U.S. Department of Agriculture
Natural Resources Conservation Service

NOTICE OF GRANT AND AGREEMENT AWARD

1. Award Identifying Number	2. Amendment Number	3. Award /Project Period	4. Type of award instrument:
NR233A750004G084		Date of Final Signature - 09/30/2028	Grant Agreement

5. Agency (Name and Address)	6. Recipient Organization (Name and Address)
USDA Partnerships for Climate-Smart Commodities c/o FPAC-BC Grants and Agreements Division 1400 Independence Ave SW, Room 3236 Washington, DC 20250 Direct all correspondence to FPAC.BC.GAD@usda.gov	HANDSOME BROOK FARM, LLC 420 LEXINGTON AVE. NY NY 10170 UEI Number / DUNS Number: Y6H7PGR1NRS4 / 968422159 EIN:

7. NRCS Program Contact	8. NRCS Administrative Contact	9. Recipient Program Contact	10. Recipient Administrative Contact
Name: Jade Nield	Name: MICHELE DEVANEY	Name: Tracy Favre	Name: Lakey Love
(b)(6)			

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

15. Project Title/ Description: Expands markets for climate-smart eggs in KY, OH, NY, PA, IN, MO, AR and TN supporting farmer implementation and monitoring of climate-smart practices.

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

17. Select Funding Type

Select funding type:	☒ Federal	☒ Non-Federal
Original funds total	$3,639,670.24	$2,873,288.75
Additional funds total	$0.00	$0.00
Grand total	$3,639,670.24	$2,873,288.75

18. Approved Budget

Personnel	$0.00	Fringe Benefits	$0.00
Travel	$9,580.00	Equipment	$1,666,000.00
Supplies	$0.00	Contractual	$0.00
Construction	$0.00	Other	$1,964,090.24
Total Direct Cost	$3,639,670.24	Total Indirect Cost	$0.00
		Total Non-Federal Funds	$2,873,288.75
		Total Federal Funds Awarded	$3,639,670.24
		Total Approved Budget	$6,512,958.99

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: 2023.08.23 16:17:58 -05'00'	Date
Name and Title of Authorized Recipient Representative Jordan Czeizler Chief Executive Officer	Signature Jordan Czeizler Digitally signed by Jordan Czeizler Date: 2023.08.22 15:56:06 -04'00'	Date

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 Handsome Brook Farms, LLC, 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 $ 6,515,584.95

TOTAL FEDERAL FUNDS $3,639,670.24
PERSONNEL $0
FRINGE BENEFITS $0
TRAVEL $9,580.00
EQUIPMENT $1,666,000.00 (all producer incentives)
SUPPLIES $0
CONTRACTUAL $0
CONSTRUCTION $0
OTHER $1,964,090.24 (includes $730,222.97 of producer incentives)
TOTAL DIRECT COSTS $3,639,670.24
INDIRECT COSTS $0

TOTAL NON-FEDERAL FUNDS $2,873,288.75
PERSONNEL $1,894,138.90
FRINGE BENEFITS $528,288.90
TRAVEL $355,760.95
EQUIPMENT $0
SUPPLIES $0
CONTRACTUAL $95,000
CONSTRUCTION $0
OTHER $0
PRODUCER INCENTIVES $0
TOTAL DIRECT COSTS $2,873,288.75
INDIRECT COSTS $0

Recipient has elected to voluntarily waive indirect costs.

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

Responsibilities of the Parties:

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

RECIPIENT RESPONSIBILITIES

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

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

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

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

Performance Reports: Quarterly

SF425 Financial Reports: Quarterly

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

Expected Accomplishments and Deliverables

See attached Benchmarks Table and associated Project Narrative.

Resources Required

See attached Benchmarks Table and associated Project Narrative.

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

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Executive Summary Climate Smart Organic Egg Project (CSOEP)
A Proposal by Handsome Brook Farms for the
USDA Partnerships in Climate-Smart Commodities Funding

Ia. Contact Information: Lakey Love, BA, BA, MAIS, MA lakey@lovejustworks.com, 1-850-345-0018

Ib. List of Project Partners: 1) Handsome Brook Farms (HBF), 2) Costo, Inc., 3) Organic Voices (OV), 4) Grow Well Consulting (GWC), 5) Curva and Associates, LLC (CA), 6) University of Kentucky, Department of Biosystems and Agricultural Engineering (UoK), 7) Center for Sustainable Business (CSB), 8) Soil Carbon Initiative (SI)), 9) Love Just Works, LLC (LJW)

Ic. List of underserved/minority-focused project partners: Curva and Associates, LLC and Love Just Works, LLC

Id.. Compelling need for the project: Climate change, global warming, energy resource shortages, and environmental pollution have become amongst the greatest challenges to the survival of human beings and planet Earth. In 2020, the US Environmental Protection Agency reported that approximately 11% of the total US greenhouse gas emissions come from the agricultural sector - an increase of 6% since 1990. Most of that has been attributed to a 62% growth in combined CH_4 and N_2O emissions stemming from livestock manure management systems.

As an animal protein, eggs are already climate-smart compared to other sources including beef and pork. In fact, one hundred grams of beef protein has 49.89 kg of GHG emissions compared to 4.21 kg per 100 grams of poultry protein (GHG per 100 grams of protein, 2022). Poultry produces little to no enteric fermentation or CH_4 in manure and has about ¼ of the energy waste due to food and nutrients intake. Eggs are also the single fastest-growing livestock sector globally (Taylor et al., 2019). Per capita egg consumption in the US has increased by 15% in the past 20 years. Organic and cage-free shell egg production in particular has increased from 4% of overall egg production in 2010 to 29.3% today (United Egg, 2021). As consumer interest in animal welfare, climate change, and health has increased, so has demand for pasture-raised and organic eggs. According to the USDA's Agricultural Marketing Service, approximately 66% of all US hens must be in cage-free production by 2026 to meet projected demand.

The growing demand for poultry products means that reducing GHG emissions associated with their production is essential. Although an organic egg from a pasture-raised chicken is generally seen as the best from a consumer perspective, pasture-raised poultry production practices produce significantly more greenhouse gasses (GHGs) and have a greater negative impact on air, water and soil contamination than their caged counterparts (Xie, et. al, 2011; Leinonen et al, 2012; Taylor, et al, 2014). The following are the primary on-farm causes of GHG emissions on pasture-raised poultry farms: 1) nutrition management, 2) direct energy inputs and fossil fuel consumption, 3) energy waste due to fan use and lack of proper insulation, 4) inadequate manure

management and storage conditions, and 5) ineffective use of pasture and equipment (Xie et al, 2011, Taylor et al, 2014).

Handsome Brook Farms (HBF) believes we don't have to wait for technological wizardry to reduce GHG emissions and begin to heal the Earth, our communities, and ourselves. As an organic pasture-raised egg brand composed of a diverse farmer-network, we have helped convert many conventional egg growers to organic. In doing so, we've taken action to incorporate regenerative practices that restore balance to the Earth and reduce the carbon footprint of our eggs. Regenerative agriculture can substantially mitigate climate change through low-cost land and barn management practices, including, but not limited to, incorporating renewable energy sources, building the land's carbon sequestration capacity through tree or shrub plantings, biomimicry-inspired prescribed grazing, and improved manure collection methods that lend to creating the highest quality organic crop fertilizer due to its nitrogen and phosphorus-dense portfolio.

Current animal welfare standards for pasture-raised eggs are based mostly on the amount of space allocated to the birds and are not overly prescriptive as to *how* that space should be managed to maintain vegetation and reduce CO_2 in the barns that escape into the atmosphere. Grazing recommendations do not exist for non-ruminant species, like chickens, so there is limited research and resources for poultry growers working under an organic model to move toward a holistically managed regenerative production model. HBF prides itself in filling this void. Our Climate-Smart Organic Egg Project (CSOEP) builds on the actions we have begun taking to reduce carbon emissions through a holistic approach that connects these efforts to other social and ecological system change issues such as diversity, inclusion, community mutual aid, water conservation, biodiversity, waste-reduction goals, and most importantly, support for small, traditionally underserved and often isolated Amish and Mennonite growers. Our commitment to the well-being and sustainability of the farmers we contract with, the communities we serve, our employees, supply-chain partners, and consumers will be seen by making the strategies used in the CSOEP operationally transparent and replicable. Our end goal is to help change the shape of organic pasture-raised egg farming, inspire and educate consumers, and grow the demand for climate-smart egg products, while strengthening our Scope 3 emission-reduction goals. Working with small, underserved farmers and partners across the US, CSOEP will inspire the United States to take a lead in producing one of the smartest, climate-smart livestock proteins.

Ie. Approach to minimize transaction costs associated with project activities: At HBF we pride ourselves on minimizing transaction costs and promoting financial, ecological, and value-added returns on sustainable investment. By streamlining CSOEP funds to partners who are experts in their fields and working in conjunction with NYU Stern Center for Sustainable Business (CSB) to cut project costs and assure a return on investment for CSOEP commodities, we can spend the majority of federal and matching funds on low-cost, high return, on-farm climate smart and regenerative as well as renewable energy practices including the following:

Climate Smart and Regenerative Practices - Typically low-cost in and of themselves, climate smart and regenerative on-farm pasture, nutrition, and manure management practices include low-cost pasture seeding used for poultry grazing to reduce packed feed and for production of a second commodity crop and/or promoting agroforestry through tree/shrub establishment or

silvopasture techniques. In-barn manure management practices will be used to promote manure collection and distribution which results in savings for second crop fertilizers and increased sales for organic fertilizer produced on farm. Other cost-saving practices include low-cost barn and pasture modifications (such as high impact area correction, ventilation improvements and cross-fencing) to promote grazing and farm energy efficiency. Finally, the use of organic poultry fertilizers produced by poultry on farms will be enhanced using more efficient grazing and manure management practices to cut feed use and costs and biochar additives will be used to increase carbon retention in the soil.

Net Zero Energy Buildings (NZEBs) - A portion of the project will be dedicated to the development and expansion of renewable energy sources on what we are calling Net Zero Energy Buildings (NZEBs) through the installation of photovoltaic (PV) solar systems that will replace 80% of on-farm direct energy fossil fuel use in pullet (chicks 1 day to 18 weeks) barns. In this way, CSOEP takes advantage of the current federal income tax credit (ITC) incentive, which is the highest it has ever been, removing 26% of the cost if installed in 2023. Furthermore, all CSOEP NZEBs will be placed in Kentucky or Ohio pullet barns which use 4 times the wattage of a typical layer barn, saving the farmers thousands in electric and/or gas/diesel use annually. Ohio specific solar incentives include: **Ohio Renewable Energy Credits** - for every megaWatt hour (MWH) of electricity a panel produces in Ohio the farmer will receive one credit which can be sold for around $15 helping the state of Ohio reach its renewable energy goal of 12.5% by 2027 and bringing farmers additional dollars. **Ohio Net-metering** allows a farmer to earn credits on their electric bill on days when their system produces more energy than they use.

Net Zero Energy (NZE) technologies - can be generally grouped into three categories: 1) structural and siting considerations that reduce energy use; 2) energy efficient technology systems within the building (including energy-efficient lighting, heating and ventilation, and appliances and energy management systems) and 3) on-site renewable energy installations for farm equipment. A recent study focused on NZEBs and NZE technology use in poultry farms showed significant results in reducing the use of fossil fuels by promoting NZE technologies and upgrades (Pelletier, 2021). As gas, diesel and electric prices rise daily, every penny spent on NZE technologies comes with a fast, easy and long-term cost reduction on high-priced fossil fuels by replacing them with renewable energy that is often free with proper equipment.

If. Approach to reduce producer barriers to implementing CSAF practices for the purpose of marketing climate-smart commodities: Although climate smart and regenerative on-farm practices tend to create high upfront costs and labor, the ongoing and long-term benefits and savings outweigh the cost. Therefore, CSOEP's first priority is to educate our farmers to the financial and marketing benefits of climate smart and regenerative practices while also cutting down on actual producer financial barriers to execute the practices. We do this by supplying significant farmer stipends and covering supply and development costs for adopting on-farm renewable energy sources and/or climate smart and regenerative on-farm practices. Since 2021, HBF has had a long-term cost-share program for climate smart and regenerative farming equipment and supplies, spending over half a million in 2021 alone on direct-cost support to our farmer inspiring 62 farmers to expand on-farm climate smart and regenerative practices through manure management, pasture management, cover cropping, solar installation and silvopasture development.

Climate-smart organic egg production is easier to achieve when it is market-driven. Fully integrated markets raise demand and prices which in return drive incentives to overcome the economic, social and environmental barriers faced by small and/or underserved organic egg producers in moving towards regenerative and climate-smart practices. Therefore, HBF will elevate marketing support to promote climate smart and regenerative egg products and move our farmers towards the Soil Carbon Initiatives' Soil and Climate and SCS Global certification program to promote climate smart and regenerative organic agricultural commodities. Finally, CSOEP will reduce producer barriers particular to the Amish and Mennonite communities we serve by overcoming trust and communication hurdles between organic certifiers, supporting agencies and technologically isolated CSOEP producers moving towards climate smart and regenerative practices through the following: 1) simple and easy on-farm training programs and technical support, 2) peer-to-peer on-farm mentoring and demonstration programs (including over 4 annual on-farm demonstrations and/or farmer meetings in years 3, 4, and 5 (12 total) , and 3).

Ie. Geographic Focus: The geographic area directly affected by the CSOEP contains seventy-one pilot farms located across Kentucky, Ohio, New York, Pennsylvania, Indiana, Missouri, Arkansas and Tennessee totaling 2630 acres working with a total of 1,858,919 layer hens and 3,168,000 pullets. All seventy-one farms specialize in organic pullet and/or organic pasture-raised livestock development.

