

Planning and Intensive Livestock Facilities: Canadian Approaches

by

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Introduction

The intensification of agriculture often leads to conflict within the rural community. Recent developments in the livestock sector have been a particular catalyst for debate and action within many rural communities. As livestock facilities have gotten larger, become more geographically concentrated, and more reliant upon technology (for example liquid manure systems) many people living in proximity to these facilities have expressed concerns related to odour and water quality. In response to this conflict provincial and municipal governments are thrust into the midst of the issue and are often pressured to develop criteria to assist with the establishment of new facilities and to regulate existing situations. The resulting approaches include a mix of legislation, policy, local by-laws and recommendations concerning management. This paper documents the key initiatives from each of Canada's provinces including both a provincial and municipal perspective.

This paper is organized into five main sections. First, an overview of the issue is presented; two, the basis for a provincial/ municipal response is presented; three, an overview of approaches in each of the 10 provinces is reviewed; four, specific details are provided for Manitoba, Ontario, and New Brunswick and finally there are a number of

observations and conclusions. This paper reflects the involvement of the authors in this issue and has been developed through discussions with municipal planners, farmers and provincial staff from across the country.

The Issue: An Overview

Figure 1 identifies a number of key trends that have had a profound impact on agriculture and the way it is perceived within society. Since the end of the Second World War agricultural production has become increasingly specialized and intensive. In an attempt to find efficiencies in production and in response to the cost-price squeeze, farmers find that net returns per unit of production are decreasing - dictating larger and larger operations. Between 1951 and 1996, for example, the number of farms with hogs dropped from 93,564 to 8,940. Likewise, the total number of dairy farmers in Ontario dropped from 40,000 to 8,320. Specialization has also affected the way the farm unit is perceived within the community. Larger “single industry” production units has meant that it is easier to focus on those sectors and practices in agriculture that are potentially damaging to the environment.

Trying to compete in the international market place is as challenging for agriculture as it is for any business. To remain competitive farmers continue to evolve, change and adapt their approach to production, including the adoption of new technology. Some within society believe that those systems which rely on technological control are more at risk than traditional systems which rely solely on human involvement. For example, the traditional stack of manure sitting behind the barn is often viewed as less environmentally

offensive than a large liquid system contained within a concrete facility and applied using modern technology. The approach to the ownership and management of land has also changed within the rural community. Today much less of the land base is controlled by individual resident farmers. There is a much higher proportion of non-farm ownership, absentee owners and a tendency for corporations to own large land holdings. Some believe that this tenure system is much less concerned with an environmentally responsible approach to land stewardship.

Coincident with this move to larger, more intensive operations is a trend towards a vertically integrated approach to agricultural production, where production, marketing, financing, and processing are increasingly linked together. In the livestock industry for example, there are strong linkages between each of these components. The result, at the community level, is that there is less willingness to accept the individual management decisions that are made for these corporate farms. The perception is that decisions at this level will not reflect the same stewardship or community based ethic of individual family farmers. Whether this perspective is correct or not is a point for debate- but the perception is held by many farm and non-farm individuals. The resulting perception is that there is a disconnectedness between agriculture, the farm, and the rural community (Toombs, 1996).

The move to larger, more intensive livestock operations have contributed to a number of community and public concerns. In response, there is a range of potential provincial and municipal actions (Figure 2 - Caldwell, 1999). The following section sets the context for

these approaches. While certain issues are more perceptual in nature and more difficult to establish (such as impact on property values), others are more firmly based in science and include concerns over water quality. Figure 2 identifies three general community concerns associated with large livestock operations - environmental, economic and socio-political.

Environmental concerns. The impact of agriculture on water quality is a concern in many rural communities. While the magnitude of the problem is a point of debate issues related to manure spills and the occurrence of non-point source contamination is clear evidence of the negative impact agriculture can have. While the cause of an e-coli outbreak at Walkerton, Ontario in 2000 and the associated loss of human life has not been firmly established many are placing the blame on livestock farming. In the U.S. earthen manure lagoons and a number of recorded “catastrophic spills“ has placed the livestock industry under intense public scrutiny (Henderson, 1998). While odour is an expected by-product of livestock - the concentrations of livestock and the ability to single out individual farms or livestock types (example hogs) in combination with community trends such as non-farm growth contribute to the prominence of this issue.

