



**NOTICE OF GRANT AND AGREEMENT AWARD**

1. Award Identifying Number NR233A750004G040	2. Amendment Number	3. Award /Project Period Date of final signature - 05/01/2028	4. Type of award instrument: Grant Agreement
5. Agency (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		6. Recipient Organization (Name and Address)  U.S. COTTON TRUST PROTOCOL, LLC US COTTON TRUST PROTOCOL LLC 7193 GOODLETT FARMS PKWY CORDOVA TN 38016-4909  UEI Number / DUNS Number: DYU9KGMU6G37 / 013933061 EIN:	
7. NRCS Program Contact  Name: ALLISON COSTA	8. NRCS Administrative Contact  Name: Brett McMillan	9. Recipient Program Contact  Name: Marjory Walker	10. Recipient Administrative Contact  Name: Marjory Walker
(b)(6)			
11. CFDA 10.937	12. Authority 15 USC 714 et seq	13. Type of Action New Agreement	14. Program Director Name: Gary Adams <div style="background-color: yellow;">(b)(6)</div>
15. Project Title/ Description: Expands markets for climate-smart cotton in AL, AZ, AR, CA, FL, GA, KS, LA, MO, MS, NC, NM, OK, SC, TN, TX and VA and supports farmer implementation and monitoring of climate-smart practices.			
16. Entity Type: N = Nonprofit without 501C3 IRS Status (Other than Institution of Higher Education)			
17. Select Funding Type			
Select funding type:	<input checked="" type="checkbox"/> Federal	<input checked="" type="checkbox"/> Non-Federal	
Original funds total	90,000,000.000	\$8,750,000.00	
Additional funds total	\$0.00	\$0.00	
Grand total	90,000,000.000	\$8,750,000.00	
18. Approved Budget			

Personnel	\$4,781,075.00	Fringe Benefits	\$2,137,458.00
Travel	\$913,122.00	Equipment	\$0.00
Supplies	\$56,925.00	Contractual	\$8,985,452.00
Construction	\$0.00	Other	73,125,968.000
Total Direct Cost	88,453,497.000	Total Indirect Cost	\$1,546,503.00
		Total Non-Federal Funds	\$8,750,000.00
		Total Federal Funds Awarded	90,000,000.000
		Total Approved Budget	98,750,000.000

This agreement is subject to applicable USDA NRCS statutory provisions and Financial Assistance Regulations. In accepting this award or amendment and any payments made pursuant thereto, the undersigned represents that he or she is duly authorized to act on behalf of the awardee organization, agrees that the award is subject to the applicable provisions of this agreement (and all attachments), and agrees that acceptance of any payments constitutes an agreement by the payee that the amounts, if any, found by NRCS to have been overpaid, will be refunded or credited in full to NRCS.

Name and Title of Authorized Government Representative  KATINA HANSON Acting Senior Advisor for Climate-Smart Commodities	Signature <b>KATINA HANSON</b> Digitally signed by KATINA HANSON Date: 2023.04.25 16:52:59 -05'00'	Date 04/25/2023
Name and Title of Authorized Recipient Representative  GARY ADAMS President and CEO	Signature <b>Gary M. Adams</b> Digitally signed by Gary M. Adams Date: 2023.04.25 13:46:38 -05'00'	Date 04/25/2023

**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 U.S. Cotton Trust Protocol, LLC (Recipient), is to build markets for climate-smart commodities and invest in America's climate-smart producers to strengthen U.S. rural and agricultural communities.

### Objectives

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

### Budget Narrative

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

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

TOTAL BUDGET \$98,750,000

TOTAL FEDERAL FUNDS \$90,000,000

PERSONNEL \$4,346,432

FRINGE BENEFITS \$1,943,144

TRAVEL \$830,111

EQUIPMENT \$0

SUPPLIES \$51,750

CONTRACTUAL \$8,168,592

CONSTRUCTION \$0

OTHER \$72,738,469 (includes PRODUCER INCENTIVES \$64,481,750)

TOTAL DIRECT COSTS \$88,078,497

INDIRECT COSTS \$1,921,503

TOTAL NON-FEDERAL FUNDS \$8,750,000

PERSONNEL \$3,750,000

FRINGE BENEFITS \$0

TRAVEL \$0

EQUIPMENT \$0

SUPPLIES \$0

CONTRACTUAL \$0

CONSTRUCTION \$0

OTHER \$5,000,000 (includes PRODUCER INCENTIVES \$2,500,000)

TOTAL DIRECT COSTS \$8,750,000

INDIRECT COSTS \$0

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

### Responsibilities of the Parties:

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

#### RECIPIENT RESPONSIBILITIES

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

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

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

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

Performance Reports: Quarterly

SF425 Financial Reports: Quarterly

Detailed Progress Report: Quarterly

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

### **Expected Accomplishments and Deliverables**

See attached Benchmarks Table and associated Project Narrative.

### **Resources Required**

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

### **Milestones**

See attached Benchmarks Table and associated Project Narrative.



## **GENERAL TERMS AND CONDITIONS**

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

### Attachments:

Budget Narrative

Project Narrative

Benchmarks Table

Climate-Smart Practices List and Limitations

Data Dictionary

Climate-Smart Specific Terms and Conditions

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## **I. Executive Summary**

The U.S. Climate Smart Cotton Program (the Program) is a 5-year, collaborative pilot to provide technical and financial assistance to 1,650 U.S. cotton farmers (including historically underserved cotton producers) to advance the adoption of climate smart conservation practices on 1.2M acres (10% of total U.S. cotton acres), produce 4.2M bales (480 lbs.) of Climate Smart Cotton over five years, and demonstrate 1.14M metric tons of CO<sub>2</sub>e reductions and \$290M in economic benefits to farmers. The economic benefits - including a reduction in input costs, potential yield improvements, and added revenue from carbon insets - all generated by climate smart agriculture (CSA) practices - will incentivize long-term commitment to management change and accelerate growth in adoption beyond this 5-year pilot.

The Program will be led by the U.S. Cotton Trust Protocol (USCTP) Lead Project Administrator, Gary Adams, PhD; [gadams@cotton.org](mailto:gadams@cotton.org); 901-274-9030. Other Program partners include: Soil Health Institute (SHI), Cotton Council International (CCI), Cotton Incorporated (CI), Agricenter International (AI), North Carolina A&T State University (NCAT), Alabama A&M University (AAMU), and Texas A&M AgriLife Research (TAMU). The Program will target enrollment of cotton farmers across all 17 cotton-producing states – West (CA, AZ, NM), Southwest (TX, OK, KS), Mid-South (MO, AR, TN, MS, LA), and Southeast (AL, GA, FL, SC, NC, VA).

**Compelling Need.** The fashion/textile industry is the third largest manufacturing sector in the world and is responsible for 2 - 8% of global carbon emissions [1]. Recognizing climate risks posed by emissions generated in their value chain, many of the largest brands and retailers (e.g., Gap Inc., Levi Strauss & Co., Ralph Lauren, Target, VF Corp.) have signed on to the Fashion Industry Charter for Climate Action to support the goal of reducing the carbon footprint of the industry by 50% by 2030, and achieve net zero emissions by 2050 [2,3]. U.S. cotton farmers play a vital role in achieving this goal, since Scope 3 GHG emissions include cotton production and contribute to the carbon footprint of this value chain. Current GHG emissions from U.S. cotton production are estimated to be 10.7M metric tons of CO<sub>2</sub>e per year [4]. By reducing their carbon footprint and supporting GHG emission reduction goals espoused by the fashion/textile industry, U.S. cotton farmers can strengthen their competitiveness and expand global market opportunities. U.S. and international brands and retailers, some of which are members of USCTP, currently have demand for about 10M bales of Climate Smart Cotton per year, half of all U.S. production. Since U.S. cotton is grown on farms with at least 20 other crops, the knowledge gained by participating farmers will be extended to their diverse rotational crops. Additionally, U.S. agriculture originates many sustainable production practices (e.g., IPM, precision application, nutrient management, no-till) that eventually lead to durable global adoption that magnify the GHG reduction benefits.

**Expected Outcomes.** The Program will reduce GHG emissions from U.S. cotton by 1.4M metric tons CO<sub>2</sub>e by: (a) providing technical and financial assistance to 1,650 U.S. cotton farmers (including 330 historically underserved community [HUC] producers) to adopt climate smart conservation practices on 582K acres; (b) measuring/quantification, monitoring, reporting, and verification (MMRV) and tracking 4.2M bales of Climate Smart Cotton and their GHG benefits; and (c) promoting those bales and their associated carbon insets to build demand by brands and retailers. The Program expects to generate a 0.013 metric ton CO<sub>2</sub>e reduction per dollar spent, and an economic return of \$3.22 per dollar spent, Table 1.

**Table 1: GHG & economic benefits of the U.S. Climate Smart Cotton Program**

Timeframe	GHG benefit metric ton CO <sub>2</sub> e reduction		Economic benefit U.S. dollars <sup>a</sup>	
	Annual	5-yr Total	Annual	5-yr Total
Project	220,000	1,100,000	\$58,000,000	\$290,000,000
Historically	44,000	220,000	\$11,600,000	\$58,000,000
Underserved Communities				
Per farmer <sup>b</sup>	\$133	\$667	\$35,200	\$176,000
Per acre <sup>c</sup>	0.19	0.94	\$50	\$249
Per bale <sup>d</sup>	0.27	0.27	\$70	\$70
<i>GHG reduction per USDA dollar funding</i>		0.013	--	--
Economic benefit per USDA dollar funding			--	\$3.22
Jobs created <sup>g</sup>			240	1,200
Value Added <sup>g</sup>			\$17,600,000	\$85,300,000

<sup>a</sup> based on SHI survey results showing an increased profitability of \$100 an acre per year when climate smart agriculture practices are adopted [5]. <sup>b</sup> assumes cotton production 2 of 3 years due to crop rotation on 706 acres and a 3-year commitment to the Program. <sup>c</sup> based on 2 years of Climate Smart Cotton production, and financial assistance for new climate smart practice adoption and sale of carbon insets for 3 years; <sup>d</sup> total and annual figures are the same as a bale of cotton is a discrete output that can only be generated once. <sup>g</sup> Based on 80lb/acre increased yield from SHI survey data and IMPLAN economic model using 2019 USA data set from MIG [5].

**Program Objectives.** This Program has a strong focus on providing the knowledge and tools to help U.S. cotton farmers successfully adopt new management practices to meet the fashion/textile industry's demand for cotton with a significantly lower carbon footprint, and strengthen the competitiveness and revenue potential of U.S. cotton farms, through five key objectives:

1. **Enroll 1,650 U.S. cotton farmers, including 330 farmers from historically underserved communities.** The Program will minimize farmer enrollment transaction costs associated with entering field data for MMRV by providing a one-time \$5 per acre enrollment incentive (up to \$3,530 per farmer), along with educational programs, peer-to-peer outreach, hands-on assistance with enrollment, and a helpline for those who need it. USCTP will lead enrollment efforts. AI will lead outreach and enrollment of veteran cotton farmers; AAMU and NCAT (both Minority Serving Institutions [MSIs]) will lead outreach and enrollment of Black, Indigenous, and People of Color (BIPOC) cotton farmers. SHI will engage Historically Black Colleges and Universities (HBCUs) across all cotton states to expand long-term connections needed to include more HUC cotton farmers in Climate Smart Cotton production and associated benefits.

2. **Provide technical support and \$61.2M in financial assistance to farmers supporting long-term adoption of climate smart practices on 582K acres.** SHI, AAMU, and NCAT will develop communities of practice to provide technical agronomic support to farmers, farm-level evidence of economic benefit, field-specific soil health and carbon (C) targets, and reports on



changes to GHG emissions and soil carbon storage. Enrolled farmers will receive three consecutive years of technical and financial assistance for practice adoption - enough time to experience evidence of GHG reductions, cost reductions, price premiums, and soil health benefits. The technical support includes the development of a peer-to-peer information exchange.

3. **Measure and track Climate Smart Cotton GHG reductions and demonstrate the scalability of USCTP platform for MMRV and supply chain tracking.** The Program will use USCTP and the Ecosystem Service Market Provider's (ESMP) platform for MMRV of cotton production's environmental impact and track 4.2M bales of Climate Smart Cotton through the supply chain. The USCTP technology platform will leverage and incorporate the ESMP's data reporting infrastructure, SHI's measurement of soil health and carbon outcomes and track GHG benefits through the supply chain while protecting against double-counting of benefits.

4. **Develop and grow markets for Climate Smart Cotton and carbon insets among brands and retailers in the apparel industry.** USCTP and CCI will build demand for 4.2M bales of Climate Smart Cotton and 1.14M metric tons CO<sub>2</sub>e of insets produced throughout the Program's duration to fashion/textile brands and retailers by leveraging existing USCTP membership, adding to USCTP membership, and enhancing relationships through Program partnerships such as supporters of the SHI Regenerative Cotton Fund.

5. **Create and scale a carbon inset program for the cotton supply chain generating additional revenue supporting long-term adoption of Climate Smart Agriculture practices.** The USCTP and the ESMP will create and sell 1.14M metric tons CO<sub>2</sub>e of insets to the apparel industry and provide farmers with an opportunity for ongoing outcome payments to encourage long-term CSA adoption. These insets will help the apparel industry meet scope 3 emission reduction goals and further position U.S. cotton production as a leader in sustainability. The Program funding will help scale previous pilot-level insetting success into a revenue opportunity for farmers across the cotton belt.

### **Project Management Capacity**

1. **U.S Cotton Trust Protocol ([trustuscotton.org](https://trustuscotton.org)).** USCTP provides a scalable, low-cost platform for cotton production's environmental impact reporting and tracing cotton through the supply chain. Since launching in 2020, USCTP has enrolled over 650 U.S. cotton farmers and used its platform for 1.3M acres and 2M bales of cotton (12% of total U.S. production). USCTP members include over 693 organizations and 656 textile mills and manufacturers. USCTP has been recognized by Textile Exchange and Forum for the Future and is part of the Sustainable Apparel Coalition, 2025 Sustainable Cotton Challenge, Cotton 2040, and Cotton Up initiatives. USCTP is an affiliate of the National Cotton Council.

2. **Soil Health Institute ([soilhealthinstitute.org](https://soilhealthinstitute.org)).** SHI supports education, research, and outreach with farmers to raise awareness of the benefits of regenerative practices and assist them to achieve measurable goals for improving soil health. To promote the adoption of CSA practices, SHI has developed cost-effective, locally relevant measurement-based assessment of soil health and target setting, novel economic assessment methods, and a technical assistance program that creates local communities of practice including consulting agronomists, technical specialists, and farmers to advance the adoption of soil improvement practices. SHI has initiated farmer networks in AR, TX, MS, NC, SC, GA, and CA and has led soil health training for 13,000 certified crop advisors who advise on over 200M acres of row crop production in the U.S.

3. **Cotton Council International ([cottonusa.org](https://cottonusa.org)).** CCI is the National Cotton Council's export promotion arm and will lead the Climate Smart Cotton market promotion activities. CCI



champions U.S. cotton and expands foreign demand for U.S. cotton fiber, yarn, and other cotton products. CCI promotes the USCTP to mills, manufacturers, brands, and retailers worldwide.

