

Base Protocol Plan for Including Edible Oils in Beef Feeding Regimes

Fast Track Protocol Development Process

Submitted: March 2009

Contents

Part I: Identification of the Protocol Developer.....	3
1.1 Title of the Base Protocol:.....	3
1.2 Lead Protocol Developer.....	3
1.3 Initiating Entity	3
1.4 Rationale for initiating the development of the protocol:	3
Part II: Base Protocol Applicability and Development Approach.....	5
2.1 Description of the Project Type:	5
2.2 Description of Project-specific Technology (if applicable)	5
2.3 GHG(s) that will be reduced:	5
2.4 Description of how real reductions will be achieved:	5
2.5 Base Protocol Flexibility (optional):	6
2.6 Federal, Provincial/Territorial Legal Requirements & Climate Change Incentives	6
2.6.1 List of potentially relevant requirements:	6
2.6.2 List of potentially relevant climate change incentives:.....	6
2.7 Building on existing protocols or proprietary information (if applicable).....	7
2.8 Explanation of how the existing protocol will be adapted:	7
2.9 Explanation of the nature of the proprietary information and how it might be used in the Base Protocol:.....	8
Part III: Declaration / Consent / Signature	9

Part I: Identification of the Protocol Developer

1.1 Title of the Base Protocol:

Quantification Protocol for Including Edible Oils in Beef Feeding Regimes

1.2 Lead Protocol Developer

Organization:	Blue Source Canada ULC
Address:	Suite 2210, 777 – 8th Ave SW
Name:	Keith Driver
City:	Calgary
Title:	Vice-President, Operations
Province:	Alberta
Postal Code:	T2P 3R5
Email:	keithd@bluesourceCAN.com
Website:	http://www.bluesourceCAN.com
Telephone:	(403)262-3026
Fax:	(403)269-3024

1.3 Initiating Entity

Organization:	
Address:	
Name:	
City:	
Title:	
Province:	
Postal Code:	
Email:	
Website:	
Telephone:	
Fax:	

1.4 Rationale for initiating the development of the protocol:

There is industry support behind the development of this protocol and a recognized opportunity to generate greenhouse gas offset credits.

Through the working group, members strive to ensure that protocols are:

- Based on a complete life-cycle analysis with consideration of all relevant GHG sources and sinks;
- Consistent in their treatment of cross-cutting issues;
- Based on accurate and unbiased best science and best practice guidance;
- Fully transparent; and
- Conservative so as to ensure that environmental integrity is maintained.

Part II: Base Protocol Applicability and Development Approach

2.1 Description of the Project Type:

The protocol quantifies the reduction in enteric methane emissions from cattle as a result of changes in the finishing diet. For this protocol to be applicable, edible oils in the range of 4% to 6% (by dry weight) must be included in some portion of the cattle feeding regime during the finishing period. Edible oils must be in the range of 4% to 6% as this is the range at which experts are confident that the oil content actively suppresses methanogenesis for a 20% reduction in enteric emissions. It is not recommended that edible oils be fed above 6% due to potential toxicity issues.

The baseline condition for projects applying this protocol is defined as the operating conditions at the project farm prior to the change in feeding practices. The baseline condition would be defined as a feeding regime that does not include edible oils in the range of 4% to 6% (by dry weight) within a three year period prior to project implementation for given weight groupings.

The boundary of the Beef Feeding Protocol encompasses the feedlot where the cattle are finished, the facility where manure is stored, and the land where the manure is spread. The project may include a number of individual pens and structures, and a variety of enterprises, but all project farms will address the activities within the boundary of this Protocol.

The emissions associated with cattle production are included in Canada's GHG Inventory.

2.2 Description of Project-specific Technology (if applicable)

N/A

2.3 GHG(s) that will be reduced:

- CO₂;
- CH₄; and
- N₂O

2.4 Description of how real reductions will be achieved:

The opportunity for generating carbon offsets with this protocol arises from the direct and indirect reductions of greenhouse gas (GHG) emissions resulting from modification of the finishing diet for cattle to include edible oils.

This protocol quantifies emissions reductions on the basis of for groupings of cattle by incoming and outgoing weight. Thus, the starting point for all quantification is the

number, weights, diets (quantity and composition), and days on feed for the cattle produced in the project.

2.5 Base Protocol Flexibility (optional):

Flexibility in applying the quantification protocol is provided to project developers in four ways:

1. Farms that do not have three years of baseline data as per the days on feed for cattle of specific incoming weights may establish a baseline condition based on a combination of available data and industry practise in their region or operation;
2. Farms that manage to reduce the length of the feeding regimes for finishing cattle may also apply the Days on Feed protocol in parallel with this protocol should it be applicable;
3. Farms where the incoming weights and days on feed vary across groups of animals, these animals can be grouped in discreet units and tracked individually. In this case, the baseline condition may need to be calculated relative to the groups of animals with similar characteristics of incoming and finishing weights; and
4. Site specific emission factors may be substituted for the generic emission factors indicated in this protocol document. The methodology for generation of these emission factors must ensure reasonable accuracy.

