



Soil Conservation Council of Canada Our History

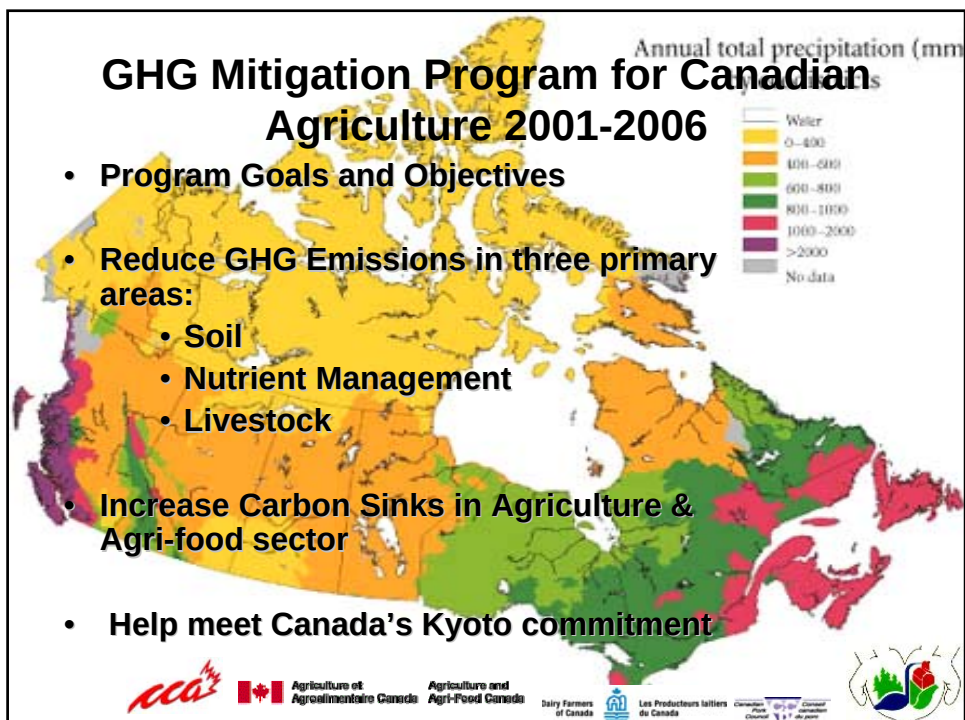
- 1984, the Standing Senate Committee on Agriculture, Fisheries and Forestry was authorized to examine soil and water conservation in Canada.
- Conclusion: Urgent need to develop programs to promote soil and water conservation practices.
- 1987. the Soil Conservation Council of Canada was founded.
- Since then SCCC has been active in discussing these issues and helping develop policies for Canadian agriculture in the areas of soil and water conservation.

Soil Conservation Council of Canada Our Partners



GHG Mitigation Program for Canadian Agriculture 2001-2006

- Program Goals and Objectives
- Reduce GHG Emissions in three primary areas:
 - Soil
 - Nutrient Management
 - Livestock
- Increase Carbon Sinks in Agriculture & Agri-food sector
- Help meet Canada's Kyoto commitment