4. **Cotton Incorporated ([cottoninc.com](http://cottoninc.com))**. CI is a not-for-profit company providing the resources and research needed to help companies develop and market superior, innovative, and profitable cotton products. The mission of CI is to increase the demand and profitability of cotton through research and promotion. In recent years, sustainability has become a key pillar of CI's research and promotion.

5. **Agricenter International ([agricenter.org/agvets](http://agricenter.org/agvets))**. AI is a leader in field crop research and manages the Veterans Employed in Technology and Service in Agriculture (VETSA) program, which provides veterans with training and experience in farming, research projects, and trade skills related to agriculture. Through the VETSA program, AI has a mature network of veteran farmers.

6. **North Carolina A&T State University ([ncat.edu](http://ncat.edu))**. NCAT is the largest historically black university in the country. NCAT has a successful research and teaching program focusing on the scientific inquiry of soil health and microbial functioning in soils and extends its work to farmers of North Carolina.

7. **Alabama A&M University ([aamu.edu](http://aamu.edu))**. AAMU is also a historically black university and land grant institution. AAMU provides research-based programming to Alabama farmers through the Alabama Cooperative Extension System. This programming includes topics such as soil conservation practices, crop production, and integrated pest management.

8. **Texas A&M AgriLife Research ([tamu.edu](http://tamu.edu))**. TAMU is a land grant university that promotes the wise use and stewardship of soil, plant, and water resources through scientific discovery and translation to improve environmentally sound and economically profitable production systems.

## **II. INTRODUCTION**

**Opportunity.** Cotton is the most widely used natural fiber in the world. The U.S. is a leading producer and exporter of cotton and demonstrates leadership in the global cotton market. According to the U.S. Census of Agriculture, the U.S. produces 20.4M bales of cotton annually, by 16,000 farmers on 11.4M acres [6]. The use of precision agriculture, analytics, and automation has already helped U.S. farmers reduce cotton's impact on the environment while increasing on-farm efficiencies. Over the past 40 years, U.S. cotton farmers have reduced soil loss by 45%, used 58% less water, 31% less energy, and reduced GHG emissions by 25%, all while increasing yield by approximately 30% [7].

However, there is still much room for improvement. In U.S. cotton production, cover crops, reduced tillage, and no-till adoption are estimated at 8%, 30%, and 28%, respectively. Climate smart management practices that improve soil health can also benefit farmers and the environment. Farmers benefit from these practices through increased drought and flood resilience, improved nutrient use efficiency, decreased erosion risk, lower input costs, less fuel consumption, natural plant pathogen suppression, suppression of herbicide-resistant weeds, and potentially greater yield stability.

Adoption of these practices by farmers is hindered by a lack of place-based economic and technical agronomic information, training programs, and a process to establish soil health goals so farmers know the potential level of soil health and carbon storage that can be achieved on their particular farm. The proposed Program addresses these deficiencies and creates access to a commodity premium and valuation of ecosystem services, which may also incentivize adoption. Greater adoption of practices that decrease GHG emissions, store more carbon and water in the soil and



improve soil and ecosystem functioning is necessary to meet the U.S. cotton industry 2025 sustainability goals of reducing GHG emissions by 39%, increasing soil carbon by 13% (both 2025 goals are relative to 2015 levels), and contribute to a 50% reduction in the carbon footprint of the fashion/textile industry by 2030. In addition to GHG reductions, research shows that improving soil health in agricultural systems by using CSA practices creates important climate adaptation benefits and environmental co-benefits of increasing drought resilience [8,9], enhancing water quality [10,11], boosting crop yield net profits [12], increasing nutrient availability [11], reducing erosion [13], providing pollinator habitat [14], suppressing many plant diseases [15], and providing weed control [16].

**Approach.** The U.S. Climate Smart Program integrates leaders from all aspects of the supply chain from farmer education and applied research (SHI, CI, AAMU, TAMU, NCAT, AI), CSA practice early adopters, to promotion and demand-building (CCI, USCTP, CI) and experts in MMRV platforms (ESMP) to focus on the development and delivery of farmer-centric U.S. Climate Smart Cotton.

The Program’s comprehensive approach will maximize grower enrollment, new CSA practice adoption, economic benefits, GHG reductions, and environmental co-benefits. The program will 1) enroll growers in the USCTP and quantify climate impacts from their cotton production (Level 1), 2) provide technical and financial support for adopting new CSA practices and soil health target setting (Level 2), and 3) produce and sell verified carbon insets (Level 3), Figure 1.

<b>Program Level</b>	<b>Level 1: Enrollment 1.2M acres</b>	<b>Level 2: Practice change 582K acres</b>	<b>Level 3: Inset payment 582K acres</b>
<b>Grower Support</b>	<ul style="list-style-type: none"> <li>• \$5.8M total (HUC \$1.2M)</li> <li>• \$5/acre (\$3,530 max/grower)</li> <li>• Technical support</li> </ul>	<ul style="list-style-type: none"> <li>• \$61.2M total (HUC \$12.2M)</li> <li>• Up to \$35/acre for 3 yrs.</li> <li>• Technical support</li> </ul>	<ul style="list-style-type: none"> <li>• Revenue from inset sale</li> <li>• Technical support</li> </ul>
<b>Outcomes</b>	<ul style="list-style-type: none"> <li>• Climate Smart Cotton <u>with</u> impact metric reporting &amp; verification</li> </ul>	<ul style="list-style-type: none"> <li>• Climate Smart Cotton <u>with</u> verified practice change</li> </ul>	<ul style="list-style-type: none"> <li>• Climate Smart Cotton <u>with</u> sale of verified carbon insets</li> </ul>
<b>Grower Requirement</b>	<ul style="list-style-type: none"> <li>• Complete USCTP enrollment</li> <li>• Self assessment questionnaire</li> <li>• Quantify GHG emissions with Fieldprint platform</li> <li>• 3<sup>rd</sup> party verification if selected</li> <li>• Explore the feasibility of new CSA practice adoption</li> </ul>	<ul style="list-style-type: none"> <li>• Adopt new CSA practice</li> <li>• Participate in soil health target setting</li> <li>• COMET modeling on all practice change acres</li> <li>• New practice verification</li> <li>• Level 1 requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Contract for carbon inset</li> <li>• Agree to MMRV</li> <li>• Soil sampling on all fields</li> <li>• Level 1 &amp; 2 requirements</li> </ul>
<b>Required by all levels</b>	<ul style="list-style-type: none"> <li>• Meet Highly Erodible Land (HEL) and Wetland Compliance (WC) requirements.</li> <li>• Identify practices in each enrolled field that are already receiving funding from USDA program(s), and attest that enrolled field(s) will not have multiple sources of USDA program funding for the same practice on the same land.</li> </ul>		

**Figure 1. The U.S. Climate Smart Cotton Program framework**

**Objective 1 –Enroll 1,650 U.S. cotton farmers, including 330 farmers from historically underserved communities.**

**Primary Outcomes** are to enroll 1,650 growers into the Program, including 330 farmers from the historically underserved community (HUC). This enrollment is targeted to include 1.165M acres, with 233K (20% of total) of those acres representing the HUC.

A maximum of 706 acres will be enrolled per farmer to ensure the Program will provide financial assistance to all 1,650 farmers. Grower requirements are different for each level of support with increasing requirements tied to increasing financial support and certainty of beneficial outcomes, Table 2. The tiered level approach is designed to maximize grower participation and reduce the barrier to entry and enrollment transaction costs. The goal is to enroll 50% of Level 1 acres into Level 2 and 100% of Level 2 acres into Level 3. These Program targets are based on experience enrolling growers in the USCTP, existing adoption rates of CSA practices, and limitations due to land ownership related to selling carbon insets [4, 6]. This method engages growers with a more approachable action and then creates a clear onramp to additional support with further adoption of CSA practices, Objective 2. The Program will provide the USDA with enrollment data and feedback to better understand barriers to scaling climate smart commodities.

**Table 2: Grower enrollment and Climate Smart Cotton production**

	Level 1		Level 2 50% of Level 1 acres		Level 3 100% Level 2 acres	
	HUC	Total	HUC	Total	HUC	Total
<b>(Over 3 yrs.)</b>						
Enrolled farmers	330	1,650	330	1,650	330	1,650
Acres enrolled	233,000	1,165,000	116,400	582,000	116,400	582,000
Bales Climate Smart Cotton	824,200	4,121,000	412,000	2,060,000	412,000	2,060,000
Support	\$1.2	\$5.8	\$12.2	\$61.2	\$3.4	\$17.1
Dollar per farmer		\$3,530		\$37,065		\$10,365
Dollar per acre		\$5		\$105		\$29
Doller per bale (480 lbs.)		\$1.41		\$29.69		\$8.30

**Key Activities & Lead Partners.** The Program will conduct outreach activities to U.S. cotton farmers, specifically including HUC farmers, to facilitate enrollment. USCTP and SHI will lead general outreach/enrollment efforts. AI will lead outreach/enrollment and technical support for veteran cotton farmers; AAMU and NCAT will lead outreach/enrollment and technical support to the BIPOC cotton farmers [6]. SHI will engage additional Historically Black Colleges across the cotton states to build long-term connections needed to include more HUC cotton farmers in CSA cotton production.

**Details.** The program’s goal is to enroll 1,650 farmers, then progress them from Level 1 to Level 3, creating an additional economic return for the farmer and increased GHG reductions. This approach empowers farmers to learn, grow, and explore new opportunities for reducing climate impacts, financial support, and premium markets as a result of new CSA practice adoption.

The Program will leverage USCTP technology and communications to minimize transaction costs associated with grower enrollment and data collection. The USCTP platform has already proven to be successful in enrolling over 650 cotton farmers, demonstrating the ability to engage farmers and collect a vast amount of practice and climate impact data. The USCTP has existing contracts and funding for technology development with the SEAM and Textile Genesis™ and contracts for

grower communication with Hill and Knowlton Strategies (H&K). These existing funds and contracts will be leveraged to maximize the Program’s payment for outcomes.

During the first 3 years of this 5-year pilot, the Program goal is to enroll 1,650 farmers – i.e., approximately 550 cotton farmers per year. The Program will commit 3 years of financial assistance to each farmer for practice change (Level 2), which will give a reasonable runway for participants to realize higher economic returns from CSA practices and/or participation in a carbon inset program, Figure 1. There will be no further enrollment in years 4 and 5 unless enrollment targets are not met. Years 4 and 5 will continue with technical and financial assistance, see the activity table for more details on the Program schedule.

**Enrollment activities** include virtual and in-person field days, demonstration events, factsheets, farmer meetings, presentations at conferences and industry events (e.g., Mid-South Farm & Gin Show), emails, website content, educational webinars, and peer outreach from Farmer Mentors, agronomists, marketing cooperatives/merchants, and retailers. USCTP enrollment specialists will assist with enrollment and answer farmers’ questions – e.g., enrollment process, payments, eligibility, etc.

The Program will also minimize farmer enrollment transaction costs by providing a one-time \$5 per acre enrollment incentive (maximum of \$3,530/farmer) for enrolling in the Program at Level 1 and exploring the feasibility of new CSA practice adoption. Based on feedback from farmers currently enrolled in the USCTP, the \$5 per acre enrollment incentive is needed to scale enrollment. The total estimated cost of this incentive is \$5.8M. The Program will routinely evaluate the effectiveness of outreach efforts through monthly progress reports to all team members and quarterly review reports. Findings will be shared with the Partnerships Network.

**Objective 2 – Provide technical support and \$61.2M in financial assistance to farmers supporting long-term adoption of climate smart practices on 582K acres.**

**Primary Outcomes** are to enroll 582K acres in new CSA practices and provide technical and financial support to farmers totaling \$61.2M with \$12.2M specifically supporting HUC farmers.

The key to scaling Climate Smart Cotton is comprehensive technical support and appropriate risk sharing through financial support, Table 3. Eighty percent of the requested USDA funding will go directly to farmers supporting long-lasting CSA practice adoption.

**Table 3: Financial support and estimated GHG benefits for new CSA practice adoption**

<b>Level 2: New CSA practice adoption</b>	<b>HUC</b>	<b>Total</b>
Enrolled farmers new practice adoption	330	1,650
Acres enrolled (over 3 yrs.)	116,400	582,000
Bales Climate Smart Cotton (over 3 yrs.)	412,000	2,060,000
Support (over 3 yrs.)	\$12,240,000	\$61,200,000
Dollar per farmer (over 3 yrs.)		\$37,065
Dollar per acre (over 3 yrs.)		\$105
Doller per bale (480 lbs.)		\$29.69
Metric ton CO <sub>2</sub> e reduction <sup>a</sup>		1,140,000
Metric ton CO <sub>2</sub> e reduction per USDA dollar support <sup>a</sup>		<b>0.013</b>

<sup>a</sup> Rates are an average of dry/semiarid and moist/humid climate zones [17]



**Key Activities & Lead Partners.** USCTP will administer financial assistance to farmers for implementing climate smart practices. Trained agronomists with experience in conservation practices, as well as other specialists at SHI, AAMU, NCAT, and associated partners, will provide enrolled farmers with technical support to facilitate the adoption of a variety of climate smart conservation practices.

The outreach program includes a multi-faceted approach that will: 1) deliver a foundational understanding of soil health, carbon storage, and the economic outcomes experienced by farmers, 2) create a community of practice with farmer mentors, advisors, and others (e.g. extension specialist and consultants), with on-farm field experience of applying principles of soil health building practices, 3) synthesize soil health data from the lab and regional mentors to identify management practices for improving drought resilience, nutrient availability, profitability, and other benefits of healthy soils with greater carbon content, and 4) provide locally relevant partial budget analyses to inform farmers of the costs and benefits of successful CSA practice adoption.

**Details.** The program will provide enrolled cotton farmers with up to five years of technical training and three years of financial support. Three years of financial support should allow enough time to encourage adoption and recognize on-farm and off-farm environmental and socioeconomic benefits. Potential market benefits include price premiums and/or revenue from a carbon inset program. De-risking CSA practice adoption will provide economic benefits to the producer including reduced input costs, yield improvement, and increased water use efficiency that support long-term CSA practice adoption leading to carbon storage beyond 20 years [5, 8, 10, 18]. Carbon emission reductions resulting from nutrient management planning and adoption are permanent. Additionally, the development of a carbon inset market will create an opportunity for carbon inset payments leading to increased permanence.

The Program will routinely evaluate the efficiency and effectiveness of technical and financial assistance through stakeholder evaluations, and quarterly review by program participants. Findings will be shared with the Partnerships Network.

### **Financial Assistance**

Level 2 financial assistance will help offset financial risk and assist in the resources necessary to adopt new CSA practices. The basis for selecting CSA practices for financial assistance is based on modeled and empirical evidence supporting GHG reductions [18,19]. The price per practice, shown in Table 4, is set at a level that will share enough financial risk to drive new practice adoption and Level 2 Program enrollment. The price per practice is based on feedback from growers within the USCTP, and by experts at SHI and CI. Additionally, the price per acre is approximately the average total cost of planting cover crops as reported by farmers [20]. Given the uncertainty in cover crop seed and management costs, payments must be sufficient to incentivize CSA practice change. Hence, Program partners will annually review and adjust payment amounts for practices to ensure a successful balance between project costs and ensuring CSA practice adoption targets are met. With changes in price per acre for each practice adoption, the number of acres enrolled in Level 2 will be adjusted accordingly to balance the overall budget.

