



NOTICE OF GRANT AND AGREEMENT AWARD

1. Award Identifying Number NR233A750004G008	2. Amendment Number	3. Award /Project Period Date of Final Signature - 03/31/2028	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) DEPARTMENT OF AGRICULTURE COLORADO 305 INTERLOCKEN PKWY BROOMFIELD CO 80021-3484 UEI Number / DUNS Number: D364K1RF8JL1 / 878137389 EIN:	
7. NRCS Program Contact Name: JOHN ANDERSON	8. NRCS Administrative Contact Name: Brett McMillan	9. Recipient Program Contact Name: Kristen Boysen	10. Recipient Administrative Contact Name: Nicole Brinson
(b)(6)			
11. CFDA 10.937	12. Authority 15 USC 714 et seq	13. Type of Action New Agreement	14. Program Director Name: Cindy Lair <div style="background-color: yellow; padding: 2px;">(b)(6)</div>
15. Project Title/ Description: Expands markets for climate-smart beef and eleven cropping systems including corn and grains by supporting and expanding the STAR Program in CO, ID, MT, NM, UT, WA and WY.			
16. Entity Type: A = State government			
17. Select Funding Type			
Select funding type:	<input checked="" type="checkbox"/> Federal	<input checked="" type="checkbox"/> Non-Federal	
Original funds total	24,999,998.000	\$6,289,164.00	
Additional funds total	\$0.00	\$0.00	
Grand total	24,999,998.000	\$6,289,164.00	
18. Approved Budget			

Personnel	\$3,160,522.00	Fringe Benefits	\$1,264,208.00
Travel	\$304,790.00	Equipment	\$0.00
Supplies	\$712,434.00	Contractual	\$250,700.00
Construction	\$0.00	Other	19,307,344.000
Total Direct Cost	24,057,936.000	Total Indirect Cost	\$942,062.00
		Total Non-Federal Funds	\$6,289,164.00
		Total Federal Funds Awarded	24,999,998.000
		Total Approved Budget	31,289,162.000

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 KATINA HANSON  Digitally signed by KATINA HANSON Date: 2023.04.12 11:23:58 -05'00'	Date 04/12/2023
Name and Title of Authorized Recipient Representative KATE GREENBERG Commissioner of Agriculture	Signature 	Date 4/11/2023

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 Colorado Department of Agriculture, 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 \$31,289,162.00

TOTAL FEDERAL FUNDS \$24,999,998.00

PERSONNEL \$2,487,620.00

FRINGE BENEFITS \$995,048.00

TRAVEL \$304,790.00

EQUIPMENT \$0

SUPPLIES \$712,434.00

CONTRACTUAL \$250,700.00

CONSTRUCTION \$0

OTHER \$14,049,844.00

PRODUCER INCENTIVES \$5,257,500.00

TOTAL DIRECT COSTS \$24,057,934

INDIRECT COSTS \$942,061

TOTAL NON-FEDERAL FUNDS \$6,289,164.00

PERSONNEL \$492,165.00

FRINGE BENEFITS \$196,866.00

TRAVEL \$0

EQUIPMENT \$0

SUPPLIES \$0

CONTRACTUAL \$0

CONSTRUCTION \$0

OTHER \$5,413,750

PRODUCER INCENTIVES \$0

TOTAL DIRECT COSTS \$6,102,781

INDIRECT COSTS \$186,383.00

Recipient has an approved Negotiated Indirect Cost Rate Agreement (NICRA) with a rate of 29.45 percent and a base of Personnel and Fringe.

Recipient has elected to voluntarily waive a portion of indirect costs by reducing NICRA from 29.45% to 27.05% for budget purposes, calculated on base of \$3,482,668 for federal funds and \$689,031 for non-federal funds.

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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Colorado Department of Agriculture
Expanding the STAR Program Across Colorado and the West
Project Narrative
Revised 2.14.2023

EXECUTIVE SUMMARY

Healthy soils are key to carbon sequestration in agricultural landscapes. Improving soil health can increase carbon sequestration, reduce agricultural runoff, decrease erosion, and support more productive, higher-yielding crops. Colorado's farmers and ranchers are experiencing firsthand the impacts of climate change and extended drought. In order to meet the challenges of climate change, the Colorado Department of Agriculture (CDA) will lead a multi-pronged, producer-led approach to stimulate wide-spread adoption of soil health practices, realize the associated climate benefits, and foster public-private partnerships that expand innovation and market access for Colorado farmers and ranchers.

The Colorado Saving Tomorrow's Agricultural Resources (STAR) Plus program offers a comprehensive approach that 1) empowers and bolsters conservation districts (CDs) and other eligible entities (EEs) to provide technical assistance to a diverse range of producers; 2) provides three years of financial and technical assistance to producers so they can gain familiarity and expertise with new practices as they consider adopting them across their operation; 3) quantifies and verifies climate (carbon and water) benefits on behalf of producers so they are empowered to participate in new market opportunities; 4) develops the STAR Rating as a market signal so participants earn more for products grown with healthy soil practices; and 5) evaluates and validates carbon and soil-water research for the arid West.

This proposal from CDA will expand the existing STAR Plus program across Colorado to provide a proof-of-concept for other states. At the same time, it will develop the STAR Rating system for six other Western states (ID, MT, NM, UT, WA, WY) and launch National STAR to onboard, evaluate, and provide program oversight to new STAR affiliates. It will also pilot peer-to-peer learning and pay-for-performance (P4P) models and evaluate the effectiveness of STAR, STAR Plus and these pilots for consideration by other states.

This project has three primary goals: 1) expand the STAR Plus program statewide as a robust model for other states; 2) support other states to use the STAR Rating system in a way that works for their local policy context; and 3) advance research on GHG, soil health, and water for the arid West. Upon completion of this project, CDA will have developed a regional, producer-focused market for climate smart commodities, with a diverse set of growers and food buyers ready to participate.

The expected outcomes include the implementation of new climate-smart agricultural practices across 485 fields (~32,100 acres) by 2025; additional practice adoption across 400 operations and ~24,000 additional acres by 2026 (~56,100 acres total). GHG emission reductions and soil sequestration benefits equal to ~25,000 tCO₂e are expected over the course of the project. Additionally, we anticipate that 985 fields (~65,995 acres) will receive a STAR Rating over the course of this project.

BACKGROUND

The STAR Rating system is an important, innovative, and simple framework that allows farmers and ranchers to evaluate their current production system, identify areas for improved management to increase soil health, document their progress, and share their successes. The evaluation system assigns points for management activities on an annual basis and scores are converted to a 1 to 5 STAR Rating, with 5 STARs indicating commitment to a suite of practices proven to improve soil health, water quality and water availability. Originally developed by Champaign County Soil and Water Conservation District (CCSWCD) focusing on the Illinois Nutrient Loss Reduction Strategy, STAR is now also administered in several states, including Colorado. In Colorado, STAR evaluates 11 different cropping systems and grazing lands for soil health and serves as a complementary tool to the more robust STAR Plus program.

Colorado's STAR Plus program builds on this framework to offer a comprehensive approach that encourages the adoption of new soil health practices. Developed by CDA, the STAR Plus program provides financial and technical assistance to producers as they implement new practices on one field over three years and consider adopting them across their operation. Participants gain familiarity and expertise with new practices and an increased understanding of the environmental and economic outcomes associated with them. After three years, they are provided with information on carbon, water, and economic outcomes, and a primer that sets them up to participate in new opportunities, including new markets for their products, carbon and payments for ecosystem services (PES) markets, EQIP, CSP, and other forthcoming opportunities. STAR Plus also provides significant capacity support, equipment grants, training and other support to CDs and EEs so they can provide technical assistance to landowners in a new way. These CDs and EEs provide the trusted local support and knowledge to ensure producer success. Finally, facilitated peer-to-peer learning, outreach, and education is provided to these cohorts of STAR Plus participants. This grant will build on the successful pilot program, expanding it across the state to include 30 additional CDs and EEs (covering approximately two-thirds of Colorado CDs), specifically engaging underserved communities, and solidifying our understanding of the carbon and water benefits of the healthy soil practices.

The Colorado STAR Plus program grew out of a stakeholder process launched by the Colorado Department of Agriculture and other partners in 2019 that was facilitated by the Colorado Collaborative for Healthy Soils, involved more than 250 stakeholders and resulted in passage of HB21-1181 and SB21-235, which authorized and funded the launch of a state soil health program based around STAR. This state stimulus funding and additional grant funding received from the Gates Family Foundation, Colorado Department of Public Health and the Environment, Colorado Water Conservation Board, NFWF, and NRCS have enabled the launch of the first round of the STAR Plus program.

PROJECT SUMMARY & INTENDED OUTCOMES

This proposal will expand on the existing structure to offer this programming across Colorado; while also preparing other Western states to implement STAR in a way that meets their local needs and launching the STAR National Initiative. This project has five major components, which are further described below.

1. Expand the existing STAR Plus program. This project will expand STAR Plus from 16 to up to 45 CDs and EEs that will together serve 450 participants from across the state. These will include at least 35 producers from historically underserved communities and a significant proportion of early adopters, as well as small farmers and ranchers. The intended outcomes include: a) increased adoption of climate-smart practices; b) empowerment of farmers and ranchers to drive markets and practice adoption; c) equitable administration that includes small / underserved producers and early adopters; d) improved understanding and awareness of climate-smart commodities (CSCs) among small and underserved producers and expand their access to participation; and e) reduction of market entry risk.

CDA will partner with Colorado Association of Conservation Districts (CACD), up to 45 new and existing CDs and EEs, Sangre de Cristo Association of Acequias (SdCAA), Colorado Open Lands (COL), National Center for Appropriate Technology (NCAT) (or another qualified peer-to-peer learning facilitator), CSU Extension (CSUE), and CSU Agricultural Experiment Stations (CSU AES) to serve 319 new STAR Plus participants.

2. Quantify and verify climate outcomes on behalf of STAR Plus participants. The project will use the COMET-Planner tool, soil sampling, soil moisture probes, and the STAR field form verification process to quantify and verify soil health, GHG impacts, and water benefits for 450 STAR Plus and 35 research participants. Quantification and verification will give STAR Plus participants a sense of the magnitude of these benefits so they can participate in market opportunities as they choose. Ownership of these environmental services will remain with the producer. The intended outcomes here are to a) reduce the risk of market entry and b) empower farmers and ranchers to drive markets and practice adoption.

CDA will coordinate the STAR field form scoring and verification process; COMET-Planner and soil samples data collection and analysis will be conducted by Colorado State University Department of Soil and Crop Sciences (CSU DoSCS). These results will contribute to producer-facing deliverables that will be used by CDs and EEs in consultations with producers.

3. Develop markets for STAR participants. This project will develop and implement a market strategy to establish the STAR Rating as a market signal, directly connect Colorado STAR and STAR Plus participants with supply chain partners, integrate STAR with the Colorado Proud program and Zero Foodprint, and invest in market development for STAR at the regional and national level. It is critical that the market for STAR participants expands beyond Colorado borders, as robust agricultural markets are not defined by state lines. CDA's partnership with National STAR and our regional states will ensure producers have market opportunities for their CSCs. Intended

outcomes met by this aspect of the project include: a) increased markets and marketability for CSCs; b) demonstration of public-private partnerships to foster and develop CSC markets; c) standardization of the definition of a CSAF commodity; and d) increased efficiency of supply chain traceability.

Market strategy and development will be coordinated by a new position within the CDA Markets Division that will collaborate with National STAR, food buyers and processors, and other partners.

4. Advance carbon sequestration and soil health research for the West. This project will create a network of 35 research fields (27 new fields, 8 are existing) across six states (CO, ID, MT, NM, UT, WY). Data collected at these research fields will allow researchers and partners to: 1) evaluate the soil carbon aspect of the COMET tools for the arid west; 2) advance understanding of soil moisture benefits, soil health outcomes, and standardize soil health research regionally; 3) create economic case studies and estimate program-wide economic and GHG benefit outcomes; 4) inform state policy; 5) advance cost effective GHG and soil sequestration monitoring; and 6) pilot STAR field forms across the region. The intended outcomes met here include: a) increased innovation and consistency in measuring / quantifying farm level GHG benefits; b) improved understanding and communication of economic, adoption, and environmental benefits; c) improved quality and ability to verify GHG emissions reductions and soil carbon sequestration benefits; and d) demonstration of low cost and scalable measurement, monitoring, reporting and verification (MMRV) systems.

Research will be coordinated by CSU DoSCS in partnership with land grant universities in five other states. Data collection will occur across STAR, STAR Plus and research fields, and will inform final deliverables at the field/farm and program level.

5. Develop the STAR program at a regional and national level. This project will prepare six other states (ID, NM, MT, UT, WA, WY) to participate in the STAR program by a) developing field forms and scoresheets; b) launching a strong National STAR support framework. A robust subaward to National STAR will ensure the successful and smooth onboarding of new affiliates; further develop a progressive web app for scoring field forms; develop a unified framework for outcomes reporting and verification; and explore a pay-for-performance model. Intended outcomes met by this aspect of the program include: a) standardize the definition of a CSAF commodity; b) increased markets for CSCs; and c) marketability advantages for a variety of farm types.

Champaign County Soil and Water Conservation District (CCSWCD) will receive funding for four FTEs to launch National STAR and coordinate the onboarding of new affiliates. Ground Up Consulting will facilitate the creation of STAR field forms and scoresheets in all new states. STAR field forms and scoring sheets allow producers to receive a STAR Rating to understand where they stand with soil health and participate in potential new opportunities.

PROJECT DESCRIPTION

In this section, we outline how this proposal will:

- Pilot climate smart practices at a large scale,
- Measure, monitor and verify greenhouse gas and other benefits,
- Develop and expand markets for climate-smart commodities, and
- Expand the STAR program regionally and nationally to maximize impact.

Plan to Pilot Climate-Smart Practices at a Large Scale

As described previously, STAR is a practice-based rating system available to all producers in Colorado. STAR Plus is a robust program that reduces barriers to entry for producers adopting new soil health practices and provides an onramp to new market opportunities. STAR Plus consists of three years of incentive payments, annual consultations between producers and conservation professionals; implementation of new practice(s) on at least one field; ongoing technical support; soil health testing and soil moisture probe installation; education and peer-to-peer learning opportunities; and final deliverables that help producers understand the environmental and economic outcomes associated with new practices and set them up for new opportunities. A fourth year is included to debrief with participants, CDs and EEs, conduct program evaluation, and further expand the program with a new cohort if additional funding is made available. Apart from additional MMRV components, this proposal will replicate the existing STAR Plus program.

