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: |
|---|---|---|---|
| NR243A750004G012 | | Date of Final Signature - 11/17/2028 | Grant Agreement |

| 5. Agency (Name and Address) | 6. Recipient Organization (Name and Address) |
|---|---|
| USDA Partnerships for Climate-Smart Commodities<br>c/o FPAC-BC Grants and Agreements Division<br>1400 Independence Ave SW, Room 3236<br>Washington, DC 20250<br>Direct all correspondence to FPAC.BC.GAD@usda.gov | ARIZONA ASSOCIATION CONSERVATION DISTRICTS INC<br>25560 W MC 85<br>BUCKEYE AZ 85326<br><br>UEI Number / DUNS Number: HDK3BHJ4AKK1 / 196434810<br>EIN: |

| 7. NRCS Program Contact | 8. NRCS Administrative Contact | 9. Recipient Program Contact | 10. Recipient Administrative Contact |
|---|---|---|---|
| Name: SOPHIE PARKER | Name: Jo Beth Bellanca | Name: WESTON HART | Name: DEBORRAH SMITH |
| (b)(6) | | | |

| 11. CFDA | 12. Authority | 13. Type of Action | 14. Program Director |
|---|---|---|---|
| 10.937 | 15 USC 714 et seq | New Agreement | Name: SHARMA TORRENS<br>(b)(6) |

15. Project Title/ Description: Expands markets for climate-smart specialty crops, organic crops, grains and livestock in Arizona and tribal areas and supports rancher implementation and monitoring of climate-smart practices.

16. Entity Type: M = Nonprofit with 501C3 IRS Status (Other than Institution of Higher Education)

17. Select Funding Type

| Select funding type: | ☒ Federal | ☒ Non-Federal |
|---|---|---|
| Original funds total | $4,902,479.00 | $431,929.00 |
| Additional funds total | $0.00 | $0.00 |
| Grand total | $4,902,479.00 | $431,929.00 |

18. Approved Budget

| | | | |
|---|---|---|---|
| Personnel | $1,103,200.00 | Fringe Benefits | $0.00 |
| Travel | $12,160.00 | Equipment | $0.00 |
| Supplies | $0.00 | Contractual | $5,000.00 |
| Construction | $0.00 | Other | $3,782,119.00 |
| Total Direct Cost | $4,902,479.00 | Total Indirect Cost | $0.00 |
| | | Total Non-Federal Funds | $431,929.00 |
| | | Total Federal Funds Awarded | $4,902,479.00 |
| | | Total Approved Budget | $5,334,408.00 |

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

| Name and Title of Authorized Government Representative | Signature | Date |
|---|---|---|
| KATINA HANSON<br>Acting Senior Advisor for Climate-Smart Commodities | KATINA HANSON<br>Digitally signed by KATINA HANSON<br>Date: 2023.11.14 12:01:35 -06'00' | 11/14/23 |
| Name and Title of Authorized Recipient Representative | Signature | Date |
| DEBORRAH SMITH<br>CEO - Executive Director | Digitally signed by Deborrah Smith<br>Date: 2023.11.14 10:01:18 -07'00' | 11/14/23 |

**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 Arizona Association of Conservation Districts 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 $5,334,408

TOTAL FEDERAL FUNDS $4,902,479
PERSONNEL $1,103,200
FRINGE BENEFITS $0
TRAVEL $12,160
EQUIPMENT $0
SUPPLIES $0
CONTRACTUAL $5,000
CONSTRUCTION $0
OTHER $3,782,119 (includes PRODUCER INCENTIVES $1,920,000)
TOTAL DIRECT COSTS $4,902,479
INDIRECT COSTS $0

TOTAL NON-FEDERAL FUNDS $431,929
PERSONNEL $117,900
FRINGE BENEFITS $0
TRAVEL $61,865
EQUIPMENT $0
SUPPLIES $1,250
CONTRACTUAL $0
CONSTRUCTION $0
OTHER $227,813 (includes PRODUCER INCENTIVES $0)
TOTAL DIRECT COSTS $408,828
INDIRECT COSTS $23,101

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

Recipient has elected to voluntarily waive indirect costs on federal funds.

### Responsibilities of the Parties:

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

RECIPIENT RESPONSIBILITIES

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

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

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

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

Performance Reports: Quarterly

SF425 Financial Reports: Quarterly

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

**Expected Accomplishments and Deliverables**

See attached Benchmarks Table and associated Project Narrative.

**Resources Required**

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

**Milestones**

See attached Benchmarks Table and associated Project Narrative.

## GENERAL TERMS AND CONDITIONS

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

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

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# Climate-SMART (Specific Management for Arizona Resilience and Transformation) Agriculture Best Management Practices

## EXECUTIVE SUMMARY OF PILOT PROJECT

Executive Summary of Pilot Project, which includes at minimum a high-level description of the project, the issues it is seeking to address and how the project will contribute to the goals in this funding opportunity:

The Climate-SMART Agriculture Best Management Practices (Ag BMPs) project's goal is to create a program for growers in Arizona to adopt Climate-Smart Agriculture and Forestry (CSAF) practices that will allow abundant agriculture while using practices that conserve water, promote healthy soil, and mitigate climate change providing beneficial ecosystem services including carbon sequestration. Arizona (and the larger southwest) has been particularly impacted by climate change, making climate-smart solutions in Arizona agriculture a necessary part of our state's future. States in the Midwest and East experience an abundance of rainfall that allow for easier crop growth than in the arid Southwest. Typically, farming and ranching assistance programs provided by government agencies tend to be geared towards these areas of high production and higher rainfall.

There has not been a concerted effort to engage Arizona producers in practicing organic and regenerative management or in having indigenous traditional ecological knowledge (ITEK) transferred to "conventional" producers. Arizona producers are reluctant to implement more restrictive standards involved in these approaches, which makes the education component about these practices and especially CSAF practices even more critical. Compounding this problem, producers may be unable to afford to implement these practices. All of this creates a need to have an Arizona-specific program (which can be replicated in similar, arid climates) tailored to meet the needs of this drought-ridden climate as well as our producers, acknowledging their needs and incentivizing them to implement CSAF practices.

With an objective of having half of our target producers be Native Americans, we seek to focus on historically underserved populations and to create collaborative partnerships between indigenous traditional ecological knowledge (ITEK) and conventional producers to emphasize cross-cultural knowledge sharing, as well as those who have adopted USDA Organic standards and regenerative practices, will be engaged as our "early adopters" and help with the transfer of knowledge to conventional producers. Alongside producer-to-producer technical support, we will offer training guides and resources on climate-smart practices to conventional producers. While this resource component will broadly cover ITEK/organic/regenerative practices, we will also offer specific biological consulting to all producers on the project to help diversify climate-smart tools available to them with biocontrols, biostimulants, and biofertilizers in aid of applying CSAF practices to their lands.

We will create a two-tier system for engaging producers: Tier 1 will enlist 20 early adopters that will be incentivized to engage in peer-to-peer workshops and trainings and continue their practices. Tier 2 will consist of 20 producers using conventional practices who will be incentivized to implement the Arizona-specific, but replicable, CSAF practices.

Project partners will help with climate-smart consulting, listening sessions, workshops, general education, determining soil strata, analyzing soil samples, assessing GHG output reductions,

creating a market for climate-smart practices beneficial to Arizona's climate, and compiling data and information learned. We seek to incentivize participating producers to implement CSAF practices through this shared knowledge, support, and monetary means.

A market will be initiated to encourage consumer demand of the products grown with these methods. Overall, the methods to educate and transfer knowledge using early adopter producers, and incentivizing producers who use conventional methods of crop growing to implement these less restrictive but more tailored climate-smart practices, will encourage producers to engage in these emergent practices.

Practices include: 327 Conservation Cover, 328 Conservation Crop Rotation, 329 Residue and Tillage – No Till, 340 Cover Crop Acres, 345 Residue and Tillage – Reduced Till, 484 Mulching, 528 Prescribed Grazing, 590 Nutrient Management, and Energy, Combustion, and Electricity Efficiency.

Commodities include: Specialty crops, Organic crops, Grains, and Livestock.

A. Contact Information.

Arizona Association of Conservation Districts, 7467 E Broadway Blvd., Tucson, AZ 85710

Principle Investigator: Deborrah Smith, AACD Executive Director, (830) 719-5372, smith.aacd@gmail.com

Sharma Torrens, AACD Partnership Coordinator, (602) 540-5331, torrens.aacd@gmail.com

B. List of Project Partners.

Arizona Association of Conservation Districts; Indian Nations Conservation Alliance; Arizona State University Kyl Center for Water Policy; ASU Swette Center for Sustainable Food Systems; ASU School of Sustainable Engineering and the Built Environment; ASU Global Institute of Sustainability; University of Arizona; Local First Arizona; Duncan Family Farms; Pinnacle Prevention, Soil Health Institute; Northern Arizona University; Organic Trade Association.

C. List of underserved/minority-focused project partners.

Our goal is to have 20 of the 40 producers selected to be participants in this project will be Native Americans. We also anticipate that historically underserved producers will make up a portion of the remaining producers. Producers will be identified through Conservation Districts statewide through the Districts' networks of District Supervisors, Cooperators, and local communities. Many producers in the state are in historically rural areas and are individuals who identify as minority producers.