Economic issues. Concern over large livestock facilities and related environmental concerns can have an impact on real estate values. While the issue can be exacerbated by significant non-farm development it is not exclusively a farm vs. non-farm issue. In south-western Ontario, for example, significant debate has occurred in recent years and has involved farmers, non-farmers, cottagers and urbanites. Property value issues, while

notoriously difficult to prove can be exceedingly emotional and challenging to respond to. As a result, in many instances municipalities have been lobbied to restrict the establishment and operation of livestock operations.

Socio-political issues. Opposition to large livestock barns often sounds like “NIMBYSIM” (not in my back yard) and can lead to intense emotional debate and conflict. The debate can pit one sector of the community against another, raises fundamental questions about how we want our communities to evolve and can lead to questions concerning the role of agriculture. This emotion can complicate the best intentions of involving the community in policy development, implementation and on-going monitoring.

Provincial / Municipal Approaches

The development of a response to “Intensive Livestock Operations” reflects the respective powers and responsibilities held by the province and municipalities. Both, to a certain degree, are constrained in the types of actions that may be taken. Not only are there legal impediments, but there are also philosophical differences on how the issue should be approached. There are, for example, differing views on the merits of a regulatory vs. voluntary approach. From a regulatory perspective both municipalities and provincial staff are constrained by the legislative authority that they have to respond to this issue.

Within individual provinces and states different approaches have been pursued reflecting different attitudes towards agriculture and the livestock industry. These differences reflect the economic role of agriculture, the extent of non-farm development, the community's recent experience with agriculture, the health of the local environment and the nature and extent of the livestock industry. There are, however, constraints on the actions of provincial staff and municipalities (Caldwell, 1998). Some of these are as follows:

- i) **Jurisdictional Constraints:** Municipalities and the actions of provincial departments and ministries are subject to legislation. At the municipal level the passage of by-laws can only occur in those areas where provincial legislation establishes municipal authority. Across Canada, Planning Acts, Municipal Acts and Building Codes are key municipal tools and even under this legislation there are constraints in terms of the types of issues that can be addressed and the types of by-laws that can be passed. By-laws which are passed without appropriate legislative backing are subject to review and may be quashed by the courts. Likewise, staff within various provincial departments must operate within the constraints of the laws and regulations that have been duly enacted by provincial legislatures.
- ii) **Public Rights:** Related to the jurisdictional constraints which inhibit certain actions are the legal rights enjoyed by individuals. Included in these are the rights of farmers to challenge the legal basis for provincial or municipal action and to farm with minimal interference subject to compliance with appropriate requirements of local, provincial and federal authorities.

iii) Enforcement Issues: Governments - local, provincial and federal have been known to pass by-laws and regulations for which they do not have the financial or human resources to implement. Any attempt to enhance the provincial or municipal role as it pertains to livestock agriculture needs to recognize this constraint.

iv) Public Support: The successful implementation of regulations and by-laws is largely predicated on support from the public in terms of the need for, the appropriateness of and the fairness of the regulatory action. Not only is the support of the general public essential, but so too is the support of the farm community. This reiterates the need to not take action prematurely, but to work to develop an approach which is understood and acceptable to all parties.

v) Protecting the Agricultural Industry and Maintaining Competitiveness: The preservation of an active agricultural industry dictates the need to recognize the importance of agriculture -maintaining its ability to compete in the local and global market. By-laws and regulations that unduly restrict the ability of agriculture to evolve, or establish unrealistic financial impediments are likely to contribute to a stagnant agricultural sector, with the potential for broader economic impacts.

vi) A Broader Legal and Policy Framework: Both municipalities and the province are bound to a broader legal and policy framework. In the case of municipalities they must often contend with policy and programs which reflect provincial policy and priorities. These policies often set the fundamental direction that municipalities should (or shall) follow. In Ontario, for example, provincial policy directs the use of separation distances between livestock and non-farm uses. Similarly, in the U.S. “confinement operations – no matter how factory like – are generally considered

farms and are usually protected by right-to-farm laws, zoning exemptions, and other special treatment” (Henderson, 1998). Likewise, provinces are subject to a plethora of federal laws, national standards and international trading agreements.

