### NOTICE OF GRANT AND AGREEMENT AWARD

1. **Award Identifying Number**  
   NR233A750004G012

2. **Amendment Number**

3. **Award /Project Period**  
   Date of final signature - 04/06/2028

4. **Type of award instrument:**  
   Grant Agreement

5. **Agency (Name and Address)**  
   USDA Partnerships for Climate-Smart Commodities  
   c/o FPAC-BC Grants and Agreements Division  
   1400 Independence Ave SW, Room 3236  
   Washington, DC 20250  
   Direct all correspondence to FPAC.BC.GAD@usda.gov

6. **Recipient Organization (Name and Address)**  
   SUSTAINABLE NORTHWEST  
   1130 SW MORRISON ST STE 510  
   PORTLAND OR 97205-2216  
   UEI Number / DUNS Number: C843LJP2LGK7 / 948147772  
   EIN:

7. **NRCS Program Contact**  
   Name: JOHN ANDERSON

8. **NRCS Administrative Contact**  
   Name: ADAM CARL

9. **Recipient Program Contact**  
   Name: Greg Block

10. **Recipient Administrative Contact**  
    Name: Dallas Hall Defrees

11. **CFDA**  
    10.937

12. **Authority**  
    15 USC 714 et seq

13. **Type of Action**  
    New Agreement

14. **Program Director**  
    Name: Dallas Hall Defrees

15. **Project Title/ Description:** Expands markets for climate-smart beef production in AZ, CA, CO, HI, ID, MT, NM, NV, OR, TX, UT, WA, WY and the E'NUMU DIIP Cooperative Tribe.

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

17. **Select Funding Type**

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<th>Select funding type:</th>
<th>Federal</th>
<th>Non-Federal</th>
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<tr>
<td>Original funds total</td>
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<td>25750377.00</td>
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<tr>
<td>Additional funds total</td>
<td>$0.00</td>
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<tr>
<td>Grand total</td>
<td>10,000,000,000</td>
<td>25750377.00</td>
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18. **Approved Budget**
Personnel $925,428.00 Fringe Benefits $277,629.00
Travel $222,166.00 Equipment $0.00
Supplies $68,317.00 Contractual $4,574,146.00
Construction $0.00 Other $3,932,314.00
Total Direct Cost $8,813,210.00 Total Indirect Cost $1,186,790.00

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
KATINA HANSON
Acting Senior Advisor for Climate-Smart Commodities
Signature
Digitally signed by KATINA HANSON
Date: 2023.04.10 16:48:40 -05'00'

Name and Title of Authorized Recipient Representative
GREG BLOCK
President
Signature
Digitally signed by Greg Block
Date: 2023.04.06 13:52:40 -07'00'

NONDISCRIMINATION STATEMENT
The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, 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 Sustainable Northwest, 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 $35,750,377
TOTAL FEDERAL FUNDS $10,000,000
PERSONNEL $746,253
FRINGE BENEFITS $223,876
TRAVEL $179,152
EQUIPMENT $0
SUPPLIES $55,090
CONTRACTUAL $3,688,530
CONSTRUCTION $0
OTHER $3,920,309
PRODUCER INCENTIVES $0
TOTAL DIRECT COSTS $8,813,210
INDIRECT COSTS $1,186,790

TOTAL NON-FEDERAL FUNDS $25,750,377
PERSONNEL $282,179
FRINGE BENEFITS $84,654
TRAVEL $0
EQUIPMENT $0
SUPPLIES $10,000
CONTRACTUAL $940,000
CONSTRUCTION $0
OTHER $24,338,265
PRODUCER INCENTIVES $0
TOTAL DIRECT COSTS $25,655,098
INDIRECT COSTS $94,279

Recipient has an approved Negotiated Indirect Cost Rate Agreement (NICRA) with a rate of 24.01 percent and a base of $4,942,901 including Personnel, Fringe Benefits, Travel, Supplies, Contractual, and first $25,000 of two subawards.

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.
<table>
<thead>
<tr>
<th><strong>Recipient Responsibilities</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform the work and produce the deliverables as outlined in this Statement of Work and attachments.</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>Comply with the applicable version of the General Terms and Conditions.</td>
</tr>
<tr>
<td>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:</td>
</tr>
<tr>
<td>Performance Reports: Quarterly</td>
</tr>
<tr>
<td>SF425 Financial Reports: Quarterly</td>
</tr>
<tr>
<td>Detailed Progress Report: Quarterly</td>
</tr>
<tr>
<td>(The detailed progress report is in addition to the performance and financial reports referenced above and described in the general terms and conditions)</td>
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<tr>
<th><strong>Expected Accomplishments and Deliverables</strong></th>
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<tr>
<td>See attached Benchmarks Table and associated Project Narrative.</td>
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<th><strong>Resources Required</strong></th>
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<td>See the Responsibilities of the Parties section for required resources, if applicable.</td>
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<th><strong>Milestones</strong></th>
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<tbody>
<tr>
<td>See attached Benchmarks Table and associated Project Narrative.</td>
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GENERAL TERMS AND CONDITIONS

Please reference the below link(s) for the General Terms and Conditions pertaining to this award:

Attachments:
Budget Narrative
Project Narrative
Benchmarks Table
Climate-Smart Practices List and Limitations
Data Dictionary
Climate-Smart Specific Terms and Conditions
Withheld pursuant to exemption (b)(4) of the Freedom of Information and Privacy Act
Withheld pursuant to exemption (b)(4) of the Freedom of Information and Privacy Act.
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of the Freedom of Information and Privacy Act
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of the Freedom of Information and Privacy Act
Withheld pursuant to exemption (b)(4) of the Freedom of Information and Privacy Act
Withheld pursuant to exemption (b)(6) of the Freedom of Information and Privacy Act.
BUILDING A REGENERATIVE RANCHING ECONOMY IN THE WEST

1. EXECUTIVE SUMMARY

A. Contact Information
Dallas Hall Defrees, Sustainable Northwest: (541) 990-5773; dhdefrees@sustainablenorthwest.org

B. Project Partners
Dallas Hall Defrees, Regenerative Ranching Program Director, Sustainable Northwest
Dylan Kruse, Vice President, Sustainable Northwest
Dan Probert, Marketing Director, Country Natural Beef
John Wilson, Managing Partner/Owner, Beef Northwest
James Rogers, Co-owner, Northway Ranch Services
Marissa Taylor, Co-owner, Northway Ranch Services
Mark E. Ritchie, Professor, Utah State University
Mark Green, Sustainability Consultant, Quantis International
Michelle Battista, Founder CEO, Stockpot Collective
Dr. Kristen Johnson, Professor, Washington State University
Roland Fumasi, Head of RaboResearch & Food Agribusiness-North America, Rabobank

C. Underserved and Minority-Focused Project Partners
• Ranchers representing diverse ethnic and racial groups, including Native American Tribes, Hawaiian, Japanese, Chinese, Thai, and Mexican
• Over 700,000 project acres managed by Tribal producers and ranch managers
• 35 small producers (consistent with USDA definition)

D. Project Overview
Rangelands comprise 770 million acres of the U.S. land base, with ranching employing hundreds of thousands of people, and sustaining stable regional food systems. However, ranching is facing historic threats due to climate change, conversion pressure, supply chain consolidation, trade instability, and costly production inputs. Simultaneously, beef production has been critiqued as one of the most carbon intensive and problematic agricultural sectors in the nation. USDA Agricultural Research Service findings suggest that beef cattle production could account for up to 3.3% of all US GHG emissions1. Within the global livestock sector, the FAO estimates that cattle represent 62% of the sector’s emissions2, and beef emits 31 times more CO2 per calorie than tofu3. While beef remains the best-selling meat in America, calls for a significant reduction in red meat consumption for health and climate benefits have the potential to significantly disrupt this critical industry and the broad stewardship and economic benefits ranching provides. If these production factors and sectoral trends are unmitigated, the impacts on land management, national

food systems, and rural economies will be profound.

E. Approach to Minimize Transaction Cost
This project will demonstrate a suite of scientifically sound, quantifiable, and replicable climate-smart ranching practices that will reduce the carbon intensity of beef products by 50-100% compared to conventional options. It will provide quantifiable economic benefits to producers and promote new incentives and market opportunities for increased adoption of new practices, with an emphasis on maintaining family operations, as well as a dedicated focus on underserved and Tribal ranchers. Costs for planning, conversion to, and monitoring of climate-smart practices will be provided to participating ranches and finishing operations, and comprehensive technical assistance, continuing education, and market access will ensure implementation and durability after the project period. Innovative monitoring tools and practices will be deployed, including remote sensing, mapping applications, aggregated platforms, and information dashboards that will achieve scalability, traceability, and reduced transaction costs and barriers to replicability. On-the-ground monitoring will accompany innovative ground-and satellite-based monitoring tools to ensure accountability and replicability across a wide range of ecosystems and operations.

This project will result in the following deliverables:
- Climate-smart regenerative grazing practices on 120 operations across thirteen states and over 7 million acres of public and private rangelands.
- Demonstrate an economically viable whole supply chain approach that reduces the carbon intensity of beef production by 50-100% compared to conventional options.
- Annual carbon sequestration to soil\(^4\), locally of 0.9 - 4 metric tons CO\(_2\)e/acre and project-wide 5-8 million metric tons CO\(_2\)e, for 100+ years\(^5\), in addition to reduction of GHG emissions on project operations. This is equivalent to emissions from consumption of one billion gallons of gasoline or 10 billion pounds of coal\(^6\).
- An average of 5,000-75,000 metric tons of annual CO\(_2\)e at each participating operation, equating to 0.56-0.80 metric tons CO\(_2\)e per federal dollar. These estimates are based on operation size, location, and current modeling inputs.
- Provide $67 million in annual increased market returns for participating producers.

F. Approach to Reduce Producer Barriers
In response to these integrated challenges, Sustainable Northwest is partnering with Country Natural Beef, independent ranchers, finishing operations, and leading agricultural science and business experts to implement the largest climate-smart beef production program in the nation. This includes a first of its kind, fully integrated supply chain approach to significantly increase carbon sequestration, reduce GHG emissions, increase water efficiency and quality, and reduce and improve the climate impacts of beef production across 120 ranching and finishing operations in 13 western states. Not only will the program implement climate-smart grazing management practices at an unprecedented scale, but for the first time, it will incorporate innovative feed and finishing practices to reduce emissions in the most carbon intensive phase of commercial beef production. In addition to significant GHG reductions and climate benefits, this project will meet growing consumer demand for sustainable food and other agricultural goods, enhanced economic

\(^4\) Ritchie, M.E. 2020. Resources
\(^6\) https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results
viability in a shifting marketplace, diversified revenue streams, improved habitat for threatened and endangered species of plants and wildlife, and avoided conversion of large landscapes and wildlife habitat.

G. Geographic Focus
This project will be implemented on 120 ranches and two finishing operations across more than 7 million acres of private and public land in Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Texas, Utah, Washington, and Wyoming.

H. Project Team
The team consists of individuals and organizations with extensive expertise and success working with producers and landowners to develop and market climate-smart commodities.

Sustainable Northwest (SNW) has 28 years of experience developing solutions to natural resources challenges for conservation, economic, and community benefits. SNW manages the largest Forest Stewardship Council certificate in the country, providing auditing services to over 120 wood products businesses, as well as procurement and marketing assistance to forest and agricultural landowners. SNW has extensive experience managing multi-million-dollar public and private grants and contracts.

Country Natural Beef (CNB) is the largest ranching co-op in the western U.S., consisting of over 100 member operations in thirteen states and sales distribution to multiple nationally recognized brands including Whole Foods, New Seasons, and Burgerville.

Beef Northwest is a nationally recognized leader in cattle finishing operations, managing four feedyards with a collective capacity of 110,000 head, as well as extensive grazing operations for cows, calves, and feeder cattle across the Pacific Northwest.

Northway Ranch Services consists of nationally recognized consultants with technical, applied, and operational rangeland management expertise making for a technical service provider that can relate to the ranching community, as well as government agencies, conservation organizations, and academic professionals.

Utah State University Mark E. Ritchie is a Professor of Biology at Utah State University and will oversee project quantification and monitoring functions. He has studied rangeland grazing in North America and Africa for over 30 years, is an author or co-author of over 90 scientific journal publications, and has consulted with several large private ranches in the United States on livestock grazing management and wildlife conservation.

Quantis International is a leading sustainability consultancy that partners with organizations across the globe to provide tools and expert analysis to transform industries, track environmental impacts, and build resilient operations strategies.
Stockpot Collective is a brand and marketing agency that has helped companies with strong values in the business of food, farm and agriculture tell their stories for the last 15 years. Services include brand and creative strategy, marketing planning, digital strategy, design, and production through owned and paid media channels.

University and Industry Experts: Dr. Kristen Johnson and Roland Fumasi have academic and industry expertise in regenerative rangeland management, quantification and monitoring, economics, and commodity markets and scaling strategies.

2. PROJECT PLAN

Regenerative agriculture is rapidly gaining attention as a comprehensive strategy to achieve conservation and carbon sequestration on working lands, maintain rural jobs, meet growing demand for sustainable goods and services, and overcome food system insecurity exposed by the COVID-19 pandemic. However, no scaled standard or program exists for recognizing and certifying regenerative ranching in the U.S., omitting a massive market sector and land base in these emerging opportunities. Rapidly accumulating research at a niche-analysis level suggests that multi-paddock grazing can produce substantial soil carbon sequestration across a variety of climates and soils\(^7\) and yield beef with a 66% lower carbon footprint than that of conventionally-raised beef\(^8\). Projects that develop regenerative grazing practices in Montana and in East Africa\(^9\) have even produced verifiable carbon offsets\(^10\). Thus, a significant scaling effort is needed to achieve market transformation and truly realize and validate the climate-related benefits of these practices. This project will integrate regenerative practices, through participation in a climate-smart ranching program, across a full regional supply chain to reduce the carbon footprint and stimulate climate-friendly branding of beef production.

A. CSAF Practices to be Deployed

A.1 Climate-Smart Ranching

Globally, rangelands contain 12 percent of terrestrial carbon, 87 percent of which is sequestered in the soil. However, these carbon stores are lost when natural ecosystem cycles are disturbed. Established efforts such as the Sage-grouse Initiative identify rangeland conversion, invasive annual grasses, conifer encroachment, and poor grazing practices as primary factors negatively impacting rangeland and soil health, carbon stocks, and production viability in the West. These pressures lead to increased wildfire risk, loss of habitat, diminished water infiltration and flows, and reduced forage for ranching operations. These compounding pressures further impact the viability of ranching operations, resulting in an increased risk of rangeland sale and conversion, fragmentation, and diminishing carbon stocks due to decreased landscape stewardship.

This project will work with producers to develop a variety of regenerative livestock management practices, customized for both calf-producing individual ranches and finishing operations. The

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\(^7\) Phukubye et al 2022 Geoderma Regional 28 e00479; Ritchie, M.E. 2020a Resources 9:, 49
\(https://doi.org/10.3390/resources9040049\)


\(^9\) Ritchie et al submitted Nature Sustainability

project will then help producers convert the ecological outcomes of these practices into climate-smart commodities such as climate-friendly beef or carbon credits. We expect these practices to conserve and increase soil organic carbon (SOC), ensure soil coverage to prevent erosion, and restore or invigorate perennial grasses to sustain production under grazing. These practices should also improve other resources at the ranch level such as water quality and quantity and biodiversity—resulting in a win-win for both domestic and wild animals.

The following climate-smart grazing practices will be implemented on participating operations:

- Optimize stocking rates, livestock rotations, and forage utilization rates to enhance productivity and carbon acquisition by plants, minimize chronic disturbances, efficiently manage water resources, improve infiltration rates and reduce nutrient loading.
- Protect and enhance biodiversity of native vegetation with strategic grazing plans.
- Ensure soil coverage through focused grazing on mature forage and residual retention.
- Maintaining living roots in the ground at all times and protecting perennial pastures.
- Remove invasive conifers to decrease risk of wildfire, improve water infiltration, and enhance native forage production.