Agriculture et
Agroalimentaire Canada

Agriculture and
Agri-Food Canada

Dairy Farmers
of Canada



Les Producteurs laitiers
du Canada

Canadian
Council of Agriculture

Conseil canadien
de l'agriculture

Canadian
Council of Agriculture

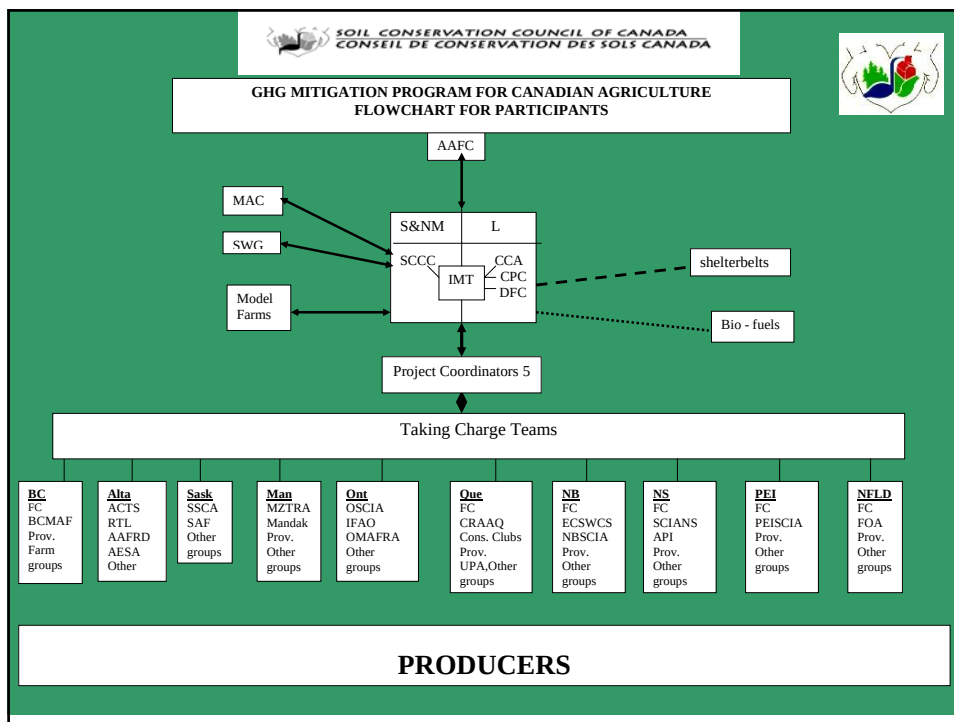
Conseil canadien
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Activities & Deliverables

- TC Teams conduct annual / regional workshops to plan and develop BMP Demonstrations
- Establish Demonstrations of BMPs in targeted areas
- Conduct Farmer meetings and conferences to present information learned from demonstrations

GREENHOUSE GAS MITIGATION PROGRAM for CANADIAN AGRICULTURE

Commodity Organization: Soil Conservation Council of Canada Summary of 2004/2005 demonstration/awareness activities



Team	# Demos	Field Days	# Attending	Mtgs/Wksp	# Attending
BC	35	5	345	11	597
AB	41	65	2929	76	4596
SK	25	31	1571	50	2318
MB	22	127	2285	12	250
ON	30	20	1280	52	15140
QC	375	45	6117	10	979
NS	20	0	0	10	1220
NB	17	7	323	5	1275
NF	6	15*	99	2	235
PEI	18	3	169	4	255
Total	589	318	15118	232	26865

In Atlantic Canada the teams set up booth displays at the Atlantic Agri-Fest in August where over 15,000 producers attended

* NF didn't conduct field days but hosted individual farm visits

BMP Demos

Southern BC:

- Sustainable Dairy Soil /Crop Management
- Management of Poultry Manure and Composted Urban Yard Waste
- Improved Hog Manure Management
- Agroforestry



Northern BC:

- Direct Seeding Forages
- Nutrient (NH₃) Application on Grain & Oilseed Crops
- Nutrient Management on Forage & Forage Seed Crops



Peace River Forage Association
of British Columbia



2004 GHGMP in Saskatchewan

Soil Management BMPs

Blair McClinton, PAg
Saskatchewan Soil
Conservation Association

- Low Disturbance Direct Seeding (No-till)
- Reduced summerfallow
- Forage establishment
- Forage maintenance/fertility
- Riparian area management



Field Crop Projects

Activity	Purpose	# of sites	Treatments
Cover Crops for Carbon Sequestration and Nitrogen Management	Evaluate growth and nutrient uptake of cover crops Carbon sequestration N ₂ O emission reduction	1 hub 6 satellites	Oilseed radish, buckwheat, volunteer winter wheat, ryegrass With and without manure Nitrogen rates
Advancing Nitrogen Use Efficiency on Livestock Farms	Demonstrate BMPs for nutrient management N ₂ O emission reduction Reduce input costs	1 hub 9 satellites	Nitrogen rates
Building Soil Structure and Managing Nitrogen With Strip Tillage Corn Systems in Heavy Clay Soils	Tillage systems on clay soils Nitrogen rates and timing N ₂ O emission reduction	3 hub 2 satellites	Conventional, no-till and strip tillage Timing of planting Timing and rates of nitrogen
Optimizing Environmental Efficiencies with Precision Toolbars	Evaluation of strip tillage and nitrogen application Carbon sequestration N ₂ O emission reduction	1 hub 6 satellites	Conventional, no-till and strip tillage Nitrogen rates and split applications



