



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*



*Canada's Independent Agri-Food  
"Think-Tank"*

## **Proposed New Environmental Legislation Affecting Canadian Agriculture**

**A Special Report – January 2002**

**Cher Brethour<sup>1</sup>, Peter MacGowan<sup>2</sup>, Al Mussell<sup>3</sup> and Holly Mayer<sup>1</sup>**

Over the last several months there have been numerous moves toward the establishment of new environmental protection standards specifically related to farming operations in various provinces. Existing and proposed provincial requirements regarding nutrient management and environmental standards on farms are at the forefront of many farm and environmentalist groups' agendas. The public is paying more attention to the impact of farming operations on both the natural environment and human health. In particular, a great deal of attention has been focussed on how the improper handling and application of manure may contaminate surface water, groundwater, air quality and soil. All of these factors have led to the exploration of regulatory options. Depending on whether the new environmental regulatory regime imposes more stringent standards (rather than imposing a mandatory regime which is consistent with voluntary standards already followed by many producers), production costs, structure, and the overall nature of Canadian farming operations may be impacted.

This special report identifies the key components of agricultural operations environmental legislation<sup>4</sup> in Ontario and Alberta, and compares and contrasts the legislative and regulatory approaches and the driving forces behind the introduction of the legislation in these two jurisdictions. While the report focuses on the legislative initiatives underway in Ontario and Alberta, it should be kept in mind that similar initiatives have also been undertaken in Quebec<sup>5</sup>. Competitive pressures and a public demand for consistent agricultural operations environmental standards across Canada mean that the precedents established in any particular province or provinces are likely to be followed to a significant degree across Canada.

---

<sup>1</sup> Cher Brethour and Holly Mayer are Research Associates at the George Morris Centre in Guelph and Calgary respectively.

<sup>2</sup> Peter MacGowan is a partner at Blake, Cassels & Graydon LLP in Toronto and a member of the George Morris Centre.

<sup>3</sup> Al Mussell is a Senior Research Associate at the George Morris Centre in Guelph.

<sup>4</sup> The Alberta legislation is now in effect; the Ontario legislation is in the draft stage.

<sup>5</sup> For more information on Quebec:

<http://www.gov.on.ca/OMAFRA/english/agops/otherregs2.htm#Quebec>.

## ***Ontario Background***

In June 2001, Ontario introduced as draft legislation the '*Nutrient Management Act 2001*', which is designed to protect the rural environment and complement existing Ontario environmental laws (e.g., the *Environmental Protection Act*, the *Ontario Water Resources Act*, the *Pesticides Act* and the *Farm Food Practices Act*). As a part of the Ontario government's "Operation Clean Water" strategy, the proposed new law would create and enforce province-wide standards for nutrient management - including the application and management of manure, commercial fertilizers and municipal sewage. Currently, the use of nutrient-containing materials is governed by a hodgepodge of laws, regulations, guidelines, municipal by-laws and voluntary best-management practices. The Ontario Government's intention in introducing the new law is to provide a comprehensive, clear and province-wide approach in protecting water resources and the environment, while allowing farmers to invest in and operate their farms with confidence.

Regulations under the proposed statute would set standards for the collection, storage, handling, transportation and use of materials that convey nutrients to land. The proposed statute establishes the authority to require the certification of nutrient management plans and the licensing of those who are in the business of managing and applying nutrients applied to land. Finally, the proposed Act outlines due processes for the enforcement of the Act and appeals of charges laid under the Act. The exact regulations that will be implemented through the proposed Act are being developed and have yet to be released.

December 13, 2001 marked the end of the fall session for the Ontario Legislature with the Nutrient Management Act 2001 (Bill 81) remaining at second reading. Continued opposition, particularly from the NDP members of the Legislature, prevented the bill's progress to third reading. The Government attempted for the third time to gain unanimous consent to move ahead, but was unable to do so. However, the Government had previously introduced a motion to carry forward all government legislation into the spring session. Thus, when the Legislature resumes sitting, likely in early May, Bill 81 will still be on the order paper at second reading.

