



**Livestock Identification Services
Regulatory Cost-Benefit
Analysis**

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September 2001

Livestock Identification Services Ltd.
Regulatory Cost-Benefit Analysis
George Morris Centre

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Regulatory Cost-Benefit Analysis

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Executive Summary

The services provided by Livestock Identification Services play an important role in the facilitation of commerce through brand inspection and by helping to verify ownership. In this regard, the recently privatized LIS continues to successfully fulfil its mission.

The goals of LIS are:

- Value
- Accountability
- Flexibility
- Recognition
- Viability
- Effective enforcement.

Based on the research conducted for this project, it can be concluded that during the three years in which LIS has been in existence, the organization has met its goals. LIS has been found to be an efficient, well managed organization with a dedicated staff.

With regard to costs and benefits, the primary benefits associated with the regulations administered by LIS relate to the deterrence of theft as a result of the brand inspection system. An important related benefit is the identification of livestock through branding and the brand inspection process.

While these benefits are extremely difficult to quantify, they do in fact have a dollar value associated with them. The benefits that have dollar values attached to them include:

- livestock thefts deterred
- lawsuits avoided
- prosecutions avoided
- reduced police investigations
- cattle returned to rightful owners
- manifest corrections

Unlike benefits, costs are easier to quantify. Direct costs such as the dollar inspection fee and the overall budget associated with LIS are open to public scrutiny. There are also indirect costs that may result from complying with the regulations LIS is responsible for carrying out. Such indirect costs include additional weight loss and inventory management effort. With that said, however, this research has not found these additional indirect costs to be significant. The one additional cost associated with brand inspection that was identified in this research is hide damage. This is a material cost, but given that branding is not mandatory, it is questionable whether the damage can be considered a cost of compliance.

Due to the nature of the benefits associated with LIS, it is not appropriate to take a ledger approach and add up the dollar value of benefits in order to determine a specific benefit-cost ratio. This inability to calculate a specific ratio is due to the fact that each of the benefits has a very wide range of possible values. With that said, the evidence associated with the calculations for each of the benefits leads to the conclusion that total value of the benefits of LIS exceeds the direct and material or significant indirect costs of LIS (not counting damaged hides).

The same line of thought and rationale for determining benefits also leads to the conclusion that most of the benefits of brand inspection rest at the cow-calf sector.

While benefits exceed costs, and while LIS has successfully met its mission and goals, the organization and the industry continue to adjust to LIS' role as a private sector organization. For example, some of the government policies and directives utilized in the past have at times been shown to be at cross purposes with how LIS must operate now. This has created tension in the industry. The issue of conversion has highlighted questions as to the efficacy of brand inspection with regard to ownership verification. Furthermore, the organization also continues to adjust to the fact that the legislation it is responsible for was written at a time when the feedlot sector was radically different in size and structure than it is today. Finally there needs to be a better matching of benefits and costs between the feedlot and cow-calf sectors. These are the main challenges of the future for LIS.

The survey of cow/calf producers and feedlot operators indicates that both groups have a relatively high level of awareness of most of the services provided by LIS. The vast majority of respondents in both groups are also aware that brand inspection services have been transferred to the private sector. Approximately half of producers surveyed stated that brand inspection and/or verification of brand ownership is the most important function of LIS in their own operations. A similar proportion of respondents feel that the main benefit of LIS is verification of ownership of livestock. A significant group of large feedlot operators, however, feel that LIS has no important function in their operation, nor does LIS have any benefits. Producers in both sectors feel that cow/calf producers are the primary beneficiary of LIS services.

The surveys also indicate that both groups of producers are satisfied with LIS overall and specific LIS services, although the cow/calf group recorded a slightly higher overall satisfaction level. Satisfaction among cow/calf producers is quite homogeneous across operation size, however the large feedlot operators gave a lower satisfaction rating than the other feedlot groups. The majority of respondents from both sectors also said they did not have any concerns regarding LIS services.

The two sectors differ in their opinion of whether they receive good value for LIS fees. Cow/calf producers overwhelmingly feel that they do, while feedlot operators as a group are essentially split in their responses. Within the feedlot group, opinions are also divided, as almost three-quarters of the largest feedlot operations feel that they do not receive good value.

Cow/calf producers and feedlot operators do agree that LIS should continue to provide all of the services it currently does, and not take on any additional responsibilities. The discussions in the focus groups also support this view. The focus groups also identified issues such as conversion and the need to better match benefits and costs between the cow/calf and feedlot sectors that need to be addressed and resolved in order for LIS to be successful in the long term.

Introduction

Project Mission

1. To determine the strengths, weaknesses, value and costs of all the services that LIS provides and the various Acts and regulations that they administer.
2. To assess the views of producers on the value of brand inspection and related services as delivered by LIS.
3. To develop recommendations/proposals for the future of livestock identification and related services in Alberta.

This report contains two main components. The first component is the Cost-Benefit analysis and the second is the producer survey results. The recommendations flow from both sections.

After researching and analyzing the issues, the George Morris Centre composed this report by keeping three fundamental principles regarding LIS in mind. Those principles are:

- ▶ For the inspection system to have integrity it must be comprehensive.
- ▶ The true value of LIS is the deterrence of theft/fraud and the facilitation of commerce.
- ▶ Respect for the system in the industry requires a matching of value with costs

Background of LIS

Since the late 1800's cattlemen in the western US and Canada have employed livestock inspectors to identify ownership of livestock. Livestock Inspection Services was formed as a branch of Alberta Agriculture in the 1930's (LIS-AAFRD), with responsibility for livestock inspection and the owner identification service. Brand identification for ownership purposes has always been the primary service. The service was established on the basis of herd identifiers such as brands and supporting documentation. In addition to brand inspection, a number of other livestock identification services and associated legislation have evolved over time. These include the Livestock and Livestock Products Act which involves financial protection, and the Stray Animals Act which involves the legalities related to stray livestock.

The Alberta cattle industry agreed to the privatization of the government service in 1997 after a year-long strategic review. The following are reasons for privatization put forward by industry representatives that participated in the review:

1. Privatization is the best way to ensure that the service keeps pace with changes and growth in the industry. Industry participants had come to believe that the government structure did not allow the services to react to change as rapidly as was necessary.
2. Industry concern with the services provided by the government.
3. The industry wanted very strong advisory committees to direct the endeavors and mandate of livestock inspection services.
4. Precedent (the service was privatized in British Columbia)

For its part, Alberta Agriculture reasoned that privatization was the proper course of action because of the nature of the services provided by LIS-AAFRD. That is, unlike meat inspection which benefits the public at large, LIS-AAFRD services exist for the benefit of the industry.

Furthermore, in an October 13, 1998 press release, the Minister, Ed Stelmach is quoted as saying, "...This Government continues to get out of the business of being in business. Brand Inspection is a commercial service to the cattle industry, paid for by the cattle industry." The Government had therefore determined that this was a private or commercial enterprise, not a strictly public good or government service. The types of services delivered by LIS-AAFRD are also often the source of controversy in the cattle industry. Furthermore, governments across Canada have determined that these types of services can be effectively handled by independent third parties directed from within the industry itself.

The privatized Livestock Identification (as opposed to Inspection) Services entity was created in February 1998 and became functional as a separate entity in November 1998. The LIS delegated authority regulations came into force November 1, 1998. LIS has taken responsibility for the administration of four livestock-related Acts and 17 regulations. It also provides assistance relating to four other Acts.

LIS is industry directed and funded. Funds are generated from the fees it receives for the services that it provides. It is a non-profit corporation in which any surplus of revenues over expenses must be directed towards its service objectives. LIS membership includes the major stakeholders of identification services in the industry and its board of directors is comprised of representatives from these members. LIS is directly responsible to the industry, its members, and the Alberta Minister of Agriculture, Food and Rural Development.

In preparation for the privatization of Livestock Identification Services, a business plan was created for the new, private not-for-profit organization. This plan set out a vision, a mission and goals to support the vision and mission. The following is the vision of LIS:

A valued industry alliance facilitating commerce in the livestock industry, recognized as the steward of identification information and financial security in the marketplace, and delivered by a highly motivated and skilled staff.

The mission of LIS is:

Facilitating commerce through Verification, Identification, Information and Inspection services that enhance value in the livestock industry.

The goals of LIS are:

- Value... To industry for effective services and efficient delivery, and to staff as a good employer.
- Accountability... To industry, producers and government.
- Flexibility... Both responsive and able to manage change.
- Recognition... As a neutral, third-party service provider, with international credibility.
- Viability... Full cost recovery with the least cost to industry.
- Effective enforcement... Of laws and regulations, as directed by the livestock industry at large within the context of Acts and regulations.

Rationale for this Project

LIS has existed as a private not-for-profit organization for almost three years. The move from government to private status was and is an aggressive undertaking. Privatization was agreed to by the industry through the 1997 Toma & Bouma report "A Business Plan for the Livestock Inspection Services." Toma & Bouma said the viability of privatization depends on two factors:

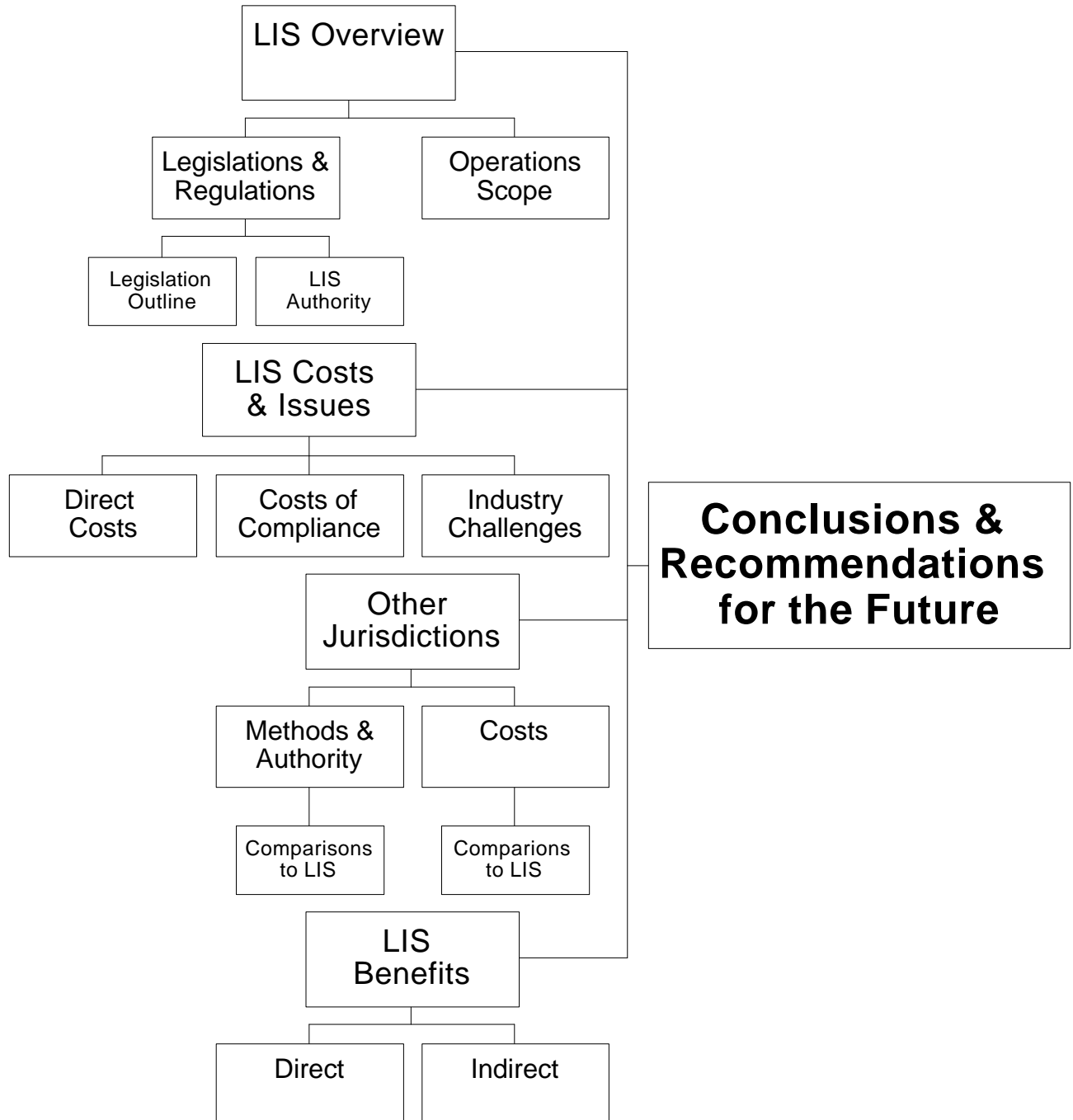
- i. The commitment by industry stakeholders to form a board of directors who are in turn committed to form and direct a successful Livestock Inspection Service. This will take considerable effort and is not to be taken lightly. Leadership and commitment on the part of the board will be essential.
- ii. The willingness of AAFRD and LIS staff to accept the soundness of this option and move in this direction.

At this stage in its development, the LIS board, as well as the Alberta Cattle Commission and AAFRD, agreed to requisition this study to determine whether or not LIS is on the path to achieving its' goals, why this is so, and what could be done to ensure its success in the future. Alberta is regarded as a North American leader with regard to brand inspection and related services and the industry wants to ensure that it continues to lead. In addition, LIS was asked by the government at the outset of privatization to conduct a study before the five year delegation agreement expires in 2003.

The key challenge of this project is to determine whether the benefits of the services outweigh the costs. This involves not only estimating the number of negative instances (thefts, defaults...) that would occur without LIS, but also to estimate the costs that private industry would have to bear in order to protect itself from the consequences of not having a brand inspection system. On the cost side of the equation, it is not just an issue of the costs of LIS services, but also the costs of regulatory compliance in terms of increased transaction costs and lost time.

The following diagram provides a basic outline of how the cost-benefit portion of this project was undertaken.

