

Agricultural Outlook Forum 2003

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## THE COMPARATIVE REGULATION OF INTENSIVE LIVESTOCK OPERATIONS IN NORTH AMERICA

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### **INTRODUCTION**

I wanted to spend my fifteen minutes talking about a report undertaken by the Commission for Environmental Cooperation on the Comparative Regulation of Intensive Livestock Operations in North America. This Report surveys the current environmental requirements for “intensive livestock operations” (ILOs) in the United States (which refers to ILOs as “CAFOs”), Mexico and Canada. The Report draws conclusions about current regulatory regimes and makes recommendations on the management of environmental issues associated with ILOs.

To prepare this report, the Commission for Environmental Cooperation hired consultants from Canada, Mexico and the United States. It will be available shortly on our web site at [www.cec.org](http://www.cec.org).

Now what is the Commission for Environmental Cooperation “CEC”?

In the past decade, a reoccurring theme in the global environmental debate has been the ability of domestic environmental agencies to meet the challenges of globalization.

In order to address these concerns within North America, the governments of Canada, Mexico and the United States established the CEC in 1994. The CEC was established pursuant to the North American Agreement on Environmental Cooperation (NAAEC), which complements the environmental provisions of NAFTA.

The CEC has three principle functions. It helps address regional environmental concerns, prevent potential trade and environmental conflicts, and it works to promote the effective enforcement of environmental law. The CEC is comprised of a Council of environmental ministers from the three countries, a Joint Public Advisory Committee, and a Secretariat, for whom I work.

The CEC has four main program areas: Environment, Economy and Trade, Biodiversity, Pollutants and Health and Law and Policy.

Our Study on the Comparative Regulation of Intensive Livestock was a joint effort by the Law and Policy and the Environment, Economy and Trade Programs.

Why did we undertake a study on the regulation of Intensive Livestock Operations in North America? There are four reasons: (1) the proper management of manure is critical to safeguarding human health and the environment; (2) there is a great deal of public concern over issues associated with the management of these manures; (3) we are seeing the development of one market within North

America for animal products; and, (4) Mexico is undergoing a concentration of its livestock industry and it is seeing greater investment from U.S. firms in these operations.

So I think there is a great interest on the parts of both governmental and non-governmental entities on the environmental management of these operations within North America.

**COUNTRY-BY-COUNTRY COMPARISONS**

Let me very briefly take you through a country-by-country comparisons on ILO regulations, offer a few general observations from the report and then provide you with an overview of the report’s recommendations (The studies reviewed Federal laws in the three countries, the laws of 20 U.S. states, all 10 provinces, and for Mexico it provided a general overview of common state law features with a case study of Guanajuato):

*Country-by-Country Comparisons*

	<b>CANADA</b>	<b>MEXICO</b>	<b>UNITED STATES</b>
<b>Definitions of ILO/CAFO</b>	Defined in 8 of 10 provinces; varies from 50-400 “animal units” (AU). “Unit” definitions vary. Sometimes defined by animal density.	None	At federal level, “large CAFOs” = 700 dairy cows, 2500 swine, 30,000 chickens, etc., (formerly termed “1000 AU”). State definitions vary from 300 to >1000 AU, with a few as low as 10 in sensitive areas (shorelands, MN)
<b>Permits/approvals required?</b>	Yes in 8 of 10 provinces, conditionally in the other 2.	Some construction and operating permits required. Varies by state and municipality. National water discharge standards must be met for any discharge to public waters.	Federal water pollution control permit or no potential to discharge determination required for “all CAFOs.” Most states require various state permits, but a few only require the federal water permit.

