

This article is downloaded from



CHARLES STURT  
UNIVERSITY

CRO

CSU Research Output  
*Showcasing CSU Research*

<http://researchoutput.csu.edu.au>

**It is the paper published as:**

**Author:** J. Spriggs, J. Hobbs and A. Fearn

**Title:** Beef Producer Attitudes to Farm Assurance Schemes in Canada and the UK

**Journal:** International Food & Agribusiness Management Review ISSN: 1096-7508

**Year:** 2001

**Volume:** 3

**Issue:** -

**Pages:** pp95-109

**Abstract:** Meat quality and safety systems around the world are experiencing unprecedented change. In many cases this is leading to closer vertical coordination along the supply chain, including participation by producers in farm assurance schemes. This paper reports the results of a survey of beef producers in the UK and Canada regarding their attitudes towards farm assurance schemes. Both British and Canadian beef producers indicated that closer vertical and horizontal coordination were important to the future prosperity of the beef industry. In the UK, the severe food contamination crises of recent years and the pressure from retailer -channel captains- have had a noticeable impact, with UK producers more likely to be members of a farm quality assurance scheme. The drivers for change in Canada have been weaker and as such, movement towards closer vertical coordination has been slower.

**URL:** [https://www.msu.edu/course/aec/841/Fearne\\_Andrew.PDF](https://www.msu.edu/course/aec/841/Fearne_Andrew.PDF)

<http://www.ifama.org/nonmember/OpenIFAMR/OpenIFAMR.htm>

[http://researchoutput.csu.edu.au/R/-?func=dbin-jump-full&object\\_id=4382&local\\_base=GEN01-CSU01](http://researchoutput.csu.edu.au/R/-?func=dbin-jump-full&object_id=4382&local_base=GEN01-CSU01)

[http://unilinc20.unilinc.edu.au:80/F/?func=direct&doc\\_number=001718673&local\\_base=L25XX](http://unilinc20.unilinc.edu.au:80/F/?func=direct&doc_number=001718673&local_base=L25XX)

**CRO Number:** 4382

# **BEEF PRODUCER ATTITUDES TO FARM ASSURANCE SCHEMES IN CANADA AND THE UK**

by

**John Spriggs,**

**Jill E. Hobbs**

**and**

**Andrew Fearne**

**Abstract:** Meat quality and safety systems around the world are experiencing unprecedented change. In many cases this is leading to closer vertical coordination along the supply chain, including participation by producers in farm assurance schemes. This paper reports the results of a survey of beef producers in the UK and Canada regarding their attitudes towards farm assurance schemes. Both British and Canadian beef producers indicated that closer vertical and horizontal coordination were important to the future prosperity of the beef industry. In the UK, the severe food contamination crises of recent years and the pressure from retailer “channel captains” have had a noticeable impact, with UK producers more likely to be members of a farm quality assurance scheme. The drivers for change in Canada have been weaker and as such, movement towards closer vertical coordination has been slower.

**Presented at the International Food and Agribusiness Management Association,  
World Food and Agribusiness Congress, Florence, Italy, June 13-16 1999**

\*John Spriggs is Professor of Agribusiness, Charles Sturt University, Wagga, Australia  
(email: spriggs98@yahoo.com);

Jill E. Hobbs is Associate Director of Research, George Morris Centre, Calgary, Canada  
(email: jill@georgemorris.org);

Andrew Fearne is Senior Lecturer, Food Industry Management, Wye College, UK

(email: [A.Fearne@wye.ac.uk](mailto:A.Fearne@wye.ac.uk)).

# BEEF PRODUCER ATTITUDES TO FARM ASSURANCE SCHEMES IN CANADA AND THE UK

## 1. Introduction

Meat quality and safety systems around the world are experiencing unprecedented change which potentially is leading to major shifts in competitiveness among beef producing countries. This paper presents the results of a survey of beef producers carried out in both Canada and the United Kingdom in late 1997 and early 1998<sup>1</sup>. The objective of the survey was to see whether there were significant differences between producers in the two countries in their attitudes to vertical coordination and participation in farm quality assurance (QA) schemes.

A priori, we expected there would be differences between producer attitudes in the two countries arising out of the differences in the drivers for change. The UK has undergone major changes in its beef quality and safety system in recent years, mainly as a result of severe food safety crises in the industry (BSE and E.coli 0157). This has not been the case in Canada. These differences suggested to us that beef producers in the UK would be more likely to recognise the need for farm assurance and to see themselves as part of the food supply chain.

## 2. Farm Assurance in the UK and Canada

Farm assurance schemes have evolved differently in the UK and Canada, both in terms of the focus and the timing of this evolution. Broadly speaking, farm assurance schemes seek to assure the quality, safety and integrity of food products at the first point of production - the farm. Sometimes they are an integral part of a wider whole supply chain approach to quality assurance, in other cases they are a stand-alone assurance of quality and/or safety at the farm level. It appears that some farm assurance schemes are primarily aimed at ensuring *quality* whereas others are focused on assuring *safety* (which one could argue is a subset of quality). A cursory overview of the UK and Canadian farm assurance schemes for beef production suggests that the UK scheme is oriented towards “food safety” as a primary goal, while the

---

<sup>1</sup> Funding for this work was provided by Agriculture and Agri-Food Canada, and the Perry Foundation. For further discussion of the results see Spriggs and Hobbs (1999) and Fearne (1998)

Canadian scheme focuses on quality. This is confirmed by results from the survey. Of course, this is not to suggest that the UK or Canadian schemes ignore quality and food safety respectively, rather that the orientation of the two schemes is different. This is not surprising, given the food safety crises which have wracked the UK beef industry in recent years.