A.2 Climate-Smart Finishing

Our first of its kind full supply chain approach will incorporate climate-smart practices at regional finishing operations, typically one of the most resource and carbon intensive phases of beef production. Conventional feedlot systems produce much higher net amounts of GHG than grass-fed systems through nitrogen-fertilized intensive crop feed production and anaerobic manure decomposition, even though grass finished beef produces higher enteric emissions. Conventional finishing operations also produce unhealthy, compacted soils, increased bare ground, and dominance of undesirable plant species.

A project partner, Beef Northwest, currently utilizes a pasture-based finishing operation following Global Animal Partnership Step Level 4 standards, and will establish a new, expanded “Regenerative Beef” feedlot model that incorporates multiple climate-smart practices. The new finishing model integrates rotational livestock feeding and crop production together with feed management to reduce enteric emissions, and improved manure management to avoid anaerobic decomposition. This regenerative finishing system will acquire more land to adequately rotate fed animals, rest pastures, and plant annual crops, which we expect to improve soil health, maximize uptake of excessive nitrogen, and convert nutrients into valuable feed that will be incorporated into the finishing diet. This climate-smart finishing model will combine elements of both conventional and grass finished systems into an economically viable climate-smart production system with net GHG emissions low enough that the entire beef supply chain may be carbon negative.

We plan to integrate a rotational crop system on paddocks split into 6 different crop circles/pastures. Each paddock will be phased into a 6-year crop rotation cycle which incorporates annual cropping and cattle feeding to optimize nutrient uptake from targeted crop selections, nutrient input from cattle manure and crop residue, and aeration of soil through hoof action. Crop species such as corn, alfalfa, wheat, and others will be specifically chosen to

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optimize soil health. Current conditions of these pasture exhibit diminished soil cover, compaction, runoff, and undesirable vegetative species. By integrating crops, we will increase total cover of bare ground, increase the living root days in the soil, and balance nutrient input and uptake throughout the growing and dormant seasons. Crops will be mechanically harvested, however, we will minimize tillage and maximize crop residue left on the ground to help armor the soil and integrate more organic material back into the system. The schedule below is an example of the proposed crop rotation system. The actual timing and species of crop may vary due to climate, supply chain, nutrient loading, and soil health variables. However, the model is catered towards reaching two goals 1) improving the soil health of these pastures that have a history of compaction, overgrazing, and undesirable species, and 2) developing an economically viable model for pasture-based finishing that can be scaled throughout this operation and others to promote climate-smart beef production. The schedule below also allows for flexibility of timing in the inevitable events of drought, late harvest, etc.

Year 1:
January: Cattle
February: Pasture Rest
March: Pasture Rest
April: Corn
May: Corn
June: Corn
July: Corn
August: Corn
September: Corn
October: Corn
November: Corn
December: Pasture Rest

Year 2:
January: Pasture Rest
February: Cattle
March: Cattle
April: Pasture Rest
May: Pasture Rest
June: Sweet Corn
July: Sweet Corn
August: Sweet Corn
September: Sweet Corn
October: Cattle
November: Cattle
December: Winter Crop (Likely alfalfa)

Year 3:
January: Alfalfa
February: Alfalfa
March: Alfalfa
April: Alfalfa
May: Alfalfa
June: Cattle
July: Cattle
August: Pasture Rest
September: Wheat
October: Wheat
November: Wheat
December: Wheat

Year 4:
January: Wheat
February: Wheat
March: Wheat
April: Wheat
May: Wheat
June: Wheat
July: Wheat
August: Cattle
September: Cattle
October: Pasture Rest
November: Pasture Rest
December: Pasture Rest

Year 5:
January: Pasture Rest (wheat regrowth)
February: Pasture Rest (wheat regrowth)
March: Pasture Rest (wheat regrowth)
April: Cattle
May: Cattle
June: Sweet Corn
July: Sweet Corn
August: Sweet Corn
September: Sweet Corn
October: Pasture Rest
November: Pasture Rest
December: Pasture Rest

Year 6:
January: Pasture Rest
February: Pasture Rest
March: Pasture Rest
April: Corn
May: Corn
June: Corn
July: Corn
August: Corn  
September: Corn  
October: Corn  
November: Corn  
December: Cattle

Over five years, the project will phase 6,000 + acres into this feeding and crop rotation system. These acres are currently being used for agricultural production and are projected to see improvement in soil and ecological health through the proposed practice changes. Ground disturbing activities will be limited and will not occur below the plow line. These activities are not currently part of a CAFO, nor will they be as the concentration of animals will not meet the requirements for a CAFO. These animals are currently finished on a pasture system, providing ample space and limited confinement. Animals will continue to be provided space and limited confinement through this crop rotation finishing operation.

Changes in soil bulk density (compaction), SOC, and N and forage production will be monitored and all relevant GHG data from this program will be incorporated in a life cycle analysis. The proposed regenerative finishing operations will achieve largely the same goals as the regenerative vegetation restoration and grazing practices (see A1).

B. Recruitment Plan
Country Natural Beef co-op producers, independent ranchers, and an affiliated network of finishing operations have committed to each phase of project implementation, monitoring, and reporting. CNB, Tribal ranches, and other independent producers operate on 120 different ranches spanning more than 7 million acres across 13 different states. This project will also be implemented on two finishing operations across more than 6,000 acres.

C. Technical Assistance and Implementation
All ranches will be mapped for baseline land cover using the NRCS/USDA National Land Cover data set and the Rangeland Analysis Program (RAP), followed by on the ground baseline soil sampling and data collection. The project will evaluate current and recent past grazing processes (grazing history) and will provide technical assistance to transition to a customized rangeland and grazing management plan emphasizing priority regenerative and climate-smart practices to achieve enhanced carbon sequestration and other desired ecological outcomes. With access to localized technical support, ranchers will become aware of previously underutilized tools and establish monitoring points on their land known as “management learning locations”. These actions will address structural challenges, provide regularly updated field data, facilitate funding, implement management plans, and evaluate ecological changes.

Technical Assistance Project Team and Qualifications

Dallas Hall Defrees, Regenerative Ranching Program Director, Sustainable Northwest: Dallas is a fifth-generation cattle rancher with an established career in rangeland ecology and management. She is an active member of her family’s operation, which has received several excellences in land management honors, including National Tree Farmer of the Year. Dallas is a trained rangeland ecologist with a Master’s in
Rangeland Ecology and Management (Oregon State University). She has held positions with the USDA Forest Service, engineering firms, and managed multi-county sage-grouse habitat management plans.

**James Rogers, Co-owner, Northway Ranch Services:** James spent 10 years managing the one million-acre Winecup Gamble Ranch in Nevada where his efforts in stakeholder collaboration, rancher engaged monitoring, and outcome based grazing management were keys to restoring the social, economic, and ecological landscapes of the operation.

**Marissa Taylor, Co-owner, Northway Ranch Services:** Marissa has been instrumental in identifying solutions for wildlife migration corridors and weed abatement projects across the West, as well as being gifted with developing models for improving processes and systems. Her involvement and leadership in her family’s operation in Wyoming is invaluable to keep this program grounded and credible with rancher experience.

**Katie Meiklejohn, Ecological Advisor, Northway Ranch Services:** Katie’s range monitoring expertise across the West and her experience in large scale conservation bolster the skillset of the Northway team. She is a Kinship Conservation Fellow and obtained her Master’s in Conservation Biology from Columbia University. She oversees annual monitoring on millions of public and private acres of rangelands across the West.

**CNB Education Partnership:** CNB will facilitate continued education and success in their regenerative ranching program through peer-to-peer learning groups administered by 15 regional Regenerative Leaders. The Regenerative Leaders are CNB ranchers selected by their peers and are experts in regional funding opportunities, educational services, and cultivate working relationships with TSPs and other professionals throughout their region. These Regenerative Leaders will facilitate conversations and learning between ranchers, organize networking and learning events from local technical service providers, and report minutes and share stories from their working groups. This education opportunity will foster partnership, collaboration between ranchers, as well as create a culture of learning and creativity among climate-smart producers.

**Quarterly Milestones:**

**2023**

- **Quarter 2**
  - Building Regenerative Ranching in the West project engagement meeting.
  - 600 acres enrolled in climate-smart finishing.
- **Quarter 3**
  - 40 ranches onboarded for baseline monitoring.
  - Marketing research and online surveys completed.
  - Producer working group meetings.
- **Quarter 4**
  - 40 ranches baseline monitoring completed (approximately 50% of producers will be small producers or otherwise underserved).
Marketing narrative completed and ready for implementation.
- Soil sampling for carbon sequestration monitoring year 1 completed.
- Data collection plan and methodology finalized for LCA analysis.
- 120 producers participate in annual education training.
- Producer working group meetings.

2024
- Quarter 1
  - Building Regenerative Ranching in the West project engagement meeting.
  - 2,400 acres enrolled in climate-smart finishing.
  - 40 monitoring reports completed for producers.
  - LCA Screening vs. ISO Compliant Comparative LCA evaluation done; decision made; implementation plan designed.
  - Producer working group meetings.
- Quarter 2
  - Aggregate LCA data to begin comparative LCA.
  - Producer working group meetings.
- Quarter 3
  - 80 ranches onboarded for baseline monitoring.
  - Producer working group meetings.
- Quarter 4
  - 80 ranches baseline monitoring completed (approximately 50% of producers will be small producers or otherwise underserved).
  - Soil sampling for carbon sequestration monitoring year 2 completed.
  - 120 producers participate in annual education training.
  - Producer working group meetings.
  - 8 media articles published in regional or national outlets.
  - Anticipated expanded market share for climate-smart beef products by 5%.
  - Anticipate 1 to 2 million metric tons of CO2 sequestered on enrolled project ranches. (These estimates are based off of current USDA approved modeling protocols. The actual number may be different as modeling systems evolve, current practices are fine tuned, and eco-based modeling protocols become more accurate).

2025
- Quarter 1
  - Building Regenerative Ranching in the West project engagement meeting.
  - 4,200 acres enrolled in climate-smart finishing.
  - 80 monitoring reports completed for producers.
  - 120 ranches onboarded for baseline monitoring.
  - Producer working group meetings.
• Quarter 2
  o Producer working group meetings.
• Quarter 3
  o Producer working group meetings.
• Quarter 4
  o 120 ranches baseline monitoring completed (approximately 50% of producers will be small producers or otherwise underserved).
  o Soil sampling for carbon sequestration monitoring year 3 completed.
  o 120 producers participate in annual education training.
  o Producer working group meetings.
  o 8 media articles published in regional or national outlets.
  o Anticipated expanded market share for climate-smart beef products by 10%
  o Anticipated 2 to 4 million metric tons of CO2 sequestered on enrolled project ranches. (These estimates are based off of current USDA approved modeling protocols. The actual number may be different as modeling systems evolve, current practices are fine tuned, and eco-based modeling protocols become more accurate).

2026
• Quarter 1
  o Building Regenerative Ranching in the West project engagement meeting.
  o 6,073 acres enrolled in climate-smart finishing.
  o 120 monitoring reports completed for producers
  o Producer working group meetings.
• Quarter 2
  o Comparative LCA analysis midpoint
  o Producer working group meetings.
• Quarter 3
  o Producer working group meetings.
• Quarter 4
  o 40 ranches follow-up monitoring completed.
  o 120 producers participate in annual education training.
  o Producer working group meetings.
  o 8 media articles published in regional or national outlets.
  o Anticipated expanded market share for climate-smart beef products by 15%
  o Anticipated 4 to 6 million metric tons of CO2 sequestered on enrolled project ranches. (These estimates are based off of current USDA approved modeling protocols. The actual number may be different as modeling systems evolve, current practices are fine tuned, and eco-based modeling protocols become more accurate).
2027

- Quarter 1
  - Building Regenerative Ranching in the West project engagement meeting.
  - Deliver follow-up monitoring reports to Year 1 ranches.
  - Begin CliCOR platform development (a climate smart technology for producers to assess likely climate impact of different potential practices)
  - Producer working group meetings.

- Quarter 2
  - Producer working group meetings.

- Quarter 3
  - Producer working group meetings.

- Quarter 4
  - 80 ranches follow-up monitoring completed.
  - CliCOR platform development completed.
  - 120 producers participate in annual education training.
  - 8 media articles published in regional or national outlets.
  - Anticipated expanded market share for climate-smart beef products by 20%
  - Grazewell™ branded trademark completed.

2028

- Quarter 1
  - Building Regenerative Ranching in the West project engagement meeting.
  - LCA Comparative analysis completed.
  - LCA report on advised method changes.
  - Deliver follow-up monitoring reports to Year 2 ranches.
  - Follow-up marketing research report completed.
  - GHG benefit analysis completed for finishing pastures and Climate-smart ranches.
  - 4 Marketing channels expanded through increased production and adoption of Climate-smart Beef.
  - 4 to 6 million metric tons of CO2 sequestered on enrolled project ranches.
    (Validated through soil sampling data collection, USDA approved carbon sequestration approved modeling protocols, and LCA analysis throughout the lifetime of the grant).

In Summary: By 2028 we will have 120 landowners enrolled in the climate smart program, encompassing approximately 7 million acres. We will be sequestering an anticipated project-wide 5-8 million metric tons CO2e, and we will expand current marketing channels by a total of 20 percent over the five year grant period.

Payment Schedule:
Payments will be made based on the reimbursement for partner benchmarks based on actual cost quarterly.

D. Financial Assistance Plan

All 120 producers in the project will receive comprehensive assistance to develop and implement climate-smart ranch management practices and establish standardized metrics to improve and track ecosystem health and performance. **This assistance mimics and assesses the effectiveness of the broader finance needed to achieve widespread regenerative grazing practices beyond the project.** Transition costs for infrastructure (fences, water points, etc.) are often the main barrier to implementation of climate-smart practices. The project will provide an average of $27,000 per cow-calf operation for a total of $3,240,000, as well as technical and financial assistance worth $2,273,400 for the climate-smart finishing operation. Financial assistance for producers will be provided through the services gained in technical assistance to help establish land health objectives and regenerative management actions, costs covering baseline and follow-up monitoring, life-cycle analysis at each operation, as well as costs associated with continuing education and peer-to-peer learning opportunities. Northway Ranch Services will conduct baseline monitoring and spatial analysis for each property. Baseline Ground monitoring, sampling, and program enrollment services are calculated at $8,500 per operation, follow up monitoring between 3-5 years is calculated at $8,500 per operations, customized regenerative ranching management plans are calculated at $3,000 in services per operation, life cycle assessment is $6,000 per operation, and each operation will receive $250/year for 4 years for a total of $1,000 to cover cost of travel and/or program enrollment for educational opportunities. Furthermore, Northway Ranch Services will provide technical support to landowners to establish land health objectives and associated management actions to meet their climate-smart agricultural goals. Most climate-smart regenerative practices include:

- NRCS Code 528 Prescribed Grazing
  - NRCS Code 382 Fencing to promote rotational grazing
- NRCS Code 340 Cover Crop
- NRCS Code 328 Conservation Crop Rotation
- NRCS Code 345 Residue and Tillage Management
- NRCS Code 449 Irrigation Water Management
- NRCS Code 420 Wildlife Habitat Planting
- NRCS Code 550 Range Planting
- NRCS Code 314 Brush Management

Regional technical services providers such as NRCS soil range conservationists, extension agents, and others will be invited to each ranch as part of the enrollment process to increase networking and create inroads for future collaboration and project development. **This direct technical support will supply the basis for broader additional resources, tools, and investment opportunities needed for full implementation of regenerative and climate-smart practices.** These opportunities include Farm Bill programs, traditional capital, and revenues from emerging markets for ecosystem services and certified value-based products. **Total financial assistance per ranching operation is broken down as follows and described in the paragraph above:**

- Baseline Monitoring @ $8,500/operation
- Ranching Management Plans @ $3,000/operation
• Ranch Level Life Cycle Analysis @ $6,000/operation
• Education @ $250/year/operation for 4 years=$1,000
• Follow up monitoring @ $8,500/operation

Implementation of climates-smart practices will occur through future partnerships with NRCS and other state and federal land agency programs. These practices will be developed in coordination with localized NRCS offices, technical service providers, extension services, USFWs and other partners that are integral to the formation of collaborative and regenerative practice management decisions. Funds from this proposal will not be used for any ground disturbing activities, any regenerative management actions requiring ground disturbance will be funded through other NRCS, state, or local programs. All proposed climate-smart activities associated with this project are occurring on lands already utilized for agricultural production.