LIS Cost-Benefit Project Concepts



Part One: Cost-Benefit Analysis

A. LIS Overview

Purpose of the Acts and Regulations (Why Does LIS Exist?)

The following section outlines the basic purpose of each of the pieces of regulations administered by LIS. The section examines why brand inspection and each of the services exist.

Stray Animals Act

The purpose of the Stray Animals Act is to provide for the control and regulation of stray animals, in this case livestock, within Alberta. More specifically, the Act is in place in order to establish liability for trespassing livestock and to establish procedures for the capture and disposition of stray livestock. Licencing, expenditures and disbursement of proceeds associated with stray livestock are also outlined in this Act.

The Alberta government deemed that legislation and regulations were necessary regarding stray animals as a result of the potential damages often caused by stray livestock and the resulting liabilities. The Act clarifies the duties and authorities of each party (owner, claimant, LIS staff) in the event of a stray animal notification. The Act also outlines the accountability and responsibilities of each party.

Brand Act and Livestock Identification and Brand Inspection Act

The purpose of the Brand Act and the Livestock Identification and Brand Inspection Act are to provide for the control and regulation of branding and livestock identification within Alberta. The following are the reasons that the above two pieces of legislation became law:

1. Identification of private property
2. To provide a registry for property identification
3. To deter theft or increase the toll or effort necessary for theft
4. Independent dispute resolution
5. Return of strays

These two Acts are designed to help protect producers' property and to facilitate commerce. Commerce is facilitated or expedited because buyers and sellers are more confident that the property being sold belongs to the vendor or his agent.

Livestock and Livestock Products Act

The purpose of this Act is to provide a higher degree of financial security to livestock sellers than would be the case without this legislation. The Act seeks to increase the likelihood that the dealer will be financially responsible, or in the event of default it provides increased financial protection to the seller. As with the brand related acts, this legislation also provides for neutral, third party dispute resolution.

General Discussion on the Legislation and Regulations

This section assesses the problems or market failures that are addressed by the legislation and regulations.

Regulations involving areas of commerce are typically enacted in order to address a real or perceived failure of the market. That is, regulations often exist because the government or industry have determined that the market cannot adequately deal with a problem or impediment to trade.

At the most basic level, brand identification helps to address the problem of cattle ownership on rangeland or other very common instances where cattle are mingled. Brand identification also helps address the problem of determining ownership of lost animals. At another level, brand inspection helps to mitigate or reduce the problem of cattle theft and unintentional gains from improperly purchased or acquired cattle.

These are largely law and order issues which are not typically dealt with by private enterprise or the market. That is why police and other enforcement agencies are run by government. Brand inspection offers a form of policing and enforcement to help increase the odds that theft will be detected and deterred.

Finally, the Acts and Regulations that LIS administers also address the problem of dealer default. A buyer who defaults or is unable to pay a livestock seller can jeopardize the livelihood of the producer. Producers want an external third party and administrative structure in place to decrease the probability of dealer default.

The basic difference between the market response to these problems and the regulatory response is the mandatory nature of the transaction. In the market, people decide what they will purchase or the transactions in which they will engage. In a regulatory structure, there are compulsory processes associated with transactions. In other words, if cattle are sold in Alberta they are going to be brand inspected and fees are going to be paid (with certain regulatory exceptions).

The government believes that the types of services LIS provides are necessary for the good of the industry. Given that few would voluntarily pay for this service it would not likely succeed in the open market. As such the service became legislated and regulated.

A complicating factor to this line of thought, however, is the fact that the government sees this regulatory service as a private business providing commercial service to the industry. It is a complicating factor because in a private business, clients pay a fee based on the benefits that they receive from the service. With a public good such as meat inspection for example, all society pays for the service through taxes. Therefore, given that the government sees LIS as a private business and not a public service provider, there is the issue of matching beneficiaries with the costs of the service. In the case of LIS, this is a special service above and beyond what all taxpayers receive. In this regard, the idea of paying for benefits received is an important variable that needs to be addressed.

LIS Description and Functions

The previous section outlined the legislation and the regulatory authority delegated to LIS. The following is an overview of the services provided by LIS and the functions it performs related to the four Acts and the associated regulations. This section describes, briefly, what LIS does in order to fulfil its delegated responsibilities under the Acts.

Stray Animals Act

LIS is a delegated authority as referred to in section 22.1 of the Stray Animals Act. LIS has been delegated the powers of the Minister or of an inspector or assessor under the Act or regulations. These duties include:

- capturing and impounding livestock
- destroying livestock
- collecting money by levy of fees and charges
- collecting proceeds from auctions
- retaining records
- inspection of premises
- assessing damages
- other powers, duties and functions of inspectors under the Act and regulations
- administering an appeal function for those aggrieved by its actions

Livestock and Livestock Products Act

LIS is a delegated authority as referred to in section 22.1 of the Livestock and Livestock Products Act. LIS has been delegated the powers of the Minister under the Act or regulations. The most important of these responsibilities relate to licensing and bonding of dealers.

Dealers must post a bond before LIS issues them a license. The bond is designed to protect producers who may not get paid for livestock sold through dealers. LIS provides a supportive, administrative and advisory role for the Patron's Assurance Fund and the Tribunal.

The LLPA governs licensing and bonding of livestock dealers and licensing of livestock dealers' agents. Licensed livestock dealers must post a bond or other security for their obligation to pay for the livestock they buy. If the dealer does not pay, and certain eligibility criteria are met, an unpaid seller can receive reimbursement from the proceeds of the bond.

The LLPA also governs the Livestock Patrons' Claims Review Tribunal. The Tribunal administers the Patrons' Assurance Fund. The Fund is another source of reimbursement for an unpaid seller of cattle or horses. The Fund has two parts. The first is a producer-to-dealer fund, which is available to producers who are not paid for their cattle or horses by a licensed livestock dealer and who have received less than 80% of their loss from the proceeds of the dealer's bond. The second part is a dealer-to-buyer fund, which is available to licensed livestock dealers who are not paid for their cattle or horses by a non-licensed buyer. In each case, there are eligibility criteria which must be met in order for the Tribunal to make a payment from the appropriate fund.

LIS administers the licensing and bonding of livestock dealers and livestock dealer's agents,

including issuance, suspension and revocation of licenses. LIS is also responsible for determining when a dealer has defaulted in payment and enforcing the bond if there has been a default, i.e. cashing the bond and paying out the proceeds to the producer or producers who have not been paid for their livestock. Finally, LIS acts as Administrator for the Tribunal. This entails collection of levies on behalf of the Tribunal, tracking those producers who have "opted out" of the protection offered by the Tribunal and issuing refunds of the levies paid by those producers, and helping to assess claims made to the Tribunal.

Brand Act

LIS is a delegated authority as referred to in section 20.1 of the Brand Act. LIS has been delegated the powers of the Minister under the Act or regulations. These duties include:

- recording brands
- facilitating the purchase of brands
- allotment of brands
- publication of brands
- administering offences and penalties related to ownership and sale of brands

LIS is responsible for the issuance and registration of brands, and for enforcement of penalties in cases of illegal use of brands.

Livestock Identification and Brand Inspection Act

LIS is a delegated authority as referred to in section 32.1 of the Livestock Identification and Brand Inspection Act. LIS has been delegated the powers of the Minister under the Act or regulations. These duties include:

- inspection before shipping
- inspection at market
- inspection at country sales
- inspection at an abattoir
- inspections at feedlots
- collection of inspection fees
- detention of livestock when warranted
- prohibition of sale when warranted
- withholding settlement when warranted
- determining fines

Under this Act, LIS provides basic brand inspection services. LIS is to ensure that branded livestock bear the brand of the person selling them.

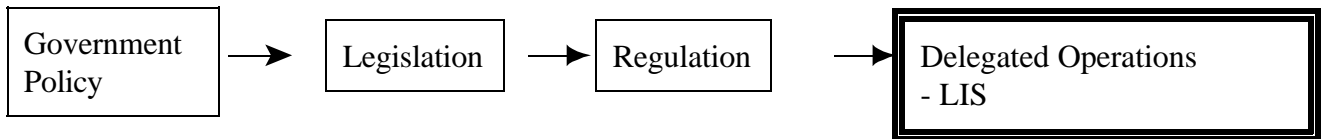
Enforcement

An important component or undercurrent of LIS is to deal with issues of default, fraud and theft, as well as property damage and associated liabilities. As a result LIS funds the services of two full-time RCMP positions, one in northern Alberta and another in the south, through a contract with AAFRD. These positions are dedicated to investigating reports of stolen and lost livestock.

The LIS board decided that only with direct funding for dedicated RCMP services could producers be assured that livestock theft would be treated with the urgency that producers would find acceptable.

Fundamental Principles Regarding LIS Regulatory Authority and Power

Government policy is a course of action taken to achieve a certain outcome. In this case it is government policy to achieve the purposes of the four Acts through privatized services delivered by LIS. The important starting point, however, is that the four Acts and regulations are government policy. That is to say that it is government policy to have brand inspection, bonded dealers and brand registries. These are not LIS management or board policies. The ultimate responsibility for the Acts and regulations rests with the Alberta government.



LIS is entrusted by the Alberta government to exercise the will of the government regarding its policies in the areas codified under the Acts. LIS is not an independent entity with regard to policy and authority. Every LIS power flows directly from the Acts and regulations. For each of the Acts in which it has responsibility, LIS is the Minister’s delegated authority, and is directly accountable to the Minister for its duties and actions. LIS is the operational arm of the Alberta government with regard to the Stray Animals Act, the Livestock and Livestock Products Act, the Brand Act and the Livestock Identification and Brand Inspection Act.

LIS Operations Scope

Principal LIS Facts and Features

The following are some of the principle features of LIS:

Financial (FY 2001)

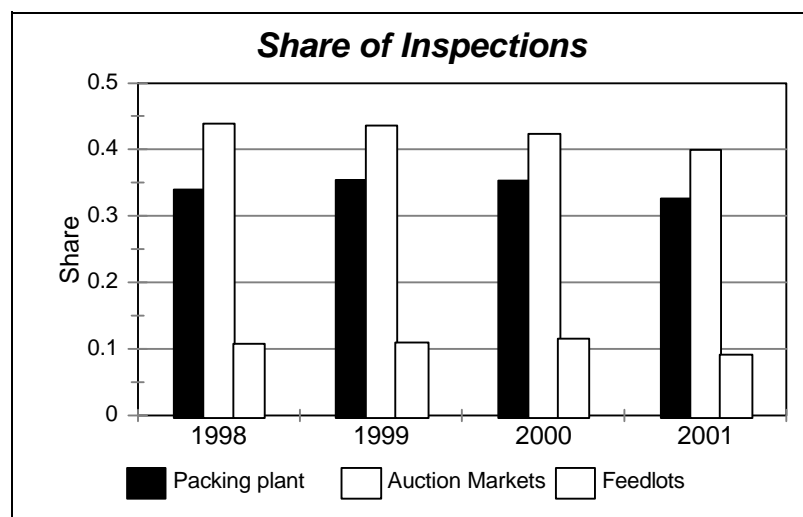
- ▶ Assets of \$4.7 million exceed liabilities by \$4.1 million (net assets or equity is nearly 87% of total assets, compared to 75% in 2000)
- ▶ Total revenue as of March 31, 2001 was \$6.1 million, down 1% from 2000
- ▶ 95% of revenues were derived from brand inspections. Brand registration fees of around \$240,000 comprise less than 4% of revenues. Permits round out the remaining 1-2% of revenues
- ▶ Total expenditures as of March 31, 2001 were \$5.2 million, up 11% over 2000
- ▶ Revenues exceeded expenditures for FY 2001 by nearly \$1.2 million, compared to \$1.65 million in 2000
- ▶ Surplus of revenues over expenses amounts to 20% of net revenues
- ▶ Salaries and benefits, at \$3.4 million, comprise 65% of all expenditures, compared to 73% in 2000. LIS has 48 full time employees and 58 part time employees for a total of 106.

Brand Inspections

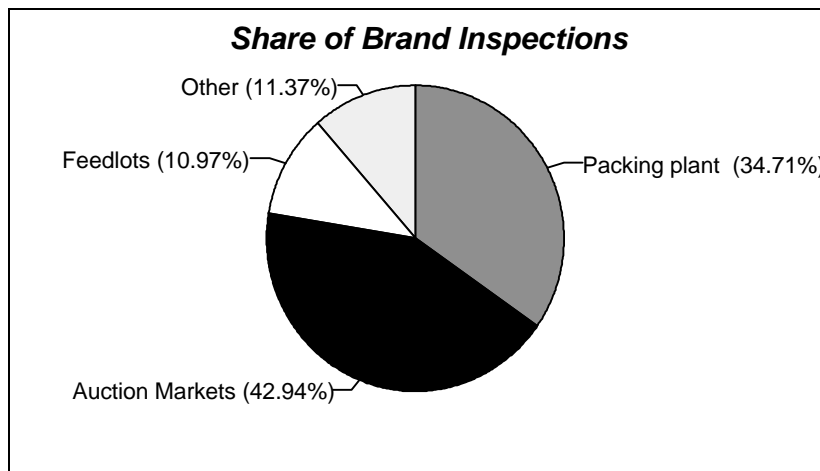
- ▶ Total brand inspections amounted to nearly 6 million head during FY2000 and 6.3 million in FY2001. Over the last ten years, cattle have typically comprised more than 98% of total brand inspections. The following graph shows the changing volume of inspections since 1992.



- ▶ Auction markets comprise the greatest share of inspections followed closely by federal packing plants and then feedlots. Other inspection points include country sales, out-of-province and provincial abattoirs. As can be seen on the graph below, the share of feedlot, packing plant and auction inspections have all been declining in recent years. This is due to an increase in country inspections, and out of province inspections. Another reason for the drop in share of the traditional inspection sites is the increase in “No Charge Inspections”, which typically take place at feedlots. No charge inspections now comprise nearly 6% of all inspections; district supervisors estimate that this number is up significantly in the last two years compared to five years ago.

