

Agriculture in the Local Community: The Municipal Role

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Introduction

In some ways agriculture and the rural community have evolved in different directions. Production agriculture has increasingly industrialized - it has gotten larger, more specialized, more intensive and some would argue it now represents a significant risk to the environment and the quality of life of rural residents. In contrast, the rural community has become less farm oriented, less tolerant towards agriculture, more urban and relative to agriculture, it has become more politically influential - locally, provincially and nationally. In the midst of these processes, municipalities are expected to make decisions that balance these competing interests.

This paper reviews a number of community and agricultural trends that municipalities must consider. As municipalities attempt to cope with an ever changing agricultural industry and a significantly different rural community, it is pressured to develop appropriate planning tools. This paper builds on earlier work by Caldwell (2001) and presents a number of Best Management Practices (BMPs) that municipalities should consider in planning for agriculture.

Are agriculture and the rural community heading in the same direction?

Until the middle of the 20th century, agriculture and the rural community were largely inseparable. Farming was a lifestyle that largely defined the rural community. Small family-based units of production, close ties with neighbours, traditional technologies, and minimal change from generation to generation defined North America's agricultural industry. With increasing mechanization following the Second World War, and with numerous social, demographic and technical changes throughout society, the rural community and agriculture began to head in separate directions. Today, while there remains a strong linkage between agriculture and the rural community, there are many trends that contribute to a divergent rural community (Caldwell, 1998).

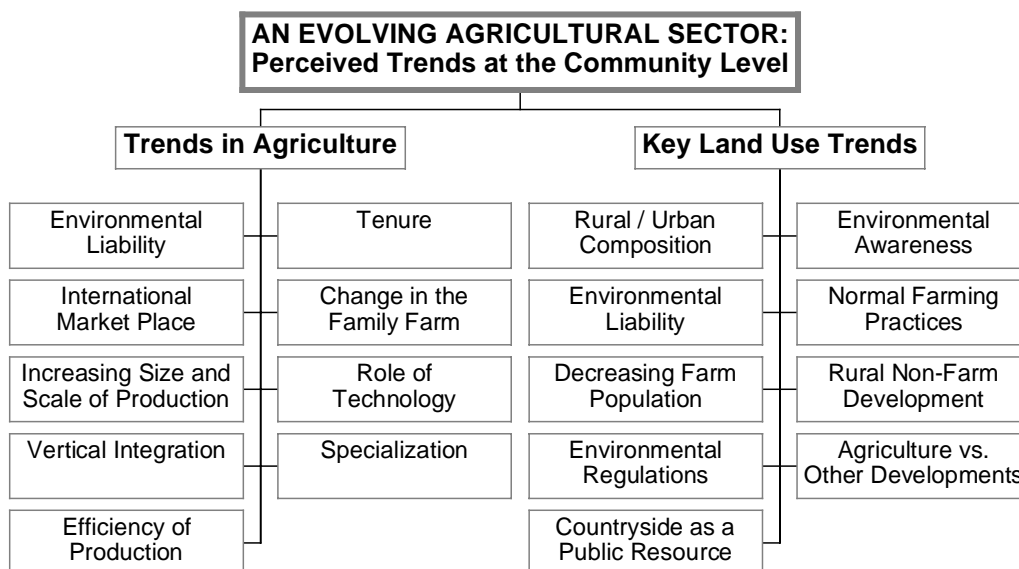


Figure 1. Trends in the rural community.

An evolving agricultural sector

Figure 1 identifies a number of trends that have had a profound impact on agriculture and the way society perceives it. Since the end of the Second World War, there has been increasing industrialization in the processes associated with agricultural production. Increasing specialization, and intensification of production are evident in a number of agricultural categories (for a general overview of these trends see Ward, 1999). These evolving and ongoing agricultural trends continue to have an impact at the community level and in turn affect how municipalities respond to agriculture.