### ***2.1 Farm Assurance in the UK Beef Sector***

The 1980s saw the first attempts by UK retailers and processors to work more closely together and in turn to develop stronger links with livestock producers. However, the early initiatives met with limited success, particularly when retailers had earned a reputation for being opportunistic and unscrupulous in their dealings with their trading partners - accusations that have been made of processors and producers alike. A distinct lack of trust, a fiercely competitive market, considerable excess capacity in the processing sector and a deeply rooted tradition of independence amongst producers were proving major hurdles in the pursuit of greater co-ordination. What was required was a catalyst and it came from an unlikely source - the British Government - who, implementing EU Directives on food safety and hygiene standards (necessary for the establishment of the Single European Market in 1992) passed the 1990 Food Safety Act, which many observers believe has been the single most important factor contributing to the growth of partnership arrangements throughout the 1990s.

The Food Safety Act effectively implemented EU Directive 89/397, which required member states to draw up national legislation to ensure that:

- food would be inspected regularly at the point of production, to avoid the need for border controls between member states
- inspection procedures would be harmonised between member states
- there would be mutual recognition of standards within the EU
- details of member states' food law enforcement programs would be submitted annually to the EU Commission

In implementing the EU Directive, the UK Government took the opportunity to tackle the rising public health concerns, following the outbreaks of salmonella in eggs and Lysteria in cheese, in the late 1980s. The Act was intended to induce those involved in the food industry to improve their handling practices by strengthening the powers of enforcement, introducing tougher penalties and increasing the legal responsibility for ensuring that food conforms to the provisions of the Act.

The 1990 Food Safety Act requires buyers to take all ‘reasonable steps’ to ensure that the food they receive from upstream suppliers is safe. It also means that upstream firms need to monitor more carefully their food handling to satisfy their downstream customers. The critical word in the definition of due diligence is ‘reasonable’. This is sufficiently vague that it has encouraged retailers to take extraordinary steps to ensure the safety of products reaching them from their suppliers. If their desire to develop own label products had encouraged them take a greater interest in what was happening upstream, the 1990 Food Safety Act compelled them to effectively take control, by instituting stringent quality assurance programs with their suppliers, with a particular emphasis on traceability. In effect, risk management took over from added value as the key driver for greater co-ordination in the meat supply chain.

Retailers drew up codes of practice, covering all aspects of animal husbandry and issued them to their suppliers. The industry responded by developing generic farm assurance schemes. The first of these was Farm Assured Scotch Livestock (FASL), set up in 1990 and this was soon followed by Farm Assured Welsh Lamb (FAWL) and Farm Assured British Beef and Lamb (FABL). All of these schemes cover the same critical factors:

- Traceability
- Feeding
- Animal Health
- Animal Welfare
- Transport and handling

More recently, these schemes have been extended to the abattoirs and cutting plants, providing an integrated system of quality assurance from farm through to retail store. At the outset these schemes received a lukewarm welcome from producers who were faced with an inspection fee of between £80 and £100 but no hint of a price premium. Retailers and processors were under pressure to remain price competitive but these assurance schemes provided an alternative source of competitive advantage, based on animal welfare and quality assurance.

All of the major supermarkets now require **all** livestock to come from suppliers who are members of a recognised farm assurance scheme. The integrity of quality assurance schemes has been restored with their recent re-launch under much tighter controls and independent inspections. The impetus behind the re-launch was the BSE crisis, which surfaced in the early 1990s but erupted in 1996, with the world-wide ban on UK beef exports. This crisis may yet prove to be a watershed in the history of the British beef industry. The industry remains gripped by a battle to restore consumer confidence and it is this battle which is currently forcing the pace of co-ordination between breeders, feeders, finishers, processors and retailers.

## ***2.2 Farm Assurance in the Canadian Beef Sector***

The evolution of farm assurance schemes in the Canadian beef sector is more recent than in the UK. Essentially this evolution began in 1994 with the launch of the “Canadian Beef Industry Quality Assurance and Product Safety Program” by the Canadian Cattlemen’s Association (CCA), a national, industry-wide initiative. In 1996, the “Quality Starts Here √: Good Production Practices for Feedlots” was launched by the CCA, this was followed by a similar program for Cow-Calf producers in 1997. Both programs consist of a set of “Good Production Practices” documented in manuals which were made available to interested beef producers. A more advanced program for feedlot operators “Beef Quality Improvement: Operating Procedures for Feedlot Animal Health” documents good production practices at a more involved level.

A key driver for these programs was the requirements of export markets. Canada currently exports 54 percent of its beef production with around 85 percent of those exports going to the US. The US industry had initiated a series of producer QA schemes which influenced the design of the Canadian scheme.