D. Compelling need for the project.

Given Arizona's often arid and difficult agricultural environment, there is a compelling need for producers to engage in more climate-smart practices that will conserve water, improve soil health, sequester carbon, and reduce GHGs. Producers who have adopted organic, regenerative methods, and utilize climate-smart practices already are needed to incentivize and help educate other conventional producers to adopt these practices.

Challenges are present which have dissuaded many Arizona producers from engaging in climate-smart practices. Most producers do not practice organic and/or regenerative

practices. In 2019, there were 19,000 farms and ranches in Arizona, with 17.8% in crop production (AZ Annual Bulletin 2020). The number of certified organic farms in Arizona was 62 (Ag Census, USDA, 2019. Because there is no uniform standard for regenerative practices, it is difficult to determine the number of growers applying these practices with certainty, however we estimate there are 20 farmers and ranchers in Arizona practicing regenerative agriculture (Regeneration International).

Many producers may be increasing irrigation efficiency, but there is still more work to be done that will reduce the amount of water consumed. Much of the research in these kinds of systems has been done in temperate environments, so it is unclear to researchers as well as producers if these practices are effective in Arizona's arid environment.

Practices geared towards states with different climates, landscape conditions, and amounts of rainfall generally do not work or are tougher to achieve in the arid southwest which has been experiencing some level of drought for almost 30 years. Since 1994, Arizona has been in some stage of drought; for the month of April 2022, 52% of the state was designated as in "Severe Drought" (DWR). While Arizona has been in a significant drought for almost 30 years, many USDA programs have been developed for areas that have not endured this harsh dryness for such a prolonged time and do not have the same kinds of calcareous soils that Arizona has. Thus, a program tailored to work in these extreme conditions is vital.

Not only are different approaches necessary with this climate and with the nature of our producers, but there hasn't been a concerted focus on conducting peer-to-peer workshops. Our farmers and ranchers must learn from their peers that are already engaging in climate-smart practices. And a great need in Arizona (and other states) are efforts to bridge the gap between organic/regenerative/ITEK producers and conventional producers to begin discussions between the two sides.

Soil health is the foundation for ITEK, organic, and regenerative agriculture, as management practices that improve soil health simultaneously benefit farmers and the environment. Farmers benefit from these practices through improved drought resilience, water-use efficiency, nutrient availability, field access, erosion resistance, pathogen suppression, profitability, reduced use of synthetic inputs, and yield stability. Those same practices also reduce greenhouse gas emissions, increase carbon sequestration, improve water quality, decrease sedimentation of reservoirs, stabilize local hydrology, and provide pollinator habitat.

Indigenous environmental knowledge informs our modern understanding of organic and regenerative agriculture. ITEK is often described as the original adaptive management system (Berkes et. al, 2000). Indigenous communities utilizing ITEK have shown organic farmers how to think holistically about agricultural practices in such a way that is beneficial for both humans and the wider ecosystem (Anderson, 2016). Key to ITEK is Indigenous communities' deep sense of place in a specific environment, which allows them to understand the interrelations between crops, native plants, and wildlife and the different water needs of each (U.S. Fish & Wildlife Service, 2011). For example, the Tohono O'odham Nation has adapted their farming practices to the harsh conditions of the Southwest climate, pushing the tribe to develop dryland farming techniques (Dale, 2018). Dryland farming, or farming only with rainwater, requires a unique set of management practices to best utilize water when it does rain and encourage productive transpiration among drought-tolerant crops (Stewart, 2016). Like the Tohono O'odham, the Hopi have also developed crop varieties that are best suited to their dry environment, such as corn

varieties that can survive being planted a foot deep to help develop a strong root system that can seek out groundwater (Levin, 2019). While formal and academic recognition of Indigenous contributions to Western agriculture are a more recent development, the farming techniques that tribes have developed over centuries do inform modern organic and regenerative farming practices. Bill Mollison, regarded as "the father of permaculture," ascribed his principles of embracing diversity in an ecosystem and maintaining a holistic appreciation of the ecosystem's intricacy on what he had learned by observing the Indigenous people of Tasmania (Walker, 2019). Although 59% of Arizona producers are Native American, there has not been much opportunity for sharing of ITEK (NASS).

Despite these well-established benefits, less than 10% of US cropland is managed using the basic soil health practice of cover cropping, for example. Adoption is often hindered by lack of place-based economics information, soil health training programs, and, until now, knowledge of the most effective soil health measurements and a process to establish soil health targets (goals) so farmers know what level of soil health and carbon sequestration can be achieved on their farms.

The last factor that prevents Arizona farmers and ranchers from implementing many of these practices is that they, like many other producers in the nation, are land-rich and cash-poor, and they typically cannot afford to do so. Financial incentives are vital to this program's success.

Utilizing CSAF practices with some of ITEK, USDA organic, and regenerative practices, we will tailor a program geared to be most effective in our state (as well as other southwestern states). These practices are listed here:

327 Conservation Cover

328 Conservation Crop Rotation

329 Residue and Tillage – No Till

340 Cover Crop Acres

345 Residue and Tillage – Reduced Till

484 Mulching

528 Prescribed Grazing

590 Nutrient Management

Energy, Combustion, and Electricity Efficiency

We will include current early adopters for ITEK, organic and regenerative agriculture, and those already implementing CSAF practices, incentivize early adopters to conduct the peer-to-peer workshops, and continue their climate-smart practices. Additionally, with these early adopters transferring their knowledge to conventional producers we will bridge the gap between ITEK/organic/regenerative and our conventional producers.

Producers may adopt USDA organic, regenerative, or ITEK practices to maximize carbon sequestration and climate benefits. Alternatively, producers may opt to implement CSAF

practices, which are more accessible and attainable standards for Arizona conventional producers. Methods to ensure a producer has soil health are well-researched and known. Traditional organic and regenerative practices enhance soil health. And healthy soil can also sequester carbon and conserve water. These practices also veer away from synthetic inputs harmful to the soil.

Pesticides and fertilizers are used widely by producers, but generate negative externalities including environmental contaminants (such as phosphate run-off and nitrates), negative impacts on biodiversity and pollinators and a larger carbon footprint with greater greenhouse gas (GHG) emissions (Marrone 2021). Biologicals (biocontrols, biostimulants and biofertilizers) can be a part of the solution to climate-smart agriculture and can offer many co-benefits such as exemption from residue restrictions, increased soil heath, lower

risk to non-target insects, protection from pest resistance to chemical inputs and lower carbon footprints. Many organic and regenerative producers already use biologicals, but challenges to faster adoption among conventional producers remains due to a lack of awareness and education in how to deploy their unique modes of action in integrated programs and misperceptions of cost and efficacy. Our project seeks to meet these barriers and educate producers about how biologicals can benefit their operation while making their farm more sustainable. We will offer biological consulting and create biological resource guides. This valuable training will contribute to a culture of awareness around biological alternatives in Arizona agriculture and will diversify the tools available to producers.

The best soil health practices are also known to conserve water. Building soil health holistically, helps to create a healthy ecosystem of insects and microorganisms. In turn, these organisms help to build the structure of the soil, which allows it to both absorb and retain rainwater. Unhealthy, compacted soil not only fails to absorb water for crop benefits, but it also suffers from water erosion, making soil conditions increasingly poor (Nichols, 2017). There is also the issue of drought impacting the chemical structure of soil, as without adequate moisture crops cannot take up the nutrients in the soil. This can lead to an excessive build-up of nitrate in the soil, which further impacts the soil biology and health. Farmers can avoid this by employing practices that have long been embraced by the organic sector: cover cropping, crop rotation, and leaving crop residue to help continually replace organic matter (Al-Kasi, 2017). The NRCS has been trying to spread understanding of the link between soil health and water conservation, most recently through their 2017 "Unlock the Secrets in the Soil," campaign, which shows farmers how increasing the organic matter of their soil is a key factor in recovering from drought conditions (Nichols, 2017). Such benefits are increasingly important in Arizona's semi-arid climate.

E. Approach to minimize transaction costs associated with project activities.

Farmers who participate will be paid $1,800/acre with a limit of $16,000 per producer/year for 3 years to implement CSAF practices on a portion of their farms. Early adopters will be paid for maintenance of the climate-smart practices they employ and for participation in the peer mentorship program with conventional producers (educational workshops, etc.). Conventional producers will be paid for adoption and maintenance of CSAF practices.

Ranchers will be compensated based on which CSAF practices are most beneficial to their operations, determined during Year 1; payment will also be determined after these sessions based on acreage with a limit of $16,000/producer/ year. Approach to reducing producer barriers to implementing CSAF (Climate-Smart Agriculture and Forestry) practices for the purpose of marketing climate-smart commodities.

Education and financing are significant barriers preventing Arizona producers from implementing CSAF practices. There is a need for education as many of our farmers and ranchers do not know which practices they can implement to enhance soil health and water conservation. And producers do not have the money to engage in these practices. Our approach will reduce these barriers.

First, we are creating a program that works in Arizona's arid climate, working with UofA, Soil Health Institute, and ASU Global Institute for Sustainability to test the impacts on our soil, and

our proposed program (Climate-SMART Ag BMPs) that will allow producers to adopt CSAF practices that are feasible in an arid environment and beneficial/applicable to their lands and environmental conditions. We will organize and lead peer-to-peer workshops, allowing our early adopter producers to knowledge-share with our conventional producers about ITEK, organic, and/or regenerative methods. By developing a peer-to-peer network, we hope to create a collaborative learning environment where producers feel more comfortable and open to learning about new practices and sharing with one another.

