

Impact of Pork Industry on Rural Communities: Community Perceptions of Environmental, Economic and Social Impacts of Livestock Production¹

Wayne J. Caldwell

School of Environmental Design & Rural Development, University of Guelph, Guelph, ON N1G 2W1; *Email:* waynecaldwell@hurontel.on.ca

■ Introduction

Across Canada the continued viability of livestock production is increasingly dependent upon the willingness of the community to accept the industry as it continues to evolve. Many legitimate concerns have arisen, including air and water quality, as well as social and economic concerns. These issues are particularly acute for the pork industry, which is often the focus of community antagonism.

Current and anticipated future trends suggest that as the rural community becomes increasingly urbanized, there will be an escalation of conflict between rural residents and the growing scale and concentration of the livestock industry. It is important to understand this conflict from a variety of perspectives. In the words of Carter and Owens (2000):

Understanding the context out of which complaints, criticisms and legal challenges against farmers are arising is a useful first step in learning how to prevent and resolve conflict.

This paper presents the results from a research project that studied several sizeable livestock operations (LO's) and the perceptions of their neighbours in an attempt to better understand why conflicts arise and how to prevent them. This turns out to be a good news story – with the evidence pointing largely to livestock operations working towards living harmoniously with their neighbours.

¹ This paper is based on research report by Caldwell & Williams: (2003).

■ Background

Growth in livestock production in rural Canada is at least partially dependent upon acceptance by local communities. Municipalities, reflecting demands from ratepayers, often consider the adoption of by-laws that in one form or another restrict livestock farming. The intensification of the livestock industry has led to much debate. These types of attitudes reflect legitimate interests in air and water quality, but also reflect paranoia about livestock farming that is not always justified.

This paper presents the results of research that had the basic objective to develop information and identify approaches that are of critical importance to farmers, community members and local politicians as they establish policy and make decisions that determine the future of livestock production in Ontario. The paper documents the relationship between livestock operations and neighbouring residents; it identifies those practices that contribute to a positive or negative relationship; and it identifies best practices used by municipalities in Ontario and elsewhere as they plan for the establishment of new livestock facilities

The research results are based on information collected from 50 Ontario farms with more than 150 livestock units and 180 of their neighbours. The information was collected primarily through on-site interview and mailed in surveys.

The research provides the following information:

- It establishes a stronger understanding of the long-term relationship between the rural residents and the intensive livestock operations that can be utilized for informed opinions and understanding.
- It creates an educational foundation that promotes practices that cultivates good neighbour relations between intensive livestock operations and rural residents.
- It identifies approaches that can be used as a guideline for provincial and local level government when establishing policy and land use planning practices concerning intensive livestock operations in Ontario and Canada.
- It creates a basis for responses to NIMBYism and helps to understand and hopefully resolve conflict.

■ About the Farms

Fifty livestock operations from across Ontario were chosen – each with over 150 livestock units and each had been operating for at least 5 years at the current site. There were 21 hog, 10 dairy, 11 beef and 8 poultry farms studied.²

Most of the operations are well established over a long period of time in the area, with 62% of the owners farming for over 25 years. In total, 80% of all businesses were originally formed over 25 years ago. In total, 70% of operators indicated that they ran their operation with a direct relative.

Contrary to negative media reports, these farmers live where they work. In fact, 92% live at the sites in question. Intensive livestock operators also contribute to the local economy with 84% of the operators spending over 70% of their expenses locally. Availability and a need for specialized equipment were the main reasons farmers gave for going outside the local area to purchase supplies.

As economic necessity dictated, these operations have expanded gradually. Overall, 78% of operators said that growing to their current size was a gradual expansion of the original operation over time. Almost half the farmers questioned expect to see their businesses expanding within the next five years.

■ Farm Management and Education

Overall the livestock farmers were well educated and informed about the role of their industry and its relationship to the environment. Key results include:

- 64% of farmers surveyed had some post-secondary education.
- Over 60% have taken courses to be certified in nutrient management, environmental farm plans and animal health (**Figure 1**).
- Over 80% of the farmers surveyed have been certified in their use of agricultural chemicals; the remainder rely on professional applicators.
- 48% of operators have updated knowledge and skills through outlets such as Ontario Agricultural Training Institute, Ontario Ministry Agriculture and

² Livestock statistics indicated a higher proportional sample of beef cattle in the province in relation to poultry, dairy and hogs. Upon further research it was found that the numbers of beef cattle in the province were dispersed amongst a higher number of farms with fewer than 150 livestock units per operation. To compensate for this trend, a higher percentage of hog operators were selected to participate in the study to reflect the percentage of hogs in Ontario found in concentrations over 150 livestock units.