The national “Quality Starts Here <sup>v/</sup>” (QSH) program was developed through a series of collaborative discussion between producers, processors (packers), veterinarians and pharmaceutical companies. The objective was to develop a set of good production practices to minimize problems such as lesions and bruising at injection sites and residues, and to deal with sanitation and feeding issues. Detailed QA manuals were written specifying production practices that would eliminate or reduce the potential for key problems identified in an earlier audit of carcasses at processing plants. The manuals outline everyday production practices that affect quality and safety and provide producers with check-lists with which to monitor their own production practices. For example, the “Good Production Practices” manual for feedlots encourages feedlot operators to record application of pharmaceuticals and medications and contains advice for the application of pharmaceutical and drug products, required withdrawal times, sanitation information and “nonconformance” factors, i.e. hide damage, carcass damage, etc. The schemes are based on the principles of HACCP (Hazard Analysis, Critical Control Points). They are self-monitored schemes in the sense that there is no independent inspection or verification that the good production practices outlined in the manuals are being followed<sup>2</sup>. The schemes are voluntary.

In addition to these industry-wide initiatives, some processors have introduced their own QA schemes for cattle suppliers, in concert with their in-plant QA schemes. In some cases, these take the form of strategic alliance partnerships between cow-calf operators, feedlots and a processor. A set of “best production practices” designed to maximize the quality of the carcass is provided by the processor – some of which are mandatory, others simply recommended. In one case, cow-calf operators receive a detailed break-down of the carcass performance and feedlot growth performance and profitability of each animal. As yet, processor-led farm assurance schemes represent only a small proportion of beef production in Canada.

In a separate but related development, the Canadian Cattle Identification Agency was created in March 1998 and is working towards the introduction of a national identification system for the Canadian cattle industry by December of 2000. At present, it is estimated that only 10 percent of the national beef cowherd are individually identified for trace back to the farm of origin (Stitt, 1999). The proposed scheme would allow cattle to be identified with the first point of sale (e.g. when the cattle leave the cow-calf producer), full traceability through the supply chain would then rely on farm records to trace cattle forwards to subsequent owners.

### **3. Methodology**

A mail questionnaire was developed for finishers of beef cattle in Canada and in the UK. The two questionnaires, available from the authors on request, were intended to be comparable. To the extent possible, the questions asked in the two questionnaires were the same. The questionnaire asked about the nature of cattle marketing arrangements in each country as well as producer opinions on the quality of those marketing arrangements. This was designed to obtain information on their attitudes to greater coordination of the supply chain. Questions were asked about the nature of beef QA programs in each country as well as producer evaluations of such programs. Finally, the questionnaire asked for some basic information about the nature of the beef operation.

For the Canadian part of the survey, a sample of feedlot operators and beef producers was obtained with the cooperation of the Alberta Cattle Feeders' Association and the Ontario Cattlemen's Association. In 1998, 74% of the Canadian herd of slaughter heifers and steers was located in Alberta and Ontario, for this reason, producers in these two provinces formed the focus of the survey. The survey was mailed to 381 producers in April 1998 (115 in Ontario and 266 in Alberta). A follow-up mailing was carried out in May 1998. A total of 159 surveys were returned (42%), of which 99 were usable (26%). For the UK part of the survey, a sample of 1100 beef producers were randomly selected from a national readership database of beef producers. The survey was conducted in October 1997 and included beef producers from England, Scotland, Wales and Northern Ireland. A follow-up mailing was carried out in

---

<sup>2</sup> This may change. The CCA currently is considering the introduction of independent third party audits.

November 1997. A total of 356 surveys were returned (32%) of which 173 (16%) were usable. The non-usable responses in both surveys were from individuals who did not finish cattle or who did not wish to participate in the study.

The main results of the survey for both countries are presented in sections 4 to 6 below. The focus of each of these three sections is respectively: (a) the nature of the beef operation; (b) marketing arrangements; and (c) attitudes towards beef quality and beef food safety. Section 7 presents the summary and conclusions.

## **4. Nature of the Beef Operation**

### ***4.1. The Sample***

In Canada, approximately 72% of respondents were from the province of Alberta and 29% from Ontario. This corresponds with the relative size of the sample used for each province. The respondents represented a range of beef enterprises. The average size of operation during the past 12 months was 8,600 head and ranged from 25 to 200,000 head (see Table 1). The larger operations would consist of more than one feedlot. Canadian beef enterprises are large relative to those in the UK and the sector is dominated by the feedlot production system. In Alberta, a relatively small number of producers account for 80 percent of feedlot production and probably average around a 25,000 head capacity at any one time. A middle group of producers range in capacity from around 2,000 head to 10,000 head and a large group of small producer account for the remainder of the industry. Feedlots in Ontario tend to be smaller because of environmental and space limitations (Axelson, 1999).