If applicable, the proponent must indicate and justify why flexibility provisions have been used.

2.6 Federal, Provincial/Territorial Legal Requirements & Climate Change Incentives

2.6.1 List of potentially relevant requirements:

N/A

2.6.2 List of potentially relevant climate change incentives:

N/A

2.7 Building on existing protocols or proprietary information (if applicable)

Registered name of protocol:	Quantification Protocol for Including Edible Oils in Beef Feeding Regimes
System for which protocol was developed:	Alberta Offset System
Date protocol was completed and approved:	May 2008
Developer of the protocol	
Name:	Keith Driver
Organization:	Blue Source Canada ULC

2.8 Explanation of how the existing protocol will be adapted:

The existing seed protocol will be adapted through an inclusive, transparent and consistent process coordinated through the working group's broad membership. In particular, work will be conducted by a protocol technical working group formed specifically to address adaptation of the protocol in question and potentially other related protocols. Cross-cutting issues groups will also be formed to address issues affecting a range of protocols, and to ensure consistency in approach.

Adaptation of the existing protocol will follow the multi-step process outlined below:

- Collection of technical and background information related to development, review and approval of the protocol to ensure transparency through the adaptation process;
- Review of the protocol to ensure consistency with Canada's "Turning the Corner" action plan and the requirements of the federal offset system. Any areas of inconsistency with the protocol documentation will be identified in this step;
- Review of existing provincial and federal regulations that could impact the surplus nature of the emission reductions from the project activity. This phase will serve to address the surplus requirement relative to applicable federal and provincial legislation;
- Review of the seed protocol's baseline condition to address the incremental nature of the project activity in the Canadian context. This review will include an assessment of the baseline's compatibility with Canadian best practices and potential alternative baseline approaches;
- Review of the protocol to ensure the quantification methodology is consistent with best practice guidance, and applicable to the range of Canadian geographical and climatic conditions;

- Review of the protocol's measurement and monitoring requirements to ensure they are reflective and reasonable in the Canadian context. This will include a review of data collection requirements and frequency of measurement and monitoring;
- Consideration of other environmental impacts and criteria air contaminants, as required by the "Turning the Corner" action plan;
- Additional analysis to address any outstanding issues identified to date that may present a significant challenge to protocol adaptation. This step will include assembly of the technical working group to drive further analysis;
- Redrafting of protocol to address technical issues identified in the previous steps and to ensure it meets the technical and format requirements of the Canadian offset system;
- Review of any material changes made to the quantification approach using project data to ensure the revised methodology is generally consistent with the original documentation;
- Cross-protocol review of the adapted protocol with other protocols adapted by working group, to ensure consistency in scope and approach to quantification; and
- Compilation of documents required for submission of the final draft protocol to Environment Canada for approval. The results of all stages of the review and adaptation process will be summarized and compiled to support Environment Canada's review.

Given the volume of work required under short timelines, multiple agencies will be required to provide a range of technical inputs, perspectives and capacity. To accomplish required tasks and meet timelines, technical resources within the working group will be mobilized to provide input; drawing on group member's significant experience in protocol and project development.

The working group will draw on the experience of Climate Change Central to manage the adaptation process and to ensure broad stakeholder involvement.

2.9 Explanation of the nature of the proprietary information and how it might be used in the Base Protocol:

We are anticipating full disclosure and transparency; therefore no proprietary information should be required.

Part III: Declaration / Consent / Signature

The undersigned acknowledges that the undersigned has read, understood and that the undersigned agrees to abide by all the terms, conditions, instructions, and notices set out in the Guide for Protocol Development.

The undersigned acknowledges that the review of, and comments regarding, this base protocol plan or portions thereof does not ensure that the base protocol plan or portions thereof will be used in an Offset System Quantification Protocol by Canada's Offset System for Greenhouse Gases.

The undersigned is legally authorized to use any and all proprietary (or protected) information found in and submitted with the base protocol plan.

The undersigned is duly authorized to sign this application.

The undersigned declares that the base protocol plan submitted for Canada's Offset System for Greenhouse Gases and the information provided on, with or pursuant to this application is true, accurate and complete.

The undersigned consents to the public disclosure, in any manner including, without limitation, posting on Offset System website, of all the information in the base protocol plan and the information submitted with the base protocol plan.

By protocol developer (individual, or an organization's or a corporation's duly authorized representative, date, name, title)

By:

Name:

Title:

Signature: _____

Signed this ____ day of _____, 2009