F. Geographic Focus.

Statewide across Arizona, with a focus of 20 early adopters around the state and 20 conventional producers within the same soil strata and type. We're also aiming for 20 of the 40 producers to be Native Americans, so our footprint will also expand to Tribal lands. Project management capacity of partners, including a description of existing relationship with and/or prior experience working with producers or landowners, promoting climate-smart activities, and marketing climate-smart commodities.

**Arizona's Conservation Districts** were formed by an enabling act passed in 1941 under ARS Title 37, Chapter 6, to work with private landowners and government agencies managing land and offering technical assistance to conserve natural resources successfully. Districts are locally led by farmers, ranchers, and other landowners. Supervisors are elected/appointed and serve their District by working with other local producers to establish conservation practices beneficial to conserving natural resources while practicing sustainable agriculture. District supervisors live and work alongside neighboring farmers. Local Work Groups and other District meetings provide opportunities for additional interaction. Since our Districts are statewide, we will use their regularly scheduled meetings to hold the peer-to-peer workshops and engage the 20 conventional producers.

**The AACD** will manage and administer grant funds and monitor the farms and ranches (non-Tribal lands, which will be monitored by INCA, see below) to project partners and provide project outreach support through marketing and agency coordination. AACD is well-positioned to perform these duties as they have managed and administered $2,500,000 of NRCS funds over the past ten years on six projects. In addition, AACD has an established relationship with the University of Arizona Cooperative Extension through the UA's Beginning Farmer and Rancher Project. Finally, AACD manages and administers $3,090,400 of other agency funds, including work with the Bureau of Land Management on grassland restoration and technical assistance.

**The Indian Nations Conservation Alliance (INCA)** fosters Native Agriculture by helping Tribal producers care for the earth, recognize, and appreciate the interrelatedness of ecology and agriculture, to strengthen the circle of life. INCA will conduct outreach to encourage 20 Tribal producers to participate; they will assist in holding educational workshops; and they will monitor the Tribal farms/ranches participating in the project and conduct GHG surveys. INCA will represent the project, speak to Councils, recruit participants, and gain Tribal Resolutions from Councils prior to any field work being done.

Scientists from the **University of Arizona** will lead the soil sampling. **Dr. Debankur Snyal** has been working with stakeholders for the last six years studying the impacts of climate-smart approaches such as cover crops, bioamendments, livestock integration, and nutrient and water management practices. He has coordinated many state-wide projects, currently building a soil

health assessment framework for the stakeholders in Arizona. Dr. Sanyal is actively working with agricultural industries, developing need-based research and Extension approaches.

**Dr. Kathleen Merrigan** from the **Arizona State University (ASU) Swette Center for Sustainable Food Systems** and her staff will create the training guides for the workshops by working with the early adopters, provide technical support on biologicals, and facilitate stakeholder engagement for the workshops. The Swette Center of Sustainable Food Systems at ASU facilitates policy-driven research with farmers. Merrigan is a renowned expert in food and agriculture. From 2009 to 2013, Merrigan was Deputy Secretary and COO of the United States Department of Agriculture, where she led efforts to support local food systems. She is known for authoring the law establishing national standards for organic food and the federal definition of sustainable agriculture.

**Dr. Pam Marrone**, a Senior Fellow at the Swette Center will inform specific resources on bio-controls for soil health and serve as a bio-control consultant with the Center. Marrone has developed award-winning bio-based products for pest management and plant health and will support transitions to more regenerative practices with new technologies and she will help to educate our producers about biologicals and assist in incentivizing them to implement these practices.

**Sarah Porter,** Director of the **ASU Kyl Center for Water Policy** will make recommendations regarding water conservation or efficiency measures within the larger state and regional water policy context in order to ensure optimal use of water supplies. Sarah graduated from Harvard and received her J.D. from ASU Sarah practiced law for several years and then became the Director of Audubon, before becoming the Director of the Kyl Center. The Kyl Center for Water Policy at Morrison Institute promotes research, analysis, collaboration, and dialogue to build consensus on sound water stewardship for Arizona and the West.

From the **ASU School of Sustainable Engineering & the Built Environment, Dr. Rebecca Muenich** (Fulton Schools of Engineering) will lead the assessment of greenhouse gas emissions from current and proposed practices on the 20 conventional farms engaged in this project. Dr. Muenich has over 10 years of experience in environmental modeling including work with the Century and Daycent models which COMET is built upon. Dr. Muenich will also work closely with Dr. Porter and the Kyl Center for Water Policy on the assessment of soil health practices and their benefit to water conservation.

**Heather Throop** is an Associate Professor at the **ASU Global Institute for Sustainability.** She is an ecosystem scientist who studies how global-scale changes influence arid and semi-arid ecosystems. Professor Throop studies how carbon and nutrients cycle through plants, soils, and the atmosphere and she will enhance the soil samples conducted by UA to test for organic versus inorganic content as well as the stability of the carbon (to remain in the soil).

The **Rural Foods Pathways Project** (RFPP) at the **Northern Arizona University Sustainable Communities Program** will participate in the project by helping to identify and select participating producers and documenting existing and potential climate-smart practices in the northern half of the state. The RFPP has been building a network of producers in this region,

many of them located on Tribal lands, e.g., on the extensive Navajo and Hopi reservations. **Peter Friederici, Professor and Director of MA Program in Sustainable Communities,** and a part-time staff coordinator, will help the project directors vet and select agricultural producers (early adopters and conventional), participate in workshops and other educational efforts, and help with dissemination of findings.

**Local First Arizona** (LFA) is a nonprofit organization committed to community and economic development throughout Arizona, which connects people, locally-owned businesses, and communities for meaningful actions that build a diverse, inclusive and prosperous Arizona economy. LFA will spearhead marketing and outreach efforts within two categories, including local market engagement and promotion and consumer awareness outreach about the need for climate-smart agriculture, best management practices, and producers participating in this type of agriculture. **Kimber Lanning,** CEO, who founded LFA in 2003, is an entrepreneur and business leader and community development specialist.

**Pinnacle Prevention ("Pinnacle")** is nonprofit organization dedicated to cultivating a just food system and joyful opportunities. Pinnacle works with small farmers to ensure they receive have access to education and resources. Pinnacle is also the convener of the Arizona Food Systems Network. Pinnacle will play a critical role in organizing, promoting, administering, and documenting the results of the Year 1 listening sessions. In Years 2 and 3, Pinnacle will help to plan and coordinate the producer workshops, with a focus on convening and engaging with its network of local food producers around the state to increase recruitment and meaningful participation. **Adrienne Udarbe** is the founder and Executive Director, with more a decade of public sector experience, and she served in public health both at the state and local levels.

The **Organic Trade Association** will provide in-kind market expansion support for this program by leveraging their business directory Find.Organic; the go-to source for information on organic products and services. The tool helps the industry meet supply challenges by forging links in the US organic supply chain. Companies across the supply chain use the directory to find suppliers of ingredients they are looking to source, get connected with organic business service providers, and list their products for access to global markets. OTA will list certified organic farmers enrolled in this pilot program on Find.Organic and create a new "Climate-Smart" category on the directory to simultaneously connect farmers with buyers and indicate to buyers this sourcing opportunity will offer climate benefits to their supply chains. In this way OTA will provide two markets for the emerging products: the organic market for producers who transition to certified organic over the course of the project, and the Climate-Smart market for producers who adopt CSAF practices over the course of the project.

The **Soil Health Institute** (SHI) is a nonprofit organization that was established to serve as an umbrella for all individuals and organizations who desire to improve soil health by working together for the common good. SHI will determine the different soil strata that exist in Arizona, help create training materials and collaborate on data collection. **Mr. Sheldon Jones**, CEO, brings over 30 years of experience to the Institute, including a balance of private sector, non-profit and public service experience. **Dr. Cristine Morgan** is responsible for establishing research priorities to advance soil health and developing the scientific direction, strategy, and implementation for soil health research programs. Her duties include leading scientific research that advances soil health science and results in impactful outcomes.

**Duncan Family Farms** is a certified organic farmer that is committed to the environment and the community and has won numerous awards and is nationally recognized as a 'showcase' of progressive and environmentally-sensitive farming techniques, due to their innovative programs. DFF will be a key early adopter and an advisor to aid with workshops and education/outreach. **Arnott Duncan,** a 4th generation farmer is the Chairman of the Board and Chief Agronomist.

## PLAN TO PILOT CLIMATE-SMART AGRICULTURE AND/OR FORESTRY PRACTICES ON A LARGE SCALE

A. A description of CSAF practices to be deployed.

Early adopters will receive financial incentives to educate conventional producers and to continue their organic and/or regenerative techniques. Conventional producers will receive financial incentives to implement CSAF practices or, if they choose, organic and/or regenerative practices.

Participating producers implementing CSAF practices will entail the following: (1) a reduction in pesticide and fertilizer input; (2) a reduction in tillage; (3) organic input; and (4) diversity of and year-round cover crop (see list below). Practices for ranchers will be selected during the Year 1 Listening Session, which could include resting certain plots and/or rotational grazing.