Cattle typically enter the feedlot at around 12 months of age although this can vary and there has been a trend towards some feedlots taking in weaned calves. The cattle are grain-fed for anywhere between 120 and 180 days, depending on the age at which they entered the feedlot, desired carcass weights and prevailing market conditions. In western Canada (Alberta), rations tend to be barley-based, whereas corn (maize) constitutes the major feedgrain in Eastern Canada (Ontario). In some cases, feedlot operators take ownership of the cattle, in others, they custom-feed the cattle for cow-calf producers or other investors. In our sample, 59 percent of respondents owned all of the cattle in their feedlot with the remainder feeding a

proportion of the cattle on contract for someone else. Approximately 8 percent of respondents fed all of the cattle in their feedlot on contract.

The UK beef finishing enterprise is typically very different from its Canadian counterpart. In the UK, beef finishing often takes place as a sideline enterprise on mixed farms. The average number of cattle finished in UK operations in the last 12 months was 75 head and ranged from 1 to 695.

**Table 1: Key Production Characteristics of the Canadian and UK Operations**

<b>Production Characteristic</b>	<b>Canada</b>	<b>UK</b>
Average Number Slaughter Cattle sold During Last 12 Months	8,600	75
Range in Number Slaughter Cattle sold During Last 12 mths	25 to 200,000	1 to 695

The median age of Canadian respondents was 46.5 years while that of UK respondents was four years older at 50.5 years. The age profile is summarized in Table 2 below.

**Table 2: Age Profile of Beef Producers in Canada and the UK  
(percentages of respondents checking each category)**

<b>Age Group</b>	<b>Canada</b>	<b>UK</b>
Under 30	3	4
30 to 45	42	31
46-60	44	43
Over 60	10	23

#### ***4.2. Changes in Production Practices***

Producers were asked what improvements they had made to their beef operations in the previous 18 months. The results are summarized in Table 3 below.

**Table 3: Improvements in the Beef Operation in the Previous 18 Months  
(percentages of respondents checking each category)**

<b>Activity</b>	<b>Canada</b>	<b>UK</b>
Improve Breeding	25	30

Improve Feed Quality	44	19
Improve Housing	10	19
Improve Traceability	16	27
Lower Production Costs	31	23
Increase Cattle Numbers	34	6
Joined a Producer Group	3	12
Joined a QA Scheme	15	44
No Changes	16	19

Comparing the UK and Canadian results, it is apparent there are some important differences. The changes in which UK respondents most outstripped Canadians were “joined a QA Scheme”, “introduced mechanisms to ensure traceability”, “improved quality of animal housing” and “Joined a Producer Group”. The emphasis on these changes come in response to the food contamination crises which have rocked the UK beef industry in recent years and also because of heightened concerns for animal welfare. The fact that only 27% had taken steps to improve traceability is surprising given the compulsory cattle passport and national traceability scheme being introduced in the UK. It may be that producers felt that they themselves had not taken steps to improve traceability, rather the government-imposed scheme had done that for them (or perhaps they did not consider this to be an “improvement to their beef operation”).

Only 15% of Canadian respondents indicated they had joined a QA scheme in the past 18 months as against 44% for UK respondents. Furthermore, only 16% of Canadian respondents indicated they had introduced cattle traceability compared with 27% of UK respondents and only 3% of the Canadians had joined a producer group versus 12% of the British respondents. Clearly, the adoption of QA schemes and traceback initiatives (both indicators of closer vertical coordination) are more advanced in the UK. This is to be expected given the recent food contamination crises in the UK. In many cases, UK beef producers have had little choice but to adopt these changes in order to have a market outlet for their cattle. Supermarkets now require all their beef supplies to be sourced from FABL-approved farms.

The two biggest changes made by Canadian producers were an increase in cattle numbers and an improvement in feed quality. The increase in cattle numbers points to a higher degree of optimism on the part of Canadian producers compared to their UK counterparts. Cattle numbers are also influenced by the phase of the cattle cycle. Livestock industry statistics indicate that the Canadian cattle cycle peaked in early to mid 1996 – the survey may have captured the tail end of this peak. The emphasis on improvements to feed quality in Canada relative to the UK is largely a function of the different production systems in the two countries. Canadian producers have more control over this aspect of production because of the grain-fed production system. In contrast, the UK system is pastoral in nature, giving producers less flexibility to alter feeding regimes.

## **5. Marketing Arrangements**

The marketing arrangements used by Canadian and UK fed cattle producers are quite different. In Canada, by far the most popular method of selling fed cattle was direct to a processor (packer). In our survey, 82% of all sales by respondents (unweighted by number of cattle) were direct to a processor. Only 7% of sales were through an auction market while other marketing channels (electronic auction, through a broker or cattle dealer or direct to the freezer trade) accounted for the remaining 10 percent. Looking at this information another way, in terms of the *number* of cattle sold, over 98 percent of sales in the Canadian survey were direct to the packer. In the UK, only 45% of all sales by respondents were direct to a processor, while 49% of sales were through an auction market. In terms of cattle numbers, 60% of finished cattle were sold directly to a processor and 40% were sold through an auction market.