<b>Public notice required?</b>	May be recommended or required by municipalities or provinces. Zoning changes require notice.	Generally, no. Some notice for fiscal matters, the utilization of public utilities, etc.	Yes.
<b>Separation/Setback Distances</b>	Yes, in all provinces. Requirements vary widely. For example: 20 metres from watercourse or wetland (Prince Edward Island) to 1 mile from a dwelling in a city, town, village or hamlet (Saskatchewan).	None required.	In federal law, 100 feet between land application and surface waters (less with vegetated buffer or approved “alternative practices.”) Yes, in most states, with wide variation based on size, type, new/existing, landscape features. For example: 100 feet from stream (Alabama) to 1 mile from dwelling, school or incorporated municipality (Colorado).
<b>Geophysical Requirements?</b>	Yes, in 8 of 10 provinces. Some as separation distance from water bodies or water tables; some to avoid flood plains.	ILOs are banned in zones of water scarcity. Some floodplain restrictions.	None in federal law. Yes, in 16 of 20 states, generally to avoid the 100-year floodplain.
<b>Government review of site required?</b>	Yes, under some circumstances, in 6 of 10 provinces.	Changes from forestry to agriculture require EIA.	Yes, under some circumstances, in 13 of 20 states.
<b>Government approval of plans?</b>	Yes, under some circumstances in 6 of 10 provinces.	No.	Yes, under some circumstances, in federal law and in all 20 states.
<b>Nutrient Management Plan required?</b>	Yes, in 6 of 10 provinces; encouraged in others.	No.	Yes, in federal law and in all 20 states (some more stringent than federal requirements).

## **GENERAL OBSERVATIONS**

In terms of general observations:

Numerous data gaps complicate the regulation of ILOs. Because very little on-farm monitoring for environmental parameters is required of ILOs, there is a general lack of data on their specific impacts

on air, surface water, and groundwater quality. Very little information exists on the long-term effects of the land-application of manure on soil biota. Data on compliance rates and enforcement actions at ILOs is limited; where it exists at a local level, it is often not aggregated at the state or provincial level.

The data is also inconclusive as to whether variations in environmental regulations influence siting decisions for livestock operations. Environmental considerations are one cost of many that operators consider when making siting decisions, including proximity to feed sources and processors, proximity to markets, the climate, political support within the particular jurisdiction, local financial incentives, tax consequences and labour costs. To determine whether less stringent environmental standards alone or in combination with other factors would create enough cost savings to attract new ILOs, the relative cost of environmental requirements, including local land use restrictions and design requirements, would need to be considered in relation to these other costs.

## **RECOMMENDATIONS**

And now on to the regulations:

The report makes the following recommendations:

1. Greater uniformity in the coverage of regulations within (and among) NAFTA countries could minimize incentives to site ILOs in the least-regulated jurisdictions. Though countries, states, provinces or local governments may be justified in having standards different from their neighbours, caution must be exercised to avoid the “race to the bottom” effect. Variations from “state of the art” environmental standards should be based on a meaningful assessment of environmental risks in the context of other economic, social and geological concerns.

2. Specifically, greater uniformity in requirements for nutrient management plans, setbacks, public information, public participation, and professional certification would be beneficial. “Public participation” should mean more than an invitation to a public meeting after all important decisions have been made.

3. Where governments have both agricultural and environmental agencies, they should carefully consider the relative responsibilities of those agencies in relation to ILOs. Agricultural agencies have historically functioned as promoters of agriculture and may be ill-equipped to handle an enforcement role. Environmental agencies may need training in agricultural systems, but their traditional role as regulators typically makes them better-suited for the enforcement task. Environmental agencies may also have more experience with public participation in regulatory matters.

4. Development and implementation of new manure and wastewater treatment and pollution prevention technologies, which consider the lifecycle of these by-products, should be encouraged, especially in areas with excess nutrients.

5. Systems that impose some responsibility for environmental impacts on “integrators,” as well as livestock producers, where the integrators own the animals, would be more equitable and would likely result in improved environmental performance at the producer level.

6. Improved systems should be developed in each of the three countries to collect information on the environmental conditions associated with ILOs and to periodically survey environmental regulation and enforcement in each country.

7. Better data collection systems should be implemented for tracking foreign direct investment in ILOs in each of the three countries in order to help determine whether they are relocating to meet that country's domestic demand or whether they are relocating to export back to the country from which they moved and thereby avoid regulatory costs.