Food and the University of Guelph. Some farmers have formed community groups to learn from each other.

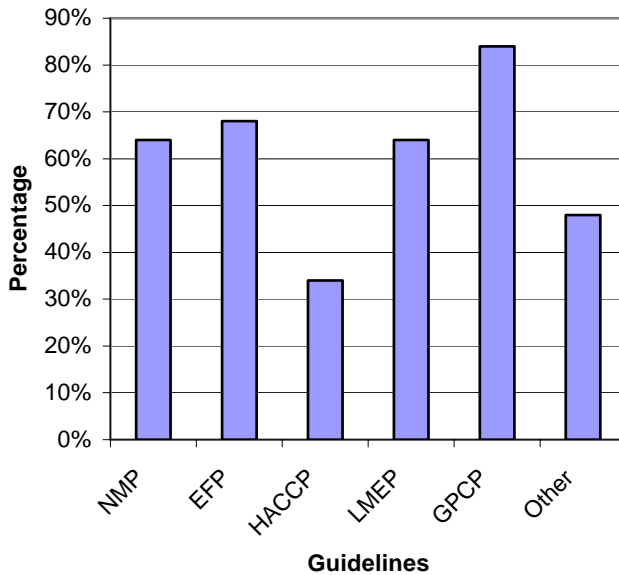


Figure 1. Farm Management Programs used by Livestock Operators
Terminology: NMP – Nutrient Management Plan, EFP – Environmental Farm Plan, HACCP - Hazard Analysis Critical Control Point, Quality Assurance Programs, LMPEP – Livestock Medicine Education Program, GPCP – Grower Pesticide Certification Program

■ About the Neighbours

“Despite my complaints, my neighbours are nice people who run an operation that is reasonably respectful of neighbours. There has to be some smell and noise – that goes with farming. Now that I live in the country, I have to accept that.” One neighbour’s perspective.

Four hundred landowners in direct proximity to the farms were contacted, and 180 (45%) of those surveyed responded. Almost three quarters of the participants had resided at their current location before the neighbouring LO expanded or was constructed. Some of the key defining characteristics of the neighbours include the following:

- 22% of respondents have resided near the farms for five years or less
- 42% have lived on a farm previously
- 14% have lived off-farm in a rural area
- 32% were directly involved with agriculture or a related field

The farmers received generally good reviews from their neighbours with regards to their agricultural practices ~ 81% 'agree' that farm operators make good neighbours. Their neighbours see farmers as good stewards of the land (69%) and good at caring for their animals (70%). Over half of the respondents (54%) also stated that farm operators apply manure to their fields appropriately.

While the neighbours largely viewed the agricultural industry in Canada as positive, 11% saw it in a negative light. Overall, 15% did not consider the industry to be positive or negative. Many of those that did view it as neutral or negative stated increasing farm size, economic instability and lack of government support as their reasons.

How Close Are the Farms to the Neighbours?"

- 74% of operations met Minimum Distance Separation (MDS) requirements.
- Two operators did not meet MDS, with another four stating that only the new barn met MDS, with original standing barns not meeting MDS requirements.

What Do the Neighbours Think?

- 75% of neighbours indicated that they felt the distance between them and the livestock operation is adequate.
- 14% said the distance was not adequate and 3% were unsure.

Types of Manure Systems

- 48% of operators use liquid manure, with another 30% using a combination of solid and liquid.
- 50% use a combination of storage systems – most common being outdoor open tanks and below building systems.
- 60% of operations have storage for manure over 300 days. This allows for fewer manure spreads. Conversely, 16% have fewer than 200 days storage.
- 58% of operations spread manure twice per year – spring and fall.
- Over half use a system that either incorporates the manure immediately or is followed within a few hours with a disc.
- 42% said manure application technique was chosen to minimize impact on neighbours.

- 56% said manure application techniques were chosen to be the best technique to utilize nutrients, protect the soil and make efficient use of physical resources.

