

CHAPTER 10

SYNTHESIS AND SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

This chapter brings together the various conclusions and recommendations found in this report. It builds on the sustainable livestock development principles outlined earlier, synthesizes some key conclusions, and summarizes the main recommendations.

Sustainable Livestock Development Principles

Sustainable livestock development consists of three inter-related components: economic viability, environmental stewardship, and social and equity issues.. Our challenge, indeed the challenge for everyone with an interest in the livestock sector, is to identify policies, guidelines and regulations that will enable us to expand Manitoba's livestock sector in ways that take into account the concerns in all three components. Solutions that deal with only one of these components and don't recognize the others simply won't be acceptable to Manitobans. In other words, we must "find common ground".

The concept of sustainable livestock development requires an identification of some principles. The principles that have guided the Panel in reaching its conclusions and developing its recommendations are outlined below:

- Economic, environmental and social considerations must be integrated in public and private decision making.
- The concept of stewardship is paramount; that is, today's decisions must be balanced with tomorrow's impacts.
- The long term productive capacity and quality of our natural resources must be maintained.
- Economic returns from production should enable an adequate standard of living to be

maintained; furthermore, it should be sufficient to continue to attract replacement farmers.

- Economic activity should not detract from human health or the quality of land and water; a balance must be struck between the size of production units consistent with technology and a social structure acceptable to all stakeholders.
- Science based information must be an integral part of public and private decision-making. Where that information is inadequate, government and the private sector have a responsibility to support appropriate research activities.
- Means to ensure that the results of the research are effectively communicated to farmers and decision-makers also are necessary.
- Adequate resources must be allocated to monitor and enforce compliance with regulations and standards.
- There must be sufficient transparency to stakeholders in the production, processing and regulation of the livestock industry to instill confidence that Manitoba's food is being produced in a safe and sustainable manner.

Synthesis of Key Conclusions

Many conclusions were drawn throughout the report. What follows is a synthesis of key themes.

- Public apprehension about ILOs is being driven by several factors: experiences in other jurisdictions, declining familiarity with what is happening on farms, the occasional local "horror story", and the perception of insufficient monitoring of ILOs.
- The government is seen as the custodian of public interest in the environment. The public

needs to be confident that government is ensuring that “things are being done right”, and must have access to information to be assured of this.

- Current regulations and guidelines for ILOs, for the most part, are adequate; however, monitoring and enforcement are not.
- Progress towards sustainable livestock development in Manitoba must be based on reliable information, and not emotion. This information should be drawn from research and practical experience, and must be relevant to the Manitoba situation.
- It is important to recognize that there are two broad types of farms: large commercial farms that produce primarily for export, and farms that derive limited income from agriculture or are in transition. The same policies and regulations will not work for both groups.
- Although much of the Panel’s focus has been on hogs, we believe that beef production in Manitoba is sustainable, providing the issues of riparian management and processing capacity are addressed.
- Manure is a valuable product, capable of replacing expensive inorganic fertilizer and improving the soil, and should not be treated as a waste.
- The Panel believes that expansion of ILOs can be sustainable in Manitoba, provided that government follows the recommendations contained in this report.

Synthesis of Key Recommendations

The Panel has identified four key recommendations that are critical to achieving sustainable livestock development in Manitoba. These are followed by a series of supporting recommendations.

Role of Provincial Government in Sustainable Livestock Development

Of the 40 or so recommendations presented in this report, about two-thirds address the involvement of the provincial government directly in the intensive livestock industry. It is not surprising, therefore, that the overarching recommendation from the Panel stresses the need for the commitment of staff and financial resources to be devoted to two tasks: first to gain a full understanding of the present situation of such operations in the overall milieu of agriculture in the province, and secondly, to provide a regulatory framework and a monitoring and enforcement effort in which expansion can take place without damage to Manitoba’s people or environment.

In this regard, the Panel **strongly recommends** that:

- **Government focus substantially increased resources on the intensive livestock industry in Manitoba to provide analysis, guidance, inspection, monitoring, enforcement and technological assistance that can accommodate the present scale of the industry and anticipate its expansion.**
- **Capability to undertake comprehensive analysis of the potential impact of new or expanded ILOs upon both local and larger area environments should be enhanced immediately in order to lead to strong critical decisions.**
- **Government develop and make public the policy framework through which livestock expansion will take place, stressing its concern for sustainability.**

Publicly Available Information

Policies for the future are shaped by past experience, knowledge of present circumstances, and reliable information. This reliable information must be available not only to government and industry, but also to the concerned public.