This assistance will be applied in a holistic learning approach through each step in the transition to climate-smart practices. Workshops, field tours, peer to peer learning, and monitoring will develop an understanding of ecological principles, inform improved grazing management plans, and clarify available tools and infrastructure enhancements. These events and processes will be led by local Regenerative Leaders and experts within the CNB network.

E. Plan to Enroll Underserved and Small Producers
This project will primarily benefit small and mid-size family ranching operations (75% of participants), including 35 small producers and 700,000 acres managed by Tribal producers and ranch managers. Project participants represent diverse racial and ethnic groups, including Native American Tribes, Hawaiian, Japanese, Chinese, Thai, and Mexican. Over 75% of project producers manage operations that are at least partially owned and operated by women. CNB co-op is 100% owned by rancher-members, with profits returned to the ranchers and thus support to local economies.

The geography of this project comprises predominantly rural, natural resource dependent communities seeking to maintain and diversify stewardship and agricultural opportunities. The communities that this project serves earn less and are more likely to experience poverty: median household income in ranching areas is lower than averages in 9 of 13 project states. Census tracts in ranching areas of six project states are more diverse than the national average, and the median age is greater than the national average in six project states.

3. MEASUREMENT/QUANTIFICATION, MONITORING, REPORTING, AND VERIFICATION PLAN

A. Quantification of GHG Benefits

Methodology/Measurements
a) Livestock numbers and classes - enteric methane (ranch level)
Enteric methane emissions by livestock represent the biggest single source of GHG emissions from the livestock sector. We plan to use an IPCC Tier I approach to estimating

12 data.census.gov/ for 2020 ACS (American Community Survey) and ESRI Demographics 2021
methane emissions based on body size of different livestock classes and then using local ranch livestock numbers to estimate total annual methane emissions. This approach has successfully been validated by third party reviewers in established Verra Registry carbon projects and protocols.

**b) N₂O and methane from soil and dung - based on livestock numbers (ranch level)**

High nitrous oxide N₂O and methane emissions from soil and dung may occur only in feedlot or high stocking density situations where soils may lack the necessary microbial diversity to nitrify deposited N and the plants to take up nitrate. Recent literature suggests that dung that lies as is over plant-covered soils may emit 10-100 times less N₂O and methane than IPCC estimates. Nevertheless, we will generate a Tier I literature-based conversion of livestock numbers into annual mass of dung and urine deposited, assume that such deposits occur on grass-covered soil, and then determine emission factors and total GHG emissions.

**c) Soil carbon density - sampling stratification, methods (regional or biome level, linked to grazing history).** Even with multiple simulation models available, all regenerative agriculture standards, carbon credit, and soil health programs have soil organic carbon density (hereafter SOC, mass/area to a depth (cm)) as a key metric. SOC is correlated with multiple measures of soil fertility, including total soil nutrients, exchangeable bases, water-holding and rainfall infiltration capacity, and productivity for the same precipitation. As discussed below in section e), remote-sensing technology has not yet developed well enough to assess soil carbon density with enough precision to detect expected changes in SOC of 1-2 Mg/acre every 3-5 years.

We will establish stratified baselines for the major climate-soil combinations across the regions in the western US represented by our 120 participating ranches. First, we will assemble existing literature, state extension and NRCS data and fold it into the database on SOC estimates from ranches that have already been sampled under the Grazewell™ monitoring program. Where spatial gaps exist or climate-soil combinations are underrepresented, we will then measure SOC using standard methods at new random points in our target ranches.

**d) Changes in shrub cover, juniper mitigation, and effects of treatments on woody carbon (regional or biome level).** Juniper encroachment and persistent sagebrush cover signifies past degradation at many participating ranches. Reduction in these should favor an increase in SOC that more than compensates for the loss of woody carbon, but woody carbon density must be quantified regardless. Following standard field at participating ranches with different covers and stand ages of juniper and/or sagebrush, we will employ standard forest inventory methods to measure woody carbon density at 150 different points distributed among a set of ranches that encompass a range of woody cover. These carbon densities will combine with standard satellite-based land cover change analyses to estimate loss of woody carbon.

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**e) Exploring remote sensing methods.** Numerous research groups have attempted to develop remote sensing-based (spectral) methods of assessing SOC (either concentration (%) or density (mass/area to a specified depth))\(^{18}\). These methods unfortunately have margins of error > 50% across the narrower range of baseline SOC typically encountered in our target rangelands (5-15 Mg/acre). Consequently, we choose not to develop remotely sensed measures of SOC. Instead, we will rely on existing published and NRCS archived data and new data gathered from participating ranches to build rangeland-focused, stratified assessments of baseline SOC, as discussed in c) above.

Remote-sensing methods will, however, be developed to assess changes in vegetation that accompany regenerative grazing practices as well as short-term impacts of livestock on grassland production. We will use a method\(^ {19} \) that uses calibrated MODIS NDVI-based estimates of forage biomass to detect grazing impacts and livestock movements. Bi-weekly changes in NDVI, when calibrated to background changes in NDVI in ungrazed areas, detect reductions in forage biomass to \( \pm 20-30 \text{ g/m}^2 \) error even in very dry, low productivity environments.\(^ {20} \) Likewise, these same calibrations can be used to use NDVI and/or EVI as indicators of increasing perennial grass biomass associated with improved range conditions.

**B. Measurement and Monitoring Plan**

The 120 project ranches encompassing 7+ million acres are identified and mapped, depicting the boundary of private lands and public grazing allotments. Ranches will report project implementation (livestock numbers, numbers of paddocks or pastures, days in pasture, etc.) as designed by ranchers to achieve improved grazing management. Grazing management plans will be customized to demonstrate the utility of our climate commodity assessment under different management practices. In addition, CNB and Grazewell teams will gather data on infrastructure and operational costs, sources of capital, and vegetation and soil changes on specific property/pastures.

Operation monitoring protocols will follow NRCS guidelines and ranchers/operators will be trained by project teams. These protocols have been piloted at eight ranches in 2021 and will expand to all participating ranches by 2025. All ranches and finishing operations will measure: 1) bare ground, 2) water infiltration, 3) plant diversity, and 4) soil organic carbon (SOC) to 40 cm depth or bedrock. Monitoring locations will be selected at random within ranches or operations, but additional locations will be selected in subareas of a ranch with special interest to the outcome of management changes. On-the-ground monitoring will be utilized in tandem with modeling (see above) in order to test the hypotheses of anticipated vegetation changes during years 2-4, and potential changes in SOC in year 5 of the project. Data recorded in the field will be captured with ESRI Survey 123, and all data will sync into a cloud-based portal. This database will feed into the proposed CliCoR climate-smart commodity assessment platform (see D1 below). Grazing plans and cattle movements will be recorded and monitored annually.

This monitoring program is designed to make data collection by local operators easy, engaging, repeatable, standardized, and scientifically valid without the need for external input. Ranch-level

\(^{18}\) Vagen & Winowiecki 2013. Environmental Research Letters. 8: 1-9; Soilyics [https://www.persistencedata.com/]

\(^{19}\) Ritchie, M.E. et al submitted Nature Sustainability

data will be uploaded into a database, but data reporting will be anonymous and/or aggregated with contractors operating under confidentiality and privacy protection agreements.

C. Reporting and Tracking of GHG Benefits

1) Choice of model
Success in certifying climate-smart commodities in rangelands depends heavily on modeling tools to assess carbon sequestration in soils. Carbon sequestration occurs at a relatively slow rate in rangelands, even though soils in drier, colder areas can hold substantial carbon stocks. These relatively small increments may take up to 10 years before statistically significant change in SOC can be detected, given typical sampling margins of error.

2) Soil Carbon Dynamic Models. An alternative approach is to use soil carbon dynamic models, such as Century21 and its agricultural version COMET, RothC22, DNDC23, and SNAPGRAZE24. We will, perhaps for the first time, compare the ability of these models simultaneously to predict change in SOC, given a set of local model inputs and measurements of soil carbon stocks and changes in stocks from the same location (see A(c) and B above).

Parameters used in model predictions will be local if possible, and on relevant time scales (days, months, years). These include a) Soil texture (silt, sand, clay); b) Soil depth; c) Lignin and cellulose of dominant plants; d) Temperature; e) Rainfall; f) Fire history; Lignin and cellulose are routinely measured in livestock feeds but are not widely known for dominant rangeland plants, particularly annuals. Where literature data gaps occur, clipped biomass samples will be analyzed for lignin and cellulose at the Utah State University lab (co-PI Mark Ritchie) using standard fiber digestion25. Models will also input grazing management decisions, e.g., number of cattle and pastures or paddocks, time and timing of cattle in pastures or paddocks, and type of cattle unit.

3) Model Evaluation and Comparison. We will evaluate the success of different models in predicting current SOC and changes in SOC under different regenerative grazing practices26. Models will be compared for fit with measured SOC using standard model selection statistics27, that balance model accuracy and precision against their number of parameters. We will recommend the most appropriate models for different management, climate, and soils through a decision tree embedded in the climate-smart commodity assessment platform (see D1).

4) Tracking rates of GHG per units Since GHG benefits are calculated with each ranch as an “instance” of climate-smart commodity production (this is required by Verra) and its area

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21 https://www2.nrel.colostate.edu/projects/century/MANUAL/html_manual/man96.html
will be known, the total GHG benefits for each participating producer will already be calculated. Therefore, determining the per ranch benefits will be straightforward. **Per project/region:** Baseline SOC for the entire project will be estimated based on key strata across the western US landscape. GHG benefits per region or project stratum will be the sum of benefits across ranches in each stratum for that stratum. **Per pound of beef:** Since livestock numbers and body mass are critical inputs to soil carbon models, GHG benefits per pound of beef can be calculated. **Per dollar invested:** Because investments to transition to regenerative practices will be known, we can estimate benefits per dollar invested.

5) **Longevity of benefits** SNAPGRAZE analyses suggest that most rangeland systems in the US are well below their potential equilibrium SOC. This likely reflects impacts of historical overgrazing dating back to the mid-19th Century. Recent improvements in management and reduction in stocking rates have started recovery, but it is far from complete. Consequently, **SOC accruals from persistent regenerative practices will likely continue through the end of the century.**

D. Verification and Reporting of Greenhouse Gas Benefits

D.1 CliCoR Platform

Since each producer has the potential to engage in different practices and achieve the standards for different climate-smart commodity standards, the project will develop a “Climate Commodities Resources (CliCoR)” Platform to help producers assess the likely climate impact of different potential practices and the standards for which their operation is likely to qualify. This platform will aggregate project data and tested models to allow producers to optimize their regenerative activities via participation in desired climate-smart markets. While the intent of this project is development of climate-smart beef commodities; the practices, monitoring protocol, and tracing employed will allow producers to participate in other markets, including sale of carbon offset credits and other biodiversity and ecosystem service certifications.

Given the diversity of project partners and potential climate-related outcomes, the platform will integrate the common set of rancher-participatory monitoring variables with published literature, NRCS and public satellite data to yield broader scale, platform-calculated metrics, such as whole-ranch carbon budgets, biodiversity impacts, and hydrological budget and contribution to water supplies. The platform will feature decision-trees that help producers identify and apply for appropriate climate-smart commodity standards or certifications and to assess the magnitude of benefits they might provide. **This tool will help producers navigate the complex standards and certifications needed for generating climate-smart commodities.**

D.2 Life Cycle Assessment (LCA)

To verify project impacts, protocol integrity, and inform marketing, Quantis International will deliver a robust accounting of the GHG benefits associated with climate-smart beef products generated by the project and its novel land management and finishing practices. The LCA will pave the way for future evaluations of these systems by adapting existing methodologies, uncovering innovations, and recommending efficiencies for replication and scaling.
Phase 1 - Project Context and Scoping
The scope of the exercise will be established, including data collection and systems mapping. A special focus will be placed on the integration of soil carbon data into traditional product LCA, which is an evolving area where Quantis is recognized as an industry leader.

Phase 2 - Scoping Checkpoint and Study Design
A scoping checkpoint will be used to determine whether an ISO comparative LCA is appropriate and/or feasible, or if a screening-level comparative LCA is an appropriate alternative path. An ISO compliant LCA covers a product’s complete life cycle and presents an extensive understanding of the product’s environmental performance. To perform an ISO-compliant LCA, a third-party review panel will assess the study against its compliance with ISO 14040-44 standards, including the scientific rigor of the methodology and data used, the transparency and the consistency of the report, and the validity of the results interpretation, and its limitations.

Phase 3 – Life Cycle Assessment
Quantis will aggregate and process all project data to perform a comparative LCA (ISO or screening-level) of the beef produced in this program. Of particular interest to this study is the modeling of the novel finishing stage in this production system. If no comparisons are readily identified to other production systems, Quantis will compare the baseline scenario and 5th year results to determine the levels of improvement within this new production system.

Phase 4 – Implications and Advisory Capacity
Upon LCA completion, Quantis will collaborate with project partners to advise on methods to monitor change over time, capture benefits from new production practices, and ensure external claims that arise from the results of this study are credible, science-based, and transparent.

E. USDA Partnerships for Climate-Smart Commodities Learning Network
As part of our monitoring, quantification, and reporting plan, project manager Dallas Hall Defrees is committed to participating in the USDA Partnerships for Climate-Smart Commodities Learning Network and fulfilling all associated obligations to ensure project success.

4. PLAN TO DEVELOP CLIMATE SMART PROJECT COMMODITIES
This project will stimulate, across a substantial representation of US rangelands, the production of climate-friendly beef associated with a significantly reduced carbon footprint and increased ecological benefits compared to conventional options. Beef produced according to the practices and monitoring protocol of this program will be tracked, marketed, and sold in commodity supply chains as part of a climate-smart beef campaign associated with the newly established Grazewell™ Regenerative Attribute. Marketing and purchasing partnerships will be established with major national vendors to purchase from producers enrolled in the program, highlight the benefits of climate-smart practices, and meet demand for regenerative and climate-smart products. This campaign will demonstrate demand for, availability, and affordability of
climate-smart beef in established markets and allow for scalability and durability for producers to retain and expand their presence in the marketplace.

A. Partnerships to Market Resulting Climate-Smart Commodities

This climate-smart commodity campaign and Grazewell™ brand attribute is essential to securing and retaining market access for small and underserved producers. It will allow for continued ownership and management at the family level while reducing risk of market entry and increasing competitiveness of small producers—all by aggregating and streamlining sales, promotion, and distribution. These brand attributes are critical differentiators for family-owned and Tribal ranches and necessary for diversified, resilient American beef production. If not for the new commodity markets established by this program, this network of producers and those like them across the nation will continue to lose access to markets and suffer from aggressively narrow margins and pricing strategies determined by large, consolidated companies. Our approach will generate increased beef sales to compensate landowners for ecosystem services and reduced carbon emissions, provide and secure market access, establish product partnerships that strengthen agricultural livelihoods, satisfy growing consumer demand for climate-smart products, and create healthier ecosystems.