Timeline: The timeline has been revised to accommodate an early 2023 start date, with participants starting in the STAR Plus program in January 2024 and a project end date of December 31, 2027. This timeline assumes a start date of January or February 2023. If there are delays in contracting, the proposed timeline may need to shift. Milestones and benchmarks for the grant period are included in Appendix B.

In 2023, CDA will contract with sub awardees and hire key personnel to administer the program. CDA will recruit and select new CDs and EEs; new districts and eligible entities will recruit and select participants, participants will be checked for eligibility, and training of TAPs, CDs, and EEs will occur. Regarding avoiding duplicate payments or benefits, CDA will include specific questions regarding duplicate benefits and payments on a forthcoming eligibility form to ensure this does not occur. Potential participants will need to complete this eligibility form before enrolling in the STAR Plus program. If USDA has guidance in drafting these questions, CDA would be happy to incorporate it. CDA will also ensure that participants do not receive duplicative benefits and payments through the CPA-52 process.

In 2024, CD and EE staff will conduct an initial consultation with up to 10 STAR Plus participants. They will speak with the participant about their experience with soil health; discuss their economic and environmental goals; choose a field to enroll in the STAR program and select new practice(s) to pilot. They will collect a composite soil sample; install soil moisture probes; collect management history and economic (partial budget analysis) data; fill out a STAR field form for the selected field; discuss whether an equipment grant makes sense; and plan next steps (including around NRCS conservation planning, where applicable). Technical assistance providers (TAPs) will accompany CD and EE staff in the first four consultations to ensure these consultations go smoothly.

Participants first choose from a non-exhaustive list of climate-smart practices to pilot on their operation (see Appendix A). Practices selected must not be funded by other federal programs for the field enrolled in STAR Plus. Producers receive an incentive payment equal to their matching contribution or \$75/acre, whichever is less (minimum: \$1000; maximum: \$5000). Participants receive an incentive payment in years 1-3. This flat rate incentive payment is applied for all approved practices and soil health activities. So far, popular practices have included no-till, cover crops, virtual fencing and stripcropping. The matching contribution serves as match for the project and requires participants to put some “skin in the game”, making the probability of further adoption of new practices more likely and durable.

Before receiving this incentive payment, participants must participate in all required consultations, soil sampling and testing, and installation of soil moisture probes. All required forms must also be submitted and approved before incentive payments are dispensed. In year 1, this includes the eligibility form, initial consultation form, producer match form, and soil moisture probe installation form. In years 2-3, this includes the check-in form and producer match form. In year 4, this includes the final consultation form and producer match form.

Participants, CDs and EEs also have access to a network of TAPs for the project duration. TAPs include 6 CSU Extension and 12 CSU AES staff and 3 full-time soil health specialists. Each CD and EE is assigned two TAPs to assist them with the first four consultations, collect soil samples and install soil moisture probes, and provide guidance and technical assistance to that cohort over four years. This network of TAPs also serves as a referral network to connect participants with specialized assistance. Each TAP provides one month (174 hours) of TA each year.

In 2025, CD and EE staff share preliminary outcomes with the participant including soil health results, initial STAR Rating, and COMET-Planner results. This is also an opportunity for the participant to consider additional new practices or make management changes to their STAR Plus field.

In 2026, (the final year in which producers receive incentive payments), there are two touch points between CDs and EEs and participants. During the first, a second soil sample and management data will be collected. These results will be used to create several producer-facing products that will be delivered to participating farmers and ranchers at their final consultation. The second touch point in Year 3 is a final consultation during which participants receive final deliverables and consider adopting practices across additional acreage. At this consultation, participants receive a final report documenting changes in soil health, water availability, and GHG impacts on STAR Plus fields. They will be provided with economic case studies, results from the research fields, and lessons-learned from other STAR participants. Participants will also receive a primer about new opportunities around climate-smart commodities and the practices piloted during the program. This will include information and guidance around carbon and PES markets, biodiversity initiatives, new product markets for climate-smart commodities, and information about enrolling in EQIP, CSP and developing an NRCS conservation plan. This final consultation is also an opportunity for producers to debrief about their experience piloting new practices, plan next steps, consider adopting practices across other fields, and enrolling additional fields into STAR.

In 2027, CDs and EEs work with participants to adopt practices across additional acreage without the need for incentive payments. This fourth year of capacity support ensures successful completion of the project and adequate time for final conversations with producers and creates an opportunity to enroll additional STAR Plus participants if future funding is secured.

Capacity support: Significant capacity support is provided to CDs and EEs to deliver this programming. In tandem with new programming offered through the STAR framework, this capacity support will bolster and empower CDs and EEs to work with landowners in new ways. CDs and EEs have unique regional knowledge, networks, and great potential for impact if provided with adequate capacity support. This funding totals approximately \$126,000 per district or entity over four years (see pp. 6-7 of budget justification for details). Responsibilities of CDs and EEs include recruitment and selection of participants¹, annual consultations with up to 10 participants, soil sampling, soil moisture probe installation, distribution of producer incentive payments and equipment grants, ongoing technical support, and hosting a field day. This total effort to administer the STAR program is estimated at approximately 468 hours of district manager/equivalent position time over the four years. For each enrolled producer, district managers will spend approximately 46 hours/producer/year to support the producer, including consultations, check-ins, managing soil moisture probes, and coordinating with TAPs.

Outreach, education, and program workflows: Like USDA, CDA is committed to including historically underserved producers in our programs. To ensure that a meaningful proportion of participants are historically underserved (HU) producers, at least three of the eligible entities must serve HU communities. CDA has already identified the Sangre de Cristo Acequia Association (SdCAA) as a partner; at least two other additional organizations serving HU communities will participate in STAR Plus. Colorado Open Lands (COL) will also partner with SdCAA to facilitate peer-to-peer learning in this community. Additionally, at least one research field in each state must be on a farm or ranch owned or leased by a HU producer. This approach will ensure that at least 35 participants are from HU communities. With three entities (plus COL and SdCAA) serving HU groups enrolled in the program (there could be more), at least \$1,049,000 will go to these communities; with at least \$525,000 received by HU producers themselves. We also expect to have many small producers and early adopters enrolled in the STAR Plus program. Based on producer recruitment in 2022, we estimate that 20% participants will have small operations and 33% will be early adopters.

Participants will have access to educational and communication materials, community events, and peer-to-peer learning opportunities over the course of the project. The STAR Plus program already has several outreach, education and communication components. This proposal will leverage an existing communication campaign from Acres USA and CSU Center for Science Communications (CSU CSC), who have

¹ Participants must be AGI and HEL compliant and EQIP eligible. Selection requires board approval by the conservation district or eligible entity.

created soil health primers, an online forum, and several targeted documentary films about soil health and the benefits to the supply chain.

To these existing products, this project will add an explicit peer-to-peer learning component in partnership with NCAT, or another qualified learning facilitator, and COL. Peer-to-peer learning is an effective way to increase the uptake of new practices and for producers to learn from trusted sources. NCAT and COL will recruit and train five facilitators to work with approximately 100 participants. Facilitators will host cohort events and discussion, including sharing of lessons learned; identify producer mentors and connect them with other participants; and work with the CSU Department of Sociology (CSU DoS) to evaluate the effectiveness of peer-to-peer learning, in addition to the social outcomes of the program more broadly. CSU DoS is a current partner on the Federal CIG project.

Trainings, outreach, and program workflows have already been developed to launch the STAR Plus program in 2022. These will be made more robust with contributions from new CDA staff hired as part of this proposal. Virtual and asynchronous trainings and regional in-person trainings will be conducted for new districts and TAPs in 2023. The first four consultations will be conducted with assistance from TAPs, who will remain a resource for CDs and EEs over the course of the program. Ongoing office hours will be hosted by CDA administrative staff to support CDs and EEs. Outreach efforts have already begun and will include at least 45 local field days hosted by CDs and EEs; 4 regional soil health events; creation of 12 educational soil health primers; a strategic transmedia campaign including three documentary films; and facilitated peer-to-peer learning and mentorship opportunities for participating producers.

Finally, as part of the current STAR Plus program, CDA has established workflows to distribute initial and ongoing capacity support, producer incentive payments, equipment grants; data management systems around STAR Rating and soil test results; and the STAR verification process. New workflows around COMET-planner results and final producer-facing deliverables will be established over the course of this project.

Expected Results: We expect robust results by the end of the project. STAR Plus is currently operational, with one year of experience under its belt. Program materials such as program guidelines, consultation forms, producer match forms, and a soil health guidebook are already developed and in use. By the start of this project, a first cohort of 131 producers will have taken part in the first year of STAR Plus. This project will add a second cohort of 319 new participants in partnership with up to 25 new CDs and EEs. All will have the benefit of lessons learned so far.

This proposal will pilot climate-smart agricultural practices on at least 319 new farms and ranches by expanding the STAR Plus program across Colorado. Currently, CDA implements the STAR Plus Program with 16 CDs and three EEs, serving a total of 131 STAR Plus participants. This proposal will allow for up to 25 new CDs and EEs to participate in STAR Plus and will increase the number of participants for new and existing CDs and EEs to a maximum of 10 each. An additional 35 producers will participate in the research program. This will bring the total number of STAR Plus participants to 485, increasing the total number of producers enrolled more than fourfold. Given this expansion, and assuming an average field size of 66 acres, we

estimate that new climate-smart agricultural practices will be piloted across ~32,100 acres through the STAR Plus program by 2024, with additional practice adoption across ~24,000 additional acres by 2027 (~56,100 acres total). This increase in acreage will directly increase the supply of climate-smart commodities that will be marketed through our markets plan.

We also expect increased participation in STAR from producers outside of STAR Plus. The STAR Rating system is already available to all producers in Colorado and current funding includes free soil health tests for the first 100 producers outside of STAR Plus that fill out a STAR field form and receive a 1-5 STAR Rating. This proposal will provide free soil health tests to 500 additional STAR participants and cover supplies and administrative resources to allow for an unlimited number of Colorado producers to receive a STAR Rating. Given this expansion and growing interest in STAR generally, we expect 500 additional producers to participate in STAR by scoring a field and receiving a STAR Rating. This will bring the total participants in STAR, STAR Plus, and the research program to 985 by 2027. Again, assuming an average field size of 66 acres, all together we expect this programming to reach ~62,100 acres of cropland and grazing lands by 2027.

To summarize, we expect 485 participants to complete the STAR Plus program by 2027. The goals upon completion of this project are: 1) at least 82% of STAR Plus participants will adopt additional new practices, either on the same field or across new acreage; 2) at least 82% of STAR Plus participants will enroll additional acreage into STAR, and thus receive STAR Ratings for additional fields without the need for incentive payments, and; 3) an additional 500 fields will be enrolled in the STAR program, for a total of 985 STAR fields (~62,100 acres) by the end of 2027.

Measurement, Monitoring, Reporting and Verification (MMRV) Plan

The approach to MMRV and quantification of greenhouse gas emission reductions and soil sequestration benefits proposed here includes the use of the COMET tools, soil sampling, soil moisture probes, economic analysis, sociological analysis, and practice monitoring and verification through collection, scoring and verification of STAR field forms. Different but aligned methodologies have been developed for STAR, STAR Plus and research fields (see appendix C). This work will be primarily conducted by CSU DoSCS, in partnership with CDA, University of Idaho - Agricultural Economics and Rural Sociology (UI AERS), and research partners at land grant universities in five other western states (ID, MT, NM, UT, and WY). The MMRV Plan objectives include:

1. Quantify and verify GHG and soil sequestration benefits on behalf of STAR Plus producers. COMET-Planner, soil sample data collection and analysis, and practice verification will be used here. On STAR fields, practice data will be collected through the STAR field form and a STAR Rating will be assigned; soil samples will be taken for the first 500 participants; practices will be verified through the STAR verification process; and COMET-Planner will be used to estimate GHG and soil sequestration benefits. On STAR Plus fields, practice data will be collected and a STAR Rating will be assigned; COMET-Planner will be used to estimate GHG and soil sequestration benefits; soil samples will be taken at the beginning and end of the program; and soil moisture probes will be installed. Methodology for research fields is

explained below. Ward Labs will be contracted to perform soil analysis for all STAR and STAR Plus fields; CDA will collect STAR practice data, score field forms, and conduct the STAR verification process; CDs, EEs, and TAPs will install soil moisture probes; and CSU DoSCS will perform COMET analysis.

2. Evaluate the soil carbon aspect of the COMET tools for the arid west.

Observational data will be collected and analyzed from a network of 35 research fields across six states. Research fields will receive additional soil samples, soil moisture probes and weather stations; COMET-Farm and COMET-Planner analysis; soil organic matter fractions (to determine the stability of soil organic carbon), lab-based MIR spectroscopy for soil organic matter chemical characterization, and a suite of soil health analyses (see appendix C). In addition to evaluating the COMET tools through correlational analysis, we will collect all the observational data necessary to create a Western module of COMET, similar to what has been created for CA. Each land grant university will be responsible for collecting soil samples, installing probes and weather stations, and maintaining equipment for research fields in their state. CSU DoSCS will perform all COMET and soil analysis (including POM and MOAM) for research fields, with contributions from University of Wyoming, University of Idaho, and New Mexico State University.

3. Advance understanding of soil moisture benefits, soil health outcomes, and standardize soil health research regionally.

CSU DoSCS will evaluate the soil health and soil moisture outcomes when new practices (including additional practices) are applied; validate the efficacy of the Haney soil health test; and ground truth estimates for water availability outcomes for the arid West. Soil moisture benefits are a key reason for adoption of soil health practices and not well understood for the West; this project will fill this gap. A full-time post doc and half-time program manager at CSU DoSCS will coordinate soil health, soil-water nexus, and carbon sequestration research.