Total Level 2 financial assistance to farmers for the adoption of new climate smart practices is \$61.2M. USCTP will implement the methods of the ESMP to coordinate with the Farm Service Agency (FSA), NRCS, and farmers to ensure no double payment for the same practices on the same acre.

### **Table 4: New practice adoption support and GHG emission benefits**

New practice (over 3 yrs.)	Payment per acre	New practice acres	HUC support	Total support	Reduction (MT CO <sub>2</sub> e ac <sup>-1</sup> yr <sup>-1</sup> )	Total reduction (MT CO <sub>2</sub> e)
Nutrient management plan	\$5	582,000	\$1,750,000	\$8,700,000	0.08	140,000
Strip or no-till	\$5	582,000	\$1,750,000	\$8,700,000	0.19	450,000
Cover crops	\$25	582,000	\$8,700,000	\$43,700,000	0.32	550,000
<b>Total</b>	<b>\$35</b>		<b>\$12,200,000</b>	<b>\$61,200,000</b>	<b>0.58</b>	<b>1,140,000</b>

### Economic Benefits

Preliminary partial budgeting research conducted by SHI suggests that cotton farmers can increase net income by an average of \$100/acre on cotton acres by adopting CSA practices [5,20]. Combining this estimate with proposed project goals delivers a \$290M benefit to all cotton growers and \$58M to HUCs over 3 years, Table 5. This estimate of benefit is based on SHI's economic assessment of five cotton farmers across five states to provide preliminary information to cotton farmers characterizing the costs and benefits of using CSA practices such as cover crops and no-tillage. Though representing only five farmers, results demonstrated yield, revenue, and profit increases, as well as cost reductions. An average yield increase of 80 lbs./acre was reported, with three of the five farmers reporting increased yield from CSA practices, and none reported yield declines [5]. Cost reductions were also noted in fertilizer and amendments, pesticides, fuel, labor, and equipment ownership for an average reduction in costs of \$47/acre. These economic benefits did not include payments for practices nor for insetting GHG emissions.

**Table 5: Program economic benefit to growers and USDA return on investment**

Based on 706 acres	Per acre	Per farmer	HUC	Program
Program enrollment	\$5	\$3,530	\$1,160,000	\$5,800,000
New CSA practice adoption	\$35	\$37,065	\$12,240,000	\$61,200,000
Carbon inset sale	\$15	\$10,400	\$3,440,000	\$17,200,000
Increased profitability*	\$100	\$212,000	\$41,200,000	\$206,000,000
<b>Total</b>	<b>\$155</b>	<b>\$262,995</b>	<b>\$58,040,000</b>	<b>\$290,200,000</b>
Per bale cotton (rotation 2 out of 3 yrs. in cotton)				\$70
Economic benefit per dollar USDA funding				\$3.20
Jobs created*				1,160
Value Added *				\$85,300,000

\*Based on 80 lb/acre increased yield and IMPLAN economic model using 2019 USA dataset [5].

### Technical Assistance Plan

**Agronomic support and training.** SHI will establish and support existing and new producer-led mentoring networks comprised of farmers, their advisors, local technical specialists, HBCU partners (AAMU, NCAT), and SHI trainers. SHI will provide these networks with the knowledge,

tools, resources, training, and continuous support they need to profitably transition to CSA management practices. For example, SHI has developed new predictive equations to quantify improved drought resilience that results from soil health management [9]. Farmer-led learning identifies farmers that are early adopters and connects them with those considering adoption to discuss practices and know-how. Farmers that have successfully implemented practices are the keystone to successful practice adoption by new adopters. SHI has initiated these producer-led networks in seven cotton-growing states from 2019 to 2022, and during that time, held virtual and in-person soil health demonstration events; provided resources for cover crop adoption; maintained continuous engagement with producer mentors and technical specialists; provided cost share for cover crop seed; and produced Cotton & Covers (6-part series), Healthy Soils for Sustainable Cotton – Virtual Field Days (13-part series), and Healthy Soils for Sustainable Cotton Webinar Series (7-part series) for farmers.

***Economic information on geographically appropriate cost and benefit assessments of adoption of CSA practices on farms.*** Comprehensive and geographically relevant data on the economic benefits of CSA practices are needed to show farmers the profitability of these practices and increase long-term adoption. SHI will assess the economics of 64 cotton producers who have been implementing regenerative CSA practices for more than 5 years (e.g., early adopters), and in Year 2, SHI will disseminate the economic results, aggregated by region. The economics of the transition to CSA practices are also needed to de-risk the adoption of practices. To address this knowledge gap around the transition economics, SHI will track farmer economics following a 3-year transition into CSA practices. Participants will engage in a 1.5-hour interview with the SHI economist and agronomist. For these farms, soil health and carbon metrics will be measured and GHG emission reductions will also be estimated with the COMET-Farm model. With grower consent, the results will be disseminated through state-based producer networks and incorporated into SHI and Program partner training programs.

***Field-specific soil health and carbon targets to inform each farmer of their fields' soil health and carbon stock along with goal setting.*** Based on the knowledge of how to measure and monitor soil health, SHI will lead a team that includes NCAT and AAMU to establish Soil Health Targets (Targets) for soils in U.S. cotton-growing regions. These Targets allow SHI to assist farmers with assessing the current status of their soils (i.e., establish their baseline), measure progress towards improving the health of their soils using a realistic, locally relevant, science-based target, and establish goals. This approach was designed to be locally relevant, scalable, and affordable to farmers. Particularly soil health and carbon targets are scalable because metrics are standard and inexpensive, and spatial sampling is designed to scale. From a farmer empowerment perspective, providing farmers with measurable and obtainable soil health and carbon targets will help drive the adoption of CSA.

To implement this plan, SHI will use soil science knowledge to stratify cotton-growing soils into soil health sampling groups. These are groups of soils with similar surface textures and drainage classes that constrain the sampling variability among soils with a similar potential expression of health (e.g. ability to regenerate) and carbon storage. These soil groups are used to guide decisions on what soils to sample in the field. Next, SHI will define reference management systems that

reflect the ***actual potential*** for soils to express soil health and carbon storage within each soil health sampling group. Other management groupings to sample include, baseline cotton production (e.g. business as usual), and climate-smart cotton production to capture the health and carbon stock of soils in a range of management conditions. In year 1 of the project SHI and AAMU will sample soils in Alabama and South Carolina and in year 2, SHI, and NCAT will sample soils in North Carolina, California, Oklahoma, and Missouri/Arkansas. Soils in all management systems will have data collected on management practices (tillage, manure application, cover cropping, crop rotation) carbon stock, aggregate stability, available water-holding holding capacity, and carbon mineralization potential. Additionally, NCAT will measure minerally associated and particulate organic carbon fractions to help understand the ability of carbon storage to be more permanent. All groups, SHI, AAMU, and NCAT will set up monitoring plans to track adopters through their soil regeneration process and measure final carbon stock. These monitoring systems will not overlap ESMP MMRV efforts, and if we do end up on some similar farms, we will not duplicate sampling efforts.

All of these sampling and data analyses will be used to inform farmers, climate smart markets, and policymakers how much carbon stock and soil health are expressed in various cotton production systems and answer the most important question: ***How healthy and how much carbon stock can these soils achieve?*** Outputs for this work will have two focuses, enabling farmers to make science-based decisions on entering climate smart markets and informing policy and markets on what is practically and regionally achievable. We will present work as regional reports, farmer factsheets, blogs, short videos, and scientific peer-reviewed journal articles. The peer review articles are important to giving the markets credibility and thereby removing risk.

Reports on reductions in GHG emissions, soil carbon, and other environmental impacts resulting from the implementation of CSA practices in agricultural fields will be provided. SHI and the USCTP will spearhead the calculation process using information gathered from successful early adopters, such as the farmer mentors previously identified and enrolled in the USCTP. The FieldPrint platform will serve as the principal tool for estimating GHG emissions and additional environmental benefits brought about by the early adopters of these practices.

**Regional technical support and enrollment specialist.**

The US CTP will hire an enrollment specialist in each cotton growing region to help cotton producers enroll in the Climate Smart Cotton Program. These specialists will have experience providing technical support to producers adopting climate smart practices and will assist the enrolled producers in engaging in Level 2 and Level 3 of the program. The specialist will attend grower meetings, industry meetings, and field days to promote the program.

The specialist will work with each grower to understand their unique growing conditions. The specialist will help present agronomic changes that would qualify for Level 2 enrollment and how the producer would implement these new practices. The specialist will help provide information on how other growers have successfully implemented these practices in neighboring farms. This regional context and knowledge will be critical to the long-term adoption of CSA practices.



The regional enrollment specialist will coordinate and assist with SHI soil health target setting activities. They will also coordinate and assist the HBCU's in enrolling HUC producers in the program. These specialists may also assist in MMRV where appropriate.

SHI will not be calculating GHG emissions and other environmental impacts of early adopters as this work is beyond SHI's scope of work. The USCTP will use the Field to Market Fieldprint Platform to estimate GHG emissions and other environmental impacts of early adopters.

### ***Technical Support Roles***

In the Climate Smart Cotton Program, various organizations collaborate to provide targeted technical support to different grower groups, see the table below. SHI, AAMU, and NCAT primarily focus on BIPOC grower enrollment, outreach, and agronomic support. SHI has 1.5 dedicated staff, including soil health trainers and educators, while AAMU and NCAT each have one senior personnel, Dr. Davis and Dr. Bhowmik, respectively.

AI is responsible for veteran grower enrollment, outreach, and agronomic support, with one dedicated program manager on their team. USCTP assists with enrollment, outreach, and agronomic support for all grower groups, including female growers. They have four dedicated grower enrollment specialists as part of their staff.

In addition to the staff supported directly by the Climate Smart Commodity Project award, the USCTP will dedicate 4 additional staff towards enrolling growers in the Climate Smart Cotton Program which is supported by other funds, not from the USDA. In total, these organizations have 12.5 dedicated staff members working together to ensure comprehensive support for various grower groups within the Climate Smart Cotton Program. This collaborative effort aims to promote sustainable cotton farming practices and help growers adapt to climate change challenges.

### Technical support funded by the Climate Smart Cotton Program

Organization	Target Grower Group	Primary Focus of Technical Support	Dedicated Staff	Dedicated Staff
SHI	BIPOC Growers	Enrollment, Outreach & Agronomic Support	1.5	Soil health trainer and educators
AAMU	BIPOC Growers	Enrollment, Outreach & Agronomic Support	1	Senior personnel (Dr. Davis)
NCAT	BIPOC Growers	Enrollment, Outreach & Agronomic Support	1	Senior personnel (Dr. Bhowmik)
AI	Veteran Growers	Enrollment, Outreach & Agronomic Support	1	Program manager
USCTP	All Grower including Female Growers	Enrollment, Outreach & Agronomic Support	4	Grower enrollment specialist
		Total	<b>8.5</b>	

### **Objective 3 – Measure and track Climate Smart Cotton GHG reductions and demonstrate the scalability of the USCTP platform for MMRV and supply chain tracking.**

**Primary Outcome.** Execution of integrated and improved MMRV for Climate Smart Cotton and GHG benefits for 1,650 farmers on 1.2M acres, each enrolled for 3 years, to create 4.2M bales of Climate Smart Cotton and 1.14M metric tons CO<sub>2</sub>e reduction.

The USCTP will leverage its existing technology platform developed by the SEAM which includes a grower enrollment portal and supply chain tracking integration with the Textile Genesis™ platform. To date, this software solution has tracked over a million USCTP cotton bales from over 650 producers. For the Program, this system will be expanded to include additional MMRV activities to verify and track the climate benefits of new practice adoption incentivized in Objective

2. Quantification of the GHG benefits of Climate Smart Cotton production will be calculated on each acre enrolled; however, we estimate the total benefits from new CSA practice adoption will be 1.4M metric tons of CO<sub>2e</sub> over five years. **This reduction equates to 0.013 metric tons (13 kg) of CO<sub>2e</sub> reduction per dollar of USDA funding within the project term.** With the successful development of a carbon inset program and continued grower practices, benefits will continue to increase after the three-year grower commitment and five-year project term.

**Key Activities & Lead Partners.** The Program will, 1) combine USCTP’s platform (the Protocol Consumption Management Solution that includes a customized version of Textile Genesis™ [21]) for tracking cotton through the supply chain and leverage the selected ESMP’s proven MMRV approach, and 2) improve the reliability of soil carbon and GHG estimates and reporting through scalable measurement and verification.

The program will leverage the selected ESMP’s MMRV platform that will be based on available and accepted approaches to monitoring soil carbon and COMET-based estimates of GHG emissions. Working with TAMU, the Program will explore state-of-the-art measurement approaches that will inform current MMRV methods, resulting in reduced costs and more reliable estimates. The working hypothesis is the integration of innovative ideas into a currently sound and tested MMRV can lower transaction costs by increasing certainty in GHG estimates and reducing soil sampling costs. The result will be a more robust, cost-effective, and scalable platform for the USCTP to meet the needs of farmers, verifiers, and brands and retailers in the fashion/textile industry. The MMRV platform efficiency, accuracy, and performance will be assessed monthly through reporting and quarterly review by a 6-person advisory group of technical experts from USCTP, SHI, CI, the ESMP, TAMU, and participating brands/retailers. Findings will be shared twice a year with the Partnerships Network.

#### **Details. MMRV Description of GHG Quantification.**

***MMRV Field Data Collection.*** The USCTP’s farmer enrollment and data management system will be used to collect demographic, farm, field, and operational level data from enrollees. The system interfaces and connects with farm data management systems to reduce the input burden on farmers. The Level 1 enrollment will require the completion of the Field to Market Fieldprint Platform analysis estimating GHG emission, and other environmental indicators on 10% of the grower’s enrolled acres. When farmers enroll, they must provide at least a full rotation of historical and future management data (e.g., the additional CSA practices being adopted). Farm Service Agency farm and tract numbers are collected to meet USDA reporting requirements. Before enrollment, farmers review and consent to the USCTP’s data privacy and use policy.

***Outcome Quantification.*** The selected ESMP will have a data application programming interface (API) to streamline COMET modeling. COMET modeling will be in addition to the Fieldprint analysis. Comet modeling is required on all acres enrolled in Level 2. As such, 2 models will be used to estimate emissions from grower operations. The API should provide seamless data transfer to the modeling platform, where the data will be reviewed by agronomy experts. The farm operations will be combined with multiple years of historical “spin-up” data to establish a baseline before predicting changes associated with new practices. Following the model spin-up, average annual CO<sub>2e</sub> estimates will be calculated based on a 10-year projection from the year the conservation practice was implemented. The CO<sub>2e</sub> estimates will be calculated by comparing

baseline fluxes to those corresponding with simulation years following the conservation practice intervention.

*Farmer Contracting.* For Level 3, outcome data will be reviewed by the ESMP, and payment estimates will be developed. The ESMP assigns a price per outcome that is used to structure the payment that will be distributed by USCTP. Payment estimates are sent to farmers and they can choose to accept or reject the payment for an inset offer.