Ten Provinces: An Overview

Table 1 provides an overview of the key approaches to siting and regulating livestock facilities in each of Canada’s 10 provinces. This information was gathered through personal interviews, review of published materials, and the experience of the authors in dealing with this issue¹.

The information provided in Table 1 attempts to summarize the general approach followed in each of the provinces. It is acknowledged, however, that to a certain degree the data included within Table 1 masks the differences that can occur within provinces. In Alberta, for example, one municipality might have a policy framework that is quite supportive of the livestock industry, while in a neighbouring jurisdiction, a decision has been made to double the recommended minimum separation distances- with a corresponding effect of discouraging livestock production. The differences within provinces often reflects the realities of many municipal governments executing their responsibilities in differing ways.

¹ The authors have attempted to maintain consistency in the comparisons between provinces. It is recognized, however, that various people in different provinces may have interpreted the questions that were posed in different ways. Likewise respondents had different backgrounds and levels of expertise relative to municipal vs. provincial experience.

Despite the limitations associated with the data presented in Table 1, there are some important observations that can be made as follows:

i) Legislation: While all provinces have adopted assorted legislation that potentially has an impact on siting and management of livestock production (example Planning Act, Building Codes, Environmental Protection, etc.) only a few have adopted specific legislation in response to the intensification of the livestock industry (New Brunswick, Quebec, Saskatchewan). This legislation (or lack thereof) also establishes the framework for a provincial (example Quebec) or municipal (example Manitoba) lead approach.

ii) Farm Practices: Farm Practices can sometimes create conditions which negatively impact on neighbours. Farmers can usually control excesses of nuisance through good management practices, common sense and consideration for neighbours. However, even if everything is done responsibly, nuisance problems may occur. Farm practices protection legislation has generally been designed to protect farmers who use accepted agricultural practices from lawsuits or court injunctions which allege nuisance. Currently all Canadian provinces except Newfoundland have some form of farm practices protection legislation. This recognizes the importance of agriculture and food production, while creating a balance with land use planning, environmental responsibility, conflict resolution procedures and new technology. In recent years both Ontario and British Columbia have extended farm practices protection legislation to include municipal by-laws that restrict normal and acceptable farm practices.

iii) Strategies/ policies: All provinces have adopted guidelines, strategies or policies to assist producers and to a certain extent provincial departments or municipalities with the siting of livestock facilities. In some instances these guidelines serve as educational material (example Best Management Practices in Ontario) while in other areas they have been adopted by municipalities as part of a regulatory framework (example Lethbridge County in Alberta).

iv) Provincial Leadership: In most provinces the Department or Ministry of Agriculture is the key provincial department involved with this issue. There are however, interesting anomalies in Quebec and to a lesser extent in Manitoba and British Columbia where the Environment Department has a much greater role. Discussions with some individuals suggest that to a certain extent Environment Departments are perceived as being more accountable to environmental issues.

v) Regulatory Tools and the Role of the Municipality: In some provinces, municipalities are the key institution involved in regulating the siting of livestock facilities. While municipalities do not exist in all parts of the country, where they do exist, they have on occasion assumed a leadership role or alternatively are proceeding in partnership with provincial agencies to deliver the provincial strategy or guidelines. Key components of this approach tend to include building permits, compliance with zoning provisions, minimum distance separations, and in some instances nutrient management plans, mandatory public meetings, land base requirements and protected water quality zones.

(In addition to a municipal focus on water there are increasing provincial initiatives aimed at protecting water quality resources).

vi) Environmental Studies and Nutrient Management Plans: The use of Nutrient Management Plans (NMP) is a common occurrence in those parts of the country where livestock intensification has been most pronounced. There is variation, however, as to whether this is a provincial lead initiative or municipally driven. There is also variation in terms of the implementation of the NMP as a regulatory tool (Quebec) or as an educational tool (Ontario). Commonly, however, NMP's are required as a prerequisite to a Certificate (example New Brunswick) or a building permit (many municipalities in Ontario). Within some provinces (or municipalities) there is also the potential for more detailed environmental studies that are likely to go beyond the traditional requirements of a NMP (for example Manitoba).

vii) Role of the Public: In the majority of provinces there is no public involvement in the review of proposals to establish intensive livestock operations. In Ontario, for example, the producer will need to obtain a building permit, comply with all applicable zone provisions, and complete a Nutrient Management Plan (where required locally). Once this has occurred, however, the producer is essentially guaranteed a building permit. In contrast there is an interesting mix of public participation at the local level within Manitoba, and to a certain extent Alberta. In Alberta, in Lethbridge County, for example, adjacent land owners are notified of a completed application for an intensive livestock

operation and in Manitoba public meetings are routinely held as part of the “conditional use permit” process.