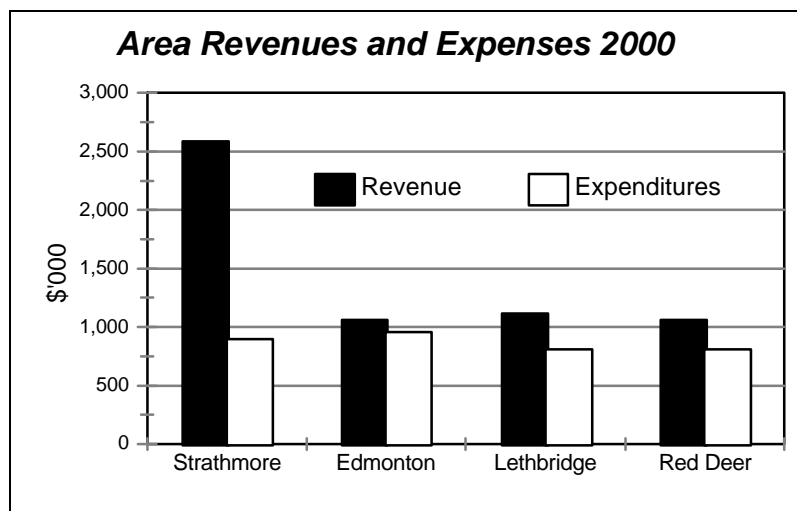


- The following pie chart is a four year average of inspections and the overall share of the different market channels. The purpose of the chart is to provide a different perspective on where inspections take place.



Operating Divisions

- LIS has four regional operating divisions (called districts) and a headquarters: Strathmore, Edmonton, Lethbridge, Red Deer and Calgary (headquarters).
- The primary purpose of the operating divisions is to provide logistical support services to stock inspectors in the region. Each of the divisions generates revenue from stock inspections. Headquarters also generates revenue via brand registrations, permits and licences. As can be seen on the graph below, the Strathmore station generates the most revenues. This is due to the fact that the three major packing plants are located in that district.



- Field offices are maintained in auction markets and federal abattoirs.

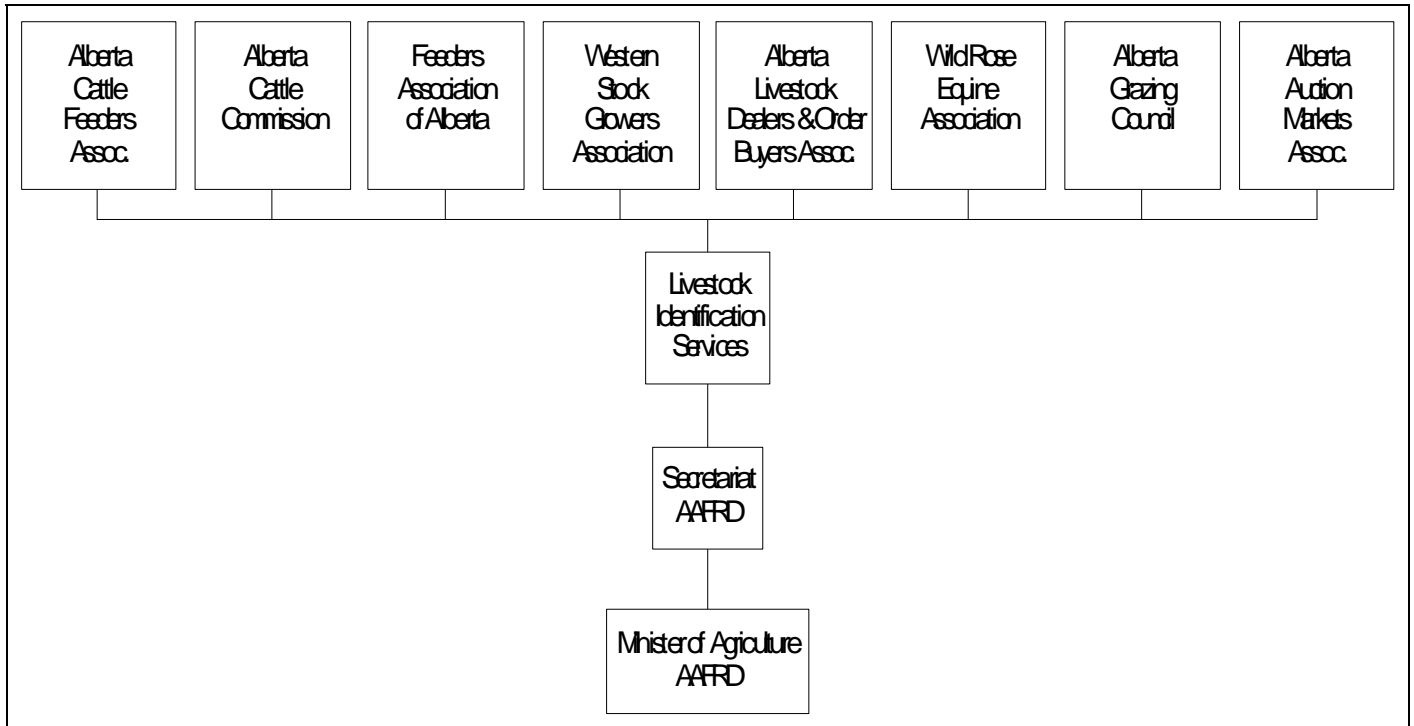
Management and Governance

- Management team includes the General Manager, Administration Supervisor, District Supervisors and Area Supervisors.
- The eight member associations elect one member to the LIS board. Those associations are the Alberta Cattle Feeders Association, Alberta Cattle Commission, Feeders Association of Alberta, Western Stock Growers Association, Alberta Livestock Dealers and Order Buyers Association, Alberta Auction Markets Association, Wild Rose Equine Association and the Alberta Grazing Council. An AAFRD secretariat acts as the

department's eyes and ears on livestock inspection issues.

- The following diagram outlines the LIS governance structure.

LIS Board and Governance Structure



- The General Manager is accountable to the board. The position is responsible for implementing strategy, as well as providing advice and recommendations on new strategies to the board. The General Manager is responsible for all day-to-day operational and financial decisions.
- The Administrative Supervisor is responsible for data entry, licenses and brand registries, accounting, Human Resources and general office administration.
- Four District Supervisors are responsible for the coordination and delivery of inspection services within their assigned region. Responsibilities included the supervision of inspectors, scheduling and cost management.
- Area Supervisors are responsible for scheduling and supervising a team of Deputies and Inspectors within a given geographical area. They are trained for greater responsibilities in enforcement, and report directly to their District Supervisors.

Functions: Brand Inspection¹

The overwhelming share of organization functions, revenues and costs at LIS are associated with brand inspection. Brand inspection fees account for 96% of LIS revenues. Virtually all of the 58 part time staff are dedicated to brand inspection, and of the 41 full time staff not based at head office, nearly all of the brand inspectors' and area supervisors' time is assigned to brand inspection. These brand inspection related tasks include actual inspections as well as the data entry, administrative functions and clearing holds. Based on first hand observations of brand inspector duties as well as discussions with brand inspectors, district supervisors and the LIS General Manager, it is estimated that 90% of the full and part time brand inspectors' and area supervisors' time is spent on brand inspection related duties. District Supervisors, the most senior staff in the field, spend approximately two-thirds of their time on brand inspection related tasks and most of that is of an administrative nature. Those administrative tasks would include scheduling, supervision and accounts receivables.

Essentially the tasks or functions of brand inspection can be summarized as follows:

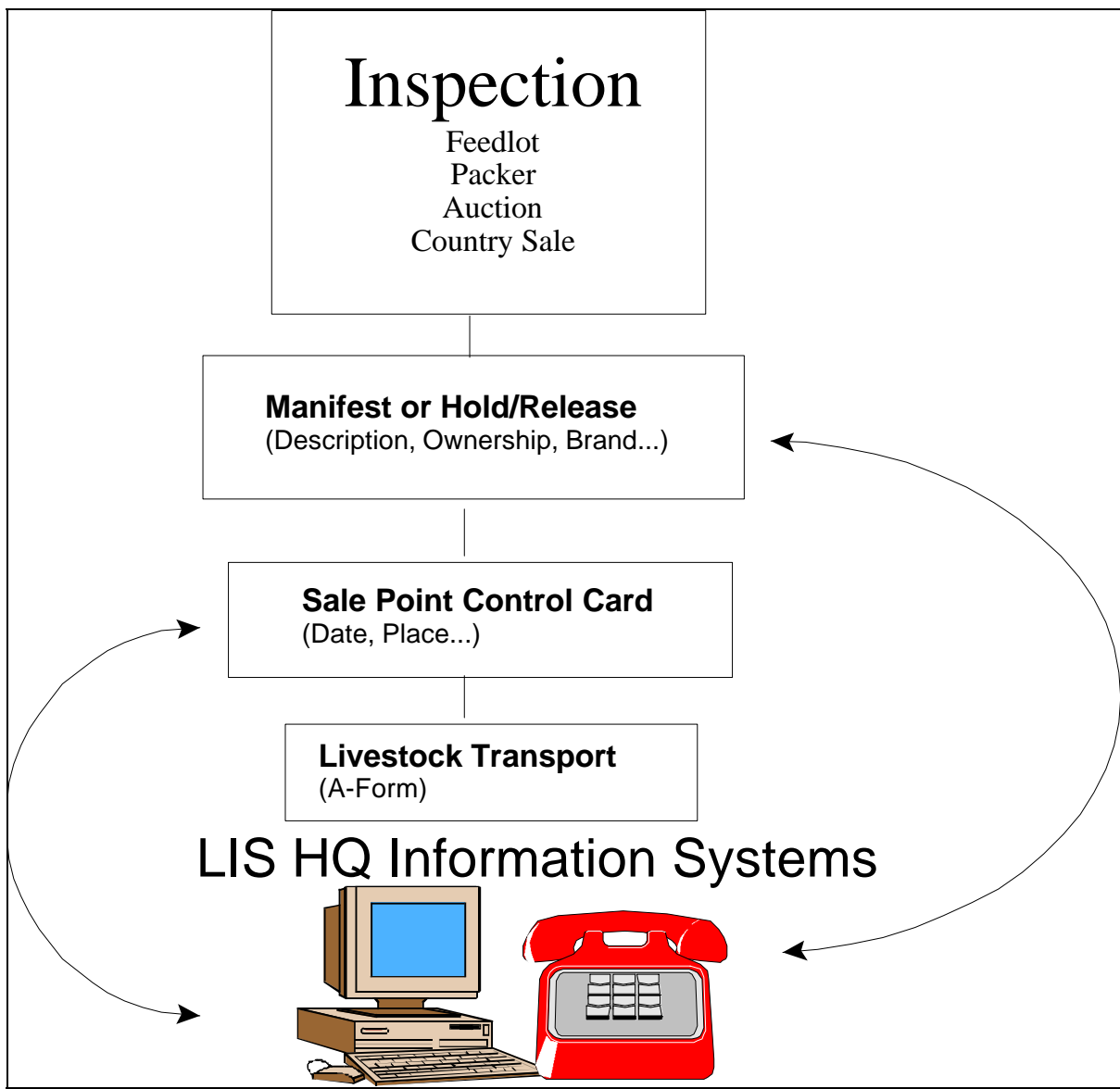
- Brand Inspectors inspect brands at packing plants, feedlots, auction markets or other locations like a farm sale.
- Brand Inspectors compare documents such as manifests and sales receipts to cattle in an attempt to match brands and numbers.
- Based on inspection, brand inspectors either hold or release cattle for sale or proceeds from a sale.
- Cattle that are held are released only when an inspector or supervisor attains appropriate documentation.
- All sales information from manifests are summarized on a Sale Point Control Card.
- Sale Point Control Information is entered into the central data system. The central data system can be used by inspectors to verify or follow up on information in the field.

The diagram on the next page outlines the basic inspection workflow of LIS.

In addition to brand inspection, registration of brands is also a central component of LIS functions. Unlike inspection, which takes place in the field, this function is a head office responsibility. Registration enables verification of brand ownership. The brand registry provides the back-up support and verification for the brand identification and inspection process. With regard to LIS functions or operations, the costs related to servicing these registrations are considered to be nominal.² Based on George Morris Centre estimations, office administration time spent on operating the registry is not a material cost, relative to the other functions associated with brand identification.

¹Note: the 1997 Toma & Bouma report noted above was part of a series of reports by the management consultants pertaining to Livestock Inspection Services. Those reports contained detailed written outlines of the inspection processes. The processes have been modernized or upgraded through capital expenditures and streamlining. With that said, the overall functions have not fundamentally changed. As such this report will not duplicate the T&B effort.

²Refer to LIS Notes to Financial Statements for year 2000.



It is of interest to note that while brand registration fees comprise less than 5% of revenues, the \$240,000 is a material portion of LIS revenues. During 1999 there were 1,400 brands either sold, renewed or reissued. In 2000, this figure was 990, a decrease of 29%. In April of 2001 there were 107 new or re-issued brands, an increase of 42% compared to April 2000. This level of activity is occurring despite the initiation of lifetime brand registration by AAFRD in 1995. With a lifetime brand system in place it was expected that very little revenue would accrue from registration since most of the brand holders would have completed their lifetime registration by 1997.

Clearing Holds

Livestock that are offered for sale without evidence of proper ownership will either be held from sale or the settlement for the livestock will be held. This basically means that the livestock are being offered for sale without proper evidence of ownership. Holds typically occur because the contributor of the livestock is not the owner of the brand on the cattle. This may be because the

contributor has failed to complete a manifest properly or because cattle with brands from previous owners were not accompanied by bills of sale. It may also be because the auction market did not provide proper bills of sale. Often the problem is that the contributor of the cattle placed his name as the payee when the funds should have been directed to the financier of the cattle. Of course, another reason for lack of evidence of proper ownership may be because that cattle were lost or stolen.

The contributor and market operator are formally informed of a hold by the brand inspector via a specific LIS form (C&D forms). From this point it is the responsibility of the contributor to file proper documentation in order to get the cattle or the funds released. It is not the responsibility of the brand inspectors, supervisors or LIS.