4. Produce economic case studies and estimate program-wide economic and GHG benefit outcomes:

As part of the Federal CIG project, CSUE ABM is producing economic case studies for seven research fields in Colorado. For this project, eight additional economic case studies will be prepared by UI AERS. Ten of these economic case study fields will be in Colorado with one additional field in each other state. For these 15 fields, economic analysis conducted will include the annualized cost of GHG benefits, GHG benefit per dollar expended, and impacts on yields and other benefits including water availability. These economic case studies will be shared with all STAR Plus participants in the final year of the project. UI AERS will also contribute to a program-wide evaluation of the STAR, STAR Plus, and the pay-for-performance (PFP) pilot. Program-wide economic analysis will include estimates of cumulative GHG impacts, annualized cost of GHG reduction benefits using COMET data, partial budget analysis (PBA) data, and information about the level of incentive payment received and producer contribution provided.

5. Inform State Policy.

The cumulative results of this program will be included in the Colorado GHG Pollution Reduction Roadmap and STAR outcomes reports. Cumulative GHG impacts and soil sequestration results will be estimated using COMET-Planner and soil sample results; water availability and economic results will also be summarized

across the program. These tasks will be conducted by CDA, CSU DoSCS, and UI AERS collaboratively.

6. Advance Cost Effective GHG and Soil Sequestration Monitoring. Research fields will serve as “test sites” for new technologies and techniques. Private and academic partners working on new in-field, satellite, and other innovative monitoring methods will be able to use research fields to test their products and compare those results with the robust observational data collected as part of this project. Potential private and academic partners include Yardstick, Cloud Agronomics, and other groups.

7. Monitor and verify practice implementation. CDA soil health specialists, CDs and EEs, and TAPs will verify and monitor practice implementation on all 500 STAR Plus fields through the annual consultation process. Practice implementation will be verified for STAR participants through the STAR verification process. This process involves an audit of a random sample of all STAR fields and is overseen by the STAR Steering Committee. STAR verification for CO STAR participants is being conducted for the first time in 2022 and will be refined in partnership with National STAR.

8. Analyze Effectiveness of STAR Program. CSU DoS will evaluate the effectiveness of STAR, STAR Plus, PfP pilot, and the peer-to-peer learning from a sociological perspective. Surveys, 80 interviews and 8 focus groups will be conducted. Results will be shared with other states considering STAR and with supply chain partners.

Expected Results: We anticipate that 450 STAR Plus fields and 35 research fields will undergo new practice implementation across an estimated ~32,100 acres with an additional ~24,000 acres adopting new practices at the end of the project (~56,100 acres total). While estimating GHG benefits is difficult at this stage, we anticipate at least 26 tCO₂e per field/farm and ~25,000 tCO₂e across the project, which equates to .004tCO₂e per dollar expended at the farm level. We expect that these benefits will be particularly long lasting, as the STAR program is directed at sustaining and expanding practice adoption by connecting producers with new opportunities. These anticipated benefits will be monitored over the course of the program using GHG data from COMET-Planner; economic and yield data from research fields; and information about the level of incentive provided and producer contribution provided.

Plan to Develop and Expand Markets for Climate-Smart Commodities

This project will develop and expand markets for climate-smart commodities by addressing both the supply and demand of STAR products. The project will 1) reduce the risk of market entry for producers taking part in the STAR Plus program; and 2) develop the STAR Rating system as a market signal so all STAR participants can earn more for products grown with healthy soil practices.

Supply side: This project will incentivize ~56,100 acres of croplands and grazing lands to implement soil health practices, including creating a unified market signal. Additionally, the producers enrolled in STAR Plus will receive several deliverables that will reduce their risk as they look to market their climate-smart commodities. First, producers will receive a final report with results from the STAR Plus program. This will include information on soil health and water availability, their individual COMET-Planner results, and direction for evaluating their partial budget analysis (PBA) data

retroactively. Second, participants will receive economic case studies produced as part of this project, which will describe their on-farm costs and potential economic benefit. Third, producers will receive a primer directing them toward new opportunities for climate-smart commodities. This will be developed by the market specialist and will include information and guidance on carbon and PES markets, biodiversity initiatives, supply chain partners connected to the STAR program, Zero Foodprint and other market opportunities. It will also contain instructions and resources to support enrollment in EQIP, CSP, and other NRCS programs. Upon completion of the grant, the producers will have the information and experience to participate in any climate-smart commodity market. These deliverables will be delivered by CDs and EEs, TAPs, and CDA soil health specialists in final consultations and will help producers understand the on-farm economic costs and the potential economic benefits associated with climate-smart commodities and soil health practices. The final deliverable is a program-wide summary that will be used to develop further partnerships with supply chain partners. This program report will also enable GHG benefits to be included in Colorado's GHG Reduction Roadmap.

Demand side: This project will develop the STAR Rating system as a market signal so participants can get paid a premium for their products. This will include implementing a market development strategy that includes market research; the branding of STAR products through partnership with the CO Proud program; outreach to supply chain partners; directly connecting participants to food buyers and processors; and exploring market premium and PFP models for STAR products. In 2023, statewide market survey research and targeted focus groups will be performed by a contractor. By 2024, marketing materials (field signs, labels, branding materials) will be developed and made available to STAR producers; and STAR participants will be searchable by STAR Rating within the CO Proud database. In 2025, as part of the Federal CIG, CSU Center for Science Communication will release an 8-min film targeted to the public and consumers to further enhance the branding opportunities for STAR rated products. Over the course of the project, the market specialist will hold 10-15 meetings with food buyers and food processors; a STAR participant directory will be created for use by supply chain partners. Finally, coordination with National STAR around market premiums and a PFP model will ramp up over the course of the project. This is described in more detail in the next section, which outlines how program development (including market development) will proceed at the national level.

Expected Results: Economic benefits received by participants in the STAR Plus program include incentive payments received, increased on-farm profitability, and an improved understanding of the potential economic benefits from associated ecosystem services. Additionally, STAR and STAR Plus participants are expected to receive increased market returns through brand enhancement and revenue premiums.

STAR Plus participants will receive up to \$15,000 in incentive payments over the course of the project. Cumulatively, ~\$4.8M of incentive payments will be distributed to program participants. We estimate that STAR Plus participants will also see a \$12/acre/year increase in on-farm profitability on their STAR Plus Field because of adopting new practices. Assuming an average field of 66 acres, this equates to \$2,160 per participant, or approximately \$1,080,000 across the program. We expect that all 985 STAR

participants will also see increased market returns as STAR is established as a market signal. Assuming that a STAR market premium is 25% of the premium earned for organic products, STAR participants stand to earn \$110/acre/year, equating to \$9,900,000 across the program. Finally, while the economic benefits of understanding the GHG impacts of new practices are intangible, it also has great potential to unlock new opportunities for STAR Plus participants. Assuming that GHG benefits are 0.44t CO₂-eq/acre and a price on carbon of ~\$15/t; STAR Plus participants will be able to earn an additional \$400 for their STAR field, or \$200,000 program-wide.

Expand the STAR Program Regionally & Nationally

CDA believes this program will be most successful if it is aligned with and leveraged by other states and regions. The market for CSC is not constrained to Colorado, and thus this project brings in partners across state lines to ensure the quality and vision of the STAR program is maintained and strengthened as it is expanded. CDA will partner with Champaign County Soil and Water Conservation District (CCSWCD) and Ground Up Consulting (GUC) to develop the STAR program at the national and regional level. This team will complete the launch of a National STAR 501c(3) and National Steering Committee; recruit and facilitate STAR Science and Steering Committees for new STAR affiliates; develop local field forms and scoresheets; establish an onboarding process for new affiliates; develop a progressive web app for scoring field forms; develop a common framework for outcomes reporting and verification; launch a pay-for-performance (PfP) pilot with approximately 25 producers in Colorado; and dispatch STAR “ambassadors” to assist other states as they consider integrating STAR into new or existing soil health programming that fits their local context.

National STAR development: CCSWCD will hire four key leadership roles that will allow for the growth and expansion of National STAR, support current and new STAR affiliates, and contribute to market development at the national level. An Executive Director, Science Director and a Program Administrator will be hired in 2023; an Operations Manager will be added later in the project. These roles are critical to establishing STAR as a regional and national program and building partnerships with supply chain partners. National STAR will guide the expansion of the STAR Web App, including integration of new field forms, connections, and capabilities. Marketing and communications materials will be created and made available to all STAR affiliates to promote STAR. STAR outcomes reports will also be created across STAR affiliates.

Regional STAR development: In 2023, GUC will assist CDA and National STAR in revising and approving CO STAR field forms and scoring sheets. In 2023 and 2024, GUC will secure partnerships and support for the STAR program across six Western states (ID, MT, NM, UT, WA, WY) and assist in developing MOUs between National STAR and appropriate local partners. In 2024 and 2025, GUC will recruit and facilitate STAR Science Committees in these states (or regionally, where appropriate) to develop local field forms and scoresheets; recruit STAR Steering Committees; and coordinate with National STAR to onboard these new affiliates. Over the course of the project, GUC will coordinate with National STAR to develop a common framework and methodology for outcomes reporting and verification.

Pay-for-performance (PfP) pilot: CDA will contribute to future program development by coordinating a PfP pilot with approximately 25 Colorado farmers and ranchers. This pilot will have the same structure as an analogous project currently underway in Illinois. It proposes a one-time, per acre “change incentive” for fields that improve their STAR Rating (see budget justification for details) This pilot will start in 2024 and continue through the end of the project. The effectiveness of this PfP pilot will be evaluated by CSU DoS and compared to the STAR and STAR Plus programs. A final deliverable will compare the effectiveness of these different versions of STAR for other states so they can consider which options best fit their local policy context.

STAR ambassadors: STAR ambassadors will also contribute to future regional development. The project budget includes six trips for one CDA staff to visit each of the other states for which STAR field forms will be developed. The purpose of these visits is to assist other states as they consider integrating STAR into existing programming, or developing new soil health programming based on STAR, STAR Plus or the peer-to-peer learning and PfP pilots.

Post-project potential: In Colorado, this project will establish STAR and STAR Plus as statewide programs and position them to receive ongoing funding through the state legislature, private or philanthropic funding, or a market-driven source. STAR Plus will also set up 485 STAR Plus participants to adopt new practices across additional acreage and access new markets and other opportunities. Upon completion of the project, we anticipate that at least 82% will adopt new practices and enroll additional acreage into STAR.

As previously described, this project will also advance coordinated carbon sequestration and soil health research that has long-term potential to inform USDA actions, particularly in the West. This research will evaluate the COMET tools, initiate future work to create a western COMET module, and validate Haney and soil moisture estimates for the region. The network of research fields this project creates has potential to contribute important long-term data beyond the length of this project.

Finally, this project will establish STAR as a strong and viable regional and national program and encourage the development of new soil health programming that integrates STAR across the West. Success will mean several other states developing new policy or programming based on the results of this project, and the creation of a trusted economic signal for buyers interested in climate-smart commodities.

Appendix A: Practices and soil health activities covered by the Colorado STAR Plus program

Covered NRCS Practices:

- 310 - Bedding
- 311 - Alley Cropping
- 325 - High Tunnel System
- 327 - Conservation Cover
- 328 - Conservation Crop Rotation
- 329 - Residue and Tillage Management, No Till
- 330 - Contour Farming
- 331 - Contour Orchard and Other Perennial Crops
- 332 - Contour Buffer Strips
- 334 - Controlled Traffic Farming
- 340 - Cover Crop
- 342 - Critical Area Planting
- 345 - Residue and Tillage Management, Reduced Till
- 379 - Multi-Story Cropping
- 380 - Windbreak/Shelterbelt Establishment
- 381 - Silvopasture
- 382 - Fence
- 386 - Field Border
- 390 - Riparian Herbaceous Cover
- 391 - Riparian Forest Buffer
- 412 - Grassed Waterway
- 422 - Hedgerow Planting
- 484 - Mulching
- 511 - Forage Harvest Management
- 512 - Pasture and Hay Planting
- 528 - Prescribed Grazing
- 548 - Grazing Land Mechanical Treatment
- 550 - Range Planting
- 557 - Row Arrangement
- 585 - Stripcropping
- 588 - Crosswind Ridges
- 589 - Cross Wind Trap Strips
- 590 - Nutrient Management
- 600 - Terrace
- 601 - Vegetative Barrier
- 603 - Herbaceous Wind Barriers
- 612 - Tree/Shrub Establishment
- 650 - Windbreak/Shelterbelt Renovation
- 660 - Tree/Shrub Pruning
- 808 (336) - Soil Carbon Amendment

Appendix B: Milestones and Benchmarks²

The following milestones and target benchmarks align with USDA guidance. Note that this document reports quarterly cumulative targets only when there is a change in estimated number from the previous quarter. CDA will report on the following milestones and benchmarks each quarter:

- **Unique Benchmarks**
- **Required Quantitative Targets (cumulative)**
 - Number of producers involved
 - Number of underserved producers involved
 - Number of acres involved
 - Dollars provided to producers
 - GHG Benefits (Tons of CO₂e Sequestered)
 - Number of new marketing channels established
 - Number of marketing channels expanded
 - Number of measurement tools utilized
- **Other Required Benchmarks (cumulative)**
 - Outreach, training and other technical assistance (people reached)
 - Other MMRV and supply chain traceability attributes (qualitative)
 - Other measurements of work related to marketing of commodities (qualitative)
 - Demonstrated engagement of major partners (qualitative)

2023

Q1 2023

- **Unique Benchmarks**
 - USDA contracting complete
- **Required Quantitative Targets**
 - All benchmarks will be zero
- **Other Required Benchmarks**
 - All benchmarks will be zero

Q2 2023

- **Unique Benchmarks**
 - None
- **Required Quantitative Targets**
 - No changes from Q1 2023
- **Other Required Benchmarks**
 - No changes from Q1 2023

² These milestones and benchmarks assume CDA will be under contract with USDA in Q1 2023. This timeline will change if there are delays.