This highlights a major difference between the Canadian and UK beef industries. Whilst the traditional auction system in the UK is declining in importance, it is still used far more widely to market finished cattle than is the case in Canada. This should be an advantage to the Canadian industry in developing farm to retail quality assurance guarantees, as the close relationship between packer and feedlot operator creates the opportunity for improved information flow between different stages of the supply chain and should enhance the ability of

the supply chain to offer traceability. Clearly, the extent to which this opportunity is realized will depend on the nature of the transaction between feedlot operator and packer.

Producers in each country were asked about their perceptions of the buyer-seller relationships existing in the marketing of their cattle. UK respondents were more likely to characterize the relationship as “dominated by buyers” than their Canadian counterparts (33% for UK vs. 18% for Canada). Conversely, Canadian respondents were more likely to characterize the relationship as being “equally beneficial”<sup>3</sup> (53% for Canada vs. 34% for UK). This result is understandable given the highly concentrated nature of the retail sector in the UK. However, it may also be a symptom of the greater degree of vertical coordination in the UK, where the supply chain leaders happen to be the retailers. If this is the case, then what we see happening in the UK could also happen in Canada, as the industry there becomes more highly coordinated.

Respondents were asked about their overall level of satisfaction/dissatisfaction with current marketing arrangements. The Canadian and UK responses to this question are broadly similar in that there is a bimodal distribution of satisfaction. Most producers were either “somewhat unsatisfied” or “somewhat satisfied” with a smaller percentage in the middle expressing “no opinion or indifference”. The bimodal distribution of satisfaction is more pronounced for Canada than for the UK. However, the average overall response is very similar. On a scale of 1 to 5 with 3 representing “no opinion or indifferent”, the average responses for Canada and the UK are 3.25 and 3.22 respectively .

We asked respondents in the two countries to respond to a set of statements (reproduced in Table 4 below) to gauge their perceptions of the current state of the industry. The average responses to these questions for Canada and the UK are presented in columns 2 and 3 of Table 4. The scale is 1=strongly agree to 5=strongly disagree. Thus, the lower the number, the greater the degree of agreement with the statement. Column 4 contains the t statistics for the difference between the average responses in the two countries.

The statements to which Canadian respondents expressed the greatest affinity were Statements 1, 2 and 3. In this, they are united with their British counterparts. Producers in both

countries recognize the need for greater coordination in the supply chain with vertical coordination (cooperation between buyers and sellers) ranking ahead of horizontal coordination (cooperation among producers).

**Table 4: To what extent do you agree with the following statements  
(1= strongly agree, 5=strongly disagree)**

Statement	Average Measure of Agreement		t statistic
	UK	Canada	
1. "Beef producers are well equipped to adapt to the changing demands of the market"	2.52	2.44	0.62
2. "Greater cooperation <u>amongst beef producers</u> is essential for the future prosperity of the industry"	2.27	2.01	2.25
3. "Greater cooperation <u>between buyers and sellers</u> throughout the beef industry is essential for the future prosperity of the industry"	1.90	1.94	-0.40
4. "Beef producers have been slow to recognize the needs of the final consumer"	3.49	2.64	6.17
5. "Beef producers are disadvantaged when selling their cattle by a lack of market information"	2.95	3.35	-3.01

The biggest difference between British and Canadian producers came in their response to Statement 4. British producers were much more likely to disagree with the statement than Canadian respondents. One interpretation of this result would be that there is a sense in the UK that producers have had to get their act together. They have had to become an integral part of the food chain - to see themselves as producing food rather than animals. This stems from the very difficult set of circumstances which have ravaged their industry over the past decade or so. In the wake of the BSE and E.coli crises in the UK all sectors of the British beef industry have been made sharply aware of the devastating effects a crisis in consumer confidence can have on their industry. Another interpretation is that - precisely because producers were reeling from the

---

<sup>3</sup> This assumes "negotiation between equals" are added to the responses "equally beneficial".

impact of the BSE crisis at the time of the survey - they had become defensive and were in a process of “denial”. Which of these interpretations is correct remains to be seen, nevertheless, the responsiveness of UK producers to consumer needs will be essential to the long-run recovery and growth of the beef industry.

By the admission of the producers themselves, the need to be receptive to consumers does not appear to have reached as deeply into the Canadian feedlot industry, despite the long-run downward trend in Canadian beef sales versus competitor meats. Perhaps the message here for the Canadian beef industry is not only that more needs to be done in this area but that some producers are recognizing more needs to be done.

Taking all the results of Table 4 together, Canadian cattle producers appear happier with their collective situation than do UK producers. Again, in the wake of the BSE crisis in the UK, this is not surprising. However, this also means that the motivation for change will be stronger in the UK than it currently is in Canada. One may argue that this is because more change is required in the UK, however, this remains to be seen.