A first step in clearing held cattle, and an obvious part of their jobs, is for brand inspectors to check the records of missing or stolen livestock. Assuming the cattle are not on that listing, brand inspectors or supervisors often take on the challenge of helping the contributor to clear these holds. This involves researching previous sales for evidence of purchase. LIS employees have always done this in order to assist the patrons, markets and buyers. This is the inspector's method of helping to "facilitate commerce" as outlined in the mission and vision of LIS.

It is estimated that individual cattle or lots of cattle are held back in Alberta by brand inspectors up to 150 times per week⁴. Based on the number of holds recorded by LIS, this amounts to approximately 1,500 head of cattle per week. Of those 150 times, about a third or more of the time, brand inspectors decide to take extra time to work with auctions or contributors to facilitate either the sale or the release of funds. This process can take a matter of minutes if the contributor can produce the proper evidence of ownership. Conversely, the process might take weeks before the situation is resolved.

Depending upon the circumstances, after approximately one month of working to determine proper ownership, paperwork is sent to the head office and funds from the sale of the livestock are moved into a trust. At that point head office staff, typically senior management, work to determine proper ownership of the livestock in question.

Functions: Livestock and Livestock Products Act Licencing

During fiscal year 2000, LIS licensed and accepted bonding on 370 livestock dealers and 624 livestock dealers' agents. In the 2001 fiscal year, LIS licensed and accepted bonding on 334 dealers and 602 agents. In fiscal 2001, it also licensed 48 markets (55 in FY2000), 98 stockyards (103 in FY2000) and 37 assembly stations (35 in FY2000). Licensing is typically a head office function.

The basic tasks are as follows:

- investigate all notifications of defaulting dealers
- suspend, cancel and license where appropriate
- publish notices of dealers in default

⁴Compilation of District Supervisor estimates of daily incidences of holds.

- refuse or pay out money from the licensed livestock dealers security when appropriate
- forward all approved claims to the Livestock Patrons' Claims Review Tribunal that exceed the default dealers security

Licences are issued on a calendar year basis. As such, the bulk of the administrative workload is seasonal. At the end of the year, licence applications are mailed to dealers, and it is determined whether the licencing criteria have been met. The other seasonal aspect of this function is the follow-up in the new year with dealers who have not yet fulfilled the licence process or requirements. In addition to some support-staff time, these functions are primarily carried out by the office administrator and the General Manager. Approximately 25% of the General Manager's time is spent on this Act.

Each dealer furnishes security as outlined in the regulations in support of the Livestock and Livestock Products Act. Security levels are based on the number of livestock handled in the previous twelve months of operation. The majority of the bonds are for the minimum 20,000 head or less, which amounts to \$40,000. The fee for a dealer's licence is \$55 (+GST) while the agent's licence is \$30 (+GST).

Beyond the administrative aspect of this function, LIS must also ensure the proper operation of the system in the event of a dealer who defaults. If a licensed livestock dealer does not pay the patron or producer for live cattle or horses, the producer may be eligible for reimbursement from the dealer's bond and/or the Livestock Patrons' Assurance Fund.

There is informal monitoring and communications between LIS management and dealers that may have periodically paid patrons outside the time-frame prescribed in the regulations. This monitoring process is aided by the presence of brand inspectors, area and district supervisors who are in close contact with buyers and sellers each day. These field staff have no direct licensing role, but they do provide information on issues and concerns. This informal monitoring and communication is a warning and counseling process regarding obligations under the Act and typically occurs once per month. LIS has taken this monitoring process very seriously and considers it a first line of defense against default.

During the 1990's, prior to privatization, defaults took place on average approximately two times per year. The average default over that period of time was over \$120,000. This amount is skewed, however, by a \$1.3 million default in 1994. Without that default, the average amount was around \$43,000.

Since LIS was privatized there have been two defaults. This does not count the 1999 claims that were carried over from AAFRD. Neither of the defaults have exceeded \$40,000 nor were forwarded to the Tribunal.

Functions: Stray Animals

The major functions of LIS under the Stray Animals Act are as follows:

- capture and impound stray livestock
- provide appropriate notices as required by legislation
- release captured or impounded livestock as required by the Act
- destroy and arrange for disposal of stray livestock if specified conditions are met

- arrange for the sale of strays if specified conditions are met
- provide the owner with a list of expenses incurred when impounding stray livestock
- apply trust fund conditions and procedures regarding proceeds from the sale of strays
- administer appeals

District supervisors are the lead LIS staff with regard to direct actions and authorities delegated under the Stray Animals Act and the regulations. The supervisors are the LIS staff that answer the calls from police or land owners regarding strays. The supervisors in turn proceed with the necessary actions regarding the strays as noted in the function list outlined above.

Other Jurisdictions

The following section is a brief overview of the key points of inspection systems in other jurisdictions. This section is not meant to be a comprehensive or detailed report on each state or province. The insights and discoveries from these regions have, however, been analyzed and compared to LIS throughout this research project. Furthermore, where appropriate, the processes or systems used in other areas have been cited as examples in other parts of this report.⁵

Research for this project involved discussions with officials and analysis of procedures regarding brand inspection and livestock theft deterrence in the following states and provinces:

Ontario	North Dakota
Manitoba	South Dakota
Saskatchewan	Nebraska
British Columbia	Idaho
Montana	Missouri
Wyoming	Texas
New Mexico	Oklahoma

Ontario, Manitoba, Oklahoma and Missouri do not have brand inspection. In those instances, discussions were held with informed industry participants as well as police officers (Ontario Provincial Police for example). In these jurisdictions, officials and cattle producers do not consider cattle theft to be a major issue. Cattle theft and deterrence of theft are not seen as significant enough factors to warrant implementing a brand inspection system in these jurisdictions. Cattle producers in Oklahoma or Manitoba may discuss the merits of brand inspection at producer meetings but tend to back away due to the cost and an unwillingness to be subject to inspection.

Other regions such as South Dakota and Nebraska have brand inspection in certain parts of the state and not in other parts. For example, in South Dakota, the area of the state that is west of the Missouri River is more open and isolated. It is in this area that producers deem brand inspection to be necessary.

⁵For additional reference, readers can access summaries of the Nebraska and Colorado systems in the 1997 Toma & Bouma report. Research for this project concludes that their overall system features have not changed since that time in those states.

The one major goal and similarity of all the organizations in states that have brand inspection is that the organization exists in order to deter and investigate livestock theft. A far distant secondary goal is to inspect the health of animals entering the state.

There are a wide variety of operation methods employed by those states that have brand inspection systems. Some states such as Texas have placed inspection responsibilities into the hands of cattlemen's organizations - the Texas and Southwest Cattle Raisers Association is the inspection unit. Other states such as Nebraska use state employees and the operation is a government agency.

Employees of the brand inspection systems are hired in a variety of manners. In addition to full and part time inspectors, many states employ a hundred or more independent farmers or ranchers to conduct inspections on a part time or per head basis. These individuals are often called deputies. It is of interest to note that in Texas, the brand inspection system employs over 30 full time Texas Rangers. These full-time law enforcement officers are funded by brand inspection fees.

Nebraska's operation, like many states, has a board of directors that is comprised of producer appointees. Brand inspection operations in all states, whether they are privatized or state agencies, are self supporting and funded by inspection fees. The following is a listing of some of the fees (on a per head basis):

- Montana 35 cents,
- Texas 48 cents,
- New Mexico 50 cents
- Nebraska 55 cents,
- South Dakota and North Dakota 60 cents,
- Idaho 75 cents,
- Wyoming \$1.

With regard to governing statutes, most of the states receive the authority to brand inspect based on state law. Texas is an exception in that it derives its brand inspection authorities from the federal Packers and Stockyards Act (PSA).

With regard to methods of operation, the one similarity of all states is that the brand inspectors inspect cattle at auction markets. Beyond that, different states inspect under different circumstances. For example, in states such as Montana and Wyoming, there are no significant packing plants so there is no inspection at the packer level. In Texas, where there are large packers, the PSA does not provide authority to inspect at the packing plant. The Nebraska and Colorado systems do inspect at the packer level.

For the purposes of this research, a comprehensive brand inspection system is described as having the following characteristics:

- inspection at all marketing points including packing plants
- full time employees
- self-supporting system
- coverage is across the entire jurisdiction

- professional law enforcement support

Comprehensive systems are found in Colorado, New Mexico and Nebraska. In comparison to other jurisdictions, Alberta has a comprehensive brand inspection system.

B. Costs

The costs of Livestock Identification Services Ltd. can be broken down into two basic groups - direct costs of operation and the costs of compliance for the industry. The direct costs of operations can be viewed from two perspectives: direct costs to the industry and the operating expenses of the business. Costs of compliance are those additional costs that the industry bears as a result of conforming to the relevant regulations.

Direct Costs

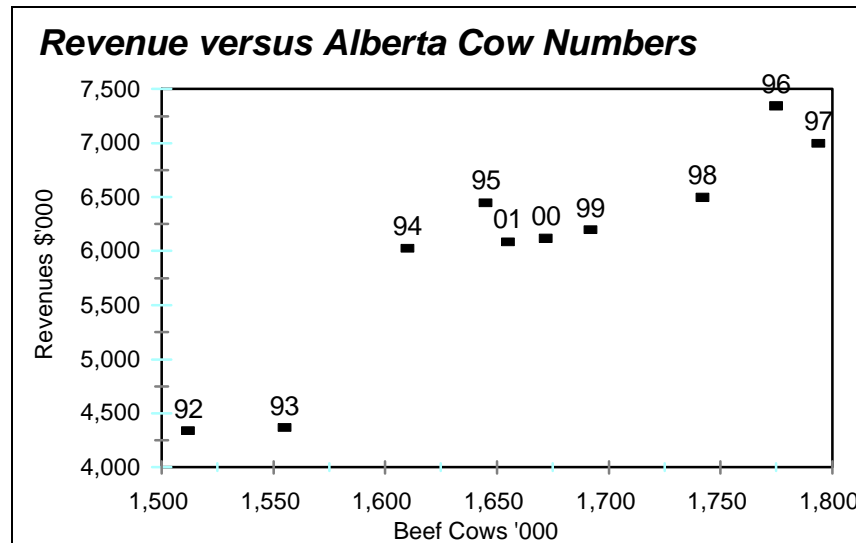
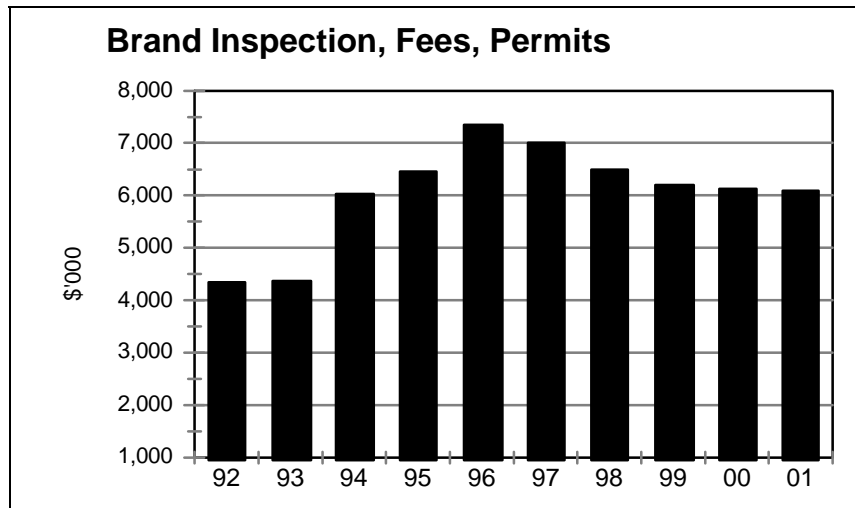
The following is a listing of LIS fees:

Livestock Inspection:	\$1.00/head or 0.50 per US head
Horse Permits:	\$3.00/head
Brand Registration:	\$220 per brand (\$25 transfer fee)
Dealer's License:	\$55.00
Stock Yard Operator:	\$20.00
Dealer Agent:	\$30.00
Brand Books:	\$35.00
Supplementary :	\$22.00

[Note that there is a \$0.05/head Patrons Assurance Fund levy. This however is not an LIS cost. LIS simply administers the fund and collects the levy. The Livestock Patrons Review Tribunal is a separate private organization]

When considering costs and benefits, the above noted fees are the starting point. These fees are the direct costs to the industry of the services provided by Livestock Identification Services.

The revenues generated by LIS are the sum total of the direct costs to the industry as detailed above. The following graph shows the total revenues from brand inspection over the past ten years. Not surprisingly, the revenues generated or the direct costs to the industry are directly related to cattle marketings and inventory numbers. In fact, the next graph shows the relationship between Alberta beef cow numbers in one year and the total revenues generated the following year. The correlation coefficient between the cow numbers and revenues is 85%.



As noted earlier, more than 95% of LIS revenues, which are direct costs to the industry, are in the form of stock inspection, and 98% of these inspections are on cattle. Applying these percentages to 2001 revenues (direct industry costs) shows that brand inspection costs the cattle industry nearly \$5.7 million per year. When licensing and registration fees are added to brand inspection fees, the total annual cost to the cattle industry of all LIS related services and regulations amount to approximately \$6 million. Direct costs borne by the horse and other stock sectors amounts to less than \$100,000/per year.