Q3 2023

- **Unique Benchmarks**
 - Up to 25 new CD/EEs contracted to implement STAR Plus.
- **Required Quantitative Targets**
 - No changes from Q2 2023
- **Other Required Benchmarks**
 - No changes from Q2 2023

Q4 2023

- **Unique Benchmarks**
 - New STAR Plus participants recruited, checked for eligibility, and selected
 - Research fields identified
- **Required Quantitative Targets**
 - Number of producers involved: 346
 - Number of underserved producers involved: 35
- **Other Required Benchmarks**
 - No changes from Q3 2023
 - Other MMRV and supply chain traceability attribute: (qualitative)
 - Other measurements of work related to marketing of commodities: (qualitative)
 - Demonstrated engagement of major partners: (qualitative)

2024

Q1 2024

- **Unique Benchmarks**
 - None
- **Required Quantitative Targets**
 - No changes from Q4 2023
- **Other Required Benchmarks**
 - No changes from Q4 2023

Q2 2024

- **Unique Benchmark**
 - Soil Samples collected
- **Required Quantitative Targets**
 - Number of acres involved: 23,000
 - Number of marketing channels expanded: 1
- **Other Required Benchmarks**
 - No changes from Q1 2024

Q3 2024

- **Unique Benchmarks**
 - Progressive Web App launched for CO (beta version)
- **Required Quantitative Targets**
 - No changes from Q2 2024
- **Other Required Benchmarks**

- No changes from Q2 2024

Q4 2024

- **Unique Benchmark**
 - STAR Plus year 1 complete
- **Required Quantitative Targets**
 - Number of producers involved: 421
 - Number of acres involved: 28,000
 - Dollars provided to producers: \$2,355,000
 - GHG Benefits: 4,200 tCO₂e sequestered
 - Number of new marketing channels established: 1
 - Number of measurement tools utilized: 10
- **Other Required Benchmarks**
 - Outreach, training and other technical assistance: 250 people reached
 - Other MMRV and supply chain traceability attribute: (qualitative)
 - Other measurements of work related to marketing of commodities: (qualitative)
 - Demonstrated engagement of major partners: (qualitative)

2025

Q1 2025

- **Unique Benchmarks**
 - None
- **Required Quantitative Targets**
 - No changes from Q4 2024
- **Other Required Benchmarks**
 - No changes from Q4 2024

Q2 2025

- **Unique Benchmarks**
 - None
- **Required Quantitative Targets**
 - Number of new marketing channels established: 2
- **Other Required Benchmarks**
 - No changes from Q1 2025

Q3 2025

- **Unique Benchmarks**
 - None
- **Required Quantitative Targets**
 - No changes from Q2 2025
- **Other Required Benchmarks**
 - No changes from Q2 2025

Q4 2025

- **Unique Benchmarks**

- STAR Plus Year 2 complete
- **Required Quantitative Targets**
 - Number of producers involved: 521
 - Number of acres involved: 34,000
 - Dollars provided to producers: \$4,085,000
 - GHG Benefits (Metric Tons of CO₂e Reduced or Sequestered): 9,300 tCO₂e
 - Number of new marketing channels established: 4
 - Number of marketing channels expanded: 2
- **Other Required Benchmarks**
 - Outreach, training, and other technical assistance: 500 people reached
 - Other MMRV and supply chain traceability attribute: (qualitative)
 - Other measurements of work related to marketing of commodities: (qualitative)
 - Demonstrated engagement of major partners: (qualitative)

2026

Q1 2026

- **Unique Benchmarks**
 - None
- **Required Quantitative Targets**
 - No changes from Q4 2025
- **Other Required Benchmarks that may be quantitative or qualitative:**
 - No changes from Q4 2025

Q2 2026

- **Unique Benchmarks**
 - Soil samples collected
- **Required Quantitative Targets**
 - Number of new marketing channels established: 5
- **Other Required Benchmarks**
 - No changes from Q1 2026

Q3 2026

- **Unique Benchmarks**
 - Progressive Web App (PWA) fully launched for CO and WA
- **Required Quantitative Targets**
 - No changes from Q2 2026
- **Other Required Benchmarks**
 - No changes from Q2 2026

Q4 2026

- **Unique Benchmarks**
 - STAR Plus year 3 complete
- **Required Quantitative Targets**
 - Number of producers involved: 671
 - Number of acres involved: 44,000

- Dollars provided to producers: \$5,815,000
- GHG Benefits (Metric Tons of CO₂e Reduced or Sequestered): 16,000 tCO₂e
- Number of marketing channels expanded: 3
- **Other Required Benchmarks**
 - Outreach, training, and other technical assistance: 750 people reached
 - Other MMRV and supply chain traceability attribute: (qualitative)
 - Other measurements of work related to marketing of commodities: (qualitative)
 - Demonstrated engagement of major partners: (qualitative)

2027

Q1 2027

- **Unique Benchmark**
 - None
- **Required Quantitative Targets**
 - No changes from Q4 2026
- **Other Required Benchmarks**
 - No changes from Q4 2026

Q2 2027

- **Unique Benchmark**
 - None
- **Required Quantitative Targets**
 - No changes from Q1 2027
- **Other Required Benchmarks**
 - No changes from Q1 2027

Q3 2027

- **Unique Benchmark**
 - Progressive Web App (PWA) launched for Rocky Mountain region
- **Required Quantitative Targets**
 - No changes from Q2 2027
- **Other Required Benchmarks**
 - No changes from Q2 2027

Q4 2027

- **Unique Benchmark**
 - STAR Plus year 4 complete
 - Grant Complete
- **Required Quantitative Targets**
 - Number of producers involved: 846
 - Number of acres involved: 56,100
 - GHG Benefits (Metric Tons of CO₂e Reduced or Sequestered): 25,000 tCO₂e
 - Number of new marketing channels developed: 6
 - Number of marketing channels expanded: 4
- **Other Required Benchmarks**
 - Outreach, training, and other technical assistance: 1000 people reached

- Other MMRV and supply chain traceability attribute: (qualitative)
- Other measurements of work related to marketing of commodities: (qualitative)
- Demonstrated engagement of major partners: (qualitative)

Target Cumulative Benchmarks for Full Grant Period

- Number of producers involved: 846
- Number of underserved producers involved: 35
- Number of acres involved: 56,000
- Dollars provided to producers: \$5,815,000
- GHG Benefits (Tons of CO₂e Sequestered): 25,000
- Number of new marketing channels established: 6
- Number of marketing channels expanded: 4
- Number of measurement tools utilized: 10
- Outreach, training and other technical assistance: 1,000 people reached
- Other MMRV and supply chain traceability attribute: Qualitative
- Other measurements of work related to marketing of commodities: Qualitative
- Demonstrated engagement of major partners: Qualitative

Appendix C. Research Design of MMRV Plan

Objectives for the MMRV Plan

- Quantify and verify GHG and soil sequestration benefits on behalf of STAR Plus producers.
- Evaluate the soil carbon aspect of the COMET tools for the arid West.
- Advance understanding of soil moisture benefits, soil health outcomes, and standardize soil health research regionally.
- Produce economic case studies and estimate program-wide economic and GHG benefit outcomes.
- Inform state policy.
- Advance cost-effective GHG and soil sequestration monitoring.
- Analyze the effectiveness of STAR, STAR Plus, and peer-to-peer learning and pay-for-performance pilots.

Research Design for the Different Field Types

RESEARCH FIELDS

Fields. 35 fields. 10 in Colorado, 5 in each NM, WY, UT, ID, MT. (Note: 7 research fields are funded through other grants. CSC will fund 27 new research fields)

Soil Health Analysis. Robust research-focused protocol for soil sampling and analysis.

GHG Monitoring and Verification Tools. COMET-Planner, COMET-Farm, STAR Verification³, Soil Sampling, Soil moisture probes, weather stations, lab-based MIR spectroscopy⁴

Economic Analysis. 15 economic case study⁵ fields (10 in CO, 1 in each NM, WY, UT, ID MT) will have robust economic case study data collected; GHG per \$ invested (per field/farm/program) and annualized cost of GHG reductions⁶; Partial Budget Analysis (PBA) Tool.

STAR PLUS FIELDS

Fields. 450 fields. (Note: CSC will fund 319 of these fields)

Soil Health Analysis. Program-focused protocol for soil sampling and analysis.

GHG Monitoring and Verification Tools. COMET Planner, STAR Verification³, Soil sampling

Economic Analysis. PBA Tool⁷, GHG per \$ invested (per field/farm/program)⁸.

STAR FIELDS

Fields. 500 fields (estimated).

Soil Health Analysis. Program-focused protocol for soil sampling and analysis.

GHG Monitoring and Verification. COMET-Planner, STAR Verification³, Soil sampling (first 500 fields)

Economic Analysis. PBA Tool⁷

³ Verification for STAR is a random sampling process that follows STAR National protocols; verification for STAR Plus is done by CDs and EEs as part of annual consultations and check-ins.

⁴ Measures longevity of GHG benefits.

⁵ Includes fields, fuel usage, input usage.

⁶ COMET results will be compared to robust economic data collected for case studies.

⁷ Results will not be collected at this time.

⁸ COMET-Planner results compared to sum of producer matching payments and incentive payments.

Protocols for Soil Sampling and Analysis**Program-focussed Protocol****Physical Soil Analysis**

- Texture
- Aggregate stability
- Water dynamics (available water capacity, infiltration)
- Soil moisture probes

Biological Soil Analysis

- Soil Organic Carbon

Chemical Soil Analysis

- Total Carbon
- Total Nitrogen
- Inorganic Carbon
- Phosphorus
- Potassium
- Zinc
- Calcium
- Magnesium
- Sodium
- Cation Exchange Capacity
- % Base Saturation
- Iron
- pH
- Electrical Conductivity
- Sodium Absorption Rate (SAR)

Research-focussed Protocol**Physical Soil Analysis**

- Texture
- Aggregate stability
- Water dynamics (available water capacity, infiltration)
- Soil moisture probes
- *Bulk Density*

Biological Soil Analysis

- Soil Organic Carbon
- *Potentially Mineralizable Nitrogen*
- *Active Carbon (POXC)*
- *Microbial biomass carbon*
- *Autoclaved citrate extractable (ACE) protein*
- *Haney*
- *Molecular*

Chemical Soil Analysis

- Total Carbon
- Total Nitrogen
- Inorganic Carbon
- Phosphorus
- Potassium
- Zinc
- Calcium
- Magnesium
- Sodium
- Cation Exchange Capacity
- % Base Saturation
- Iron
- pH
- Electrical Conductivity
- Sodium Absorption Rate (SAR)
- *Sulfur*
- *Heavy Metals*

Appendix D: Approval of Equipment Grants

Conservation districts and eligible entities (CD/EEs) participating in STAR Plus are eligible to receive an equipment grant of \$25,000 during the first year of the program (2024). This funding may be used for equipment purchases related to soil health by CD/EEs or producers participating in STAR Plus. Producers must be in the STAR Plus program to receive an equipment grant. Recipients must demonstrate a 50% (1-to-1) cash match using the match form and provide receipts. CD/EEs also need to demonstrate a 50% (1-to-1) cash match for equipment purchases made by the CD or EE itself.

To claim this equipment grant, **CD/EEs must submit an equipment grant application and include a written plan describing how this funding will be used.** This plan should include a description of the equipment to be purchased, by whom and how the equipment will be used, and anticipated delivery date of the equipment. If producers are receiving an equipment grant, this written plan must also describe how interest in this grant funding was solicited and which participants are board members or direct family members (including in-laws) of board members. Recipients of equipment grants must be recorded in board minutes. This application and written plan should be submitted when purchases are ready to be made. **CDA will dispense equipment grants after approving these applications and written plans.** CD/EEs must then provide the following within 90 days of receiving the equipment grant:

- a) Match forms with receipts included documenting any equipment purchased by producers showing a 50% (1-to-1) contribution
- b) Match forms with receipts included documenting any equipment purchased by the CD/EE itself showing a 50% (1-to-1) contribution

Allowable / disallowed purchases for equipment grants

Equipment grants are for purchases that can be convincingly shown to lower barriers to implementation of new soil health practices. Equipment grants may not be used to purchase vehicles or for equipment not related to soil health. Allowable purchases include such things as:

- No-till drills and other non-vehicle equipment for soil health
- Compost and extract equipment (not compost itself)
- Fencing and fence posts for advanced grazing systems
- Virtual fencing for advanced grazing systems

Some purchases will be allowed only if they can be convincingly shown to support soil health specifically. CDA will consider these requests on a case-by-case basis. These include such things as:

- Water leases for reestablishment of cover on buy and dry
- Posts and infrastructure for livestock integration
- Weed control
- Netting and fabric for orchards

Some purchases will not be allowed. These include such things as:

- Water augmentation for production
- Purchase of livestock to increase herd size
- Center pivots
- Lease payments
- Storage facilities
- Any equipment without a clear soil health use

Appendix B: Milestones and Benchmarks^[1]

The following milestones and target benchmarks align with USDA guidance. Note that this document reports quarterly cumulative targets only when there is a change in estimated number from the previous quarter. CDA will report on the following milestones and benchmarks each quarter:

- **Unique Benchmarks**
- **Required Quantitative Targets (cumulative)**
 - Number of producers involved
 - Number of underserved producers involved
 - Number of acres involved
 - Dollars provided to producers
 - GHG Benefits (Tons of CO₂e Sequestered)
 - Number of new marketing channels established
 - Number of marketing channels expanded
 - Number of measurement tools utilized
- **Other Required Benchmarks (cumulative)**
 - Outreach, training and other technical assistance (people reached)
 - Other MMRV and supply chain traceability attributes (qualitative)
 - Other measurements of work related to marketing of commodities (qualitative)
 - Demonstrated engagement of major partners (qualitative)

2023

Q1 2023

- **Unique Benchmarks**
 - USDA contracting complete
- **Required Quantitative Targets**
 - All benchmarks will be zero
- **Other Required Benchmarks**
 - All benchmarks will be zero

Q2 2023

- **Unique Benchmarks**
 - None
- **Required Quantitative Targets**
 - No changes from Q1 2023
- **Other Required Benchmarks**
 - No changes from Q1 2023

^[1] These milestones and benchmarks assume CDA will be under contract with USDA in Q1 2023. This timeline will change if there are delays.