NRCS CSAF Practices (with Codes)

327 Conservation Cover

328 Conservation Crop Rotation

329 Residue and Tillage – No Till

340 Cover Crop Acres

345 Residue and Tillage – Reduced Till

484 Mulching

528 Prescribed Grazing

590 Nutrient Management

Energy, Combustion, and Electricity Efficiency

Participating conventional producers can opt to pursue organic certification or to simply engage in these practices (without becoming certified). USDA Organic Standards for Crops require the following: (1) land must have had no prohibited substances applies to it for the last 3 years; (2) soil fertility and crop nutrients are managed through tillage and cultivation practices, crop rotations, and cover crops (supplemented with animal and crop waste materials and allow synthetic materials. (3) crop pests, weeds, and diseases will be controlled primarily through management practices including physical, mechanical, and biological controls; (4) operations must use organic seeds and other planting stock when available; and (5) the use of genetic engineering, ionizing radiation and sewage sludge is prohibited (Organic | Agricultural Marketing Service).

USDA Organic Standards for Livestock and Poultry require the following: (1) dairy animals and animals for slaughter must be raised under organic management for the last third of gestation or

no later than the second day of life for poultry; (2) nonorganic diaries have a one-time opportunity to transition nonorganic animals to organic production (over a 12-month period); (3) producers must feed livestock agricultural feed products that are 100% organic; (4) preventive management practices must be used to keep animals healthy (animals treated with a prohibited substance may not be sold as organic); (5) ruminants must be out on pasture for the entire grazing season, but for not less than 120 days (animals must also receive 30% of their feed from pasture); and (6) all organic livestock and poultry are required to have access to the outdoors year-round (animals may only be temporarily confined due to documentation of environmental or health considerations) (Organic | Agricultural Marketing Service).

Producers can also choose to pursue regenerative practices. Although there are no uniform standards for what constitutes regenerative agriculture, regenerative agricultural principles focus on restoring and enhancing soil health utilizing methods to create more diverse soil

microbiological communities, creating an ideal home for soil microbes (Why Soil Health - Understanding Ag).

B. Plan to recruit producers and land owners, including estimated scale of the project (e.g., number of land owners, acres targeted, head of livestock, etc.).

Working with our partners, Year 1 will be a time to hold Listening Sessions to hear from our producers how we can successfully hold educational workshops and the viable methods to increase soil health, water sequestration, carbon sequestrations, and a reduction of GHGs through CSAF practices. Our partners, including INCA, will help us find the 20 early adopter producers (with a goal of about half being Native Americans). Those persons will engage in peer-to-peer workshops to encourage conventional producers to become participants in this project. These workshops will also help bridge the gap between our early adopters (producers already using climate-smart practices) and our producers using conventional methods. Six or more workshops will be held across the state during the first year to gather our participants. We anticipate that we will be able to target 200–1,400 acres (estimated 20 farmers with 1 acre or as many as 7 acres) and 400–1,000 head of livestock (estimated 20–50 cattle/20 ranchers).

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

*Lead Project Administrator:* Deborrah Smith, AACD Executive Director, will act as the Lead Project Administrator, handling project funds distribution and reporting. Deborrah has over 30 years' experience working on and managing federal, state, and local government grants and agreements for nonprofits; working with and helping to manage Conservation Districts; coordinating and managing a substantial number of conservation and educational projects; and working closely with Arizona farmers and ranchers. She is a Certified Federal Contract, Grants, and Financial Manager and has managed over $28 million in federal and state funds over the last decade for AACD alone, including funding from the NRCS, BLM, and other state and federal government agencies.

*Project Coordination, Education, and Outreach*: Sharma Torrens, AACD Conservation Education Director, will provide project/partner outreach and coordination, educational workshop coordination, and lead educational workshops. Sharma will meet with federal, state, and other interested parties to provide information on the program and its outcomes, garnering support for funding a statewide program that will support climate-smart practices. Sharma has over 12 years of experience working with environmental and conservation groups, both for-profit and nonprofit, and government and non-government conservation entities throughout Arizona, including holding positions previously at the Arizona Department of Agriculture.

Brooke Gladden, AACD Communications Director, will support project outreach to the Districts and project workshops. Brooke has over six years of experience working with the Districts. She travels across the state to attend District meetings and events hosts educational seminars for professional development and beginning farmers and ranchers and is married into a farm herself in the Buckeye Valley NRCD. Her on-the-ground experience and knowledge of conservation topics enable her to provide support to multiple stakeholders across the state.

Heather Baker, AACD Content Director, will provide marketing support in the form of outreach, workshop material development, written media development, and other writing or editing

support that is needed in relation to the project (i.e., commodities marketing developed by Local First AZ, see below). Heather has over 12 years' experience as a writer and editor for multiple consulting and publishing firms, including having spent five years as a proposal writer and content manager for PwC. Heather touches every written piece of information related to AACD that the public sees, from social media posts to website content.

*Technical Support:* Dr. Lamar Smith, Tim Grandy, and Chris Lowman (AACD) will provide technical support for planned climate-smart practices on non-Tribal lands.

- Dr. Lamar Smith will write conservation plans. A retired University of Arizona Professor from the School of Agriculture with over 50 years of experience teaching, consulting, and ranching, Dr. Smith's expertise and knowledge of Arizona's natural resources make him a key member of the technical support team.
- conservation planning field visits to participating producer operations. He has over 40 years of experience working with agricultural producers in Arizona through his job as a soil conservationist for the NRCS. He is a farmer in the Buckeye Valley NRCD and sits on his District's Board.
- Chris Lowman will provide GIS mapping support. He has over 20 years of experience and previously worked for the Arizona State Land Department for 14 years.

*Delane Atcitty, INCA Executive Director:* Delane will provide administrative oversight and fulfill an advisory role for INCA personnel and grant related activities. Delane will also facilitate grant related education and outreach activities. Delane is the current Executive Director for Indian Nations Conservation Alliance. As INCA's Deputy Director and Executive Director Delane has assembled an experienced and progressive team to aid tribal nations with natural resource concerns and conservation district establishment.

*Sadie Lister, INCA Conservationist:* Sadie will provide support and coordination for all grant related activities including identifying Tribal Farmers and Ranchers. Sadie is familiar with Tribal Conservation Districts in Arizona and has served 11 years as a Board Members to the Little Colorado River SWCD. Sadie's work experience includes providing technical assistance to Tribal producers in soil health, BMPs, back-yard gardening projects with socially disadvantage families and coordinating educational outreach workshops.

*Leander Thomas, INCA Outreach Coordinator:* Leander will provide Tribal outreach, workshop material development, and assist in monitoring. Leander has assisted INCA in generating relationships between Tribes and the Animal & Plant Health Inspection Service (APHIS) across the western United States in effort to develop emergency response plans for invasive plant species and foreign animal diseases. Also, Leander served as an Agricultural Educator for 12 years at Ganado High School in Ganado Arizona. In that capacity, Leander instructed Native American students in Introductory & Intermediate Agriculture, Agricultural Mechanics, Agriscience I & II, and Veterinary Science.

*Sisto Hernandez, INCA Southern Arizona Conservation District Coordinator*: Sisto will lead educational workshops, identify monitoring methods, and supervise the implementation of farm/range monitoring with cooperators on Tribal lands. For 15 years Sisto was the Rangeland Management Specialist for the White Mountain Apache Tribe (WMAT) in Arizona. During his

time in that role, Sisto re-initiated grazing permitting for the WMAT, established permanent range inventory/monitoring points on reservation range units, established inventory/monitoring protocol for the WMAT, and assisted Tribal ranchers in accessing NRCS and FSA programs. Sisto also represented the WMAT on the Mexican Wolf/Livestock Coexistence Council, where he served two terms as President. Sisto lead the group of council members with diverse opinions and backgrounds through controversial topics, supervised the development of the Mexican Wolf/Livestock Coexistence Plan, and wrote and delivered presentations to ranching, wolf advocacy, and associated groups to convey information regarding wolf and livestock coexistence.

*Timeline: January 2023—January 2028*

- Year 1: Launch the Climate-SMART Ag BMPs program by holding approx. 6 Listening Sessions to understand what type of workshops are necessary to educate conventional producers (and to bridge the gap between early adopters and our conventional producers), to enroll our 20 early adopters, to develop resources around best management practices for CSAF in Arizona, begin to draft training guides and other workshop materials, begin marketing efforts (Local First AZ will lead marketing development and deployment for commodities), gather preliminary data in determining the soil strata within the state.
- Year 2: Hold approx. 6 workshops to educate about biological pest-management methods, begin to pay producers for implementing the CSAF practices, begin baseline sampling and GHG assessments, continue to develop educational guides and materials, continue marketing efforts.
- Years 3-4: Continue biologicals education, pay incentives to participating producers, continue soil sampling and assessments, develop local and national markets for CSAF practices, and continue to compile data and develop resources relating to the project.
- Year 5: Compile all data, complete incentive payouts, continue to develop local and national markets, develop, and finalize resources meant to educate about the project, and hold 2 final workshops to market project success and encourage CSAF practices adopters.

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

$1,800/acre will incentivize farmers to either continue to utilize the climate-smart practices on their operations or to implement CSAF practices to increase soil health and conserve water. AACD, with the help of its partners will hold educational workshops. AACD and INCA will provide technical assistance to producers.

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

We aim for 20 of our 40 producers to be Native Americans and historically underserved. Additionally, approximately 5-10 of the producers will be small producers (as part of our early adopters). Working closely with INCA to hold the first year Listening Sessions, we will hold 2 or 3 of the approx. 6 workshops in locations that will be convenient to Native American participant to try and attract Tribal producers to become early adopters. We will also utilize Conservation District regular meetings to hold workshops to engage conventional producers.