Three Provinces: A More Detailed Review

Across Canada, there has been a tendency for livestock production to concentrate and expand in certain geographic areas. This has been a particular issue in parts of Quebec, Ontario and throughout the prairie provinces. This paper while providing a comprehensive inventory of the various approaches that are being pursued (Table 1) recognizes that a general overview can often overlook the various nuances that exist in applying policy and regulations in the context of unique provincial and municipal relations. Consequently, to provide more clarification, additional information and explanation is provided for Manitoba, Ontario and New Brunswick. The goal is to provide a more detailed understanding of what provincial and municipal regulations mean for the establishment of intensive livestock operations.

Manitoba

Within Manitoba there has been significant development of new livestock operations and significant additional expansion is anticipated. Within southern Manitoba for example, over 3,000,000 hogs are marketed annually. Recent trends include the construction of larger operations into areas where hog production was not previously a significant factor (Plohman, 1999). The result has been the development of new policies both at the provincial and municipal level in trying to respond to this expansion.

The siting of large livestock facilities in Manitoba is essentially a municipal responsibility but with considerable support from the province. In individual municipalities, where zoning by-laws are in place, the establishment of a new barn must conform with the zoning by-law and in certain circumstances, a conditional use permit is required. For example, in the rural municipality of La Broquerie, a conditional use permit is required for those barns which are larger than 200 animal units. Prior to the issuance of a conditional use permit, the municipality may require the completion of certain background materials and studies and the decision of the municipality is final with no appeal opportunities. In La Broquerie, there are examples of applications which have been approved and examples of applications that have been denied. Clearly however, the public meetings associated with a conditional use permit have the potential to be contentious, but do provide the opportunity for considerable input and review prior to the establishment of a new barn.

There is a connection between the conditional use permit and the province. For example, a “regional based review board” consisting of provincial staff exists that will review the proposed establishment of a new barn on behalf of a municipality at the municipality’s request. This review board includes input from the Department of Environment, Department of Agriculture, Department of Natural Resources and the Department of Rural Development. These agencies review the proposal from their various department perspectives and issue a joint report to the municipality recommending changes or conditions to the conditional use permit.

The Department of Environment is also involved in the review of storage facilities and issues approval for lagoons and concrete storage facilities. In addition, the spreading of manure in the winter is banned for those operations which exceed 400 animal units. Provincial Guidelines have also been developed and these guidelines can be included in local conditional use permits and zoning by-laws. Finally, a nutrient management plan must be completed by those operations which exceed 400 animal units. This management plan is required and reviewed by the Province and will be registered and periodically audited by the Department of Environment (5% are audited per year).

In summary, the approach across Manitoba varies by municipality (some municipalities have zoning and building permit requirements in place while others do not). Although provincial support exists for municipalities current experience indicates that some municipalities are well prepared for new construction while others are in the midst of trying to come to grips with this issue.

Ontario

In Ontario, as in Manitoba, the municipality deals directly with the proponent of a large livestock facility. Unlike Manitoba however, the right to establish a livestock barn tends to be entrenched in zoning and there is no requirement for conditional use permits, or mandatory public meeting. Zoning traditionally establishes minimum lot sizes and allows for agricultural activity consistent with the zoning by-law provisions.

Many municipalities with the support of the province, have implemented the requirement for the completion of nutrient management plans prior to the issuance of a permit for a new “large” livestock operation. These nutrient management plans address issues including the on-site characteristics of the farm, the proposed livestock operation and are generally required for those new operations which are larger than 150 livestock units.