Ih. Project management capacity of partners: **Handsome Brook Farms (HBF)** is a certified B Corp™ that manufactures, procures, markets, and distributes pasture-raised eggs. HBF works with a network of over 140 family farms across 10 states to source eggs from approximately 2.1 M layer hens. Currently, all but 1 of our farms are organic certified and all farms are certified by the American Humane Association. Our farmers are true stewards of the land. Each is part of a regional group, supported by HBF farm supervisors and experts. HBF is headquartered in New York City, although all employees have been working remotely since the beginning of the pandemic. HBF has 20 full-time employees and 1 working owner. HBF has grown by almost 6x over the past 7 years. The business' compound annual growth rate in revenue from 2016 through 2020 was 40.8% and within the last year HBF nearly doubled our total flock size. HBF is a pioneer in climate-friendly regenerative farming focused on minimizing on-farm pollutants and promoting holistic agricultural practices to combat the climate crisis on a meaningful scale.

Costco,Inc, is a wholesale multi-million dollar global retailer with warehouse club operations in eight countries. We are a recognized leader in our field, dedicated to quality in every area of our business and respected for our outstanding business ethics including our Ten-Point Climate Action Plan.

Curva and Associates, LLC (CA) , is a for-profit Certified Minority Business Enterprise that has been in operation since August 1998. CA has provided efficient scholarly services to social and human service agencies, cultural and educational organizations, state agencies, and private businesses, through research and evaluation, advocacy services, management consulting, conference planning, training and development, and grant writing for over 20 years and continues to promote services and support to minority and underserved groups. Curva and

Associates will be responsible for the compilation of all research, reporting, monitoring and evaluation materials of social marketing and communication to determine the efficacy of CSOEP social marketing and communication campaigns and to determine if CSOEP has met project objectives. CA will also be completely responsible for the oversight of all social, behavioral, and economic monitoring and evaluation processes of producers and social marketing campaigns working within the overall program objective of producing and promoting climate smart eggs.

University of Kentucky, Department of Biosystems and Agricultural Engineering (UoK) is a dynamic team committed to high-quality research, instruction and cooperative-extension. They have served the people of Kentucky and beyond by providing education and technical support designed to improve the cost, functional, and environmental efficiency of farm equipment and machinery to farmers and they serve as a primary source for farmers in search of engineering expertise to solve contemporary challenges that are of both social and economic importance to their community. Their department is widely known as an expert in livestock engineering solutions, and they serve as a catalyst for positive, innovative technological change. Dr. Morgan Hayes, overseeing the project on behalf of Univ of Kentucky, is an Extension Specialist with 15+ years of experience. She has dedicated her career to finding evidence-based solutions that help farmers better their production models. Specifically, she focuses on how to improve the environment to which animals are exposed by providing education on how ventilation, energy, water, and temperature can work together to achieve optimal health and climate outcomes through research to develop the measurement and reporting component of baseline and reference levels against which a standard for Measurement Reporting and Verification (MRV), often missing from the poultry subsector, can be used to calculate average emission reductions by program scale. Often improving the livestock system to reduce GHG emissions, and developing a more accurate MRV accounting standard, involves making site specific recommendations based on existing management and research about innovative facility designs, materials, and technologies to develop cutting edge climate smart agricultural commodity production. She has been working with Handsome Brook Farms' contract-farmers over the past year on projects pertaining to manure management and storage systems inside a USDA NRCS On-Farm Trails Conservation Innovation Research grant.

Soil Carbon Initiative (SCI) - is a measurement, monitoring, reporting and verification (MMRV) program working to scale agricultural acres under climate smart and regenerative management and deliver climate smart and regenerative outcomes: soil health, biodiversity, improved water quality, climate resiliency and greater farm and rural prosperity. The SCI Program provides a framework by which companies can make climate smart and regenerative agriculture commitments, track and measure outcomes, and earn verification in support of HBF's sustainability mission. SCI's primary goal is to help HBF and CSOEP partners envision, learn, and begin to plan how the company can transition their acre commitment to climate smart and regenerative sourcing by practicing climate smart agriculture and building partnerships with growers and suppliers. Through SCI's Farm Standard and verification process SCI teaches companies how to engage and support farmers in different contexts. As part of an initial supply chain assessment, HBF will work with SCI to calculate the amount of land required to produce a truly climate smart commodity, which not only determines the company's acre commitment for the CSOEP and SCI verification and certification programs but also informs strategic business decisions around sustainability and GHG emission tracking. Within the CSOEP project SCI also

provides an opportunity to provide feedback to HBF administration, field staff, project management and marketing team to help shape the future of HBF's climate smart commodities program design.

NYU Stern, Center for Sustainable Business (CSB) was founded on the principle that sustainable business is good business and is proving the value of sustainability for business management and performance at a time when people and the planet need it most. CSB's Food and Agriculture Sustainability Strategies Framework uses a Return on Sustainability Investment (ROSI) methodology to drive the transition to sustainable agriculture across supply chains. Their previous grant-funded projects include those funded by HSBC which are ABInBev, Ingredion, & Hero Group and they have also engaged company research partners in individually-funded ROSI projects such as Cargill and Applegate, on developing ROSI case studies in sustainable agriculture.

Love Just Works, LLC (LJW) is a certified Woman-Owned Small Business whose owner and operator has over 20 years' experience building evidence-based program answers for social, economic, and environmental problems by combining anthropological training with solutions-oriented expertise in financial and accountability development. LJW has worked across three continents in five countries to identify, develop, and execute federal, state and private foundation grant oversight and compliance focused on minority and underserved populations including work in the United States, Kenya and the Caribbean.

As Grant Management partner LJW will be responsible working effectively and efficiently with organizational team members in a collaborative approach to expand programming and develop online communication materials, conducting needs assessment reports, data collection, and analysis as per grant programming and program development, preparing detailed proposals, budgets, and budget justification documents, and developing and maintaining accurate records of correspondence, team and program activities, and grant compliance materials. Includes, coordinating with third-party consultants, MRV and monitoring and evaluation teams, subaward partners, controller, and communicating progress and efforts with farmer and partner stakeholders, coordinating CSOEP marketing developers and working directly with USDA staff and attending required USDA NRCS conferences and meetings, and fulfillment of FSA and NRCS reporting/liaison requirements.

Organic Voices (OV) was founded in 2012 by a group of leading organic business leaders who wanted to create a singular voice that could tell the story of organic so that consumers had a better understanding of the USDA organic seal. OV, through their Only Organic campaign, has reached millions of US Americans to highlight the benefit of organic food, products and agricultural practices and bring together organic brands of all shapes and sizes to strengthen consumer education, marketing and support for learning, growth and opportunity for organic producers as well as consumers of climate-friendly organic products. In support of Handsome Brook Farm's Climate Smart Organic Egg Project, Organic Voices will provide consumer education, marketing, branding and networking support with consumers, other organic farmers and other organic brands including: 1) Aide in the development of marketing research and branding advice for promotion of HBF's organic pasture-raised egg as the climate-smart egg, 2) Promotion of CSOEP through an education webinar series in conjunction with HBF and the CSOEP team focused on organic climate-smart egg and poultry production, 3) Join HBF and

CSOEP in promoting content from on-farm tours focused on climate smart innovations developed through the project, 3) Help directly impacted farmers support 2 or more policy positions that supply federal financial incentives and technical support for climate-smart organic agricultural producers including support for increased on-farm renewable energy practices, 4) Create campaign toolkits to amplify messaging on social media and other arenas to promote climate-smart organic egg consumer interest, 5) Support launch day activities and follow up messaging and education for consumers including messaging support and creative content for Twitter, Instagram, Facebook, Tik Tok, and blog posts, 6) Amplify and promote customer testimonials and CSOEP farmer testimonials, 7) Grow connection and support briefings with top influencers and support the establishment of a bi-annual meeting cadence with influencers to talk strategy for the promotion of the USDA organic seal as essential in climate-mitigation, etc., and 8) Participate in CSOEP stakeholder and team calls (bi-weekly in the first 9 months and monthly thereafter) and hold the PR, Education and Outreach leadership position on the CSOEP team.

Grow Well Consulting, LLC (GWC) has expertise in sustainability specifics to food and farms, spanning from an understanding of climate science, greenhouse gas accounting, and organic certified methods and markets to tools and dashboards used to roll up supplier performance to convey delivery of key customer-desired climate impact values. GWC's founder Dr. Allison Grantham led Food Systems R&D and then Food Procurement at Blue Apron, overseeing ~$200M in annual food sourcing and procurement and implementing a national program to increase employee access to surplus product, as well as local communities through partnerships with Feeding America. Previously, Dr. Grantham led research at the Rodale Institute, including all aspects of program and project design, implementation, evaluation and reporting to funding partners. She holds a dual-title PhD in Ecology and Biogeochemistry from Penn State and BA *summa cum laude* in Biological Sciences and Environmental Studies from Mount Holyoke College. In support of Handsome Brook Farm's Climate Smart Organic Egg Project, Grow Well will provide: Data collection, organization, and analysis necessary to assess pre- and post-intervention climate impacts of 60 barns at 3 tiers: Full Impact – 20 barns (5 solar and 15 net zero technologies) – qualified via EPA Portfolio Manager (manure and animal related emissions) and organize into database (no primary data collection) c. Intervention Impact – 25farms – quantify the impact of 1-2 practice changes on GHG emissions and/or soil carbon VIA COMET-Farm or Cool Farm Tool

- A clean, complete set of farmer's GHG performance data assembled into a database
- A dashboard to displace sustainability performance in conjunction with sales data (Includes draft version and up to 2 rounds of revisions)
- Integrate key GHG metrics into dashboard displace based off data from COMET-Farm, Portfolio Manager, and/or SCI/Soil Regen assessments,
- Methodology and data quality and confidence interval overview (brief in either pdf or deck form)
- Annual data connection review and dashboard data verification/refresh

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

IIa. A description of CSAF practices to be deployed: CSOEP combines science-based renewable energy inputs and energy efficient technologies in conjunction with USDA Climate-

Smart Agricultural and Forestry (CSAF) practices. All regenerative practices follow USDA CSAF principles and will be adapted in farm specific ways. CSAF and renewable energy projects include:

Net Zero Energy Buildings. (NZEBs) and Net Zero Energy (NZE) technologies - NZEBs are energy efficient buildings that incorporate renewable energy generation systems so as to produce sufficient renewable energy to significantly offset the total amount of non-renewable energy used by the building on an annual basis (Marszel et al., 2011; Wells et al., 2018; Attia, 2018). A 2021 poultry barn study showed that direct energy inputs were reduced from 31.64% to 6.47% of the life cycle cumulative energy used of egg production in NZEBs. In layer and pullet barns the majority of direct energy inputs are used for heating, lighting, ventilation, and other in-house machinery on-farm therefore HBF's NZEBs pilot program will promote the following on-farm GHG emission reduction practices:

1) On-site renewable energy installations,
2) Support for NZE technology on-site through structural and siting energy considerations,
3) Support for NZE technologies through energy efficient or renewable energy equipment modifications and energy efficient technology systems.

All NZEBs sites and NZE sites will follow local, state and federal regulations and permitting and will be supervised by HBF Housing Extension Specialist, Climate Smart Pasture Manager, CSOEP Technical Director and the CSOEP Project Director to be installed in accordance NRCS Conservation Practice Standard (374) – Energy Efficient Agricultural Operation and increase adoption of CSAF 374 to reduce agricultural greenhouse gas emissions as scalable across HBF farms.

In-Barn Manure Management (IBMM) - Behind direct energy input and nutrition management, manure makes up the largest part of on-farm organic pasture-raised GHG emissions depending on whether the poultry manure is with litter (bedding) or without litter. The fact that the nitrogen cycle accelerates with moisture and water retention is particularly problematic for GHG and ammonia emissions in poultry barns due to the increased degradation of uric acid. Pullets and layers raised in management systems with litter and using solid manure storage have low CH_4 but relatively high nitrous oxide (N_2O) emissions as a consequence of high water retention caught in the litter (USAFGGI, 2008). On the other hand, layer farms using high-rise cages or scrape/out belt systems allow excreted manure to collect on the floor below with no bedding to absorb the moisture. Similarly, layer barns that collect manure on the floor, or in small storage areas, that use across-manure ventilation systems to dry the manure as it is stored reduce both CH_4 and N_2O (IPCC, 2000; Dunkley and Dunkley, 2013) emissions. Both models (the scraper/belt system and the fan/ventilation system) reduce GHG and ammonia emissions significantly inside the barn improving in-barn air quality and aiding in farmer and hen health. CSOEP IBMM pilots will work directly with experts at UoK to move high ammonia and GHG producing litter management systems to low CH_4 and N_2O systems by testing the efficacy and cost-effectiveness of adding a belt/scraper system or a ventilation system to 3 pullet barns (where no pasture is used) and 3 layer barns (where hens are traditionally let out to pasture at least 8 hours a day).

IBMM sites will follow local, state and federal regulations and permitting and will be supervised by HBF Housing Extension Specialist, University of Kentucky IBMM team experts, HBF Climate Smart Science Manager and Love Just Works to be installed in accordance with NRCS Conservation Practice Standard (629) – Waste Treatment and will pilot MRV standards for scalable and affordable reduction of in-barn GHG and ammonia emissions across HBF farms.

Total Manure and Nutrition Management - feed consumption and nutrition for organic pasture-raised poultry is the number one producer of GHG emissions in the poultry supply chain. CSOEP will work with participating farmers to promote in-barn and pasture practices that reduce the need for soy and corn feed and promote the development of GHG emission sensitive manure management practices. In conjunction with nutrient management, overall manure management practices will be promoted to reduce ammonia and GHG emissions this includes: 1) low-cost conservation storage and removal practices, 2) conservation tillage practices of manure in poultry and crop pastures, 3) biochar additions to manure, and 4) mulching. Finally, organic chicken manure is an excellent non-synthetic organic fertilizer containing macronutrients nitrogen, phosphorus, and potassium as well as important micronutrients such as calcium needed for healthy plant growth as a soil amendment. CSOEP manure management promotes the development and use of poultry litter and manure as organic fertilizer to improve overall soil and water health.