We hope that half of our participant producers will be Native Americans. We will pay those that participate as early adopters $500-$1,000 for each workshop in which they share knowledge with conventional producers; farmers will receive $1,800/acre (for no more than $16,000/year) for 3 years to implement CSAF practices. Ranchers will receive up to $16,000/year based on which CSAF practices are determined to be well-suited during the Listening Sessions. Tribal producers will receive $16,000/practice/year for the same amount of time. The cap is $16,000 per producer, not per practice.

## MEASUREMENT/QUANTIFICATION, MONITORING, REPORTING, AND VERIFICATION PLAN

A. Approach to greenhouse gas benefit quantification, including methodology approach consistent with the section titled "Quantification Requirements".

The AACD and INCA will conduct surveys on the 20 conventional producers for their on-farm or ranch management practices that influence greenhouse gas emissions. In the second year we will survey for baselines. In the fourth year we will visit the farm or ranch and have the landowner fill out the surveys. The surveys will then be given to our partners to assess the GHG reductions. Our partners will then use this information to drive the COMET-Farm model using "current" practices, then again using new CSAF practices to help inform their decision to implement the practices, as well as to quantify the potential GHG reductions through these implementations. The surveys will also inquire about current practices currently under contract with any federal/state agencies and other entities as well as any applications to entities to help cost/share or cover a current practice.

The soil strata within the state will be assessed and overlayed with the recruited farms to create a stratified random design. Soil samples will be collected from these 20 sites for carbon sequestration and soil health measurements. From each location, 20 soil samples will be collected and then thoroughly mixed to prepare a composite representative sample per site. Soil samples will be collected from the top 15cm soil profile, and along with soils, plant litter biomass will also be collected for overall carbon sequestration measurement. Sampling will be conducted in the late winter (January) and late fall (October) to measure cumulative carbon sequestration following CSAF practices. Then we will compare carbon sequestration in conventional systems with CSAF systems. Soil carbon fractions (total soil organic carbon, litter carbon content), bulk densities will be measured following the protocols described by Yang et al. (2019). Other necessary soil parameters such as soil temperature, soil moisture, texture, bulk density, pH, electrical conductivities, dissolved inorganic nitrogen fractions, and other labile pools of nutrients and organic matter will also be measured to support the modeling efforts and calculate environmental co-benefits. These same soil samples will be utilized to determine the carbon stability and test organic versus inorganic matter.

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

The Climate-SMART Ag BMPs project aims to engage 40 producers in this project, 20 of which will be implementing new CSAF practices. We anticipate that we will be able to target 200–1,400 acres (estimated 20 farmers with 1 acre or as many as 7 acres) and 400–1,000 head of livestock (estimated 20–50 cattle/20 ranchers). AACD and INCA technical assistance contractors/staff will monitor progress with participants twice per year to assess whether or not the chosen CSAF practices have continued through different growing seasons.

Organic certified producers will be exempt as they are monitored through the National Organic Program. All other producers will be asked to submit a yearly "Climate-Smart Plan" indicating the practices they employ. AACD and INCA technical contractors/staff will perform yearly on-farm inspections to verify and monitor that these practices.

C. Approach to reporting and tracking of greenhouse gas benefits including the anticipated GHG benefits per farm, per project, per commodity produced, per dollar expended, and the anticipated longevity of GHG benefits.

Cropland and rangeland management are expected to have 0.3-1.6 Pg $CO_2$ (eq) $yr^{-1}$ in terms of potential mitigation globally (Paustian et al. 2016), however, the potential benefits at a farm level are highly dependent on the management system and location. Benefits are expected to be maintained as long as practices are maintained. Combining our GHG quantification methodology with our producer reports on practices implemented, we will calculate more specific estimates of GHG benefits generated per farm, and per project and will report the overall project benefits per dollar expended. We will also model future benefits based on our findings. The results of the project will be uploaded in the COMET-Planner.

D. Approach to verification of greenhouse gas benefits.

GHG reductions will be assessed by providing surveys to participating conventional producers when they enroll in this program and then after they have implemented CSAF practices. Verifying GHG benefits through an expansive monitoring program is cost-prohibitive and therefore not feasible for this project focused on implementation. The COMET-Farm model will be used to estimate the GHG benefits for CSAF practices implemented through this project. COMET-Farm is a process-based model that is widely applied in these kinds of GHG assessments (Paustian et al. 2016). We will also work to ensure the longevity of the practice implementation through our early adopter group.

E. Agreement to participate in the Partnerships Network (see entry below in "Considerations for Successful Projects").

ASU School of Engineering project partners agree to be an active participant in the Partnership Network, to share information and to attend all meetings.

## PLAN TO DEVELOP AND EXPAND MARKETS FOR CLIMATE-SMART COMMODITIES GENERATED AS A RESULT OF PROJECT ACTIVITIES

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

Our Climate-SMART Ag BMPs program will create markets of varying scales for enrolled producers. The Organic Trade Association will connect buyers from across the US to Organic and Climate-Smart products. ASU Swette Center will guide producers who want to be certified organic through the process with training guides, to sell products through the well-established organic certified market. Partners Local First AZ and Pinnacle Prevention will support the local marketing of Climate-Smart commodities. Commodities include specialty crops, organic crops, grains, and livestock.

Within the first year of this project, Local First AZ and Pinnacle will develop a commodities marketing strategy. This includes:

- Outreach and engagement within Pinnacle's "Food Systems Network" of "niche" producers.
- Local First implementing a digital marketing campaign to support the consumption of

climate-friendly crops.

- Development of social media content, including imagery and text, to targeted audiences to build consumer awareness of climate-friendly crops and their commodities.
- Graphic design for logos, marketing materials, signage, packaging, and consumer-facing materials.
- Development of a Climate Smart microsite connected to Good Food Finder.
- Development of three 5-minute films for media consumption.
- All created content from Digital Marketing Specialists and graphic designers will be shared with all Local First network niches.

Approximately 60% of coverage of early adopters will be focused on farmers and ranchers of color, including indigenous growers. At least 5 replicable best practices will be shared with conventional growers to demonstrate the value of regenerative agriculture and their commodities.

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

At each phase of the project, LFA will incorporate mechanisms to help gauge grower participation, increased awareness, and consumer interest. Mechanisms could include QR codes, hashtags, promo codes, and other tools that connect promotional efforts to measurable results for

the climate-smart food campaign. LFA will develop a plan for measuring key performance indicators like event participation, social media engagement, traffic to Good Food Finder's landing pages tied to the Climate-Smart Ag BPMs initiative, as well as traffic and money spent on the "Shop Local" eCommerce experience. Market returns could also be a higher price point for climate smart ag products versus the price point for conventional ag products. Pinnacle Prevention will track the value of climate smart commodities that participate in food access programs that the organization helps to administer at farmers markets, farm stands, mobile markets, small grocery outlets and community supported agriculture models.

C. Estimated economic benefits for participating producers including market returns.

We estimate economic benefits of $16,000/ year over 3 years per producer with each producer receiving an economic benefit of $48,000 for participation in this pilot project. Additionally, the most recent data from the USDA Economic Research Service (2010) found that for almost all retail groups organic price premiums were over 20%. For producers who transition, we estimate over a 20% increase in market benefits. For producers who opt to adopt climate-smart practices without organic certification we estimate the premium will fall between conventional and organic prices with an average premium of 10% based on the above numbers.

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

As project progress is tracked, we will determine the viability of continuing the program. The goal is to engage enough producers that will see positive, impactful results, that the continuation of the program will be sustained through the commitment of CSAF practices adopters to encourage and share knowledge with other producers across the state. Findings could be shared on a national level at events like the National Association of Conservation Districts annual conference, to encourage Southwestern, arid states to adopt these practices as well. To continue this program in the future, we will seek additional grant funds as well.

| CLIMATE SMART METRICS TRACKING | | Year 1 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **BENCHMARK/MILESTONE** | **Associated Activity, if Applicable** | **Q1 Estimate** | **Q1 Actual** | **Q2 Estimate** | **Q2 Actual** | **Q3 Estimate** | **Q3 Actual** | **Q4 Estimate** | **Q4 Actual** | **Y1 Cumulative Estimate** | **Y1 Cumulative Actual** |
| Number of Producers | Producers Enrolled | 3 | | 7 | | 12 | | 20 | | 20 | 0 |
| Number of Underserved Producers | Producers Enrolled | 1 | | 2 | | 4 | | 8 | | 8 | 0 |
| Number of Acres Involved | Final Program | 2000 | | 14000 | | 24000 | | 40000 | | 40000 | 0 |
| Number of Head Involved (if applicable) | If Applicable | 0 | | 0 | | 0 | | 0 | | 0 | 0 |
| Dollars Provided to Producers via Tech Support | | 0 | | 50000 | | 100000 | | 150000 | | 150000 | 0 |
| Dollars Provided to Producers via Stipends | 16,000 per producer * 40 Producers | 0 | | 0 | | 0 | | 0 | | 0 | 0 |
| GHG Benefits (Metric Tons of CO2e Reduced or Sequestered | | 4.5 | | 10.5 | | 18 | | 30 | | 30 | 0 |
| Number of New Marketing Channels Established | Videos and Digital Markets for Commodities | 0 | | 0 | | 0 | | 3 | | 3 | 0 |
| Number of Marketing Channels Expanded | Social Media/Education/Website | 4 | | 8 | | 12 | | 16 | | 16 | 0 |
| Number of Measurement Tools Utilized | | 2 | | 2 | | 2 | | 2 | | 2 | 0 |
| **OTHER REQUIRED BENCHMARKS THAT MAY BE QUANTITATIVE OR QUALITATIVE** | | | | | | | | | | 0 | |
| Outreach Training & Other Tech Assistance | Listening Sessions | 1 | | 2 | | 4 | | 6 | | 6 | 0 |
| Outreach Training & Other Tech Assistance | Peer to Peer Workshops | 0 | | 0 | | 0 | | 0 | | 0 | 0 |
| Other MMRV and Supply Chain Traceability Attributes | | 0 | | 0 | | 0 | | 1 | | 1 | 0 |
| Demonstrated Engagement of Major Partners | Coordination across Partners | 12 | | 12 | | 12 | | 12 | | 12 | 0 |
| Climate Smart Technologies Employed | | 2 | | 2 | | 2 | | 2 | | 2 | 0 |
| **AACD UNIQUE ITEMS** | | | | | | | | | | 0 | |
| Number of Early Adopter/ITEK Producers Signed UP | | 3 | | 4 | | 5 | | 8 | | 8 | 0 |
| Number of Conventional/Traditional Producers Signed UP | | 3 | | 4 | | 5 | | 8 | | 8 | 0 |
| **PROJECTED EXPENSES** | | | | | | | | | | | |
| Total Direct Costs | | $ 17,591 | | $ 112,208 | | $ 125,208 | | $ 211,203 | | $ 466,210 | $ - |
| Total Indirect Costs | | $ 12,945 | | $ 12,945 | | $ 12,945 | | $ 12,945 | | $ 51,780 | $ - |
| **TOTAL BUDGET** | | | | | | | | | | | |