The province provides support to the nutrient management plan requirement through the provision of third party review (the province, through the Ministry of Agriculture, Food and Rural Affairs will review the nutrient management plan and provide an opinion that it is appropriate, however the eventual issuance of a building permit is the responsibility of the municipality alone).

The provincial nutrient management planning strategy (developed by the Ontario Farm Environmental Coalition) and supported by the province provides a recommendation that manure storage facilities have a capacity for at least 240 days storage and this standard has been adopted by many municipalities.

The province and farm organizations have also partnered in the development of best management practices to assist with the management of large livestock operations. The province has also developed minimum distance separation criteria as part of the Provincial Policy Statement that municipalities must have regard to when developing official plans. These criteria have been adopted by many municipalities within local zoning by-laws.

In contrast to Manitoba however, there are no mandatory provincial guidelines requiring the completion of a nutrient management plan. The province has instead adopted eight provincial position statements concerning nutrient management. The position statements are designed to provide clear direction based on the best available technical expertise. The position statements include: nutrient management plans, size of agricultural operations, land ownership, distance for hauling manure, manure sale or ownership transfer, manure storage capacity, manure storage type, and minimum distance separation.

Also as in Manitoba, there continues to be considerable variation across the province. Some municipalities have adopted the requirement for nutrient management plans – others have not. Some municipalities have attempted to put a moratorium in place in response to the construction of new livestock barns (for up to 1 year) under an interim control by-law and the specific content of nutrient management plan by-laws tends to vary considerably from one municipality to the next.

The situation in Ontario may evolve further following the deaths of several individuals following the contamination of the water supply for the Town of Walkerton with e-coli bacteria. While the source of this bacteria remains a point of investigation, considerable attention has been focused on the livestock industry. The result is the probable development of legislation with the potential for adoption by the Provincial Legislature.

New Brunswick

Contrasting both Manitoba and Ontario the Province of New Brunswick has taken a different approach to dealing with large livestock facilities. The Province in 1998 adopted the Livestock Operations Act which requires proponents of new or expanding livestock operations to obtain a provincial license. The Department of Agriculture issues a Certificate of Compliance (license) to applicants that meet provincial regulations which include separation distances, manure storage requirements and nutrient management plans.

In some areas of New Brunswick a building permit is required. In these areas the permit is issued when all applicable law including the Livestock Operations Act has been met. This system is in the early stages of implementation and has not yet been tested.

In the three provinces we have examined in more detail - Manitoba, Ontario and New Brunswick there were three different approaches to the challenge of dealing with communities and large livestock facilities. Manitoba while provincially encouraging livestock producers to come to Manitoba has adopted a public involved municipal process to promote community acceptance of individual proposals. Ontario has adopted a provincial policy approach with municipal implementation. New Brunswick has adopted a provincial license approach with little or no municipal involvement

Conclusions

This paper has reviewed some of the key agricultural trends which impact at the community level. These trends translate into certain environmental, economic and socio-political concerns that have lead to action provincially and within municipalities. The result is a diversity of approaches across the country and even within a province. While this paper has focused on regulatory considerations there is also a range of voluntary, educational and community based approaches that are sometimes used.

Today's modern and often intensive livestock industry can raise concerns and antagonism within the community. Some of these concerns are justified while others are more perceptual in nature. Whether real or perceived, however, these concerns are being taken seriously by provinces and municipalities. Politicians are often lobbied by ratepayers to take action in response to a changing and sometimes growing livestock industry. People see an evolving livestock industry affecting their personal quality of life- including the air that they breathe and the water that they drink.

In reality the magnitude of the issue varies within and between provinces. Within many provinces there are areas of agricultural production, where, the livestock industry is overshadowed by an extensive cash crop sector, while in other areas livestock production can be the backbone of the local economy. In some instances this will have contributed to a relatively muted provincial response while a few municipalities are embroiled in acrimonious debate. The result, while continuing to evolve, is a diversity of approaches and responses within and between provinces that reflects individual provincial needs.