Marketing Strategies

- Promote the program by highlighting people, practice, product and place.
- Educate consumers about why they should care, and how climate-smart beef is the best, tastiest, most widely available, and most conscientious beef choice.
- Use a comprehensive marketing mix that speaks to food enthusiasts.
- Be visually compelling with the media mix to catch consumer attention.

Year 1: Research and Narrative Development

Conduct focus groups and market research among target audiences and develop narrative messaging, branding, and an integrated marketing communications plan. The plan will include stories and content for digital media, an earned media strategy that leverages journalists and brand ambassadors, and a paid media strategy to reach and influence target audiences. Grazewell™ will be further developed as a way to distinguish climate-smart beef for consumers through product branding, advertising, messaging, and earned media creation.

Years 2-4: Implementation

Implement the integrated marketing communications plan by designing and developing content that producers, partners, ambassadors, and journalists can utilize in designated channels. This will further integrate Grazewell™ brand and climate-smart food products into consumer vernacular.

Year 5: Research and reporting

Measure the reach, impact, and effectiveness of the climate-smart beef marketing campaign and review changes in attitudes and buying habits around climate-smart beef.

B. Plan to Track Climate-Smart Commodities Through the Supply Chain

GHG and carbon sequestration benefits from the program and Grazewell™ attribute will be tracked through the supply chain using a three-way identification system for each phase of the animal’s life from birth to processed product. This approach will prohibit double counting of
climate benefits entering commodity chains and maintain program integrity and assurances to customers. The project team and producers also attest that funds under this funding opportunity will not be used to pay for implementation of the same practice on the same land. Through our traceability program as well as partnership communication and procedure we will ensure there is no duplication of payment for the same benefits or activities occurring on the same land.

1. USDA regulated Electronic Identification (EID) tags are affixed to each animal at the birth ranch and associated with a unique 15-digit number that is transmitted via a short-range radio frequency. Through the EID tag, animals are uniquely identified and easily tracked.

2. Upon arrival at a finishing pasture, each animal receives a program specific visual ear tag associated with EID tag. This tag will be used for internal record-keeping and provides redundancy. The program cattle will be segregated in designated pens to eliminate mixing and misidentification.

3. At the harvest facility, animals will be assigned a carcass number associated with their EID/finishing pasture tag. A dedicated run will occur when only program animals will be harvested, and all meat from the run will be packed, labeled, and shipped before any other animals are harvested to ensure all animals are part of the program.

C. Estimated Economic Benefits for Participating Producers
Based on climate-smart/regenerative purchasing projections from primary corporate partners, this project will provide $67 million in increased annual market returns in new and existing markets for participating producers. Major commodity buyers supporting this project (see attached letters) have stated that the availability of a climate-smart beef product consistent with the Grazewell™ attribute and protocols will meet their branded climate-smart/regenerative product goals and satisfy customer demand for these goods.

Climate-smart grazing practices in this project are anticipated to increase forage productivity, resulting in higher stocking rates for producers. Additional ranch level economic benefits from increases in above-ground biomass will further sustain economic stability and growth in the climate-smart commodity marketplace.

D. Post-Project Potential
This project will develop, as far as we are aware, the only nationally scaled full supply chain approach to significantly increase carbon sequestration, reduce GHG emissions, increase water efficiency and quality, and consequently reduce and improve the climate impacts of beef production. To fully realize this potential, Climate Smart Leadership Summits will be hosted throughout the project timeline. Academics and industry leaders will gather at annual CNB producer meetings to analyze post-project potential, capacity to scale climate-smart project activities, likelihood of long-term viability beyond project period, and ability to inform USDA actions to encourage climate-smart commodities. Summits will provide opportunities for continued research and analysis of project outcomes from academic and industry professionals. Committed academic and industry leaders participating in these summits include Dr. Kristen Johnson, Washington State University and Roland Fumasi, head of RaboResearch & Food Agribusiness-North America Rabobank.

Sustainable Northwest Milestones

Quarterly Milestones:

2023
- Quarter 2
  - Building Regenerative Ranching in the West project engagement meeting.
  - 600 acres enrolled in climate-smart finishing.
- Quarter 3
  - 40 ranches onboarded for baseline monitoring.
  - Marketing research and online surveys completed.
  - Producer working group meetings.
- Quarter 4
  - 40 ranches baseline monitoring completed (approximately 50% of producers will be small producers or otherwise underserved).
  - Marketing narrative completed and ready for implementation.
  - Soil sampling for carbon sequestration monitoring year 1 completed.
  - Data collection plan and methodology finalized for LCA analysis.
  - 120 producers participate in annual education training.
  - Producer working group meetings.

2024
- Quarter 1
  - Building Regenerative Ranching in the West project engagement meeting.
  - 2,400 acres enrolled in climate-smart finishing.
  - 40 monitoring reports completed for producers
  - LCA Screening vs. ISO Compliant Comparative LCA evaluation done; decision made; implementation plan designed.
  - Producer working group meetings.
- Quarter 2
  - Aggregate LCA data to begin comparative LCA.
  - Producer working group meetings.
- Quarter 3
  - 80 ranches onboarded for baseline monitoring.
  - Producer working group meetings.
- Quarter 4
  - 80 ranches baseline monitoring completed (approximately 50% of producers will be small producers or otherwise underserved).
  - Soil sampling for carbon sequestration monitoring year 2 completed.
  - 120 producers participate in annual education training.
  - Producer working group meetings.
  - 8 media articles published in regional or national outlets.
Anticipated expanded market share for climate-smart beef products by 5%
Anticipate 1 to 2 million metric tons of CO2 sequestered on enrolled project ranches. (These estimates are based off of current USDA approved modeling protocols. The actual number may be different as modeling systems evolve, current practices are fine tuned, and eco-based modeling protocols become more accurate).

2025
- Quarter 1
  - Building Regenerative Ranching in the West project engagement meeting.
  - 4,200 acres enrolled in climate-smart finishing.
  - 80 monitoring reports completed for producers
  - 120 ranches onboarded for baseline monitoring.
  - Producer working group meetings.
- Quarter 2
  - Producer working group meetings.
- Quarter 3
  - Producer working group meetings.
- Quarter 4
  - 120 ranches baseline monitoring completed (approximately 50% of producers will be small producers or otherwise underserved).
  - Soil sampling for carbon sequestration monitoring year 3 completed.
  - 120 producers participate in annual education training.
  - Producer working group meetings.
  - 8 media articles published in regional or national outlets.
  - Anticipated expanded market share for climate-smart beef products by 10%
  - Anticipated 2 to 4 million metric tons of CO2 sequestered on enrolled project ranches. (These estimates are based off of current USDA approved modeling protocols. The actual number may be different as modeling systems evolve, current practices are fine tuned, and eco-based modeling protocols become more accurate).

2026
- Quarter 1
  - Building Regenerative Ranching in the West project engagement meeting.
  - 6,073 acres enrolled in climate-smart finishing.
  - 120 monitoring reports completed for producers
  - Producer working group meetings.
- Quarter 2
  - Comparative LCA analysis midpoint
  - Producer working group meetings.
- **Quarter 3**
  - Producer working group meetings.

- **Quarter 4**
  - 40 ranches follow-up monitoring completed.
  - 120 producers participate in annual education training.
  - Producer working group meetings.
  - 8 media articles published in regional or national outlets.
  - Anticipated expanded market share for climate-smart beef products by 15%.
  - Anticipated 4 to 6 million metric tons of CO2 sequestered on enrolled project ranches. (These estimates are based off of current USDA approved modeling protocols. The actual number may be different as modeling systems evolve, current practices are fine tuned, and eco-based modeling protocols become more accurate).

2027

- **Quarter 1**
  - Building Regenerative Ranching in the West project engagement meeting.
  - Deliver follow-up monitoring reports to Year 1 ranches.
  - Begin CliCOR platform development (a climate smart technology for producers to assess likely climate impact of different potential practices).
  - Producer working group meetings.

- **Quarter 2**
  - Producer working group meetings.

- **Quarter 3**
  - Producer working group meetings.

- **Quarter 4**
  - 80 ranches follow-up monitoring completed.
  - CliCOR platform development completed.
  - 120 producers participate in annual education training.
  - 8 media articles published in regional or national outlets.
  - Anticipated expanded market share for climate-smart beef products by 20%.
  - Grazewell™ branded trademark completed.

2028

- **Quarter 1**
  - Building Regenerative Ranching in the West project engagement meeting.
  - LCA Comparative analysis completed.
  - LCA report on advised method changes.
  - Deliver follow-up monitoring reports to Year 2 ranches.
  - Follow-up marketing research report completed.
  - GHG benefit analysis completed for finishing pastures and Climate-smart ranches.
- 4 Marketing channels expanded through increased production and adoption of Climate-smart Beef.
- 4 to 6 million metric tons of CO2 sequestered on enrolled project ranches. (Validated through soil sampling data collection, USDA approved carbon sequestration approved modeling protocols, and LCA analysis throughout the lifetime of the grant).

In Summary: By 2028 we will have 120 landowners enrolled in the climate smart program, encompassing approximately 7 million acres. We will be sequestering an anticipated project-wide 5-8 million metric tons CO₂e, and we will expand current marketing channels by a total of 20 percent over the five year grant period.
Climate-Smart Practices and Limitations—Sustainable Northwest

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

<table>
<thead>
<tr>
<th>NRCS Practice Code (if applicable)</th>
<th>Practice Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>314</td>
<td>Brush Management</td>
</tr>
<tr>
<td>328</td>
<td>Conservation Crop Rotation</td>
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<tr>
<td>340</td>
<td>Cover Crop</td>
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<tr>
<td>345</td>
<td>Residue &amp; Tillage Management</td>
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<tr>
<td>382</td>
<td>Fencing to Promote Rotational Grazing</td>
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<td>Wildlife Habitat Planting</td>
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<tr>
<td>449</td>
<td>Irrigation Water Management</td>
</tr>
<tr>
<td>528</td>
<td>Prescribed Grazing</td>
</tr>
<tr>
<td>550</td>
<td>Range Planting</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Practice Name</th>
<th>Alternative Practice Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>
Partnerships for Climate-Smart Commodities
Data Dictionary for Recipients
February 2023
Version 1.0

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Overview of Reporting Requirements

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

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

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

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

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

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

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

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

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

#### Table 1. Project Summary elements

<table>
<thead>
<tr>
<th>Data element name</th>
<th>Description</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commodity type</td>
<td>Type of commodity(ies) incentivized by the project</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Commodity sales</td>
<td>Indicates sales of the commodity(ies) related to the project occurred this</td>
<td>Quarterly</td>
</tr>
<tr>
<td></td>
<td>quarter</td>
<td></td>
</tr>
<tr>
<td>Farms enrolled</td>
<td>Indicates enrollment activities occurred this quarter</td>
<td>Quarterly</td>
</tr>
<tr>
<td>GHG calculation methods</td>
<td>Methods used to calculate greenhouse gas (GHG) benefits</td>
<td>Quarterly</td>
</tr>
<tr>
<td>GHG cumulative calculation</td>
<td>Method used to calculate cumulative GHG benefits</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Cumulative GHG benefits</td>
<td>Whole project estimate of total GHG (CO2e) emission reductions</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Cumulative carbon stock</td>
<td>Whole project estimate of total carbon sequestration</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Cumulative CO2 benefit</td>
<td>Whole project estimate of total CO2 emission reductions</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Cumulative CH4 benefit</td>
<td>Whole project estimate of total CH4 emission reductions</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Cumulative N2O benefit</td>
<td>Whole project estimate of total N2O emission reductions</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Offsets produced</td>
<td>Amount of carbon offsets produced by project</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Offsets sale</td>
<td>Name of marketplace where carbon offsets were sold</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Offsets price</td>
<td>Price of carbon in offset sales</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Insets produced</td>
<td>Amount of carbon insets produced by project</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Cost of on-farm TA</td>
<td>Cost of on-farm technical assistance (TA) provided to producers</td>
<td>Quarterly</td>
</tr>
<tr>
<td>MMRV cost</td>
<td>Cost of measurement, monitoring, reporting, and verification (MMRV) activities</td>
<td>Quarterly</td>
</tr>
<tr>
<td>GHG monitoring method</td>
<td>Methods used by project to monitor GHG benefits (up to 5)</td>
<td>Quarterly</td>
</tr>
<tr>
<td>GHG reporting method</td>
<td>Methods used by project to report on GHG benefits (up to 5)</td>
<td>Quarterly</td>
</tr>
<tr>
<td>GHG verification method</td>
<td>Methods used to verify GHG benefits (up to 5)</td>
<td>Quarterly</td>
</tr>
</tbody>
</table>
Partnerships for Climate-Smart Commodities Data Dictionary for Recipients
February 2023

Partner Activities
These data will be collected at the project level. Each row in this worksheet will represent one organization involved in the project, including the recipient and all contributing partners. A partner is any organization that is receiving project funds or providing matching contributions (funds or in-kind contributions) to the project. While the recipient must complete one row for their own organization, not all data elements apply to the recipient. These exceptions are noted in the detailed descriptions of the specific elements in the Data Definitions section of this guide. Data are reported cumulatively each quarter. Report last quarter’s entry if there has been no change in this quarter.

Table 2. Partner Activities elements

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

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

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

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

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

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

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

<table>
<thead>
<tr>
<th>Data element name</th>
<th>Description</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm ID</td>
<td>Unique Farm ID assigned by FSA</td>
<td></td>
</tr>
<tr>
<td>Tract ID</td>
<td>Unique Tract ID assigned by FSA</td>
<td></td>
</tr>
<tr>
<td>Field ID</td>
<td>Unique Field ID assigned by FSA</td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>State name</td>
<td></td>
</tr>
<tr>
<td>County</td>
<td>County name</td>
<td></td>
</tr>
<tr>
<td>GHG measurement method</td>
<td>Method of measurement</td>
<td>Annual</td>
</tr>
<tr>
<td>Lab name</td>
<td>Entity that conducted analysis</td>
<td>Annual</td>
</tr>
<tr>
<td>Measurement start date</td>
<td>Start date of measurements</td>
<td>Annual</td>
</tr>
<tr>
<td>Measurement end date</td>
<td>End date of measurements</td>
<td>Annual</td>
</tr>
<tr>
<td>Total CO2 reduction calculated</td>
<td>Calculation of total CO2 reduction</td>
<td>Annual</td>
</tr>
<tr>
<td>Total carbon stock change calculated</td>
<td>Calculation of change in carbon stock</td>
<td>Annual</td>
</tr>
<tr>
<td>Total CH4 reduction calculated</td>
<td>Calculation of total CH4 reduction</td>
<td>Annual</td>
</tr>
<tr>
<td>Total N2O reduction calculated</td>
<td>Calculation of total N2O reduction</td>
<td>Annual</td>
</tr>
<tr>
<td>Soil sample result</td>
<td>Numeric result from soil sample</td>
<td>Annual</td>
</tr>
<tr>
<td>Measurement type</td>
<td>Type of analysis conducted</td>
<td>Annual</td>
</tr>
</tbody>
</table>
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

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

**Measurement unit:** Category

**Select multiple values:** No

**Allowed values:**
- Models
- Direct field measurements
- Both

**Logic:** None — all respond

**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

**Measurement unit:** Metric tons CO2eq

**Select multiple values:** No

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

**Logic:** None — all respond

**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 CO2eq.

**Data type:** Decimal

**Measurement unit:** Metric tons CO2eq

**Select multiple values:** No

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

**Logic:** None — all respond

**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

**Measurement unit:** Metric tons CO2

**Select multiple values:** No

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

**Logic:** None — all respond

**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 CH4 = 25 tons of CO2eq.

**Data type:** Decimal

**Measurement unit:** Metric tons CH4 reduced in CO2eq

**Select multiple values:** No

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

**Logic:** None — all respond

**Data collection level:** Project

**Data collection frequency:** Quarterly
**Cumulative N2O benefit**

**Data element name:** Cumulative N2O benefit  
**Reporting question:** What are the project’s estimated total N2O emission reductions to date?