Given these figures, there are perhaps two obvious statements that need to be made regarding direct costs:

1. the cattle industry is the overwhelming focus of all LIS endeavors
2. cattle brand inspection is the overwhelming specific focus of LIS

The second closely related aspect of direct costs is the cost of operations. In other words, the industry bears the costs of regulation through the fees it pays, which are LIS' revenues. LIS in

turn generates expenditures in delivering its regulatory services. The following is a breakdown of LIS expenditures as shown on the most recent audited financial statement for the year 2000-2001:

Total Expenditures	\$5,226	% of Total
Amortization	157	3%
Bank Charges and interest	5	0%
Board of Directors	23	0%
Business fees	1	0%
Contract work	92	2%
Equipment	50	1%
Insurance	8	0%
Office and Miscellaneous	217	4%
Printing	184	4%
Professional fees	305	6%
Rent	156	3%
Rough road allowance	37	1%
Salaries and benefits	3,398	65%
Security	159	3%
Trailer rental	14	0%
Training and development	36	1%
Travel and lodging	385	7%
		100%

As can be seen, salaries and benefits amount to 65% of total expenditures. Professional fees are fees paid for legal and auditing services. Other than travel and lodging (including rough road allowance) no other cost approaches 10% of total expenditures.

Comparing or benchmarking is one method of determining how effective and efficient a business is operating. Unfortunately, LIS is not typical of other service concerns in the private sector, nor is it typical of service branches within the public sector. As a privatized, commercial regulatory organization, LIS is a hybrid. For example, LIS will bear legal costs and other professional fees that are far greater than an ongoing private sector firm because of the nature of the services it provides. These fees will not be recovered by passing along the costs to customers as is often the case with a private firm. LIS will also conduct services such as recovery of stray animals and informal mediation of fence-line disputes, for which there is no remuneration. This is part of their public-service nature. At the same time, as a privatized business, LIS must support itself on a fee for service basis.

One of the factors that can be used to measure the efficiency of an organization is the ratio of overhead costs to total costs. Specifically, overhead costs include head office salaries, amortization, rent, and board of directors expenses, among others. A low overhead to total costs ratio indicates that a greater share of expenses is attributed to delivery of client services.

LIS overhead amounted to approximately 23% of total costs in fiscal year 2001, which is an increase from 2000's overhead ratio of about 16%. Actual overhead expenses increased in fiscal 2001 as a result of very large computer/information systems upgrades, professional fees (legal fees), printing and security. The large increase in these overhead items are non-recurring and are typical of a relatively new organization that is seeking to upgrade both staff and capital. As such,

a more appropriate or representative estimate of overhead at LIS would likely be in the range of 16-18%. In addition, LIS overhead should continue to decline now that head office-type functions at Stettler are wound down.

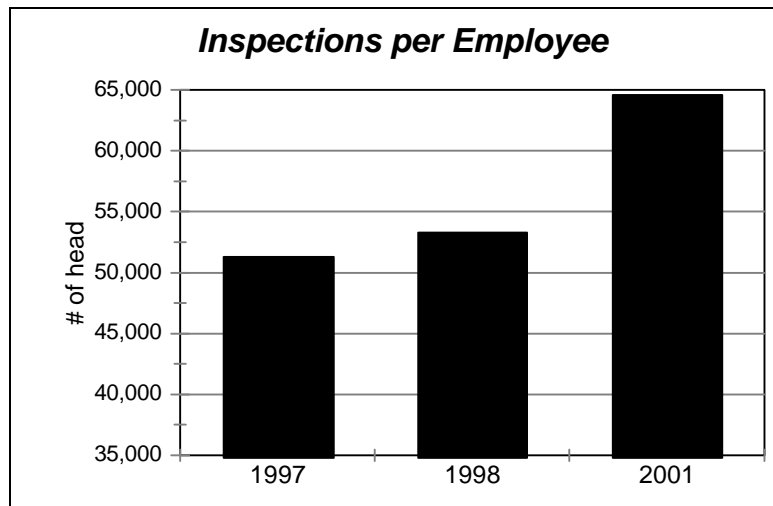
LIS financial returns for 2000 and 2001 were reviewed by an independent accounting firm (i.e. not LIS's auditor) and compared to other private-sector service providers. Examples of other private sector service providers would include accountants, law offices, security services, etc. This comparison reveals that LIS overhead ratios, even with the non-recurring items, are similar or in line with typical private sector service providers. In other words, even though LIS, by its nature, must provide services that are often delivered at no charge, it is still able to operate with overhead ratios that are competitive with the private sector.

For additional reference, it is of interest to compare the performance of the privatized LIS with the public sector or AAFRD LIS. In their 1997 report, Toma & Bouma noted that within a government operating structure, it is difficult to identify overhead. That is because services can be provided by different departments such as the Attorney General or Public Works. They noted that often 40% is added to operating costs as an estimate of overhead, which is in accordance with Treasury Board guidelines. Adding 40% to direct costs indicates that when brand inspection was provided by AAFRD, its overhead averaged just under 29% of total costs.

The T&B report noted, however, that the 40% figure is likely overstated. Further investigation for this George Morris Centre Cost/Benefit report indicates that actual overheads were likely much lower. For example, the Government of Canada's Treasury Board Secretariat notes that on average, overhead in the range of 15-20% is the norm and is used as a rule of thumb within the public sector. Furthermore, for the purposes of this project, AAFRD Financial Services staff provided a calculation of actual overhead costs, which are allocated on a full time employee equivalent basis. Based on the number of staff employed by LIS prior to privatization, it appears that overhead would have amounted to less than \$1 million per year. Based on actual direct costs, it is estimated that a more appropriate overhead for AAFRD was in the range of 21-22%.

Other measures of comparison relate to the direct cost of delivering services. In that regard AAFRD reports that the costs associated with LIS operations prior to privatization were approximately \$3.6 million. The two year average direct cost of the privatized LIS has amounted to \$3.82 million, an increase of 6%. In terms of the direct costs of inspection, however, inspections averaged 5.4 million head in the two years prior to privatization. In the first two years of the privatized LIS, inspections have amounted to an average of 6.15 million head. Therefore, the direct cost per head of inspection has declined from almost 67 cents to just over 62 cents, a decrease of 8%.

LIS has also managed to increase its efficiency in the delivery of brand inspection services. One way to measure efficiency is by the number of inspections per inspector. The following graph shows the number of inspections per full time and part time employee. As can be seen, the number of inspections per employee has steadily increased. Even if packing plant inspections are removed from the equation, total inspections per employee have increased dramatically over the last two years.



In addition to comparing brand inspection services performance from the past and the present, it is also instructive to compare LIS performance relative to other jurisdictions. However, caution must be exercised when making comparisons to other jurisdictions, for a variety of reasons. Some of those reasons include full time versus part time employees, deputy or contract employees, investigators versus inspector status, whether there is inspection at packing plants or not, geography etc. With that said, LIS in Alberta appears to be an exceptionally efficient operation with regard to inspections per employee in comparison to other regions.

For example, Colorado, South Dakota, Texas, Idaho, Montana and Nebraska have an average inspections to full and part time employees ratio of about 50,000 to one. That compares to about 65,000 in Alberta. Colorado especially is a very good benchmark for Alberta as that state inspects at packing plants as does Alberta; their ratio of inspections to full and part time employees is just over 70,000 to one. On a full time employee basis, however, Alberta inspects over 150,000 head per employee compared to just 90,000 in Colorado.

It is important to note that Alberta has managed to maintain a high relative rate of efficiency with regard to brand inspection, despite the fact that it is also engaged in other, non-brand inspection related services.

Another way of looking at the effectiveness of program or service delivery is to compare the costs of the service in relation to price changes throughout the entire economy. Brand inspection fees have not changed since May 1991 when they were doubled from 50 cents to \$1.00/head. Since that increase, the real cost of brand inspection, (deflated by the rate of inflation using the Statistics Canada Consumer Price Index), has decreased by 15%. From the beginning of 1998 to the beginning of 2001, the consumer price index has risen 6%. Given that LIS fees were unchanged, this means that since privatization, the real cost of brand inspection fees have declined by 6%. By comparison, Alberta deflated (actual prices deflated by the CPI) steer prices rose by 22% over that same time frame.

Proper perspective on cost efficiency must include the fact that the labor market, particularly in Alberta, is very tight. Alberta has the lowest unemployment rate in Canada (4.6% in Alberta versus 7% for Canada as of June 2001), and has had one of the lowest rates in the country over

the past few years. As such, it is important that LIS provide competitive pay/salary scales to its employees. To that end, LIS accorded its employees a 2-4% raise immediately upon being privatized by the government, and provided another raise of 3-4% effective April 2001. LIS also granted a 12% increase in its benefits package three years ago, which is being followed by a 15% increase this year.

Training, education and staff development are also a priority for LIS and significant expenditure increases have been incurred as a result. Security expenses have likewise been increased in order to maintain standards required by the regulations. In addition, in order to provide increased compensation to employees in light of higher fuel costs, LIS has increased its kilometer-travel fees from 26 cents/kilometer to 34 cents.

The key point to note in discussing direct LIS costs is that privatization occurred at a time when significant expenditure increases were required relating to salaries, training, information systems and other key areas. These expenditures, particularly in training, security and information systems are investments in improved service in the future.

As such, the following statements can be made regarding LIS after its first two and a half years of operations as a private sector firm:

1. The firm is operating as efficiently as other comparable private sector service firms with regard to overhead allocation. This is despite initial capital expenses associated with modernization and despite its mission which involves incurring service related expenses that are non-recoverable.
2. Direct expenses associated with operations are declining.
3. The firm is improving its efficiency.
4. It is among the most efficient⁶ brand inspection organizations in North America with respect to inspections/employee.

Cost Categorizations

There is limited value in trying to itemize or categorize the expenses associated with the separate functions carried out by LIS. This is because responsibilities such as brand inspection, stray animals, and licencing are very inter-related. They all involve livestock identification and marketing services and are interwoven with each other. Nevertheless, there are costs associated with each aspect of LIS and the costs can be accounted for by estimating time spent and salaries.

As noted, LIS staff have been delegated responsibilities other than brand inspection. These responsibilities include tasks associated with the Stray Animals Act, Livestock and Livestock Products Act as well as other statutes related to fence lines and livery keepers. The time and effort associated with delivering these tasks are expenses that are typically not recovered.

The tasks, time and effort involved in the Livestock and Livestock Products Act is usually

⁶ We cannot categorically say it is the most efficient because of the issue of how part time employees are utilized and the number of hours that they are utilized for during the course of a week or year.

generated at the head office. The two key staff are the General Manager and the Office Manager. Based on salaries and total time spent delivering these tasks, it is estimated that it costs LIS approximately \$160,000 per year to administer and deliver the regulations associated with the LLPA. LIS is reimbursed \$50,000 per year by the Patrons Assurance Tribunal. As such, the net cost to LIS is about \$110,000/year.

The Stray Animals Act is another service-oriented function carried out by LIS staff which is not covered by any revenue (with the exception of unique circumstances in which costs can be recovered). The primary staff associated with this Act are the district supervisors, although area supervisors and brand inspectors do provide assistance when necessary. It is estimated that approximately 25-33% of the time of these district supervisors is spent on either Stray Animals or in adjudicating fence line disputes. Time and travel costs associated with stray animals or fence line disputes likely amount to less than \$100,000 per year.

As noted, total LIS expenses during fiscal year 2001 were \$5.23 million. Therefore, based on the expenses associated with non-branding related tasks, it can be concluded that direct and indirect costs associated with brand inspection alone amount to just over \$5 million/year (\$5.23 million minus \$100,000 stray animals and fence line disputes, minus \$110,000 for LLPA).

In summary, the following are the costs of the major program/service areas delivered by LIS as a proportion of total direct and indirect costs.

Livestock and Livestock Products Act (including Patrons Assurance Fund)	3%
Stray Animals, Fence Line (and related tasks)	2%
Brand Registry and Inspection	95%

Costs of Compliance

Direct costs of regulation are the highly visible expenses that are paid as fees by the industry. Costs of compliance are those costs that are associated with complying with the regulations and are above and beyond the direct costs. Costs of compliance are those costs that are borne by industry in order to comply with the regulations. These may include extra staff time dealing with paperwork for example. One major challenge in this regard is the attempt to differentiate between tasks and expenses that are borne because of the regulations and those that would have been borne because the work would have had to be done regardless of the regulations.

The primary sources of potential costs of compliance lie in the key transfer points in the marketing chain: auction markets, feedlots and packing plants. Regarding the two main sectors of the cattle industry, cow-calf and feedlot, if there are costs of compliance they are most likely to occur at the feedlot level. Compliance costs are least likely to occur or are minimal at the cow-calf level.

The first source of possible costs of compliance is the cost of filling out a manifest. This cost is essentially minimal and if the regulations were not in place, such a process would have to be replaced by other forms of documentation such as a bill of lading. This means that the manifest and the costs associated with filling it out are not additional costs or costs of complying with LIS regulations. If LIS brand inspection regulations were not in place, good business practices simply dictate that some other form of documentation would be undertaken in the process of buying, selling and transporting livestock.

At auction markets, brand inspectors are very visible and are a key component of the sales process. With that said, inspection is done behind the scenes, before the animals are sold and the process is designed to impose no extra costs on the auction market operator. Costs do arise on rare occasions when inspectors are late or unable to accomplish their duties. These circumstances are not only rare but they are regarded as serious breaches of the LIS commitment to serve the industry. Remedies are very swift and have resulted in employee dismissal.

Another cost for auctions is the that of managing LIS/brand inspection documentation. This includes the submission of sales information, issuance of fees to LIS, holding funds when warranted, and cross-referencing bills of sale with manifests and other LIS forms. However, it again becomes a “grey” area regarding whether good business practices would simply dictate that these functions (excepting fee payment and holding funds) would be conducted regardless of the regulations. Auctions that operate with good management information systems tend to experience negligible additional costs. Further to that point, however, it is important to note that auctions only remit 95 cents of the \$1 fee. The five cents per head retained by auction markets is a collection fee (all dealers retain the 5 cents).

Feedlot Cost of Compliance

Costs of compliance at the feedlot are dependent upon a number of factors. As with the auctions and manifests themselves, there is room for debate as to whether the basic regulations are a source of additional cost, or whether they simply force an operator to do tasks that they would likely need to do in any case. The following basic costs of compliance at the feedlot should be considered, to determine whether these are additional costs or simply costs that would be incurred regardless of the regulations.