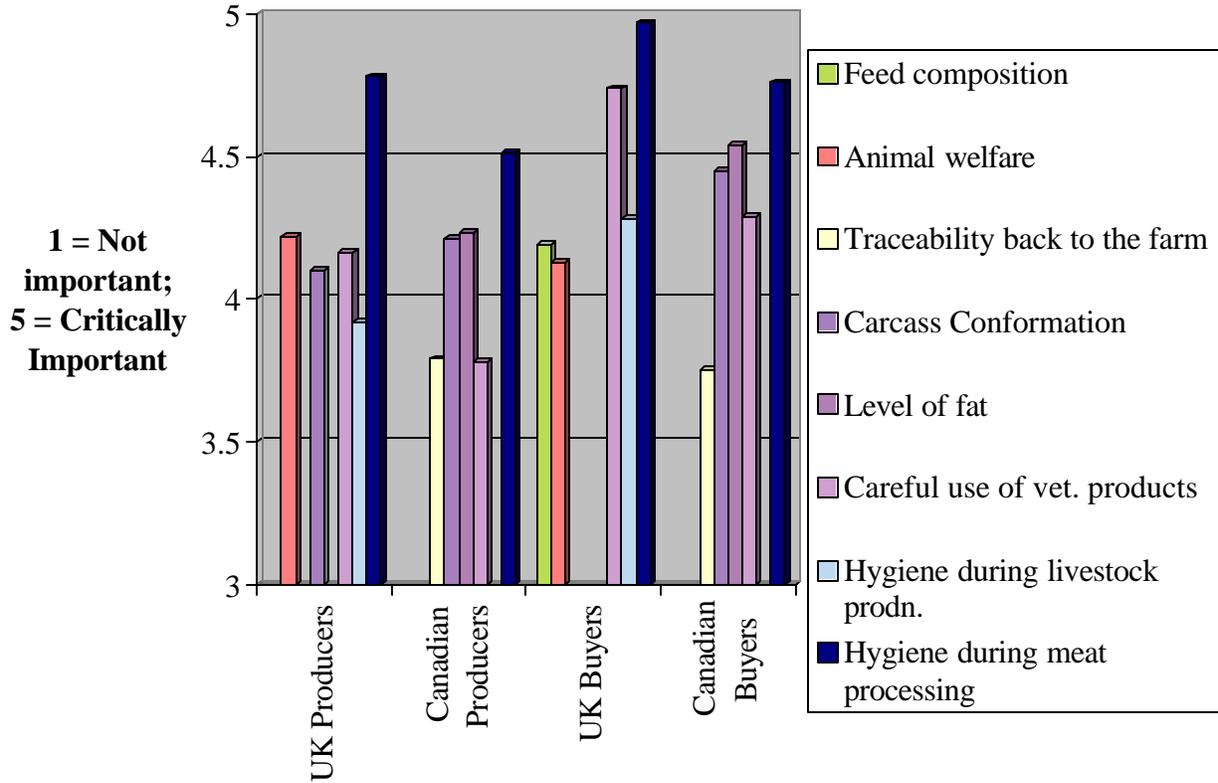
## **6. Attitudes to Quality and Food Safety**

Respondents were asked which factors they thought were the most important in determining a quality beef product – both from their perspective and that of their customers (supermarkets and processors). The perceptions of Canadian and British respondents are compared in Figure 1 below. In this Figure, the average scores for the top 5 factors are presented (where 1 = not at all important and 5 = critically important)<sup>4</sup>. In this Figure, UK and Canadian “Producers” refers to the importance which producers place on these factors, while UK and Canadian “Buyers” measures how important producers in each country thought these factors were to buyers.

---

<sup>4</sup> Additional options which were not among the top five responses for any category were: breed of animal and intensity of production.

**Figure 1: Perceived Importance of Factors in Ensuring a Quality Beef Product**



From the Figure it is apparent that there is agreement between Canadian and UK respondents that “hygiene during processing” is the most important factor ensuring a quality beef product. The respondents not only viewed this as the most important factor, but they also thought buyers were of the same mind. Looking just at what producers themselves think is important, both UK and Canadian producers gave a high score to “careful use of veterinary products” and a slightly lower score to “hygiene during livestock production”. However, while UK producers scored “animal welfare” the second highest, their Canadian counterparts only scored it fifth. This difference probably reflects the heightened concerns in the UK about animal welfare resulting from a very strong animal rights lobby. Thus, animal welfare is a higher priority in the UK, whilst attention to hygiene during production is a bigger issue in Canada. The latter point reflects the differences in production systems, where hygiene is likely to be a potentially

larger source of problems in an enclosed and more intensive feedlot setting than in the UK grass-fed system.

Turning to what producers thought buyers regarded as important, the ratings in both the UK and Canada were almost identical. The only difference is in the number 4 and 5 spots. In the UK, producers thought buyers regarded “traceability” as being more important than “careful use of vet products” while in Canada, this order was reversed. The similarity in producers’ perceptions of what buyers regard as important is interesting given the differences in the marketing arrangements discussed earlier.

Respondents were asked whether they belonged to a Quality Assurance Scheme. Of the Canadian respondents, only 28% belonged to a QA scheme, compared to 66% of British respondents. Recall that the Canadian scheme is newer than its UK counterpart, so one might expect the uptake to be lower at the time of the survey. We then asked how important it was to belong to a QA Scheme using a five-point scale (1=not at all important,...5=critically important). Interestingly, the respondents in both countries returned almost identical average scores (3.64 for Canada and 3.66 for the UK). However, while respondents in both countries saw the importance of belonging to a QA Scheme with equal clarity, there were significant differences in their motivation.