Total Manure and Nutrition Management sites will follow local, state and federal regulations and permitting and will be supervised by HBF Climate Smart Pasture Manager, University of Kentucky manure and nutrition team experts, Soil Carbon Initiative, HBF Climate Smart Science Manager and Love Just Works to be implemented in accordance with:

1) NRCS Conservation Practice Standard (336) – Soil Carbon Amendments
2) NRCS Conservation Practice Standard (484) - Mulching
3) NRCS Conservation Practice Standard (329) – Residue and Tillage Management
4) NRCS Conservation Practice Standard (590) – Nutrient Management

Pasture Enhancements - Research has shown that a combination of tree/shrub establishment for shade, shelter and roots, 2) use exclusion of forage/biomass (cover crop) plantings to keep soil covered, and 3) prescribed grazing techniques all help prevent soil and water contamination while also reducing GHG emissions (Zheng, et al, 2020). Specific areas of pasture enhancements include:

Tree/Shrub Establishment and Silvopasture Establishment: Trees and shrubs have the ability to clean the air by capturing carbon dioxide, storing the carbon in the wood and releasing oxygen back into the air. More than eighty percent of nitrogen and phosphorus can be kept from entering adjacent water courses through tree and shrub root absorption (Malone, G. et al, 2000). Trees have also been shown to benefit chickens in terms of protection from predators (especially raptors), sun, wind, the elements and extreme temperatures, thus reducing animal losses and increasing the time and amount of grazing (Bubier and Bradshaw, 1998; Mirabito and Lubac, 2001; Dal Bosco et al., 2014), and

Cover Crops in combination with Prescribed Grazing: Combining free-range animals with orchards, rather than grazing otherwise bare pastures, results in less land use and provides other

environmental benefits in the orchard (i.e., reduced need for fertilization and weed control). According to the International Fund for Agricultural Development (IFAD), the integrated crop-livestock farming system "represents a winning combination that (a) reduces erosion; (b) increases crop yields, soil biological activity and nutrient recycling; (c) intensifies land use, improving profits; and (d) can therefore help reduce poverty and malnutrition and strengthen sustainability" (IFAD, 2010). The establishment of cross fencing or temporary exclusion areas allows for prescribed pasture grazing and rotation to mimic a natural grazing cycle and eliminates the need for conventional chemical farming techniques following NRCS guidelines on putting posts below the frost line. Prescribed grazing will follow USDA-NRCS standards and be tracked by HBF staff and CSOEP Science Team. Finally, through prescribed grazing techniques poultry manure fertilizes and restores ground nutrients, and, over time, actually increases the soil organic matter to make for a much healthier ecosystem (Kiggen 2019). Cover cropping will be applied in accordance with NRCS CSAF Conservation Practice Standard (340) – Cover Cropping and tracked for compliance by HBF staff and CSOEP Science Team.

Full Regenerative Practices (FRP) and Partial Regenerative Practices (PRP) - CSOEP includes two pilot programs. The first, Full Regenerative Practices (FRP) pilot works to move an entire farm towards a climate smart and regenerative farming model to achieve Soil Carbon Initiative's Soil and Climate and SCS Global verification and certification to raise market value of FRF eggs as climate smart commodities within the HBF network by adopting 3 or more NRCS Conservation Practice Standards. The second, Partial Regenerative Practices (PRP) works to support adoption of one-to-two on-farm climate smart and regenerative practices according to NRCS Conservation Practice Standards for . FRP and PRP will support and utilize the CSAF regenerative farm practices listed above. Full Regenerative Practices sites will follow local, state, and federal regulations and permitting and will be supervised by HBF Climate Smart Pasture Manager, CSOEP Technical Director, Soil Carbon Initiative, HBF Climate Smart Science Manager and Love Just Works to be installed in accordance with

1) NRCS Conservation Practice Standard (381) – Silvopasture Establishment
2) NRCS Conservation Practice Standard (382) – Fence (including cross fencing for prescribed grazing and pasture management as well as multi-species regenerative grazing techniques)
3) NRCS Conservation Practice Standard (561) – Heavy Use Area Protection
4) NRCS Conservation Practice Standard (612) – Tree/Shrub Establishment
5) NRCS Conservation Practice Standard (614) – Watering Facility
6) NRCS Conservation Practice Standard (340) – Cover Cropping
7) NRCS Conservation Practice Standard (528) - Prescribed Grazing
8) NRCS Conservation Practice Standard (512) – Hay and Pasture Planning

IIb. Plan to recruit producers and landowners: Sustainable agriculture advocates and US food industry researchers report that there is a growing consumer and industry interest in small and underserved farmers doing sustainable agriculture, but an overwhelming demographic trend is toward older farm owners and fewer and larger farms (Luedke, 2018). HBF specializes in supporting small family farmers who are isolated by culture and religion and/or who are new to climate smart and regenerative organic pasture-raised egg farming. All of our farmers own their own farms and in the last half a year HBF made an acquisition purchase that nearly doubled the number of hens (moving us from 1.3 million to 2.1 million) while also adding 35 new contracts

in our grower network. Many of these newly acquired farms need to convert from conventional to organic methods and/or expand their regenerative on-farm practices to meet HBF conservation and emissions mitigation goals and animal welfare standards. A majority of HBF farmers are Amish or Mennonite identified with a range of beliefs and oppositions to interacting with technology and/or secular government. HBF specializes in ground interactions with our farmers and their families and has set aside a large percentage of personnel dedicated (in-kind matching funds) to outreach and recruitment directly on the farms to sign-up producers or ask them to sign FSA-211 and give HBF power of attorney to act on their behalf for the project.

Recruitment efforts will begin with targeted infrastructural conversations between HBF field staff that works directly with the HBF small farmers and CSOEP project management team creating a list of "high potential farmers" for each project and "low potential farmers" who may resist the project due to involvement with secular government and compliance with FSA forms or the power of attorney (FSA-211) for HBF to report on their behalf. Second stage will consist of the development of a recruitment package with information about each project and the location of local notaries for those who will not travel to sign FSA-211 at a local FSA office.

After a target farmer list and enrollment toolkit has been created open-enrollment and recruitment will commence and continue as HBF field staff, HBF Climate Smart Pasture Manager, CSOEP Technical Director, CSOEP Project Director, and HBF Housing Expansion Specialist travel to HBF producer farms for this and other projects. Recruitment, enrollment and retention will be supervised and monitored by Curva and Associates in conjunction with HBF staff and CSOEP partnership team to ensure program viability, best-practices, risk assessment, and how best to build off existing and the new HBF contracts to expand CSOEP project resources and programming to existing and future farmers in the HBF network as follows (***hereafter Table 1***):

Practice Type	**# of Landowners**	**Type**	**Acres Targeted**	**# of Livestock**	**# of Eggs**
NZEBs	5 pullet barns in Ohio adopt NZEBs	Pullet	0 acres (in-barn direct energy practice)	2,400,000 pullets	0
NZE Technologies	15 farms adopt at least 1 net zero energy technologies	Pullet and Layer	0 acres (mechanical and technology)	1,920,000 pullets (5 barns) & 316,242 hens (10 barns)	103,885,497 eggs
IBMM	6 (3 barns with scraper/belt and 3 with below barn ventilation system)	Layer	180 acres (on layer farms benefiting from manure spread in pasture)	94,873 hens	31,165,649 eggs
FRP	Twenty	Layer	1200 acres	Total = 632,488	207,772,308

				hens	eggs
PRP	Twenty-five	Layer	1250 acres	Total = 815,316 hens	267,831,306 eggs
Total	71 farms	P & L	2,630 acres	3,168,000 pullets 1,858,919 hens	610,654,760 eggs

IIc. Plan to provide technical assistance, outreach, and training: All phases of the CSOEP comply with existing USDA and NRCS regulations and are sequenced as follows:

Phase I: Farm Recruitment, Selection and Training (8 months) & Development and Execution of CSOEP Team and Communication Plan - The first five months includes intense farmer recruitment for 5 NZEB farms, 15 NZE technology farms, 6 IBMM farms and 20 FRP farms as well as the launch and development of the CSOEP team. Phase I includes a 21-week period for intensive online or in-person training combining knowledge sources from HBF, SCI, Soil Regen, LJW, CSB, Organic Voices and CA. This includes 1) recruitment and rollout of enrollment package for all programs and promotion of SCI Soil and Climate and SCS Global verification and certification program, 2) a MRV training for NZEB and NZE technology farms, and 3) consultation training and evaluation for IBMM farms. All training will consider contextual variances in social, cultural, ecological, and economic conditions to expand recruitment, enrollment and retention of Amish and Mennonite farmers as well as promotional material for the HBF climate smart egg social marketing campaign. Climate smart and regenerative training will promote USDA CSAF practices as adapted for organic pasture-raised poultry and will continue throughout the life of the CSOEP as PRP farmers are recruited to move towards FRP and Soil and Climate certification with Soil Carbon Initiative. Life Cycle Assessment (LCA) baseline data will be collected as well as social, economic, and behavioral baseline data surveys of participating producers by CA before training commences. During this time all resources will be collected online and bound into an easily distributable manual format for knowledge sharing and communication across the CSOEP team and CSOEP farmers. CSOEP team meetings will be consolidated with appointed leaders from each CSOEP partner and HBF staff in the first month. A CSOEP Communication Plan will be developed and executed in the first second month. CSOEP team meetings will begin on a bi-weekly basis at month two. Organic Voices will host its first social marketing campaign meeting at month three with launch day activities happening by month five.

Phase II: On Site Assessment, Operational Plan Development, (4 months) - this will be a 4 month assessment and planning period where the CSOEP team will assess the status and identify constraints of participating NZEB, NTE technology, IMBB, and FRP farms. Training and recruitment will continue for PRP farms wanting to adopt 1-2 NRCS Conservation Practice Standard practices throughout this period and the rest of the grant cycle. Site specific operational plans for NZEB, NZE, IMMB and FRP farms will be developed after collecting baseline testing results and advice from solar experts, UoK livestock engineers, and SCI soil scholars (See Phase I for description). EPA Portfolio Manager set up for GHG emissions reports and Scope 3 emissions. Tableau Dashboard assembled to begin analysis of supplier sustainability data.

Manure belt/scraper and/or ventilation systems installed, NZE technologies launched, PV solar systems, and supplies necessary to implement FRP purchased by the end of Phase II.

Phase III: First Year Implementation: NZEB, NZE technology, IBMM, and FRP operational plans launched on 46 farms. eLCA, COMET-Energy, and COMET-Farm data collection begins. For FRP this will be a one-year implementation period of the farm specific manure, land and/or management plan developed in Phase II. The first year of implementation will be on a smaller scale with implementation modifications recorded. Testing and assessment practices will be recorded throughout the Phase III implementation year. PRF recruitment, launch and monitoring continue to expand regenerative practices and move more HBF farmers to Soil and Climate certification by SCI. EPA Portfolio Manager will be fully automated with connections to utility and fuel providers. All assessment data will be bound and recorded and placed into an annual report.

Phase IV: First Year Reporting, Evaluation, Assessment and Implementation Plan Adjustment (1 month): This will be a one-month record reporting, assessment and implementation adjustment period where operational plans will be evaluated for ecological and economic effects, including reduction of GHG emissions. After the one-year assessment report is released for each farm, the CSOEP team will work with farm owners and management to make any necessary adjustments in the year two operational plans, recruitment process, open-enrollment and reporting process.

Phase V: Second Year Implementation: This will be a 1-year implementation of the adjusted second year farm specific updated operational plans developed in Phase IV and continuing recruitment, open enrollment and training of new recruits following Phase I and II guidelines and using the Phase I and II toolkits and procedures. The second year of implementation will grow exponentially on each farm expanding best practices development in the first year with any ongoing implementation modifications recorded. Testing and assessment practices will be recorded, and assessment data will be consolidated and analyzed in an annual report and logged into EPA Portfolio. All materials from year one implementation annual report will be converted into communications materials for promotion of climate-smart organic egg production and will be distributed to Costco and HBF retailers to accelerate the popularity and success of climate-smart organic egg production. In conjunction with OV, Costco, and HBF educational partners, HBF will use data and communications materials to begin an aggressive consumer communications campaign for climate-smart/sustainable egg production (see Patton and Chipman 2021).

Phase VI: Second Year Reporting, Evaluation, Assessment and Implementation Plan Adjustment (1 month): This will be a 1-month record reporting, assessment and implementation adjustment period where operational plans will be evaluated for ecological and economic effects, including reduction of GHG emissions. After the two-year assessment report is released for each farm, the CSOEP team will work with farm owners and management to make any necessary adjustments in year three operational plans, recruitment process, open-enrollment and reporting processes.

Phase VII: Third Year Implementation: This will be a one-year implementation period of the adjusted third year farm specific operational plan developed in Phase VI and an extended

recruitment, and open enrollment period of the adjusted third year farm specific updated operational plans developed in Phase IV and recruitment and training in Phase I and II and adjusted for best-practices after consultation with Curva and Associates in Phase VI. The third year of implementation will expand best practices across the farm including any ongoing implementation modifications recorded. Testing and assessment practices will be recorded, analyzed, and placed into an annual report and logged into EPA Portfolio. Knowledge gained from the year one and year two reports will be collected and used to expand HBF's on-farm, peer-to-peer mentorship, and workshop materials to share with other pasture-raised egg farmers inside the HBF network. On-farm demonstrations, workshops, and mentorship opportunities will begin to expand knowledge share and move HBF farmers towards CSOEP practices with a goal of signing 50% of HBF's producers into at least one of the manure and pasture land management practices and/or one NZEB, NTE technology, IBMM within a 5 year period.

Phase VIII: Third Year Reporting, Evaluation, Assessment and Implementation Plan Adjustment (1 month): This will be a one-month record reporting, assessment and implementation adjustment period where operational plans will be evaluated for ecological and economic effects, including reduction of GHG emissions. After the third-year assessment report is released for each farm, the CSOEP team will work with farm owners and management to make any necessary adjustments in the year four operational plans, recruitment process, open-enrollment, and reporting processes.