Ontario



Québec

Soil & Nutrient Management Demo

No-till and minimum till demonstrations

- On-farm no-till demonstration trials with 75 producers
- Comparison plots of minimum tillage practice with 150 producers
- Technical and economical data base on soil management practices demo (500 fields) MAPAQ responsible

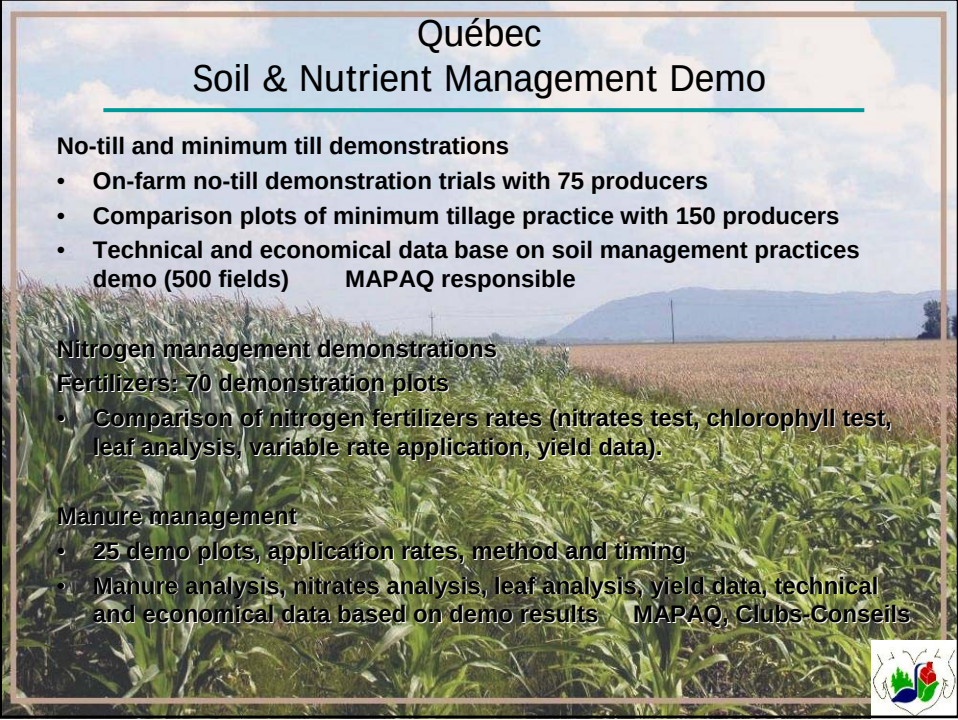
Nitrogen management demonstrations

Fertilizers: 70 demonstration plots

- Comparison of nitrogen fertilizers rates (nitrates test, chlorophyll test, leaf analysis, variable rate application, yield data).

Manure management

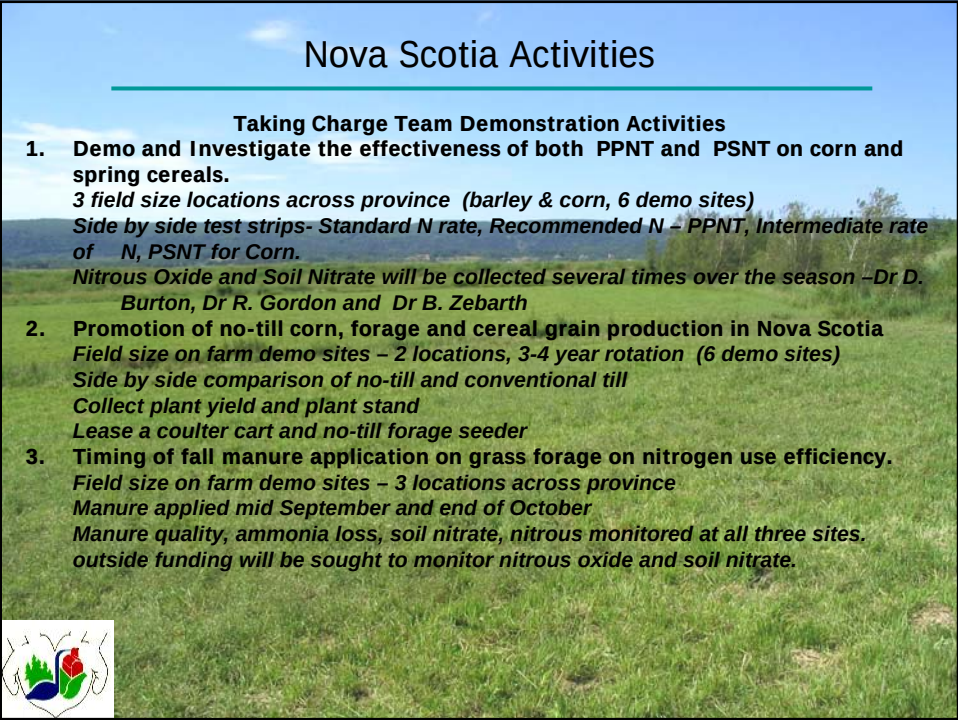
- 25 demo plots, application rates, method and timing
- Manure analysis, nitrates analysis, leaf analysis, yield data, technical and economical data based on demo results MAPAQ, Clubs-Conseils