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Figure 1: Key Agricultural and Land Use Related Trends

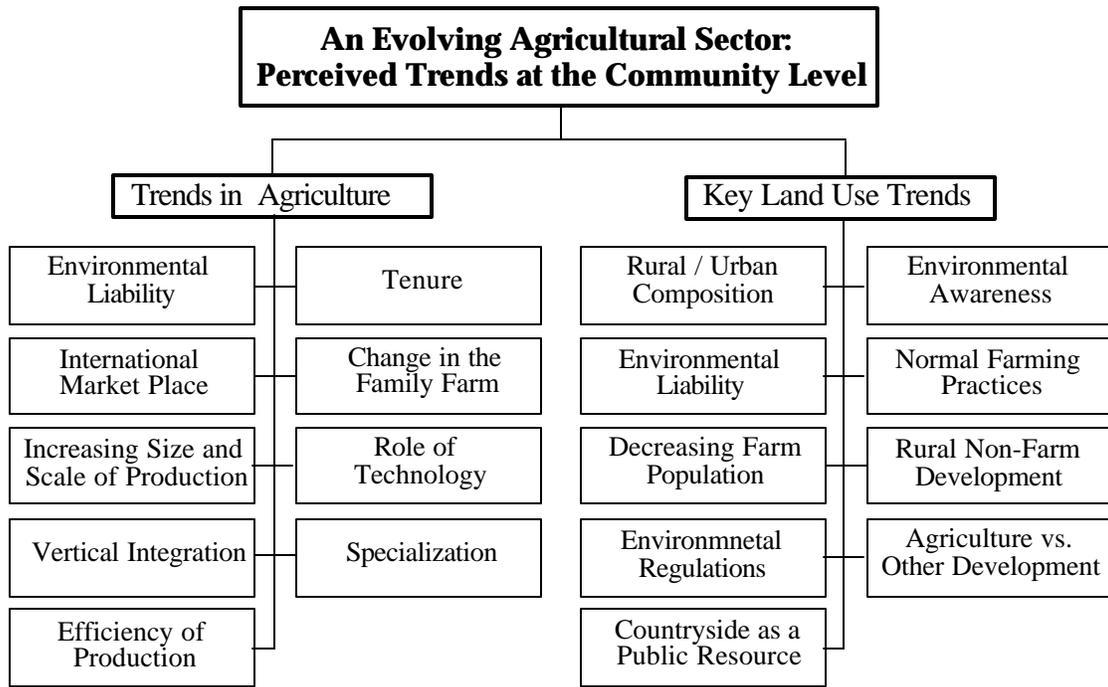


Table 1: Approach to Addressing Intensive Livestock Operations By Province

| Legal & Jurisdictional Context | Newfoundland | Nova Scotia | Prince Edward Island | New Brunswick |
|--|---|---|---|--|
| Is there specific legislation? | No | No | No | New Livestock Operations Act |
| Are there provincial strategies/policies? | Draft Commodity Sector Guidelines | Manure mgmt guidelines | Yes (“Cultivating Island Solutions, 1999) | Yes (Manure Management Guidelines) |
| Do programs focus on livestock only ? | No | No | No | Yes |
| What is the key Provincial Department? | Agriculture | Agriculture | Agriculture | Agriculture |
| Are provincial approvals required? | No | No | No | Yes (license under New Livestock Operations Act) |
| Standards for siting intensive livestock operations (general applicability) | | | | |
| Building permits/zoning | Prov Legn, inconsistent mun. implementation | Prov. Legn., inconsistent mun. implementation | Prov. Legn., inconsistent mun. implementation | Prov. Legn., inconsistent mun. implementation |
| Separation distances | Yes (draft guidelines) | Yes (implementation by some municipalities) | Yes | Yes |
| Manure storage (structure/ capacity) | draft guidelines | 210 days | 210 days | 210 – 250 days (legislation) |
| Environmental studies | No | No | Yes | Option |
| Mandatory public meetings/notification | No | No | Notification only | No |
| Nutrient Management Plans (NMP) | No | No | No | Yes (Manure Management Guidelines) |
| 3rd party review of submissions | - | - | - | Province reviews |
| Who can complete NMP | - | - | - | Staff agrologist |
| Approach to enforcement | - | - | - | Complaint driven (Ag Review Comm.) |
| Register land for nutrient application | No | No | No | No |
| Prohibit winter manure application | No | No | No | No |
| Limitations on livestock densities/total size | No | No (yes) | No | Indirectly - NMP |
| Land base requirements for spreading | No | No | Yes | Yes |
| Thresholds defining large | No | No | Range 30-60 LU | Yes |