| CLIMATE SMART METRICS TRACKING | | Year 2 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **BENCHMARK/MILESTONE** | **Associated Activity, if Applicable** | **Q1 Estimate** | **Q1 Actual** | **Q2 Estimate** | **Q2 Actual** | **Q3 Estimate** | **Q3 Actual** | **Q4 Estimate** | **Q4 Actual** | **Y2 Cumulative Estimate** | **Y2 Cumulative Actual** |
| Number of Producers | Producers Enrolled | 23 | | 27 | | 32 | | 40 | | 40 | 0 |
| Number of Underserved Producers | Producers Enrolled | 10 | | 10 | | 10 | | 10 | | 10 | 0 |
| Number of Acres Involved | Final Program | 43000 | | 47000 | | 50000 | | 52000 | | 52000 | 0 |
| Number of Head Involved (if applicable) | If Applicable | 0 | | 0 | | 0 | | 0 | | 0 | 0 |
| Dollars Provided to Producers via Tech Support | | 200000 | | 250000 | | 300000 | | 350000 | | 350000 | 0 |
| Dollars Provided to Producers via Stipends | 16,000 per producer * 40 Producers | 160000 | | 320000 | | 480000 | | 640000 | | 640000 | 0 |
| GHG Benefits (Metric Tons of CO2e Reduced or Sequestered | | 34.5 | | 40.5 | | 48 | | 60 | | 60 | 0 |
| Number of New Marketing Channels Established | Videos and Digital Markets for Commodities | 3 | | 3 | | 3 | | 6 | | 6 | 0 |
| Number of Marketing Channels Expanded | Social Media/Education/Website | 16 | | 20 | | 24 | | 28 | | 28 | 0 |
| Number of Measurement Tools Utilized | | 3 | | 3 | | 3 | | 3 | | 3 | 0 |
| **OTHER REQUIRED BENCHMARKS THAT MAY BE QUANTITATIVE OR QUALITATIVE** | | | | | | | | | | 0 | |
| Outreach Training & Other Tech Assistance | Listening Sessions | 8 | | 10 | | 12 | | 14 | | 14 | 0 |
| Outreach Training & Other Tech Assistance | Peer to Peer Workshops | 1 | | 3 | | 5 | | 6 | | 6 | 0 |
| Other MMRV and Supply Chain Traceability Attributes | | 1 | | 1 | | 1 | | 2 | | 2 | 0 |
| Demonstrated Engagement of Major Partners | Coordination across Partners | 18 | | 18 | | 18 | | 18 | | 18 | 0 |
| Climate Smart Technologies Employed | | 4 | | 4 | | 4 | | 4 | | 4 | 0 |
| **AACD UNIQUE ITEMS** | | | | | | | | | | 0 | |
| Number of Early Adopter/ITEK Producers Signed UP | | 10 | | 10 | | 12 | | 20 | | 20 | 0 |
| Number of Conventional/Traditional Producers Signed UP | | 10 | | 10 | | 12 | | 20 | | 20 | 0 |
| **PROJECTED EXPENSES** | | | | | | | | | | | |
| Total Direct Costs | | $ 371,203 | | $ 371,203 | | $ 371,203 | | $ 371,203 | | $ 1,484,812 | $ - |
| Total Indirect Costs | | $ 12,945 | | $ 12,945 | | $ 12,945 | | $ 12,945 | | $ 51,780 | $ - |
| **TOTAL BUDGET** | | | | | | | | | | | |

| CLIMATE SMART METRICS TRACKING | | Year 3 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **BENCHMARK/MILESTONE** | **Associated Activity, if Applicable** | Q1 Estimate | Q1 Actual | Q2 Estimate | Q2 Actual | Q3 Estimate | Q3 Actual | Q4 Estimate | Q4 Actual | Y3 Cumulative Estimate | Y3 Cumulative Actual |
| Number of Producers | Producers Enrolled | 40 | | 40 | | 40 | | 40 | | 40 | 0 |
| Number of Underserved Producers | Producers Enrolled | 10 | | 10 | | 10 | | 10 | | 10 | 0 |
| Number of Acres Involved | Final Program | 52000 | | 52000 | | 52000 | | 52000 | | 52000 | 0 |
| Number of Head Involved (if applicable) | If Applicable | 0 | | 0 | | 0 | | 0 | | 0 | 0 |
| Dollars Provided to Producers via Tech Support | | 400000 | | 450000 | | 500000 | | 550000 | | 550000 | 0 |
| Dollars Provided to Producers via Stipends | 16,000 per producer * 40 Producers | 800000 | | 960000 | | 1120000 | | 1280000 | | 1280000 | 0 |
| GHG Benefits (Metric Tons of $CO_2e$ Reduced or Sequestered | | 60 | | 60 | | 60 | | 60 | | 60 | 0 |
| Number of New Marketing Channels Established | Videos and Digital Markets for Commodities | 6 | | 6 | | 6 | | 9 | | 9 | 0 |
| Number of Marketing Channels Expanded | Social Media/Education/Website | 32 | | 36 | | 40 | | 40 | | 40 | 0 |
| Number of Measurement Tools Utilized | | 3 | | 3 | | 3 | | 3 | | 3 | 0 |
| **OTHER REQUIRED BENCHMARKS THAT MAY BE QUANTITATIVE OR QUALITATIVE** | | | | | | | | | | 0 | |
| Outreach Training & Other Tech Assistance | Listening Sessions | 16 | | 16 | | 16 | | 16 | | 16 | 0 |
| Outreach Training & Other Tech Assistance | Peer to Peer Workshops | 6 | | 6 | | 6 | | 6 | | 6 | 0 |
| Other MMRV and Supply Chain Traceability Attributes | | 2 | | 2 | | 2 | | 2 | | 2 | 0 |
| Demonstrated Engagement of Major Partners | Coordination across Partners | 22 | | 22 | | 22 | | 22 | | 22 | 0 |
| Climate Smart Technologies Employed | | 6 | | 6 | | 6 | | 6 | | 6 | 0 |
| **AACD UNIQUE ITEMS** | | | | | | | | | | 0 | |
| Number of Early Adopter/ITEK Producers Signed UP | | 20 | | 20 | | 20 | | 20 | | 20 | 0 |
| Number of Conventional/Traditional Producers Signed UP | | 20 | | 20 | | 20 | | 20 | | 20 | 0 |
| **PROJECTED EXPENSES** | | | | | | | | | | | |
| Total Direct Costs | | $ 311,913 | | $ 311,913 | | $ 311,913 | | $ 311,913 | | $ 1,247,652 | $ - |
| Total Indirect Costs | | $ 12,945 | | $ 12,945 | | $ 12,945 | | $ 12,945 | | $ 51,780 | 0 |
| **TOTAL BUDGET** | | | | | | | | | | | |