Nova Scotia Activities

Taking Charge Team Demonstration Activities

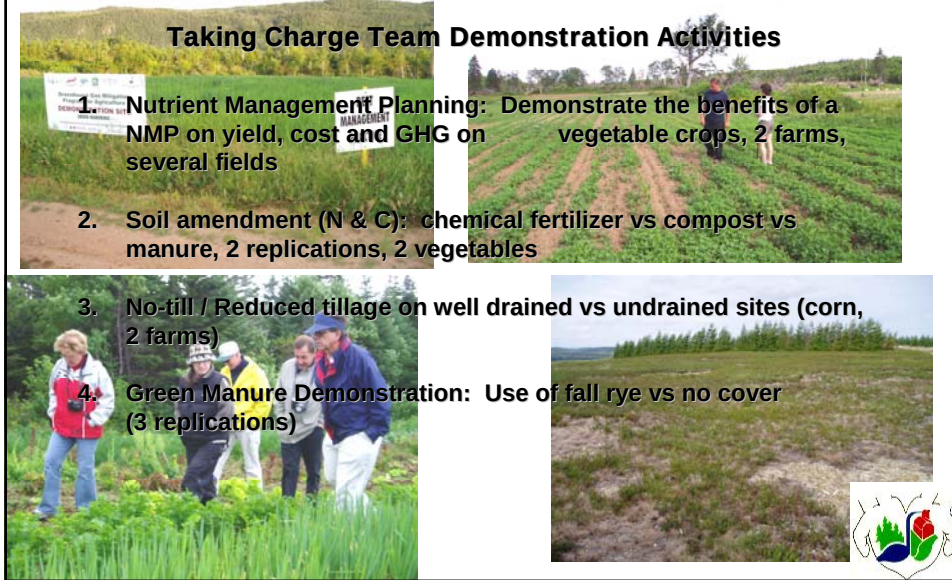
- Demo and Investigate the effectiveness of both PPNT and PSNT on corn and spring cereals.**
3 field size locations across province (barley & corn, 6 demo sites)
Side by side test strips- Standard N rate, Recommended N - PPNT, Intermediate rate of N, PSNT for Corn.
Nitrous Oxide and Soil Nitrate will be collected several times over the season -Dr D. Burton, Dr R. Gordon and Dr B. Zebarth
- Promotion of no-till corn, forage and cereal grain production in Nova Scotia**
Field size on farm demo sites - 2 locations, 3-4 year rotation (6 demo sites)
Side by side comparison of no-till and conventional till
Collect plant yield and plant stand
Lease a coulter cart and no-till forage seeder
- Timing of fall manure application on grass forage on nitrogen use efficiency.**
Field size on farm demo sites - 3 locations across province
Manure applied mid September and end of October
Manure quality, ammonia loss, soil nitrate, nitrous monitored at all three sites.
outside funding will be sought to monitor nitrous oxide and soil nitrate.




Newfoundland

Taking Charge Team Demonstration Activities

1. Nutrient Management Planning: Demonstrate the benefits of a NMP on yield, cost and GHG on vegetable crops, 2 farms, several fields
2. Soil amendment (N & C): chemical fertilizer vs compost vs manure, 2 replications, 2 vegetables
3. No-till / Reduced tillage on well drained vs undrained sites (corn, 2 farms)
4. Green Manure Demonstration: Use of fall rye vs no cover (3 replications)



GHGMP Communications

Regional - conducted by Taking Charge teams

- 53 factsheets, over 80 news articles
- Estimated distribution = 508,330
- Booth displays, posters and websites