In a search for increasing efficiencies and in response to the cost price squeeze, farmers find that net returns per unit of production are decreasing - dictating larger, more specialized and more efficient operations. Between 1951 and 1996 for example, the total number of dairy farmers in Ontario dropped from 40,000 to 8,320 (Surgeoner and Grieve, 1995; OMAFRA, 2001). During the same time the number of farmers reporting hogs dropped from 93,564 to 6,777 (Surgeoner and Dalrymple, 1995; OMAFRA, 2001). This move towards fewer, but larger farms, is also repeated in the dairy and poultry sector. Specialization has also affected the way in which the farm unit is perceived within the community. Larger "single industry" production units (with geographic concentrations) has meant that it is easier to focus on those sectors and practices in agriculture that are less acceptable and potentially damaging to the environment.

Increasingly, the elements of production, marketing, financing, and processing are linked together. This move towards vertical integration is evident in the livestock sector. The result, at the community level, is that there is less willingness to accept the management decisions that are made for these large 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 rural residents.

In order to remain competitive in today's market, farmers are required to evolve, change and adapt their approach to agricultural production. In some instances this results in decisions that others find difficult to support. Related issues include the continued adoption and reliance upon technology and issues related to tenure. Some within society perceive that those systems which rely on technological control, are more at risk than traditional systems that rely solely on human involvement. The author, for example, has witnessed heated conflict related to the establishment of new barns using liquid systems, while older traditional systems, many with problems, receive much less public scrutiny. 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 very large holdings. Some believe that this tenure system is much less concerned with environmental sustainability.

Approaches to cash crop production have equally relied on evolving technologies. The improvement of genetics, the use of biotechnology, and the more strategic use of herbicides and fertilizer, for example, has resulted in a major increase in productivity. Grain corn and soybean yields, for example, increased 103% and 44% respectively between 1951 and 1991 (Agri-Food Research in Ontario, 1995).

In summary, there are a number of major issues driving change within agriculture and these are presented in Figure 2.

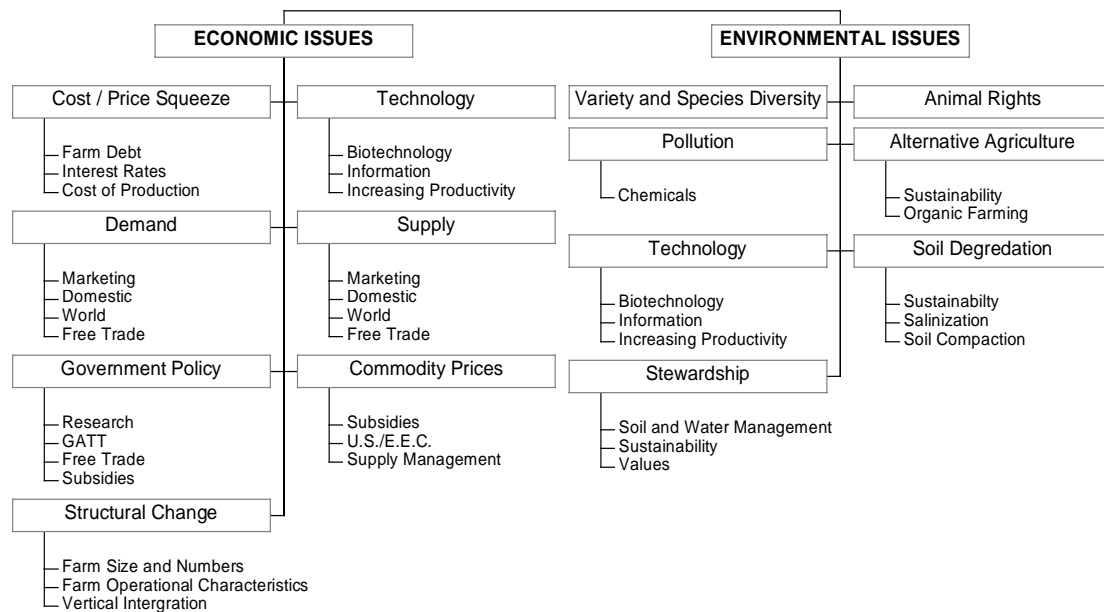


Figure 2. Major issues driving agriculture.