| CLIMATE SMART METRICS TRACKING | | Year 4 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **BENCHMARK/MILESTONE** | **Associated Activity, if Applicable** | Q1 Estimate | Q1 Actual | Q2 Estimate | Q2 Actual | Q3 Estimate | Q3 Actual | Q4 Estimate | Q4 Actual | Y4 Cumulative Estimate | Y4 Cumulative Actual |
| Number of Producers | Producers Enrolled | 40 | | 40 | | 40 | | 40 | | 40 | 0 |
| Number of Underserved Producers | Producers Enrolled | 10 | | 10 | | 10 | | 10 | | 10 | 0 |
| Number of Acres Involved | Final Program | 52000 | | 52000 | | 52000 | | 52000 | | 52000 | 0 |
| Number of Head Involved (if applicable) | If Applicable | 0 | | 0 | | 0 | | 0 | | 0 | 0 |
| Dollars Provided to Producers via Tech Support | | 600000 | | 600000 | | 600000 | | 600000 | | 600000 | 0 |
| Dollars Provided to Producers via Stipends | 16,000 per producer * 40 Producers | 1440000 | | 1600000 | | 1760000 | | 1920000 | | 1920000 | 0 |
| GHG Benefits (Metric Tons of CO2e Reduced or Sequestered | | 60 | | 60 | | 60 | | 60 | | 60 | 0 |
| Number of New Marketing Channels Established | Videos and Digital Markets for Commodities | 9 | | 9 | | 9 | | 12 | | 12 | 0 |
| Number of Marketing Channels Expanded | Social Media/Education/Website | 40 | | 40 | | 40 | | 40 | | 40 | 0 |
| Number of Measurement Tools Utilized | | 3 | | 3 | | 3 | | 3 | | 3 | 0 |
| **OTHER REQUIRED BENCHMARKS THAT MAY BE QUANTITATIVE OR QUALITATIVE** | | | | | | | | | | 0 | |
| Outreach Training & Other Tech Assistance | Listening Sessions | 16 | | 16 | | 16 | | 16 | | 16 | 0 |
| Outreach Training & Other Tech Assistance | Peer to Peer Workshops | 6 | | 6 | | 6 | | 6 | | 6 | 0 |
| Other MMRV and Supply Chain Traceability Attributes | | 2 | | 2 | | 2 | | 2 | | 2 | 0 |
| Demonstrated Engagement of Major Partners | Coordination across Partners | 26 | | 26 | | 26 | | 26 | | 26 | 0 |
| Climate Smart Technologies Employed | | 8 | | 8 | | 8 | | 8 | | 8 | 0 |
| **AACD UNIQUE ITEMS** | | | | | | | | | | 0 | |
| Number of Early Adopter/ITEK Producers Signed UP | | 20 | | 20 | | 20 | | 20 | | 20 | 0 |
| Number of Conventional/Traditional Producers Signed UP | | 20 | | 20 | | 20 | | 20 | | 20 | 0 |
| **PROJECTED EXPENSES** | | | | | | | | | | | |
| Total Direct Costs | | $ 333,557 | | $ 333,557 | | $ 278,821 | | $ 278,821 | | $ 1,224,756 | $ - |
| Total Indirect Costs | | $ 12,945 | | $ 12,945 | | $ 12,945 | | $ 12,945 | | $ 51,780 | $ - |
| **TOTAL BUDGET** | | | | | | | | | | | |

| CLIMATE SMART METRICS TRACKING | | Year 5 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **BENCHMARK/MILESTONE** | **Associated Activity, if Applicable** | **Q1 Estimate** | **Q1 Actual** | **Q2 Estimate** | **Q2 Actual** | **Q3 Estimate** | **Q3 Actual** | **Q4 Estimate** | **Q4 Actual** | **Y5 Cumulative Estimate** | **Y5 Cumulative Actual** |
| Number of Producers | Producers Enrolled | 40 | | 40 | | 40 | | 40 | | 40 | 0 |
| Number of Underserved Producers | Producers Enrolled | 10 | | 10 | | 10 | | 10 | | 10 | 0 |
| Number of Acres Involved | Final Program | 52000 | | 52000 | | 52000 | | 52000 | | 52000 | 0 |
| Number of Head Involved (if applicable) | If Applicable | 0 | | 0 | | 0 | | 0 | | 0 | 0 |
| Dollars Provided to Producers via Tech Support | | 600000 | | 600000 | | 600000 | | 600000 | | 600000 | 0 |
| Dollars Provided to Producers via Stipends | 16,000 per producer * 40 Producers | 1920000 | | 1920000 | | 1920000 | | 1920000 | | 1920000 | 0 |
| GHG Benefits (Metric Tons of CO2e Reduced or Sequestered | | 60 | | 60 | | 60 | | 60 | | 60 | 0 |
| Number of New Marketing Channels Established | Videos and Digital Markets for Commodities | 12 | | 12 | | 12 | | 12 | | 12 | 0 |
| Number of Marketing Channels Expanded | Social Media/Education/Website | 40 | | 40 | | 40 | | 40 | | 40 | 0 |
| Number of Measurement Tools Utilized | | 3 | | 3 | | 3 | | 3 | | 3 | 0 |
| **OTHER REQUIRED BENCHMARKS THAT MAY BE QUANTITATIVE OR QUALITATIVE** | | | | | | | | | | 0 | |
| Outreach Training & Other Tech Assistance | Listening Sessions | 18 | | 18 | | 18 | | 18 | | 18 | 0 |
| Outreach Training & Other Tech Assistance | Peer to Peer Workshops | 6 | | 6 | | 6 | | 6 | | 6 | 0 |
| Other MMRV and Supply Chain Traceability Attributes | | 2 | | 2 | | 2 | | 2 | | 2 | 0 |
| Demonstrated Engagement of Major Partners | Coordination across Partners | 28 | | 28 | | 28 | | 28 | | 28 | 0 |
| Climate Smart Technologies Employed | | 8 | | 8 | | 8 | | 8 | | 8 | 0 |
| **AACD UNIQUE ITEMS** | | | | | | | | | | 0 | |
| Number of Early Adopter/ITEK Producers Signed UP | | 20 | | 20 | | 20 | | 20 | | 20 | 0 |
| Number of Conventional/Traditional Producers Signed UP | | 20 | | 20 | | 20 | | 20 | | 20 | 0 |
| **PROJECTED EXPENSES** | | | | | | | | | | | |
| Total Direct Costs | | $ 55,037 | | $ 55,037 | | $ 55,037 | | $ 55,037 | | $ 220,148 | $ - |
| Total Indirect Costs | | $ 12,946 | | $ 12,945 | | $ 12,945 | | $ 12,945 | | $ 51,781 | $ - |
| **TOTAL BUDGET** | | | | | | | | | | | |

**CLIMATE SMART METRICS TRACKING** **PROGRAM TOTAL**

| BENCHMARK/MILESTONE | Associated Activity, if Applicable | Estimate | Actual |
|---|---|---|---|
| Number of Producers | Producers Enrolled | 40 | 0 |
| Number of Underserved Producers | Producers Enrolled | 10 | 0 |
| Number of Acres Involved | Final Program | 52000 | 0 |
| Number of Head Involved (if applicable) | If Applicable | 0 | 0 |
| Dollars Provided to Producers via Tech Support | | 600000 | 0 |
| Dollars Provided to Producers via Stipends | 16,000 per producer * 40 Producers | 1920000 | 0 |
| GHG Benefits (Metric Tons of CO2e Reduced or Sequestered | | 60 | 0 |
| Number of New Marketing Channels Established | Videos and Digital Markets for Commodities | 12 | 0 |
| Number of Marketing Channels Expanded | Social Media/Education/Website | 40 | 0 |
| Number of Measurement Tools Utilized | | 3 | 0 |
| **OTHER REQUIRED BENCHMARKS THAT MAY BE QUANTITATIVE OR QUALITATIVE** | | 0 | |
| Outreach Training & Other Tech Assistance | Listening Sessions | 18 | 0 |
| Outreach Training & Other Tech Assistance | Peer to Peer Workshops | 6 | 0 |
| Other MMRV and Supply Chain Traceability Attributes | | 2 | 0 |
| Demonstrated Engagement of Major Partners | Coordination across Partners | 28 | 0 |
| Climate Smart Technologies Employed | | 8 | 0 |
| **AACD UNIQUE ITEMS** | | 0 | |
| Number of Early Adopter/ITEK Producers Signed UP | | 20 | 0 |
| Number of Conventional/Traditional Producers Signed UP | | 20 | 0 |
| **PROJECTED EXPENSES** | | | |
| Total Direct Costs | | $ 4,643,578 | $ - |
| Total Indirect Costs | | $ 258,901 | $ - |
| **TOTAL BUDGET** | | **$ 4,902,479** | **$** - |

## Climate-Smart Practices and Limitations

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

| NRCS Practice Code | Practice Name |
|---|---|
| 327 | Conservation Cover |
| 328 | Conservation Crop Rotation |
| 329 | Residue and Tillage – No Till |
| 340 | Cover Crop |
| 345 | Residue and Tillage Management, Reduced Till |
| 372 | Combustion System Improvement |
| 376 | Field Operations Emissions Reduction |
| 484 | Mulching |
| 528 | Prescribed Grazing |
| 590 | Nutrient Management |
| 670 | Energy Efficient Lighting System |

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

**N/A**

# Partnerships for Climate-Smart Commodities Data Dictionary for Recipients

February 2023

Version 1.0

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:**<br>• Commodity groups (501c5)<br>• For-profit<br>• Individual<br>• Nonprofit<br>• State or local agency<br>• Tribal agency<br>• 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:**<br>• Agricultural marketing board<br>• Biorefinery<br>• Commodity broker<br>• Direct to consumer<br>• Direct to institution<br>• Direct to restaurant<br>• Distributor (including grain elevators)<br>• Food hub or cooperative<br>• Food processor<br>• Non-food byproducts processor<br>• Retailer<br>• USDA<br>• 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:**<br>• Yes<br>• No<br>• 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:**<br>• Crops<br>• Livestock<br>• Trees<br>• Crops and livestock<br>• Crops and trees<br>• Livestock and trees<br>• 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:**<br>• No irrigation<br>• Center pivot<br>• Drip-subsurface<br>• Drip-surface<br>• Flood/border<br>• Furrow/ditch<br>• Lateral/linear sprinklers<br>• Micro-sprinklers<br>• Seepage<br>• Side roll<br>• Solid set sprinklers<br>• Supplemental<br>• Surface<br>• Traveling gun/towline<br>• Wheel Line<br>• 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:**<br>• None<br>• Conventional, inversion<br>• Conventional, vertical<br>• No-till, direct seed<br>• Reduced till, inversion<br>• Reduced till, vertical<br>• Strip till<br>• 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:**<br>• Acres<br>• Head of livestock<br>• Linear feet<br>• Square feet<br>• 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 $CO_2$eq.