### MMRV Approach & GHG Monitoring Plan

**Field Inspections, Records, and Field Audits.** In person visits will occur for each field enrolled in Levels 2 & 3 of the Program to document crop type, tillage, residue levels, presence of cover crops, and other information. Photos and field notes will be taken during the inspections. The contract requires farm managers to retain paper or electronic records of the planned and actual farming practices. If conservation practices are not observed during field inspections, the ESMP will request proof of practice from the producer.

**Soil Sampling.** Soil sampling will be conducted by the ESMP on random 10% of Level 2 & 3 enrolled fields, and the sampling for Level 3 growers will be repeated after 5 years pending additional funding beyond the 5-year Climate Smart Project term. The sampling approach will use SHI’s stratification and random selection within the strata process. The long-term goal of the sampling design is to optimize for greater statistical confidence in modeled results and minimize cost. The fields selected for soil sampling will be subject to 6 total organic carbon samples and 6 bulk density samples, a total of 12 soil samples. Within each selected field, samples will be taken on the three most prominent soil types. Samples are taken at the centroid of each soil type, taken at a total depth of 30cm, and then split to have a 0cm to 15cm and a 15cm-30cm sample. Total organic carbon and bulk density are paired at each sample depth. For more details see the table below.

Soil Sampling Table

Level 2 & 3	Total	2023	2024	2025	2026	2027	2028
Total growers enrolled			550	1,100	1,650	1,100	550
Number of New Growers Inspection and Monitoring Visits	1,650		550	550	550		
Number of field visits (100%)	17,474		1,942	3,883	5,825	3,883	1,942
Number soil samples (avg 4 field per farmer)	582		194	194	194		
Number of Soil Samples Collected	6,989		2,330	2,330	2,330		

**MMRV Approach to Reporting and Tracking GHG Benefits:** The selected ESMP should utilize an MMRV approach that accounts for and tracks both nitrous oxide emission changes and soil carbon storage separately at the field level. Ideally, the ESMP should be able to report N<sub>2</sub>O and SOC CO<sub>2</sub>e separately or in aggregate as a total CO<sub>2</sub>e. Once the GHG outcomes have been quantified and verified, they will be reported and tracked using the following methodology:

**Internal Ledger Assignment:** The selected ESMP must be able to keep track of all CO<sub>2</sub>e outcomes associated with specific producer contracts, unique field identifiers, and quantified outcomes within a data system and ledger. Once yearly quantification, monitoring and verification, and outcomes assignments are completed, the data are locked, and no further changes can be made. The ledger assignment and data locking prevent double counting and double selling of outcomes.

**Buffer Pool Reduction:** The ESMP will assign buffer pools to the CO<sub>2</sub>e and represents 10% of all outcomes to account for reversals from fields under contract. Buffer pools are assigned annually, and these outcomes are not sold or reported to public or private partners.

**Reporting:** Annually, customers receive reports providing detailed information about the field along with CO<sub>2</sub>e reductions. The reports are the official transfer of ownership of the CO<sub>2</sub>e outcomes to the purchasing entity. The project anticipates reporting for U.S. Climate Smart Cotton by including data on the producer, farm, and tract numbers, environmental outcomes produced, conservation practices implemented, and documentation of highly erodible land and wetland compliance checks.

**MMRV Approach to GHG Verification.** Currently, third-party verification for carbon insetting has not been fully developed. Until third-party verification for Scope 3 GHG insetting has matured, the selected ESMP must ensure a quality product is produced for partners within commodity supply chains through the following:

**Additionality.** Any claimed inset credit represents a reduction of GHG emissions that would not have otherwise occurred without the issuing program or marketplace. The ESMP will require field-level additionality when the producer first enrolls.

**Verification of Intervention.** Implementation of management adoption is verified using monitoring described previously.

**Third-Party Review.** Verification service providers will be certified by current registries (such as Verra or Climate Action Reserve) that bring relevant agricultural carbon market verification experience using the most common protocol guidance [22, 23].

**Approach to improve the credibility and certainty of GHG Quantification.** TAMU will lead efforts to calibrate and create uncertainty estimates for the MMRV-based COMET model used to quantify GHG emissions using a micrometeorological method called Eddy Covariance. TAMU will set up state-of-the-art instrumentation collecting real-time, continuous data measuring GHG emissions on a total of eight, paired fields in locations representing soils and climates for over 85% of cotton production. Locations are West (CA), Southwest (TX), Mid-South (MS), and Southeast (GA) cotton-producing regions. In each location, GHG fluxes (i.e., variations in time of sources and sinks of CO<sub>2</sub>, N<sub>2</sub>O, and CH<sub>4</sub>) will be measured on two fields that are growing cotton – one of the fields will be under baseline management using predominant local production practices, and the other will be using CSA practices (nutrient management, no-till, cover cropping). The climate smart field will be managed by an early adopter that has experience with climate smart practices. The paired fields will be monitored over the 5-year period and GHG flux data will provide empirical information on additional GHG emission reductions, compared to a baseline, from CSA practices. This measured emission data will be compared to COMET-based estimates to assess the degree of agreement, variance, and bias of the modeling. The results will be used to calibrate model estimates, and/or provide a certainty estimate of the MMRV outcome. These results will be published in scientific literature and shared with the Partnerships Network.

#### **Addressing Additionality**

Early adopters with high CSA practice adoption rates are still eligible for all three levels of the Program. On most farms with high CSA practice adoption rates, there are still acres yet to fully implement CSA practices, and are eligible for practice change payments. Additionally, the Program will work with commodity groups (such as sorghum and peanuts check-off programs) to



conduct a comprehensive evaluation of existing and emerging methods to address additionality and include early adopters in carbon insetting markets to encourage long-term CSA practice adoption. Discoveries from this evaluation will be shared with the Partnership Network.

**Objective 4 -Develop and grow markets for Climate Smart Cotton and carbon insets among brands and retailers in the apparel industry.**

**Primary Outcome.** To increase the demand for Climate Smart Cotton to 4.2M bales and scale a new carbon inset market to 1.14M metric tons CO<sub>2</sub>e over the five-year project period.

**Key Activities & Lead Partners.** USCTP and CCI will leverage existing market promotion infrastructure to build demand for 4.2M bales of Climate Smart Cotton and 1.14M tons CO<sub>2</sub>e carbon insets produced during the Program. As a result of previous market promotion activities and sustainability challenges such as the Textile Exchange’s Sustainable Cotton Challenge, there is significant brand and retailer demand for sustainably sourced cotton that can help reduce their Scope 3 supply chain GHG emissions. Based on feedback from existing and prospective members of USCTP, the current annual demand for sustainably sourced USCTP cotton is estimated at 3M bales, with the number expected to increase to 10M bales by 2025. This level of demand would require about 5.6M acres of Climate Smart Cotton production per year.

**Details.** CCI has relationships with mills and manufacturers around the world with 23 dedicated marketing staff in Europe, Asia, and Central America. In addition to CCI staff and resources, USCTP will promote markets for Climate Smart Cotton within the U.S. and around the world. To maximize grower payments and GHG emissions reductions, funding of \$3M per year from other industry resources will be used for USCTP and CCI Climate Smart Cotton market promotion activities. These additional funds are not included as a cost share within the Program as they are already leveraged for matching elsewhere. USCTP and CCI will promote Climate Smart Cotton to brands, retailers, textile mills, and manufacturers as well as communicate the benefits of Climate Smart Cotton at sustainability organizations and conferences.

USCTP and CCI will provide existing member companies with information on Climate Smart Cotton, its environmental benefits, and how to source it. The team will engage in market discovery to understand each company’s demand volume and price points. Although verified Climate Smart Cotton would create an added value from the potential carbon reductions, it remains unclear to the extent that will translate into a price premium for the fiber. The team will routinely evaluate the efficiency and effectiveness of market development efforts through monthly progress reports and quarterly reviews to identify lessons learned and areas of improvement.

**New and/or expanded marketing channels**

As the USCTP enrolls new brands, growers will gain increased opportunities to market not only their Climate Smart Cotton but also carbon insets. While it is difficult to estimate the number of new brands enrolled quarterly, the USCTP will continually strive to sign up additional brands throughout the year. The existing demand for Climate Smart Cotton among current USCTP members is estimated at 3M bales, with expectations to increase to 10M bales by 2025. This demand must be taken into account in relation to the available supply. At present, there are 25 major brands and 1200 mills and manufacturers participating in the USCTP, and this number is expected to grow as Climate Smart Cotton production increases to approximately 5.6M acres per year.

The USCTP and CCI will leverage existing market promotion infrastructure to build demand for 4.2M bales of Climate Smart Cotton and 1.14M tons CO<sub>2</sub>e carbon insets produced during the Program. Climate Smart Cotton and carbon insets will be promoted to brands, retailers, textile mills, and manufacturers, as well as communicated at sustainability organizations and conferences. The program will also engage in market discovery to understand each company's demand volume and price points for both Climate Smart Cotton and carbon insets.

To effectively market carbon insets to the USCTP brands, the team will highlight the environmental benefits of the insets, such as their potential to reduce a brand's Scope 3 supply chain GHG emissions. The USCTP will also provide existing member companies with information on carbon insets, their sourcing, and their contribution to sustainability goals. The USCTP will be promoted to brands at industry and sustainability events throughout the project's duration, emphasizing the value of both Climate Smart Cotton and carbon insets. This information has been updated in the Quarterly Projection Table.

### **Climate Smart Promotional Activities: Grower and Supply Chain**

- Create industry messaging outlining the objectives of Climate Smart
- Update grower enrollment materials, including messaging, presentations, and one-pagers that outline the Climate Smart project and benefits
- Revise sales materials for the supply chain to incorporate the program's messaging, distinguishing based on audience
- Publish content throughout the year, including [podcasts](#), [animations](#), newsletter articles, and videos to reach growers and the supply chain
- Integrate benefits and outcomes of the program in partner content published with outlets brands and retailers know/trust such as [Sourcing Journal](#)
- Regularly add Climate Smart into earned media pitches with agriculture, trade, sustainability, textile, and fashion publications. Examples include [Farm Press publications](#), [WWD](#), [Just-Style](#), and [Edie](#).
- Create content to publish on the [Trust Protocol's website](#) and post on owned social channels [Twitter](#), [LinkedIn](#), [Facebook](#), and [Instagram](#)
- Provide pilot program updates and results in the Trust Protocol's 22/23 [Annual Report](#)
- Position the Climate Smart project as a key component of the Trust Protocol's participation in important industry events including the [Beltwide Cotton Conference](#), [Sustainable Brands](#), and [Textile Exchange](#).

### **Objective 5 – Create and scale a carbon inset program for the cotton supply chain generating additional revenue supporting the long term adoption of CSA practices**

**Primary Outcome.** To create and sell 1.14M metric tons CO<sub>2</sub>e of insets to the apparel industry and provide farmers with an opportunity for ongoing outcome payments to encourage long term CSA adoption.

Growers engaging in Level 3 of the Program will have additional requirements to create and sell carbon insets, however, they will also have additional revenue to encourage the adoption and continuation of CSA practices. Payments from inset sales occur yearly and could continue past the

Program completion. Grower inset revenue will come from the sale of insets to the apparel supply chain and not from the Program resources. If the carbon inset demand is less than inset creation, carbon offset sales will be explored for the remaining carbon benefits. This additional leverage will encourage long-term adoption and continuation of climate smart practices after the Program’s 3-year grower enrollment period ends. Table 6 estimates the financial and GHG benefits associated with Level 3 engagement.

**Table 6: Climate Smart Cotton verified inset production and grower inset revenue from apparel brands. Assuming 3 years of inset sales and \$15 per metric ton CO<sub>2</sub>e.**

	Metric ton CO <sub>2</sub> e reduction	Carbon inset revenue
	Program total	Program total
<b>Project</b>	1,140,000	\$17,100,000
HUC	228,000	\$3,420,000
Per farmer	691	\$10,400
Per acre	2.0	\$29
Per bale	0.6	\$8

**Key Activities & Lead Partners.** The USCTP has previously developed an integrated technology platform to create and sell carbon insets. This integration was based on a successful pilot project engaging NC cotton growers where 130 metric tons of CO<sub>2</sub>e insets and water outcomes of 8,700 lbs. of nitrogen and 124 lbs. of phosphorus loss reduction were created and sold. The Program will leverage the existing USCTP and the selected ESMP’s MMRV platforms to verify and track GHG benefits through the supply chain providing the data, traceability, and chain of custody to enable the sale of insets to brands and retailers.

**Details.** Farmers enrolled in the Program can take advantage of the assistance they receive for climate smart practices, and resulting CO<sub>2</sub>e reduction, by participating in the carbon inset program and getting additional revenue of \$15 per metric ton CO<sub>2</sub>e reduction (estimate based on voluntary carbon market inset data). The sale of insets will only be available to the landowner, which is standard practice within the ecosystem service market. The additional revenue will reinforce the long-term growth and post-project viability of Climate Smart Cotton production. These insets are only available for purchase by brands and retailers that buy U.S. cotton and would allow these companies to make claims against their Scope 3 emissions reductions (related to the cotton used in their products). The geographic scope of sourcing includes all cotton-producing states. The USCTP will contract with an ESMP that has a technology platform that can collect and map farmer data, model environmental outcomes based on new practices, verify outcomes using in-field sampling, and provide ongoing real-time tracking of practice changes in the field. If possible, the selected ESMP should also be able to quantify water quality improvements as a Program environmental co-benefits resulting from CSA practice adoption. Additional markets for improved water outcomes credits will be explored in the Program and have the potential to pay growers up to an additional \$20 an acre (based on industry sales data), however, these markets are currently limited.

In addition to a \$2.5M cost share, Target Corporation has already expressed interest in purchasing carbon insets when they become available from this Program (see Letter of Support). Further, CCI and USCTP will promote additional carbon insets created by the Program to the apparel supply chain as outlined in Objective 4.







