

# Reducing Enteric Methane Emissions from Beef Cattle



### Project Type Description

Enteric fermentation is a natural digestive process that happens in ruminant animals like cattle. Microbes in their first stomach compartment, called rumen, help break down food for digestion. During this process, some of the food turns into methane, a powerful greenhouse gas (GHG), which cattle release into the air when they burp. Carrying out activities such as improved management and diet reformulation can lower the enteric methane emissions from cattle and generate federal offset credits.

### Eligibility

A project implemented following the protocol must meet the following conditions to register in Canada's GHG Offset Credit System:

- › **Location:**
  - The project takes place in any province or territory in Canada, except Alberta.
- › **Additionality:**
  - GHG emission reductions generated by the project are not legally required.
  - The project activities reduce GHG emissions beyond what would have been achieved without the project (baseline scenario).
- › **Baseline conditions:**
  - Beef cattle were present at the project site for at least three years.
  - The cattle in the baseline scenario were raised for beef production and fed in confinement areas.
- › **Eligible project activities:**
  - Cattle in the project scenario are raised for beef production and fed in confinement areas.
  - One or more activities from the following categories are carried out:
    - Improved management;
    - Diet reformulation;
    - Feed additives;
    - Growth promoters;
    - Other innovative strategies.
  - The activities reduce GHG emissions compared to the baseline scenario and can be quantified following the protocol.
- › **Project start date:**
  - The first day an eligible project activity is carried out at the project site is the project start date.
  - The project start date is on or after January 1, 2017.

The protocol cannot be used for projects with grazed cattle or dairy cattle. The use of novel anti-methanogenic feed additives or gut modifiers are not currently eligible activities under this protocol.

### Quantification

GHG emission reductions generated by a project are based on the difference between the GHG emissions that would have occurred without the project (baseline scenario) and the GHG emissions that occur when the eligible project activities are carried out (project scenario). GHG emission reductions are quantified using the emission intensity which considers the GHG emissions per kilogram of beef produced. This approach allows to change the number of cattle on the farm from year to year and still generate offset credits from carrying out eligible project activities. GHG emissions from enteric methane, manure methane, and manure nitrous oxide are included.

### Measurement and Data

The proponent must measure various aspects related to the diet quality, amount of feed given, and growth of cattle during the project. This data is used to quantify GHG emissions in the baseline and project scenarios.

## Reporting and Verification

The proponent must prepare a project report for each reporting period. The first period is one year, and subsequent periods can be up to three years. Project reports must be verified by an accredited verification body.

## Other Key Requirements

- › GHG emission reductions must be unique. The same reductions cannot earn credits under another offset system, program or other GHG reduction mechanism.
- › The proponent must have exclusive entitlement to claim the offset credits issued for the GHG emission reductions generated by the project.
- › Projects can be aggregated, but they must be located in the same province or territory.
- › 3% of credits issued for a project are deposited into the environmental integrity account.
- › A project can generate credits for 10 years, and there is a potential to renew the crediting period twice.

## Disclaimer

The information in this document is intended for communication purposes only and reflects the requirements contained within version 1.0 of the [Reducing Enteric Methane Emissions from Beef Cattle](#) federal offset protocol published in October 2025. It does not replace the requirements set out in the protocol or the [Canadian Greenhouse Gas Offset Credit System Regulations](#). Please refer to these documents for a complete list of rules and requirements. In the event of any conflict or difference between this protocol overview and any legal requirements, the latter prevail.

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