National – contracted Meristem Information Services, Calgary

- News Releases
- Anchor Articles
- Regional Features/Project Reports



Greenhouse Gas Mitigation Program for Canadian Agriculture



- A Good Way to Deliver Programs to Producers

Background

- In the spring 2004 the GHGMP (A.Milton) mandated Market Research and Analysis Section (MRAS) to conduct a research across Canada focused on the evaluation of the impact of the **Greenhouse gas mitigation activities**.
- MRAS chose to separate this research in two phases.
 - First phase: on-site survey of attendants to the GHGMP demonstration sites which was carried out in the summer/fall of 2004. The results of this **Greenhouse gas mitigation activities on-site survey** are presented here today.
 - The second phase of the research will be carried jointly with the GHG survey which will be done in 2005?.

Evaluation Conclusions

Assessment of the impact of the GHGMP activities

- 9 attendees out of 10 found the activity at least interesting
- 50 % said the information was Very useful + another 45 % said Moderately useful
- 76% either learned moderately or a lot on GHG mitigation practices
- True sign of success: 86% would recommend activities to someone else

Evaluation Conclusions

• Measure level of awareness of GHG mitigation practices

- Almost 8 out of 10 attendees consider that adopting GHG mitigation practices on a farm is either Moderately Important or Very Important

Evaluation Conclusions

- **Measure level of adoption of GHG mitigation practices**

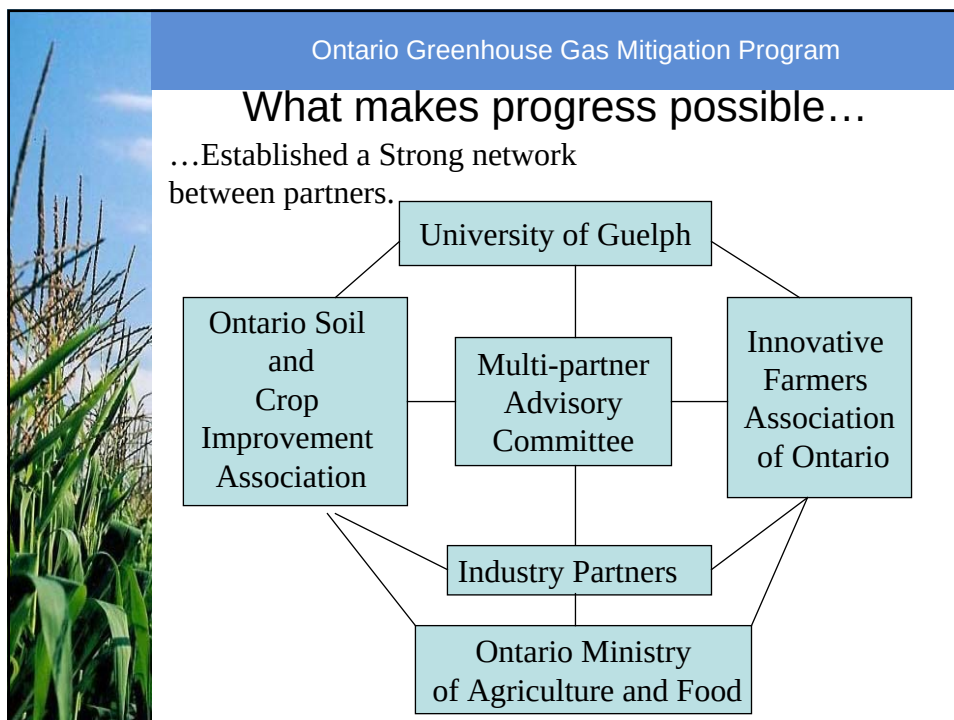
- Farmers/Ranchers have split views on facility/difficulty of introducing GHG mitigation
 - Half view introduction as Easy/Very Easy
 - The other half view introduction as Difficult/Very Difficult
- Adoption is seen as a Win-Win situation both by producers & professional service providers:
 - Positive for the economic situation of a farm
 - Positive for the productivity level of the farm.
- Still a need for GHGMP promotion:
 - More than half only moderately or slightly interested
 - Selling job is needed:
 - However 1 out of 3 slightly interested