In a subsequent question, respondents were asked what they thought was the main purpose of belonging to a QA Scheme. They were asked to select one of six choices as indicated in Table 5 below.

**Table 5: The Main Purpose of a Quality Assurance Scheme  
(percentages of respondents checking each category)**

<b>Purpose</b>	<b>Canada</b>	<b>UK</b>
To ensure compliance with govt. regulations	8	12
To ensure compliance with supermarket reqts.	5	9
To convince consumers that beef is safe	22	50
To protect the largest specialist beef producers	3	3
To ensure only the highest quality beef is sold	53	22
Don’t know or other	8	4

According to the respondents in both countries, the two phrases which best characterize the purpose of a QA Scheme are “to convince consumers that beef is safe” and “to ensure that only the highest quality beef enters the food chain”. However, while Canadian respondents picked *quality* ahead of *safety*, in the UK the ordering is reversed. About 50% of UK respondents believe the purpose of beef QA Schemes is to convince consumers that British beef is safe. Clearly, the *quality* and *safety* imperatives are closely linked. However, the emphasis on food safety in the UK is a result of the heightened awareness of the UK industry to this issue following the recent BSE and E. Coli scares and may reflect the differential emphasis given to “safety” in the UK scheme.

Respondents were asked what changes in management practices would be required in order to comply with a QA Scheme. For this question, we separated out the responses of current members from current non-members. The results are summarized in Table 6 below.

**Table 6: Required Changes in Management Practices to Belong to a QA Scheme  
(1=no change, 5=a lot of change)**

Management Practice	Canada		UK	
	non-member	member	non-member	member
Record keeping	2.7	3.0	2.3	2.1
Housing and handling facilities	1.8	2.6	1.8	1.6
Transport arrangements	1.7	2.7	1.6	1.3
Timing of production/marketing	1.8	2.8	1.8	1.3
Training for self or staff	2.8	3.7	1.9	1.4
Husbandry practices*	1.9	3.3	1.6	1.7

\*For Canada, husbandry practices was split into feeding practice and veterinary practice. The corresponding numbers in columns 2 and 3 are simple averages of the responses to these two practices.

Overall, the perceived changes required in QA Schemes by non-members were similar in the two countries. However, while Canadian members tended to view the required changes as being greater than non-members, it was just the reverse in the UK, although the differences

are not statistically significant. These results may reflect differences in the scale of beef finishing operations in the two countries, such that the larger scale finishing operations in Canada require quality management changes that are not required on the smaller UK operations. Another plausible explanation is that the UK schemes have been around for much longer than the relatively new Canadian scheme, giving UK members a chance to adjust. Canadian members would only recently have received the scheme manuals, so that any changes in management practices were likely made more recently and recalled more readily.

The greatest perceived change required in Canadian QA Schemes, by both members and non-members, is “training for self and staff”. In the UK, this was not seen as particularly important. It was easily dominated by the requirement to improve “record keeping”. The Canadian scheme emphasizes on farm or feedlot husbandry practices, the need to eliminate lesions at injection sites, correct use of pharmaceuticals, etc. This is reflected in the perceptions of members that most changes in management practices were required in training and in husbandry practices (feeding and veterinary practices). Record keeping reflects the design of the “Quality Starts Here: Good Production Practices” manuals which encourage farmers to use the checklists supplied in the manuals. Record keeping also constitutes an important element of the FABL scheme, but given that the scheme has been in place for almost a decade, it is likely that the adjustments which were necessary at the outset have become routine, which may explain why respondents did not see this as a major change associated with QA scheme membership.

To try to get a better understanding of what might affect a producer’s decision to join a QA Scheme, respondents were asked what they thought were the major benefits and problems or drawbacks associated with belonging to such a scheme. Table 7 summarizes the responses on benefits while Table 8 summarizes the responses on problems.

**Table 7: Perceived Benefits of Belonging to a QA Scheme**  
**(1=not significant, 5=a lot highly significant)**

Perceived Benefit	Canada		UK	
	non-member	member	non-member	member

More secure markets	3.5	2.2	3.2	2.2
Improved consumer confidence	4.2	2.7	3.5	2.6
Information to improve production	3.7	3.4	2.1	1.9
Compliance with food legislation	3.8	2.7	3.1	2.4
Premium above normal market prices	4.0	2.8	3.2	2.0
Stronger links with the trade	3.9	2.9	3.2	2.2

The most significant benefit in the eyes of UK respondents, whether or not they were members of a QA Scheme, was “improved consumer confidence”. This suggests that UK beef producers have looked to QA Schemes as a way of restoring consumer confidence which has been shattered in recent years. “Compliance with food legislation” was also ranked high among the perceived benefits of a QA scheme. This suggests a feeling of coercion on the part of some UK producers, i.e. that this was something they “had” to do because of a regulatory change. Canadian respondents who were non-members also ranked “improve consumer confidence” as most important but the members, on average, did not. Canadian members of QA Schemes saw the most important benefit as “providing information to improve production.” Yet this was the least significant of the benefits for UK scheme members. This indicates a difference in the delivery of the two schemes. The Canadian scheme is centred on the Good Production Practices manual which provides advice and checklists for producers. The voluntary use of this information to improve production practices is a central tenet of the QSH scheme.