Phase IX: Fourth Year Implementation: This will be a one-year implementation period of the adjusted third year farm specific operational plan developed in Phase VIII and continuing recruitment, open enrollment, and training of new recruits following Phase I and II guidelines and using the Phase I and II toolkits and procedures as adjusted for best practices after consultation with Curva and Associates in VIII. The fourth year of implementation will expand best practices across the farm including any ongoing implementation modifications recorded. Testing and assessment practices will be recorded and analyzed and assessment data will be consolidated into an annual report and logged into EPA Portfolio.

Phase X: Fourth Year and Final Project Reporting, Evaluation, Assessment, and Implementation Plan Adjustment (1 month): This will be a one-month record reporting, assessment and implementation adjustment period where operational plans will be evaluated for ecological and economic effects, including reduction of GHG emissions. A fourth-year assessment report will be released for each farm as well as a final report to evaluate project effectiveness and next moves to grow climate-smart organic egg farming amongst HBF producers and within the organic pasture-raised poultry industry as a whole. Upon completion of the CSOEP pilot project farmers will continue to receive incentive stipends for peer-to-peer support for future HBF farmers transitioning to a NZEB, NZE technologies, IBMM and regenerative farming practices. The CSOEP team will assist the farmers in expanding on-farm production for continuing operations and support communication and promotional efforts to raise the popularity of climate-smart egg production in the US.

Technical assistance, Outreach, Training includes:

Soil Regen and Regen Ag Labs Technical Assistance and Farm Support - Support with the following: 1) develop a set of clear, attainable climate smart and regenerative practices and align

with NRCS Conservation Practice Standards, 2) work with producers to create a master-plan for farms enrolled in 20 Full Regenerative Practices based off MMRV soil, crop, animal, manure and energy management to identify NRCS Conservation Practice Standards and regenerative practices and management to improve financial and environmental performance. This includes but is not limited to soil health practices, pasture management, cover cropping, agroforestry and silvopasture, perennial integration, holistic planned and rotational grazing, and nutritional management.

Soil Carbon Initiative Measurement, Monitoring, Reporting and Verification Management and Assistance - leading to Scientific Certification Systems Global verification and SCI "Soil and Climate Health" verification label SCI consultation to assist with determining the SCI pilot program elements, including the Enrolled Product Portfolio, the associated Major Ingredients, the Total Major Ingredients Acre Footprint, and the Total SCI Enrolled Acres, all of which shape the milestones once in the full pilot program.

To determine the Total Major Ingredient Acre Footprint and Total SCI Enrolled Acres (for SCI Implementation) SCI will a) identify the company's preferred Enrolled Product Portfolio - which SKUs to include, b) identify the Total Major Ingredient Acre Footprint based on the major ingredients, and 3) identify the Total SCI Enrolled Acres to be sourced from HBF SCI Enrolled farms. This initial supply chain assessment of land use impacts is important for establishing a science-based acre commitment and developing a Company Commitment Plan that identifies short- and long-term strategies for scaling the company's climate-smart egg production. SCI will also support the company in developing an initial high-level Company Commitment Plan. At the farm level SCI will work with HBF to understand the total acre footprint for HBF's eggs including animal feed for laying hens and how to plan for addressing acre commitments associated with animal feed in years 2-5 of the project - SCI support for Company Commitment Plan. Finally, SCI will coordinate with the on-farm pilots for climate smart and regenerative practices and help develop later-stage program design to inform the expansion of NRCS Conservation Practice Standards and climate smart verification practices across the HBF network. This includes helping oversee baseline testing by farmers and HBF employees, developing a three—to-five-year farm commitment plan based on soil test results in conjunctions with CSOEP farmers and Soil Regen, accelerate and facilitate farm communication of progress to achieve verification, and offer technical advice for understanding data that will come from the farms and how HBF can use the data in communications and claims to consumers in addition to verification.

University of Kentucky IBMM Technical Support and MRV Oversight – Design and supervise the execution of robust monitoring and reporting framework, including formative and summative research, in order to develop and evaluate novel and innovative climate smart efficiency of manure management on GHG emissions of HBF climate smart eggs. The primary goal being to understand and develop best practice methods to shift high ammonia and GHG producing manure to low CH4 and N2O systems in compliance with NRCS Conservation Practice Standard 629 Waste Management. University of Kentucky will do this by testing the efficacy and cost-effectiveness of adding a belt/scraper system or a ventilation system to pullet barns (where no pasture is used) and/or layer barns (where hens are traditionally let out to pasture at least 8 hours a day). Specifically, the project will be set up to study and compare 3 barns with scraper/belt systems and 3 barns with advanced-ventilation systems in Kentucky and

Ohio to assess and monitor each subset's GHG emission reduction efficacy relative to cost and practicality of implementation to promote more accurate MRV mitigation activities for pullet and pasture-raised hen systems. University of Kentucky teams will assure that training, testing, sampling, monitoring, reporting and evaluation are evidence-based and followed appropriately for data integrity and the greatest outcomes for a decrease in GHG and ammonia emissions to promote the most cost effective expansion of the reduction process within the HBF network. All practices will be implemented in accordance with NRCS Conservation Practice Standard (629) - Waste Treatment which is defined as "the use of mechanical, chemical, or biological technologies to change the characteristics of manure and agricultural waste. Finally, University of Kentucky will review data and subsequent recommendations will be discussed with the CSOEP team. GHG reduction findings will be cross referenced with pasture management models to track the GHG reduction when farmers 1) sell their organic fertilizer to crop farmers to replace synthetic nitrogen fertilizers, and/ or 2) integrate the manure to enhance crops or agroforestry on their own land.

Technical support by HBF employed Regenerative and Climate Smart Pasture Manager, Joe Duckworth (he/him) - Mr. Duckworth will oversee pasture and manure management programs in Kentucky, Tennessee and surrounding areas and work in an advisory role for outreaching areas outside of Kentucky. Specific duties include: outreach to community and growers for education, updates on refinement and changes in CSOEP operational plans, USDA and NRCS agency research and updates. Mr. Duckworth will also assist in executing the CSOEP Farmer Steering Committee plans and directives, serve as ground liaison in Kentucky with Curva and Associates, Soil Carbon Initiative, University of Kentucky and NRCS, and help negotiate any necessary changes in CSOEP climate smart practices to aid with USDA climate smart practices standard documentation. Finally, Mr. Duckworth will work with Grant Administrator, Director of Climate Science and IT developers to update the current climate smart egg needs assessment application, operational application tools, and/or training manual and work directly with NRCS Field Staff to undertake and oversee NRCS site-specific environmental review and/or the completion of NRCS-CPA-52 forms and follow-up reporting with producers to aide in training and support for NRCS Conservation Practice Standard worksheets and compliance with local, state and federal regulations in accordance with various NRCS Conservation Practice Standards for Full Regenerative Practice and Partial Regenerative Practices Farms.

TBD CSOEP Technical Director - The CSOEP Technical Director will oversee producer education, pilot modeling programs, and peer-to-peer support networks and offer ground support and technical education for CSOEP farmers including adapting climate-smart regenerative practices within an organic certified framework. In coordination with the Climate Smart Pasture Manager, Soil Carbon Initiative (and Soil Regen and Regen Ag Labs) Climate Smart Science Manager, CSOEP Project Director, and Grants Manager the CSOEP Technical Director will coordinate with producers to create site specific pasture and manure management programs and operational plans and ensure that producers are receiving the education and assistance they need to execute those plans effectively including and in accordance with NRCS Conservation Practice Standards. The CSOEP Technical Director will also assist in executing the CSOEP Leadership Steering Committee plans and directives, serve as liaison with the producers in New York, Pennsylvania, Ohio, Arkansas and surround areas to assure NRCS environmental evaluation and review as well as NRCS Conservation Practice Standard MRV along with Soil Carbon Initiative, University of Kentucky, and Curva and Associates monitoring and evaluation teams to assure

compliance and reporting of required metrics outlined in the Data Dictionary to be reported on a quarterly basis. Finally, TBD CSOEP Technical Director will help negotiate any necessary changes to operational plans and ensure producer economic resiliency. Finally, the CSOEP Technical Director will work with all science teams for expansion of the climate smart egg operational application tools and program.

Housing Expansion Supervisor, Patrick Stacklin (he/him) - Mr. Stacklin works with the Head of Live Operations at Handsome Brook to oversee new buildings and expansion including: meeting with producers to assess compatibility of land /or barns for HBF and CSOEP objective, working with new growers to expand the number of HBF and CSOEP contracts, develop specs for new builds that requisite standards and build out the Net Zero Energy Buildings, In-Barn Manure Management and .Net Zero Energy Technologies components of CSOEP. Mr. Stacklin will also act as a liaison, guide, and resource for construction crews, builders, growers, and other involved parties to ensure that contracts for services are priced accurately and fairly, approve new builds and/or retrofits for manure sheds, below barn blowers, scrapers, above barn solar, and solar lighting additions, etc. and assure that all housing related projects are in compliance with NRCS Conservation Practice Standard 374 Energy Efficient Agricultural Operation.

Technical Assistance, Outreach, Training	**Year I**	**Year II**	**Year III**	**Year IV**	**Year V**	**Total Cost**
Soil Regen Technical Assistance and Farm Support	$45,500	$5,500	$5,500	$5,500	$5,500	$67,500
Soil Carbon Initiative	$10,500	$10,500	$10,500	$10,500	$10,500	$52,500
University of Kentucky IBMM Technical Support and MRV Oversight	$0	$63,961	$60,612	$61,295	$64,132	$250,000
Climate Smart Pasture Manager	$62,976	$62,976	$62,976	$62,976	$62,976	$314,880
TBD CSOEP Technical Director	$80,640	$80,640	$80,640	$80,640	$80,640	$403,200
Housing Expansion Supervisor	$67,200	$67,200	$67,200	$67,200	$67,200	$336,000
Total	**$266,816**	**$290,777**	**$287,428**	**$288,111**	**$290,948**	**$1,424,080**

IId. Plan to provide financial assistance for producers/landowners to implement CSAF practices: Growers will be intimately involved with the project at every phase. The project uses a constructivist research approach that is system-oriented and transdisciplinary and relies on grower perspectives and involvement in the needs assessment process, the development of the

site-specific operational plans, data collection, and refinement changes without overwhelming their already high labor loads (Sumberg 2003; Lamprinopoulou 2014). Grower priorities, experiences, and perspectives will combine with that of other team members to provide space for adaptation to emerging or unexpected physical or social conditions. Finally, CSOEP recognizes that net zero goals and regenerative farming practices require high levels of grower participation in a knowledge intensive practice that has been under researched. For this reason, cash incentive stipends totaling $175,000 will go directly to participant producers depending on what on-farm practices are adopted. Other financial incentives include: providing technical, mechanical, and supplies for all practices as well as knowledge, training, and supplies needed to expand NRCS Conservation Standard Practices and regenerative agroforestry, cover crop, pasture and manure management practices.

IIe. Plan to enroll underserved and small producers: HBF currently contracts with over 140 producers across ten states, many of which are classified as small or traditionally underserved farmers and/or are Amish or Mennonite located across the CSOEP region with a high concentration in Kentucky and Ohio.

A recent study of Amish and Mennonite people in Ohio showed that 94% of respondents have less than a 12th grade education. Eighty-four percent don't belong to a local, state or national farm organization or association, less than 3% use the internet, and over 55% make less than $50,000 a year from sales. Over 52% of Amish and Mennonite farmers surveyed used a combination of organic and conventional farming practices but less than 5% were certified as organic (Bergefurd, 2012). So, while 68% (total of 48 farms) of CSOEP farmers will be participating as USDA classified small and/or traditionally underserved producers, almost 100% of the project will work with producers who are outside the direct reach of many of the resources offered by the USDA and other programs. HBF prides itself in helping small, underserved and/or Amish and Mennonite farmers move from conventional to organic to a fully functioning regenerative and renewable farm. Producers will receive the following non-cash farmer incentives for their participation ***(hereafter Table 2)***:

Practice Type	**# of Landowners**	**# of small or underserved producers**	**NRCS Conservation Practice Standard**	**Financial Amount for Farmer Incentives (Includes Cash Stipends, Scholarships for Supplies, and Technical Assistance)**
NZEBs	Five (5 pullet barns adopt NZEBs)	5 farmers	374 – Energy Efficient Agriculture	$215,000 per farmer in PV solar equipment plus $10,000 in construction amendments per barn = $1,125,000 Technical Assistance

				offered by HBF Housing Extension Specialist (approximately
NZE Technologies	Fifteen (15 farms adopt at least 2 net zero energy technologies)	10 farmers	374 – Energy Efficient Agriculture	$15000 per farm in NZE technologies plus $2000 stipend x 15 farmers = $255,000
IBMM	Six (3 barns with scraper/belt and 3 with below barn ventilation system)	4 farmers	NRCS Conservation Practice Standard (629) – Waste Treatment on all farms and1) NRCS Conservation Practice Standard (336) – Soil Carbon Amendments 2) NRCS Conservation Practice Standard (484) - Mulching 3) NRCS Conservation Practice Standard (329) – Residue and Tillage Management 4) NRCS Conservation Practice Standard (590) – Nutrient Management where appropriate	3 scraper/belt systems at $30,000 per system + $50,000 per system in construction labor and miscellaneous construction materials = $240,000 3 ventilation systems at $22,000 per system + $17.394.33 in labor per system ($52,183) = $118,182.99 = $358,182.99
FRPs	Twenty	13 farmers	1) NRCS Conservation Practice Standard (381) – Silvopasture Establishment 2) NRCS Conservation Practice Standard (382) – Fence (including cross fencing for prescribed grazing and pasture management as well as multi-species	1200 acres at $100 an acre ($120,000) biochar ($6090) crops/trees/shrubs ($169,518.75) gravel ($89,977.47) = $385,586.22

			regenerative grazing techniques) 3) NRCS Conservation Practice Standard (561) – Heavy Use Area Protection 4) NRCS Conservation Practice Standard (612) – Tree/Shrub Establishment 5) NRCS Conservation Practice Standard (614) – Watering Facility 6) NRCS Conservation Practice Standard (340) – Cover Cropping 7) NRCS Conservation Practice Standard (528) - Prescribed Grazing 8) NRCS Conservation Practice Standard (512) – Hay and Pasture Planning	
PRF	Twenty-five	16 farmers	1) NRCS Conservation Practice Standard (381) – Silvopasture Establishment 2) NRCS Conservation Practice Standard (382) – Fence (including cross fencing for prescribed grazing and pasture management as well as multi-species regenerative grazing techniques) 3) NRCS Conservation Practice Standard (561) – Heavy Use Area Protection 4) NRCS Conservation Practice Standard (612)	biochar ($2030) crops/trees/shrubs ($56,506.25) gravel ($9,997.50) = $68,533.75