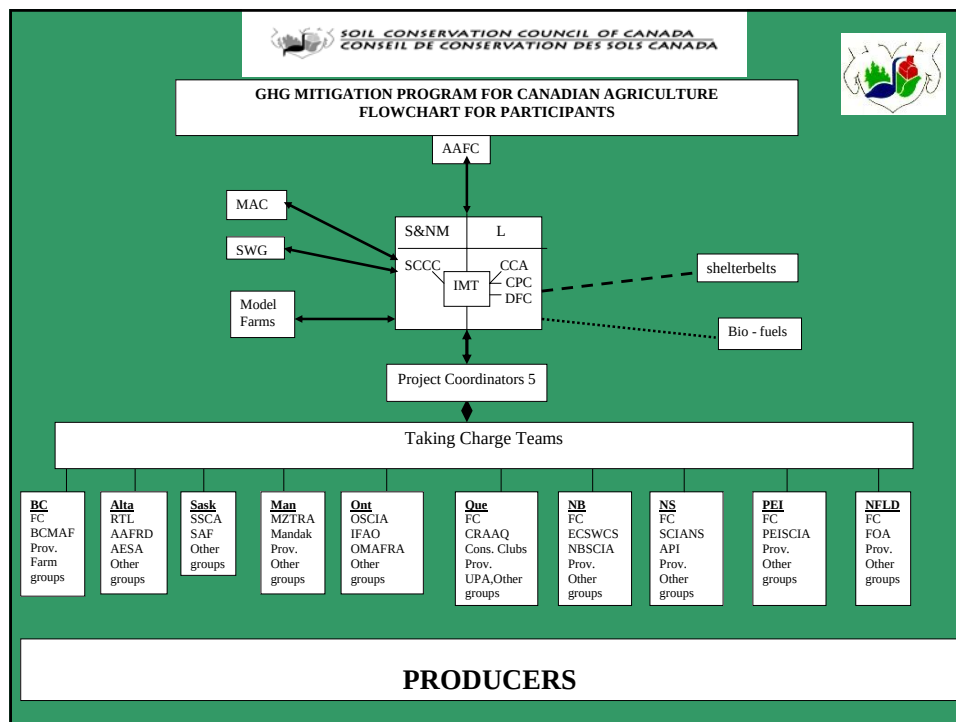
Evaluation Conclusions

- The GHGMP demonstration activities have shown that they are a valuable tool that promotes awareness and adoption of GHG mitigation practices by the producers.
- The demonstrations are also a valued learning tool for the service/expertise providers to the farmer/rancher.
- The latter are agents of change that are likely to continue transmitting to producers the information on practices that reduce GHG emissions and that are beneficial for the environment.