**Description:** Estimated total cumulative nitrous oxide reduction based on practice implementation. This is updated quarterly, if there are no updated numbers enter the same number as the previous quarter. Conversion rate is one ton of N₂O = 298 tons of CO₂eq.

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

**Measurement unit:** Metric tons N₂O reduced in CO₂eq

**Logic:** None – all respond

**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 CO₂eq

**Logic:** None – all respond

**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

**Logic:** Respond if >0 to ‘Offsets produced’

**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

**Logic:** Respond if >0 to ‘Offsets produced’

**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

**Measurement unit:** Metric tons CO₂eq

**Logic:** None – all respond

**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  
**Measurement unit:** Dollars  
**Logic:** None — all respond  
**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  
**Measurement unit:** Dollars  
**Logic:** None — all respond  
**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  
**Measurement unit:** Category  
**Logic:** None — all respond  
**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
Partnerships for Climate-Smart Commodities Data Dictionary for Recipients
February 2023

Partner Activities

**Unique IDs**

| Partner ID | Unique Project ID for each partner |

**Partner name**

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

**Partner type**

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

**Partner POC**

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

**Partner POC email**

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

- **Data element name:** Partnership start date
- **Description:** Date that the partner organization and the recipient began formally partnering on the project
- **Data type:** Date
- **Measurement unit:** MM/DD/YYYY
- **Logic:** No response for recipient
- **Data collection level:** Partner

**Reporting question:** When did the partnership start?

- **Allowed values:** 01/01/2023 – 12/31/2030
- **Required:** Yes

### Partnership end date

- **Data element name:** Partnership end date
- **Description:** Date that the partner organization and the recipient stopped formally partnering on the project
- **Data type:** Date
- **Measurement unit:** MM/DD/YYYY
- **Logic:** No response for recipient
- **Data collection level:** Partner

**Reporting question:** When did the partnership end?

- **Allowed values:** 01/01/2023 – 12/31/2030
- **Required:** Yes

### New partnership

- **Data element name:** 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
- **Measurement unit:** Category
- **Logic:** No response for recipient
- **Data collection level:** Partner

**Reporting question:** Is this a new partnership?

- **Allowed values:**
  - Yes
  - No
  - I don’t know
- **Required:** Yes

### Partner total requested

- **Data element name:** Partner total requested
- **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
- **Measurement unit:** Dollars
- **Logic:** No response for recipient
- **Data collection level:** Partner

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

- **Select multiple values:** NA
- **Allowed values:** $0-$100,000,000
- **Required:** Yes

**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  
**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  
**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  
**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  
**Measurement unit:** Dollars  
**Logic:** None – all respond  
**Data collection level:** Partner

**Select multiple values:** NA  
**Allowed values:** $0-$100,000,000  
**Required:** Yes

### Training type provided

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

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

**Data type:** List  
**Measurement unit:** Category  
**Logic:** None – all respond  
**Data collection level:** Partner

**Select multiple values:** No  
**Allowed values:**
- Data collection
- Grant reporting
- Marketing opportunities
- Providing financial assistance
- Providing technical assistance
- Writing producer contracts
- Other (specify)

**Required:** Yes

### Activity by partner

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

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

**Data type:** List  
**Measurement unit:** Category  
**Logic:** None – all respond  
**Data collection level:** Partner

**Select multiple values:** No  
**Allowed values:**
- Marketing support
- MMRV support
- Producer outreach for enrollment
- Technical assistance to producers
- Training to other partner organizations
- Other (specify)

**Required:** Yes

**Data collection frequency:** Quarterly

---

**Version 1.0**
### 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

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

### Marketing channel type

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

### Number of buyers

<table>
<thead>
<tr>
<th>Data element name:</th>
<th>Number of buyers</th>
<th>Reporting question:</th>
<th>How many buyers are there in this marketing channel?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td>List the number of individual firms or buyers in this marketing channel.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data type:</td>
<td>Integer</td>
<td>Select multiple values:</td>
<td>No</td>
</tr>
<tr>
<td>Measurement unit:</td>
<td>Count</td>
<td>Allowed values:</td>
<td>1-500</td>
</tr>
<tr>
<td>Logic:</td>
<td>None – all respond</td>
<td>Required:</td>
<td>Yes</td>
</tr>
<tr>
<td>Data collection level:</td>
<td>Project</td>
<td>Data collection frequency:</td>
<td>Quarterly</td>
</tr>
</tbody>
</table>
### 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  
**Measurement unit:** Name  
**Logic:** None – all respond  
**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  
**Measurement unit:** Category  
**Logic:** None – all respond  
**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  
**Measurement unit:** Dollars  
**Logic:** None – all respond  
**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  
**Measurement unit:** Number  
**Logic:** None – all respond  
**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  
**Measurement unit:** Percent  
**Logic:** None — all respond  
**Data collection level:** Project  
**Data collection frequency:** Quarterly  

| **Select multiple values:** | No | **Allowed values:** | 0-100 | **Required:** | Yes |

### 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  
**Measurement unit:** Category  
**Logic:** None — all respond  
**Data collection level:** Project  
**Data collection frequency:** Quarterly  

<table>
<thead>
<tr>
<th><strong>Select multiple values:</strong></th>
<th>No</th>
<th><strong>Allowed values:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Certification/verification for internal insetting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Farm certification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Label or badge used on packaging or marketing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Third party certification/verification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Trademark</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Other (specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 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  
**Measurement unit:** Category  
**Logic:** None — all respond  
**Data collection level:** Project  
**Data collection frequency:** Quarterly  

<table>
<thead>
<tr>
<th><strong>Select multiple values:</strong></th>
<th>No</th>
<th><strong>Allowed values:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Label or badge used on packaging or marketing materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Marketing partnership (e.g., promotion by buyer)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Print marketing campaign</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Social media and digital marketing campaign</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Verbal marketing campaign (e.g., radio, word of mouth)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Other (specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 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  
**Measurement unit:** Category  
**Select multiple values:** No  
**Logic:** None – all respond  
**Data collection level:** Project  
**Data collection frequency:** Quarterly

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

### 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  
**Measurement unit:** Category  
**Select multiple values:** No  
**Logic:** None – all respond  
**Data collection level:** Project  
**Data collection frequency:** Quarterly

#### 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)
## Producer Enrollment

### Unique IDs

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm ID</td>
<td>Unique Farm ID assigned by FSA</td>
</tr>
<tr>
<td>State or territory</td>
<td>State name (must match FSA farm enrollment data)</td>
</tr>
<tr>
<td>County of residence</td>
<td>County name (must match FSA farm enrollment data)</td>
</tr>
</tbody>
</table>

### Producer data change

**Data element name:** Producer data change  
**Reported 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  
**Reported 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  
**Required:** Yes

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

### Producer name

**Data element name:** Producer name  
**Reported 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  
**Required:** Yes

**Logic:** None – all respond  
**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  
**Measurement unit:** Category  
**Select multiple values:** No  
**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  
**Measurement unit:** Category  
**Select multiple values:** No  
**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  
**Measurements unit:** Acres  
**Logic:** None – all respond  
**Data collection level:** Producer  
**Data collection frequency:** Initial enrollment and subsequent enrollment(s), if applicable

<table>
<thead>
<tr>
<th>Select multiple values</th>
<th>Allowed values</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>0-100,000</td>
<td>Yes</td>
</tr>
</tbody>
</table>

## 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  
**Measurements unit:** Acres  
**Logic:** None – all respond  
**Data collection level:** Producer  
**Data collection frequency:** Initial enrollment and subsequent enrollment(s), if applicable

<table>
<thead>
<tr>
<th>Select multiple values</th>
<th>Allowed values</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>0-100,000</td>
<td>Yes</td>
</tr>
</tbody>
</table>

## 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  
**Measurements unit:** Acres  
**Logic:** None – all respond  
**Data collection level:** Producer  
**Data collection frequency:** Initial enrollment and subsequent enrollment(s), if applicable

<table>
<thead>
<tr>
<th>Select multiple values</th>
<th>Allowed values</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>0-100,000</td>
<td>Yes</td>
</tr>
</tbody>
</table>
### 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 |

<table>
<thead>
<tr>
<th>Allowed values:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpacas</td>
</tr>
<tr>
<td>Beef cows</td>
</tr>
<tr>
<td>Beefalo</td>
</tr>
<tr>
<td>Buffalo or bison</td>
</tr>
<tr>
<td>Chickens (broilers)</td>
</tr>
<tr>
<td>Chickens (layers)</td>
</tr>
<tr>
<td>Dairy cows</td>
</tr>
<tr>
<td>Deer</td>
</tr>
<tr>
<td>Ducks</td>
</tr>
<tr>
<td>Elk</td>
</tr>
<tr>
<td>Emus</td>
</tr>
<tr>
<td>Equine</td>
</tr>
<tr>
<td>Geese</td>
</tr>
<tr>
<td>Goats</td>
</tr>
<tr>
<td>Honeybees</td>
</tr>
<tr>
<td>Llamas</td>
</tr>
<tr>
<td>Reindeer</td>
</tr>
<tr>
<td>Sheep</td>
</tr>
<tr>
<td>Swine</td>
</tr>
<tr>
<td>Turkeys</td>
</tr>
<tr>
<td>Other (specify)</td>
</tr>
</tbody>
</table>

**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 |
| Required: | Yes |

| Logic: | Respond if 'Total livestock area' > 0 |

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

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

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

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

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

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

**Allowed values:**
- Yes
- No
- I don’t know

**Logic:** Respond if yes to ‘CSAF experience’  
**Required:** Yes

**Data collection level:** Producer  
**Data collection frequency:** Initial enrollment
### CSAF market incentives

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

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

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

**Measurement unit:** Category  
**Allowed values:**
- Yes
- No
- I don’t know

**Logic:** Respond if yes to ‘CSAF experience’  
**Required:** Yes

**Data collection level:** Producer  
**Data collection frequency:** Initial enrollment
## Field Enrollment

### Unique IDs

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm ID</td>
<td>Unique Farm ID assigned by FSA</td>
</tr>
<tr>
<td>Tract ID</td>
<td>Unique Tract ID assigned by FSA</td>
</tr>
<tr>
<td>Field ID</td>
<td>Unique Field ID assigned by FSA</td>
</tr>
<tr>
<td>State or territory of field</td>
<td>State name (must match FSA farm enrollment data)</td>
</tr>
<tr>
<td>County of field</td>
<td>County name (must match FSA farm enrollment data)</td>
</tr>
<tr>
<td>Prior Field ID, if applicable</td>
<td>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</td>
</tr>
</tbody>
</table>

### 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
<table>
<thead>
<tr>
<th>Commodity category</th>
<th>Reporting question: What category of commodity(ies) is (are) produced from this field?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data element name: Commodity category</td>
<td>Description: Category of commodity(ies) produced in field enrolled in the project</td>
</tr>
<tr>
<td>Data type: List</td>
<td>Allowed values:</td>
</tr>
<tr>
<td>Measurement unit: Category</td>
<td>- Crops</td>
</tr>
<tr>
<td>Logic: None – all respond</td>
<td>- Livestock</td>
</tr>
<tr>
<td>Required: Yes</td>
<td>- Trees</td>
</tr>
<tr>
<td>Data collection level: Field</td>
<td>- Crops and livestock</td>
</tr>
<tr>
<td>Data collection frequency: Initial enrollment</td>
<td>- Crops and trees</td>
</tr>
<tr>
<td>- Livestock and trees</td>
<td>- Crops, livestock and trees</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Commodity type</th>
<th>Reporting question: What type of commodity is produced from this field?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data element name: Commodity type</td>
<td>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.</td>
</tr>
<tr>
<td>Data type: List</td>
<td>Allowed values: FSA commodity list</td>
</tr>
<tr>
<td>Logic: None – all respond</td>
<td>Required: Yes</td>
</tr>
<tr>
<td>Data collection level: Field</td>
<td>Data collection frequency: Initial enrollment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Baseline yield</th>
<th>Reporting question: What is the baseline yield of this field?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data element name: Baseline yield</td>
<td>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.</td>
</tr>
<tr>
<td>Data type: Decimal</td>
<td>Allowed values: .01-100,000</td>
</tr>
<tr>
<td>Measurement unit: Production per acre or animal</td>
<td>Required: Yes</td>
</tr>
<tr>
<td>Logic: None – all respond</td>
<td>Data collection level: Field</td>
</tr>
<tr>
<td>Data collection frequency: Initial enrollment</td>
<td></td>
</tr>
</tbody>
</table>
**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  
**Measurement unit:** Category

**Select multiple values:** No  
**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

**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  
**Measurement unit:** Category

**Select multiple values:** No  
**Allowed values:**
- Enrolled field
- Whole operation
- Other (specify)

**Logic:** None – all respond

**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  
**Measurement unit:** Category

**Select multiple values:** No  
**Allowed values:**
- Crop land
- Forest land
- Non-agriculture
- Other agricultural land
- Pasture
- Range

**Logic:** None – all respond

**Data collection level:** Field  
**Data collection frequency:** Initial enrollment
### Field irrigated

<table>
<thead>
<tr>
<th>Data element name:</th>
<th>Field irrigated</th>
<th>Reporting question: What is this field’s irrigation history?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td>Prior to enrollment, what was the most common irrigation practice on this field the past 3 years?</td>
<td></td>
</tr>
<tr>
<td>Data type:</td>
<td>List</td>
<td>Select multiple values: No</td>
</tr>
<tr>
<td>Measurement unit:</td>
<td>Category</td>
<td>Allowed values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• No irrigation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Center pivot</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Drip-subsurface</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Drip-surface</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Flood/border</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Furrow/ditch</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Lateral/linear sprinklers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Micro-sprinklers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Seepage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Side roll</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Solid set sprinklers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Supplemental</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Surface</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Traveling gun/towline</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Wheel Line</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Other</td>
</tr>
</tbody>
</table>

Logic: None – all respond

Required: Yes

Data collection level: Field

Data collection frequency: Initial enrollment

### Field tillage

<table>
<thead>
<tr>
<th>Data element name:</th>
<th>Field tillage</th>
<th>Reporting question: What is this field’s tillage history?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td>Prior to enrollment, what was the most common tillage approach during the past 3 years?</td>
<td></td>
</tr>
<tr>
<td>Data type:</td>
<td>List</td>
<td>Select multiple values: No</td>
</tr>
<tr>
<td>Measurement unit:</td>
<td>Category</td>
<td>Allowed values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Conventional, inversion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Conventional, vertical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• No-till, direct seed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reduced till, inversion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reduced till, vertical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Strip till</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Other</td>
</tr>
</tbody>
</table>

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 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

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

### Practice standard

<table>
<thead>
<tr>
<th>Data element name: Practice standard 1-7</th>
<th>Reporting question: What standard does the CSAF practice follow?</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Data type: List</td>
<td>Select multiple values: No</td>
</tr>
<tr>
<td>Measurement unit: Category</td>
<td>Allowed values:</td>
</tr>
<tr>
<td>Logic: None – all respond</td>
<td>Required: Yes</td>
</tr>
<tr>
<td>Data collection level: Field</td>
<td>Data collection frequency: Initial enrollment</td>
</tr>
</tbody>
</table>

### Planned practice implementation year

<table>
<thead>
<tr>
<th>Data element name: Practice 1-7 implementation year</th>
<th>Reporting question: What year is the CSAF practice planned to be implemented?</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Data type: Integer</td>
<td>Select multiple values: No</td>
</tr>
<tr>
<td>Measurement unit: Year</td>
<td>Allowed values: 2022-2030</td>
</tr>
<tr>
<td>Logic: None – all respond</td>
<td>Required: Yes</td>
</tr>
<tr>
<td>Data collection level: Field</td>
<td>Data collection frequency: Initial enrollment</td>
</tr>
</tbody>
</table>