Q3 2023

- **Unique Benchmarks**
 - Up to 25 new CD/EEs contracted to implement STAR Plus.
- **Required Quantitative Targets**
 - No changes from Q2 2023
- **Other Required Benchmarks**
 - No changes from Q2 2023

Q4 2023

- **Unique Benchmarks**
 - New STAR Plus participants recruited, checked for eligibility, and selected
 - Research fields identified
- **Required Quantitative Targets**
 - Number of producers involved: 346
 - Number of underserved producers involved: 35
- **Other Required Benchmarks**
 - No changes from Q3 2023
 - Other MMRV and supply chain traceability attribute: (qualitative)
 - Other measurements of work related to marketing of commodities: (qualitative)
 - Demonstrated engagement of major partners: (qualitative)

2024

Q1 2024

- **Unique Benchmarks**
 - None
- **Required Quantitative Targets**
 - No changes from Q4 2023
- **Other Required Benchmarks**
 - No changes from Q4 2023

Q2 2024

- **Unique Benchmark**
 - Soil Samples collected
- **Required Quantitative Targets**
 - Number of acres involved: 23,000
 - Number of marketing channels expanded: 1
- **Other Required Benchmarks**
 - No changes from Q1 2024

Q3 2024

- **Unique Benchmarks**
 - Progressive Web App launched for CO (beta version)
- **Required Quantitative Targets**
 - No changes from Q2 2024
- **Other Required Benchmarks**

- No changes from Q2 2024

Q4 2024

- **Unique Benchmark**
 - STAR Plus year 1 complete
- **Required Quantitative Targets**
 - Number of producers involved: 421
 - Number of acres involved: 28,000
 - Dollars provided to producers: \$2,355,000
 - GHG Benefits: 4,200 tCO₂e sequestered
 - Number of new marketing channels established: 1
 - Number of measurement tools utilized: 10
- **Other Required Benchmarks**
 - Outreach, training and other technical assistance: 250 people reached
 - Other MMRV and supply chain traceability attribute: (qualitative)
 - Other measurements of work related to marketing of commodities: (qualitative)
 - Demonstrated engagement of major partners: (qualitative)

2025

Q1 2025

- **Unique Benchmarks**
 - None
- **Required Quantitative Targets**
 - No changes from Q4 2024
- **Other Required Benchmarks**
 - No changes from Q4 2024

Q2 2025

- **Unique Benchmarks**
 - None
- **Required Quantitative Targets**
 - Number of new marketing channels established: 2
- **Other Required Benchmarks**
 - No changes from Q1 2025

Q3 2025

- **Unique Benchmarks**
 - None
- **Required Quantitative Targets**
 - No changes from Q2 2025
- **Other Required Benchmarks**
 - No changes from Q2 2025

Q4 2025

- **Unique Benchmarks**

- STAR Plus Year 2 complete
- **Required Quantitative Targets**
 - Number of producers involved: 521
 - Number of acres involved: 34,000
 - Dollars provided to producers: \$4,085,000
 - GHG Benefits (Metric Tons of CO₂e Reduced or Sequestered): 9,300 tCO₂e
 - Number of new marketing channels established: 4
 - Number of marketing channels expanded: 2
- **Other Required Benchmarks**
 - Outreach, training, and other technical assistance: 500 people reached
 - Other MMRV and supply chain traceability attribute: (qualitative)
 - Other measurements of work related to marketing of commodities: (qualitative)
 - Demonstrated engagement of major partners: (qualitative)

2026

Q1 2026

- **Unique Benchmarks**
 - None
- **Required Quantitative Targets**
 - No changes from Q4 2025
- **Other Required Benchmarks that may be quantitative or qualitative:**
 - No changes from Q4 2025

Q2 2026

- **Unique Benchmarks**
 - Soil samples collected
- **Required Quantitative Targets**
 - Number of new marketing channels established: 5
- **Other Required Benchmarks**
 - No changes from Q1 2026

Q3 2026

- **Unique Benchmarks**
 - Progressive Web App (PWA) fully launched for CO and WA
- **Required Quantitative Targets**
 - No changes from Q2 2026
- **Other Required Benchmarks**
 - No changes from Q2 2026

Q4 2026

- **Unique Benchmarks**
 - STAR Plus year 3 complete
- **Required Quantitative Targets**
 - Number of producers involved: 671
 - Number of acres involved: 44,000

- Dollars provided to producers: \$5,815,000
- GHG Benefits (Metric Tons of CO₂e Reduced or Sequestered): 16,000 tCO₂e
- Number of marketing channels expanded: 3
- **Other Required Benchmarks**
 - Outreach, training, and other technical assistance: 750 people reached
 - Other MMRV and supply chain traceability attribute: (qualitative)
 - Other measurements of work related to marketing of commodities: (qualitative)
 - Demonstrated engagement of major partners: (qualitative)

2027

Q1 2027

- **Unique Benchmark**
 - None
- **Required Quantitative Targets**
 - No changes from Q4 2026
- **Other Required Benchmarks**
 - No changes from Q4 2026

Q2 2027

- **Unique Benchmark**
 - None
- **Required Quantitative Targets**
 - No changes from Q1 2027
- **Other Required Benchmarks**
 - No changes from Q1 2027

Q3 2027

- **Unique Benchmark**
 - Progressive Web App (PWA) launched for Rocky Mountain region
- **Required Quantitative Targets**
 - No changes from Q2 2027
- **Other Required Benchmarks**
 - No changes from Q2 2027

Q4 2027

- **Unique Benchmark**
 - STAR Plus year 4 complete
 - Grant Complete
- **Required Quantitative Targets**
 - Number of producers involved: 846
 - Number of acres involved: 56,100
 - GHG Benefits (Metric Tons of CO₂e Reduced or Sequestered): 25,000 tCO₂e
 - Number of new marketing channels developed: 6
 - Number of marketing channels expanded: 4
- **Other Required Benchmarks**
 - Outreach, training, and other technical assistance: 1000 people reached

- Other MMRV and supply chain traceability attribute: (qualitative)
- Other measurements of work related to marketing of commodities: (qualitative)
- Demonstrated engagement of major partners: (qualitative)

Target Cumulative Benchmarks for Full Grant Period

- Number of producers involved: 846
- Number of underserved producers involved: 35
- Number of acres involved: 56,000
- Dollars provided to producers: \$5,815,000
- GHG Benefits (Tons of CO₂e Sequestered): 25,000
- Number of new marketing channels established: 6
- Number of marketing channels expanded: 4
- Number of measurement tools utilized: 10
- Outreach, training and other technical assistance: 1,000 people reached
- Other MMRV and supply chain traceability attribute: Qualitative
- Other measurements of work related to marketing of commodities: Qualitative
- Demonstrated engagement of major partners: Qualitative

Climate-Smart Practices and Limitations

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

NRCS Practice Code (if applicable)	Practice Name
310	Bedding
311	Alley Cropping
325	High Tunnel System
327	Conservation Cover
328	Conservation Crop Rotation
329	Residue & Tillage
330	Contour Farming
331	Contour Orchard and perennial Crops
332	Contour Buffer Strips
334	Controlled Traffic Farming
340	Cover Crop
342	Critical Area Planting
345	Residue and Tillage Management, Reduced Till
379	Multi-Story Cropping
380	Windbreak/Shelterbelt Establishment
381	Silvopasture
382	Fence
386	Field Border
390	Riparian Herbaceous Cover
391	Riparian Forest Buffer
412	Grassed Waterway
422	Hedgerow Planting
484	Mulching
511	Forage Harvest Management
512	Pasture and Hay Planting
528	Prescribed Grazing
548	Grazing Land Mechanical Treatment
550	Range Planting
557	Row Arrangement
585	Strippcropping
588	Crosswind Ridges
589	Crosswind Wind Trap Strips
590	Nutrient Management
600	Terrace
601	Vegetative Barrier
603	Herbaceous Wind Barriers
612	Tree/Shrub Establishment
650	Windbreak/Shelterbelt Renovation
660	Tree/Shrub Pruning
808 (336)	Soil Carbon Amendment

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

Practice Name	Alternative Practice Standards
None	



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

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Overview of Reporting Requirements

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

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

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

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

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

Field level: Information about individual fields enrolled in a project.

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

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

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

Project Summary

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

Table 1. Project Summary elements

Data element name	Description	Frequency
Commodity type	Type of commodity(ies) incentivized by the project	Quarterly
Commodity sales	Indicates sales of the commodity(ies) related to the project occurred this quarter	Quarterly
Farms enrolled	Indicates enrollment activities occurred this quarter	Quarterly
GHG calculation methods	Methods used to calculate greenhouse gas (GHG) benefits	Quarterly
GHG cumulative calculation	Method used to calculate cumulative GHG benefits	Quarterly
Cumulative GHG benefits	Whole project estimate of total GHG (CO ₂ e) emission reductions	Quarterly
Cumulative carbon stock	Whole project estimate of total carbon sequestration	Quarterly
Cumulative CO ₂ benefit	Whole project estimate of total CO ₂ emission reductions	Quarterly
Cumulative CH ₄ benefit	Whole project estimate of total CH ₄ emission reductions	Quarterly
Cumulative N ₂ O benefit	Whole project estimate of total N ₂ 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

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

Marketing Activities

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

Table 3. Marketing Activities elements

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

Producer Enrollment

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

Table 4. Producer Enrollment elements

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

Field Enrollment

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

Table 5. Field Enrollment elements

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

Farm Summary

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

Table 6. Farm Summary elements

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

Field Summary

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

Table 7. Field Summary elements

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

GHG Benefits - Alternate Modeled

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

Table 8. GHG Benefits – Alternate Modeled elements

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

GHG Benefits - Measured

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

Table 9. GHG Benefits - Measured data elements

Data element name	Description	Frequency
Farm ID	Unique Farm ID assigned by FSA	
Tract ID	Unique Tract ID assigned by FSA	
Field ID	Unique Field ID assigned by FSA	
State	State name	
County	County name	
GHG measurement method	Method of measurement	Annual
Lab name	Entity that conducted analysis	Annual
Measurement start date	Start date of measurements	Annual
Measurement end date	End date of measurements	Annual
Total CO ₂ reduction calculated	Calculation of total CO ₂ reduction	Annual
Total carbon stock change calculated	Calculation of change in carbon stock	Annual
Total CH ₄ reduction calculated	Calculation of total CH ₄ reduction	Annual
Total N ₂ O reduction calculated	Calculation of total N ₂ O 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

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

Supplemental Data Submission

Project MMRV Plan

Definition of MMRV elements:

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

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

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

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

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

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

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

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

Field modeled GHG benefit reports

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

Field direct measurement results

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

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

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

Commodity type

Data element name: Commodity type	Reporting question: What climate-smart commodity types are produced by this project?
Description: Type of commodity incentivized by the project. These commodities include those for whom farmers are directly receiving incentives or other types of marketing support. See full list of commodity options in Appendix B. List one commodity per row.	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values: FSA commodity list
Logic: None – all respond	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly

Commodity sales

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

Farms enrolled

Data element name: Farms enrolled	Reporting question: Did the project enroll any producers or fields this quarter?
Description: 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.	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values: <ul style="list-style-type: none"> • Yes • No
Logic: None – all respond	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly

GHG calculation methods

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

GHG cumulative calculation

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

Cumulative GHG benefits

Data element name: Cumulative GHG benefits	Reporting question: What are the project's estimated total GHG emission reductions (CO ₂ eq) to date?
Description: Total cumulative estimated greenhouse gas emission reductions from practice implementation. This is updated quarterly. If there are no changes, enter the same number as the previous quarter.	
Data type: Decimal	Select multiple values: No
Measurement unit: Metric tons CO ₂ eq	Allowed values: 0-10,000,000
Logic: None – all respond	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly

Cumulative carbon stock

Data element name: Cumulative carbon stock	Reporting question: How much carbon has the project sequestered to date?
Description: Estimated total cumulative change in carbon stock based on practice implementation. This is updated quarterly. If there are no changes, enter the same numbers as the previous quarter. Conversion rate is one ton of carbon = 3.67 tons of CO ₂ eq.	
Data type: Decimal	Select multiple values: No
Measurement unit: Metric tons CO ₂ eq	Allowed values: 0-10,000,000
Logic: None – all respond	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly

Cumulative CO₂ benefit

Data element name: Cumulative CO ₂ benefit	Reporting question: What are the project's estimated total cumulative CO ₂ emission reductions to date?
Description: Estimated total cumulative carbon dioxide emission reductions based on practice implementation. This is updated quarterly. If there are no changes, enter the same number as the previous quarter.	
Data type: Decimal	Select multiple values: No
Measurement unit: Metric tons CO ₂	Allowed values: 0-10,000,000
Logic: None – all respond	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly

Cumulative CH₄ benefit

Data element name: Cumulative CH ₄ benefit	Reporting question: What are the project's estimated total CH ₄ emission reductions to date?
Description: Estimated total cumulative methane reduction based on practice implementation. This is updated quarterly. If there are no changes, enter the same numbers as the previous quarter. Conversion rate is one ton of CH ₄ = 25 tons of CO ₂ eq.	
Data type: Decimal	Select multiple values: No
Measurement unit: Metric tons CH ₄ reduced in CO ₂ eq	Allowed values: 0-10,000,000
Logic: None – all respond	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly

Cumulative N2O benefit

Data element name: Cumulative N2O benefit	Reporting question: What are the project's estimated total N2O emission reductions to date?
Description: Estimated total cumulative nitrous oxide reduction based on practice implementation. This is updated quarterly. If there are no updated numbers enter the same number as the previous quarter. Conversion rate is one ton of N ₂ O = 298 tons of CO ₂ eq.	
Data type: Decimal	Select multiple values: No
Measurement unit: Metric tons N2O reduced in CO ₂ eq	Allowed values: 0-10,000,000
Logic: None – all respond	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly

Offsets produced

Data element name: Offsets produced	Reporting question: How many carbon offsets have been produced in the project?
Description: Total carbon offsets produced by enrolled project fields during the quarter. Offsets are defined as having been verified and certified using an accepted standard and sold into the carbon marketplace.	
Data type: Decimal	Select multiple values: No
Measurement unit: Metric tons CO ₂ eq	Allowed values: 0-10,000,000
Logic: None – all respond	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly

Offsets sale

Data element name: Offsets sale	Reporting question: To what marketplace(s) were carbon offsets sold?
Description: Marketplaces to which carbon offsets produced by enrolled project fields were sold. Offsets are defined as having been verified and certified using an accepted standard and sold into the carbon marketplace. List each marketplace name. Separate names with commas.	
Data type: Text	Select multiple values: NA
Measurement unit: Name	Allowed values: Text
Logic: Respond if >0 to 'Offsets produced'	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly

Offsets price

Data element name: Offsets price	Reporting question: What was the average price of carbon received for offsets?
Description: Average price per metric ton paid for carbon offsets produced by enrolled project fields. Offsets are defined as having been verified and certified using an accepted standard and sold into the carbon marketplace.	
Data type: Decimal	Select multiple values: No
Measurement unit: Dollars per metric ton	Allowed values: 0-500
Logic: Respond if >0 to 'Offsets produced'	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly

Insets produced

Data element name: Insets produced	Reporting question: How many carbon insets have been produced in the project?
Description: Total carbon insets produced by enrolled fields during the quarter. Insets are defined as having been verified and certified using an accepted standard and accounted for within Scope 3 emissions for a firm.	
Data type: Decimal	Select multiple values: No
Measurement unit: Metric tons CO ₂ eq	Allowed values: 0-10,000,000
Logic: None – all respond	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly

Cost of on-farm TA

Data element name: Cost of on-farm TA	Reporting question: What is the total amount that has been spent to provide on-farm TA?
Description: Total cost of any field- or practice-specific technical assistance provided by the project (by recipient or partners) to any producers. This is updated quarterly. If there are no changes, enter the same number as the previous quarter.	
Data type: Decimal	Select multiple values: No
Measurement unit: Dollars	Allowed values: \$0-\$50,000,000
Logic: None – all respond	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly

MMRV cost

Data element name: MMRV cost	Reporting question: What is the total amount that has been spent on MMRV activities?
Description: Total cost of all MMRV activities paid for by the project (recipient or partners). MMRV components are defined as measurement (calculations or estimations of GHG emissions), monitoring (ongoing review and confirmation that the climate-smart practices have been implemented according to the agreed upon standard and documentation of any changes in the site, implementation, or GHG emissions impacts over time), reporting (documenting and sharing monitoring and measurement results with project partners, the recipient, and any third-party verification organization), and verification (independent confirmation that measurement, monitoring and reporting information are complete, accurate and reliable). This is updated quarterly. If there are no changes, enter the same number as the previous quarter.	
Data type: Decimal	Select multiple values: No
Measurement unit: Dollars	Allowed values: \$0-\$50,000,000
Logic: None – all respond	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly

GHG monitoring method

Data element name: GHG monitoring 1-5	Reporting question: How did the project monitor GHG benefits?
Description: Up to the five most common forms of monitoring GHG benefits used this quarter as part of MMRV requirements. Monitoring is defined as ongoing review and confirmation that the climate-smart practice has been implemented according to the agreed upon standard and documentation of any changes in the site, implementation, or GHG emissions impacts over time. Include up to 5 methods, based on which methods are most commonly used for this project. The worksheet provides five columns with a drop-down list of the allowed values. Choose one value for each column. If fewer than 5 GHG monitoring methods are used, leave unnecessary columns blank. If "other" is chosen, use the additional column to enter other GHG monitoring methods as free text.	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values: <ul style="list-style-type: none"> • Drones • Ground-level photos and videos • On-farm visit • Plot-based sampling • Producer records or attestation • Satellite monitoring or remote sensing • Soil metagenomics • Soil sensors • Water sensors • Other (specify)
Logic: None – all respond	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly

GHG reporting method

Data element name: GHG reporting 1-5**Reporting question:** How did the project track and report implementation of practices to reduce GHG emissions?

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

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

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

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

GHG verification method

Data element name: GHG verification method 1-5**Reporting question:** How did the project verify implementation of practices to reduce GHG emissions?

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

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

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

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

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

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

Partner type

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

Partner POC

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

Partner POC email

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

Partnership start date

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

Partnership end date

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

New partnership

Data element name: New partnership	Reporting question: Is this a new partnership?
Description: A new partnership means that the recipient and the partner organization have not had a formal working relationship (under contract or on a grant) prior to the start of the project.	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	<ul style="list-style-type: none"> • Yes • No • I don't know
Logic: No response for recipient	Required: Yes
Data collection level: Partner	Data collection frequency: Partnership initiation

Partner total requested

Data element name: Partner total requested	Reporting question: What is the total amount of funding the partner has requested to date from this project?
Description: Cumulative (total) amount of funds that the partner has requested reimbursement for from the recipient from the start of the partnership to the end of the reporting quarter. For each quarter's data entry, the value must be the sum of all previous entries plus the amount of funds requested in the reporting quarter. If there are no changes, report the value from the previous quarter.	
Data type: Decimal	Select multiple values: NA
Measurement unit: Dollars	Allowed values: \$0-\$100,000,000
Logic: No response for recipient	Required: Yes
Data collection level: Partner	Data collection frequency: Quarterly

Total match contribution

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

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

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

Total match incentives

Data element name: Total match incentives**Reporting question:** What is the total value of match provided by this organization for producer incentives?

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

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

Match type

Data element name: Match type 1-3**Reporting question:** What types of match contributions has the organization provided to the project?

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

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

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

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

Match amount

Data element name: Match amount 1-3**Reporting question:** What is the value of the match contributions the organization provided to the project?

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

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

Training type provided

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

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

Data type: List**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

Activity by partner

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

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

Data type: List**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

Activity cost
Data element name: Activity cost 1-3**Reporting question:** What is the value of the activities this organization has provided to the project?

Description: Cumulative (total) cost of each activity type that the organization has undertaken or offered from the start of the partnership to the end of the reporting quarter. Enter amounts for up to the top three (in dollar value) activity types. The worksheet provides three columns for this data element. Enter one value for each column. If fewer than 3 activity types are provided, leave unnecessary columns blank.

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

Products supplied
Data element name: Products supplied**Reporting question:** What products or supplies were provided to enrolled fields?

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

Data type: Text**Select multiple values:** NA**Measurement unit:** Name**Allowed values:** Text**Logic:** None – all respond**Required:** Yes**Data collection level:** Partner**Data collection frequency:** Quarterly

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

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

Data type: Text**Select multiple values:** NA**Measurement unit:** Name**Allowed values:** Text**Logic:** Respond if text entered for 'Products supplied'**Required:** Yes**Data collection level:** Partner**Data collection frequency:** Quarterly

Marketing Activities

Commodity type

Data element name: Commodity type	Reporting question: What type of commodity is produced by the farmers enrolled in this project?
Description: List a single commodity produced or marketed through incentives from this project. If multiple commodities are produced by the project, use additional rows of the worksheet to report each commodity. Use the FSA commodity list in Appendix B and choose the commodity from the list.	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values: FSA commodity list
Logic: None – all respond	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly

Marketing channel type

Data element name: Marketing channel type	Reporting question: What type of marketing channel is used to sell this commodity?
Description: List a single type of marketing channel used to sell the commodity produced by farmers enrolled in the project. If a single commodity is marketed through multiple channels, use additional rows of the worksheet to report each combination of commodity and marketing channel. If “other” is chosen, use the additional column to enter the other marketing channel type(s) as free text.	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values: <ul style="list-style-type: none"> • Agricultural marketing board • Biorefinery • Commodity broker • Direct to consumer • Direct to institution • Direct to restaurant • Distributor (including grain elevators) • Food hub or cooperative • Food processor • Non-food byproducts processor • Retailer • USDA • Other (specify)
Logic: None – all respond	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly

Number of buyers

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

Names of buyers

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

Marketing channel geography

Data element name: Marketing channel geography	Reporting question: What is the primary geography of the marketing channel?
Description: The primary geography of the type of marketing channel. Primary geography means the scale at which most of the activity of buying and selling happens. Local means within a single state or directly neighboring states. Regional means within a five-to-ten state area. National means across the United States. International means specific locations outside of the United States. Global means across the world or not to a specific international location.	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values: <ul style="list-style-type: none"> • Local • Regional • National • Global
Logic: None – all respond	Required: Yes
Data collection level: Project	Data collection frequency: Quarterly

Value sold

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

Volume sold

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

Volume sold unit

Data element name: Volume sold unit**Reporting question:** What is the unit of volume?**Description:** The unit associated with the volume of the commodity sold in the marketing channel. If “other” is chosen, use the additional column to enter the appropriate unit as free text.**Data type:** List**Select multiple values:** No**Measurement unit:** Category**Allowed values:**

- Bales (500 pounds)
- Bushels
- Carcass pounds
- Gallons
- Kilograms
- Linear board feet
- Liveweight pounds
- Metric tons
- Pounds
- Short tons
- Other (specify)

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

Price premium

Data element name: Price premium**Reporting question:** What price premium is received for the commodity sold in this marketing channel?**Description:** The price premium received for the commodity sold in this marketing channel this quarter. Price premium is the amount received above a ‘business as usual’ price.**Data type:** Decimal**Select multiple values:** No**Measurement unit:** Dollars**Allowed values:** \$0.01-\$10,000**Logic:** None – all respond**Required:** Yes**Data collection level:** Project**Data collection frequency:** Quarterly

Price premium unit

Data element name: Price premium unit**Reporting question:** What is the unit for the price premium?**Description:** The unit associated with the price premium for the commodity sold in the marketing channel. If “other” is chosen, use the additional column to enter the appropriate unit as free text.**Data type:** List**Select multiple values:** No**Measurement unit:** Category**Allowed values:**

- Per bale (500 pounds)
- Per bushel
- Per carcass pound
- Per gallon
- Per kilogram
- Per linear board foot
- Per live pound
- Per metric ton
- Per ounce
- Per short ton
- Other (specify)

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

Price premium to producer

Data element name: Price premium to producer

Reporting question: What percent of the price premium is provided to the producer for the commodity sold in this marketing channel?

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

Data type: Decimal

Select multiple values: No

Measurement unit: Percent

Allowed values: 0-100

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Product differentiation method

Data element name: Product differentiation method 1-3

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

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

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

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Marketing method

Data element name: Marketing method 1-3

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

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

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

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Marketing channel identification method

Data element name: Marketing channel identification method 1-3

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

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

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

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Traceability method

Data element name: Traceability method 1-3

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

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

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

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Producer Enrollment

Unique IDs

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

Producer data change

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

Producer start date

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

Producer name

Data element name: Producer name	Reporting question: What is the name of producer enrolled in the project?
Description: Name of the producer enrolled in the project; the name must match the name contained in the customer's Business Partner record and the Farm Operating Plan in FSA Business File for that Farm ID.	
Data type: Text	Select multiple values: NA
Measurement unit: NA	Allowed values: Text
Logic: None – all respond	Required: Yes
Data collection level: Producer	Data collection frequency: Initial enrollment

Underserved status

Data element name: Underserved status**Reporting question:** Is this producer considered an underserved and/or a small producer?

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

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

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

Logic: None – all respond**Required:** No**Data collection level:** Producer**Data collection frequency:** Initial enrollment

Total area

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

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

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

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

Logic: None – all respond**Required:** Yes**Data collection level:** Producer**Data collection frequency:** Initial enrollment and subsequent enrollment(s), if applicable

Total crop area

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

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

Data type: Integer

Select multiple values: No

Measurement unit: Acres

Allowed values: 0-100,000

Logic: None – all respond

Required: Yes

Data collection level: Producer

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

Total livestock area

Data element name: Total livestock area **Reporting question:** What amount of the current operation is used for livestock (by area)?

Description: Area of the total farm that is currently used for pasture, grazing, rangeland; or animal housing, feeding or milking. If a producer is enrolled in the project for multiple years, review the total livestock area each time a new contract is signed and provide any necessary updates.

Data type: Integer

Select multiple values: No

Measurement unit: Acres

Allowed values: 0-100,000

Logic: None – all respond

Required: Yes

Data collection level: Producer

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

Total forest area

Data element name: Total forest area **Reporting question:** What amount of the current operation is forested (by area)?

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

Data type: Integer

Select multiple values: No

Measurement unit: Acres

Allowed values: 0-100,000

Logic: None – all respond

Required: Yes

Data collection level: Producer

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

Livestock type

Data element name: Livestock type 1-3

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

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

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

Logic: Respond if 'Total livestock area' >0

Required: Yes

Data collection level: Producer

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

Livestock head

Data element name: Livestock head 1-3

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

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

Data type: Integer

Select multiple values: NA

Measurement unit: Head count

Allowed values: 1-10,000,000

Logic: Respond if 'Total livestock area' >0

Required: Yes

Data collection level: Producer

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

Organic farm
Data element name: Organic farm**Reporting question:** Is any part of the farm currently USDA-certified organic or transitioning to USDA-certified organic?

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

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

- Yes
- No
- I don't know

Logic: None – all respond**Required:** No**Data collection level:** Producer**Data collection frequency:** Initial enrollment and subsequent enrollment(s), if applicable

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

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

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

- Yes
- No
- I don't know

Logic: Respond if yes to 'Organic operation'**Required:** No**Data collection level:** Producer**Data collection frequency:** Initial enrollment and subsequent enrollment(s), if applicable

Producer motivation
Data element name: Producer motivation**Reporting question:** Which of the following was the primary reason the producer enrolled in this project?**Description:** Primary operator's motivation for enrolling in the project.**Data type:** List**Select multiple values:** No**Measurement unit:** Category**Allowed values:**

- Financial benefit
- Environmental benefit
- New market opportunity
- Partnerships or networks
- Other

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

Producer outreach

Data element name: Producer outreach 1-3 **Reporting question:** What types of outreach were provided to producers?

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

Data type: List

Select multiple values: Yes

Measurement unit: Category

Allowed values:

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

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment

CSAF experience

Data element name: CSAF experience **Reporting question:** Has the primary operator implemented CSAF practices in the last ten years anywhere on the farm?