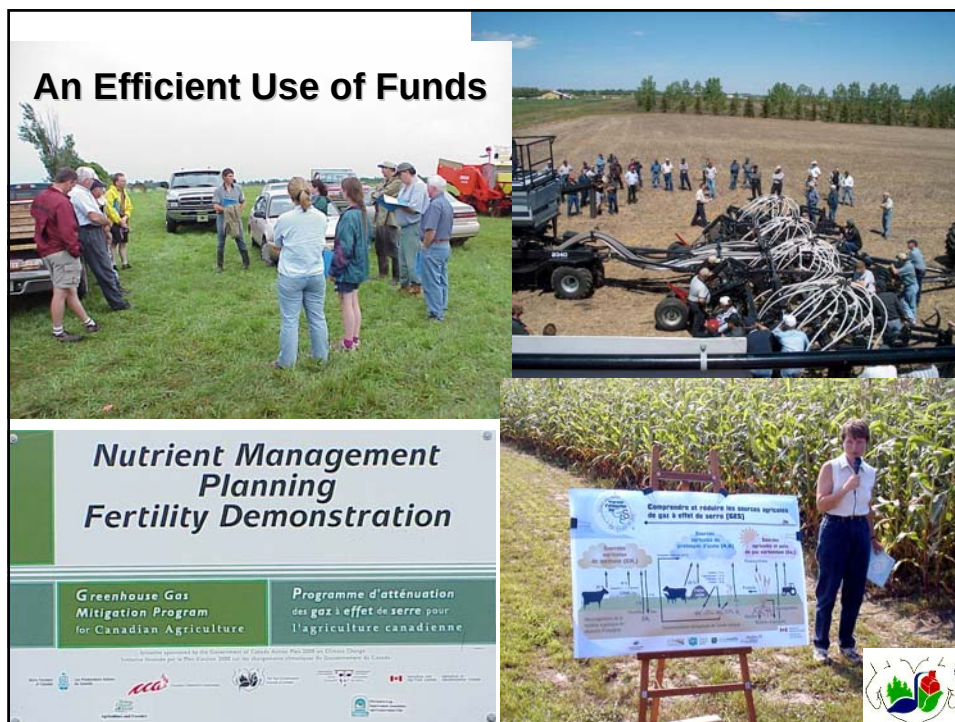
Evaluation Conclusions

- Farmers/ranchers are quite positive as to the economic and productivity benefits of adopting the GHG mitigation practices.
- However half of the producers consider it difficult to implement them on their farm operation.
- This partially explains why producers seem to be somewhat less inclined to be very interested in adopting these practices on their farm operation.
- This shows that there is still a need for the program that promotes the adoption of the best management practices that reduce GHG emissions.



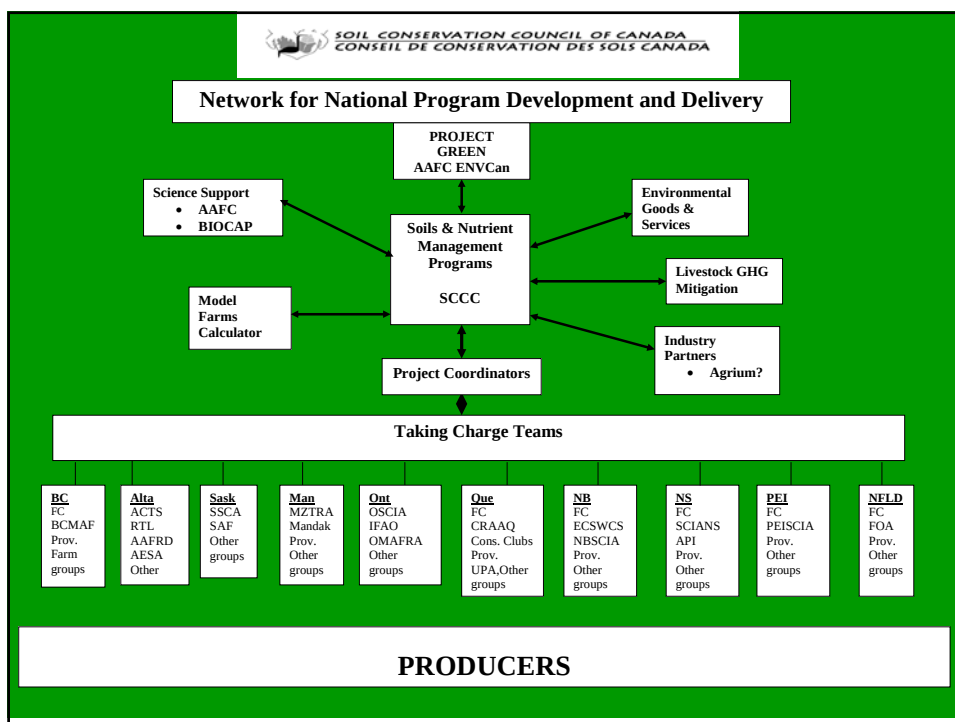


“the wonderful thing about these links is that they are not linear, but more of a web, and the great thing about the GHGMP funding has been that it is flexible and adapted in each region to fit in where it can compliment efforts rather than duplicate... the SCCC GHGMP has complimented the research funding already in place through Peace Region Forage Seed Association partnerships etc. by sponsoring speakers and or facilitating updates and sharing of the direct seeding messages at seminars and tours.”



Efficient Fund Management

- Contribution Agreement between SCCC and AAFC – approx. \$2.6m/yr
- National Budget established by opportunity for results
- Agreement between SCCC and Provincial organizations allow for regional fund management
- Field work and regional administration performed by Provincial Producer organization



SCCC's Next Initiative Key Elements

Awareness and Information

- Climate Change Adaptation and Mitigation
- Linking soil management to water quality and water availability
- Provide specific information to producers, public, policy makers, SCCC partners and the media
- Profile new ideas on Environmental Goods and Services



SCCC's Next Initiative Key Elements

Establish Strong Link with Associated Research

- Advisory Committees
- Provide benchmark/innovator sites for programs



SCCC's Next Initiative Key Elements

Establish a high profile for SCCC

- Closer links with industry
- Work with NAES/PFRA to design and deliver Ag Environmental programs for Canada



Through the Team Approach an Effective Uptake of BMPs Can be Accomplished

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