

SCIENCE COORDINATION WORKSHOP

DEVELOPMENT OF A CATTLE RESIDUAL FEED INTAKE

PROTOCOL:

MARCH 16, 2009



BACKGROUND

Carbon credits or "offsets" generated from the agriculture sector are currently a compliance option for large greenhouse gas (GHG) emitters in Alberta and also under the Federal "Turning the Corner" Climate Change Plan. To date in Alberta over 1 million tonnes of agricultural offsets have been created and verified in the Alberta Offset System, with over half a million used for compliance purposes by regulated entities in 2007, the first compliance year. **Government approved Quantification Protocols are a requirement under both systems for creating compliance-quality offsets.**

Climate Change Central is coordinating a technical science review on behalf of the Government of Alberta, Alberta Agriculture and Rural Development. Part of their mandate is to promote made-in-Alberta offset opportunities by creating standardized "quantification protocols" available for producers or other groups who wish to create offset credits for sale in the evolving compliance-based carbon markets in North America.

Alberta Agriculture and Rural Development are continuing their efforts to creating agricultural related protocols for use in the Alberta Offset System. A Technical Working Group (TWG) has committed to providing a standardized protocol, based on the best available science on GHG emission reductions associated with residual feed intake in cattle, to the Alberta Protocol Development Process. The group is following the established process for coordinating scientific information and consensus-building according to the ISO 14064-2 GHG Project-Based Standard and past procedures under collaborative Federal-Provincial-Territorial Offset Quantification Team processes.

PURPOSE

To engage key scientific researchers, technical experts and project developers at home and abroad, to provide advice and agreement on standardized protocols, and best available science on GHG emission reductions from residual feed intake in cattle.

The workshop will:

- Focus on and achieve, either during the one-day workshop or through follow-up work, the desired workshop outcomes listed below. These will be used to support the developing GHG offset opportunities in the cattle sector:
 - Acceptable GHG reductions that can be confidently advanced for genetic selection in the beef herd for residual feed intake (RFI), building upon established knowledge and science;
 - Discussion on a preferred baseline approach;
 - Identification of and priority for areas where additional work and tools that need to occur to support RFI project implementation.

General Process:

- Use a combination of a literature review in the form of a Science Discussion Document, sharing recent research results, researcher experience and group discussion of ideas and recommendations to achieve the workshop outcomes.
- The day will be spent on understanding the synthesis science and work towards consensus on proposed options for quantification science and links to RFI practices.

AGENDA - MARCH 16, 2009

9:00 - 4:30PM

LOCATION:

Executive Royal Inn Hotel and Conference Centre
(Across Highway 2 from the Edmonton International Airport)
8450 Sparrow Drive,
Leduc, Alberta
(780) 986-1840

8:30 **BREAKFAST**

9:00 **WELCOME AND INTRODUCTIONS** – Review and Confirm Agenda
Amanda Stuparyk, Climate Change Central

9:15 **SETTING THE SCENE** – Carbon Offsets Policy and Protocol Development in Alberta
Amanda Stuparyk, Climate Change Central

10:00 **OVERVIEW OF GHG EMISSIONS QUANTIFICATION SCIENCE IN BEEF HERDS**– Discussion of quantifying GHG emissions from Cattle - IPCC I/II methods and Beef Quantification Protocols – *Dr. John Basarab, ARD*

10:30 **REFRESHMENT BREAK**

11:00 **WHAT IS RESIDUAL FEED INTAKE** – How is it Measured, What are the Economics and What is the basis for the GHG and Genetic Relationships with RFI in Cattle – *Dr. Paul Arthur, McArthur Institute, NSW, Australia*

12:00 **LUNCH**

1:00 **RELATIONSHIPS BETWEEN RFI DIGESTIBILITY AND METHANE/MANURE PRODUCTION IN CATTLE** - What do we know about impacts on digestibility of the diet in lower RFI cattle – *Dr. Erasmus Okine, UofA*

1:30 **HOW MIGHT WE DEVELOP A PROTOCOL FOR RFI IN CATTLE** – Application and adoption of RFI Technology in the Beef Industry, Considering Quantification and Verification Procedures - *Dr. Paul Arthur, McArthur Institute*

2:30 **REFRESHMENT BREAK**

3:00 **DISCUSSION AND RATIFICATION OF OPTIONS**
Fiona Law, Computouch

4:15 **SUMMARY AND WORKSHOP CLOSE**
John Basarab, ARD and Amanda Stuparyk, Climate Change Central