A new rural community

Figure 1 also identifies a number of significant changes within the rural community. Generally these can be identified as demographic, environmental and land use.

From a demographic perspective there are three related trends:

i) Rural is a decreasing component of the country's population. Across Canada and largely since the end of the Second World War, there has been a continuous shift in the residency of the population from rural to urban. The result is that within Ontario in 1996, for example, only 16.7% of the province's population was classified as rural and only 2.1% was classified as farm. In 1941, 27% of Canada's total population lived on farms compared to just 3% in 1991 (Thibault, 1994). As a result, as rural and agriculture have become relatively less prominent, agriculture and agricultural issues are a much smaller component of the provincial and national agenda.

ii) While population growth has occurred in many rural areas, the farm population has generally decreased both in total numbers and as a proportion of the rural population. These trends are evident within the most pronounced agricultural areas. For example, between 1986 and 1996, the rural non-farm population of Ontario grew by 179,892 while the farm population decreased by 17,325 (OMAFRA, 2001). This shift in the rural farm and non-farm population is accompanied by a corresponding increase in the potential for conflict between these groups. These changes also translate into a reduction in the significance of agricultural issues provincially and federally.

iii) Related to these more fundamental demographic trends, there is increasing urban development in rural areas (Caldwell, 1995). This rural non-farm development raises the probability of conflicts with agriculture, changes the farm/non-farm composition of communities and, by virtue of a higher population density, may contribute to issues of nuisance complaints and corresponding policy restricting certain farm practices.

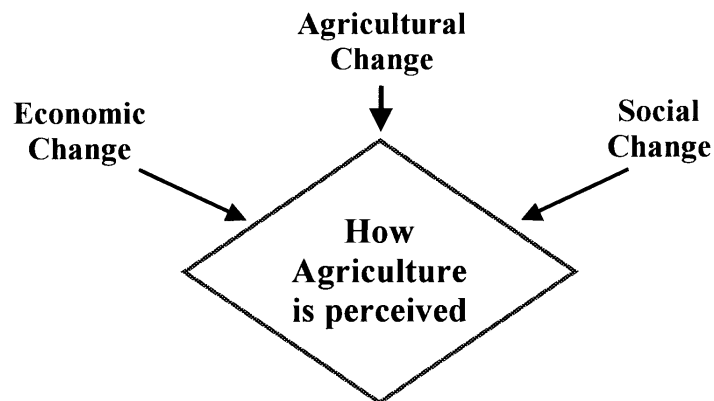
From an environmental perspective, society has become increasingly aware and concerned with issues that contribute to the degradation of the environment. This environmental awareness contributes to the public being much less accepting and tolerant of issues related to agriculture and the environment. In Ontario, a number of deaths from suspected contamination of water from livestock (E-Coli bacteria) has placed much scrutiny on the livestock sector. Related to increased environmental awareness, there is an increasing liability that potentially exists as a result of air or water contamination from agricultural practices. The potential for nuisance suits, and accidents or poor management that contaminate surface or ground water are likely to lead farmers and their insurance companies to be increasingly careful in the establishment and maintenance of livestock facilities (Caldwell and Toombs, 1999; Carter and Owen, 2000). Issues related to environmental liability has led municipalities to more rigorously enforce and develop by-law provisions that pertain to agriculture. With changes in society, demographics, political influence and the composition of the farm community, elected officials are increasingly willing to establish, implement and enforce environmental regulations.