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment

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

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

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

- Yes
- No
- I don't know

Logic: Respond if yes to 'CSAF experience'**Required:** Yes**Data collection level:** Producer**Data collection frequency:** Initial enrollment

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

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

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

- Yes
- No
- I don't know

Logic: Respond if yes to 'CSAF experience'**Required:** Yes**Data collection level:** Producer**Data collection frequency:** Initial enrollment

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

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

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

- Yes
- No
- I don't know

Logic: Respond if yes to 'CSAF experience'**Required:** Yes**Data collection level:** Producer**Data collection frequency:** Initial enrollment



CSAF market incentives

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

Description: If this farm (under the primary operator) has implemented CSAF practices in the last ten years, was implementation supported by market incentives? Market incentives include premiums paid by a commodity buyer or by a consumer based on branding or labeling as a climate-smart commodity.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: Respond if yes to 'CSAF experience'

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment

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

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: <ul style="list-style-type: none"> • NRCS • Other (specify)
Logic: None – all respond	Required: Yes
Data collection level: Field	Data collection frequency: Initial enrollment

Planned practice implementation year

Data element name: Practice 1-7 implementation year	Reporting question: What year is the CSAF practice planned to be implemented?
Description: Year that the CSAF practice is planned to be implemented on the field. Use 2022 for early adopters, defined as fields that have the practice actively implemented in 2022 (prior to contract being signed for this project). The worksheet provides seven columns for this data element. Enter one value for each column, corresponding to the practice types entered in the previous columns. If there are fewer than 7 practices being implemented on this field through enrollment in the project, leave unnecessary columns blank.	
Data type: Integer	Select multiple values: No
Measurement unit: Year	Allowed values: 2022-2030
Logic: None – all respond	Required: Yes
Data collection level: Field	Data collection frequency: Initial enrollment

Practice extent

Data element name: Practice 1-7 extent	Reporting question: To what extent is the practice implemented?
Description: Total area, length, or head where the practice is being implemented in the field specified by the contract.	
Data type: Decimal	Select multiple values: No
Measurement unit: Extent	Allowed values: .01-100,000
Logic: None – all respond	Required: Yes
Data collection level: Field	Data collection frequency: Initial enrollment

Practice extent unit

Data element name: Practice 1-7
 extent unit

Reporting question: Unit for extent of practice implementation

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

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

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

CSAF Practice Sub-questions

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

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

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

Incentive type

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

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

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

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

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

Payment on enrollment

Data element name: Payment on enrollment**Reporting question:** What portion of the financial incentive is provided to the producer upon enrollment in the project?

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

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

- Full payment
- Partial payment
- No payment

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

Payment on implementation

Data element name: Payment on implementation**Reporting question:** What portion of the financial incentive is provided to the producer upon implementation of the practices?

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

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

- Full payment
- Partial payment
- No payment

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

Payment on harvest

Data element name: Payment on harvest**Reporting question:** What portion of the financial incentive is provided to the producer upon harvest of the commodity?

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

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

- Full payment
- Partial payment
- No payment

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

Payment on MMRV

Data element name: Payment on MMRV**Reporting question:** What portion of the financial incentive is provided to the producer upon completing MMRV requirements?

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

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

- Full payment
- Partial payment
- No payment

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

Payment on sale

Data element name: Payment on sale**Reporting question:** What portion of the financial incentive is provided to producer upon sale of the commodity?

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

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

- Full payment
- Partial payment
- No payment

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

Field Summary**Unique IDs**

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

Commodity type

Data element name: Commodity type	Reporting question: What type of commodity is produced from this field?
Description: Type of commodity produced in field enrolled in the project. See full list in Appendix B. The worksheet provides multiple columns with a drop-down list of the allowed values. Choose one value for each column. Leave unnecessary columns blank.	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values: FSA commodity list
Logic: None – all respond	Required: Yes
Data collection level: Field	Data collection frequency: Quarterly

Practice type

Data element name: Field practice type 1-7	Reporting question: What CSAF practice is being implemented in this field through the project?
Description: Which climate-smart agriculture or forestry (CSAF) practice or practices are being implemented in this project? CSAF practices are included in a list in Appendix A. The worksheet provides seven columns for this data element. Enter one value for each column. If there are fewer than 7 practices being implemented on this field through enrollment in the project, leave unnecessary columns blank.	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values: See list in Appendix A
Logic: None – all respond	Required: Yes
Data collection level: Field	Data collection frequency: Quarterly

Date practice complete

Data element name: Date practice complete	Reporting question: When did the project certify CSAF practice implementation as complete?
Description: Date that the project certifies that implementation of the CSAF practice is complete on the field. Use January of the year prior to contract year for early adopters, defined as fields that have the practice actively implemented in the year prior to a contract associated with this project is signed). The worksheet provides seven columns for this data element. Enter one value for each column, corresponding to the practice types entered in the previous columns. If there are fewer than 7 practices being implemented on this field through enrollment in the project, leave unnecessary columns blank.	
Data type: Date	Select multiple values: No
Measurement unit: MM/DD/YYYY	Allowed values: 01/01/2023 – 12/31/2030
Logic: None – all respond	Required: Yes
Data collection level: Field	Data collection frequency: Quarterly

Contract end date**Data element name:** Contract end date**Reporting question:** Contract end date**Description:** End date listed on the contract that enrolls the field in the project. If contract end date changes, submit updated end date during the next quarter's reporting.**Data type:** Date**Select multiple values:** No**Measurement unit:** MM/DD/YYYY**Allowed values:** 01/01/2023 – 12/31/2030**Logic:** None – all respond**Required:** Yes**Data collection level:** Field**Data collection frequency:** Quarterly**MMRV assistance provided****Data element name:** MMRV assistance provided**Reporting question:** Was MMRV assistance provided?**Description:** Was any MMRV assistance provided to the primary operator for this field? MMRV assistance includes in-field support for the use of technologies, consultation on data collection and input, and other support related to MMRV. MMRV is defined a measurement (calculations or estimations of GHG emissions), monitoring (ongoing review and confirmation that the climate-smart practice has been implemented according to the agreed upon standard and documentation of any changes in the site, implementation, or GHG emissions impacts over time), reporting (documenting and sharing monitoring and measurement results with project partners, the recipient, and any third-party verification organization), and verification (independent confirmation that measurement, monitoring and reporting information are complete, accurate and reliable).**Data type:** List**Select multiple values:** No**Measurement unit:** Category**Allowed values:**

- Yes
- No
- I don't know

Logic: None – all respond**Required:** Yes**Data collection level:** Field**Data collection frequency:** Quarterly**Marketing assistance provided****Data element name:** Marketing assistance provided**Reporting question:** Was marketing assistance provided?**Description:** Was any marketing assistance provided to the primary operator for the commodity(ies) produced from this field? Marketing assistance includes guaranteeing the sale of the commodity(ies), providing a platform for the sale of the commodity(ies), providing a label, branding, or other support related to marketing.**Data type:** List**Select multiple values:** No**Measurement unit:** Category**Allowed values:**

- Yes
- No
- I don't know

Logic: None – all respond**Required:** Yes**Data collection level:** Field**Data collection frequency:** Quarterly**Incentive per acre or head****Data element name:** Incentive per acre or head**Reporting question:** Is this field receiving a per-acre or per-head incentive?**Description:** Is this field receiving an incentive payment to implement a specific CSAF practice or set of practices on a per-acre or per-head (livestock) basis?**Data type:** List**Select multiple values:** No**Measurement unit:** Category**Allowed values:**

- Yes
- No
- I don't know

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

Field commodity value

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

Field commodity volume

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

Field commodity volume unit

Data element name: Field commodity volume unit	Reporting question: What is the unit of volume?
Description: The unit associated with the volume of the commodity produced on the enrolled field. If “other” is chosen, enter the appropriate value in the additional column.	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values: <ul style="list-style-type: none"> • Bushels • Carcass weight pounds • Gallons • Head • Linear feet • Liveweight pounds • Pounds • Tons • Other (specify)
Logic: None – all respond	Required: Yes
Data collection level: Field	Data collection frequency: Quarterly

Cost of implementation

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

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

Field GHG reporting

Data element name: Field GHG reporting 1-3 **Reporting question:** How were GHG benefits reported for this field?

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

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

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Field GHG verification

Data element name: Field GHG verification 1-3 **Reporting question:** How was implementation of practices to reduce GHG emissions verified for this field?

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

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

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Field GHG calculations

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

Field official GHG calculation

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

Field official GHG ER

Data element name: Field official GHG emission reductions	Reporting question: What are the estimated total GHG emission reductions (CO ₂ eq) in this field?
Description: Estimated greenhouse gas emission reductions from practice implementation in this field that are reported as part of the project's aggregate impact. This data element must be entered upon practice completion or annually, as appropriate.	
Data type: Decimal	Select multiple values: No
Measurement unit: Metric tons CO ₂ eq	Allowed values: 0-10,000,000
Logic: None – all respond	Required: Yes
Data collection level: Field	Data collection frequency: Quarterly

Field official carbon stock

Data element name: Field official carbon stock	Reporting question: How much carbon has been sequestered in this field?
Description: Estimated total change in carbon stock based on practice implementation in this field. This data element can be reported in any quarter and is cumulative for the year. Conversion rate is one ton of carbon = 3.67 tons of CO ₂ eq.	
Data type: Decimal	Select multiple values: No
Measurement unit: Metric tons CO ₂ eq	Allowed values: 0-10,000,000
Logic: None – all respond	Required: Yes
Data collection level: Field	Data collection frequency: Quarterly

Field official CO2 ER

Data element name: Field official CO2 emission reductions	Reporting question: What are the estimated total CO2 emission reductions in this field?
Description: Estimated total carbon dioxide emission reductions based on practice implementation in this field that are reported as part of the project's aggregate impact. This data element must be entered upon practice completion or annually, as appropriate.	
Data type: Decimal	Select multiple values: No
Measurement unit: Metric tons CO ₂	Allowed values: 0-10,000,000
Logic: None – all respond	Required: Yes
Data collection level: Field	Data collection frequency: Quarterly

Field official CH4 ER

Data element name: Field official CH4 emission reductions	Reporting question: What are the estimated total CH4 emission reductions in this field?
Description: Estimated total methane emission reductions based on practice implementation in this field that are reported as part of the project's aggregate impact. This data element must be entered upon practice completion or annually, as appropriate. Conversion rate is one ton of CH ₄ = 25 tons of CO ₂ eq.	
Data type: Decimal	Select multiple values: No
Measurement unit: Metric tons CH4 reduced in CO ₂ eq	Allowed values: 0-10,000,000
Logic: None – all respond	Required: Yes
Data collection level: Field	Data collection frequency: Quarterly

Field official N2O ER

Data element name: Field official N2O emission reductions	Reporting question: What are the estimated total N2O emission reductions in this field?
Description: Estimated total nitrous oxide emission reductions based on practice implementation in this field that are reported as part of the project's aggregate impact. This data element must be entered upon practice completion or annually, as appropriate. Conversion rate is one ton of N ₂ O = 298 tons of CO ₂ eq.	
Data type: Decimal	Select multiple values: No
Measurement unit: Metric tons N2O reduced in CO ₂ eq	Allowed values: 0-10,000,000
Logic: None – all respond	Required: Yes
Data collection level: Field	Data collection frequency: Quarterly

Field offsets produced

Data element name: Field offsets produced	Reporting question: How many carbon offsets have been produced in this field?
Description: Total carbon offsets produced in the field during the quarter (not cumulative). Offsets are defined as having been verified and certified using an accepted standard and sold into the carbon marketplace.	
Data type: Decimal	Select multiple values: No
Measurement unit: Metric tons CO ₂ eq	Allowed values: 0-10,000,000
Logic: None – all respond	Required: Yes
Data collection level: Field	Data collection frequency: Quarterly

Field insets produced

Data element name: Field insets produced **Reporting question:** How many carbon insets have been produced in this field?

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

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CO₂eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Other field measurement

Data element name: Other field 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

GHG Benefits - Alternate Modeled

Unique IDs

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

Commodity type

Data element name: Commodity type 1-6	Reporting question: What type of commodity(ies) is produced from this field?
Description: Type of commodity(ies) produced in field enrolled in the project. See full list of commodity options in Appendix B. The worksheet provides multiple columns with drop-down lists of the allowed values. Choose one value for each column. Leave unnecessary columns blank	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values: FSA commodity list
Logic: None – all respond	Required: If project calculates GHG benefits using multiple methods
Data collection level: Field	Data collection frequency: Annual

Practice type

Data element name: Practice type 1-7	Reporting question: What CSAF practice is being implemented by this project?
Description: Which CSAF practice or practices are being implemented in this project? CSAF practices are included in a list in Appendix A. The worksheet provides seven columns for this data element. Enter one value for each column. If there are fewer than 7 practices being implemented by the project, leave unnecessary columns blank.	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values: See list in Appendix A
Logic: None – all respond	Required: If project calculates GHG benefits using multiple methods
Data collection level: Field	Data collection frequency: Annual

GHG model

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

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

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

Logic: None – all respond

Required: If project calculates GHG benefits using multiple methods

Data collection level: Field

Data collection frequency: Annual

Model start date

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

Model end date

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

Total GHG benefits estimated

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

Total carbon stock estimated

Data element name: Total carbon stock estimated	Reporting question: What is the alternate estimate of how much carbon has the field has sequestered?
Description: Total change in carbon stock based on practice implementation in the field estimated using an alternate model. Conversion rate is one ton of carbon = 3.67 tons of CO ₂ eq.	
Data type: Decimal	Select multiple values: No
Measurement unit: Metric tons CO ₂ eq	Allowed values: 0-10,000,000
Logic: None – all respond	Required: If project calculates GHG benefits using multiple methods
Data collection level: Field	Data collection frequency: Annual

Total CO₂ estimated

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

Total CH4 estimated

Data element name: Total CH4 estimated

Reporting question: What is the alternate estimate of the field's total CH4 emission reductions?

Description: Total methane emission reductions based on practice implementation in the field estimated using an alternate model. Conversion rate is one ton of CH₄ = 25 tons of CO₂eq.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CH4 reduced in CO₂eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: If project calculates GHG benefits using multiple methods

Data collection level: Field

Data collection frequency: Annual

Total field N2O estimated

Data element name: Total N2O estimated

Reporting question: What is the alternate estimate of the field's total N2O emission reductions?

Description: Total nitrous oxide emission reductions based on practice implementation in the field estimated using an alternate method. Conversion rate is one ton of N₂O = 298 tons of CO₂eq.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons N2O reduced in CO₂eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: If project calculates GHG benefits using multiple methods

Data collection level: Field

Data collection frequency: Annual

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**Measurement unit:** Category**Select multiple values:** No**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)

Required: If a project conducts soil samples or takes carbon stock or greenhouse gas emission measurements in this field**Logic:** None – all respond**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 CO₂**Allowed values:** 0-10,000,000**Logic:** None – all respond**Required:** If a project takes carbon stock or greenhouse gas emission measurements in this field**Data collection level:** Field**Data collection frequency:** Annual**Total field carbon stock measured****Data element name:** Total field carbon stock 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 CO₂eq.**Data type:** Decimal**Select multiple values:** No**Measurement unit:** Metric tons CO₂eq**Allowed values:** 0-10,000,000**Logic:** None – all respond**Required:** If a project conducts soil samples or takes carbon stock measurements in this field**Data collection level:** Field**Data collection frequency:** Annual

Total CH4 reduction calculated

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

Total N2O reduction calculated

Data element name: Total N2O reduction calculated	Reporting question: What are the total measured N2O emission reductions?
Description: Total annual nitrous oxide emission reductions based on practice implementation in the field calculated from in-field measurements. Conversion rate is one ton of N ₂ O = 298 tons of CO ₂ eq.	
Data type: Decimal	Select multiple values: No
Measurement unit: Metric tons N2O reduced in CO ₂ eq	Allowed values: 0-10,000,000
Logic: None – all respond	Required: If a project conducts soil samples or takes carbon stock or greenhouse gas emission measurements in this field
Data collection level: Field	Data collection frequency: Annual

Soil sample result

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

Soil sample result unit

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

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Percent
- Ppm
- Grams
- Grams per cubic centimeter
- Other (specify)

Logic: None – all respond

Required: If a project conducts soil samples in this field

Data collection level: Field

Data collection frequency: Annual

Measurement type

Data element name: Measurement type

Reporting question: What type of analysis was conducted for this soil sample?