If Bill 81 had been passed into law, OMAFRA expected to proceed immediately with stakeholder consultations on the standards, which would form the basis of the regulations. Since Bill 81 is still in the Legislature, officials are determining the most appropriate means to proceed with informal consultations on the bill's standards. The Government's challenge is balancing stakeholder expectations of progress on Bill 81 with the restraints of parliamentary procedure and the perception of legislative contempt by holding regulatory consultations on legislation that has not yet passed third reading.

## ***Alberta Background***

In July 2001 the Alberta government announced its intention to assume legislative responsibility for intensive livestock operations (ILOs) to “ensure the future viability and sustainability of the province’s livestock industry”. This announcement followed three years of public consultations and recommendations and two major reports concerning the regulation and future of ILOs in the province. The *Agricultural Operations Practices Amendment Act, 2001*, which was passed by the Alberta legislature in November 2001 and which took effect on January 1, 2002, follows through on this intention.

The objective of the new legislation is to provide a comprehensive, clear, and province-wide approach to the siting and on-going monitoring and enforcement of regulations regarding confined feeding operations (CFOs<sup>6</sup>). The overarching goals of the legislation and accompanying regulations are to support sustainable growth of the livestock industry, protect the environment, consistency in approvals, monitoring and enforcement, and to address the concerns of neighbours and rural communities.

Prior to the new legislation, the environmental standards applicable to CFOs in Alberta were determined by a mix of provincial statutes, municipal by-laws and voluntary codes of practice. As in Ontario, there were rules and regulations within several applicable statutes<sup>7</sup> (e.g., the *Environmental Protection and Enhancement Act*, the *Water Act*, the *Municipal Government Act*, the *Fisheries Act* and the *Agricultural Operation Practices Act*). In particular, inconsistent rules and standards among municipalities have recently resulted in confusion and frustration for both investors and rural communities with regard to the construction and expansion of CFOs.

The new Alberta legislation establishes a provincial approval process for new and expanding operations, science-based technical approval standards, monitoring and enforcement processes, and penalties for non-compliance. The legislation also includes the establishment of a peer review process to deal with complaints of odour, noise, dust, smoke or other disturbance arising from agricultural practices.

Table 1 below enumerates the regulatory approaches, benefits, and potential costs of the new legislation in Alberta and Ontario. The table suggests that the legislation in the two jurisdictions has many similarities. However, relative to the Alberta legislation, the Ontario legislation carries additional measures to safeguard public health. The legislation in Ontario also addresses nutrient contamination from cropping activities and some non-farm sources.

---

<sup>6</sup> The term ‘intensive livestock operation’ has been replaced with the term ‘confined feeding operation’ in the legislation.

**Table 1 Comparison of Proposed Farm Operations Environmental Legislation in Ontario and Alberta Agriculture**

	<b>ONTARIO</b>	<b>ALBERTA</b>
Legislation Focus	Nutrient Management	Consistent Standards for Construction and Expansion of CFOs
Motivation	<ul style="list-style-type: none"> <li>• Reduce environmental impact of intensive agricultural practices in livestock and crop enterprises</li> <li>• Safeguard public health</li> </ul>	<ul style="list-style-type: none"> <li>• Rationalize inconsistent municipal policies/regulations</li> <li>• Ensure future sustainability of the province's livestock industry</li> </ul>
Legislation/Regulations (Proposed in Ontario)	<ul style="list-style-type: none"> <li>• Standards for manure storage and handling (to be determined)</li> <li>• Regulation of land application of nutrients (to be determined)</li> <li>• Regulatory classification of farms by size (to be determined)</li> <li>• Provincial powers of enforcement</li> </ul>	<ul style="list-style-type: none"> <li>• Provincial approval authority for the siting of new and expanding CFOs through a consistent and transparent process</li> <li>• Provincial powers for monitoring and enforcement</li> <li>• Consistent and science based technical standards for construction and expansion of CFOs</li> <li>• Establishment of peer review to deal with nuisance complaints</li> <li>• Size of new/expanding CFOs to require approval</li> <li>• Who an 'affected party' is</li> </ul>
Benefits	<ul style="list-style-type: none"> <li>• Reduced incidence of nutrient and microbial contamination from farms</li> <li>• Improved soil, air, surface and ground water quality</li> </ul>	<ul style="list-style-type: none"> <li>• Definitive standards and transparent process for new/expanding CFOs</li> <li>• Reduced number of nuisance complaints</li> <li>• Improved soil, air and surface and ground water quality</li> </ul>
Potential Costs	<ul style="list-style-type: none"> <li>• Increased capital costs in manure handling and storage costs</li> <li>• Increased production costs [and lower farm income]</li> <li>• Increased administrative costs</li> </ul>	<ul style="list-style-type: none"> <li>• Increased capital costs in manure handling and storage costs</li> <li>• Increased production costs [and lower farm income]</li> <li>• Increased administrative costs</li> </ul>