1. Labour/management to assist inspector
2. Lost cost of gain (shrink) during inspection
3. Cross referencing forms to lot numbers (i.e., inventory control)

With regard to labour/management needed to assist the inspector, this is not typical LIS operating procedure. In most areas of the province, brand inspectors utilize horses and do not require assistance from the feedlot operator. In the main feedlot region of Alberta, the Lethbridge district, there is a greater likelihood of feedlot employees assisting in the process of inspection, but this is not required, nor does it need to involve a material amount of time relative to the inspection process.

When feedlots do provide labor and management assistance during the inspection process, it is often due to scheduling or logistical problems as opposed to standard operating procedure. Given that assistance from feedlot operators/workers is not LIS policy, nor required by the process or the regulations, it would not be appropriate to assign an extra cost of compliance to this function.

There are approximately 600,000 head of cattle inspected in feedlots over the course of a year in Alberta. Inspections can occur on cattle moving into the lot from country sales, sales within the lot, export sales or be random inspections. Lost pounds gained or shrink during inspection is an area in which a broad-based statement of cause and effect cannot be made. The first point to be made is that the movement of cattle from pens to alleys is a serious management and animal husbandry issue. While the shrink is typically recovered, the fact is that pounds and feed are lost and must be replaced. Simply moving cattle into alleys and running them for any purpose can

cause shrink of a minimum of 2%, but more likely as much as 4% over the course of 2-3 days. Both feedlots and LIS inspectors are aware of the seriousness of the shrink issue.

A key question is whether the act of inspection is adding to the weight loss. The answer depends on the circumstances. Feedlots and inspectors work towards inspections that occur when the cattle are being shipped, weighed or otherwise moved. The challenge is to ensure that the inspection does not occur in isolation. With that said, logistical challenges, especially in the fall, cause problems in this regard. Furthermore, there are instances, especially in the winter, when feedlot inspections can be arduous. Further complicating this issue is the fact that for cattle sold within a feedlot to customers, clearly one person's loss in shrink is another person's gain.

The research for this project was not able to isolate a reliable percentage of the 600,000 head of cattle that were inspected in isolation or independent of other movement. However, the objective of LIS inspectors is to inspect cattle in conjunction with other sale-related movement and thus to minimize weight loss. As such, shrink associated with inspection at feedlots will not be added to the cost of compliance for this project.

Another cost of compliance associated with the feedlot and LIS regulations is inventory control. There is a cost associated with tracking and maintaining adequate records regarding the brands. Brands must be systematically recorded on incoming cattle, as they move through the feeding program, and at sale. This can be a complicated and challenging task that requires management time, expertise and, therefore, associated expenses. However, most larger scale and mid-sized feedlots have adopted computer programs or inventory management software. In addition to normal feedlot inventory management controls, these programs facilitate the requirements of the brand inspection regulations as well. This is not to say that the entering of brand data is not a cumbersome task or that it does not add to the time involved in maintaining the system. With that said, as with the above noted areas, the incremental costs associated with complying with the LIS regulations are minimal.

The final link in the marketing chain that is impacted by brand inspection is the packing plant. The brand inspector's basic duties at the packing plant are similar to those at an auction. The inspector seeks to confirm that the person selling the cattle is in fact the rightful owner. This is basically done by comparing the information conveyed on the manifest or transport papers, with the brands on the cattle or the bills of sale. As at the auction markets, there is no evidence that the duties of the inspector or brand inspection in general add to the costs of operations for the packer. Brand inspection may in fact complement the work of the packer's procurement department with regard to verification of shipments.

Branding Costs

In addition to the direct costs of LIS there are also issues associated with the physical act of branding and the resulting impact on the value of the hide.

With regard to the physical act of branding, the first point to note is that branding is not mandatory in Alberta. While a strong argument could be made that the system encourages branding, it cannot be said that cattle producers are compelled to brand. For example, most of the larger feedlots in Alberta do not brand cattle going into the feedlot. With that said, whether compulsory or not, by the time cattle end up at an Alberta packing plant, more than 90% will have

a brand. This is a clear indication that the cow-calf operators and those who place cattle on pasture are the primary users of brands.

The question then becomes what is the cost to the industry in terms of the stress, productivity and weight loss associated with branding the cattle. In that regard, research into this topic has been conducted by Dr. Karen Schwartzkopf-Genswein, a feedlot specialist with AAIFRD. This research basically concludes that while there is stress and pain associated with branding, it is not a major problem with regard to costs or productivity. Dr. Genswein in fact states that “if the public and the industry are truly interested in reducing stress in cattle, more focus should be placed on examining the stress associated with other aspects of animal management such as handling and use of improper or careless management procedures. Perhaps more efforts would be put towards ensuring that the branding is done properly...If brands are done correctly both the pain at the time of application and subsequent pain due to tissue damage and infection will be minimized.”⁷

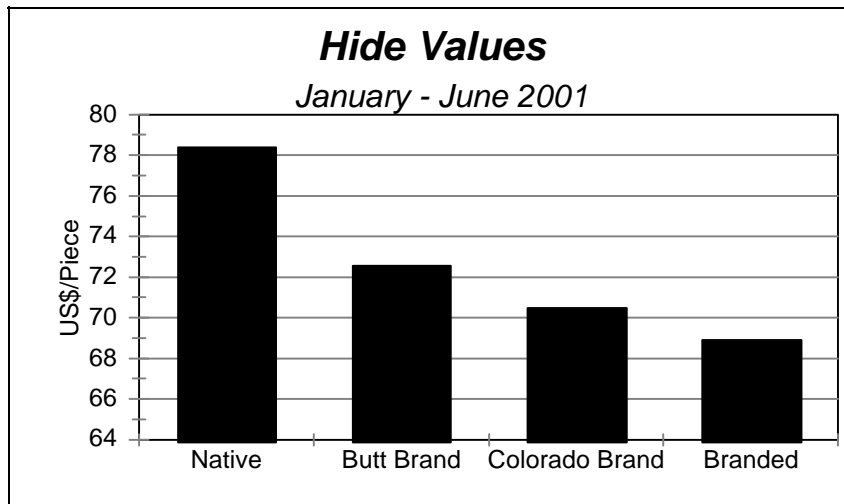
The point is that there is no debate that branding does cause stress and in that regard, there will be an economic loss associated with the time in which the animal is recovering from the stress. There are, however, a number of stress factors in an animal’s existence, and branding is not considered to be a major cost factor, relative to those other stressors.

Brands do impose a cost on the industry via the reduction in the value of the hide. The cost or decrease in value changes over the course of the year due to seasonal factors. The cost will also change cyclically as a result of macro-economic and cattle supply factors. Within the seasonal and cyclical context, however, the fact remains that a non-branded hide will sell for a higher price than a branded hide. The more brands there are on the hide, the less the value of the hide. Side brands (Colorado) and brands that mark larger surface areas take the most value away from the hide. Part of the reason for the difference in value is the end uses for branded versus non-branded hides.

For example, the following graph shows the differences in value for different types of branded hides versus non-branded hides. The source of the data is the Jacobsen Price Guide (by-products.com). Jacobsen Publishing Company, Chicago, is a division of By-Products Interactive. Jacobsen has been collecting data from buyers and sellers for over 90 years and its hide price information is used by buyers and sellers as a tool in pricing formulas. Jacobsen is regarded by hide industry participants as authoritative and comprehensive.

The data shows hide values for Heavy Native Steers, Butt Branded Steers, Colorado Steers and another category called Branded Steers. Branded is a “catch-all” category that includes all types of brands but not necessarily categorized.

⁷“The Great Branding Debate,” by Dr. Karen Schwartzkopf-Genswein. Other documents reviewed included, “Effects of branding on weight gain, antibiotic treatment rates and subsequent handling ease in feedlot cattle,” by Genswein, Stookey et al and Behavior of Cattle During Hot-Iron and Freeze Branding and the Effects on Subsequent Handling Ease,” by Genswein, Stookey et al. In addition, similar results were obtained at Texas A&M.



Source: Jacobsen Price Guide

In order to assess the difference in value between branded and non-branded hides, it is appropriate to take the average of the three branded categories. As such we can say that for the first six months of 2001, non-branded hides were worth just over \$US78/piece while the branded hides were worth nearly \$US71/piece.

Hide and US packing industry participants noted that the difference in value can at times be as low as US\$2 or up to US\$10. It is also noted that over the last three to five years, according to the hide and US packing industry participants, the difference was in the US\$4-6 range or approximately 8-10% of the value of a branded hide. Based on current exchange rates, the difference between branded and non-branded hides would amount to C\$7-8/piece.

Traditionally the Alberta hide has been valued less than its US counterpart, whether branded or not. Both native and branded Alberta hides have been regarded by the market as slightly inferior to their US counterparts due to hide-grain quality. There is a seasonality to this however. In the summer months, Alberta hides have been valued at or slightly lower than a comparable US hide (branded or non-branded). During the winter months, Alberta hides might be worth C\$3/piece less than a US hide. With that said, industry participants are noting that the US-Canadian value differential and the perception of a quality differential have been decreasing in recent years. This is at least partially due to the fact that so much of the business is now in the form of exports overseas. Even ignoring the US-Alberta comparison, however, it can be stated that a non-branded Alberta hide should be worth about \$7/piece more than a branded Alberta hide.

Given that nearly all hides are branded in Alberta, the loss in value to the industry of brands on hides is widespread. Last year, according to Canfax Cattle on Feed Reports, Alberta and Saskatchewan cattle feeders marketed about 2.383 million head of cattle. Based on feedlot capacity in both provinces, approximately 2.2 million were marketed from Alberta. Assuming that 90% of those steers and heifers were branded, this means that brands cost the Alberta cattle industry \$15.5 million ($\7×2.211 million). That figure does not include approximately \$1.5 million lost due to branded cow hides ($\$8/\text{branded cow hide} \times 191,000$ cows slaughtered in Alberta).

Cattle industry participants often debate where the losses of brand damage rests. That is, cattle

producers question whether they would receive the extra value if in fact they did not brand the hide. Furthermore, in Alberta now, where brands are pervasive, it might be difficult to assemble enough critical mass to actually realize the additional value of the un-branded hide. Nevertheless there is no question that branded hides have less value than a non-branded hide, regardless of whether the packer or the producer acquires the value. If brands began to disappear on cattle, packers would in turn begin to realize returns approaching the industry averages. As well, in a competitive market, this return would be bid back into the value of the cattle.

Another point that is raised is that if all producers did not brand cattle, then the difference in price would be erased. That is, non-branded hide price premiums would decrease. There is some intuitive sense to that argument. Nevertheless, the fact is that the value of non-branded hides is higher than a branded hide because of the damage that the brand places on the hide. Without the brand it is worth more to the market. More specifically for Alberta, however, the fact is that even if all producers in Alberta stopped branding, industry experts do not believe that the supply of non-branded hides would increase enough to impact the relative world market hide values.

Another argument suggests that those who require cheaper, branded product would switch to synthetics if branded hides were no longer available. This in turn would cause the price of hides to fall back to lower levels. However, the cost of the hide is just a very small part of the total cost of the final product (less than 10%). Hide industry participants do not believe this is enough to cause buyers to switch to synthetics.

C. Benefits

Deterrence of Crime and the Investigation of Crime

Research conducted for this project has determined that the principal benefit delivered by LIS is the deterrence of cattle and horse theft. This is the consensus of inspection officials and producers across North America, as well as the RCMP officers in Alberta. The deterrence of theft is also the first benefit cited by Rural Crime Watch officials in Alberta, as well as industry participants. The research also indicates that the main impact of the deterrent effect is felt most in the remote areas employed by cow-calf operators and ranchers.

A basic step in quantifying benefits such as theft deterrence provided by LIS is to examine what costs the industry would endure if the organization was not in place. Those costs would obviously include the value of the stolen cattle, as well as other costs such as the following:

- increased insurance,
- increased private theft deterrence measures,
- increased policing,
- increased court costs and
- increased prison costs

In addition, cattle theft can be a very emotional and stressful type of theft. Unlike items such as car radios or even cars, cattle theft involves a person's livelihood. As such, other costs that Alberta would have to endure if LIS was not in place might include an increase in violence as cattle owners seek to personally defend their property.

One research method that could have been employed to determine what costs the industry would endure without LIS in place would be to place a moratorium on LIS services for a period of time such as one year. Needless to say, that option is not available. Another option is to examine other regions such as Oklahoma, Missouri or Ontario where brand inspection services are not delivered. The challenge then would be to compare cattle thefts and associated costs in those regions to thefts and costs in regions such as New Mexico, Colorado and Alberta which do have brand inspection systems. Unfortunately, this has also proven to be not possible, because those regions that do not have brand inspection do not centrally collect data on theft or associated costs. In fact, even brand inspection regions in the US admit that data collection on thefts is not reliable or comprehensive.

Research conducted for this project sought data from the following states: Colorado, Texas, Nebraska, Oklahoma, Missouri, North Dakota, South Dakota, Idaho, Wyoming, Montana as well as the International Livestock Identification Association (ILIA). While the brand inspection states did have theft data, for the most part, this data was not regarded as comprehensive. Data supplied by the ILIA indicated an insignificant number of thefts reported but again is not regarded as a comprehensive data set. As further testimony to the lack of available data, the Hartford Insurance Company, in Omaha, Nebraska, the leading livestock insurance firm in North America, has concurred that there is not sufficient hard data to determine statistical differences between branded and non-branded jurisdictions. This carries significant weight in that this is a firm with financial stakes in this area of the business.

As a last point regarding data quality, it is noted that cattle producers are not likely to even know if missing cattle have been stolen or are simply lost. Further to that point, Corporal Ed Turco of the RCMP's Livestock Investigation Unit believes that less than 10% of missing livestock are even reported to the RCMP or LIS.

This research project therefore is unable to deliver a solid dollar value statement that quantifies the benefits of deterrence provided by LIS. This does not mean that there is not a benefit associated with deterrence. Evidence of deterrent benefits are provided by the experience of the inspection and law enforcement officials. The RCMP, Alberta Rural Crime Watch as well as brand inspection officials across Canada and the United States provide compelling insights and anecdotal accounts, based on experience, that brand inspection deters theft.

