Canada-Ontario Green Plan Web
http://res2.agr.ca/london/gp/gphompag.html

Ontario

ACHIEVEMENTS OF THE CANADA-ONTARIO AGRICULTURE GREEN PLAN

Agriculture and Agri-Food Canada

B.T. Bowman [1], M. Kingston [2], H. Rudy [3], and C. Bradley [4]

[1] Agriculture & Agri-Food Canada, London, Ontario
[2] Ontario Ministry of Agriculture, Food & Rural Affairs, Guelph, Ontario
[3] Ontario Soil and Crop Improvement Association, Guelph, Ontario
[4] Ontario Federation of Agriculture, Toronto, Ontario

GREEN PLAN

OVERALL ENVIRONMENTAL SUSTAINABILITY GOAL

To maintain or enhance the natural resources that the agri-food sector uses or affects, while ensuring environmental, economic and social integration.

PROGRAM OBJECTIVES:

1. To conserve and enhance the natural resources that agriculture uses and shares
2. To be compatible with other environmental resources that are affected by agriculture.
3. To be proactive in protecting the agri-food sector from the environmental impacts caused by other sectors and factors external to agriculture.

BACKGROUND

- A shared Canada-Ontario Program (approx $30 M) - April 1, 1992 - March 31, 1997, delivered by Agriculture and Agri-Food Canada and Ontario Ministry of Agriculture and Food and Rural Affairs.
- Designed to encourage and assist farmers with the implementation of appropriate farm management practices within the framework of environmentally sustainable agriculture.

PRIMARY ISSUES FOR ENVIRONMENTAL SUSTAINABILITY

1. **Soil Quality**
2. **Water Quality**
3. **Wildlife Compatibility**
4. **Pollution & Water Management**
5. Water Quantity
6. Air and Climate - National Level
7. Energy - National Level
8. Genetic Diversity - National Level

Issues 1 to 4 were addressed in this Program

THE SUB-PROGRAMS

1. BEST MANAGEMENT PRACTICES
2. ENVIRONMENTAL FARM PLANS
3. RESEARCH
4. RURAL CONSERVATION CLUBS
5. WETLANDS/ WOODLANDS/ WILDLIFE
6. TECHNOLOGY TRANSFER

ACHIEVEMENTS OF THE GREEN PLAN

1. **Developed good working relationships**:
   A. Amongst Federal-Provincial Agencies
   B. Between Government Agencies and Ontario Farm Organizations
   .... resulting in innovative, effective, practical solutions.
2. **Information Sharing** within the Sector was greatly enhanced by good communication e.g. Internet Green Plan Web Site; Stewardship Information Centre.
3. **Built trust** - Government Agencies respected confidentially of Environmental Farm Plans.
4. **Reduced conflicts** between agriculture and environmentalists.
5. **Partnerships created during Green Plan continue** - Farm Plans, Rural Water Quality Working Groups
6. **International Recognition** - EFP, BMP materials; Research Links to Europe
7. **Developed ability of Farm Organizations** to deliver future Programs
8. **Developed and Implemented Practical Solutions** to problems within 5 yr at the farm

BEST MANAGEMENT PRACTICES (BMP)

Background:

Developed in cooperation with the Ontario Federation of Agriculture, supporting individual farm planning and decision-making, while presenting affordable options for protecting soil and water resources on the farm.

Issues:

- **Adoption of Sustainable Farm Practices**: environmentally sustainable practices were developed in a multi-disciplinary setting and packaged in a highly visual and accessible format to help farmers and other rural landowners select and implement them.
- **Issues Addressing Agriculture and the Environment:** soil conservation, surface water quality, groundwater quality, nutrient management, pest management, farm forestry, fish and wildlife habitat, sustainable agriculture.

Achievements:

1. **14 BMP Booklets:**
   - A First Look
   - Field Crop Production
   - Horticultural Crops
   - Water Management
   - Soil Management
   - Irrigation
   - Water Wells
   - Nutrient Management
   - Fish and Wildlife Habitat Management
   - Integrated Pest Management
   - Livestock & Poultry Waste Management
   - No-till: Making it Work,
   - Farm Forestry & Habitat Management
   - Pesticide Storage, Handling & Application
2. **Development of Communication Tools**
   Two Videos - "**Groundwater**" and " **Farm Forestry and Habitat Management"**
   One prototype CD-ROM - "**Water Management**"
3. **Participation of Corporate Sponsors**

ENVIRONMENTAL FARM PLANS (EFP)

Background:

Developed in cooperation with the Ontario Farm Environmental Coalition to encourage farmers to adopt a pro-active position regarding environmental issues on their farms.