Interestingly, both non-members and members in Canada scored the benefits of belonging to a QA scheme higher than their UK counterparts, indicating that they are, at present, more optimistic about the potential of the schemes to make a difference in their industry. As alluded to earlier, it also probably reflects a higher level of optimism generally in the Canadian beef industry.

These results suggest a difference between the orientation of British and Canadian QA Schemes that is most discernible only when one becomes a member. The QA schemes in each country have a different focus or are motivated differently. The UK schemes are focused on

improving the perception of food safety while the QA Schemes in Canada are focused on improving production methods.

Table 8 summarizes the perceived problems or drawbacks of belonging to a QA scheme.

**Table 8: Perceived Problems of Belonging to a QA Scheme  
(1=not significant, 5=a lot highly significant)**

Perceived Problem	Canada		UK	
	non-member	member	non-member	member
Inconvenience of farm inspections	2.4	1.9	2.8	1.5
Training self/staff to meet standards	2.5	2.3	2.4	1.4
Increased capital investment	2.8	2.4	2.9	1.5
Reduced independence	3.3	2.3	3.3	1.8

The results presented in Table 8 suggest the biggest perceived cost of belonging to a QA Scheme is “reduced independence” followed by “increased capital investment”. It is clear, regardless of the country, that the prospect of suffering reduced independence weighs on the minds of many beef producers who currently do not belong to a QA Scheme. This is something the beef production industry, the rest of the supply chain and government needs to take on board as they attempt to move the beef livestock sector to a position of closer coordination with the rest of the supply chain. In this regard, one of the interesting features to emerge from both the UK and Canadian surveys is the difference between perceptions of non-members and members. The prospect of “reduced independence” (by non-members) seems to be a lot worse than the reality (experienced by members). Perhaps this is a message that needs to be reinforced in the minds of non-members. The industry can no longer afford independent farmers.

## 7. Summary and Conclusions

There are major changes taking place in beef marketing systems around the world. A central feature of these changes is increased vertical coordination which improves a country’s

international competitiveness by making the system more consumer-responsive and by reducing transaction costs. Two central elements of this increased vertical coordination are quality assurance and traceability. These elements make two important contributions to a country's international competitiveness: (a) they provide a mechanism for assuring consumers (wherever they may be in the globalized marketplace) of the safety and quality of the products they buy; and (b) they provide a catalyst for enhancing vertical coordination even further.

Both British and Canadian beef producers have indicated they think vertical and horizontal coordination are important to the future prosperity of the beef industry. However, British beef producers have little choice but to embrace quality assurance programs and traceback initiatives. The retailers, as “channel captains”, and prompted by the due diligence requirements of the 1990mFood Safety Act, have imposed this requirement on the supply channel and will not source beef from non-farm assured suppliers. The survey results suggest that, despite the much more fragmented beef industry in the UK, producers are generally more aware of the need to adopt QA schemes and traceback initiatives. Consequently, there may be a silver lining in the severe food contamination crises which the UK has faced. Such crises have been a very strong driver for change. By the same token, a lack of such crises in Canada raises the spectre of complacency.

The quality assurance initiatives taken to-date in Canada have largely been industry-led and there is a strong perception within the sector that any future developments, e.g. feedlot inspections, should remain the purview of industry rather than become a matter for public policy. This has both positive and negative implications. On the positive side, if the drive for change comes from the industry itself, then it is more likely this change will be embraced by a majority of producers. On the negative side, if the industry rejects any involvement by an outside party in validating its quality assurance claims, then however good the intentions, a QA scheme may fail to provide credible information to downstream buyers and final consumers.

While the Canadian beef industry is promoting both a QA Scheme (Quality Starts Here) and a traceback program (Canadian Cattle Identification Program), it appears most attention now is on the introduction of the cattle ID program. This seems to be a reasonable strategy. One important outcome of such a program is increased accountability and traceability. This

alone will encourage beef producers to become involved in a QA Scheme (which covers food safety elements) as a way of showing due diligence. A mandatory cattle ID program may act as the hook necessary to persuade greater numbers of beef producers to join the Canadian quality assurance initiatives. The UK government has endorsed a European Union proposal to extend product liability to primary producers (hitherto exempt from the legislation). The prospect of increased legal liability will likely create further pressure on UK producers to join a quality assurance scheme. In both cases it seems likely that, despite different drivers for change, farm assurance schemes will play an increasingly important role in both countries.

## **References**

Axelson, R. 1999. Alberta Cattle Feeders Association, personal communications.

Fearne, A. 1998. "The Evolution of Partnerships in the Meat Supply Chain: Insights From the British Beef Industry." *Supply Chain Management*, 3(4):214-231,

Spriggs, J. and Hobbs, J.E. 1999. *Competitiveness of Canada's Beef Food Safety System*. Report for Agriculture and Agri-Food Canada, Ottawa, forthcoming.

Stitt J. 1999. "Cattle Identification in Canada- On Track". *Food Safety & International Competitiveness: The Case of Meat*, proceedings of a conference held at Banff, Alberta, April 14-16.