For example, Texas and Southwest Cattlemen officials assert that cattle stolen from that state, a brand inspection state, tend to move out of their state and be sold in Oklahoma, a non-brand inspection state. A top livestock enforcement official with the Missouri Department of Agriculture, a non-brand inspection state, claims unequivocally that fewer branded cattle in his state are stolen than non-branded cattle. In fact, he asserts that cattle that are stolen at night tend to be left abandoned during the day once brands are detected by the thief. Both Alberta RCMP livestock investigation officers, Corporals Ed Turco and Tim Woods state that there is no doubt that brand inspection is a deterrent to theft. Rural Crime Watch is equally adamant regarding the role of LIS in theft deterrence. Perhaps most importantly, the Hartford, while they acknowledge a dearth of solid data, does in fact note that the risk of theft is greater without branding and brand inspection.

The educated and experienced opinions of the RCMP, the Hartford, Rural Crime Watch and the Missouri Department of Agriculture carry particular weight because none of these organizations

or individuals has a vested interest in brand inspection. (Turco and Woods jobs are funded by LIS but their employment as officers would not be jeopardized without the funding or without LIS). As such, this research project places particular respect on their opinions.

While the research cannot pronounce dollar benefits specifically for branding, other studies have been able to quantify the benefits of crime deterrence. These other studies, unlike this one, were able to utilize data from tests which employed deterrents such as camera surveillance, extra police, target hardening, and property marking. In particular, research for this LIS project uncovered one study that summarized a number of other cost benefit crime prevention studies. The study was from the British Journal of Criminology, entitled Value for Money? A Review of the Costs and Benefits of Situational Crime Prevention, summer 1999. The Value for Money authors Welsh and Farrington said, “a review of the literature in the western world revealed 13 situational crime prevention studies which have evaluated program effects and have used economic analysis technics to assess efficiencies, or that presented cost and benefit data...”

The researchers in those studies were able to look at crime with or without the extra prevention measures, something that was not possible with the LIS research. That is, these studies were allowed to observe the effects of certain crime prevention measures, and then remove those measures. These other crime studies analyzed in Value for Money essentially looked at the costs and the benefits of preventative measures, sometimes called situational crime prevention (reducing the opportunities for crime). These preventative measures include:

- increasing the perceived effort
- increasing perceived risk
- reducing perceived rewards
- inducing guilt or shame

Certainly LIS delivers in each of the above areas, even the fourth point. Of the 13 studies that “Value for Money” was able to uncover, eight delivered benefit cost ratios greater than one and five had benefit cost ratios that were less than one. The average benefit cost ratio was 1.79 to one. That is for every cost unit invested, 1.79 of units of benefits was returned. The lowest ratio was .32 and the highest was 5.04. It would not be proper to conclude from these studies that the simple average ratio should be applied to LIS, as the measure with the greatest benefit cost ratio has little to do with LIS type methods. For that matter, Welsh concludes that from a review of the literature on situational crime prevention, it is difficult to draw any general, substantive conclusions about what works most cost effectively to reduce crime.

This does not mean that deterrence does not reduce crime - the question relates to effectiveness of certain measures. In that regard, Gloria Laycock published an article entitled “Property Marking as a Deterrent to Domestic Burglary, “in the book, Situational Crime Prevention: From Theory Into Practice. In this article, Laycock notes that property marking can reduce the incidence of domestic burglary. Data in her study shows a large reduction in theft of marked property. In fact, burglary incidents for participants involved in a property marking scheme in England saw theft drop by more than two times. Those who did not participate in property marking saw no reductions in crime. Laycock concludes that property marking can reduce the incidence of domestic burglary. Success depends on a high take-up rate and upon the fact that local burglars or would be burglars are aware of the marking scheme.

Another method of looking at the deterrent impact of LIS regarding livestock theft is to compare the incidences of livestock theft in Alberta to the incidences of property crime in the rest of the province. According to Statistics Canada, last year in Alberta there were 90,600 theft crimes (auto theft, theft). Statistics Canada estimates Alberta's population last year was just under 3 million people. That means that there were .03 property crimes per person last year.

In Alberta, Statistic Canada counts just over 31,000 cattle producers. According to LIS records, over the last several years there have been an average of around 450 reports per year of cattle or horses reported missing or stolen. Based on input from experienced and knowledgeable personnel, there is no way that a specific estimate can be made as to the percentage of these instances where livestock were actually stolen as opposed to missing. Estimates range as high as 30% to as low as 8%. Whether it is likely a theft or not depends on specific circumstances such as location (whether isolated or not), number of head stolen (singles versus, trailer size lots), whether corrals have been used, time of year or even the history of the people making the report.

If it is agreed that cattle are a liquid asset, then as a starting point, it would be logical to assume that the incidences of theft for the cattle industry would be similar to that of the general population. In fact, however, whether the incidence of theft as a percent of all missing and stolen reports is 30% or 8%, the rate of cattle theft per producer is far lower, .004 to .0015, than theft for the general population. In fact, the risk of theft in the general population is nearly seven times greater than in the cattle industry in Alberta. Even if all cattle thefts are not reported it still appears that the risk of cattle theft is lower than the risk of theft in the general population. This research was unable to uncover any data on what percent of thefts in the general population are unreported. As such, in order to have a fair comparison, for these purposes, the actual reports should prevail.

It is logical to conclude that the brand inspection system in Alberta is responsible for a lower theft rate in the cattle industry than for the population as a whole. At the same time, however, those individuals inclined towards crime might simply have decided that auto theft or breaking and entering is less bothersome than cattle theft. A converse argument to that, however, is that cattle, unlike stolen stereos or cars, are not second hand goods. If not for brand inspection, cattle can be sold at full market prices. Other stolen property must be fenced or discounted in the black market.

Deterrent Benefit Conclusions

It is unfortunate that the nature of LIS's role is such that experiments cannot be run in order to test deterrence. Moreover, given that Alberta's brand inspection system has been in place for over 100 years, there is no "before and after," analysis that can be done. It is also regrettable that the data is insufficient to test hypothesis on cattle thefts between those areas that have brand inspection and those that do not.

With that said, a great deal has been written on the topic of crime and punishment and the impact on crime rates. The writings have shown that there are benefits that exceed the costs associated with deterrence. In particular, product marking has been shown to be effective, especially if thieves are aware of the situation. Furthermore, knowledgeable, experienced people in the cattle industry have provided unqualified support for the concept that brand inspection reduces cattle theft. Nevertheless, there remains a lack of specific evidence regarding the efficacy of LIS as a

deterrent to cattle theft.

As noted above, according to LIS records, over the last several years, there were an average of around 450 *reports* of cattle or horses missing or stolen. Of these incidences, the total number of animals amounted to approximately 1,600 per year and 90% were cattle. As noted above, there is no data to support a specific estimate as to the percentage of these animals that were actually stolen as opposed to missing. Furthermore, this research project was unable to obtain RCMP data or records on theft cases.

One way to review what this information is conveying is to try and piece together the information gleaned from the different sources. Based on the Laycock study we could say that without brand inspection, thefts would be at least two times more than they are now. Based on the comparison to thefts in the general population, the cattle thefts could be up to 7 times greater than they are now. If we assume that 10-30% of the reported missing or stolen cattle are in fact stolen, and combine that with Turco's estimate that only 10% of stolen cattle are actually reported, we can say that about 1,600 to 4,800 head of cattle are stolen in Alberta each year. If, based on Laycock we say that thefts would be 2 to 2.5 times more without LIS, then we can see a deterrent benefit ranging from 1,600 head to 7,200 head⁸. Placing a dollar value of \$1,000 on each head, yields a range of \$1.6 million to \$7.2 million. Clearly a most important part of the equation is Turco's estimate that only 10% of thefts are reported. If this estimate is increased to 20%, the bottom end of the net deterrent benefit range falls to just \$800,000.

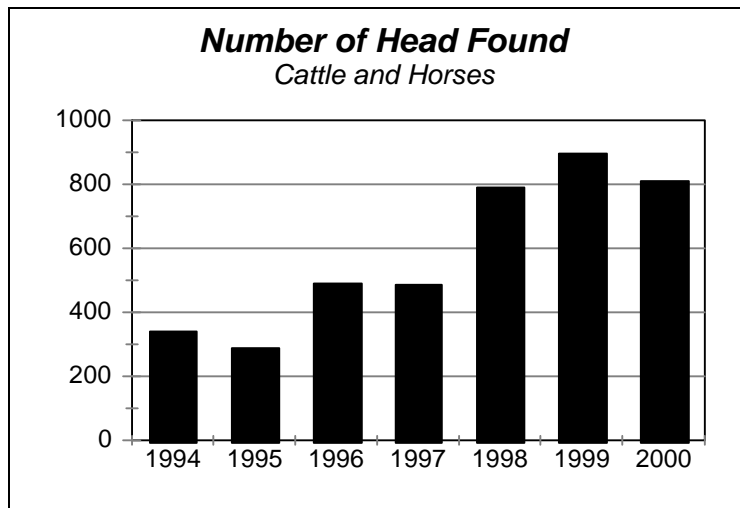
Given that issue, another approach would be to use the general population multiple of 7 as noted above. If 30% of the 1,600 missing or stolen cattle are in fact stolen, then the thefts amount to 480 head per year. Without LIS thefts could be 7 times greater or 3,360 head. The net benefit in number of head is 2,880 (3,360 - 480). Applying a dollar figure to that would yield a deterrent benefit of \$2,880,000.

While a wide range of conclusions are reasonable, it must be conceded that the end result is based on conjecture, albeit experienced and educated conjecture. No one really knows how many cattle or horse thefts there are because no one is able to distinguish which are actually stolen as opposed to simply missing. As such, no one can ever know how many thefts have been deterred by LIS. Nevertheless all of the above discussion does lead to the conclusion that there is a real dollar value benefit to the deterrence work conducted by LIS.

Returned Livestock

The finding of lost or stolen livestock is a key benefit provided by LIS. The following graph shows the number of head found during the course of the year as reported by LIS.

⁸Bottom range is $2 * 1,600 = 3,200 - 1,600 = 1,600$ to top range $2.5 * 4,800 = 12,000 - 4,800 = 7,200$



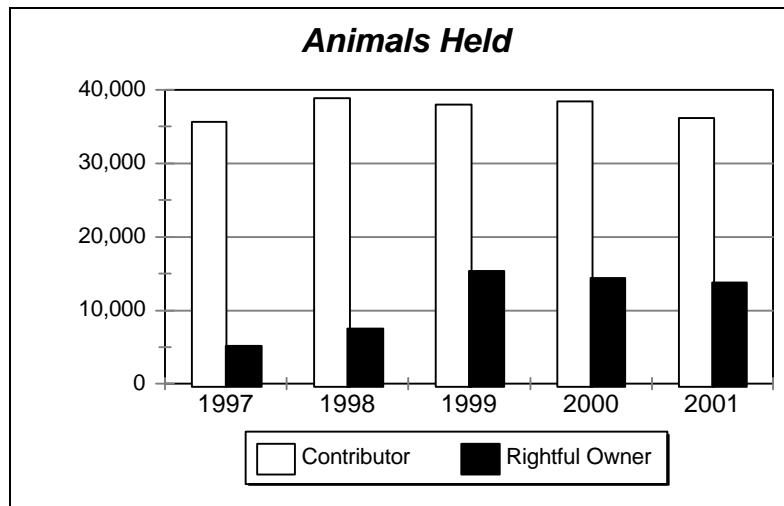
It is important to note that these numbers are in addition to the number of animals referred to as “country strays released to rightful owner,” that are tabulated separately. The number classified as country strays released to rightful owner has typically numbered around 4-500 head per year.

As with the deterrence factor, the best way to assign a dollar value to the benefit is to see what would happen if LIS was not in place or if brands and brand inspection was not in place. As with deterrence, this is not possible. The problem in assigning benefits is to determine how many animals would have been returned without brands or brand inspectors. There is a good argument that with ear tags and honest neighbors, most of the cattle would have been returned regardless. The other argument is that without a brand, it would be much more difficult to find the rightful owner. Common sense, however, suggests that the presence of a brand makes the likelihood of finding and identifying a lost or stolen animal much easier.

Again the proposition of assigning a dollar value to this is rife with potential miscalculations. With that said, it is again reasonable to assert that the animals classed as “country strays...” would probably never have been returned to the rightful owner. That in addition to the other animals reported found, indicates that LIS provides a benefit of at least \$500,000 per year in this area.

Animals Held and Released

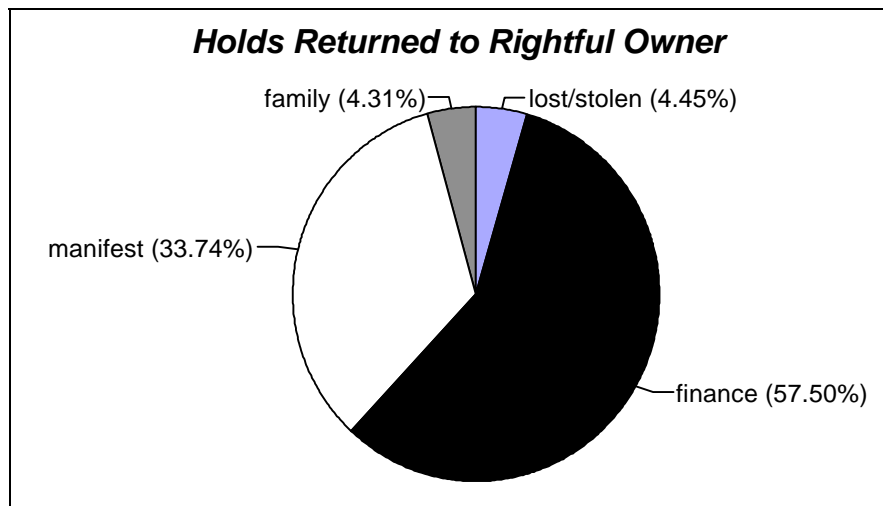
The most important component of the work of LIS is its presence in the market at the point of sale. It is here where the deterrence impact is directly felt. A person selling an animal that is not rightfully theirs for one reason or another will have to face the risk of a brand inspector uncovering the attempt. The following graph shows the number of animals held in recent years in which the proceeds were released to the contributor and where the proceeds were released to another person, referred to as the “rightful” owner. LIS uses CD&E forms to conduct this aspect of its business. These forms are used to notify owners and dealers and also to release cattle.