### Practice extent

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

**Data element name:** Practice 1-7

**Reporting question:** Unit for extent of practice implementation extent unit

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

**Data type:** List

**Measurement unit:** Category

**Allowed values:**
- Acres
- Head of livestock
- Linear feet
- Square feet:
- Other (specify)

**Logic:** None — all respond

**Required:** Yes

**Data collection level:** Field

**Data collection frequency:** Initial enrollment

---

### CSAF Practice Sub-questions

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

### Unique IDs

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm ID</td>
<td>Unique Farm ID assigned by FSA</td>
</tr>
<tr>
<td>State or territory</td>
<td>State name (must match FSA farm enrollment data)</td>
</tr>
<tr>
<td>County of residence</td>
<td>County name (must match FSA farm enrollment data)</td>
</tr>
</tbody>
</table>

### Producer TA received

**Data element name:** Producer TA received

**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  
**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  

**Measurement unit:** Category  
**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  
**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  

**Measurement unit:** Category  
**Data collection level:** Producer  
**Data collection frequency:** Quarterly
<table>
<thead>
<tr>
<th>Incentive type</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data element name:</strong> Incentive type 1-4</td>
</tr>
<tr>
<td><strong>Description:</strong> 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.</td>
</tr>
<tr>
<td><strong>Data type:</strong> List</td>
</tr>
<tr>
<td><strong>Measurement unit:</strong> Category</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Logic:</strong> None – all respond</td>
</tr>
<tr>
<td><strong>Data collection level:</strong> Producer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Payment on enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data element name:</strong> Payment on enrollment</td>
</tr>
<tr>
<td><strong>Description:</strong> 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.</td>
</tr>
<tr>
<td><strong>Data type:</strong> List</td>
</tr>
<tr>
<td><strong>Measurement unit:</strong> Category</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Logic:</strong> None – all respond</td>
</tr>
<tr>
<td><strong>Data collection level:</strong> Producer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Payment on implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data element name:</strong> Payment on implementation</td>
</tr>
<tr>
<td><strong>Description:</strong> 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.</td>
</tr>
<tr>
<td><strong>Data type:</strong> List</td>
</tr>
<tr>
<td><strong>Measurement unit:</strong> Category</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Logic:</strong> None – all respond</td>
</tr>
<tr>
<td><strong>Data collection level:</strong> Producer</td>
</tr>
</tbody>
</table>
### 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

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm ID</td>
<td>Unique Farm ID assigned by FSA</td>
</tr>
<tr>
<td>Tract ID</td>
<td>Unique Tract ID assigned by FSA</td>
</tr>
<tr>
<td>Field ID</td>
<td>Unique Field ID assigned by FSA</td>
</tr>
<tr>
<td>State or territory of field</td>
<td>State name (must match FSA farm enrollment data)</td>
</tr>
<tr>
<td>County of field</td>
<td>County name (must match FSA farm enrollment data)</td>
</tr>
</tbody>
</table>

### 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
<table>
<thead>
<tr>
<th>Data element name</th>
<th>Reporting question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract end date</td>
<td>Contract end date</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Data type: Date</td>
<td>Date</td>
</tr>
<tr>
<td>Measurement unit: MM/DD/YYYY</td>
<td>MM/DD/YYYY</td>
</tr>
<tr>
<td>Logic: None — all respond</td>
<td>Required: Yes</td>
</tr>
<tr>
<td>Data collection level: Field</td>
<td>Data collection frequency: Quarterly</td>
</tr>
<tr>
<td>MMRV assistance provided</td>
<td>Was MMRV assistance provided?</td>
</tr>
<tr>
<td>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).</td>
<td></td>
</tr>
<tr>
<td>Data type: List</td>
<td>Select multiple values: No</td>
</tr>
<tr>
<td>Measurement unit: Category</td>
<td>Allowed values: Yes</td>
</tr>
<tr>
<td>Logic: None — all respond</td>
<td>Required: Yes</td>
</tr>
<tr>
<td>Data collection level: Field</td>
<td>Data collection frequency: Quarterly</td>
</tr>
<tr>
<td>Marketing assistance provided</td>
<td>Was marketing assistance provided?</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Data type: List</td>
<td>Select multiple values: No</td>
</tr>
<tr>
<td>Measurement unit: Category</td>
<td>Allowed values: Yes</td>
</tr>
<tr>
<td>Logic: None — all respond</td>
<td>Required: Yes</td>
</tr>
<tr>
<td>Data collection level: Field</td>
<td>Data collection frequency: Quarterly</td>
</tr>
<tr>
<td>Incentive per acre or head</td>
<td>Is this field receiving a per-acre or per-head incentive?</td>
</tr>
<tr>
<td>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?</td>
<td></td>
</tr>
<tr>
<td>Data type: List</td>
<td>Select multiple values: No</td>
</tr>
<tr>
<td>Measurement unit: Category</td>
<td>Allowed values: Yes</td>
</tr>
<tr>
<td>Logic: None — all respond</td>
<td>Required: Yes</td>
</tr>
<tr>
<td>Data collection level: Field</td>
<td>Data collection frequency: Quarterly</td>
</tr>
<tr>
<td>Field element name</td>
<td>Field commodity value</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Description</td>
<td>The dollar value of the commodity produced on the enrolled field.</td>
</tr>
<tr>
<td>Data type</td>
<td>Decimal</td>
</tr>
<tr>
<td>Measurement unit</td>
<td>Dollars</td>
</tr>
<tr>
<td>Logic</td>
<td>None – all respond</td>
</tr>
<tr>
<td>Data collection level</td>
<td>Field</td>
</tr>
<tr>
<td>Data collection frequency</td>
<td>Quarterly</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field element name</th>
<th>Field commodity volume</th>
<th>Reporting question: What is the volume of commodity produced on the enrolled field?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>The volume of the commodity produced on the enrolled field.</td>
<td></td>
</tr>
<tr>
<td>Data type</td>
<td>Decimal</td>
<td></td>
</tr>
<tr>
<td>Measurement unit</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>Logic</td>
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<tr>
<td>Data collection level</td>
<td>Field</td>
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<tr>
<td>Data collection frequency</td>
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</table>

<table>
<thead>
<tr>
<th>Field element name</th>
<th>Field commodity volume unit</th>
<th>Reporting question: What is the unit of volume?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Data type</td>
<td>List</td>
<td></td>
</tr>
<tr>
<td>Measurement unit</td>
<td>Category</td>
<td></td>
</tr>
<tr>
<td>Logic</td>
<td>None – all respond</td>
<td></td>
</tr>
<tr>
<td>Data collection level</td>
<td>Field</td>
<td></td>
</tr>
<tr>
<td>Data collection frequency</td>
<td>Quarterly</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field element name</th>
<th>Cost of implementation</th>
<th>Reporting question: What is the cost of practice implementation in the field?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Total annual estimated cost per unit of implementing the practice(s) in the enrolled field.</td>
<td></td>
</tr>
<tr>
<td>Data type</td>
<td>Decimal</td>
<td></td>
</tr>
<tr>
<td>Measurement unit</td>
<td>Dollars</td>
<td></td>
</tr>
<tr>
<td>Logic</td>
<td>None – all respond</td>
<td></td>
</tr>
<tr>
<td>Data collection level</td>
<td>Field</td>
<td></td>
</tr>
<tr>
<td>Data collection frequency</td>
<td>Quarterly</td>
<td></td>
</tr>
</tbody>
</table>
### 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  
**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  
**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  
**Reporting question:** How was implementation of practices to reduce GHG emissions verified for this field?  
**Description:** Up to the top three 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
<table>
<thead>
<tr>
<th>Field GHG calculations</th>
<th>Reporting question: What methods are used to calculate GHG benefits in this field?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data element name:</strong> Field GHG calculations</td>
<td></td>
</tr>
<tr>
<td><strong>Description:</strong> List the method(s) used to calculate GHG benefits in this field. If yes to direct physical measurements, submit result reports (see <em>Supplemental Data Submission — Field direct GHG measurement results</em>).</td>
<td></td>
</tr>
<tr>
<td><strong>Data type:</strong> List</td>
<td></td>
</tr>
<tr>
<td><strong>Measurement unit:</strong> Category</td>
<td></td>
</tr>
<tr>
<td><strong>Logic:</strong> None – all respond</td>
<td></td>
</tr>
<tr>
<td><strong>Data collection level:</strong> Field</td>
<td></td>
</tr>
<tr>
<td><strong>Measurement unit:</strong> Category</td>
<td></td>
</tr>
<tr>
<td><strong>Logic:</strong> None – all respond</td>
<td></td>
</tr>
<tr>
<td><strong>Data collection level:</strong> Field</td>
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</tr>
<tr>
<td><strong>Measurement unit:</strong> Category</td>
<td></td>
</tr>
<tr>
<td><strong>Logic:</strong> None – all respond</td>
<td></td>
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<tr>
<td><strong>Data collection level:</strong> Field</td>
<td></td>
</tr>
<tr>
<td><strong>Measurement unit:</strong> Category</td>
<td></td>
</tr>
<tr>
<td><strong>Logic:</strong> None – all respond</td>
<td></td>
</tr>
<tr>
<td><strong>Data collection level:</strong> Field</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field official GHG calculation</th>
<th>Reporting question: What method was used to calculate the official GHG benefits in this field?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data element name:</strong> Field official GHG calculation</td>
<td></td>
</tr>
<tr>
<td><strong>Description:</strong> List the method used to calculate the official GHG benefits in this field that are reported as part of the project’s aggregate impact.</td>
<td></td>
</tr>
<tr>
<td><strong>Data type:</strong> List</td>
<td></td>
</tr>
<tr>
<td><strong>Measurement unit:</strong> Category</td>
<td></td>
</tr>
<tr>
<td><strong>Logic:</strong> None – all respond</td>
<td></td>
</tr>
<tr>
<td><strong>Data collection level:</strong> Field</td>
<td></td>
</tr>
<tr>
<td><strong>Measurement unit:</strong> Category</td>
<td></td>
</tr>
<tr>
<td><strong>Logic:</strong> None – all respond</td>
<td></td>
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<tr>
<td><strong>Data collection level:</strong> Field</td>
<td></td>
</tr>
<tr>
<td><strong>Measurement unit:</strong> Category</td>
<td></td>
</tr>
<tr>
<td><strong>Logic:</strong> None – all respond</td>
<td></td>
</tr>
<tr>
<td><strong>Data collection level:</strong> Field</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field official GHG ER</th>
<th>Reporting question: What are the estimated total GHG emission reductions (CO2eq) in this field?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data element name:</strong> Field official GHG emission reductions</td>
<td></td>
</tr>
<tr>
<td><strong>Description:</strong> 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.</td>
<td></td>
</tr>
<tr>
<td><strong>Data type:</strong> Decimal</td>
<td></td>
</tr>
<tr>
<td><strong>Measurement unit:</strong> Metric tons CO2eq</td>
<td></td>
</tr>
<tr>
<td><strong>Logic:</strong> None – all respond</td>
<td></td>
</tr>
<tr>
<td><strong>Data collection level:</strong> Field</td>
<td></td>
</tr>
<tr>
<td><strong>Measurement unit:</strong> Metric tons CO2eq</td>
<td></td>
</tr>
<tr>
<td><strong>Logic:</strong> None – all respond</td>
<td></td>
</tr>
<tr>
<td><strong>Data collection level:</strong> Field</td>
<td></td>
</tr>
<tr>
<td><strong>Measurement unit:</strong> Metric tons CO2eq</td>
<td></td>
</tr>
<tr>
<td><strong>Logic:</strong> None – all respond</td>
<td></td>
</tr>
<tr>
<td><strong>Data collection level:</strong> Field</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field official carbon stock</th>
<th>Reporting question: How much carbon has been sequestered in this field?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data element name:</strong> Field official carbon stock</td>
<td></td>
</tr>
<tr>
<td><strong>Description:</strong> 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 CO2eq.</td>
<td></td>
</tr>
<tr>
<td><strong>Data type:</strong> Decimal</td>
<td></td>
</tr>
<tr>
<td><strong>Measurement unit:</strong> Metric tons CO2eq</td>
<td></td>
</tr>
<tr>
<td><strong>Logic:</strong> None – all respond</td>
<td></td>
</tr>
<tr>
<td><strong>Data collection level:</strong> Field</td>
<td></td>
</tr>
<tr>
<td><strong>Measurement unit:</strong> Metric tons CO2eq</td>
<td></td>
</tr>
<tr>
<td><strong>Logic:</strong> None – all respond</td>
<td></td>
</tr>
<tr>
<td><strong>Data collection level:</strong> Field</td>
<td></td>
</tr>
</tbody>
</table>
### 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  
**Measurement unit:** Metric tons CO₂  
**Logic:** None – all respond  
**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 CH₄ = 25 tons of CO₂eq.  
**Data type:** Decimal  
**Measurement unit:** Metric tons CH₄ reduced in CO₂eq  
**Logic:** None – all respond  
**Data collection level:** Field  
**Data collection frequency:** Quarterly

### Field official N2O ER

**Data element name:** Field official N₂O emission reductions  
**Reporting question:** What are the estimated total N₂O emission reductions in this field?  
**Description:** Estimated total nitrous oxide emission reductions based on practice implementation in this field that are reported as part of the project’s aggregate impact. This data element must be entered upon practice completion or annually, as appropriate. Conversion rate is one ton of N₂O = 298 tons of CO₂eq.  
**Data type:** Decimal  
**Measurement unit:** Metric tons N₂O reduced in CO₂eq  
**Logic:** None – all respond  
**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  
**Measurement unit:** Metric tons CO₂eq  
**Logic:** None – all respond  
**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  
**Measurement unit:** Metric tons CO₂eq  
**Logic:** None - all respond  
**Data collection level:** Field  
**Data collection frequency:** Quarterly

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

## 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  
**Measurement unit:** Category  
**Logic:** None - all respond  
**Data collection level:** Field  
**Data collection frequency:** Quarterly

**Allowed values:**
- Yes
- No
- I don't know  
**Required:** Yes
**GHG Benefits - Alternate Modeled**

**Unique IDs**

<table>
<thead>
<tr>
<th>Data element name</th>
<th>Reporting question</th>
<th>Description</th>
<th>Data type</th>
<th>Measurement unit</th>
<th>Logic</th>
<th>Data collection level</th>
<th>Data collection frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm ID</td>
<td></td>
<td></td>
<td>List</td>
<td>Category</td>
<td>None</td>
<td>Field</td>
<td>Annual</td>
</tr>
<tr>
<td>Tract ID</td>
<td></td>
<td></td>
<td>List</td>
<td>Category</td>
<td>None</td>
<td>Field</td>
<td>Annual</td>
</tr>
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<td></td>
<td></td>
<td>List</td>
<td>Category</td>
<td>None</td>
<td>Field</td>
<td>Annual</td>
</tr>
<tr>
<td>State or territory of field</td>
<td></td>
<td>State name (must match FSA farm enrollment data)</td>
<td>List</td>
<td>Category</td>
<td>None</td>
<td>Field</td>
<td>Annual</td>
</tr>
<tr>
<td>County of field</td>
<td></td>
<td>County name (must match FSA farm enrollment data)</td>
<td>List</td>
<td>Category</td>
<td>None</td>
<td>Field</td>
<td>Annual</td>
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</table>

**Commodity type**

<table>
<thead>
<tr>
<th>Data element name</th>
<th>Reporting question</th>
<th>Description</th>
<th>Data type</th>
<th>Measurement unit</th>
<th>Logic</th>
<th>Data collection level</th>
<th>Data collection frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commodity type 1-6</td>
<td></td>
<td>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.</td>
<td>List</td>
<td>Category</td>
<td>None</td>
<td>Field</td>
<td>Annual</td>
</tr>
</tbody>
</table>