### ***A Clear Solution to the Problem?***

We have identified the legislative framework the two governments intend to use to solve the perceived problems. The regulations and standards that accompany the legislation are also important. In Ontario, regulations will be developed around defined categories of farms including livestock operations, other agricultural operations, and non-farm operations. Different sizes of farms will be subject to different manure handling, storage and application standards. There will be strict enforcement authority in order to ensure

compliance with the regulations; this authority will include the ability to impose penalties and fines for infractions.

The new Ontario legislative regime will also prescribe regulations and encourage development in the following areas:

- Mandatory “Nutrient Management Plans” (NMPs),
- Certification of commercial farming operations,
- Minimum distance separation requirements for manure and fertilizer application near wells and waterways
- Prohibition (over a five year period) of the application of untreated sewage
- Education, training and certification programs for farmers and others to make it easier to comply with regulations
- Allowance and encouragement of use of innovative technologies (e.g., composting)
- Establishment of local advisory committees to deal with complaints
- Development of contingency/emergency plans in case of spills or other incidents
- Development of construction standards beyond the current building codes for farms, barns and storage facilities (e.g., requirements for liners under storage facilities to prevent leaching)

In Alberta, the legislation expands the mandate of the Natural Resources Conservation Board (NRCB), which reports to the Minister of Sustainable Resource Development. The NRCB will be responsible for approving the siting of new CFOs and the expansion of existing operations and for monitoring and enforcing the legislation, regulations and standards. Municipalities will continue to have input into siting decisions, as the legislation requires the NRCB to determine whether a new CFO is consistent with the relevant municipal development plan.

Existing livestock operations that are not expanding will not require approvals under the new legislation. There are, however, provisions in the Alberta legislation to deal with existing operations that are creating an environmental concern.

Regulations to accompany the new Alberta legislation were released in December 2001, and affect all agriculture producers who use manure as a soil nutrient or supplement. The regulations are based on the 2000 Code of Practice for Responsible Livestock Development and Manure Management. The regulations define what size (number of animals) of livestock operation to be constructed or expanded will require an

approval or registration<sup>8</sup>. They also define who will be an 'affected party', as the legislation requires affected parties to be notified of any application for approval to expand or construct a CFO.

The standards that accompany the Alberta legislation and regulations address the requirements for new and expanding CFOs with regard to: minimum distance separation (odour control), manure storage, surface water control systems, natural water and wells, water table protection, manure storage volumes, erosion protection, groundwater protection, catch basins, fly and dust control, record keeping, access, safety and nutrient management. The nutrient management standards set out where manure can and cannot be applied, soil testing procedures and requirements, and the maximum nutrient loads allowed.

### ***Putting it Into Perspective***

Although there is an environmental focus to the legislation in both provinces, the driving forces are different. In Ontario, the specific focus is on nutrient management and the protection of public health. The Ontario legislation addresses a public desire for legislation to protect against agriculture-based contamination of water, air and soil from land-applied nutrients, including manure and commercial fertilizer and non-agricultural sources such as municipal biosolids, septage and industrial pulp and paper sludge. The proposed legislation will apply to both livestock and cropping operations.

In Alberta, on the other hand, the specific focus is on the approval process and on standards applicable to the construction and expansion of CFOs with regard to their impact on the environment from manure application and odour. The Alberta legislation addresses a perceived need for clear and consistent regulations that identify the appropriate standards for the construction and expansion of livestock operations, while protecting soil, water and air quality.