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US CLIMATE SMART COTTON ACTIVITY PLAN																											
Objective	Activity	Responsible Parties	2023			2024				2025				2026				2027				2028	Notes				
			2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st					
<b>1</b>	<b>Climate Smart Cotton Program Enrollment</b>																										
1.1	<b>Level 1 Enrollment</b>																										
1.1a	General Producer Enrollment	USCTP																									
1.1b	Historically Underserved Community Producer Enrollment	USCTP, AAMU, NCAT, SHI, AI																									
1.2	<b>Level 2 Enrollment</b>																										
1.2a	General Producer Enrollment	USCTP																									
1.2b	Historically Underserved Community Producer Enrollment	USCTP, AAMU, NCAT, SHI, AI																									
1.3	<b>Level 3 enrollment</b>																										
1.3a	General Producer Enrollment	USCTP																									
1.3b	Historically Underserved Community Producer Enrollment	USCTP, AAMU, NCAT, SHI, AI																									
<b>2</b>	<b>Provide Technical and Financial Support</b>																										
2.1	Climate smart practice adoption technical support	USCTP, AAMU, NCAT, SHI, AI																									
2.1a	Soil health and carbon target setting																										
	Request for applications from soil testing labs	SHI																								Lab selected and quality control and testing lab quality complete	
	Define management scenarios to sample (Baseline, Climate Smart Practices, References)	SHI																								Each Cotton growing Region has Soil Health Sampling Groups mapped	
	Farmer outreach - identify sampling locations and obtain permissions	SHI, NCAT, AAMU																								Farmer field identified, permission signed, GPS locations	
	Prepare location specific management questionnaire	SHI, NCAT, AAMU																								Survey Question ready in Survey 1,2,3 (Region specific)	
	Hire and train soil sampling specialists	SHI, NCAT, AAMU																								2 soil samplers per state	
	Conduct soil sampling	SHI, NCAT, AAMU	AL, SC	NC, CA, MO, OK					Monitoring					Monitoring					Monitoring								# of samples provided in budget narrative (Major Land Resource Area growing cotton in the state)
	Lab analysis of soil samples	SHI, NCAT, AAMU																									Data returned from lab, any reruns complete, data QA/QC ready for analyses
	Interpret and analyze results	SHI, NCAT, AAMU																									Draft Reports by Region on Soil Health Baselines, Soil capacity (for C stock and health), goal setting
	Publish outcomes	SHI, NCAT, AAMU																									Deliver analyses in: regional reports relevant to market analysis, policy makers, and farmers; peer-reviewed scientific journals.
	Deliver virtual materials to farmers	SHI																									Online deliverables for Goal Setting that can be used by farmers or market participants
	Farmer Reports	SHI, NCAT, AAMU																									Individual Farmer Soil Health reports delivered to farmers that participate in Targets Soil Sampling (approx. 60 farms in YR 1 and 2; half that in YR 3-5)
	Technical Outreach on Goal Setting at Trainings	SHI, NCAT, AAMU																									Present Soil Health Targets Concept and results at each Training program







US CLIMATE SMART COTTON QUARTERLY PROJECTIONS																					
Activity	Additional detail	2023			2024				2025				2026				2027				2028
		2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st
Advanced Soil Health Trainings (# of Trainings)	SHI			5	5		7	7					14	7			7	4		3	7
Calculation of GHG & Other Env. Impacts (#)	SHI & USCTP			15	15	15	15	15	15	15	15	9	9	9	9	9	9	9	9	9	9
Soil Health Target Farmer Reporting (# of Reports)					60				60				30				30				30
Grower field days	Regional grower field days, USCTP		3				3				3			3					3		
Growers receiving practice adoption technical support	USCTP, NCAT, AAMU, AI, SHI			590	138	138	138	138	138	138	138	138									
Growers eligible for further technical support	Technical support will be provided by US CTP Grower Enrollment Specialists			550	688	825	963	1,100	1,238	1,375	1,513	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650
<b>Expansion of Technology Platform for Grower Enrollment and Supply Chain Tracking</b>																					
Bids for ecosystem service and MMRV provider	USCTP		1																		
Select winning bid	USCTP		1																		
Create and finalize contracts	USCTP, ESMP		1																		
Create US CTP and ecosystem service provider interface	USCTP, ESMP			0.5	0.5																
Develop ecosystem service grower contract	USCTP, ESMP		0.5	0.5																	
Develop ecosystem service credit accounting system	USCTP, ESMP		0.5	0.5																	
Expand the supply chain tracking tool functionality (Textile Genesis platform)	USCTP, ESMP		0.5	0.5																	
Pilot supply chain tracking tool with brands (Textile Genesis platform)	USCTP, ESMP		1	1		1	1			1	1			1	1				1	1	

**US Cotton Trust Protocol**

**Climate-Smart Practices and Limitations**

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

<b>NRCS Practice Code</b>	<b>Practice Name</b>
340	Cover Crop
329	Residue and Tillage Management – No Till
590	Nutrient Management

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

N/A





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

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## Overview of Reporting Requirements

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

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

- Project level:** Information about activities and impacts at a whole project/aggregate level (i.e., reflecting all activities under the grant agreement). Some project-level reporting is further subdivided by commodity type or a combination of commodity and CSAF practice(s) (commodity x practice).
- Partner level:** Information about activities related to a single organization (recipient, subrecipient, contractor, or other partner) within a project.
- Producer level:** Information about individual producers who have one or more farms enrolled in a project.
- Field level:** Information about individual fields enrolled in a project.

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

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

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

<b>Data element name</b>	<b>Description</b>	<b>Frequency</b>
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 (CO <sub>2</sub> e) emission reductions	Quarterly
Cumulative carbon stock	Whole project estimate of total carbon sequestration	Quarterly
Cumulative CO <sub>2</sub> benefit	Whole project estimate of total CO <sub>2</sub> emission reductions	Quarterly
Cumulative CH <sub>4</sub> benefit	Whole project estimate of total CH <sub>4</sub> emission reductions	Quarterly
Cumulative N <sub>2</sub> O benefit	Whole project estimate of total N <sub>2</sub> O 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




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

### 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

<b>Data element name</b>	<b>Description</b>	<b>Frequency</b>
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

### 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

<b>Data element name</b>	<b>Description</b>	<b>Frequency</b>
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

### 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

<b>Data element name</b>	<b>Description</b>	<b>Frequency</b>
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



### Field Enrollment

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

Table 5. Field Enrollment elements

<b>Data element name</b>	<b>Description</b>
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)



### 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

<b>Data element name</b>	<b>Description</b>	<b>Frequency</b>
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

### 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

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

### 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

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



### 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

<b>Data element name</b>	<b>Description</b>	<b>Frequency</b>
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

### 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

<b>Data element name</b>	<b>Description</b>	<b>Frequency</b>
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.



### 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

### Project Summary

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#### Commodity type

<b>Data element name:</b> Commodity type	<b>Reporting question:</b> What climate-smart commodity types are produced by this project?
<b>Description:</b> 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.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> FSA commodity list
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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#### Commodity sales

<b>Data element name:</b> Commodity sales	<b>Reporting question:</b> Did project activities result in sales this quarter of the commodity(ies) produced by this project?
<b>Description:</b> Indicator of sales of commodity(ies) related to project activities. If sales are reported, complete the <i>Marketing Activities</i> worksheet (Table 3) as part of the quarterly performance report.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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#### Farms enrolled

<b>Data element name:</b> Farms enrolled	<b>Reporting question:</b> Did the project enroll any producers or fields this quarter?
<b>Description:</b> Indicator that the project enrolled producers or fields. If enrollment activities occurred this quarter, complete the <i>Producer Enrollment</i> and <i>Field Enrollment</i> worksheets (Tables 4 and 5) as part of the quarterly performance report.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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#### GHG calculation methods

<b>Data element name:</b> GHG calculation methods	<b>Reporting question:</b> What methods is the project using to calculate GHG benefits?
<b>Description:</b> List the way(s) that GHG benefits are being measured and calculated by the project this quarter.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> <ul style="list-style-type: none"> <li>• Models</li> <li>• Direct field measurements</li> <li>• Both</li> </ul>
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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**GHG cumulative calculation**


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<b>Data element name:</b> GHG cumulative calculation	<b>Reporting question:</b> What method(s) was used to calculate the total cumulative GHG benefits reported here?
<b>Description:</b> List the method(s) that was used to calculate the total cumulative GHG benefits reported by the project this quarter.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> <ul style="list-style-type: none"> <li>• Models</li> <li>• Direct field measurements</li> <li>• Both</li> </ul>
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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**Cumulative GHG benefits**


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<b>Data element name:</b> Cumulative GHG benefits	<b>Reporting question:</b> What are the project's estimated total GHG emission reductions (CO <sub>2</sub> eq) to date?
<b>Description:</b> 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.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Metric tons CO <sub>2</sub> eq	<b>Allowed values:</b> 0-10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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**Cumulative carbon stock**


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<b>Data element name:</b> Cumulative carbon stock	<b>Reporting question:</b> How much carbon has the project sequestered to date?
<b>Description:</b> 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 <sub>2</sub> eq.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Metric tons CO <sub>2</sub> eq	<b>Allowed values:</b> 0-10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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**Cumulative CO<sub>2</sub> benefit**


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<b>Data element name:</b> Cumulative CO <sub>2</sub> benefit	<b>Reporting question:</b> What are the project's estimated total cumulative CO <sub>2</sub> emission reductions to date?
<b>Description:</b> 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.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Metric tons CO <sub>2</sub>	<b>Allowed values:</b> 0-10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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**Cumulative CH<sub>4</sub> benefit**


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<b>Data element name:</b> Cumulative CH <sub>4</sub> benefit	<b>Reporting question:</b> What are the project's estimated total CH <sub>4</sub> emission reductions to date?
<b>Description:</b> 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 <sub>4</sub> = 25 tons of CO <sub>2</sub> eq.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Metric tons CH <sub>4</sub> reduced in CO <sub>2</sub> eq	<b>Allowed values:</b> 0-10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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**Cumulative N2O benefit**


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<b>Data element name:</b> Cumulative N2O benefit	<b>Reporting question:</b> What are the project's estimated total N2O emission reductions to date?
<b>Description:</b> 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 <sub>2</sub> O = 298 tons of CO <sub>2</sub> eq.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Metric tons N2O reduced in CO <sub>2</sub> eq	<b>Allowed values:</b> 0-10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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**Offsets produced**


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<b>Data element name:</b> Offsets produced	<b>Reporting question:</b> How many carbon offsets have been produced in the project?
<b>Description:</b> 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.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Metric tons CO <sub>2</sub> eq	<b>Allowed values:</b> 0-10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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**Offsets sale**


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<b>Data element name:</b> Offsets sale	<b>Reporting question:</b> To what marketplace(s) were carbon offsets sold?
<b>Description:</b> 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.	
<b>Data type:</b> Text	<b>Select multiple values:</b> NA
<b>Measurement unit:</b> Name	<b>Allowed values:</b> Text
<b>Logic:</b> Respond if >0 to 'Offsets produced'	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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**Offsets price**


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<b>Data element name:</b> Offsets price	<b>Reporting question:</b> What was the average price of carbon received for offsets?
<b>Description:</b> 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.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Dollars per metric ton	<b>Allowed values:</b> 0-500
<b>Logic:</b> Respond if >0 to 'Offsets produced'	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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**Insets produced**


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<b>Data element name:</b> Insets produced	<b>Reporting question:</b> How many carbon insets have been produced in the project?
<b>Description:</b> 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.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Metric tons CO <sub>2</sub> eq	<b>Allowed values:</b> 0-10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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**Cost of on-farm TA**


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<b>Data element name:</b> Cost of on-farm TA	<b>Reporting question:</b> What is the total amount that has been spent to provide on-farm TA?
<b>Description:</b> 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.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Dollars	<b>Allowed values:</b> \$0-\$50,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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**MMRV cost**


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<b>Data element name:</b> MMRV cost	<b>Reporting question:</b> What is the total amount that has been spent on MMRV activities?
<b>Description:</b> 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.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Dollars	<b>Allowed values:</b> \$0-\$50,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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**GHG monitoring method**


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<b>Data element name:</b> GHG monitoring 1-5	<b>Reporting question:</b> How did the project monitor GHG benefits?
<b>Description:</b> 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.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> <ul style="list-style-type: none"> <li>• Drones</li> <li>• Ground-level photos and videos</li> <li>• On-farm visit</li> <li>• Plot-based sampling</li> <li>• Producer records or attestation</li> <li>• Satellite monitoring or remote sensing</li> <li>• Soil metagenomics</li> <li>• Soil sensors</li> <li>• Water sensors</li> <li>• Other (specify)</li> </ul>
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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**GHG reporting method**


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**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

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**GHG verification method**


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**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

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

Partner Activities

**Unique IDs**

Partner ID	Unique Project ID for each partner
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**Partner name**

<b>Data element name:</b> Name of partner organization	<b>Reporting question:</b> What is the official name of the recipient or partner organization?
<b>Description:</b> Legal name of recipient or partner organization	
<b>Data type:</b> Text	<b>Select multiple values:</b> NA
<b>Measurement unit:</b> NA	<b>Allowed values:</b> Text
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Partner	<b>Data collection frequency:</b> Partnership initiation

**Partner type**

<b>Data element name:</b> Type of partner organization	<b>Reporting question:</b> What type of organization is this?
<b>Description:</b> Legal/financial structure of recipient or partner organization	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> <ul style="list-style-type: none"> <li>• Commodity groups (501c5)</li> <li>• For-profit</li> <li>• Individual</li> <li>• Nonprofit</li> <li>• State or local agency</li> <li>• Tribal agency</li> <li>• University</li> </ul>
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Partner	<b>Data collection frequency:</b> Partnership initiation

**Partner POC**

<b>Data element name:</b> Partner POC	<b>Reporting question:</b> Who is the point of contact for this project at the recipient or partner organization?
<b>Description:</b> Name of a point of contact for the recipient or partner organization	
<b>Data type:</b> Text	<b>Select multiple values:</b> NA
<b>Measurement unit:</b> NA	<b>Allowed values:</b> Text
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Partner	<b>Data collection frequency:</b> Partnership initiation; update as necessary

**Partner POC email**

<b>Data element name:</b> Partner POC email	<b>Reporting question:</b> What is the point of contact's email address?
<b>Description:</b> Email of the point of contact for the recipient or partner organization	
<b>Data type:</b> Text	<b>Select multiple values:</b> NA
<b>Measurement unit:</b> NA	<b>Allowed values:</b> Text
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Partner	<b>Data collection frequency:</b> Partnership initiation; update as necessary



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**Partnership start date**

<b>Data element name:</b> Partnership start date	<b>Reporting question:</b> When did the partnership start?
<b>Description:</b> Date that the partner organization and the recipient began formally partnering on the project	
<b>Data type:</b> Date	<b>Select multiple values:</b> NA
<b>Measurement unit:</b> MM/DD/YYYY	<b>Allowed values:</b> 01/01/2023 – 12/31/2030
<b>Logic:</b> No response for recipient	<b>Required:</b> Yes
<b>Data collection level:</b> Partner	<b>Data collection frequency:</b> Partnership initiation

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**Partnership end date**

<b>Data element name:</b> Partnership end date	<b>Reporting question:</b> When did the partnership end?
<b>Description:</b> Date that the partner organization and the recipient stopped formally partnering on the project	
<b>Data type:</b> Date	<b>Select multiple values:</b> NA
<b>Measurement unit:</b> MM/DD/YYYY	<b>Allowed values:</b> 01/01/2023 – 12/31/2030
<b>Logic:</b> No response for recipient	<b>Required:</b> Yes
<b>Data collection level:</b> Partner	<b>Data collection frequency:</b> Partnership end quarter

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**New partnership**

<b>Data element name:</b> New partnership	<b>Reporting question:</b> Is this a new partnership?
<b>Description:</b> 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.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b>
	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• I don't know</li> </ul>
<b>Logic:</b> No response for recipient	<b>Required:</b> Yes
<b>Data collection level:</b> Partner	<b>Data collection frequency:</b> Partnership initiation

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**Partner total requested**

<b>Data element name:</b> Partner total requested	<b>Reporting question:</b> What is the total amount of funding the partner has requested to date from this project?
<b>Description:</b> 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.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> NA
<b>Measurement unit:</b> Dollars	<b>Allowed values:</b> \$0-\$100,000,000
<b>Logic:</b> No response for recipient	<b>Required:</b> Yes
<b>Data collection level:</b> Partner	<b>Data collection frequency:</b> Quarterly

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**Total match contribution**


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**Data element name:** Total match contribution**Reporting question:** What is the total match value the organization has contributed to the project to date?