**Practice type**

<table>
<thead>
<tr>
<th>Data element name</th>
<th>Reporting question</th>
<th>Description</th>
<th>Data type</th>
<th>Measurement unit</th>
<th>Logic</th>
<th>Data collection level</th>
<th>Data collection frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice type 1-7</td>
<td></td>
<td>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.</td>
<td>List</td>
<td>Category</td>
<td>None</td>
<td>Field</td>
<td>Annual</td>
</tr>
</tbody>
</table>
**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  
- AIREx  
- 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

<table>
<thead>
<tr>
<th>Data element name</th>
<th>Model start date</th>
<th>Reporting question: For what time period are the GHG benefits modeled (model start date)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Date that the model parameters begin.</td>
<td></td>
</tr>
<tr>
<td>Data type</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>Measurement unit</td>
<td>MM/DD/YYYY</td>
<td></td>
</tr>
<tr>
<td>Logic</td>
<td>None – all respond</td>
<td></td>
</tr>
<tr>
<td>Data collection level</td>
<td>Field</td>
<td></td>
</tr>
<tr>
<td>Reporting question</td>
<td>Model start date</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>Date that the model parameters begin.</td>
<td></td>
</tr>
<tr>
<td>Data type</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>Measurement unit</td>
<td>MM/DD/YYYY</td>
<td></td>
</tr>
<tr>
<td>Logic</td>
<td>None – all respond</td>
<td></td>
</tr>
<tr>
<td>Data collection level</td>
<td>Field</td>
<td></td>
</tr>
</tbody>
</table>

### Model end date

<table>
<thead>
<tr>
<th>Data element name</th>
<th>Model end date</th>
<th>Reporting question: For what time period are the GHG benefits modeled (model end date)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Date that the model parameters end.</td>
<td></td>
</tr>
<tr>
<td>Data type</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>Measurement unit</td>
<td>MM/DD/YYYY</td>
<td></td>
</tr>
<tr>
<td>Logic</td>
<td>None – all respond</td>
<td></td>
</tr>
<tr>
<td>Data collection level</td>
<td>Field</td>
<td></td>
</tr>
</tbody>
</table>

### Total GHG benefits estimated

<table>
<thead>
<tr>
<th>Data element name</th>
<th>Total GHG benefits estimated</th>
<th>Reporting question: What is the alternate estimate of the field’s total GHG emission reductions?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Total greenhouse gas emission reductions from practice implementation in the field estimated using an alternate model.</td>
<td></td>
</tr>
<tr>
<td>Data type</td>
<td>Decimal</td>
<td></td>
</tr>
<tr>
<td>Measurement unit</td>
<td>Metric tons CO₂eq</td>
<td></td>
</tr>
<tr>
<td>Logic</td>
<td>None – all respond</td>
<td></td>
</tr>
<tr>
<td>Data collection level</td>
<td>Field</td>
<td></td>
</tr>
</tbody>
</table>

### Total carbon stock estimated

<table>
<thead>
<tr>
<th>Data element name</th>
<th>Total carbon stock estimated</th>
<th>Reporting question: What is the alternate estimate of how much carbon has the field sequestered?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>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 CO₂eq.</td>
<td></td>
</tr>
<tr>
<td>Data type</td>
<td>Decimal</td>
<td></td>
</tr>
<tr>
<td>Measurement unit</td>
<td>Metric tons CO₂eq</td>
<td></td>
</tr>
<tr>
<td>Logic</td>
<td>None – all respond</td>
<td></td>
</tr>
<tr>
<td>Data collection level</td>
<td>Field</td>
<td></td>
</tr>
</tbody>
</table>

### Total CO2 estimated

<table>
<thead>
<tr>
<th>Data element name</th>
<th>Total CO2 estimated</th>
<th>Reporting question: What is the alternate estimate of the field’s total CO2 emission reductions?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Total carbon dioxide emission reductions based on practice implementation in the field estimated using an alternate model.</td>
<td></td>
</tr>
<tr>
<td>Data type</td>
<td>Decimal</td>
<td></td>
</tr>
<tr>
<td>Measurement unit</td>
<td>Metric tons CO₂</td>
<td></td>
</tr>
<tr>
<td>Logic</td>
<td>None – all respond</td>
<td></td>
</tr>
<tr>
<td>Data collection level</td>
<td>Field</td>
<td></td>
</tr>
</tbody>
</table>
### Total CH4 estimated

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

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

- **Data type:** Decimal  
- **Measurement unit:** Metric tons CH₄ reduced in CO₂eq  
- **Logic:** None – all respond  
- **Data collection level:** Field  
- **Select multiple values:** No  
- **Allowed values:** 0-10,000,000  
- **Required:** If project calculates GHG benefits using multiple methods  
- **Data collection frequency:** Annual

### Total field N₂O estimated

**Data element name:** Total N₂O estimated  
**Reporting question:** What is the alternate estimate of the field’s total N₂O emission reductions?

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

- **Data type:** Decimal  
- **Measurement unit:** Metric tons N₂O reduced in CO₂eq  
- **Logic:** None – all respond  
- **Data collection level:** Field  
- **Select multiple values:** No  
- **Allowed values:** 0-10,000,000  
- **Required:** If project calculates GHG benefits using multiple methods  
- **Data collection frequency:** Annual
### Unique IDs

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm ID</td>
<td>Unique Farm ID assigned by FSA</td>
</tr>
<tr>
<td>Tract ID</td>
<td>Unique Tract ID assigned by FSA</td>
</tr>
<tr>
<td>Field ID</td>
<td>Unique Field ID assigned by FSA</td>
</tr>
<tr>
<td>State or territory of field</td>
<td>State name (must match FSA farm enrollment data)</td>
</tr>
<tr>
<td>County of field</td>
<td>County name (must match FSA farm enrollment data)</td>
</tr>
</tbody>
</table>

### GHG measurement method

**Data element name:** GHG measurement method  
**Reporting question:** What measurement method is used to calculate GHG benefits?

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

**Data type:** List

**Measurement unit:** Category

**Logic:** None – all respond

**Select multiple values:** No

**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

**Measurement unit:** NA

**Logic:** None – all respond

**Select multiple values:** No

**Allowed values:** Free text

**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  
**Measurement unit:** MM/DD/YYYY  
**Logic:** None – all respond  
**Select multiple values:** No  
**Allowed values:** 01/01/2023 – 12/31/2030  
**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  
**Measurement unit:** MM/DD/YYYY  
**Logic:** None – all respond  
**Select multiple values:** No  
**Allowed values:** 01/01/2023 – 12/31/2030  
**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  
**Measurement unit:** Metric tons CO2  
**Logic:** None – all respond  
**Select multiple values:** No  
**Allowed values:** 0-10,000,000  
**Required:** If a project takes carbon stock or greenhouse gas emission measurements in this field  
**Data collection level:** Field  
**Data collection frequency:** Annual

### Total field carbon stock measured

**Data element name:** Total field carbon stock measured  
**Reporting question:** What is the total amount of carbon sequestered based on repeat measurements in this field?  
**Description:** Change in carbon stock based on practice implementation in the field calculated from repeat soil sampling in this field. (Results for initial field soil samples should be reported in the ‘Soil sample result’ and ‘Measurement type’ columns.) Conversion rate is one ton of carbon = 3.67 tons of CO2eq.  
**Data type:** Decimal  
**Measurement unit:** Metric tons CO2eq  
**Logic:** None – all respond  
**Select multiple values:** No  
**Allowed values:** 0-10,000,000  
**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**

<table>
<thead>
<tr>
<th>Data element name: Total CH4 reduction calculated</th>
<th>Reporting question: What are the total measured CH4 emission reductions?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong> Total annual methane emission reductions based on practice implementation in the field calculated from in-field measurements. Conversion rate is one ton of CH4 = 25 tons of CO2eq.</td>
<td></td>
</tr>
<tr>
<td><strong>Data type:</strong> Decimal</td>
<td></td>
</tr>
<tr>
<td><strong>Measurement unit:</strong> Metric tons CH4 reduced in CO2eq</td>
<td>Select multiple values: No</td>
</tr>
<tr>
<td><strong>Logic:</strong> None – all respond</td>
<td>Required: If a project conducts soil samples or takes carbon stock or greenhouse gas emission measurements in this field</td>
</tr>
<tr>
<td><strong>Data collection level:</strong> Field</td>
<td>Data collection frequency: Annual</td>
</tr>
</tbody>
</table>

**Total N2O reduction calculated**

<table>
<thead>
<tr>
<th>Data element name: Total N2O reduction calculated</th>
<th>Reporting question: What are the total measured N2O emission reductions?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong> Total annual nitrous oxide emission reductions based on practice implementation in the field calculated from in-field measurements. Conversion rate is one ton of N2O = 298 tons of CO2eq.</td>
<td></td>
</tr>
<tr>
<td><strong>Data type:</strong> Decimal</td>
<td></td>
</tr>
<tr>
<td><strong>Measurement unit:</strong> Metric tons N2O reduced in CO2eq</td>
<td>Select multiple values: No</td>
</tr>
<tr>
<td><strong>Logic:</strong> None – all respond</td>
<td>Required: If a project conducts soil samples or takes carbon stock or greenhouse gas emission measurements in this field</td>
</tr>
<tr>
<td><strong>Data collection level:</strong> Field</td>
<td>Data collection frequency: Annual</td>
</tr>
</tbody>
</table>

**Soil sample result**

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

**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
## 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  
**Measurement unit:** Category  
**Logic:** Respond if yes to ‘Reduction in nitrogen loss’  
**Data collection level:** Field  
**Data collection frequency:** Annual

| Allowed values: |  
|---|---|---|---|
| Kilograms | Metric tons | Pounds | Other (specify) |

**Required:** Yes

### 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  
**Measurement unit:** Category  
**Logic:** Respond if yes to ‘Reduction in nitrogen loss’  
**Data collection level:** Project  
**Data collection frequency:** Annual

| Allowed values: |  
|---|---|---|---|
| Commodity marketing | Producing insets | Producing offsets | I don’t know | Other (specify) |

**Required:** Yes

### 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  
**Measurement unit:** Category  
**Logic:** Respond if yes to ‘Environmental benefits’  
**Data collection level:** Field  
**Data collection frequency:** Annual

| Allowed values: |  
|---|---|---|---|
| Yes | No | I don’t know |

**Required:** Yes

### 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  
**Measurement unit:** Amount  
**Logic:** Respond if yes to ‘Reduction in phosphorus loss’  
**Data collection level:** Field  
**Data collection frequency:** Annual

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

**Required:** Yes
**Reduction in phosphorus loss amount unit**

<table>
<thead>
<tr>
<th>Data element name: Reduction in phosphorus loss amount unit</th>
<th>Reporting question: What is the unit for the reduction in phosphorus losses measured in the field?</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Data type: List</td>
<td>Select multiple values: No</td>
</tr>
<tr>
<td>Measurement unit: Category</td>
<td>Allowed values:</td>
</tr>
<tr>
<td></td>
<td>• Kilograms</td>
</tr>
<tr>
<td></td>
<td>• Metric tons</td>
</tr>
<tr>
<td></td>
<td>• Pounds</td>
</tr>
<tr>
<td></td>
<td>• Other (specify)</td>
</tr>
<tr>
<td>Logic: Respond if yes to ‘Reduction in phosphorus loss’</td>
<td>Required: Yes</td>
</tr>
<tr>
<td>Data collection level: Field</td>
<td>Data collection frequency: Annual</td>
</tr>
</tbody>
</table>

**Reduction in phosphorus loss purpose**

<table>
<thead>
<tr>
<th>Data element name: Reduction in phosphorus loss purpose</th>
<th>Reporting question: What is the purpose of tracking reductions in phosphorus losses?</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Data type: List</td>
<td>Select multiple values: No</td>
</tr>
<tr>
<td>Measurement unit: Category</td>
<td>Allowed values:</td>
</tr>
<tr>
<td></td>
<td>• Commodity marketing</td>
</tr>
<tr>
<td></td>
<td>• Producing insets</td>
</tr>
<tr>
<td></td>
<td>• Producing offsets</td>
</tr>
<tr>
<td></td>
<td>• I don’t know</td>
</tr>
<tr>
<td></td>
<td>• Other (specify)</td>
</tr>
<tr>
<td>Logic: Respond if yes to ‘Reduction in phosphorus loss’</td>
<td>Required: Yes</td>
</tr>
<tr>
<td>Data collection level: Field</td>
<td>Data collection frequency: Annual</td>
</tr>
</tbody>
</table>

**Other water quality**

<table>
<thead>
<tr>
<th>Data element name: Other water quality</th>
<th>Reporting question: Are other water quality metrics being tracked in the field?</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Data type: List</td>
<td>Select multiple values: No</td>
</tr>
<tr>
<td>Measurement unit: Category</td>
<td>Allowed values:</td>
</tr>
<tr>
<td></td>
<td>• Yes</td>
</tr>
<tr>
<td></td>
<td>• No</td>
</tr>
<tr>
<td></td>
<td>• I don’t know</td>
</tr>
<tr>
<td>Logic: Respond if yes to ‘Environmental benefits’</td>
<td>Required: Yes</td>
</tr>
<tr>
<td>Data collection level: Field</td>
<td>Data collection frequency: Annual</td>
</tr>
</tbody>
</table>
### 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  
**Measurement unit:** Category  
**Select multiple values:** No  
**Allowed values:**  
- Sediment load reduction  
- Temperature  
- Other (specify)  
**Logic:** Respond if yes to ‘Other water quality’  
**Required:** Yes  
**Data collection level:** Field  
**Data collection frequency:** Annual

### Other water quality amount

**Data element name:** Other water quality amount  
**Reporting question:** How much reduction in other water quality amount 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  
**Measurement unit:** Amount  
**Select multiple values:** No  
**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  
**Measurement unit:** Category  
**Select multiple values:** No  
**Allowed values:**  
- Degrees F  
- Kilograms  
- Kilograms per liter  
- Metric tons  
- Pounds  
- Other (specify)  
**Logic:** Respond if yes to ‘Other water quality’  
**Required:** Yes  
**Data collection level:** Field  
**Data collection frequency:** Annual
### Other water quality purpose

**Data element name:** Other water quality purpose  
**Reporting question:** What is the purpose of tracking other water quality benefits?  
**Description:** Purpose of tracking other water quality benefits in the enrolled field. If “other” is chosen, enter the appropriate value as free text in the additional column.  
**Data type:** List  
**Select multiple values:** No  
**Measurement unit:** Category  
**Allowed values:**  
- Commodity marketing  
- Producing inlets  
- 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
- **Reporting question:** What is the purpose of tracking water quantity?
- **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
- **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
- **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
- **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
- **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

**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

**Measurement unit:** Category

**Select multiple values:** No

**Allowed values:**
- Commodity marketing
- Producing insets
- Producing offsets
- I don’t know
- Other (specify)

**Logic:** Respond if yes to ‘Reduced erosion’

**Required:** Yes

**Data collection level:** Field

**Data collection frequency:** Annual

### Reduced energy use

**Data element name:** Reduced energy use

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

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

**Data type:** List

**Measurement unit:** Category

**Select multiple values:** No

**Allowed values:**
- Yes
- No
- I don’t know

**Logic:** Respond if yes to ‘Environmental benefits’

**Required:** Yes

**Data collection level:** Field

**Data collection frequency:** Annual

### Reduced energy use amount

**Data element name:** Reduced energy use amount

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

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

**Data type:** Decimal

**Measurement unit:** Amount

**Select multiple values:** No

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

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

**Required:** Yes

**Data collection level:** Field

**Data collection frequency:** Annual

### Reduced energy use amount unit

**Data element name:** Reduced energy use unit

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

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

**Data type:** List

**Measurement unit:** Category

**Select multiple values:** No

**Allowed values:**
- Kilowatt hours
- Other (specify)

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

**Required:** Yes

**Data collection level:** Field

**Data collection frequency:** Annual
### Reduced energy use purpose

**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  
**Measurement unit:** Category  
**Select multiple values:** No  
**Allowed values:**  
- Commodity marketing  
- Producing insets  
- Producing offsets  
- I don’t know  
- Other (specify)  
**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  
**Measurement unit:** Category  
**Select multiple values:** No  
**Allowed values:**  
- Yes  
- No  
- I don’t know  
**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  
**Measurement unit:** Amount  
**Select multiple values:** No  
**Allowed values:** 0-1,000,000  
**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  
**Measurement unit:** Category  
**Select multiple values:** No  
**Allowed values:**  
- Acres  
- Linear feet  
- Other (specify)  
**Required:** Yes  
**Data collection level:** Field  
**Data collection frequency:** Annual
### Improved wildlife habitat purpose