While land use includes environmental and demographic changes as identified above, it is also worth noting that there are changes in how the countryside, development and “normal farm practices” are viewed by society. While North America's agricultural areas are predominantly in private ownership, some view the countryside as a common or public resource. Consequently, there is the probability that over time legislation and local by-laws will increasingly reflect the broader public perspective. This is particularly true for common resources such as air and water that transcend private property and that clearly are public. In some instances, agriculture is viewed as a “poor second cousin” relative to other forms of development such as residential or commercial. For example, significant numbers of rural non-farm lots have developed in much of rural Ontario (Caldwell, 1995). As a result, policies are often implemented that favour non-farm development. In many instances this can be to the detriment of ongoing agricultural activity. Finally, the concept of “normal farm practices” continues to evolve. This term has been employed within legislation to help provide farmers with protection from harassment from neighbouring property owners. Related legislation recognizes that certain farm practices have environmental implications as a normal consequence in the production of food. The result has been the continuance of certain farm practices, that might be construed as normal, but which may not be in the best interest of the environment. It seems apparent that given the need to ensure high environmental standards, the farm community will be held increasingly responsible for farm practices and their implications on the environment.

Rural and agricultural change - The basis for a municipal response

As municipalities reflect upon the changes that have occurred in agricultural production, they are faced with needing to manage two separate types of risks. From a municipal perspective, it is appropriate to ensure that agriculture is maintained and enhanced while at the same time ensuring that agricultural practices are consistent with broader community goals, including environmental quality (Figure 3). In response municipalities have attempted to develop and implement a variety of approaches. The balance of this paper focuses on some of the specific challenges faced by municipalities and the potential for a municipal response.

Figure 3: Characteristics of the New Rural Community



Agriculture in the new rural community:

- Altered (reduced) role for agriculture (globalization)
- Much greater diversity in the rural community
- Much greater diversity in agriculture
- Public space in the countryside
- Agriculture perceived as an industry
- Pervasiveness of urban influences
- Role of technology
- etc.

Agriculture in the new rural community: Issues for municipal consideration

The above trends produce a number of specific issues that help to define the interconnections between agriculture and the rural community. Given the role of municipalities in governance, policy development and planning these issues can become a key consideration in the actions of local government. The following observations reflect both the literature and the authors 20 years of experience working in rural municipalities.

- **Balancing Real With Perceived Issues:** Increasingly, municipalities need to distinguish between real and perceived issues. As agriculture changes and as the percentage of the labour force involved in agriculture shrinks, there is less understanding of agricultural practices. In some instances, agricultural production contributes to significant environmental issues, but in other situations the reaction and the concerns are disproportionate to the reality of the issue. Sometimes agricultural conflicts reflect a NIMBY syndrome (Not in My Back Yard). The challenge for municipalities in this process is to separate the real from the perceived issues.
- **An Evolving Agricultural Industry and Related Environmental Concerns:** The speed with which agriculture has changed and the magnitude of this change (particularly the scale of agricultural production) contributes to a number of concerns held by many rural residents. Large concentrations of livestock create the potential for impacts that go beyond property boundaries. The potential for water- and air-quality issues and the corresponding impact on rural quality of life is a concern shared by many farm and non-farm residents. Obviously municipalities need to balance these issues when planning for agriculture.