			– Tree/Shrub Establishment 5) NRCS Conservation Practice Standard (614) – Watering Facility 6) NRCS Conservation Practice Standard (340) – Cover Cropping 7) NRCS Conservation Practice Standard (528) - Prescribed Grazing 8) NRCS Conservation Practice Standard (512) – Hay and Pasture Planning	
Total	71 farmers total	48 farmers		$2,192,302.96 total to farmers and farms

III. A measurement/quantification, monitoring, reporting, and verification plan: HBF agrees to full participation in the Partnerships Network and will be quantifying, monitoring and reporting through the following:

IIIa. Approach to greenhouse gas benefit quantification: On-farm practices will be monitored and evaluated with a combination of approaches that brings together experts at UoK, SCI CA and GWC MRV monitoring, analysis and evaluation teams. The broad framework for monitoring and evaluation (M & E) of greenhouse gas benefits will follow an environmental life cycle assessment (e-LCA) framework combined with the USDA's COMET-Farm and COMET-Energy tools. Pre- and post-intervention climate impacts of participating farms will be assessed at 3 tiers and quantified via EPA Portfolio Manager. Soil Carbon Initiative will work with Soil Regen and Regen Ag Labs to develop soil carbon datasets and all datasets will be organized into a database and a CSOEP Tableau Dashboard will be created to display sustainability performance in conjunction with data and sustainability assessment. Where appropriate Farmbrite will be incorporated to help collect and data track CSAF mitigation practices and GHG emissions as well as SCI Soil and Climate and SCS Global verification and certification labels.

NZEBs and NZE technologies and In-Barn Manure Management - Monitoring and evaluation of greenhouse gas benefits for NZEBs and NZE technologies and IBMM will combine the USDA COMET-Energy, COMET-Farm and environmental Life Cycle Assessment (e-LCA) . e-LCA is a multi-step procedure for calculating environmental impact of a product and evaluating the resource and emissions intensity of products from a supply chain perspective. M & E will follow ISO (14044) standardized framework for prescriptive guidance for characterizing the material and energy inputs and emissions and for quantifying how these flows contribute to a range of resource use, human health, and environmental impact potentials

(Cederberg et al., 2009; Leinonen et al., 2012;, Li et al., 2020 Mollenhorst et al., 2006; Pelletier et al., 2014, 2013, 2017; Verge et al., 2009; Wiedemann and McGahan, 2011).

Climate Smart and Regenerative Practices – Environmental evaluation and assessment using the CPA-52 worksheet will take place on all farms in Phase I under the supervision of the CSOEP Project Director, HBF Climate Smart Pasture Manager, HBF Climate Smart Science Manager, and TBD CSOEP Technical Director. As FRP and PRP farms are recruited MRV will be overseen by Soil Carbon Initiative and include but are not limited to: soil health practices, pasture management, cover cropping, agroforestry and silvopasture, perennial integration, holistic planned and rotational grazing, and nutritional management. Update farm specific and master plans annually and, when questions arise, provide HBF CSOEP participating farmers with the solutions to address management challenges and follow NRCS staff and HBF field staff. The goal of FRP farms is to achieve at least 3 NRCS Conservation Practice Standards and be approved for SCI "Soil and Climate Health" and SCS Global verification labels.

Soil tests will be collected annually by farmers and HBF designated staff and delivered to Soil Regen, a farmer first company focused on providing farmers, ranchers, and the food and agricultural community education, Regeneratively Grown grain and Regenerative Verified products. Soil Regen will work in accompaniment with Regen Ag Labs as partners inside Soil Carbon Initiative's MMRV and verification program to provide Handsome Brook Farms full regenerative and partial regenerative farmers to support training and motivation for regenerative and climate smart organic pasture-raised hen farming including: 1) develop a set of clear, attainable on-farm goals with the farmer and create a benchmark farm specific operational plan for climate smart and NRCS Conservation Practices Standards for Full Regenerative Practices farms, 2) create a "master plan" that is holistic in nature building off baseline MMRV soil, crop, animal, manure and energy management to identify climate smart and regenerative practices and management strategies according to NRCS Conservation Practice standards that improve economic and environmental performance on participating farms while also meeting the requirements of associated brand, ecosystem service marketplaces, and/or certification and verification bodies, and 3) oversee farm measuring, monitoring, reporting and verification program for 20 Full Regenerative Practices farms leading to the SCI "Soil and Climate Health" climate smart and regenerative verification label and Scientific Certification Systems Global (SCS) verification.

SCI will also support the company in developing an initial high-level Company Commitment Plan. At the farm level SCI will work with HBF to understand the total acre footprint for HBF's eggs including animal feed for laying hens and how to plan for addressing acre commitments associated with animal feed in years 2-5 of the project.

IIIb. Approach to monitoring of practice implementation: CSOEP will use a hybrid matrix organizational structure to allow CSOEP partners to excel at their project tasks, meet project deliverables, and use MRVand M & E assessments to make evidence-based changes for greater project evolution, including enhancement of communication with Amish and Mennonite farmers and their special needs in relation to USDA programming and/or expansion of climate smart commodity production and Soil and Climate and SCS Global verification certifications across the HBF network. This approach promotes cross-team collaboration and encourages a learning

environment to boost partner motivation, team morale, diversity, innovative thought, and grower participation.

Table 3 *- Total participating farms and acres (for breakdown by practice see Table 2 above)*

Total Farms	Total Acres	Total Pullets and Hens	Total Commodities
71 farms (48 small/underserved) 11 pullet and 60 layer	2,750 acres	4,224,000 pullets 1,858,919 hens	610,654,760 eggs produced

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IIIc. Approach to reporting and tracking of greenhouse gas benefits: Baseline and project emissions data collected through eLCA, COMET-Farm and COMET-Energy will be quantified and placed into EPA Portfolio Manager for baseline and post-intervention impacts. Little-to-no quantifiable research exists for organic pasture-raised poultry regenerative farm CSAF practices so data estimates are unavailable for FRP and PRP farms but carbon sequestration and soil tests will be run and recorded for GHG benefits by SCI on 20 FRP participating farms to expand evidence-based research on these practices. Information below is based on data collection numbers from the supplementary information Sec. B of Life Cycle Inventory Data from Pelletier 2017 (***hereafter Table 4)***.

Practice Type	# of Landowners	Longevity	GHG emission benefits per project	GHG emission benefits per farm	GHG emissions per project per year (in metric tons)	Emission Benefits Per Commodity	Emission Benefits Per dollar
NZEBs	5 (pullet)	30 years	54,662,976 kg CO_2-eq/30 yrs	10,932,595.2 kg CO_2-eq/30 yrs	1093.2/metric tons per year (218.64 per farm)	3.796 kg CO_2-eq/pullet	50.85 kg CO_2-eq/dollar spent
NZE	5 pullet	15 years	5,466,297.6 kg CO_2-eq/15 yrs	1,093,259.5 kg CO_2-eq/15 yrs	72.88/metric tons per year (14.58 per farm)	1,265 kg CO_2-eq/pullet	64.30kg CO_2-eq/dollar spent
NZE	10 layer	15 years	685,644.3 kg CO_2-eq/15 yrs	68,564.43 kg CO_2-eq/15 yrs	43.04/metric tons per year (4.30 per farm)	.00176 kg CO_2-eq/egg	4.03 kg CO_2-eq/dollar spent
IBMM	3 pullet	20 years	3,041,280 kg CO_2-eq/20 yrs	1,013,760 kg CO_2-eq/20 yrs	50.69/metric tons per year (16.90 per	.528 kg CO_2-eq/pullet	13.89 kg CO_2-eq/dollar

					farm)		spent
IBMM	3 layer	20 years	1,107,938.82 kg CO_2-eq/20 yrs	369,312.95 kg CO_2-eq/20 yrs	18.47 metric tons per year (6.16 per farm)	.00711 kg CO_2-eq/egg	5.06 kg CO_2-eq/dollar spent

IIId. Approach to verification of greenhouse gas benefits, a data collection portal will be created using Survey Monkey, Salesforce or another platform and a CSOEP Tableau Dashboard created to verify and display sustainability performance in conjunction with datasets. GWC will be responsible for integration of key outcome and/or impact metrics to demonstrate GHG emission and carbon sequestration benefits.

IV. A plan to develop and expand markets for climate-smart commodities: HBF's climate-smart marketing system balances farm and supply chain efficiency with climate change mitigation goals to develop value addition within our current domestic market system to complement lucrative market opportunities for our small farmers as well as our domestic retailers. In addition to working with our farmers, HBF will liaise with OV marketing team for the development of a climate smart and regenerative certification program, Costco and retailers for labeling needs and sales opportunities to promote climate-smart organic pasture-raised eggs which is a niche marketing arena that has not been created or promoted in domestic markets in the US. Key project marketing activities include:

Months 1-3 - Expand & develop product launch goals for marketing of branded climate-smart organic eggs including: a) Product specific goals, b) KPIs (Key Performance Indicators) for product usage, produce performance, and sales & marketing. **Months 4-9** - Identify market segments & develop and/or update buyer/user personas including: a) documenting key competitors and their expected reaction to the launch, b) conducting market research and analysis. **Months 10-12** - Develop the launch strategy/messaging for each of the targeted segments in line with increased regenerative practices and NZEB and NZE technologies. **Months 13 - 24** - Product marketing including: a) Launch day activities such as press event, press releases, and channel education, b) Updated messaging and education for consumers through OV, Costco and HBF and education partners, c) Creation of marketing tools, promotional materials, website and social media channels in conjunction with Organic Voices Costco, d) Internal company education, preparing Costco sales team with training and necessary assets, e) Collection and promotion of customer testimonials, farmer testimonials, etc., f) AR/PR briefings with top influencers, trade analysts briefings, and establishment of bi-annual cadence with influencers to talk business strategy, product updates, etc. **Months 25 - 48** - Expansion of sales enablement, including: a) Increased customer engagement, b) including latest updates on project and research goals and business. **Months 49 - 60** - Continued sales expansion and launch of complete climate-smart organic regenerative SCI Soil and Climate and SCS Global verification and certified egg line.

Note:

In the complex and layered issues related to climate smart agricultural and federal procedure and guidance amongst traditionally underserved Amish and Mennonite farmers there is much more at stake than would normally be the case for developing internal recruitment and program campaigns that intersect with commercial marketing campaigns due to the sensitive nature of producers cultural and religious affiliations that 1) forbid interaction and connection with local, state and federal secular governments and 2) forbid interaction with technology including filming and/or use of farmer information and/or photos on social media or to promote agricultural products to a larger audience through digital media presentations.

Building off of social science research using intersectional gender, equality, diversity and inclusion (GEDI) modeling and having previous experience with Handsome Brook Farms and the HBF Amish and Mennonite producers allows Curva and Associates will work with the soil marketing campaign team (Organic Voices, HBF marketing and communications staff, Soil Carbon Initiative, Costco, and NYU Stern) to provide a conceptual and methodological framework that is intersectional and adaptable to accommodate various contexts. Primary research, reporting, monitoring and evaluation will work to respect the producers right to privacy while using research, reporting, monitoring and best-practice evaluation to not only track producer behavior and the efficacy of the CSOEP social marketing campaign but to assure that the two campaigns (producer recruitment, enrollment and adoption of climate smart practices and social marketing of HBF climate smart eggs) and their attending objectives and practices are not in conflict with each other.

IVa. Any partnerships designed to market resulting climate-smart Commodities, 1) Costco, Inc, 2) Organic Voices, 3) NYU Stern Center for Sustainable Business, and 4) Soil Carbon Initiative to promote climate smart and NRCS Conservation Practice Standard and a return on investment through marketing and sales value of the Soil and Climate verification label and the entire move to climate smart practices within the HBF marketing line.

IVb. A plan to track climate-smart commodities through the supply chain, if appropriate: HBF currently works with a carbonless copy of pallet tags to track nest run numbers and will expand our current egg traceability by working with our partners at Soil Carbon Initiative and NYU Stern to track supply chain data and cross reference supply chains with regenerative and renewable energy benefits through QR code packaging and/or other mechanisms. This includes expanding HBF use of Ovotrack software for traceability purposes. HBF will also work with GWC to develop a strategic approach and implementation tools (including EPA Portfolio and Tableau Dashboard) to track HBF's carbon footprint through the supply chain for Sector 3 emissions (HBF has no established property so Sector 1 and Sector 2 tracking don't apply).

IVc. Estimated economic benefits for participating producers including market returns: Demand for organic continues to defy expectations and is matched with a higher market return for organic pasture-raised egg products. A recent report by the USDA National Agricultural Statistics Service (NASS) demonstrated a 31% increase in overall organic sales since 2016 (Organic Survey, 2019). To assure significant return on investment HBF is working with NYU Stern CSB to develop a CSOEP specific Return on Sustainable Investment (ROSI) tool that tracks significant financial benefits through 1) increased carrying capacity of the land, 2) reduced labor costs, 3) premium prices for improvement of adding climate smart and regenerative

agriculture production and certification through Soil Carbon Initiative and SCS Global's certification labels, 4) reduced costs by sourcing from supplier and manufacturing partners that use renewable power, 5) fossil fuel expense returns from investment in PV solar power generation and energy efficient barns and technologies, 6) reduced supply chain disruption, given less dependency on fossil fuels for energy sources, and 7) reduced risk for future carbon regulations. Additionally, a 2021 report on regenerative on-farm practices demonstrated that 1) regenerative organic farming substantially extends the life of a farm through improved soil, water, biodiversity, carbon capture and GHG emission reduction saving farmers thousands of dollars in extended farm land use, 2) climate smart and regenerative farming practices reduce input costs for farmers by 25% within the first several years of implementation saving the farmer thousands in on-farm expenditures, and 3) increased carbon sequestration and/or the production of more than one agricultural commodity through cover cropping, selling organic poultry manure, and/or agroforestry methods can expand farmer income through additional commodities sales and carbon credits while also promoting climate mitigation and ecologically healthy practices (Fenster et al, 2021).

