERIQUE TOBACCO	TEA	DUCKS
PERSIMMONS	TEFF	ELK
PINE NUTS	TI	EMUS
PINEAPPLE	TOBACCO CIGAR WRAPPER	EQUINE
PISTACHIOS	TOBACCO BURLEY	GEESE
PITAYA/DRAGONFRUIT	TOBACCO BURLEY 31V	GOATS
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
POTATOES SWEET	TOBACCO FLUE CURED	TURKEYS
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	
RHUBARB	WAMPEE	
RICE	WASABI	
RICE SWEET	WATERMELON	
RICE WILD	WAX JAMBOO FRUIT	
RUTABAGA	WHEAT	
RYE	WILLOW SHRUB	
SAFFLOWER	WINTER MELON	
SAPODILLA	WOLFBERRY/GOJI	
SAPOTE	YAM	
SCALLIONS		
SESAME		
SHALLOTS		
SORGHUM		
SORGHUM DUAL PURPOSE		
SORGHUM FORAGE		
SOYBEANS		
SPELT		
SQUASH		
STAR GOOSEBERRY		

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:

1) 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:

1) 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.