

Nitrogen Management Project Protocol V2.1

Protocol Summary

Project Definition

The adoption and maintenance of one or more eligible project activities that reduce nitrous oxide (N_2O) emissions, implemented during the cultivation year of an eligible crop, on one or more fields in a project area in an eligible region. Multiple fields may be managed together under a single project, across multiple owners and multiple regions, and multiple projects may also be managed together as a "cooperative."

Project Eligibility Requirements

Activities:

- Synthetic N Rate Reduction (*Required*): Reduction in the annual synthetic nitrogen application rate compared to baseline levels, without going below N demand *AND* –
- Use of an Enhanced Efficiency Fertilizer (EEF) (*Optional*): *Either* the application of a nitrification inhibitor or the conversion from conventional fertilizer(s) to slow release fertilizer (SRF)

Crops: Barley, Corn (Grain and Silage), Cotton, Oats, Sorghum (Grain), Tomatoes, Spring Wheat, and Winter Wheat.

Location: Regions in the contiguous 48 United States for which there is an applicable performance threshold for additionality and quantification.

Start Date: The first day of a new cultivation year (i.e., the first day after completion of the previous harvest) during which an N rate reduction project is implemented. For projects with multiple fields, a start date must be nominated for the project, as well as for each field within the project.

Crediting Period: Ten reporting periods. Reporting periods may be non-consecutive, but monitoring and reporting must be continuous. The crediting period is renewable one time.

Performance Standard Test: The grower must demonstrate that each project field's nitrogen use efficiency (i.e., ratio of crop yield to N applied) exceeds the county average.

Legal Requirement Test: Project must exceed any GHG emission reductions that would have occurred as a result of compliance with federal, state, or local regulations that require the adoption or continued use of eligible project activities on the field. Project developer must sign the Attestation of Voluntary Implementation for each verification period.

Ecosystem Services Payment Stacking: The stacking of offsets with other payments (such as Natural Resources Conservation Service payments) may be permissible in some circumstances.

Regulatory Compliance: Project must be in compliance with all relevant federal, state, and local regulations. Project developer must sign the Attestation of Regulatory Compliance for each verification period.

Reporting and Verification Schedule: Project must report annually. Project must undergo verification for each reporting period. Projects are provided additional flexible reporting and verification options. Risk-based and random sampling is used for verification of projects with multiple fields.

Field Is Ineligible If:

- # There is no county nitrogen use efficiency threshold for its crop-region combination, to assess additionality
- # The NMQuanTool is incapable of quantifying emission reductions for its crop-region combination
- \ddagger The activity-crop-region scenario, in combination with a switch to no till in the short-term (<10 years) results in an increase in N₂O emissions
- ‡ Located on histosols, highly erodible lands, and/or wetlands