IVd. Post-project potential, including anticipated ability to scale project activities: HBF guarantees the continued growth and adoption of contracted farm engagement for renewable energy inputs and technologies, on-farm regenerative practices and CSAF practice adoption. During and after CSOEP HBF has engaged SCI MRV team with a goal of moving HBF farmers to Soil and Climate and SCS Global brand certification which continues monitoring for decades after the initial 3-5 year testing to certification period. HBF is currently working with USDA NRCS to expand research and knowledge share through a Conservation Innovation Grant on 5 farms not covered in CSOEP and CSOEP expands this work to promote pilot on-farm regenerative practices and renewable energy generation that will continue beyond the life of the program. Other components that live beyond the life of the program are 1) continued promotion, along with OV and Costco of the USDA organic certification seal as climate-smart, 2) marketing engagement in conjunction with Costco, Organic Voices, NYU Stern Center for Sustainable Business and other retailers and partners for improvement of consumer trust and increase sales and demand, and 3) commitment to on-farm improvements through our climate smart and regenerative cost-share program, administrative support, as well as personnel and technical support directly to our growers to promote the continued growth and use of regenerative practices to mitigate climate change and heal the Earth.

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Handsome Brook Farms
Climate Smart Organic Egg Project
Quarterly Milestones

Benchmark/Milestone	Associated Activity, if applicable	FY1 - Quarter 1	FY1 - Quarter 2	FY1 - Quarter 3	FY1 - Quarter 4	Totals Year 1	FY2 - Quarter 1	FY2 - Quarter 2	FY2 - Quarter 3	FY2 - Quarter 4	Totals Year 2
Required Quantitative Targets by Quarter (Cumulative)											
Number of producers involved	Producers involved at any stage of the project toward the end goal of marketing HBF eggs as climate-smart	0	7	15	20	20	20	22	25	30	30
Number of underserved producers involved	Underserved producers involved at any stage of the project toward the end goal of marketing HBF eggs as climate-smart	0	4	10	11	11	13	14	16	20	20
Number of acres involved	Number of acres involved at any stage of the project toward the end goal of marketing HBF eggs as climate-smart	0	259	550	740	740	740	850	925	1110	1110
Number of head involved (if applicable)	Number of pullets involved at any stage of the project toward the end goal of marketing HBF eggs as climate smart (Note total is cumulative - Quarters add up together as producers raise pullets in 18-week segments)	0	74000	111000	124000	309000	124000	132000	148000	180000	[illegible]
Number of head involved (if applicable)	Number of layer hens involved at any stage of the project toward the end goal of marketing HBF eggs as climate-smart (Note: total is cumulative and the quarters go up with the # of producers. Layer hens at HBF have a 92 week laying cycle before depopulation therefore the final total adds together each 7 quarter period (#+#) result)	0	76,185	182,844	198061	198061	198051	248,271	304,746	380,305	[illegible]
Dollars provided to producers via technical support	Provide technical support to farmers through research, farm operational planning, mediation with builders and MMRV, marketing, etc.	0	88,938	88938	88939	295,816	72094	72594	72594	72596	289771
Dollars provided to producers via stipends	Stipends for practice implementation (Note: quarterly numbers are unknown as only 4 of the 5 projects receive stipends and all receive varying stipend amounts on inception of the site specific project start date)	0	N/A	N/A	N/A	$33,730	N/A	N/A	N/A	N/A	$33,735
Dollars provided to producers via non-cash farmer incentives	Non-cash farmer incentives covering purchase of farmer supplies for NZEB, NZE Technologies, IBMM, FRF and PRP	0	$185,000	$10,000	$356,383	$1,551,383	186255	250,000	106,052.50	106,022.50	$651,266
GHG Benefits (Metric Tons of CO2e Reduced or Sequestered)	GHG Benefits (Metric Tons of CO2e Reduced or Sequestered)	N/A	N/A	N/A	N/A	889	N/A	N/A	N/A	N/A	917.28
Number of new marketing channels established	Marketing through promotion (social media, website, content creation, partner participation in content creation share, social media influence, major brand promotion through Costco and other partners, earned media) distribution and service	0	2	5	7	7	10	10	15	15	15
Number of measurement tools utilized	EPA Portfolio Manager, Tableau Dashboard, Airtable, COMET-Energy, Haney Soil Tests, PFLA, Total Organic Carbon (TOC), Wet Aggregate Stability, Water Holding Capacity	0	1	1	4	4	4	4	6	6	6
Other Required Benchmarks that may be quantitative or qualitative											
Outreach, training and other technical assistance	Technical assistance for Net Zero Energy Buildings and Net Zero Energy technologies including mediating with solar installation company and guidance for state, local and federal installation regulations	5	5	5	10	5	14	17	19	22	22
Outreach, training and other technical assistance	Farmer meeting or on-farm demonstration or farm visit by field tech	0	0	0	1	1	1	1	1	2	2
Outreach, training and other technical assistance	training manual and updates, blog and research posts	0	0	0	3	3	5	8	10	12	12
Outreach, training and other technical assistance	Monthly office hours with Soil Carbon Initiative	3	6	9	12	12	15	18	21	24	24
Other MMRV and supply chain traceability attributes	Other MMRV and supply chain traceability attributes (including SCI Total Major Ingredient Acre Footprint and Total SCI Enrolled Acres as well as NYU Stern ROSI tool supply chain traceability after completion of ROSI tool in second year of programming)	0	0	0	0	0	2	8	12	15	15
Other measurements of work related to marketing of commodities	Quantitative and Qualitative Research on Social Marketing Campaign including brand measurement and positioning, number of materials created and distributed, earned media coverage, secondary research report compilation, survey and reports on market segments, quantitative analysis of campaign objectives and quarterly social media analytic reports	0	1	2	3	3	2	3	4	5	5
Demonstrated engagement of major partners	Demonstrated engagement of major partners - partnership meetings, partner quarterly reports, partner involvement in milestones and objectives	4	8	12	16	16	20	24	28	32	32
Climate Smart Technologies Employed	Climate Smart Technologies Employed	0	0	0	4	4	6	6	8	8	8
HBF Unique Benchmark Items											
# of eggs (climate smart commodities) produced	Reporting on monthly # of eggs produced in participating producer farms (Note Cumulative)	0	1672800	5687520	9,000,000	16,385,320	12,000,000	18,000,000	22,000,000	22000000	74,000,000
# of Project and Partner Monitoring and Evaluation events, meetings, reports, surveys, SWOT, etc.	M & E events, meetings, reports, surveys, SWOT, etc.	3	6	9	12	12	15	18	21	24	24
# of producers approached with open enrollment application	Producers approached with open-enrollment application	5	10	20	25	25	28	30	40	45	45
# of farms receive Soil and Climate Health Verification	Farms receive Soil and Climate Health Verification	0	0	0	0	0	0	0	0	0	0
# of farms receive SCS Global verification	Farms receive SCS Global verification	0	0	0	0	0	0	0	0	0	0

Benchmark/Milestone	FY3 - Quarter 1	FY3 - Quarter 2	FY3 - Quarter 3	FY3 - Quarter 4	Totals Year 3	FY4 - Quarter 1	FY4 - Quarter 2	FY4 - Quarter 3	FY4 - Quarter 4	Total Year 4	FY5 - Quarter 1	FY5 - Quarter 2	FY5 - Quarter 3	FY5 - Quarter 4	Total Year 5	Project Total
Required Quantitative Targets by Quarter (Cumulative)																
Number of producers involved	33	38	38	42	[illegible]	44	48	55	60	60	62	68	70	71	71	71
Number of underserved producers involved	22	25	25	25	[illegible]	28	32	37	40	40	41	44	47	48	48	48
Number of acres involved	1221	1400	1406	1554	[illegible]	1628	1776	2035	2220	2220	2294	2441	2590	2636	2636	2636
Number of head involved (if applicable)	196,164	196,194	196164	196164	[illegible]	196164	196164	196164	196164	784656	196164	196164	196165	196165	784658	3,282,000
Number of head involved (if applicable)	38030	38095	457110	487564	[illegible]	533,295	624,722	624,722	655,191	655,191	700,802	731376	746,013	839,457	839,457	1,858,018
Dollars provided to producers via technical support	71857	71857	71857	71857	[illegible]	72027	72028	72028	72028	288111	72737	72737	72737	72737	290948	1,424,080
Dollars provided to producers via stipends	N/A	N/A	N/A	N/A	[illegible]	0	0	0	0	0	0	0	0	$87,500	$87,500	$175,000
Dollars provided to producers via non-cash farmer incentives	9,240	20,000	20,000	20,000	[illegible]	5,199.98	20,000	20,000	20,000	$65,199.98	20,000	10,000	10,000	5,199.98	55,199.98	2,192,262.93
GHG Benefits (Metric Tons of CO2e Reduced or Sequestered)	N/A	N/A	N/A	N/A	[illegible]	N/A	N/A	N/A	N/A	1278.28	N/A	N/A	N/A	N/A	1278.28	3022.12
Number of new marketing channels established	18	18	22	25	[illegible]	27	29	29	30	30	30	32	32	35	35	35
Number of measurement tools utilized	6	6	7	7	[illegible]	7	7	8	8	8	8	8	8	9	9	9
Other Required Benchmarks that may be quantitative or qualitative																
Outreach, training and other technical assistance	22	25	25	28	[illegible]	30	32	32	35	35	37	39	40	45	45	45
Outreach, training and other technical assistance	2	3	4	5	[illegible]	4	6	6	6	6	6	8	8	8	8	8
Outreach, training and other technical assistance	12	15	18	20	[illegible]	22	24	26	26	26	30	33	36	38	38	38
Outreach, training and other technical assistance	27	30	33	36	[illegible]	39	42	45	48	48	51	54	57	60	60	180
Other MMRV and supply chain traceability attributes	15	18	18	20	[illegible]	20	22	25	25	25	25	25	25	25	25	25
Other measurements of work related to marketing of commodities	5	7	8	8	[illegible]	9	10	11	12	12	13	14	15	16	16	16
Demonstrated engagement of major partners	34	38	42	46	[illegible]	50	54	58	62	62	66	70	74	78	78	234
Climate Smart Technologies Employed	10	12	14	14	[illegible]	14	16	17	18	18	18	20	21	23	23	23
HBF Unique Benchmark Items																
# of eggs (climate smart commodities) produced	28000000	35000000	40000000	40000000	[illegible]	40000000	43000000	43000000	43000000	169000000	52,823,610	52823610	52823610	52823610	211,294,440	570,654,760
# of Project and Partner Monitoring and Evaluation events, meetings, reports, surveys, SWOT, etc.	26	28	30	32	[illegible]	34	36	38	40	40	42	44	46	48	48	48
# of producers approached with open enrollment application	55	65	75	90	[illegible]	110	115	125	126	126	130	132	134	136	138	138
# of farms receive Soil and Climate Health Verification	2	0	0	0	[illegible]	0	0	0	3	3	5	7	13	20	20	20
# of farms receive SCS Global verification	0	0	0	0	[illegible]	0	2	0	3	3	5	7	13	20	20	23

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
313	Waste Storage Facility
329	Residue and Tillage Management
336	Soil Carbon Amendments
340	Cover Crop
374	Energy Efficient Agricultural Operation
381	Silvopasture
382	Fence
484	Mulching
512	Pasture and Hay Planting
528	Prescribed Grazing
561	Heavy Use Area Protection
590	Nutrient Management
612	Tree/Shrub Establishment
614	Watering Facility
629	Waste Treatment

Partnerships for Climate-Smart Commodities Data Dictionary for Recipients

February 2023

Version 1.0

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

Table of Contents

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 (CO2e) emission reductions	Quarterly
Cumulative carbon stock	Whole project estimate of total carbon sequestration	Quarterly
Cumulative CO2 benefit	Whole project estimate of total CO2 emission reductions	Quarterly
Cumulative CH4 benefit	Whole project estimate of total CH4 emission reductions	Quarterly
Cumulative N2O benefit	Whole project estimate of total N2O emission reductions	Quarterly
Offsets produced	Amount of carbon offsets produced by project	Quarterly
Offsets sale	Name of marketplace where carbon offsets were sold	Quarterly
Offsets price	Price of carbon in offset sales	Quarterly
Insets produced	Amount of carbon insets produced by project	Quarterly
Cost of on-farm TA	Cost of on-farm technical assistance (TA) provided to producers	Quarterly
MMRV cost	Cost of measurement, monitoring, reporting, and verification (MMRV) activities	Quarterly
GHG monitoring method	Methods used by project to monitor GHG benefits (up to 5)	Quarterly
GHG reporting method	Methods used by project to report on GHG benefits (up to 5)	Quarterly
GHG verification method	Methods used to verify GHG benefits (up to 5)	Quarterly

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 CO2 reduction calculated	Calculation of total CO2 reduction	Annual
Total carbon stock change calculated	Calculation of change in carbon stock	Annual
Total CH4 reduction calculated	Calculation of total CH4 reduction	Annual
Total N2O reduction calculated	Calculation of total N2O reduction	Annual
Soil sample result	Numeric result from soil sample	Annual
Measurement type	Type of analysis conducted	Annual

Additional Environmental Benefits

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

Table 10. Additional Environmental Benefits elements

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 *Marketing Activities* worksheet (Table 3) as part of the quarterly performance report.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Farms enrolled

Data element name: Farms enrolled

Reporting question: Did the project enroll any producers or fields this quarter?