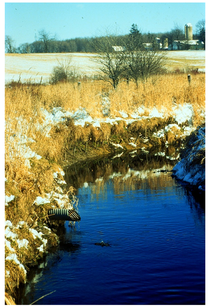
Participation: Attending a workshop, **Completing a workbook** (23 modules) to assess each farm's environmental situation, and **preparing an action plan** to improve each farm's environmental sustainability. Action plans were reviewed by a committee of peers to ensure appropriateness of the actions proposed. An incentive was available for taking corrective actions.

Issues:

- Long-term commitments by farmers to address environmental concerns in agriculture.
- Developing a long-term stewardship ethic which is built into day to day management.
- Setting up a delivery system to encourage voluntary participation of EFP and provide quality control through peer review.

Achievements:

1. More than 10,000 participants enrolled in the EFP
2. EFP Process is continuing post-Green Plan under CanAdapt Funds
3. Strengthened partnerships with government agencies & with Agri-Business.
4. EFP document distributed to more than 25 countries.
5. Agriculture Industry is united in communicating with government and the public.



RESEARCH

Issues:

1. **Manure/Nutrient Management**
   - Water Quality (nutrients, bacteria)
   - Nutrient utilization
   - Waste Management (farm, urban residential)
2. **On-Farm Research**
   - Impact of reduced tillage on water / soil quality
   - Implementation of field / farm scale research
3. **Integrated Resource Monitoring**
   - Monitor specific agricultural natural resources (water, soil, air, biological)
   - Assess the current state of resources
   - Measure rates of resource-degradation
   - Measure rates of the adoption of practices

Achievements:

1. Produced 32 research reports (8 reports involving manure/nutrient management; digital versions available on Web Site)
   - Manure nutrient transformations from storage to field utilization
   - Significant contributions to variable-rate technology
   - Development/implementation of formatting protocols for large research data bases.
   - Tillage & weed Management on Fine-textured soils.
   - Water / Nutrient partitioning processes at field scale
2. Developed working partnerships with Municipalities on environmental issues.
3. Involved 55 farmer cooperators, 11 graduate / post doc students, 2 universities, 3 Conservation Authorities, and Regional Municipalities
4. Numerous research projects continuing post-Green Plan under different funding.

RURAL CONSERVATION CLUBS (RCC)

Issues:

- Supporting innovative research and demonstration projects in environmentally-sustainable agriculture.
- Promoting exchange of environmental ideas and practices between farmers and conservationists.

Achievements:

1. 38 projects developed and conducted by farmer and rural landowner groups across Ontario on:
   - manure management
   - constructed wetlands
   - conservation tillage
   - pest management
   - wetland restoration
2. Increased awareness of environmental issues throughout rural communities.
3. $2 million in government funding matched by in-kind contributions from 300+ club members (labour, equipment).

WETLANDS / WOODLANDS / WILDLIFE (3W)

Background:

Program delivered by the Canadian Wildlife Service, Environment Canada, on behalf of Agriculture & Agri-Food Canada.

Issues:

- Growing loss and degradation of critical fish and wildlife habitat
- Farmers require incentives and technical support to maintain, improve, and increase habitat on farms and other private land
- Reluctance on the part of some farmers to improve habitat because of real or perceived problems associated with habitat and agricultural production (e.g. goose damage to crops, weeds, loss of production, cost)
- Some agricultural practices are detrimental to fish and wildlife habitat (e.g. cattle access to streams)
- Need for working examples of win-win techniques - benefit to agriculture and habitat

Achievements:

1. Developed and demonstrated innovative habitat conservation techniques and sustainable agricultural practices on 205 demonstration sites across Ontario.
2. Applied innovative, cost effective techniques to reduce wildlife and agricultural conflicts.
3. Created new partnerships between conservation and agriculture related government and non-government organizations.
4. Achieved local support and cooperation through community based leadership.

TECHNOLOGY TRANSFER (TT)

Issues:

- Identifying and investigating new approaches and technologies for transferring information to the public
- Ensuring that new technologies are transferred effectively and efficiently to the public
- Identifying patterns of Agriculture Information Generation and Flow in Ontario
- Identifying opportunities for Commercial Sponsorship for production / distribution of information resource materials

Achievements:

1. **Sponsored 13 projects designed to address various aspects of the technologies involved in transferring information to farmers and to the public at large**
   - Agriculture Information & Exchange System
   - Internet Pilot Web Site for the Green Plan
   - BMP Web Site Feasibility Study
   - Marketing/Distribution of Electronic Publications (Pub. 75: Guide to Weed Control)
   - BMP on CD-ROM
2. **TT Workshop -** one-day forum for communication & information exchange.