The Panel recommends:

- **The Government of Manitoba should accumulate all relevant data concerning livestock operations in a central openly available information system in a GIS format to provide Manitobans with a realistic assessment of the sustainability of current operations and their effect on both the local and provincial environments.**

Role of ILOs in Rural Development

The provincial government is challenged to promote rural development in a sustainable manner. The Panel believes that ILOs can play an important role in rural development through generation of employment and income, but they should not be seen as the only option. Farmers who wish to produce and market animals without going the ILO route should be assisted.

The Panel recommends:

- **In light of socio-economic concerns about livestock expansion, the Government of Manitoba should take a two-pronged policy approach to encouraging sustainable livestock development in Manitoba:**
 - **For large scale livestock operations, monitor and enforce environmental and health regulations with a view to enabling these farms to be competitive in export markets while ensuring environmental stewardship**
 - **For farmers in transition and those who currently derive limited income from farming, develop a package of programs that will enable these farmers to adjust their farming operations to a level that will provide them with an acceptable quality of life. This could also include a greater focus on higher animal welfare production systems.**

Decision Process for Siting ILOs

The Panel regards a carefully considered decision on the siting of ILOs to be of prime importance in sustainable livestock development, particularly in protecting the environment. It is essential that

local circumstances, especially as pertaining to land use, be very thoroughly thought through. It is also essential that the province, being in a better position to assess environmental factors in depth on a larger area basis, have a say in the siting of ILOs.

The Panel therefore recommends:

- **New and expanding ILOs should require formal approval by both the host municipality for compliance with land use by-laws, and the province for environmental impact before construction is allowed to begin.**

Supporting Recommendations

What follows is a summary of supporting recommendations that are grouped according to topics in previous chapters.

Planning for Sustainable Livestock Development

- New and expanding ILOs should not be permitted in municipalities lacking land-use zoning by-laws until such by-laws have been formally adopted.
- The provincial government should designate or appoint an appropriate Board or Panel empowered to investigate and rule on an appeal of a provincial decision to allow or disallow the establishment of any new or expanding ILO in Manitoba, and that the decision of that Board or Panel be final.
- The province should recognize the value of GIS and act promptly to find the means to facilitate its use as a planning tool in municipal government as well as in provincial government departments and agencies that need alternative approaches to the exercise of their mandates.

Water Quality

- Water quality monitoring must be greatly increased to provide an assessment of the impact of livestock production on soil and water. A critical constraint to achieving this is the inadequate level of staffing for monitoring.

- Additional enforcement effort is required to ensure compliance with current regulations, particularly concerning manure management and storage, and penalties for infractions must be increased.
- The province should move toward regulating manure application according to phosphorus content of soil and manure, and future ILOs should be located in order to provide sufficient acres for manure application according to phosphorus content.
- The province should continue to implement the recommendations of the recently released Drinking Water Advisory Committee Report, especially recommendations for a drinking water coordinating center that is properly staffed and supported.
- Government, in conjunction with the industry, review the in-barn environment with a view to:
 - establishing a monitoring regime and ensuring compliance with existing regulations, especially those affecting the health and safety of workers,
 - assessing the training needs of barn workers, and
 - identifying research priorities which bear upon the health of operators, workers and the nearby public.
- All barn workers should be strongly encouraged to wear proper masks.
- Greater attention should be paid by the industry and government to familiarizing the public with the in-barn environment and precautions that are taken to raise healthy animals.

Threshold Level for Regulation of ILOs

- The calculation of animal units should be cumulative across species.
- In view of the lower threshold level in other provinces and some municipalities in Manitoba, the Livestock Manure and Mortalities Regulation should be modified to require manure management plans for all new and existing operations of 300 AUs or more, and that winter spreading of manure be prohibited for all new and existing operations above 300 AU.
- This reduction should be phased in over a reasonable period and should be coupled with an expanded monitoring effort, expert advice, and, possibly, incentives to encourage revamped manure management structures.