**Data type:** Decimal

**Select multiple values**: No

**Measurement unit:** Metric tons CH4 reduced in $CO_2$eq

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

**Logic:** None – all respond

**Required:** Yes

**Data collection level:** Field

**Data collection frequency:** Quarterly

**Field official 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 $CO_2$eq.

**Data type:** Decimal

**Select multiple values**: No

**Measurement unit:** Metric tons N2O reduced in $CO_2$eq

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

**Logic:** None – all respond

**Required:** Yes

**Data collection level:** Field

**Data collection frequency:** Quarterly

**Field offsets produced**

**Data element name:** Field offsets produced

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

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

**Data type:** Decimal

**Select multiple values**: No

**Measurement unit:** Metric tons $CO_2$eq

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

**Logic:** None – all respond

**Required:** Yes

**Data collection level:** Field

**Data collection frequency:** Quarterly

**Field insets produced**

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

GHG Benefits - Alternate Modeled

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

**Commodity type**

**Data element name:** Commodity type 1-6 **Reporting question:** What type of commodity(ies) is produced from this field?

**Description:** Type of commodity(ies) produced in field enrolled in the project. See full list of commodity options in Appendix B. The worksheet provides multiple columns with drop-down lists of the allowed values. Choose one value for each column. Leave unnecessary columns blank

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

**Measurement unit:** Category **Allowed values:** FSA commodity list

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

**Data collection level:** Field **Data collection frequency:** Annual

**Practice type**

**Data element name:** Practice type 1-7 **Reporting question:** What CSAF practice is being implemented by this project?

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

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

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

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

**Data collection level:** Field **Data collection frequency:** Annual

**GHG model**

**Data element name:** GHG model

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

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

**Data type:** List

**Select multiple values:** No

**Measurement unit:** Category

**Allowed values:**

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

**Logic:** None – all respond

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

**Data collection level:** Field

**Data collection frequency:** Annual

**Model start date**

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

**Model end date**

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

**Total GHG benefits estimated**

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

**Total carbon stock estimated**

| | |
|---|---|
| **Data element name:** Total carbon stock estimated | **Reporting question:** What is the alternate estimate of how much carbon has the field has sequestered? |
| **Description:** Total change in carbon stock based on practice implementation in the field estimated using an alternate model. Conversion rate is one ton of carbon = 3.67 tons of $CO_2$eq. | |
| **Data type:** Decimal | **Select multiple values**: No |
| **Measurement unit:** Metric tons $CO_2$eq | **Allowed values:** 0-10,000,000 |
| **Logic:** None – all respond | **Required:** If project calculates GHG benefits using multiple methods |
| **Data collection level:** Field | **Data collection frequency:** Annual |

**Total CO2 estimated**

| | |
|---|---|
| **Data element name:** Total 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 $CO_2$eq. | |
| **Data type:** Decimal | **Select multiple values**: No |
| **Measurement unit:** Metric tons CH4 reduced in $CO_2$eq | **Allowed values:** 0-10,000,000 |
| **Logic:** None – all respond | **Required:** If 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 $CO_2$eq. | |
| **Data type:** Decimal | **Select multiple values**: No |
| **Measurement unit:** Metric tons N2O reduced in $CO_2$eq | **Allowed values:** 0-10,000,000 |
| **Logic:** None – all respond | **Required:** If 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 $CO_2$eq.

**Data type:** Decimal

**Select multiple values**: No

**Measurement unit:** Metric tons $CO_2$eq

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

**Logic:** None – all respond

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

**Data collection level:** Field

**Data collection frequency:** Annual

**Total CH4 reduction calculated**

| | |
|---|---|
| **Data element name:** Total CH4 reduction calculated | **Reporting question:** What are the total measured CH4 emission reductions? |
| **Description:** Total annual methane emission reductions based on practice implementation in the field calculated from in-field measurements. Conversion rate is one ton of $CH_4$ = 25 tons of $CO_2$eq. | |
| **Data type:** Decimal | **Select multiple values**: No |
| **Measurement unit:** Metric tons CH4 reduced in $CO_2$eq | **Allowed values:** 0-10,000,000 |
| **Logic:** None – all respond | **Required:** If a project conducts soil samples or takes carbon stock or greenhouse gas emission measurements in this field |
| **Data collection level:** Field | **Data collection frequency:** Annual |

**Total 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 $CO_2$eq. | |
| **Data type:** Decimal | **Select multiple values**: No |
| **Measurement unit:** Metric tons N2O reduced in $CO_2$eq | **Allowed values:** 0-10,000,000 |
| **Logic:** None – all respond | **Required:** If a project conducts soil samples or takes carbon stock or greenhouse gas emission measurements in this field |
| **Data collection level:** Field | **Data collection frequency:** Annual |

**Soil sample result**

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

**Soil sample result unit**

**Data element name:** Soil sample result unit

**Reporting question:** What is unit for the soil sample result?

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

**Data type:** List

**Select multiple values**: No

**Measurement unit:** Category

**Allowed values:**

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

**Logic:** None – all respond

**Required:** If a project conducts soil samples in this field

**Data collection level:** Field

**Data collection frequency:** Annual

**Measurement type**

**Data element name:** Measurement type

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

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

**Data type:** List

**Select multiple values**: No

**Measurement unit:** Category

**Allowed values:**

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

**Logic:** None – all respond

**Required:** If a project conducts soil samples in this field

**Data collection level:** Field

**Data collection frequency:** Annual

Additional Environmental Benefits

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

**Environmental benefits**

**Data element name:** Environmental benefits

**Reporting question:** Are environmental benefits other than GHGs being tracked in the field?

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

**Data type:** List

**Select multiple values**: No

**Measurement unit:** Category

**Allowed values:**

- 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:**<br>• Kilograms<br>• Metric tons<br>• Pounds<br>• 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:**<br>• Commodity marketing<br>• Producing insets<br>• Producing offsets<br>• I don't know<br>• 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:**<br>• Yes<br>• No<br>• 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:**<br>• Kilograms<br>• Metric tons<br>• Pounds<br>• 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:**<br>• Commodity marketing<br>• Producing insets<br>• Producing offsets<br>• I don't know<br>• 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:**<br>• Yes<br>• No<br>• 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:**<br>• Sediment load reduction<br>• Temperature<br>• 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:**<br>• Degrees F<br>• Kilograms<br>• Kilograms per liter<br>• Metric tons<br>• Pounds<br>• 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:**<br>• Commodity marketing<br>• Producing insets<br>• Producing offsets<br>• I don't know<br>• 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:**<br>• Yes<br>• No<br>• 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:**<br>• Kilowatt hours<br>• 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:**<br>• Commodity marketing<br>• Producing insets<br>• Producing offsets<br>• I don't know<br>• 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<br>Deciduous trees<br>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<br>Anaerobic digester (complex mix) with energy generation<br>Anaerobic digester (plug flow) with energy generation<br>Anaerobic lagoon<br>Composting<br>Covered lagoon (no energy generation or flaring)<br>Covered lagoon with energy generation<br>Covered lagoon with flaring<br>Daily spread<br>Deep bedding pack<br>Deep pit<br>Dry lot<br>Dry stacking/solid storage<br>Pasture/range/paddock<br>Poultry with bedding<br>Poultry without bedding (e.g., high rise)<br>Slurry tank/basin |
| | Digester type | Covered lagoon with energy generation<br>Covered lagoon with flaring<br>Covered lagoon (no energy generation or flaring)<br>Complex mix with energy generation<br>Plug flow with energy generation<br>Other (specify) |
| | Additional feedstock source (select most common if using more than one) | Food waste<br>Straw or bedding<br>Wastewater<br>Other (specify) |

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

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

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

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

| | | |
|---|---|---|
| Range Planting (CPS 550) | Species category (select most common/extensive type if using more than one) | Forbs<br>Grasses<br>Legumes<br>Shrubs<br>Trees |
| Residue and Tillage Management – No-till (CPS 329) | Surface disturbance | None<br>Seed row only |
| Residue and Tillage Management – Reduced Till (CPS 345) | Surface disturbance | None<br>Seed row/ridge tillage for planting<br>Shallow across most of the soil surface<br>Vertical/mulch |
| Riparian Forest Buffer (CPS 391) | Species category (select most common/extensive type if using more than one) | Coniferous trees<br>Deciduous trees<br>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<br>Forbs<br>Grasses<br>Legumes<br>Rushes<br>Sedges |
| Roofs and Covers (CPS 367) | Roof/cover type | Concrete<br>Flexible geomembrane<br>Metal<br>Timber<br>Other (specify) |
| Silvopasture (CPS 381) | Species category (select most common/extensive type if using more than one) | Coniferous trees<br>Deciduous trees<br>Forage<br>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<br>Fallow<br>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<br>Deciduous trees<br>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<br>Grass forb mix<br>Grass legume mix |
| | Barrier width (feet) | 3-1,000 |

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

| | | |
|---|---|---|
| Windbreak/Shelterbelt Establishment and Renovation (CPS 380) | Species category (select most common/extensive type if using more than one) | Coniferous trees<br>Deciduous trees<br>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.