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

GHG calculation methods

Data element name: GHG calculation methods

Reporting question: What methods is the project using to calculate GHG benefits?

Description: List the way(s) that GHG benefits are being measured and calculated by the project this quarter.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Models
- Direct field measurements
- Both

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

GHG cumulative calculation

Data element name: GHG cumulative calculation

Reporting question: What method(s) was used to calculate the total cumulative GHG benefits reported here?

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:
- Models
- Direct field measurements
- Both

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Cumulative GHG benefits

Data element name: Cumulative GHG benefits

Reporting question: What are the project's estimated total GHG emission reductions (CO2eq) to date?

Description: Total cumulative estimated greenhouse gas emission reductions from practice implementation. This is updated quarterly. If there are no changes, enter the same number as the previous quarter.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CO_2eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Cumulative carbon stock

Data element name: Cumulative carbon stock

Reporting question: How much carbon has the project sequestered to date?

Description: Estimated total cumulative change in carbon stock based on practice implementation. This is updated quarterly. If there are no changes, enter the same numbers as the previous quarter. Conversion rate is one ton of carbon = 3.67 tons of CO_2eq.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CO_2eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Cumulative CO2 benefit

Data element name: Cumulative CO2 benefit

Reporting question: What are the project's estimated total cumulative CO2 emission reductions to date?

Description: Estimated total cumulative carbon dioxide emission reductions based on practice implementation. This is updated quarterly. If there are no changes, enter the same number as the previous quarter.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CO_2

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Cumulative CH4 benefit

Data element name: Cumulative CH4 benefit

Reporting question: What are the project's estimated total CH4 emission reductions to date?

Description: Estimated total cumulative methane reduction based on practice implementation. This is updated quarterly. If there are no changes, enter the same numbers as the previous quarter. Conversion rate is one ton of CH_4 = 25 tons of CO_2eq.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CH4 reduced in CO_2eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Cumulative N20 benefit

Data element name: Cumulative N2O benefit

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

Description: Estimated total cumulative nitrous oxide reduction based on practice implementation. This is updated quarterly. If there are no updated numbers enter the same number as the previous quarter. Conversion rate is one ton of N_2O = 298 tons of CO_2eq.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons N2O reduced in CO_2eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Offsets produced

Data element name: Offsets produced

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

Description: Total carbon offsets produced by enrolled project fields during the quarter. Offsets are defined as having been verified and certified using an accepted standard and sold into the carbon marketplace.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CO_2eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Offsets sale

Data element name: Offsets sale

Reporting question: To what marketplace(s) were carbon offsets sold?

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

Data type: Text

Select multiple values: NA

Measurement unit: Name

Allowed values: Text

Logic: Respond if >0 to 'Offsets produced'

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Offsets price

Data element name: Offsets price

Reporting question: What was the average price of carbon received for offsets?

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

Data type: Decimal

Select multiple values: No

Measurement unit: Dollars per metric ton

Allowed values: 0-500

Logic: Respond if >0 to 'Offsets produced'

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Insets produced

Data element name: Insets produced

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

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

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CO_2eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

Cost of on-farm TA

Data element name: Cost of on-farm TA

Reporting question: What is the total amount that has been spent to provide on-farm TA?

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

Data type: Decimal

Select multiple values: No

Measurement unit: Dollars

Allowed values: $0-$50,000,000

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

MMRV cost

Data element name: MMRV cost

Reporting question: What is the total amount that has been spent on MMRV activities?

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

Data type: Decimal

Select multiple values: No

Measurement unit: Dollars

Allowed values: $0-$50,000,000

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

GHG monitoring method

Data element name: GHG monitoring 1-5

Reporting question: How did the project monitor GHG benefits?

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Drones
- Ground-level photos and videos
- On-farm visit
- Plot-based sampling
- Producer records or attestation
- Satellite monitoring or remote sensing
- Soil metagenomics
- Soil sensors
- Water sensors
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Project

Data collection frequency: Quarterly

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

Partner Activities

Unique IDs	
Partner ID	Unique Project ID for each partner

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

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

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

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

Partnership start date

Data element name: Partnership start date | **Reporting question:** When did the partnership start?

Description: Date that the partner organization and the recipient began formally partnering on the project

Data type: Date | **Select multiple values**: NA

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

Logic: No response for recipient | **Required:** Yes

Data collection level: Partner | **Data collection frequency:** Partnership initiation

Partnership end date

Data element name: Partnership end date | **Reporting question:** When did the partnership end?

Description: Date that the partner organization and the recipient stopped formally partnering on the project

Data type: Date | **Select multiple values**: NA

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

Logic: No response for recipient | **Required:** Yes

Data collection level: Partner | **Data collection frequency:** Partnership end quarter

New partnership

Data element name: New partnership | **Reporting question:** Is this a new partnership?

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

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

Measurement unit: Category | **Allowed values:**

- Yes
- No
- I don't know

Logic: No response for recipient | **Required:** Yes

Data collection level: Partner | **Data collection frequency:** Partnership initiation

Partner total requested

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

Description: Cumulative (total) amount of funds that the partner has requested reimbursement for from the recipient from the start of the partnership to the end of the reporting quarter. For each quarter's data entry, the value must be the sum of all previous entries plus the amount of funds requested in the reporting quarter. If there are no changes, report the value from the previous quarter.

Data type: Decimal | **Select multiple values**: NA

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

Logic: No response for recipient | **Required:** Yes

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

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:

- 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:** • 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:
- 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 (RCPP), or related programs), the Farm Service Agency Conservation Reserve Program (CRP), as well as funds from other USDA programs or other federal agencies.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don’t know

Logic: Respond if yes to 'CSAF experience'

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment

CSAF state or local funds

Data element name: CSAF state or local funds

Reporting question: Were prior CSAF practices supported by state or local funds?

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don’t know

Logic: Respond if yes to 'CSAF experience'

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment

CSAF nonprofit funds

Data element name: CSAF nonprofit funds

Reporting question: Were CSAF practices supported by nonprofit funds?

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don’t know

Logic: Respond if yes to 'CSAF experience'

Required: Yes

Data collection level: Producer

Data collection frequency: Initial enrollment

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

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

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Never used
- Used on less than 25% of operation
- Used on 25-50% of operation
- Used on 51-75% of operation
- Used on more than 75% of operation

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Field any CSAF practice

Data element name: Field any CSAF practice

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

Description: Prior to enrollment, have any CSAF practice or practices been used in this field in the past 3 years? CSAF practices are included in a list in Appendix A.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Practice past use - this field

Data element name: Practice past use - this field

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

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

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

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Practice type

Data element name: Practice type 1-7

Reporting question: What CSAF practice is being implemented in this field through the project?

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values: See list in Appendix A

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Practice standard

Data element name: Practice standard 1-7

Reporting question: What standard does the CSAF practice follow?

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- NRCS
- Other (specify)

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Planned practice implementation year

Data element name: Practice 1-7 implementation year

Reporting question: What year is the CSAF practice planned to be implemented?

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

Data type: Integer

Select multiple values: No

Measurement unit: Year

Allowed values: 2022-2030

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Practice extent

Data element name: Practice 1-7 extent

Reporting question: To what extent is the practice implemented?

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

Data type: Decimal

Select multiple values: No

Measurement unit: Extent

Allowed values: .01-100,000

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

Practice extent unit	
Data element name: Practice 1-7 extent unit	**Reporting question:** Unit for extent of practice implementation
Description: Unit for extent of practice implementation on the field specified by the contract. If "other" is chosen, use the additional column to enter the appropriate unit.	
Data type: List	**Select multiple values:** No
Measurement unit: Category	**Allowed values:** • Acres • Head of livestock • Linear feet • Square feet • Other (specify)
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Initial enrollment

CSAF Practice Sub-questions

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

Farm Summary

Unique IDs

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

Producer TA received

Data element name: Producer TA received 1-3

Reporting question: What types of technical assistance were provided to this producer?

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

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

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Quarterly

Producer incentive amount

Data element name: Producer incentive amount

Reporting question: What is the total value of financial incentives provided to this producer?

Description: Total incentive payment received by the producer from USDA project funds for the year (non-cumulative). Do not include incentive payments made with partner match funds.

Data type: Decimal

Select multiple values: NA

Measurement unit: Dollars

Allowed values: $0-$5,000,000

Logic: None – all respond

Required: Yes

Data collection level: Producer

Data collection frequency: Quarterly

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:** • 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 *Supplemental Data Submission – Field direct GHG measurement results*).	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Models • Direct field measurements • Both
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Quarterly

Field official GHG calculation

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

Field official GHG ER

Data element name: Field official GHG emission reductions	**Reporting question:** What are the estimated total GHG emission reductions (CO2eq) in this field?
Description: Estimated greenhouse gas emission reductions from practice implementation in this field that are reported as part of the project's aggregate impact. This data element must be entered upon practice completion or annually, as appropriate.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Quarterly

Field official carbon stock

Data element name: Field official carbon stock	**Reporting question:** How much carbon has been sequestered in this field?
Description: Estimated total change in carbon stock based on practice implementation in this field. This data element can be reported in any quarter and is cumulative for the year. Conversion rate is one ton of carbon = 3.67 tons of CO_2eq.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Quarterly

Field official CO2 ER

Data element name: Field official CO2 emission reductions

Reporting question: What are the estimated total CO2 emission reductions in this field?

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

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CO_2

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Field official CH4 ER

Data element name: Field official CH4 emission reductions

Reporting question: What are the estimated total CH4 emission reductions in this field?

Description: Estimated total methane emission reductions based on practice implementation in this field that are reported as part of the project's aggregate impact. This data element must be entered upon practice completion or annually, as appropriate. Conversion rate is one ton of CH_4 = 25 tons of CO_2eq.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CH4 reduced in CO_2eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Field official N20 ER

Data element name: Field official N2O emission reductions

Reporting question: What are the estimated total N2O emission reductions in this field?

Description: Estimated total nitrous oxide emission reductions based on practice implementation in this field that are reported as part of the project's aggregate impact. This data element must be entered upon practice completion or annually, as appropriate. Conversion rate is one ton of N_2O = 298 tons of CO_2eq.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons N2O reduced in CO_2eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Field offsets produced

Data element name: Field offsets produced

Reporting question: How many carbon offsets have been produced in this field?

Description: Total carbon offsets produced in the field during the quarter (not cumulative). Offsets are defined as having been verified and certified using an accepted standard and sold into the carbon marketplace.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CO_2eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Quarterly

Field insets produced

Data element name: Field insets produced	**Reporting question:** How many carbon insets have been produced in this field?
Description: Total carbon insets produced in the field during the quarter (not cumulative). Insets are defined as having been verified and certified using an accepted standard and accounted for within Scope 3 emissions for a firm.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Quarterly

Other field measurement

Data element name: Other field measurement	**Reporting question:** Were data collected from the field for reasons other than GHG benefit estimation?
Description: Direct physical measurements or data collection taken in the field for any reason other than GHG benefits estimation. These reasons could include calibration of GHG estimation tools or models, tracking other environmental benefits (see Field environmental benefits report), and other reasons. If yes, submit corresponding reports (see *Supplemental data submission - Field direct measurement results*).	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Yes • No • I don't know
Logic: None – all respond	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Quarterly

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_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** If project calculates GHG benefits using multiple methods
Data collection level: Field	**Data collection frequency:** Annual

Total carbon stock estimated

Data element name: Total carbon stock estimated	**Reporting question:** What is the alternate estimate of how much carbon has the field has sequestered?
Description: Total change in carbon stock based on practice implementation in the field estimated using an alternate model. Conversion rate is one ton of carbon = 3.67 tons of CO_2eq.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** If project calculates GHG benefits using multiple methods
Data collection level: Field	**Data collection frequency:** Annual

Total CO2 estimated

Data element name: Total CO2 estimated	**Reporting question:** What is the alternate estimate of the field's total CO2 emission reductions?
Description: Total carbon dioxide emission reductions based on practice implementation in the field estimated using an alternate model.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons CO_2	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** If project calculates GHG benefits using multiple methods
Data collection level: Field	**Data collection frequency:** Annual

Total CH4 estimated

Data element name: Total CH4 estimated	**Reporting question:** What is the alternate estimate of the field's total CH4 emission reductions?
Description: Total methane emission reductions based on practice implementation in the field estimated using an alternate model. Conversion rate is one ton of CH_4 = 25 tons of CO_2eq.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons CH4 reduced in CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** If project calculates GHG benefits using multiple methods
Data collection level: Field	**Data collection frequency:** Annual

Total field N20 estimated

Data element name: Total N2O estimated	**Reporting question:** What is the alternate estimate of the field's total N2O emission reductions?
Description: Total nitrous oxide emission reductions based on practice implementation in the field estimated using an alternate method. Conversion rate is one ton of N_2O = 298 tons of CO_2eq.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons N2O reduced in CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** If project calculates GHG benefits using multiple methods
Data collection level: Field	**Data collection frequency:** Annual

GHG Benefits - Measured

Unique IDs

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

GHG measurement method

Data element name: GHG measurement method

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

Description: Field-based measurement method used to calculate GHG benefits. If "other" is chosen, enter the appropriate value as free text in the additional column.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Emissions measurement unit
- Flux towers
- Litterbags
- Plant measurements
- Portable emissions analyzers
- Soil flux chambers
- Soil samples
- Soil sensors
- Vehicle-mounted sensors
- Other (specify)

Logic: None – all respond

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

Data collection level: Field

Data collection frequency: Annual

Lab name

Data element name: Lab name

Reporting question: What is the name of the lab that processed the measurement samples?

Description: Name of entity that received data and conducted analysis of samples.

Data type: Text

Select multiple values: No

Measurement unit: NA

Allowed values: Free text

Logic: None – all respond

Required: If applicable

Data collection level: Field

Data collection frequency: Annual

Measurement start date

Data element name: Measurement start date

Reporting question: On what date did the measurement start?

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

Data type: Date

Select multiple values: No

Measurement unit: MM/DD/YYYY

Allowed values: 01/01/2023 – 12/31/2030

Logic: None – all respond

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

Data collection level: Field

Data collection frequency: Annual

Measurement end date

Data element name: Measurement end date

Reporting question: On what date did the measurement end?