Health Issues

- Strong research and development emphasis should be placed on the monitoring of pathogens and the mechanisms by which they are transferred from animals to humans, and upon factors such as the design of barns, manure storages, and spreading practices that minimize such transfer.

- As a matter of responsibility to Manitobans, government and the industry should make clear why and how the industry uses antibiotics.

Livestock and Climate Change

- The Government of Manitoba should give serious consideration to accelerating the process of making the public generally, and the agriculture sector particularly, aware of the impacts of climate change, and the range of measures for mitigating and adapting to climate change.

Manure Management

- Educational institutions, in cooperation with industry and government, should re-assess the training requirements for professionals and technicians in the nutrient management field.
- The provincial government should move towards the formal certification of commercial nutrient applicators.
- For reasons of odor control, reducing greenhouse gas emissions, and maximizing nutrient capture, ILOs should be encouraged to implement covered manure storage and injection.

Riparian Management

- The Manitoba Cattle Producers Association should take the lead in developing a strategic initiative for riparian management in Manitoba. This should be done in partnership with groups such as Manitoba Habitat Heritage Corporation, Ducks Unlimited, Conservation Districts, and PFRA, as well as Manitoba Agriculture and Food and Manitoba Conservation.

Performance Bonds

- Industry representatives and government should explore sources of performance bond insurance, the levels that are appropriate, and the regulations that are required to provide the public with assurance that costs of environmental problems with a specific ILO are not borne by the public.
- Performance bonding should be a condition of approval for new and expanding ILOs, and that such a condition for all ILOs over 300 AUs be phased in over a reasonable time period.

Demonstration Sites

- Manitoba Pork should coordinate the development of a state of the art hog production site and manure handling facility that can test the latest techniques to improve sustainability of the hog industry and improve the in-barn environment. Such a site would play a vital role in technology transfer to current and prospective hog producers, as well as have a primary function in education of municipal councils and the general public.

Research

- Government should maintain a pro-active role and sustained leadership in mounting research related to environmental stewardship. It should be prepared to read signals (such as the consequences of climate change) and “blue-sky” and “what if”. It should have strong regard for the precautionary principle.

- Research should be encouraged into the development of portable manure nutrient measurement equipment.
- Research into the application of electromagnetic spectrometry (EMS) to detect leakages in manure storages, already being tested in the field by PFRA, should be extended to support a strong monitoring and inspection effort. Further, an EMS profile of each new manure storage facility should be obtained as a baseline before initial filling.
- A systematic study should be made of the experience of Manitobans living near ILOs, with a view to improving the criteria upon which municipalities base siting decisions.
- The Farm Practices Guidelines should strongly stress the uncertainties in general recommendations on setbacks and the need for very careful on-site assessments.
- A long-term study should be initiated on the behavior and quality of water (including nutrients and pathogens) running off fields in a natural state and those fertilized with livestock manure and/or inorganic fertilizers, and that this research be tailored to demonstrating the results to the public.
- Research should be undertaken on the impact of air quality on animal health and production to indicate the financial benefits of maintaining clean air and less odor through nutritional management and different feeding strategies.
- Research should be conducted into animal housing in ILOs, with a view to more closely matching the inclinations of the animal to enhance the acceptability of animal confinement in the public mind.
- The Government of Manitoba should initiate a research and development program aimed at identifying technology and management practices appropriate for smaller farmers; such a program should not be predicated on cost sharing.

You Can Take a Horse to Water, AND You Can Make Him Drink!

- The livestock industry and provincial government should re-examine and increase their communication and extension efforts with a view to heightening the awareness of improved technologies and management approaches derived from research and development.
- Government, having eased the means by which data are accessed, should organize its tasks in such a way that competent specialists are on call to consult with both ILO and smaller operators, or point them in useful directions. Such a service should be particularly useful to new entrants to the livestock industry.

Concluding Comment

The Panel is convinced that “common ground” can be found for sustainable livestock development in Manitoba. It will require a commitment by the provincial government and the livestock industry to deal with many concerns about the impact of livestock on Manitoba’s environment and rural landscape. It will also require a greater willingness on the part of opponents of the livestock industry to recognize that sustainable livestock development is not inherently bad. We believe our report contains recommendations and suggestions that can be used by all to find the “common ground”