- **Expansion of Industrial Agricultural Facilities:** Many of the processes currently associated with agricultural production have been labeled as industrial. The expansion of these facilities (particularly livestock) often raises concern within the local community. From a land-use perspective there is a need to treat agriculture as industrial, both from the perspective of the kinds of uses that are allowed to mix with agriculture, and from the perspective of granting approvals to new facilities (for example, large intensive livestock barns).
- **Pressure to Urbanize:** In many municipalities there is significant pressure to allow for urban development in rural areas. While in some instances this can be accommodated with minimal impact on agriculture, in other locations the implications can be significant. Some of the implications as listed below include loss of flexibility, traffic concerns and land values.
- **Loss of Flexibility:** In planning for agriculture it is important to understand that over time, agriculture will need to evolve in order to remain competitive with agricultural practices elsewhere in the world. The potential loss of flexibility occurs in a number of ways, but perhaps most significant are the potential restrictions that accompany non-farm development (for example, separation distances between buildings, the need for minor variances, regulations associated with new livestock barns) and the potential for NIMBY reactions to agricultural change. This need to maintain flexibility directs municipalities to carefully consider policy approaches in agricultural areas.
- **Traffic and Safety Concerns:** As some areas of rural Canada become increasingly urbanized, there is a recognition of the fundamental incompatibility between agricultural traffic and significant amounts of other vehicular traffic (this is a particular concern in the Mennonite populated areas of Ontario where they rely on horses).
- **Competition for Land and Inflated Land Values:** Agriculture requires significant acreages of land for purposes of production. Moreover, the price of land needs to reflect its value from an agricultural production perspective. Where land-use policies allow for significant non-farm development, there will be an impact on land prices reflective of a more urban value. A vision that respects agriculture as part of the long-term future for the community needs to acknowledge the relationship between non-farm development and land values.
- **Balancing Appropriate Levels of Service:** With pressure to urbanize there are also pressures to change levels of service. Garbage collection, paved roads, etc. are examples of services that may be debated in the new rural community.
- **Complaints Over Normal Farming Practices:** There are many farming practices that some in society find offensive. For example, the application of herbicides, or the application of manure, or the operation of farm equipment in the evening or on weekends can be a concern to some people. At some point, these concerns are likely to be directed towards the municipality.
- **Loss of Political Clout:** Rural municipalities, because of their decreasing proportion of the provincial and national population, are relatively less important politically than they were a generation ago. The result is less say in the formulation of policy and less ability to control their own destiny. Agriculture in particular represents an even lesser proportion of the total population. In this context, it is at times difficult to give rural issues the priority that they deserve.

- **Local Planning Policy in Relationship To Agriculture:** A key consideration for municipalities and fundamentally tied to other issues identified in this section, is the content and direction, established by local planning documents. Many municipalities have chosen to protect agriculture and prevent other forms of incompatible land use (for example residential, recreational, or commercial in agricultural areas). This discussion is a source of constant debate for many municipalities.

Planning for agriculture: Best management practices

In planning for agriculture, rural municipalities need to think about two different perspectives. First, municipalities should plan to prevent problems and second, there will be a need to plan in response to problems. A community vision can establish future directions and actions to achieve related goals. In this process municipalities should plan to prevent problems and establish preemptive policy. In many instances however, the planning system will need to respond to existing problems with appropriate actions*.

(* The need to plan to prevent problems and the need to plan in response to problems are recognized in the example in Southern Ontario of planning to maintain forest cover, while at the same time planning to see the reestablishment of additional natural areas.)

The following are suggested as best management practices for municipalities in planning for agricultural areas:

- **Visioning:** Visioning provides communities with the opportunity to think about the future, to identify alternatives, and to develop supportive policy. While areas will evolve and change, for many rural municipalities the challenge is to establish a rural vision and not an urban vision. In some areas, municipalities by default - by not considering the alternatives - have chosen to drift towards an urban vision.
- **Timeframe:** Municipal officials need to remember the long-term implications of planning decisions. While at times it is expedient to make short-term decisions, there is a long-term perspective that is relevant. For example, as agricultural land is converted to other uses, or as non-farm residential development is allowed in the countryside, or as natural areas are cleared for agricultural or other purposes, it is important to consider the legacy that will be left for future generations.
- **Tough Decisions:** In planning there are tough decisions to be made. Sometimes individuals will feel slighted by municipal decisions and in other instances the municipality may defend individual rights that leaves others dissatisfied (for example, the construction of a new barn may meet every applicable standard, but still be unpopular). Perhaps the best strategy for the municipality is to develop a vision or policy in the broader community context. This has the benefit of helping to dismiss the emotions which can often be associated with specific proposals at the time of an application).
- **Public Involvement:** Municipalities need to aggressively encourage public involvement in all aspects of the planning process. Participatory processes can be used to empower the community in understanding, deciding and directing planning policy. Public involvement also has the potential to establish greater success in implementation and based on the experience of Huron County, Ontario can lead to agriculturally supportive planning documents.
- **Sound Planning Practice:** The application of sound planning principles provides the opportunity to minimize potential conflict, allow for continued growth of the livestock sector, protect the environment and protect the potential for future agricultural production. The application of minimum separation distances between livestock buildings and

residences, limiting the creation of non-farm lots in rural areas, agricultural zoning, and nutrient management planning are examples of commonly used planning criteria. The creation of new livestock facilities, for example, can be regulated providing agriculture with a fair set of standards, while at the same time offering the environment a higher level of protection.