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

Data type: Date

Select multiple values: No

Measurement unit: MM/DD/YYYY

Allowed values: 01/01/2023– 12/31/2030

Logic: None – all respond

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

Data collection level: Field

Data collection frequency: Annual

Total CO2 reduction calculated

Data element name: Total CO2 reduction calculated

Reporting question: What are the total measured CO2 emission reductions?

Description: Total annual CO2 emission reductions based on practice implementation in the field calculated from in-field measurements.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CO_2

Allowed values: 0-10,000,000

Logic: None – all respond

Required: If a project takes carbon stock or greenhouse gas emission measurements in this field

Data collection level: Field

Data collection frequency: Annual

Total field carbon stock measured

Data element name: Total field carbon stock measured

Reporting question: What is the total amount of carbon sequestered based on repeat measurements in this field?

Description: Change in carbon stock based on practice implementation in the field calculated from repeat soil sampling in this field. (Results for initial field soil samples should be reported in the 'Soil sample result' and 'Measurement type" columns.) Conversion rate is one ton of carbon = 3.67 tons of CO_2eq.

Data type: Decimal

Select multiple values: No

Measurement unit: Metric tons CO_2eq

Allowed values: 0-10,000,000

Logic: None – all respond

Required: If a project conducts soil samples or takes carbon stock measurements in this field

Data collection level: Field

Data collection frequency: Annual

Total CH4 reduction calculated

Data element name: Total CH4 reduction calculated	**Reporting question:** What are the total measured CH4 emission reductions?
Description: Total annual methane emission reductions based on practice implementation in the field calculated from in-field measurements. Conversion rate is one ton of CH_4 = 25 tons of CO_2eq.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons CH4 reduced in CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** If a project conducts soil samples or takes carbon stock or greenhouse gas emission measurements in this field
Data collection level: Field	**Data collection frequency:** Annual

Total N20 reduction calculated

Data element name: Total N2O reduction calculated	**Reporting question:** What are the total measured N2O emission reductions?
Description: Total annual nitrous oxide emission reductions based on practice implementation in the field calculated from in-field measurements. Conversion rate is one ton of N_2O = 298 tons of CO_2eq.	
Data type: Decimal	**Select multiple values**: No
Measurement unit: Metric tons N2O reduced in CO_2eq	**Allowed values:** 0-10,000,000
Logic: None – all respond	**Required:** If a project conducts soil samples or takes carbon stock or greenhouse gas emission measurements in this field
Data collection level: Field	**Data collection frequency:** Annual

Soil sample result

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

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:

- Yes
- No
- I don't know

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Reduction in nitrogen loss

Data element name: Reduction in nitrogen loss

Reporting question: Are reductions in nitrogen losses being tracked in the field?

Description: Tracking reductions in nitrogen losses in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: Respond if yes to 'Environmental benefits'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Reduction in nitrogen loss amount

Data element name: Reduction in nitrogen loss amount

Reporting question: How much reduction in nitrogen losses have been measured in the field?

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

Data type: Decimal

Select multiple values: No

Measurement unit: Amount

Allowed values: 0-1,000,000

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

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Reduction in nitrogen loss amount unit

Data element name: Reduction in nitrogen loss amount unit	**Reporting question:** What is the unit for how much reduction in nitrogen losses have been measured in the field?
Description: Unit for the total amount of reduction in nitrogen losses that is measured and reported in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Kilograms • Metric tons • Pounds • Other (specify)
Logic: Respond if yes to 'Reduction in nitrogen loss'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Reduction in nitrogen loss purpose

Data element name: Reduction in nitrogen loss purpose	**Reporting question:** What is the purpose of tracking reduction in nitrogen losses?
Description: Purpose of tracking reduction in nitrogen losses in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Commodity marketing • Producing insets • Producing offsets • I don't know • Other (specify)
Logic: Respond if yes to 'Reduction in nitrogen loss'	**Required:** Yes
Data collection level: Project	**Data collection frequency:** Annual

Reduction in phosphorus loss

Data element name: Reduction in phosphorus loss	**Reporting question:** Are reductions in phosphorus losses being tracked in the field?
Description: Tracking of reductions in phosphorus losses in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Yes • No • I don't know
Logic: Respond if yes to 'Environmental benefits'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Reduction in phosphorus loss amount

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

Reduction in phosphorus loss amount unit

Data element name: Reduction in phosphorus loss amount unit	**Reporting question:** What is the unit for the reduction in phosphorus losses measured in the field?
Description: Unit for the total amount of reduction in phosphorus losses that is measured in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Kilograms • Metric tons • Pounds • Other (specify)
Logic: Respond if yes to 'Reduction in phosphorus loss'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Reduction in phosphorus loss purpose

Data element name: Reduction in phosphorus loss purpose	**Reporting question:** What is the purpose of tracking reductions in phosphorus losses?
Description: Purpose of tracking reduction in phosphorus losses in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Commodity marketing • Producing insets • Producing offsets • I don't know • Other (specify)
Logic: Respond if yes to 'Reduction in phosphorus loss'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Other water quality

Data element name: Other water quality	**Reporting question:** Are other water quality metrics being tracked in the field?
Description: Project tracking of other water quality metrics in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Yes • No • I don't know
Logic: Respond if yes to 'Environmental benefits'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Other water quality type

Data element name: Other water quality type	**Reporting question:** What type of other water quality metric have been measured in the field?
Description: Type of other water quality metric (besides nitrogen loss and phosphorus loss reductions) that is measured in the field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Sediment load reduction • Temperature • Other (specify)
Logic: Respond if yes to 'Other water quality'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Other water quality amount

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

Other water quality amount unit

Data element name: Other water quality amount unit	**Reporting question:** What is the unit for the reduction in other water quality metrics measured in the field?
Description: Unit for the total amount of reduction in other water quality metrics that is measured in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Degrees F • Kilograms • Kilograms per liter • Metric tons • Pounds • Other (specify)
Logic: Respond if yes to 'Other water quality'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Other water quality purpose

Data element name: Other water quality purpose	**Reporting question:** What is the purpose of tracking other water quality benefits?
Description: Purpose of tracking other water quality benefits in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Commodity marketing • Producing insets • Producing offsets • I don't know • Other (specify)
Logic: Respond if yes to 'Other water quality'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Water quantity

Data element name: Water quantity	**Reporting question:** Is water conservation being tracked in the field?
Description: Tracking of water conservation or reduction in use in the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Yes • No • I don't know
Logic: Respond if yes to 'Environmental benefits'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Water quantity amount

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

Water quantity amount unit

Data element name: Water quantity amount unit	**Reporting question:** What is the unit for the amount of water conservation measured in the field?
Description: Unit for the total amount of water conservation or reduced use that is measured and reported in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Acre-feet • Cubic feet • Other (specify)
Logic: Respond if yes to 'Water quantity'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Water quantity purpose

Data element name: Water quantity purpose

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

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

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

Logic: Respond if yes to 'Water quantity'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Reduced erosion

Data element name: Reduced erosion

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

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: Respond if yes to 'Environmental benefits'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Reduced erosion amount

Data element name: Reduced erosion amount

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

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

Data type: Decimal

Select multiple values: No

Measurement unit: Amount

Allowed values: 0-1,000,000

Logic: Respond if yes to 'Reduced erosion'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Reduced erosion amount unit

Data element name: Reduced erosion unit

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

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Tons
- Other (specify)

Logic: Respond if yes to 'Reduced erosion'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Reduced erosion purpose

Data element name: Reduced erosion purpose

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

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

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

Logic: Respond if yes to 'Reduced erosion'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Reduced energy use

Data element name: Reduced energy use

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

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: Respond if yes to 'Environmental benefits'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Reduced energy use amount

Data element name: Reduced energy use amount

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

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

Data type: Decimal

Select multiple values: No

Measurement unit: Amount

Allowed values: 0-1,000,000

Logic: Respond if yes to 'Reduced energy use'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Reduced energy use amount unit

Data element name: Reduced energy use unit

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

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Kilowatt hours
- Other (specify)

Logic: Respond if yes to 'Reduced energy use'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Reduced energy use purpose

Data element name: Reduced energy use purpose

Reporting question: What is the purpose of tracking reduced energy use in the field?

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

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

Logic: Respond if yes to 'Reduced energy use'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Avoided land conversion

Data element name: Avoided land conversion

Reporting question: Is avoided land conversion being tracked in the field?

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Yes
- No
- I don't know

Logic: Respond if yes to 'Environmental benefits'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Avoided land conversion amount

Data element name: Avoided land conversion amount

Reporting question: How much avoided land conversion has been measured in the field?

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

Data type: Decimal

Select multiple values: No

Measurement unit: Amount

Allowed values: 0-1,000,000

Logic: Respond if yes to 'Avoided land conversion'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Avoided land conversion amount unit

Data element name: Avoided land conversion unit

Reporting question: What is the unit for the amount of avoided land conversion measured in the field?

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

Data type: List

Select multiple values: No

Measurement unit: Category

Allowed values:

- Acres
- Other (specify)

Logic: Respond if yes to 'Avoided land conversion'

Required: Yes

Data collection level: Field

Data collection frequency: Annual

Avoided land conversion purpose

Data element name: Avoided land conversion purpose	**Reporting question:** What is the purpose of tracking avoided land conversion in the field?
Description: Purpose of tracking avoided land conversion in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Commodity marketing • Producing insets • Producing offsets • I don't know • Other (specify)
Logic: Respond if yes to 'Avoided land conversion'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Improved wildlife habitat

Data element name: Improved wildlife habitat	**Reporting question:** Are improvements to wildlife habitat being tracked in the field?
Description: Tracking of improvements to wildlife in and around the enrolled field. Tracking means at a minimum using some form of monitoring and reporting that can quantify benefits.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Yes • No • I don't know
Logic: Respond if yes to 'Environmental benefits'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Improved wildlife habitat amount

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

Improved wildlife habitat amount unit

Data element name: Improved wildlife habitat unit	**Reporting question:** What is the unit for the amount of improved wildlife habitat measured in the field?
Description: Unit for the total amount of improved wildlife habitat that is measured in and around enrolled fields. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Acres • Linear feet • Other (specify)
Logic: Respond if yes to 'Improved wildlife habitat'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

Improved wildlife habitat purpose	
Data element name: Improved wildlife habitat purpose	**Reporting question:** What is the purpose of tracking improved wildlife habitat in the field?
Description: Purpose of tracking improved wildlife habitat in the enrolled field. If "other" is chosen, enter the appropriate value as free text in the additional column.	
Data type: List	**Select multiple values**: No
Measurement unit: Category	**Allowed values:** • Commodity marketing • Producing insets • Producing offsets • I don't know • Other (specify)
Logic: Respond if yes to 'Improved wildlife habitat'	**Required:** Yes
Data collection level: Field	**Data collection frequency:** Annual

CSAF Practice Sub-questions

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

Table 11. Follow-on questions for select CSAF practices

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

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

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

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

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

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

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

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

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

Other CSAF Practices

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

Appendix B: Commodity List

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

PARSNIP
PASSION FRUITS
PAWPAW
PEACHES
PEANUTS
PEARS
PEAS
PECANS
PENNYCRESS
PEPPERS
PERENNIAL PEANUTS
PERIQUE TOBACCO
PERSIMMONS
PINE NUTS
PINEAPPLE
PISTACHIOS
PITAYA/DRAGONFRUIT
PLANTAIN
PLUMCOTS
PLUMS
POMEGRANATES
POTATOES
POTATOES SWEET
PRUNES
PSYLLIUM
PUMMELO
PUMPKINS
QUINCES
QUINOA
RADISHES
RAISINS
RAMBUTAN
RAPESEED
RHUBARB
RICE
RICE SWEET
RICE WILD
RUTABAGA
RYE
SAFFLOWER
SAPODILLA
SAPOTE
SCALLIONS
SESAME
SHALLOTS
SORGHUM
SORGHUM DUAL PURPOSE
SORGHUM FORAGE
SOYBEANS
SPELT
SQUASH
STAR GOOSEBERRY
STRAWBERRIES
SUGAR BEETS
SUGARCANE
SUNFLOWERS
SUNN HEMP
TANGELOS
TANGERINES
TANGORS
TANGOS
TANNIER
TARO
TEA
TEFF
TI
TOBACCO CIGAR WRAPPER
TOBACCO BURLEY
TOBACCO BURLEY 31V
TOBACCO CIGAR BINDER
TOBACCO CIGAR FILLER
TOBACCO CIGAR FILLER BINDER
TOBACCO DARK AIR CURED
TOBACCO FIRE CURED
TOBACCO FLUE CURED
TOBACCO MARYLAND
TOBACCO VIRGINIA FIRE CURED
TOMATILLOS
TOMATOES
TREES TIMBER
TRITICALE
TRUFFLES
TURNIPS
VETCH
WALNUTS
WAMPEE
WASABI
WATERMELON
WAX JAMBOO FRUIT
WHEAT
WILLOW SHRUB
WINTER MELON
WOLFBERRY/GOJI
YAM

LIVESTOCK
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

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

I. Overarching Statement

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

II. Eligibility and Highly Erodible Lands and Wetlands Compliance

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

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

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

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

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

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

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

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

III. Other Environmental and Cultural Resources Reviews

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

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

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

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

IV. Producer Benefits

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

V. Producer Data Protection and Disclosure

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

VI. Other Data and Reporting Requirements

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

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

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

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

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

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

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

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

measurement/quantification, monitoring, reporting, tracking, and verification of associated greenhouse gas benefits and marketing of climate-smart commodities).
- Synthesis of outcomes; and
- Opportunities for USDA and others to inform future approaches to generating new and expanded markets for climate-smart commodities.

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

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

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

VII. Competition and Anti-Competitive Practices

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

VIII. Suspension and Disbarment

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

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

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

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

2) An audit that meets the requirements contained in 2 CFR 200 subpart F.

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

X. Non-Disparagement

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