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Organic matter
- Total organic carbon
- Bulk density
- Other (specify)

Logic: None – all respond

Required: If a project conducts soil samples in this field

Data collection level: Field

Data collection frequency: Annual

Additional Environmental Benefits

Unique IDs

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

Environmental benefits

Data element name: Environmental benefits	Reporting question: Are environmental benefits other than GHGs being tracked in the field?
Description: Tracking of environmental benefits other than greenhouse gas emission reductions and carbon sequestration in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values: <ul style="list-style-type: none"> • Yes • No • I don't know
Logic: None – all respond	Required: Yes
Data collection level: Field	Data collection frequency: Annual

Reduction in nitrogen loss

Data element name: Reduction in nitrogen loss	Reporting question: Are reductions in nitrogen losses being tracked in the field?
Description: Tracking reductions in nitrogen losses in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values: <ul style="list-style-type: none"> • Yes • No • I don't know
Logic: Respond if yes to 'Environmental benefits'	Required: Yes
Data collection level: Field	Data collection frequency: Annual

Reduction in nitrogen loss amount

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

Reduction in nitrogen loss amount unit

Data element name: Reduction in nitrogen loss amount unit	Reporting question: What is the unit for how much reduction in nitrogen losses have been measured in the field?
Description: Unit for the total amount of reduction in nitrogen losses that is measured and reported in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	<ul style="list-style-type: none"> • Kilograms • Metric tons • Pounds • Other (specify)
Logic: Respond if yes to 'Reduction in nitrogen loss'	Required: Yes
Data collection level: Field	Data collection frequency: Annual

Reduction in nitrogen loss purpose

Data element name: Reduction in nitrogen loss purpose	Reporting question: What is the purpose of tracking reduction in nitrogen losses?
Description: Purpose of tracking reduction in nitrogen losses in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	<ul style="list-style-type: none"> • Commodity marketing • Producing insets • Producing offsets • I don't know • Other (specify)
Logic: Respond if yes to 'Reduction in nitrogen loss'	Required: Yes
Data collection level: Project	Data collection frequency: Annual

Reduction in phosphorus loss

Data element name: Reduction in phosphorus loss	Reporting question: Are reductions in phosphorus losses being tracked in the field?
Description: Tracking of reductions in phosphorus losses in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values:
	<ul style="list-style-type: none"> • Yes • No • I don't know
Logic: Respond if yes to 'Environmental benefits'	Required: Yes
Data collection level: Field	Data collection frequency: Annual

Reduction in phosphorus loss amount

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

Reduction in phosphorus loss amount unit

Data element name: Reduction in phosphorus loss amount unit

Reporting question: What is the unit for the reduction in phosphorus losses measured in the field?

Description: Unit for the total amount of reduction in phosphorus losses that is measured in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Kilograms
- Metric tons
- Pounds
- Other (specify)

Logic: Respond if yes to 'Reduction in phosphorus loss'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Reduction in phosphorus loss purpose

Data element name: Reduction in phosphorus loss purpose

Reporting question: What is the purpose of tracking reductions in phosphorus losses?

Description: Purpose of tracking reduction in phosphorus losses in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Commodity marketing
- Producing insets
- Producing offsets
- I don't know
- Other (specify)

Logic: Respond if yes to 'Reduction in phosphorus loss'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Other water quality

Data element name: Other water quality

Reporting question: Are other water quality metrics being tracked in the field?

Description: Project tracking of other water quality metrics in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: Respond if yes to 'Environmental benefits'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Other water quality type

Data element name: Other water quality type	Reporting question: What type of other water quality metric have been measured in the field?
Description: Type of other water quality metric (besides nitrogen loss and phosphorus loss reductions) that is measured in the field. If “other” is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values: <ul style="list-style-type: none"> • Sediment load reduction • Temperature • Other (specify)
Logic: Respond if yes to ‘Other water quality’	Required: Yes
Data collection level: Field	Data collection frequency: Annual

Other water quality amount

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

Other water quality amount unit

Data element name: Other water quality amount unit	Reporting question: What is the unit for the reduction in other water quality metrics measured in the field?
Description: Unit for the total amount of reduction in other water quality metrics that is measured in the enrolled field. If “other” is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	Select multiple values: No
Measurement unit: Category	Allowed values: <ul style="list-style-type: none"> • Degrees F • Kilograms • Kilograms per liter • Metric tons • Pounds • Other (specify)
Logic: Respond if yes to ‘Other water quality’	Required: Yes
Data collection level: Field	Data collection frequency: Annual

Other water quality purpose

<p>Data element name: Other water quality purpose</p> <p>Description: Purpose of tracking other water quality benefits in the enrolled field. If “other” is chosen, enter the appropriate value as free text in the additional column.</p> <p>Data type: List</p> <p>Measurement unit: Category</p> <p>Logic: Respond if yes to ‘Other water quality’</p> <p>Data collection level: Field</p>	<p>Reporting question: What is the purpose of tracking other water quality benefits?</p> <p>Select multiple values: No</p> <p>Allowed values:</p> <ul style="list-style-type: none"> • Commodity marketing • Producing insets • Producing offsets • I don’t know • Other (specify) <p>Required: Yes</p> <p>Data collection frequency: Annual</p>
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Water quantity

<p>Data element name: Water quantity</p> <p>Description: Tracking of water conservation or reduction in use in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.</p> <p>Data type: List</p> <p>Measurement unit: Category</p> <p>Logic: Respond if yes to ‘Environmental benefits’</p> <p>Data collection level: Field</p>	<p>Reporting question: Is water conservation being tracked in the field?</p> <p>Select multiple values: No</p> <p>Allowed values:</p> <ul style="list-style-type: none"> • Yes • No • I don’t know <p>Required: Yes</p> <p>Data collection frequency: Annual</p>
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Water quantity amount

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

<p>Data element name: Water quantity amount unit</p> <p>Description: Unit for the total amount of water conservation or reduced use that is measured and reported in the enrolled field. If “other” is chosen, enter the appropriate value as free text in the additional column.</p> <p>Data type: List</p> <p>Measurement unit: Category</p> <p>Logic: Respond if yes to ‘Water quantity’</p> <p>Data collection level: Field</p>	<p>Reporting question: What is the unit for the amount of water conservation measured in the field?</p> <p>Select multiple values: No</p> <p>Allowed values:</p> <ul style="list-style-type: none"> • Acre-feet • Cubic feet • Other (specify) <p>Required: Yes</p> <p>Data collection frequency: Annual</p>
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Water quantity purpose

Data element name: Water quantity purpose

Reporting question: What is the purpose of tracking water conservation?

Description: Purpose of tracking water conservation or reductions in water use in the enrolled field. If “other” is chosen, enter the appropriate value as free text in the additional column.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Commodity marketing
- Producing insets
- Producing offsets
- I don’t know
- Other (specify)

Logic: Respond if yes to ‘Water quantity’

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Reduced erosion

Data element name: Reduced erosion

Reporting question: Is reduced soil erosion being tracked in the field?

Description: Tracking of reduced soil erosion in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don’t know

Logic: Respond if yes to ‘Environmental benefits’

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Reduced erosion amount

Data element name: Reduced erosion amount

Reporting question: How much erosion reduction has been measured in the field?

Description: Total amount of erosion reduction that is measured in the enrolled field.

Data type: Decimal

Select multiple values: No

Measurement unit: Amount

Allowed values: 0-1,000,000

Logic: Respond if yes to ‘Reduced erosion’

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Reduced erosion amount unit

Data element name: Reduced erosion unit

Reporting question: What is the unit for the amount of erosion reduction measured?

Description: Unit for the total amount of erosion reduction from enrolled fields that is measured and reported by the project. If “other” is chosen, enter the appropriate value as free text in the additional column.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Tons
- Other (specify)

Logic: Respond if yes to ‘Reduced erosion’

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Reduced erosion purpose

Data element name: Reduced erosion purpose

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

Reduced energy use

Data element name: Reduced energy use

Reporting question: Is reduced energy use being tracked in the field?

Description: Tracking of reduced energy use in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.

Data type: List

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

Reduced energy use amount

Data element name: Reduced energy use amount

Reporting question: How much energy use reduction has been measured in the field?

Description: Total amount of energy use reduction that is measured in the enrolled field.

Data type: Decimal

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

Reduced energy use amount unit

Data element name: Reduced energy use unit

Reporting question: What is the unit for the energy use reduction measured in the field?

Description: Unit for the total amount of energy use reduction that is measured in the enrolled field. If “other” is chosen, enter the appropriate value as free text in the additional column.

Data type: List

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

Reduced energy use purpose

<p>Data element name: Reduced energy use purpose</p> <p>Description: Purpose of tracking reduced energy use in the enrolled field. If “other” is chosen, enter the appropriate value as free text in the additional column.</p> <p>Data type: List</p> <p>Measurement unit: Category</p> <p>Logic: Respond if yes to ‘Reduced energy use’</p> <p>Data collection level: Field</p>	<p>Reporting question: What is the purpose of tracking reduced energy use in the field?</p> <p>Select multiple values: No</p> <p>Allowed values:</p> <ul style="list-style-type: none"> • Commodity marketing • Producing insets • Producing offsets • I don’t know • Other (specify) <p>Required: Yes</p> <p>Data collection frequency: Annual</p>
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Avoided land conversion

<p>Data element name: Avoided land conversion</p> <p>Description: Tracking of avoided land conversion in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits. Land conservation means land use changing from agricultural uses to non-agricultural uses.</p> <p>Data type: List</p> <p>Measurement unit: Category</p> <p>Logic: Respond if yes to ‘Environmental benefits’</p> <p>Data collection level: Field</p>	<p>Reporting question: Is avoided land conversion being tracked in the field?</p> <p>Select multiple values: No</p> <p>Allowed values:</p> <ul style="list-style-type: none"> • Yes • No • I don’t know <p>Required: Yes</p> <p>Data collection frequency: Annual</p>
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Avoided land conversion amount

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

<p>Data element name: Avoided land conversion unit</p> <p>Description: Unit for the total amount of avoided land conversion that is measured in the enrolled field. If “other” is chosen, enter the appropriate value as free text in the additional column.</p> <p>Data type: List</p> <p>Measurement unit: Category</p> <p>Logic: Respond if yes to ‘Avoided land conversion’</p> <p>Data collection level: Field</p>	<p>Reporting question: What is the unit for the amount of avoided land conversion measured in the field?</p> <p>Select multiple values: No</p> <p>Allowed values:</p> <ul style="list-style-type: none"> • Acres • Other (specify) <p>Required: Yes</p> <p>Data collection frequency: Annual</p>
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Avoided land conversion purpose

<p>Data element name: Avoided land conversion purpose</p> <p>Description: Purpose of tracking avoided land conversion in the enrolled field. If “other” is chosen, enter the appropriate value as free text in the additional column.</p> <p>Data type: List</p> <p>Measurement unit: Category</p> <p>Logic: Respond if yes to ‘Avoided land conversion’</p> <p>Data collection level: Field</p>	<p>Reporting question: What is the purpose of tracking avoided land conversion in the field?</p> <p>Select multiple values: No</p> <p>Allowed values:</p> <ul style="list-style-type: none"> • Commodity marketing • Producing insets • Producing offsets • I don’t know • Other (specify) <p>Required: Yes</p> <p>Data collection frequency: Annual</p>
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Improved wildlife habitat

<p>Data element name: Improved wildlife habitat</p> <p>Description: Tracking of improvements to wildlife in and around the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.</p> <p>Data type: List</p> <p>Measurement unit: Category</p> <p>Logic: Respond if yes to ‘Environmental benefits’</p> <p>Data collection level: Field</p>	<p>Reporting question: Are improvements to wildlife habitat being tracked in the field?</p> <p>Select multiple values: No</p> <p>Allowed values:</p> <ul style="list-style-type: none"> • Yes • No • I don’t know <p>Required: Yes</p> <p>Data collection frequency: Annual</p>
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Improved wildlife habitat amount

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

<p>Data element name: Improved wildlife habitat unit</p> <p>Description: Unit for the total amount of improved wildlife habitat that is measured in and around enrolled fields. If “other” is chosen, enter the appropriate value as free text in the additional column.</p> <p>Data type: List</p> <p>Measurement unit: Category</p> <p>Logic: Respond if yes to ‘Improved wildlife habitat’</p> <p>Data collection level: Field</p>	<p>Reporting question: What is the unit for the amount of improved wildlife habitat measured in the field?</p> <p>Select multiple values: No</p> <p>Allowed values:</p> <ul style="list-style-type: none"> • Acres • Linear feet • Other (specify) <p>Required: Yes</p> <p>Data collection frequency: Annual</p>
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Improved wildlife habitat purpose

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)

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


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


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

	Nutrient 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
CELERIAC	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


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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. USDA may determine that additional environmental and cultural resources review is needed for any particular action under Partnerships for Climate-Smart Commodities. The recipient must not execute any beneficiary contracts under this grant agreement prior to receipt of a letter from USDA that specifically details:

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

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

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

IV. Producer Benefits

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

V. Producer Data Protection and Disclosure

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

VI. Other Data and Reporting Requirements

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

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

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

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

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

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

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

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

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

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

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

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

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

VII. Competition and Anti-Competitive Practices

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

VIII. Suspension and Disbarment

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

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

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

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

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

X. Non-Disparagement

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