

CONSULTATION WORKSHOP FOCUS SESSION
Nitrous Oxide Emission Reduction Protocol (NERP)
Calgary, Alberta
October 28 and 29, 2008

DISCUSSION GUIDE
Measurement and Emission Factors Group

Desired Workshop Outcomes:

- ❑ Validate fundamentals of the Protocol — scope, baseline, incrementality, other interactions.
- ❑ Participants understand the Intergovernmental Panel on Climate Change's (IPCC) Tier 1 guidance, and Canada's specific methodology, derived from the IPCC to develop N₂O Emission Factors for the National Emissions Inventory.
- ❑ Ensure compatibility with, and linkage to, other protocols.
- ❑ Agree on knowledge needed over the next five years; goal of developing a Science Plan.

Process and Reporting:

- Review the information provided in the Science Discussion Document and decisions made during Day One.
- Develop options consistent with the area of focus and the related workshop outcomes
- Provide recommendations to the larger group for each option proposed and for each recommendation indicate what response you suggest be provided from this workshop:

1. *"Accept the option today for inclusion in a Nitrous Oxide Emission Reduction Protocol"; or,*
2. *"This option will be acceptable but needs more work following the workshop"*

Note: *If "2" is recommended then the group should suggest where we go from here: who, possible approaches, time frame.*

Also:

- Gaps in research, knowledge and/or industry coordination in this area which are identified as part of the recommendation or during the discussion should be noted for further discussion during the "Gaps" portion of the workshop later in the day.
- The Content Leader will prepare, with the Process Leader's help, a PPT presentation (see template) to the larger group at which time options will be evaluated.
- The Content Leader will present the PPT presentation of recommendations, with background on each recommendation as appropriate, in anticipation of the larger group being polled as to their level of acceptance of each recommendation.

Related Questions from the *Science Discussion Document*

NOTE: These items are identified in the Document as critical to address. The way they are phrased below is a guideline, the Group may decide to modify the way the option is presented and the group may identify new options through their discussion of the issues.

1. Decision point 4.2.3.a: The NERP should be designed to address only on-farm GHG reductions associated with innovative management of N (i.e., consider reductions only in control of the farm operator).

Agree _____ Disagree _____

Decision point 4.2.3.b: The NERP should be designed to address only emissions of N₂O associated with innovative management of N. (i.e. new actions)

Agree _____ Disagree _____

Decision point 4.3.1: Baseline scenarios

Historic Benchmark (farm-specific) _____
 Performance Standard (regional) _____
 Projection-based (simulation model) _____
 Other - _____

Decision point 4.3.2: Baseline years.

Standardized baseline year _____
 Year preceding project _____
 Three-year average — immediately preceding project _____
 Three-year average — representative years _____
 Other _____

Decision point 4.3.3: To demonstrate the NERP practices are not ‘business-as-usual’, the NERP fulfills the following tests:

Surplus to regulation _____
 Investment barriers _____
 Technological barriers _____
 Institutional barriers _____
 Not common practice _____

Decision point 4.4.1: To ensure functional equivalence, emissions per hectare under the conditions of the NERP must be compared for each crop to the emissions per hectare for the same crop estimated during the baseline period.

Agree _____ Disagree _____

Additional Considerations:

- Do the greenhouse gas emissions from the use of fuel vary much within the BMPs suggested in the 3 performance levels? If so, are they material, and should they be addressed in the eventual protocol? (Bearing in mind the ISO14064-2 standard will require a full life cycle assessment of baseline and project)
- To account for carbon sequestration gains from no or reduced till, could the protocol be applied in conjunction with the approved Tillage System Management Protocol? Or, with a future reduced summerfallow management protocol?

- Are there any other regional differences that are not accounted for in the National Emissions Inventory methodology for deriving N₂O emission factors for regions?
- What is the appropriate scale or resolution for applying the N₂O emission factors? (ecodistrict, ecoregion, ie soil zone) or reporting regions like the Tillage protocol?
- Should Legumes be incorporated into the Protocol as a way of decreasing N demand and applied N fertilizers? If so, how?
- Are there unique considerations for the use of manure in the 3 performance levels? If so how should they be addressed in this First Generation of the NERP Protocol? (Recognizing that in 5 years we will have the Next Generation of the NERP protocol).