8. Worker health, antibiotic, hormone and specific pathogen issues are beyond the bounds of current environmental regulation and, therefore, of this study. Each deserves improved data collection and significant public attention.

### **CONCLUDING REMARKS**

As I mentioned earlier, the report will be available shortly on our web site at [www.cec.org](http://www.cec.org). I would like to thank the USDA for sponsoring this forum and for inviting the CEC to present this paper.



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**North American Commission for Environmental Cooperation**

Three countries working together to protect our shared environment

# **Comparative Standards for Intensive Livestock Operations in North America**

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- What is the CEC?
  - North American Agreement on Environmental Cooperation
  - Addresses regional environmental concerns; works to prevent potential trade and environmental conflicts; and, promotes the effective enforcement of environmental law



- Why this Study?
  - Environmental issues
  - Public concern
  - Development of unified markets
  - Beginning of consolidation in Mexico





- Typical Regulatory Devices
  - Permits
  - Nutrient Management Plans (NMPs)
  - Setback requirements
  - Public information requirements
  - Professional certification
  - Financial guarantees
  - Technical assistance



- **Definitions**

- Canada: defined in 8 of 10 provinces

- 150-400 “units” – “units” definitions vary

- Mexico: none

- United States

- Defines “large”, “medium” and “small”
    - States: Varies – as low as 10 “units” in some sensitive areas (e.g. shorelands in MN)



- Permits required?
  - Canada
    - Yes, in 8 of 10 provinces; conditionally in 2
  - Mexico
    - Constructing and operating permits; national water standards for discharges to public waters
  - United States
    - Federal water permit or “no potential to discharge” determination; many states require permits for smaller operations



- Public notice required?
  - Canada
    - Generally yes
  - Mexico
    - Generally, no. Some notice for utilization of public utilities, etc.
  - United States
    - Yes



- Setback distances?
  - Canada
    - Yes, in all provinces. Requirements vary.
  - Mexico
    - No.
  - United States
    - Yes, in federal law and most states; requirements vary



- Geophysical requirements?
  - Canada
    - Yes, in 8 of 10 provinces (e.g., separation from water tables; avoid flood plains)
  - Mexico
    - ILOs banned in areas of water scarcity; some flood plain restrictions
  - United States
    - None in federal law. Yes, in 16 of 20 states, generally to avoid 100-year floodplain.



- Government review of site required?
  - Canada
    - Yes, under some circumstances, in 6 of 10 provinces
  - Mexico
    - Generally, no. Changes from forest to agriculture requires EIA
  - United States
    - Yes, under some circumstances in 13 of 20 states



- Government approval of plans?
  - Canada
    - Yes, under some circumstances in 6 of 10 provinces
  - Mexico
    - No
  - United States
    - Yes, under some circumstances, in federal law and in all 20 states





- General Observations
  - Numerous Data Gaps
  - Inconclusive as to whether variations in environmental regulations influence siting decisions.



- Nutrient Management Plan required?
  - Canada
    - Yes, in 6 of 10 provinces
  - Mexico
    - No
  - United States
    - Yes, in federal law and in all 20 states surveyed



- Recommendations

- Though countries, states, provinces or local governments may be justified in having standards different from their neighbours, caution must be exercised to avoid the “race to the bottom” effect
- Greater uniformity in requirements for NMPs, setbacks, public information and participation, and professional certification would be beneficial



- Governments should carefully consider the relative responsibilities of agricultural and environmental agencies in relations to ILOs
- Development and implementation of new waste treatment and pollution prevention technologies should be encouraged
- Imposing some responsibility for environmental impacts on “integrators” would be more equitable and likely improve environmental performance by producers



- Improved systems for collecting information on ILOs and for surveying regulation and enforcement in each country should be developed
- Better data for tracking foreign direct investment in ILOs is needed
- Worker health, antibiotic, hormone and pathogen issues deserve improved data collection and significant public attention