<table>
<thead>
<tr>
<th>Data element name: Improved wildlife habitat purpose</th>
<th>Reporting question: What is the purpose of tracking improved wildlife habitat in the field?</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Data type: List</td>
<td>Select multiple values: No</td>
</tr>
<tr>
<td>Measurement unit: Category</td>
<td>Allowed values:</td>
</tr>
<tr>
<td></td>
<td>- Commodity marketing</td>
</tr>
<tr>
<td></td>
<td>- Producing insets</td>
</tr>
<tr>
<td></td>
<td>- Producing offsets</td>
</tr>
<tr>
<td></td>
<td>- I don’t know</td>
</tr>
<tr>
<td></td>
<td>- Other (specify)</td>
</tr>
<tr>
<td>Logic: Respond if yes to ‘Improved wildlife habitat’</td>
<td>Required: Yes</td>
</tr>
<tr>
<td>Data collection level: Field</td>
<td>Data collection frequency: Annual</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Practice name and code</th>
<th>Follow-up question</th>
<th>Options (select one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alley Cropping (CPS 311)</td>
<td>Species category [select most common/extensive type if using more than one]</td>
<td>Coniferous trees\nDeciduous trees\nShrubs</td>
</tr>
<tr>
<td></td>
<td>Species density (number of trees planted per acre)</td>
<td>1-10,000</td>
</tr>
<tr>
<td>Anaerobic Digester (CPS 366)</td>
<td>Waste storage system prior to installing anaerobic digester</td>
<td>Aerobic lagoon\nAnaerobic digester (complex mix) with energy generation\nAnaerobic digester (plug flow) with energy generation\nAnaerobic lagoon\nComposting\nCovered lagoon (no energy generation or flaring)\nCovered lagoon with energy generation\nCovered lagoon with flaring\nDaily spread\nDeep bedding pack\nDeep pit\nDry lot\nDry stacking/solid storage\nPasture/range/paddock\nPoultry with bedding\nPoultry without bedding (e.g., high rise)\nSlurry tank/basin</td>
</tr>
<tr>
<td></td>
<td>Digester type</td>
<td>Covered lagoon with energy generation\nCovered lagoon with flaring\nCovered lagoon (no energy generation or flaring)\nComplex mix with energy generation\nPlug flow with energy generation\nOther (specify)</td>
</tr>
<tr>
<td></td>
<td>Additional feedstock source (select most common if using more than one)</td>
<td>Food waste\nStraw or bedding\nWastewater\nOther (specify)</td>
</tr>
</tbody>
</table>
### Fuel Type Before Installation

- Coal
- Diesel
- Electricity
- Gasoline
- Kerosene
- Liquified petroleum gas (LPG)
- Natural gas
- Propane
- Wood
- Other (specify)

### Fuel Amount Before Installation

0-1,000,000

### Fuel Amount Unit Before Installation

- Cubic feet (natural gas)
- Gallons (diesel, gasoline, propane, LPG, kerosene)
- Kilowatt-hours (electricity)
- Pounds (wood, coal)
- Other (specify)

### Combustion System Improvement (CPS 372)

### Fuel Type After Installation

- Coal
- Diesel
- Electricity
- Gasoline
- Kerosene
- Liquified petroleum gas (LPG)
- Natural gas
- Propane
- Wood
- Other (specify)

### Fuel Amount After Installation

0-1,000,000

### Fuel Amount Unit After Installation

- Cubic feet (natural gas)
- Gallons (diesel, gasoline, propane, LPG, kerosene)
- Kilowatt-hours (electricity)
- Pounds (wood, coal)
- Other (specify)

### Conservation Cover (CPS 327)

### Species Category (Select Most Common/Extensive Type if Using More than One)

- Brassicas
- Grasses
- Legumes
- Non-legume broadleaves
- Shrubs
### Conservation Crop Rotation (CPS 328)

| Conservation crop type | Brassica  
| Cool season |  
| Grass  
| Legume  
| Warm season  |

| Change implemented | Added perennial crop  
| Reduced fallow period  
| Both  |

| Conservation crop rotation tillage type | Conventional (plow, chisel, disk)  
| No-till, direct seed  
| Reduced till  
| Strip till  
| None  
| Other (specify)  |

| Total conservation crop rotation length in days | 1-120 |

### Contour Buffer Strips (CPS 332)

| Strip width (feet) | 1-100 |

| Species category | Grasses  
| Forbs  
| Mix  |

| Species category (select most common/extensive type if using more than one) | Brassicas  
| Forbs  
| Grasses  
| Legume  
| Non-legume broadleaves  |

### Cover Crop (CPS 340)

| Cover crop planned management | Grazing  
| Haying  
| Termination  |

| Cover crop termination method | Burning  
| Herbicide application  
| Incorporation  
| Mowing  
| Rolling/crimping  
| Winter kill/frost  |

### Critical Area Planting (CPS 342)

| Species category (select most common/extensive type if using more than one) | Grass  
| Grass legume/forb mix  
| Herbaceous woody mix  
| Perennial or reseeding  
| Shrubs  
| Trees  |

| Crude protein (percent) | 0-100 |

| Fat (percent) | 0-100 |

### Feed Management (CPS 592)

| Feed additives/supplements | Chemical  
| Edible oils/fats  
| Seaweed/kelp  
| Other (specify)  |

### Field Border (CPS 386)

| Species category (select most common/extensive type if using more than one) | Forbs  
| Grasses  
| Mix  
<p>| Shrubs  |</p>
<table>
<thead>
<tr>
<th>ATTACHMENT - DATA DICTIONARY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Partnerships for Climate-Smart Commodities Data Dictionary for Recipients</strong></td>
</tr>
<tr>
<td><strong>February 2023</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Filter Strip (CPS 393)</strong></th>
<th><strong>Strip width (feet)</strong></th>
<th><strong>20-1,000</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Species category (select most common/extensive type if using more than one)</strong></td>
<td>Forbs, Grasses, Mix, Shrubs</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Forest Farming (CPS 379)</strong></th>
<th><strong>Land use in previous year</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest, Multi-story cropping, Pasture/grazing land, Row crops, Other agroforestry</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Forest Stand Improvement (CPS 666)</strong></th>
<th><strong>Purpose for implementation</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain or improve forest carbon stocks, Maintain or improve forest health and productivity, Maintain or improve forest structure and composition, Maintain or improve wildlife, fish, and pollinator habitat, Manage natural precipitation more efficiently, Reduce forest pest pressure, Reduce forest wildfire hazard</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Grassed Waterway (CPS 412)</strong></th>
<th><strong>Species category (select most common/extensive type if using more than one)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Flowering Plants, Forbs, Grasses</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Hedgerow Planting (CPS 422)</strong></th>
<th><strong>Species category (select most common/extensive type if using more than one)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Grasses, Shrubs, Trees</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Hedgerow Planting (CPS 422)</strong></th>
<th><strong>Species density (number of trees planted per acre)</strong></th>
<th><strong>1-10,000</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Species category (select most common/extensive type if using more than one)</strong></td>
<td>Forbs, Grasses, Mix, Shrubs</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Herbaceous Wind Barriers (CPS 603)</strong></th>
<th><strong>Species category (select most common/extensive type if using more than one)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Forbs, Grasses, Mix, Shrubs</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Herbaceous Wind Barriers (CPS 603)</strong></th>
<th><strong>Barrier width (feet)</strong></th>
<th><strong>1-1,000</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of rows</strong></td>
<td>1-100</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Mulching (CPS 484)</strong></th>
<th><strong>Mulch type</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gravel, Natural, Synthetic, Wood</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Mulching (CPS 484)</strong></th>
<th><strong>Mulch cover (percent of field)</strong></th>
<th><strong>0-100</strong></th>
</tr>
</thead>
</table>
| Nutrient type with CPS 590 | Biosolids  
|                          | Commercial fertilizers  
|                          | Compost  
|                          | EEF (nitrification inhibitor)  
|                          | EEF (slow or controlled release)  
|                          | EEF (urease inhibitor)  
|                          | Green manure  
|                          | Liquid animal manure  
|                          | Organic by-products  
|                          | Organic residues or materials  
|                          | Solid/semi-solid animal manure  
|                          | Wastewater  
| Nutrient application method with CPS 590 | Banded  
|                          | Broadcast  
|                          | Injection  
|                          | Irrigation  
|                          | Surface application  
|                          | Surface application with tillage  
|                          | Variable rate  
| Nutrient application method in the previous year | Banded  
|                          | Broadcast  
|                          | Injection  
|                          | Irrigation  
|                          | Surface application  
|                          | Surface application with tillage  
|                          | Variable rate  
| Nutrient application timing with CPS 590 | Single pre-planting  
|                          | Single post-planting  
|                          | Split pre- and post-planting  
|                          | Split post-planting  
| Nutrient application timing in the previous year | Single pre-planting  
|                          | Single post-planting  
|                          | Split pre- and post-planting  
|                          | Split post-planting  
| Nutrient application rate with CPS 590 | 0-20,000  
| Nutrient application rate unit with CPS 590 | Gallons per acre  
|                          | Pounds per acre  
| Nutrient application rate change | Decrease compared to previous year  
|                          | Increase compared to previous year  
|                          | No change  
| Pasture and Hay Planting (CPS 512) | Cool-season broadleaf  
|                          | Cool-season grass  
|                          | Warm-season broadleaf  
|                          | Warm-season grass  
| Termination process | Grazing  
|                          | Haying (i.e., cutting and baling)  
|                          | Other (specify)  
| Prescribed Grazing (CPS 528) | Grazing type  
|                          | Cell grazing  
|                          | Deferred rotational  
|                          | Management intensive  
|                          | Rest-rotation  

Version 1.0
<table>
<thead>
<tr>
<th>Species category (select most common/extensive type if using more than one)</th>
<th>Forbs</th>
<th>Grasses</th>
<th>Legumes</th>
<th>Shrubs</th>
<th>Trees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range Planting (CPS 550)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Residue and Tillage Management – No-till (CPS 329)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Species category (select most common/extensive type if using more than one)</td>
<td>Coniferous trees</td>
<td>Deciduous trees</td>
<td>Shrubs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Riparian Forest Buffer (CPS 391)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Species density (number of trees planted per acre)</td>
<td>1-10,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Riparian Herbaceous Cover (CPS 390)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Species category (select most common/extensive type if using more than one)</td>
<td>Ferns</td>
<td>Forbs</td>
<td>Grasses</td>
<td>Legumes</td>
<td>Rushes</td>
</tr>
<tr>
<td>Roofs and Covers (CPS 367)</td>
<td>Roof/cover type</td>
<td>Concrete</td>
<td>Flexible geomembrane</td>
<td>Metal</td>
<td>Timber</td>
</tr>
<tr>
<td>Silvopasture (CPS 381)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Species density (number of trees planted per acre)</td>
<td>1-10,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stripcropping (CPS 585)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crop category (select most common/extensive type if using more than one)</td>
<td>Erosion resistant crops</td>
<td>Fallow</td>
<td>Sediment trapping crops</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of strips</td>
<td>2-100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tree/Shrub Establishment (CPS 612)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Species density (number of trees planted per acre)</td>
<td>1-10,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vegetative Barrier (CPS 601)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Species category (select most common/extensive type if using more than one)</td>
<td>Grasses</td>
<td>Grass forb mix</td>
<td>Grass legume mix</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barrier width (feet)</td>
<td>3-1,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Waste Separation Facility (CPS 632) | Separation type | Chemical (e.g., salts, polymers)  
| | | Mechanical (e.g., screens, presses) 
| | Settling basin | 
| | Most common use of solids | Bedding 
| | Field applied | 
| | Other (specify) | 
| Waste Storage Facility (CPS 313) | Waste storage system prior to installing your waste storage facility | 
| | | Aerobic lagoon 
| | | Anaerobic digester (complex mix) with energy generation 
| | | Anaerobic digester (plug flow) with energy generation 
| | | Anaerobic lagoon 
| | | Composting 
| | | Covered lagoon (no energy generation or flaring) 
| | | Covered lagoon with energy generation 
| | | Covered lagoon with flaring 
| | | Daily spread 
| | | Deep bedding pack 
| | | Deep pit 
| | | Dry lot 
| | | Dry stacking/solid storage 
| | | Pasture/range/paddock 
| | | Poultry with bedding 
| | | Poultry without bedding (e.g., high rise) 
| | | Slurry tank/basin 
| Waste Treatment (CPS 629) | Treatment type | Biological 
| | | Chemical 
| | | Mechanical 
| Waste Treatment Lagoon (CPS 359) | Waste storage system prior to installing waste treatment lagoon | 
| | | Aerobic lagoon 
| | | Anaerobic digester (complex mix) with energy generation 
| | | Anaerobic digester (plug flow) with energy generation 
| | | Anaerobic lagoon 
| | | Composting 
| | | Covered lagoon (no energy generation or flaring) 
| | | Covered lagoon with energy generation 
| | | Covered lagoon with flaring 
| | | Daily spread 
| | | Deep bedding pack 
| | | Deep pit 
| | | Dry lot 
| | | Dry stacking/solid storage 
| | | Pasture/Range/Paddock 
| | | Poultry with bedding 
| | | Poultry without bedding (e.g., high rise) 
| | | Slurry tank/basin 
| Is there a lagoon cover/crust? | Yes  
| | No | 
| Is there lagoon aeration? | Yes  
<p>| | No |</p>
<table>
<thead>
<tr>
<th>Windbreak/Shelterbelt Establishment and Renovation (CPS 380)</th>
<th>Species category (select most common/extensive type if using more than one)</th>
<th>Coniferous trees</th>
<th>Deciduous trees</th>
<th>Shrubs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species density (number of trees planted per acre)</td>
<td></td>
<td></td>
<td></td>
<td>1-10,000</td>
</tr>
</tbody>
</table>
## Appendix A: Climate-smart Agriculture and Forestry Practices

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

<table>
<thead>
<tr>
<th>Project Code</th>
<th>Project Description</th>
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Other CSAF Practices

- Traditional or cultural practices
- Microbial products
- Solar power generation
- Grain bin construction
- Pre-season drainage
## Appendix B: Commodity List

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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](http://www.usda.gov/climate-smart-commodities). USDA may determine that additional environmental and cultural resources review is needed for any particular action under Partnerships for Climate-Smart Commodities. The recipient must not execute any beneficiary contracts under this grant agreement prior to receipt of a letter from USDA that specifically details:

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

A resolution of support is required for projects on Tribal lands from the governing body of the Tribe with jurisdiction over that land, if the applicant is not the Tribe nor an entity owned or
operated by that Tribe. USDA may approve alternative documentation for resolutions when USDA deems necessary and legally sufficient.

IV. Producer Benefits

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

V. Producer Data Protection and Disclosure

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

VI. Other Data and Reporting Requirements

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

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

Prior to execution of this grant, the recipient must provide a shapefile depicting the project boundary for enrollment under this grant. Producer enrollment may not occur outside this boundary without modification of this grant.
Within 30 calendar days of execution of this grant, the recipient must provide to the National Program Officer a website address where enrollment information will be posted for producers for the project associated with this grant. Recipients will be responsible for the following reports:

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

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

The Partnerships Network will be co-chaired by representatives 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.