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

**Data type:** Decimal**Select multiple values:** NA**Measurement unit:** Dollars**Allowed values:** \$0-\$100,000,000**Logic:** None – all respond**Required:** Yes**Data collection level:** Partner**Data collection frequency:** Quarterly

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**Total match incentives**


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**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

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**Match type**


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**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



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**Match amount**


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**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

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**Training type provided**


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**Data element name:** Training type 1-3 provided**Reporting question:** What types of training has the organization provided to project partners?

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

**Data type:** List**Select multiple values:** No**Measurement unit:** Category**Allowed values:**

- 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

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**Activity by partner**


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**Data element name:** Activity 1-3 by partner**Reporting question:** What types of activities has the organization provided to the project?

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

**Data type:** List**Select multiple values:** No**Measurement unit:** Category**Allowed values:**

- Marketing support
- 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**


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**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

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**Products supplied**


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**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

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**Product source**


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**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

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### Commodity type

<b>Data element name:</b> Commodity type	<b>Reporting question:</b> What type of commodity is produced by the farmers enrolled in this project?
<b>Description:</b> 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.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> FSA commodity list
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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### Marketing channel type

<b>Data element name:</b> Marketing channel type	<b>Reporting question:</b> What type of marketing channel is used to sell this commodity?
<b>Description:</b> 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.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> <ul style="list-style-type: none"> <li>• Agricultural marketing board</li> <li>• Biorefinery</li> <li>• Commodity broker</li> <li>• Direct to consumer</li> <li>• Direct to institution</li> <li>• Direct to restaurant</li> <li>• Distributor (including grain elevators)</li> <li>• Food hub or cooperative</li> <li>• Food processor</li> <li>• Non-food byproducts processor</li> <li>• Retailer</li> <li>• USDA</li> <li>• Other (specify)</li> </ul>
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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### Number of buyers

<b>Data element name:</b> Number of buyers	<b>Reporting question:</b> How many buyers are there in this marketing channel?
<b>Description:</b> List the number of individual firms or buyers in this marketing channel.	
<b>Data type:</b> Integer	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Count	<b>Allowed values:</b> 1-500
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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**Names of buyers**


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<b>Data element name:</b> Names of buyers	<b>Reporting question:</b> What are the names of all of the buyers in this marketing channel?
<b>Description:</b> Provide the names of all buyers in this marketing channel. Separate each name with a comma.	
<b>Data type:</b> Text	<b>Select multiple values:</b> NA
<b>Measurement unit:</b> Name	<b>Allowed values:</b> Text
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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**Marketing channel geography**


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<b>Data element name:</b> Marketing channel geography	<b>Reporting question:</b> What is the primary geography of the marketing channel?
<b>Description:</b> 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.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> <ul style="list-style-type: none"> <li>• Local</li> <li>• Regional</li> <li>• National</li> <li>• Global</li> </ul>
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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**Value sold**


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<b>Data element name:</b> Value sold	<b>Reporting question:</b> What is the value of the commodity sold in this marketing channel?
<b>Description:</b> The dollar value of the commodity sold in this marketing channel this quarter (non-cumulative).	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Dollars	<b>Allowed values:</b> \$1-\$100,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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**Volume sold**


---

<b>Data element name:</b> Volume sold	<b>Reporting question:</b> What is the volume of the commodity sold in this marketing channel?
<b>Description:</b> The volume of the commodity sold in this marketing channel this quarter (non-cumulative).	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Number	<b>Allowed values:</b> 1-100,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Quarterly

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**Volume sold unit**


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**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**


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**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**


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**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**


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**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

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**Product differentiation method**


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**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

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**Marketing method**


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**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**


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**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

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**Traceability method**


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

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**

<b>Data element name:</b> Producer data change	<b>Reporting question:</b> Is there new/updated information for a producer who is re-enrolling in the project?
<b>Description:</b> Indicates that there is new or updated information for a producer who had previously enrolled in the project and is re-enrolling.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Producer	<b>Data collection frequency:</b> Re-enrollment

**Producer start date**

<b>Data element name:</b> Producer start date	<b>Reporting question:</b> When did the producer enroll in the project?
<b>Description:</b> Date that the producer enrolled in the project by signing their first contract.	
<b>Data type:</b> Date	<b>Select multiple values:</b> NA
<b>Measurement unit:</b> MM/DD/YYYY	<b>Allowed values:</b> 01/01/2023 – 12/31/2030
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Producer	<b>Data collection frequency:</b> Initial enrollment

**Producer name**

<b>Data element name:</b> Producer name	<b>Reporting question:</b> What is the name of producer enrolled in the project?
<b>Description:</b> 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.	
<b>Data type:</b> Text	<b>Select multiple values:</b> NA
<b>Measurement unit:</b> NA	<b>Allowed values:</b> Text
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Producer	<b>Data collection frequency:</b> Initial enrollment

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**Underserved status**


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**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

---

---

**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

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---

**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**

<p><b>Data element name:</b> CSAF federal funds</p> <p><b>Description:</b> 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 (RCP), or related programs), the Farm Service Agency Conservation Reserve Program (CRP), as well as funds from other USDA programs or other federal agencies.</p> <p><b>Data type:</b> List</p> <p><b>Measurement unit:</b> Category</p> <p><b>Logic:</b> Respond if yes to 'CSAF experience'</p> <p><b>Data collection level:</b> Producer</p>	<p><b>Reporting question:</b> Were prior CSAF practices supported by federal funds?</p> <p><b>Select multiple values:</b> No</p> <p><b>Allowed values:</b></p> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• I don't know</li> </ul> <p><b>Required:</b> Yes</p> <p><b>Data collection frequency:</b> Initial enrollment</p>
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**CSAF state or local funds**

<p><b>Data element name:</b> CSAF state or local funds</p> <p><b>Description:</b> 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.</p> <p><b>Data type:</b> List</p> <p><b>Measurement unit:</b> Category</p> <p><b>Logic:</b> Respond if yes to 'CSAF experience'</p> <p><b>Data collection level:</b> Producer</p>	<p><b>Reporting question:</b> Were prior CSAF practices supported by state or local funds?</p> <p><b>Select multiple values:</b> No</p> <p><b>Allowed values:</b></p> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• I don't know</li> </ul> <p><b>Required:</b> Yes</p> <p><b>Data collection frequency:</b> Initial enrollment</p>
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---

**CSAF nonprofit funds**

<p><b>Data element name:</b> CSAF nonprofit funds</p> <p><b>Description:</b> 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.</p> <p><b>Data type:</b> List</p> <p><b>Measurement unit:</b> Category</p> <p><b>Logic:</b> Respond if yes to 'CSAF experience'</p> <p><b>Data collection level:</b> Producer</p>	<p><b>Reporting question:</b> Were CSAF practices supported by nonprofit funds?</p> <p><b>Select multiple values:</b> No</p> <p><b>Allowed values:</b></p> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• I don't know</li> </ul> <p><b>Required:</b> Yes</p> <p><b>Data collection frequency:</b> Initial enrollment</p>
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**CSAF market incentives**


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**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

---

**USDA** Partnerships for Climate-Smart Commodities Data Dictionary for Recipients  
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### Field Enrollment

#### 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

---

**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



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**Practice past extent - farm**


---

**Data element name:** Practice past extent - farm

**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

**Measurement unit:** Category

**Reporting question:** What percent of the farm has implemented this CSAF practice (combination) previously?

**Select multiple values:** No

**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

**Required:** Yes

**Logic:** None – all respond

**Data collection level:** Field

**Data collection frequency:** Initial enrollment

---

**Field any CSAF practice**


---

**Data element name:** Field any CSAF practice

**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

**Measurement unit:** Category

**Reporting question:** What is this field's prior experience with CSAF practices?

**Select multiple values:** No

**Allowed values:**

- Yes
- No
- I don't know

**Required:** Yes

**Logic:** None – all respond

**Data collection level:** Field

**Data collection frequency:** Initial enrollment

---

**Practice past use - this field**


---

**Data element name:** Practice past use - 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

**Measurement unit:** Category

**Reporting question:** Have this CSAF practice (combination) been implemented previously in this field?

**Select multiple values:** No

**Allowed values:**

- Yes
- Some
- No
- I don't know

**Required:** Yes

**Logic:** None – all respond

**Data collection level:** Field

**Data collection frequency:** Initial enrollment

---

---

**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 extent unit

**Description:** Unit for extent of practice implementation on the field specified by the contract. If “other” is chosen, use the additional column to enter the appropriate unit.

**Data type:** List

**Select multiple values:** No

**Measurement unit:** Category

**Allowed values:**

- Acres
- Head of livestock
- Linear feet
- Square feet
- Other (specify)

**Logic:** None – all respond

**Required:** Yes

**Data collection level:** Field

**Data collection frequency:** Initial enrollment

---

CSAF Practice Sub-questions

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



**USDA** Partnerships for Climate-Smart Commodities Data Dictionary for Recipients  
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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

---

**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

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**Incentive type**


---

**Data element name:** Incentive type 1-4**Reporting question:** What type of incentives were provided to each producer?

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

**Data type:** List**Select multiple values:** No**Measurement unit:** Category**Allowed values:**

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

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

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**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

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**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

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**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



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**

<b>Data element name:</b> Commodity type	<b>Reporting question:</b> What type of commodity is produced from this field?
<b>Description:</b> 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.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> FSA commodity list
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Quarterly

**Practice type**

<b>Data element name:</b> Field practice type 1-7	<b>Reporting question:</b> What CSAF practice is being implemented in this field through the project?
<b>Description:</b> 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.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> See list in Appendix A
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Quarterly

**Date practice complete**

<b>Data element name:</b> Date practice complete	<b>Reporting question:</b> When did the project certify CSAF practice implementation as complete?
<b>Description:</b> 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.	
<b>Data type:</b> Date	<b>Select multiple values:</b> No
<b>Measurement unit:</b> MM/DD/YYYY	<b>Allowed values:</b> 01/01/2023 – 12/31/2030
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Quarterly

**Contract end date**

<b>Data element name:</b> Contract end date	<b>Reporting question:</b> Contract end date
<b>Description:</b> 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.	
<b>Data type:</b> Date	<b>Select multiple values:</b> No
<b>Measurement unit:</b> MM/DD/YYYY	<b>Allowed values:</b> 01/01/2023 – 12/31/2030
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Quarterly

**MMRV assistance provided**

<b>Data element name:</b> MMRV assistance provided	<b>Reporting question:</b> Was MMRV assistance provided?
<b>Description:</b> 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).	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b>
	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• I don't know</li> </ul>
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Quarterly

**Marketing assistance provided**

<b>Data element name:</b> Marketing assistance provided	<b>Reporting question:</b> Was marketing assistance provided?
<b>Description:</b> 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.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b>
	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• I don't know</li> </ul>
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Quarterly

**Incentive per acre or head**

<b>Data element name:</b> Incentive per acre or head	<b>Reporting question:</b> Is this field receiving a per-acre or per-head incentive?
<b>Description:</b> 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?	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b>
	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• I don't know</li> </ul>
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Quarterly



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**Field commodity value**


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<b>Data element name:</b> Field commodity value	<b>Reporting question:</b> What is the value of the commodity produced on the enrolled field?
<b>Description:</b> The dollar value of the commodity produced on the enrolled field.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Dollars	<b>Allowed values:</b> \$1-\$10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Quarterly

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**Field commodity volume**


---

<b>Data element name:</b> Field commodity volume	<b>Reporting question:</b> What is the volume of commodity produced on the enrolled field?
<b>Description:</b> The volume of the commodity produced on the enrolled field	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Number	<b>Allowed values:</b> 1-10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Quarterly

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**Field commodity volume unit**


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<b>Data element name:</b> Field commodity volume unit	<b>Reporting question:</b> What is the unit of volume?
<b>Description:</b> 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.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> <ul style="list-style-type: none"> <li>• Bushels</li> <li>• Carcass weight pounds</li> <li>• Gallons</li> <li>• Head</li> <li>• Linear feet</li> <li>• Liveweight pounds</li> <li>• Pounds</li> <li>• Tons</li> <li>• Other (specify)</li> </ul>
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Quarterly

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**Cost of implementation**


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<b>Data element name:</b> Cost of implementation	<b>Reporting question:</b> What is the cost of practice implementation in the field?
<b>Description:</b> Total annual estimated cost per unit of implementing the practice(s) in the enrolled field.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Dollars	<b>Allowed values:</b> \$1-\$10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Quarterly

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**Cost unit****Data element name:** Cost unit**Reporting question:** What is the unit for cost?**Description:** The unit associated with the cost of implementing CSAF practices in the field. If “other” is chosen, enter the appropriate value in the additional column.**Data type:** List**Select multiple values:** No**Measurement unit:** Category**Allowed values:**

- Per acre
- Per bushel
- Per head
- 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

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**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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**Field GHG calculations**

<b>Data element name:</b> Field GHG calculations	<b>Reporting question:</b> What methods are used to calculate GHG benefits in this field?
<b>Description:</b> List the method(s) used to calculate GHG benefits in this field. If yes to direct physical measurements, submit result reports (see <i>Supplemental Data Submission – Field direct GHG measurement results</i> ).	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> <ul style="list-style-type: none"> <li>• Models</li> <li>• Direct field measurements</li> <li>• Both</li> </ul>
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Quarterly

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**Field official GHG calculation**

<b>Data element name:</b> Field official GHG calculation	<b>Reporting question:</b> What method was used to calculate the official GHG benefits in this field?
<b>Description:</b> List the method used to calculate the official GHG benefits in this field that are reported as part of the project's aggregate impact.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> <ul style="list-style-type: none"> <li>• Models</li> <li>• Direct field measurements</li> </ul>
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Quarterly

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**Field official GHG ER**

<b>Data element name:</b> Field official GHG emission reductions	<b>Reporting question:</b> What are the estimated total GHG emission reductions (CO <sub>2</sub> eq) in this field?
<b>Description:</b> 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.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Metric tons CO <sub>2</sub> eq	<b>Allowed values:</b> 0-10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Quarterly

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**Field official carbon stock**

<b>Data element name:</b> Field official carbon stock	<b>Reporting question:</b> How much carbon has been sequestered in this field?
<b>Description:</b> 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 <sub>2</sub> eq.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Metric tons CO <sub>2</sub> eq	<b>Allowed values:</b> 0-10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Quarterly

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**Field official CO2 ER**

<b>Data element name:</b> Field official CO2 emission reductions	<b>Reporting question:</b> What are the estimated total CO2 emission reductions in this field?
<b>Description:</b> 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.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Metric tons CO <sub>2</sub>	<b>Allowed values:</b> 0-10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Quarterly

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**Field official CH4 ER**

<b>Data element name:</b> Field official CH4 emission reductions	<b>Reporting question:</b> What are the estimated total CH4 emission reductions in this field?
<b>Description:</b> 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 <sub>4</sub> = 25 tons of CO <sub>2</sub> eq.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Metric tons CH4 reduced in CO <sub>2</sub> eq	<b>Allowed values:</b> 0-10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Quarterly

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**Field official N2O ER**

<b>Data element name:</b> Field official N2O emission reductions	<b>Reporting question:</b> What are the estimated total N2O emission reductions in this field?
<b>Description:</b> 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 <sub>2</sub> O = 298 tons of CO <sub>2</sub> eq.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Metric tons N2O reduced in CO <sub>2</sub> eq	<b>Allowed values:</b> 0-10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Quarterly