- **Agriculture's Contributions:** In planning for agriculture, it is important to recognize the important contributions that agriculture makes to the local rural economy. Recent studies conducted by farm groups and municipalities throughout Ontario, have documented the significant contribution that agriculture makes to the economy of many Counties and Regions. By understanding and appreciating the role of agriculture, there is a greater probability that agriculture will be properly reflected in local planning documents and supported by the broader community.
- **Agriculture as Industry:** Agriculture is increasingly industrial in nature. It is important to recognize that many agricultural activities are fundamentally incompatible with many non-agricultural uses. Many recreational commercial, and residential uses are inconsistent with a long-term agriculturally focused vision of the community.
- **Opportunities:** The new rural community provides opportunities that can be supportive of agriculture and the rural community. Properly planned bed and breakfasts, farm vacations and small-scale industrial or processing activity on the farm has the potential to diversify farm incomes and in turn support the farm community. The potential for these kinds of activities can be recognized through local planning.
- **Non-Farm Interests:** In many rural communities, significant non-farm development has occurred and it is important to establish planning criteria that respects this development. Some have argued that houses should be allowed in the countryside, but that people residing there shouldn't have the right to complain. This argument is flawed for a number of reasons, but perhaps, most fundamentally is the right in a democracy to express concerns over activities that affect individual rights. So, for example, if a farmer is inappropriately disposing of dead livestock or livestock production is causing odour beyond the realm of "normal," there needs to be a recognition of these concerns. From a planning perspective, municipalities have a responsibility to establish proper regulations to encourage good neighbourly practices. In other words, municipalities can't have their cake and eat it too (i.e. municipalities can't have the residential tax revenue without making tough decisions to establish appropriate regulations).
- **Respond to Environmental Issues:** Municipalities need to monitor emerging environmental issues and to aggressively respond to encourage the adoption of best management practices, nutrient management plans and good neighbor policy. Municipalities need to recognize their constraints in being able to respond to environmental issues (legislative and political).
- **Monitor:** In responding to environmental and land-use issues, it is important that municipalities monitor what is happening within their municipality. For example, what is the impact of agriculture on the environment? How has the community changed? Monitoring contributes to understanding and understanding contributes to knowledge, which provides the opportunity for more informed decision making.
- **Conflict Resolution:** Municipalities can facilitate conflict resolution both directly through their own actions and indirectly through support for other programs (for example, some municipalities in Ontario have voluntarily established programs of conflict resolution and provided municipal resources in support of these programs).

- **Non-Regulatory Tools:** When we think of municipalities and planning, there is often the temptation to develop a singular focus on regulation. Education, research grants and encouraging best management practices are non-regulatory examples of actions that have potential to benefit the community. It is in the municipal and community interest to think about planning from many different perspectives. These types of tools have the potential to change attitudes and opinions and encourage the adoption of best management practices on the farm.

Conclusions

There has been significant change in Canada's countryside. Today's modern and often intensive livestock industry poses certain risks and 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 municipalities and need to be treated seriously by producers. Municipalities are often lobbied by ratepayers to take action and to manage the risks associated with 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.

Municipalities are thrust into this debate concerning the future of livestock production for three key reasons. First, municipalities are the level of government that most closely reflects local community composition; second, responsibility for land-use issues and planning is generally vested at this level; and third, municipalities tend to be more accessible and responsive to local concerns and community wishes than other levels of government.

This paper reviews some of the key trends that dictate municipal involvement in this issue. The paper identifies a number of practices or approaches that can be used by municipalities in responding to these issues. The challenge for municipalities is to strike an effective balance between these initiatives - to recognize the need to approach the issues from a perspective that respects both the needs of agriculture and the legitimate interests of the broader community.

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