■ **Building Relationships: What makes Good Neighbours?**

Steps taken prior to construction:

- 40% of operators held open houses
- 28% involved local people in construction through employment and use of local services
- 14% educated their neighbours on the proposed changes to the operation
- 20% did nothing – most stated it was not needed in their community; some added that if done today, they would take a different approach

Steps taken after construction:

- 60% feel that being neighbourly is a key good neighbour policy. Many take time to plough driveways, cultivate gardens, or pull people out of the ditch; 28% visit their neighbours.
- 42% advise at least one neighbour prior to spreading or spraying fields. Only 18% felt obligated to do so. Of those who do not advise, some stated that they did not because they spread at the same time every year and it should therefore be expected.
- In spite of biosecurity concerns, 46% of operators stated that neighbours are welcome to visit the farm if they give the operator prior warning.
- 46% of operators take other approaches including participation in church events, supplying food for community BBQ's, funding local sports teams or youth groups etc. One farmer donated an empty storage shed for a community fire hall. Many of the farmers surveyed work to make sure their farm is attractive to help with neighbour acceptance (**Figure 2**).

■ **Are Neighbours Recognizing these Practices?**

- Only 14% of neighbours recognize invitations or the ability to visit the operation vs. the 46% of operators who stated that the option is available (**Figure 3**).
- 37% of neighbours recognize the neighbourly practices vs. the 60% of operators who say that they practice this good neighbour policy.

- 18% state that they receive warnings of farm practices, whereas 42% of operators say they utilize this good neighbour policy.
- 12% participated in an open house when 40% of operators held one
- The only relationship building approach that is consistent between farmers and neighbours is the personal visits. 31% of neighbours say that they receive a visit from the operator vs. 28% who say that they use this approach.

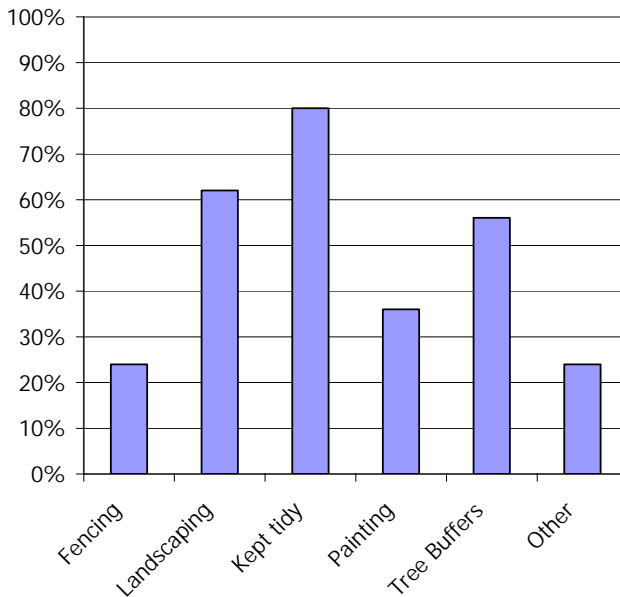


Figure 2. Improving farm appearance: Actions taken by farmers

■ What Have the Farmers Changed?

- 46% of farmers are aware of neighbours having concerns about the operation.
- 39% of these operators have changed their manure application technique and 22% have changed their manure application schedule
- 22% have taken the time to educate neighbours about “normal” farm practice

Farm Practices Changed to Accommodate Neighbours

- 28% of operators have made changes to their operation since construction or expansion, by their own choice, to accommodate neighbours.
- 86% of the operators changed manure handling & application
- 29% have changed hours of operation – primarily to exclude evenings and some weekends.

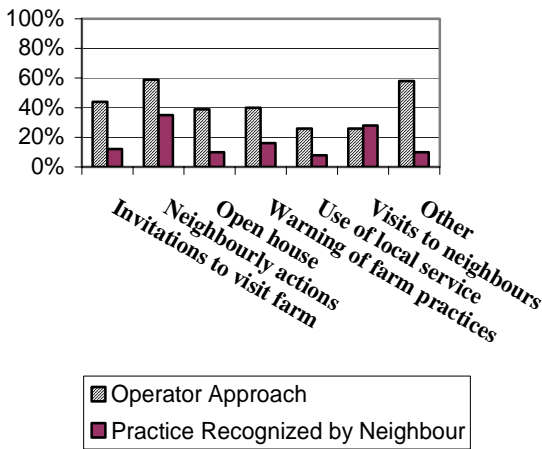


Figure 3. Recognition of Neighbourly Actions

■ What Have the Neighbours Changed?

58% of neighbours have not had to change their normal activities in response to neighbouring livestock operations.