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**Field offsets produced**

<b>Data element name:</b> Field offsets produced	<b>Reporting question:</b> How many carbon offsets have been produced in this field?
<b>Description:</b> 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.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Metric tons CO <sub>2</sub> eq	<b>Allowed values:</b> 0-10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Quarterly

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**Field insets produced**


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**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<sub>2</sub>eq

**Allowed values:** 0-10,000,000

**Logic:** None – all respond

**Required:** Yes

**Data collection level:** Field

**Data collection frequency:** Quarterly

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**Other field measurement**


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**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**

<b>Data element name:</b> Commodity type 1-6	<b>Reporting question:</b> What type of commodity(ies) is produced from this field?
<b>Description:</b> 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	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> FSA commodity list
<b>Logic:</b> None – all respond	<b>Required:</b> If project calculates GHG benefits using multiple methods
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Annual

#### **Practice type**

<b>Data element name:</b> Practice type 1-7	<b>Reporting question:</b> What CSAF practice is being implemented by this project?
<b>Description:</b> 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.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> See list in Appendix A
<b>Logic:</b> None – all respond	<b>Required:</b> If project calculates GHG benefits using multiple methods
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> 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



**Model start date**

<b>Data element name:</b> Model start date	<b>Reporting question:</b> For what time period are the GHG benefits modeled (model start date)?
<b>Description:</b> Date that the model parameters begin.	
<b>Data type:</b> Date	<b>Select multiple values:</b> NA
<b>Measurement unit:</b> MM/DD/YYYY	<b>Allowed values:</b> 01/01/1950 – 12/31/2030
<b>Logic:</b> None – all respond	<b>Required:</b> If project calculates GHG benefits using multiple methods
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Annual

**Model end date**

<b>Data element name:</b> Model end date	<b>Reporting question:</b> For what time period are the GHG benefits modeled (model end date)?
<b>Description:</b> Date that the model parameters end.	
<b>Data type:</b> Date	<b>Select multiple values:</b> NA
<b>Measurement unit:</b> MM/DD/YYYY	<b>Allowed values:</b> 01/01/2023– 12/31/2030
<b>Logic:</b> None – all respond	<b>Required:</b> If project calculates GHG benefits using multiple methods
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Annual

**Total GHG benefits estimated**

<b>Data element name:</b> Total GHG benefits estimated	<b>Reporting question:</b> What is the alternate estimate of the field's total GHG emission reductions?
<b>Description:</b> Total greenhouse gas emission reductions from practice implementation in the field estimated using an alternate model.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Metric tons CO <sub>2</sub> eq	<b>Allowed values:</b> 0-10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> If project calculates GHG benefits using multiple methods
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Annual

**Total carbon stock estimated**

<b>Data element name:</b> Total carbon stock estimated	<b>Reporting question:</b> What is the alternate estimate of how much carbon has the field has sequestered?
<b>Description:</b> 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 <sub>2</sub> eq.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Metric tons CO <sub>2</sub> eq	<b>Allowed values:</b> 0-10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> If project calculates GHG benefits using multiple methods
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Annual

**Total CO<sub>2</sub> estimated**

<b>Data element name:</b> Total CO <sub>2</sub> estimated	<b>Reporting question:</b> What is the alternate estimate of the field's total CO <sub>2</sub> emission reductions?
<b>Description:</b> Total carbon dioxide emission reductions based on practice implementation in the field estimated using an alternate model.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Metric tons CO <sub>2</sub>	<b>Allowed values:</b> 0-10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> If project calculates GHG benefits using multiple methods
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Annual



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**Total CH4 estimated**


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**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<sub>4</sub> = 25 tons of CO<sub>2</sub>eq.

**Data type:** Decimal

**Select multiple values:** No

**Measurement unit:** Metric tons CH4 reduced in CO<sub>2</sub>eq

**Allowed values:** 0-10,000,000

**Logic:** None – all respond

**Required:** If project calculates GHG benefits using multiple methods

**Data collection level:** Field

**Data collection frequency:** Annual

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**Total field N2O estimated**


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**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<sub>2</sub>O = 298 tons of CO<sub>2</sub>eq.

**Data type:** Decimal

**Select multiple values:** No

**Measurement unit:** Metric tons N2O reduced in CO<sub>2</sub>eq

**Allowed values:** 0-10,000,000

**Logic:** None – all respond

**Required:** If project calculates GHG benefits using multiple methods

**Data collection level:** Field

**Data collection frequency:** Annual

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### 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<sub>2</sub>**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<sub>2</sub>eq.**Data type:** Decimal**Select multiple values:** No**Measurement unit:** Metric tons CO<sub>2</sub>eq**Allowed values:** 0-10,000,000**Logic:** None – all respond**Required:** If a project conducts soil samples or takes carbon stock measurements in this field**Data collection level:** Field**Data collection frequency:** Annual



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**Total CH4 reduction calculated**

<b>Data element name:</b> Total CH4 reduction calculated	<b>Reporting question:</b> What are the total measured CH4 emission reductions?
<b>Description:</b> Total annual methane emission reductions based on practice implementation in the field calculated from in-field measurements. Conversion rate is one ton of CH <sub>4</sub> = 25 tons of CO <sub>2</sub> eq.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Metric tons CH4 reduced in CO <sub>2</sub> eq	<b>Allowed values:</b> 0-10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> If a project conducts soil samples or takes carbon stock or greenhouse gas emission measurements in this field
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Annual

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**Total N2O reduction calculated**

<b>Data element name:</b> Total N2O reduction calculated	<b>Reporting question:</b> What are the total measured N2O emission reductions?
<b>Description:</b> 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 <sub>2</sub> O = 298 tons of CO <sub>2</sub> eq.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Metric tons N2O reduced in CO <sub>2</sub> eq	<b>Allowed values:</b> 0-10,000,000
<b>Logic:</b> None – all respond	<b>Required:</b> If a project conducts soil samples or takes carbon stock or greenhouse gas emission measurements in this field
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Annual

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**Soil sample result**

<b>Data element name:</b> Soil sample result	<b>Reporting question:</b> What is the numeric result from this soil sample?
<b>Description:</b> Results of measurement(s) taken to determine the carbon stock of a soil (the tons of carbon found in a specified volume of soil).	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Amount	<b>Allowed values:</b> .00001-100,000
<b>Logic:</b> None – all respond	<b>Required:</b> If a project conducts soil samples in this field
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Annual

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**Soil sample result unit**


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**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**


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**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**

<b>Data element name:</b> Environmental benefits	<b>Reporting question:</b> Are environmental benefits other than GHGs being tracked in the field?
<b>Description:</b> 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.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• I don't know</li> </ul>
<b>Logic:</b> None – all respond	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Annual

#### **Reduction in nitrogen loss**

<b>Data element name:</b> Reduction in nitrogen loss	<b>Reporting question:</b> Are reductions in nitrogen losses being tracked in the field?
<b>Description:</b> 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.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• I don't know</li> </ul>
<b>Logic:</b> Respond if yes to 'Environmental benefits'	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Annual

#### **Reduction in nitrogen loss amount**

<b>Data element name:</b> Reduction in nitrogen loss amount	<b>Reporting question:</b> How much reduction in nitrogen losses have been measured in the field?
<b>Description:</b> Total amount of reduction in nitrogen losses that is measured and reported in the enrolled field.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Amount	<b>Allowed values:</b> 0-1,000,000
<b>Logic:</b> Respond if yes to 'Reduction in nitrogen loss'	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Annual

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**Reduction in nitrogen loss amount unit**


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<b>Data element name:</b> Reduction in nitrogen loss amount unit	<b>Reporting question:</b> What is the unit for how much reduction in nitrogen losses have been measured in the field?
<b>Description:</b> 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.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b>
	<ul style="list-style-type: none"> <li>• Kilograms</li> <li>• Metric tons</li> <li>• Pounds</li> <li>• Other (specify)</li> </ul>
<b>Logic:</b> Respond if yes to 'Reduction in nitrogen loss'	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Annual

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**Reduction in nitrogen loss purpose**


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<b>Data element name:</b> Reduction in nitrogen loss purpose	<b>Reporting question:</b> What is the purpose of tracking reduction in nitrogen losses?
<b>Description:</b> 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.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b>
	<ul style="list-style-type: none"> <li>• Commodity marketing</li> <li>• Producing insets</li> <li>• Producing offsets</li> <li>• I don't know</li> <li>• Other (specify)</li> </ul>
<b>Logic:</b> Respond if yes to 'Reduction in nitrogen loss'	<b>Required:</b> Yes
<b>Data collection level:</b> Project	<b>Data collection frequency:</b> Annual

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**Reduction in phosphorus loss**


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<b>Data element name:</b> Reduction in phosphorus loss	<b>Reporting question:</b> Are reductions in phosphorus losses being tracked in the field?
<b>Description:</b> 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.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b>
	<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• I don't know</li> </ul>
<b>Logic:</b> Respond if yes to 'Environmental benefits'	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Annual

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**Reduction in phosphorus loss amount**


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<b>Data element name:</b> Reduction in phosphorus loss amount	<b>Reporting question:</b> How much reduction in phosphorus losses have been measured in the field?
<b>Description:</b> Total amount of reduction in phosphorus losses that is measured in the field.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Amount	<b>Allowed values:</b> 0-1,000,000
<b>Logic:</b> Respond if yes to 'Reduction in phosphorus loss'	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Annual

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**Reduction in phosphorus loss amount unit**


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**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

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**Reduction in phosphorus loss purpose**


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**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

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**Other water quality**


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**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

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**Other water quality type**


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<b>Data element name:</b> Other water quality type	<b>Reporting question:</b> What type of other water quality metric have been measured in the field?
<b>Description:</b> 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.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> <ul style="list-style-type: none"> <li>• Sediment load reduction</li> <li>• Temperature</li> <li>• Other (specify)</li> </ul>
<b>Logic:</b> Respond if yes to ‘Other water quality’	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Annual

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**Other water quality amount**


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<b>Data element name:</b> Other water quality amount	<b>Reporting question:</b> How much reduction in other water quality metrics have been measured in the field?
<b>Description:</b> Total amount of reduction in other water quality metrics that is measured in the enrolled field.	
<b>Data type:</b> Decimal	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Amount	<b>Allowed values:</b> 0-1,000,000
<b>Logic:</b> Respond if yes to ‘Other water quality’	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Annual

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**Other water quality amount unit**


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<b>Data element name:</b> Other water quality amount unit	<b>Reporting question:</b> What is the unit for the reduction in other water quality metrics measured in the field?
<b>Description:</b> 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.	
<b>Data type:</b> List	<b>Select multiple values:</b> No
<b>Measurement unit:</b> Category	<b>Allowed values:</b> <ul style="list-style-type: none"> <li>• Degrees F</li> <li>• Kilograms</li> <li>• Kilograms per liter</li> <li>• Metric tons</li> <li>• Pounds</li> <li>• Other (specify)</li> </ul>
<b>Logic:</b> Respond if yes to ‘Other water quality’	<b>Required:</b> Yes
<b>Data collection level:</b> Field	<b>Data collection frequency:</b> Annual

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**Other water quality purpose**

<p><b>Data element name:</b> Other water quality purpose</p> <p><b>Description:</b> 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.</p> <p><b>Data type:</b> List</p> <p><b>Measurement unit:</b> Category</p> <p><b>Logic:</b> Respond if yes to ‘Other water quality’</p> <p><b>Data collection level:</b> Field</p>	<p><b>Reporting question:</b> What is the purpose of tracking other water quality benefits?</p> <p><b>Select multiple values:</b> No</p> <p><b>Allowed values:</b></p> <ul style="list-style-type: none"> <li>• Commodity marketing</li> <li>• Producing insets</li> <li>• Producing offsets</li> <li>• I don’t know</li> <li>• Other (specify)</li> </ul> <p><b>Required:</b> Yes</p> <p><b>Data collection frequency:</b> Annual</p>
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**Water quantity**

<p><b>Data element name:</b> Water quantity</p> <p><b>Description:</b> 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.</p> <p><b>Data type:</b> List</p> <p><b>Measurement unit:</b> Category</p> <p><b>Logic:</b> Respond if yes to ‘Environmental benefits’</p> <p><b>Data collection level:</b> Field</p>	<p><b>Reporting question:</b> Is water conservation being tracked in the field?</p> <p><b>Select multiple values:</b> No</p> <p><b>Allowed values:</b></p> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• I don’t know</li> </ul> <p><b>Required:</b> Yes</p> <p><b>Data collection frequency:</b> Annual</p>
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**Water quantity amount**

<p><b>Data element name:</b> Water quantity amount</p> <p><b>Description:</b> Total amount of water conservation or reduction that is measured in the field.</p> <p><b>Data type:</b> Decimal</p> <p><b>Measurement unit:</b> Amount</p> <p><b>Logic:</b> Respond if yes to ‘Water quantity’</p> <p><b>Data collection level:</b> Field</p>	<p><b>Reporting question:</b> How much water conservation has been measured in the field?</p> <p><b>Select multiple values:</b> No</p> <p><b>Allowed values:</b> 0-1,000,000</p> <p><b>Required:</b> Yes</p> <p><b>Data collection frequency:</b> Annual</p>
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**Water quantity amount unit**

<p><b>Data element name:</b> Water quantity amount unit</p> <p><b>Description:</b> 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.</p> <p><b>Data type:</b> List</p> <p><b>Measurement unit:</b> Category</p> <p><b>Logic:</b> Respond if yes to ‘Water quantity’</p> <p><b>Data collection level:</b> Field</p>	<p><b>Reporting question:</b> What is the unit for the amount of water conservation measured in the field?</p> <p><b>Select multiple values:</b> No</p> <p><b>Allowed values:</b></p> <ul style="list-style-type: none"> <li>• Acre-feet</li> <li>• Cubic feet</li> <li>• Other (specify)</li> </ul> <p><b>Required:</b> Yes</p> <p><b>Data collection frequency:</b> Annual</p>
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**Water quantity purpose**


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**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

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**Reduced erosion**


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**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

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**Reduced erosion amount**


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**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

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**Reduced erosion amount unit**


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**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

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**Reduced erosion purpose**


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**Data element name:** Reduced erosion purpose

**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

**Measurement unit:** Category

**Reporting question:** What is the purpose of tracking reduced erosion in the field?

**Select multiple values:** No

**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

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**Reduced energy use**


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**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

**Measurement unit:** Category

**Select multiple values:** No

**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

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**Reduced energy use amount**


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**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

**Measurement unit:** Amount

**Select multiple values:** No

**Allowed values:** 0-1,000,000

**Logic:** Respond if yes to ‘Reduced energy use’

**Required:** Yes

**Data collection level:** Field

**Data collection frequency:** Annual

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**Reduced energy use amount unit**


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**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

**Measurement unit:** Category

**Select multiple values:** No

**Allowed values:**

- Kilowatt hours
- Other (specify)

**Logic:** Respond if yes to ‘Reduced energy use’

**Required:** Yes

**Data collection level:** Field

**Data collection frequency:** Annual

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**Reduced energy use purpose**