This begs a clear definition of sustainability. The traditional definition of sustainable agriculture (which appears most clearly in the Ontario legislation) is "environmentally friendly methods of farming which allow for the production of crops or livestock without damaging the resource stock used to produce them". This is primarily achieved by regulating nutrient loadings relative to the nutrient uptake by crops as a proxy for the protection of ground and surface water; if excess nutrients remain in the soil they either leach into ground water or wash into surface water. This concept of sustainable agriculture is an "intergenerational" one in which producers pass on a conserved or improved natural resource base instead of one that has been depleted or polluted (Environmental Issues Dictionary of Terms, 2001).

---

<sup>8</sup> Registration applies to smaller CFO's, which must adhere to the same standards as larger operations, however public notice is not required.

Another approach relates to the sustainability of an industry. Clearly, an industry that depends upon soil and water must not damage soil and water through its activities if it is to be sustainable. However, the sustainability of an industry is also threatened if nuisance suits, emotional public opposition and excessive governmental regulations result in a stifling of its development. This latter issue of sustainability is addressed quite clearly in the Alberta legislation, which appears intended to address concerns over nuisance suits and inconsistent municipal CFO approval processes.

### ***Legislation and Its Impact on Agriculture***

In Ontario, the draft NMA contains enforcement provisions that will give real teeth to the new proposed law. Government officials would have broad powers of inspection. Officials would be permitted to enter and inspect land without a warrant; in extreme cases, they could order an evacuation of a non-compliant farm property. Non-compliance with the new standards may have serious ramifications. It is proposed that officials would have the ability to issue orders for preventive measures or to achieve compliance with the new standards. Satisfaction of these orders would be at the producer's expense. If the producer does not cover these costs, the relevant municipality or the province could recover the costs as property taxes and would have the authority to put a lien on the property if those taxes are not paid. Producers who fail to comply with the regulations would also be subject to a maximum fine of \$10,000 per day.

The experience of other Ontario industries indicates that this new legislation must be taken seriously. The natural resource and manufacturing sectors of the Ontario economy (e.g., the pulp and paper, mining and waste management industries) have been subject to strict environmental regulation for many years. Since the *Environmental Protection Act* and the *Ontario Water Resources Act* were first enacted in the 1950s and early 1970s, an escalating desire on the part of the public and government administrations to take tough steps to enforce environmental laws has been apparent.

The Ontario Ministry of the Environment (the "MOE"), which administers and enforces Ontario's environmental legislation and will have a central role in administering the NMA, has a sizeable enforcement staff. It has launched thousands of prosecutions in the past and has particularly stepped up its enforcement activities since the events in Walkerton. These have included more frequent MOE inspections of regulated premises and, where the circumstances warrant, police-like investigations and prosecutions. Fines in the tens of thousands of dollars are common and, in exceptional cases, individuals have been sentenced to jail terms.

Assuming that the Ontario standards adopt agricultural practice guidelines that match the current voluntary 'best management practices', producers already complying with those practices will incur relatively little expense outside of administrative costs (e.g., certification, licences, NMP approval) as a result of the imposition of the new regulatory



regime. FitzGibbon and Thacker (2001) measured the preparedness of various sizes of livestock operations for nutrient management legislation in Ontario. Their conclusions showed that the largest operations in the province (of those surveyed) were the most prepared to deal with the new regulations based on their current practices and management. It was the smaller farms that were unprepared in many ways for the regulations. It will generally be these smaller producers who will face increased costs as a result of the imposition of mandatory regulatory compliance. However, if the new regulations do impose new, more stringent standards (*i.e.*, beyond current voluntary best management practices), all producers will face increased expenses in the form of both fixed and variable costs.

The impact on existing producers of the new regulatory regime in Alberta is not likely to be significant, given that the legislation and accompanying regulations and standards apply only to new and expanding operations. Existing operations will only be affected by the legislation if they expand, or if they are the source of an environmental concern. Overall, the new legislation should facilitate growth in the hog industry in particular. It is anticipated that plans for the construction of hog production facilities, which had been put on hold due to uncertainty in gaining regulatory approval, will now move ahead. A further implication of this could be that Alberta gains a cost advantage over Ontario in the short term, where the proposed legislation would apply to existing facilities and is likely to be more onerous and costly to all producers than the Alberta legislation.