Most changes noted by neighbours correspond to the manure spreading schedules, which averaged twice per year. Practices changed by the neighbours due to the operation include (**Figure 4**):

- 36% have had to keep windows closed.
- 13% have stopped having outdoor functions
- 24% have had to stop hanging out laundry
- 81% of neighbours have never expressed a concern about the nearby livestock operation

- Generally concerns are seldom expressed, and when they are they are generally given directly to the farmer.

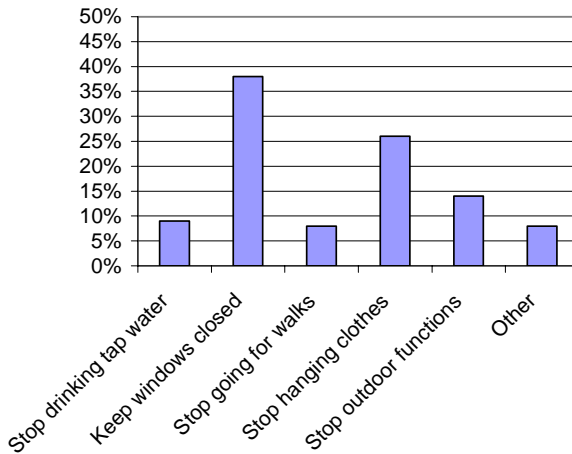


Figure 4. Neighbour Changes due to Livestock Operation

■ Lessons Learned

Take A Proactive Versus A Reactive Approach

In spite of protests before construction of a livestock operation, understanding and cooperation between farmers and neighbours usually improves after construction. At the time of a barn proposal and as the operation continues to evolve, operators can utilize approaches that addresses the needs of their neighbours while still maintaining an efficient operation. Approaches that operator's have used include changing manure application technique (irrigation gun to dragline) and schedule (no week-end spreading) to warning before undertaking a normal farm practice that a neighbour may find invasive. The proactive approaches taken by the farmers usually overcame the previous negative perceptions.

Build A Positive Farm-Neighbour Relationship

When it comes to positive neighbour relations, an ounce of prevention is worth a pound of cure. A good neighbour policy makes a big difference. Operator's need to take the time to address neighbours and recognize their presence in

the rural landscape that the farm operates within. Stopping in to say hello, clearing driveways in the winter and getting involved with the community, are low-cost alternatives that are essential for building a strong, ongoing, operator-neighbour rapport.

Education

Fear often arises due to lack of knowledge – education about farming practices can go a long way in calming fears. The public is increasingly removed from agriculture and can be unaware of its practices. With this unknown comes misunderstanding. Operator's taking the time to inform neighbours of the practices in the barn and fields enables neighbours to understand the operation, make educated decisions and helps to create a positive relationship.

There is the opportunity for commodity groups to prepare a one-page fact sheet on the commodity that operators can use to handout to neighbours.

There is also the opportunity for commodity groups to prepare a one-page fact sheet on alternative dispute resolution methods and 'good neighbour policies' that farmers can utilize on their operation.

Communicate

Operator's need to communicate with their neighbours on an on-going basis, making them familiar with the farm and the farm's goals.

Operator's can prepare a communications plan before they build or expand that will address as many concerns as possible. Opportunities utilized by operators include: Informing immediate neighbours about the operation and plans well ahead of construction and contacting knowledgeable resource people in your community to address probable concerns that may arise regarding your project.

Listen To Concerns & Address One-On-One

Operators need to listen to a neighbour's concern and address the concern one-on-one if possible. This approach to mediating conflict has a higher probability of reducing conflict relative to formal litigation.

■ Conclusion

Livestock production has an impact on rural communities. While there are a number of “real” issues there are also many “perceived” issues. This paper presents the results of a research report that gauges contrasting perspectives on livestock production held by a sample of 50 farmers and 180 of their neighbours. The results demonstrate that most neighbours are quite accepting of neighbouring farms. In addition, there are a number of strategies that farmers can pursue to minimize the risk of conflict.

■ References

- Caldwell, Wayne J. and Williams, Melanie. 2003. Agricultural & Livestock Intensification: Community Perceptions of Environmental, Economic and Social Impacts as an Impediment to Agricultural Production. School of Environmental Design and Rural Development, University of Guelph, Guelph, Ontario.
- Carter, J. & Owen, L. 2000. Farming with Neighbours. Canada: Canadian Farm Business Management Council.