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<p><b>Data element name:</b> Reduced energy use purpose</p> <p><b>Description:</b> 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.</p> <p><b>Data type:</b> List</p> <p><b>Measurement unit:</b> Category</p> <p><b>Logic:</b> Respond if yes to ‘Reduced energy use’</p> <p><b>Data collection level:</b> Field</p>	<p><b>Reporting question:</b> What is the purpose of tracking reduced energy use in the field?</p> <p><b>Select multiple values:</b> No</p> <p><b>Allowed values:</b></p> <ul style="list-style-type: none"> <li>• Commodity marketing</li> <li>• Producing insets</li> <li>• Producing offsets</li> <li>• I don’t know</li> <li>• Other (specify)</li> </ul> <p><b>Required:</b> Yes</p> <p><b>Data collection frequency:</b> Annual</p>
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**Avoided land conversion**


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<p><b>Data element name:</b> Avoided land conversion</p> <p><b>Description:</b> 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.</p> <p><b>Data type:</b> List</p> <p><b>Measurement unit:</b> Category</p> <p><b>Logic:</b> Respond if yes to ‘Environmental benefits’</p> <p><b>Data collection level:</b> Field</p>	<p><b>Reporting question:</b> Is avoided land conversion being tracked in the field?</p> <p><b>Select multiple values:</b> No</p> <p><b>Allowed values:</b></p> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• I don’t know</li> </ul> <p><b>Required:</b> Yes</p> <p><b>Data collection frequency:</b> Annual</p>
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**Avoided land conversion amount**


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<p><b>Data element name:</b> Avoided land conversion amount</p> <p><b>Description:</b> Total amount of avoided land conversion that is measured in the enrolled field.</p> <p><b>Data type:</b> Decimal</p> <p><b>Measurement unit:</b> Amount</p> <p><b>Logic:</b> Respond if yes to ‘Avoided land conversion’</p> <p><b>Data collection level:</b> Field</p>	<p><b>Reporting question:</b> How much avoided land conversion has been measured in the field?</p> <p><b>Select multiple values:</b> No</p> <p><b>Allowed values:</b> 0-1,000,000</p> <p><b>Required:</b> Yes</p> <p><b>Data collection frequency:</b> Annual</p>
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**Avoided land conversion amount unit**


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<p><b>Data element name:</b> Avoided land conversion unit</p> <p><b>Description:</b> 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.</p> <p><b>Data type:</b> List</p> <p><b>Measurement unit:</b> Category</p> <p><b>Logic:</b> Respond if yes to ‘Avoided land conversion’</p> <p><b>Data collection level:</b> Field</p>	<p><b>Reporting question:</b> What is the unit for the amount of avoided land conversion measured in the field?</p> <p><b>Select multiple values:</b> No</p> <p><b>Allowed values:</b></p> <ul style="list-style-type: none"> <li>• Acres</li> <li>• Other (specify)</li> </ul> <p><b>Required:</b> Yes</p> <p><b>Data collection frequency:</b> Annual</p>
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**Avoided land conversion purpose**

<p><b>Data element name:</b> Avoided land conversion purpose</p> <p><b>Description:</b> 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.</p> <p><b>Data type:</b> List</p> <p><b>Measurement unit:</b> Category</p> <p><b>Logic:</b> Respond if yes to ‘Avoided land conversion’</p> <p><b>Data collection level:</b> Field</p>	<p><b>Reporting question:</b> What is the purpose of tracking avoided land conversion in the field?</p> <p><b>Select multiple values:</b> No</p> <p><b>Allowed values:</b></p> <ul style="list-style-type: none"> <li>• Commodity marketing</li> <li>• Producing insets</li> <li>• Producing offsets</li> <li>• I don’t know</li> <li>• Other (specify)</li> </ul> <p><b>Required:</b> Yes</p> <p><b>Data collection frequency:</b> Annual</p>
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**Improved wildlife habitat**

<p><b>Data element name:</b> Improved wildlife habitat</p> <p><b>Description:</b> 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.</p> <p><b>Data type:</b> List</p> <p><b>Measurement unit:</b> Category</p> <p><b>Logic:</b> Respond if yes to ‘Environmental benefits’</p> <p><b>Data collection level:</b> Field</p>	<p><b>Reporting question:</b> Are improvements to wildlife habitat being tracked in the field?</p> <p><b>Select multiple values:</b> No</p> <p><b>Allowed values:</b></p> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• I don’t know</li> </ul> <p><b>Required:</b> Yes</p> <p><b>Data collection frequency:</b> Annual</p>
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**Improved wildlife habitat amount**

<p><b>Data element name:</b> Improved wildlife habitat amount</p> <p><b>Description:</b> Total amount of improved wildlife habitat that is measured in and around the enrolled fields.</p> <p><b>Data type:</b> Decimal</p> <p><b>Measurement unit:</b> Amount</p> <p><b>Logic:</b> Respond if yes to ‘Improved wildlife habitat’</p> <p><b>Data collection level:</b> Field</p>	<p><b>Reporting question:</b> How much improved wildlife habitat has been measured in the field?</p> <p><b>Select multiple values:</b> No</p> <p><b>Allowed values:</b> 0-1,000,000</p> <p><b>Required:</b> Yes</p> <p><b>Data collection frequency:</b> Annual</p>
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**Improved wildlife habitat amount unit**

<p><b>Data element name:</b> Improved wildlife habitat unit</p> <p><b>Description:</b> 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.</p> <p><b>Data type:</b> List</p> <p><b>Measurement unit:</b> Category</p> <p><b>Logic:</b> Respond if yes to ‘Improved wildlife habitat’</p> <p><b>Data collection level:</b> Field</p>	<p><b>Reporting question:</b> What is the unit for the amount of improved wildlife habitat measured in the field?</p> <p><b>Select multiple values:</b> No</p> <p><b>Allowed values:</b></p> <ul style="list-style-type: none"> <li>• Acres</li> <li>• Linear feet</li> <li>• Other (specify)</li> </ul> <p><b>Required:</b> Yes</p> <p><b>Data collection frequency:</b> Annual</p>
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**Improved wildlife habitat purpose**


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**Data element name:** Improved wildlife habitat purpose

**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

**Measurement unit:** Category

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

**Select multiple values:** No

**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
Digester type	Digester type	Deep pit
		Dry lot
		Dry stacking/solid storage
		Pasture/range/paddock
		Poultry with bedding
		Poultry without bedding (e.g., high rise)
		Slurry tank/basin
		Covered lagoon with energy generation
		Covered lagoon with flaring
		Covered lagoon (no energy generation or flaring)
Additional feedstock source (select most common if using more than one)	Additional feedstock source (select most common if using more than one)	Complex mix with energy generation
		Plug flow with energy generation
		Other (specify)
		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
	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 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 management (CPS 590)	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


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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
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



## Appendix A: Climate-smart Agriculture and Forestry Practices

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

309, Agrichemical Handling Facility	390, Riparian Herbaceous Cover
311, Alley Cropping	391, Riparian Forest Buffer
313, Waste Storage Facility	393, Filter Strip
314, Brush Management	394, Firebreak
315, Herbaceous Weed Treatment	395, Stream Habitat Improvement and Management
316, Animal Mortality Facility	396, Aquatic Organism Passage
317, Composting Facility	397, Aquaculture Pond
318, Short Term Storage of Animal Waste and By-Products	398, Fish Raceway or Tank
319, On-Farm Secondary Containment Facility	399, Fishpond Management
320, Irrigation Canal or Lateral	400, Bivalve Aquaculture Gear and Biofouling Control
324, Deep Tillage	402, Dam
325, High Tunnel System	410, Grade Stabilization Structure
326, Clearing and Snagging	412, Grassed Waterway
327, Conservation Cover	420, Wildlife Habitat Planting
328, Conservation Crop Rotation	422, Hedgerow Planting
329, Residue and Tillage Management, No Till	423, Hillside Ditch
330, Contour Farming	428, Irrigation Ditch Lining
331, Contour Orchard and Other Perennial Crops	428A, Irrigation Water Conveyance, Ditch and Canal Lining, Plain Concrete
332, Contour Buffer Strips	428B, Irrigation Water Conveyance, Ditch and Canal Lining, Flexible Membrane
333, Amending Soil Properties with Gypsum Products	428C, Irrigation Water Conveyance, Ditch and Canal Lining, Galvanized Steel
334, Controlled Traffic Farming	430, Irrigation Pipeline
336, Soil Carbon Amendment	432, Dry Hydrant
338, Prescribed Burning	436, Irrigation Reservoir
340, Cover Crop	441, Irrigation System, Microirrigation
342, Critical Area Planting	442, Sprinkler System
345, Residue and Tillage Management, Reduced Till	443, Irrigation System, Surface and Subsurface
348, Dam, Diversion	447, Irrigation and Drainage Tailwater Recovery
350, Sediment Basin	449, Irrigation Water Management
351, Well Decommissioning	450, Anionic Polyacrylamide (PAM) Application
353, Monitoring Well	453, Land Reclamation, Landslide Treatment
355, Groundwater Testing	455, Land Reclamation, Toxic Discharge Control
356, Dike and Levee	457, Mine Shaft and Adit Closing
359, Waste Treatment Lagoon	460, Land Clearing
360, Waste Facility Closure	462, Precision Land Forming and Smoothing
362, Diversion	464, Irrigation Land Leveling
366, Anaerobic Digester	466, Land Smoothing
367, Roofs and Covers	468, Lined Waterway or Outlet
368, Emergency Animal Mortality Management	472, Access Control
371, Air Filtration and Scrubbing	484, Mulching
372, Combustion System Improvement	490, Tree/Shrub Site Preparation
373, Dust Control on Unpaved Roads and Surfaces	500, Obstruction Removal
374, Energy Efficient Agricultural Operation	511, Forage Harvest Management
375, Dust Management for Pen Surfaces	512, Pasture and Hay Planting
376, Field Operations Emissions Reduction	516, Livestock Pipeline
378, Pond	520, Pond Sealing or Lining, Compacted Soil Treatment
379, Forest Farming	521, Pond Sealing or Lining, Geomembrane or Geosynthetic Clay Liner
380, Windbreak/Shelterbelt Establishment and Renovation	521A, Pond Sealing or Lining, Flexible Membrane
381, Silvopasture	521B, Pond Sealing or Lining, Soil Dispersant
382, Fence	521C, Pond Sealing or Lining, Bentonite Sealant
383, Fuel Break	
384, Woody Residue Treatment	
386, Field Border	
388, Irrigation Field Ditch	




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521D, Pond Sealing or Lining, Compacted Clay Treatment	632, Waste Separation Facility
522, Pond Sealing or Lining - Concrete	633, Waste Recycling
527, Sinkhole Treatment	634, Waste Transfer
528, Prescribed Grazing	635, Vegetated Treatment Area
533, Pumping Plant	636, Water Harvesting Catchment
543, Land Reclamation, Abandoned Mined Land	638, Water and Sediment Control Basin
544, Land Reclamation, Currently Mined Land	640, Waterspreading
548, Grazing Land Mechanical Treatment	642, Water Well
550, Range Planting	643, Restoration of Rare or Declining Natural Communities
554, Drainage Water Management	644, Wetland Wildlife Habitat Management
555, Rock Wall Terrace	645, Upland Wildlife Habitat Management
557, Row Arrangement	646, Shallow Water Development and Management
558, Roof Runoff Structure	647, Early Successional Habitat Development-Mgt
560, Access Road	649, Structures for Wildlife
561, Heavy Use Area Protection	650, Windbreak/Shelterbelt Renovation
562, Recreation Area Improvement	654, Road/Trail/Landing Closure and Treatment
566, Recreation Land Improvement and Protection	655, Forest Trails and Landings
570, Stormwater Runoff Control	656, Constructed Wetland
572, Spoil Disposal	657, Wetland Restoration
574, Spring Development	658, Wetland Creation
575, Trails and Walkways	659, Wetland Enhancement
576, Livestock Shelter Structure	660, Tree-Shrub Pruning
578, Stream Crossing	666, Forest Stand Improvement
580, Streambank and Shoreline Protection	670, Energy Efficient Lighting System
582, Open Channel	672, Energy Efficient Building Envelope
584, Channel Bed Stabilization	736, Crop By-Product Transfer, interim
585, Stripcropping	724, Water Treatment Facility, interim
587, Structure for Water Control	735, Waste Gasification Facility, interim
588, Crosswind Ridges	737, Reduced Water and Energy Coffee Conveyance System, interim
589, Cross Wind Trap Strips	740, Pond Sealing and Lining, Soil Cement, interim
590, Nutrient Management	751, Individual Terrace, interim
591, Amendments for Treatment of Agricultural Waste	753, Infiltration Ditch, interim
592, Feed Management	755, Well Plugging, interim
595, Pest Management Conservation System	770, Livestock Confinement Facility, interim
600, Terrace	775, Drainage Ditch Covering, interim
601, Vegetative Barrier	782, Phosphorus Removal System, interim
602, Equitable Relief	800, Controlling Existing Flowing Wells, interim
603, Herbaceous Wind Barriers	803, Water Well Disinfection, interim
604, Saturated Buffer	805, Amending Soil Properties with Lime, interim
605, Denitrifying Bioreactor	808, Soil Carbon Amendment, interim
606, Subsurface Drain	809, Conservation Harvest Management, interim
607, Surface Drain, Field Ditch	810, Annual Forages for Grazing Systems, interim
608, Surface Drain, Main or Lateral	812, Raised Beds, interim
609, Surface Roughening	815, Groundwater Recharge Basin or Trench, interim
610, Salinity and Sodic Soil Management	817, On-Farm Recharge, interim
612, Tree/Shrub Establishment	818, Water Conservation System, interim
614, Watering Facility	821, Low Tunnel Systems, interim
620, Underground Outlet	823, Organic Management, interim
629, Waste Treatment	
630, Vertical Drain	

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 ARTICHOKE
ARTICHOKE	COTTON UPLAND	JICAMA
ASPARAGUS	CRANBERRIES	JOJOBA
ATEMOYA	CRENSHAW MELON	JUJUBE
AVOCADOS	CRUSTACEAN	JUNE BERRIES
BAMBOO SHOOTS	CUCUMBERS	KENAF
BANANAS	CURRENTS	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	LEEK
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
CANE BERRIES	GRAPES	MEADOWFOAM
CANISTEL	GRASS	MILKWEED
CANOLA	GREENS	MILLET
CANTALOUPE	GROUND CHERRY	MIXED FORAGE
CARAMBOLA (STAR FRUIT)	GUAMABANA/SOURSOP	MOHAIR
CARROTS	GUAR	MOLLUSK
CASHEW	GUAVA	MORINGA
CASSAVA	GUAVABERRY	MULBERRIES
CAULIFLOWER	GUAYULE	MUSHROOMS
CELERIC	HAZEL NUTS	MUSTARD
CELERY	HEMP	NECTARINES
CHERIMOYA	HERBS	NIGER SEED
CHERRIES	HESPERALOE	NONI
CHESTNUTS	HONEY	OATS
CHICORY/RADICCHIO	HONEY BERRIES	OKRA
CHINESE BITTER MELON	HONEYDEW	OLIVES
CHRISTMAS TREES	HOPS	ONIONS
CHUFAS	HORSERADISH	ORANGES
	HUCKLEBERRIES	PAPAYA




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

PARSNIP	STRAWBERRIES	
PASSION FRUITS	SUGAR BEETS	
PAWPAW	SUGARCANE	<u>LIVESTOCK</u>
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/DAGONFRUIT	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 (HEL) 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](http://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](http://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 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](http://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.