In the eyes of the general public, regulations such as these will help solve the perceived environmental problems associated with large-scale livestock operations. The irony is that if the regulations significantly increase capital costs (as could be expected under rules requiring improved manure storage or manure application techniques), it may be necessary for farmers to expand output to generate sufficient revenue to recover the additional costs. The costs associated with more stringent standards for existing producers in Ontario may cause small producers who are not prepared for the regulations to leave the industry altogether. The facilities of producers who leave the industry could be purchased by another operation, thereby also increasing the size of some existing operations. In addition, since improved manure handling and storage facilities may be less expensive on a per unit of production basis as the size of the facility increases, a certain threshold capacity may be required to make the technology work (and pay). The proposed Ontario legislation, therefore, could result in fewer and larger livestock operations.

The legislation in Ontario and Alberta makes several positive contributions. As Table 1.0 identifies, these include (i) an improvement in surface and ground water quality resulting from the imposition of mandatory rules and regulations, (ii) the reduction of risk and uncertainty stemming from the current inconsistent regulatory environment, and (iii) the protection of objectivity in the environmental permitting process by the introduction of a well-defined set of regulatory parameters within which producers may operate without undue concern over nuisance suits and regulatory enforcement action. Ancillary positive impacts will include a reduction in public concerns relating to surface and

groundwater contamination and the creation of a more competitive industry as the result of efficiencies associated with a more clearly-defined, certain and science-based context within which the environmental issues faced by the industry are resolved.

Agriculture in Canada is facing increased scrutiny and can be expected to be held accountable for its use of nutrients and its impacts on the environment. To a large extent, this is being motivated by the increased public awareness brought about by the Walkerton and North Battleford water contamination incidents and the proposed Taiwan Sugar hog operation in Alberta. As a result of those incidents, the public is less concerned about the impact of regulation on farm production costs and profitability. At the same time, however, agriculture needs a level regulatory playing field. Thus, a balance is required that can accommodate legitimate environmental concerns without unnecessarily restricting legitimate farm practices and unreasonably increasing the costs of production. The intention of the Alberta and Ontario Governments appears to be to respect this trade-off - we await the results of the legislation and regulations for confirmation.

Questions about this report can be directed to Cher Brethour (Ontario) ([cher@georgemorris.org](mailto:cher@georgemorris.org) 519-822-3929 ext 207) or Holly Mayer (Alberta) ([holly@georgemorris.org](mailto:holly@georgemorris.org) 403-250-7227).

## References:

- Alberta Agriculture, Food and Rural Development. 1999. Environmental Scan Update Study: Scan Analysis – The Environmental Dimension.  
<http://www.agric.gov.ab.ca/ministry/smgscan/environmental.html>
- Alberta Government News Release. 2001. “Province to ensure responsible intensive livestock operations” July 4, 2001.  
<http://www.gov.ab.ca/acn/200107/10949.html>
- Alberta Pork. 2001. “Producer Fact Sheet.” August 3, 2001.
- Environmental Issues Dictionary of Terms. 2001  
<http://environment.about.com/library/weekly/blgloss19e.htm>
- FitzGibbon, J. and L. Thacker. 2001. Nutrient Management Planning in Ontario: Preparedness of Animal Agriculture. A Component of: Profiles of Livestock Agriculture and Impacts of Regulation (*Draft Interim Report*). School of Rural Planning and Development, University of Guelph and OMAFRA.
- Schaer, Lilian. December 2001 Ontario Pork News Flash.
- 2000 Code of Practice for Responsible Livestock Development and Manure Management.  
[http://www.agric.gov.ab.ca/agdex/400/400\\_27-2.html](http://www.agric.gov.ab.ca/agdex/400/400_27-2.html)
- Wilson, Keith. 2001. Update on Government Announcement on New Environmental Regulations.