Continued

Table 1: Approach to Addressing Intensive Livestock Operations By Province (continued)

| Legal & Jurisdictional Context | Quebec | Ontario | Manitoba |
|--|--|--|---|
| Is there specific legislation? | Environmental Quality Act | No | No |
| Are there provincial strategies/policies? | Yes | Yes | Yes |
| Do programs focus on livestock only? | Livestock /crops | Livestock Focus | Livestock Focus |
| What is the key Provincial Department? | Environment | Agriculture | Environment/Agriculture |
| Are provincial approvals required? | Yes | No | Yes (NMP and Lagoons) |
| Standards for siting intensive livestock operations (general applicability) | | | |
| Building permits/zoning | Prov. Legn., Municipal Implementation | Prov. Legn., Municipal Implementation | Prov. Legn., Municipal Implementation |
| Separation distances | Legislation | Prov. Policy, municipal implementation | Provincial guideline (implemented by some municipalities) |
| Manure storage (structure/ capacity) | 250 days- legislation | 240 days (Prov. Strategy) some municipal implementation | Dept of Env't approvals req'd above 400 a.u. |
| Environmental studies | Yes | No | Required by some municipalities |
| Mandatory public meetings/notification | No | No | Required by many municipalities |
| Nutrient Management Plans (NMP) | Yes | Prov. Strategy, implemented by some municipalities | Yes |
| 3rd party review of submissions | Yes (government) | Yes | Yes (government) |
| Who can complete NMP | Agrologist | Farmers (some municipalities require consultants) | Farmers |
| Approach to enforcement | Fines- complaint driven | Local Ag review Comm. (some municipalities try to enforce) | Random Audits |
| Register land for nutrient application | Yes | Some municipalities considering | Yes |
| Prohibit winter manure application | Yes | No | Yes for Large operations |
| Limitations on livestock densities/total size | Indirectly through Agro-environmental fertilization plan | Indirectly through NMP | Indirectly through NMP |
| Land base requirements for spreading | Indirectly through Agro-environmental fertilization plan | NMP | NMP |
| Thresholds defining large | 75 LU | 150 LU | 400 LU (200 LU some mun.) |

Table 1: Approach to Addressing Intensive Livestock Operations By Province (continued)

| Legal & Jurisdictional Context | Saskatchewan | Alberta | British Columbia |
|--|------------------------------------|---|-----------------------------------|
| Is there specific legislation? | Agricultural Operations Act | No | No |
| Are there provincial strategies/policies? | Yes | Yes | Yes |
| Do programs focus on livestock only? | Livestock | Livestock | Both (mushroom, greenhouse) |
| What is the key Provincial Department? | Agriculture | Agriculture | Environment, Agriculture |
| Are provincial approvals required? | Yes | No | No |
| Standards for siting intensive livestock operations (general applicability) | | | |
| Building permits/ zoning | Prov. Legn, municipal requirement | Yes | Prov. Legn, municipal requirement |
| Separation distances | Yes-where applied by municipality | Yes (municipal implementation) | Manure storage- water courses |
| Manure storage (structure/ capacity) | 180 days | 180 days (varies by livestock) | 150 days |
| Environmental studies | Yes | Yes | No |
| Mandatory public meetings/ notification | Yes (recommended under guidelines) | In some municipalities | No |
| Nutrient Management Plans (NMP) | Yes | Yes (varies by municipality) | No |
| 3rd party review of submissions | By government | Varies | - |
| Who can complete NMP | Anyone | Varies | - |
| Approach to enforcement | Complaint driven | Peer Review, Stop Order (Mun. Gov't Act) | - |
| Register land for nutrient application | No | varies | No |
| Prohibit winter manure application | No | Yes according to Code of Practice (some municipal implementation) | Indirectly (waste mgmt) |
| Limitations on livestock densities/ total size | Indirectly NMP | Indirectly NMP | No |
| Land base requirements for spreading | NMP | NMP | No (spreading guidelines) |
| Thresholds defining large | 300 LU | Varies by livestock (some Mun.) | No |