Agriculture can help Canada meet its Greenhouse Gas Targets

World attention on climate change continues to increase.

Canada is under pressure meet Greenhouse Gas (GHG) targets.

Agriculture can play a significant role in meeting the targets if the proper structures are put in place that will incent producers to adopt technologies or make agronomic changes that will either reduce or more importantly, remove significant quantities of GHG from the environment.

For this to happen we need to create a system that will drive the adoption of GHG reduction or removal technologies pulling more GHGs out of the atmosphere creating "credits" (project or protocol development).

We then need to have a transparent, cost-effective method of registering and validating these credits and handling the credit transactions.

Lastly, we need to ensure that there are no barriers to pricing; there should be free price discovery with no "caps" including Alberta's limit of $15.00 per credit. .

On March 10th, 2008 the Federal Government of Canada released **"*Turning the Corner – Canada's Offset System for Greenhouse Gases".***

This document outlines the government's strategy for creating a voluntary Offset System that will be administered as a program under the ***Canadian Environmental Protection Act, 1999, section 322***.

The report recommends development of protocols to create Offset Credits and then spells out the steps necessary for project registration, reporting and verification of the Offsets along with the subsequent certification and issuance of Offset Credits. All offset transactions are based on 1 CO_2e which creates an Offset Credit. A CO_2e is an equalization unit that expresses the equivalent greenhouse gas effect of one tonne of Carbon Dioxide ($1CO_2e$ = 1 Tonne of CO_2 = 1 Offset Credit).

This Report provides the basis for a national framework for the trading of Carbon Offsets.

The Alberta Government, as part of its efforts to address climate change, has introduced legislation to limit greenhouse gas emissions in the province: the ***Climate Change and Emissions Management Act (July 2007)***.

Alberta facilities that emit more than 100,000 tonnes of greenhouse gases a year will be required to reduce their emission intensity by 12 per cent of baseline under the ***Act (effective March 31st, 2008)*** and then 2 percent per year thereafter.

These Large Final Emitters (LFEs) have three ways to meet these targets:

1. Reduce actual GHG emissions which is expected to occur over time as new technology is implemented.
2. Pay into the Tech Fund: *a $15.00 per CO_2e (per GHG Tonne) fee creating a fund that will encourage the development of new GHG technology*.
3. Purchase offset credits from suppliers such as agricultural producers who can demonstrate positive and quantifiable GHG reduction initiatives. These transactions require protocols, verification, registration and clearing systems.

The net objective of GHG initiatives should be to reduce overall GHG emissions; however, it takes time and huge capital investment for most of the Large Final Emitters to adopt new technologies to facilitate these goals.

Interim, these LFEs can purchase Offset Credits (CO2e's) from sectors that are GHG positive. Agriculture is such a sector.

Agriculture can play an important role in helping Canada meet its GHG targets through three methods:

1. Reduction of Nitrous Oxide Emissions (N_2O)
2. Reduction of Methane Emissions (CH_4)
3. Reduction and Removal of Carbon Dioxide (CO_2)

As an industry, agriculture has tremendous potential to accelerate the adoption of technology or make changes in traditional agronomic practices that will enhance the nation's GHG strategies.

The key to helping Canada meet its targets lies in the proper structure of programs that "incent" the adoption of GHG reduction and removal initiatives.

Since farmers can make changes to practices faster than most industrial complexes, agriculture can "pull" GHGs out of the environment, creating "Offset Credits" which can be used by Canadian industries in efforts to help Canada meet its obligations.

However, the incentives must be valued high enough in the marketplace to cause agricultural producers to invest in making the necessary technological and agronomic innovations.

Under the current Alberta system there is little incentive for LFEs to pay anything more than $15.00 per tonne to farmers for their offset credits since at that point, it is simply easier to pay the $15.00 per tonne penalty into the provincial Tech Fund.

This contrasts with the European price which on March 12th, 2008 was €22.03 (EUA DEC) or $33.88 CAD per offset credit.

At $8.00 to $12.00 per tonne the incentive for farmers to implement GHG reduction or removal technologies is simply not there.

Example: For a farmer to move to a low disturbance seeder that will minimize tillage, reduce carbon degradation and increase soil organic matter (ultimately pulling GHG's from the atmosphere), requires a significant capital investment. Under the current pricing model, the economic incentive to make this change (based on environmental reasons) is not adequate given the prevailing provincial cap.

National and global Greenhouse policies hinge on either the reduction or removal of GHGs from the atmosphere. Agriculture can do both "if" the incentives to do so are adequate and if there are enough recognized protocols for farmers to pursue.

Example: Under Alberta's *Act*, there is a Tillage Protocol where farmers can generate offsets for adopting reduced or zero tillage practices yet there currently does not exist a protocol which would incent a grower to turn marginal farmland into permanent cover. Nor is there a protocol for forage production which has tremendous GHG removal implications.

We need to ensure that there are more protocols for farmers to pursue and we need to ensure that farmers can trade the created offsets freely at prices that truly reflect their worth vis-à-vis global market pricing.

These changes would result in agriculture creating additional offset credits for use by the Canadian industrial sector.

The right system would provide benefits to Canada's environment, the industrial sector and the agricultural sector.

In order for agriculture to have a positive and significant impact on GHG reduction, three things need to be developed: more protocols for agriculture, a cohesive National Program for all producers to participate in overall GHG reduction, and a streamlined, cost-effective system to facilitate registration, verification and clear offset processes on a national basis.

Recommendations

Consequently, the Canadian Chamber of Commerce recommends that the Government of Canada:

1. Increase opportunities for agricultural offset trading.
2. Expedite the development of a broader range of protocols that encourage agricultural producers to adopt practices and technologies that reduce GHG emissions or increase the rate of GHG removals.
3. Establish cost-effective verification guidelines for generated offsets.
4. Develop a cost-effective national registry to facilitate offset clearance.
5. Develop a domestic trading system in order to encourage both domestic and international offsets trading, thereby ensuring maximum liquidity and international recognition of Canadian offsets.
6. Allow for the pricing of carbon credits to be free-market driven, without cap and with no pricing differentiation on the basis of the source of the carbon credits.
7. Establish criteria to regulate the performance of carbon credit "Aggregators" which collect multiple offset producers into larger blocks in order to better facilitate transactions.