As can be seen, the number of animals held and the proceeds released to the contributor has been relatively stable over the years. The number of animals held where the proceeds were released to the rightful owner has increased by around two times to 13-15,000 head each year.

It is this number that is of great interest in assessing the value of the brand inspection services. This represents the number of cattle that were presented for sale by someone, and the brand inspector decided to hold the proceeds because of questions regarding identification of the rightful owner. Not only were the proceeds held, but in fact the funds were released to someone other than the contributor. The contributor was unable to prove that the funds should be directed to him and the funds in fact were directed to the “rightful owner.” This process can take a day or a year before the funds are released. Assigning a dollar value of \$1,000/head to this redirecting of funds means that brand inspection resulted in about \$14-15 million dollars of benefits, if benefits are defined in this way.

The question is whether this is a benefit or simply a process of the LIS system. Two separate reviews of the data on holds revealed that approximately 55-60% of the cattle in the samples were presented by people who should have listed the owner as a feeder association or another entity which financed the cattle. The manifest instructions state that “If the cattle are Feeder Association or Financed, the owner is the financier and the account of is the person that has been feeding the livestock.” As such the brand inspection system helped to correct this problem. Another one third of the animals covered in one of the audits were listed on manifests that were simply not clear. Less than 5% of the animals in the “rightful owner” class were changes made as a result of family names. In other words, instead of making the check payable to a husband only, the check should have been made payable to a husband and wife based on brand identification and ownership of the brand. Finally, less than 5% were animals that could be classed as stray or stolen, i.e. there were no financial, family or manifest mistakes. The contributor was simply different from the actual owner of the cattle.



Legitimate arguments could be made that the benefits of the brand inspection can therefore range from the full 14-15,000 head all the way down to about 600 head or less. That would place the dollar benefit range from \$15 million to \$600,000. One argument would say that the contributor presented animals for sale that were not theirs and the system caught them in the act of fraud or error. Another argument would say that the system is screening and sorting cattle on behalf of feeder associations and that the situation would be sorted out in the normal course of business.

The reality is that nobody knows whether someone was trying to cheat a family member or a feeder association. There are instances in LIS files, even current or ongoing cases, where this is the case. Family members have tried to steal from each other and have been thwarted due to the brand inspection system. Attempts have been made to sell cattle without remitting funds to the feeder association. Even if someone was not deliberately trying to steal from a feeder association, the fact that LIS caught the error is a benefit to the association. There is value to the industry for the following reasons:

- a portion of the money would never get to the financial entity, either intentionally or unintentionally
- the feeder associations would have to bear the costs of employing their own inspectors
- there would be costs to the feeder associations as they took action to retrieve their money
- there might be more conversion cases
- poorly written manifests could result in the wrong person getting paid

As such, there is value in having LIS correct the problem quickly by inspecting and re-directing the funds

With that said, there is an alternative argument that would reasonably state that these types of issues would be cleared-up in the normal course of business if there was no brand inspection in place. For example, in Manitoba, feeder associations have strict rules regarding payment upon sale and the associations employ their own inspectors. The associations bear the cost of their system as opposed to the marketing chain subsidizing the associations. Moreover, it seems more likely that the overwhelming majority of cattlemen who operate businesses are going to pay back the money to their feeder association, even if they did not put the association as the owner on the

manifest. Cattle producers that abscond without paying their debts would not be able to stay in business. In addition, there is reasonable argument to be made that clearly written manifests or bills of lading are the responsibility of the owner alone. The inspection system is allowing many producers to be unconcerned about how or who fills out a manifest. The argument would state that a third party should not have to be responsible for this basic task.

The ability of LIS to hold cattle and release cattle or funds to the rightful owner is perhaps the most important part of the brand inspection process. With that said, this research project has concluded that holds and releases are a process or an example of the organization at work. Therefore it will not be referred to as a specific LIS benefit.

Livestock and Livestock Products Act

The key aspects of this act that provide the most noticeable benefits to cattle producers are the following:

- requirement to pay producers within two days
- financial responsibility/licencing of buyers
- Patrons Assurance Fund

At the most basic level, this legislation helps to ensure that industry participants have confidence in the financial responsibility of the buyers. In the event that the buyers are in default, a system is in place to provide support. As with other aspects of the LIS role, it is a facilitation of commerce-type of function.

In addition to this, producers would likely not be paid within 48 hours for their livestock. As of now, the packing industry for example is likely holding \$18 million in accounts payable for cattle (two days of purchases). In the packing industry, where their own accounts receivables are not covered for a week or even more, the temptation would be to lengthen the payment terms to producers. In any given day, based on 6 million cattle inspected each year, that means that there is possibly \$48 million in buyer accounts payable. In the event of any financial difficulty, the 48 hour requirement at least minimizes the magnitude of a potential problem.

Other than the actual cases of default in which bonds have been utilized (see above), there is no concrete way to accurately quantify the benefit that this legislation provides to the industry. Certainly a case could be made that without the service buyer defaults would increase and more producers would be left unpaid. Lawsuits would possibly increase. In fact that is obviously why the legislation exists. It is to be noted that this type of legislation is common in livestock industries across Canada. It is even common in some horticultural produce sectors in the United States.

Given that it is difficult to quantify the benefits, there is room to argue that without the legislation, however, the market would take care of the situation on its own. Even the fact that packers have to pay within 48 hours while they have to wait weeks for their own invoices to be honoured, is not without costs. In a competitive market like cattle and beef packing, the lost interest is a cost of business that is simply bid into the price of cattle.

Other Benefits and the Facilitation of Commerce

It is noted that it is the owner or his agent's responsibility to fully complete and sign the manifest form prior to transport. The regulations state that the owner of the livestock or the owner's agent shall complete the livestock manifest. The Act itself states that incomplete, incorrect or false manifests are subject to a fine not exceeding \$1,000.

In fact, however, according to brand inspectors, supervisors, and industry participants, manifests are routinely filled out by truckers and are very often completed in error. All industry participants, even large feedlots, are culpable in this regard. Brand inspectors make numerous changes to manifests every day regarding information like correct colors, brand information, correct totals, and completion of manifests. These changes are typically made on the spot and are done in accordance with their authority and in order to facilitate commerce. That is, without these changes made on the spot, buyers would be forced to hold funds or incorrect payments would be made.

This is not to say that without livestock manifests in the first place there would not be a problem. If there were no livestock manifests, some other form of paper work would have to take its place. The point is that the errors in the manifests and paperwork would prove costly to the industry without LIS in place.

As an example of the magnitude of the problem associated with improper manifests, for the purposes of this project, a sample of changes made to manifests was conducted at two packers and an auction mart. At one packer alone, over a period of 4 days, changes were made to manifests respecting a total of more than 3,900 head of cattle. The total dollar value of the cattle was estimated at \$5.1-5.2 million in the four days. The cattle or funds were not held via the "notice to contributor" or CD&E form route. Instead the changes were made on the spot by the brand inspector. Approximately 20 head were simply miscounted on the manifests. Other errors included incomplete manifests or incorrect consignor or payees. Similar problems were uncovered at an auction market.

The key point is that LIS helps to facilitate commerce by making such corrections. Furthermore, if LIS was not in place, the simple miscount of loads that are regularly caught by LIS could total well over \$1.5 million per year at the one packer alone. Without these corrections, there would be serious disputes between feedlots and packers and feedlots and cow-calf operators.

This in turn raises the issue of dispute settlement and third party adjudication by LIS. Whether settling load counts, correcting manifest inaccuracies, determining prima facie ownership, deterring fraud, or solving sorting problems, LIS actions help to facilitate commerce by increasing confidence that the trade is properly transacted.

Furthermore, by settling fence line disputes or stray animal disputes, LIS has become part of the rural livestock infrastructure. This is important in an era of decreasing emphasis on rural and livestock concerns from government. In other words, livestock disputes do not have the priorities in the civil processes that they once did. With LIS in place, these issues receive priority and can be solved before the situation deteriorates.

An outcome of the LIS efforts is fewer disputes that end in court. The simplest of civil cases that

go to Court of Queen's Bench in Alberta (simple meaning that other side co-operates, case proceeds quickly, etc.) cost \$18-22,000 in legal fees. These would take 1 to 2 years for resolution of the case. Consider the fact that LIS is involved in about 400,000 livestock sale transactions each year. If LIS prevented about 330 of those 400,000 transactions from going to court, or less than one tenth of one percent, LIS would pay for itself each year in terms of legal costs avoided.

Closely related to the issue of lawsuits avoided is the fact that due to LIS's theft deterrence efforts, there are fewer criminal prosecutions for cattle theft. Estimating a dollar value to the taxpayer for this benefit is impossible. This is because, as noted above, there is no way to tell exactly how many thefts are actually deterred or how many of those deterred thefts would have been prosecuted. In addition, another benefit of the presence of the inspection system is that there is likely less police time and effort spent in investigating cattle theft. Once again, however, it is impossible to place a dollar figure on how much has been saved by the taxpayer.

Benefits Summary

As discussed above, the calculation of benefits suffers from a lack of available data. As noted, no one really knows how many thefts there are in either branded or non-brand inspection areas. In non-brand inspection areas, there is little or no concern about thefts but these areas are not typically large cattle producing regions. In those regions that do have brand inspection, again, there is little overall evidence of theft problems, relative to the size of their industries. Of course the reason could be that there is not a theft problem because there is brand inspection. The other reason could be that there was no problem in any event.

The reasons for the lack of data have been stated and there is nothing that can be done to change that fact. As such, the calculations of benefits relies on other research studies in which blind tests or other experiments could be administered. Benefits calculations also rely on comparisons of theft rates in the general Alberta population. The calculation of benefits also relies on informed opinions and judgements that have been substantiated by seeking a variety of sources.

While the best efforts have been made to quantify benefits in an objective manner, it would be misleading to total each of the estimated benefits outlined above in order to try and determine a grand total value. The nature of the benefits results in a wide range of possible values associated with the benefits. Given that problem, an accounting ledger approach to tallying-up the dollar value of the benefits would not be prudent. Each of the services provided by LIS should be reviewed based on its own merits and considered as part of a package of benefits.

Finally, it is important to note that LIS is not a public good. The Minister of Agriculture, Food and Rural Development made it clear when he privatized brand inspection that LIS was a business. LIS provides a specific service to a specific industry. As such, the concept of one fee for all must be balanced against the possibility that not all participants receive the same benefits. If one sector receives more benefits than another sector, yet both sectors pay the same, there is cross-subsidization occurring. Cross subsidization is common in public goods but it is problematic in a private good.

Based on the research into the costs and benefits of brand inspection, it is apparent that the greatest benefits of brand inspection occur with the cow-calf sector. The risk of theft is

considered greatest on the pasture and in remote areas. Moreover, branding is also most commonly used as a management and sorting tool on the open range or community pasture. Feedlots, particularly larger lots, tend to brand the least in the industry. Furthermore, the strongest support for brand inspection occurs at the cow-calf level. Finally, based on business size and scale of operation, it is most evident that the feedlot sector is best able of the two sectors to finance and take care of its own business interests without third party verification.

This does not mean that feedlots do not receive benefits from brand inspection. While the issue of the efficacy of livestock ownership verification is in dispute, there is no question that brand inspection plays a significant role in the process. Furthermore, there remains the risk of theft out of a feedlot and there is also the risk that feedlots could be involved in theft. Finally, for brand inspection to work, a full system approach is necessary. No part of the marketing chain can be left out if the system is to be effective.

This research has concluded that there are significant monetary benefits associated with the services provided by LIS. The same pool of research and logic also suggests that of the two primary sectors in the cattle production chain, feedlots and cow-calf producers, it is the cow-calf operators that receive the greatest benefits from the services provided by LIS.

D. Legislative and Regulatory Issues

LIS's Regulatory Obligations

When LIS was delegated responsibility to administer the legislation, the government included provisions in the delegation legislation stating that LIS must comply with the Acts and Regulations. Further, when LIS took over administration in November 1998, some producers expressed the concern that LIS would give special treatment to certain sectors of the industry and would provide lower service levels in certain regions of the province. In response to these concerns, the LIS Board passed a resolution instructing LIS management to administer the legislation fairly, consistently, and without deference for the size of an operator or his location.

In order to meet its legal obligation to comply with the legislation and in furtherance of the Board's resolution, LIS management instructed its field staff to follow the legislation consistently. In some areas this has created conflict with sectors of the industry. In other cases, the directives and policies imposed on LIS by the delegation agreement need to be better aligned with regulatory requirements. For example, some producers assert that LIS is "changing the rules". However, the reality is that LIS is simply following the rules that had always been in place.

A good example is the issue of whether to inspect cattle arriving in Alberta feedlots from Saskatchewan. Prior to privatization, some feedlot operators believed that there was no legal requirement for them to notify the inspection service of the arrival of Saskatchewan cattle and no requirement to keep the cattle separate. This is a mistaken understanding of the legal requirements. LIS however, is obliged to follow the legal requirements in this regard, which in turn led to the concern that LIS had changed the rules.

Conversion

Another major issue relating to the livestock legislation is the industry uncertainty over the legal effect of brand inspection on a sale transaction. The question is, what is the legal effect of having brand inspection performed on livestock being sold?

When LIS performs brand inspection on branded livestock, LIS is providing an assurance to the buyer that the seller owns the livestock, subject to two exceptions. First, if someone has fraudulently branded the livestock and the fraud is undetected by the buyer, buyer's agent, or LIS, the legal title in the livestock will not pass to the buyer. Secondly, if the seller has previously pledged the livestock as security to a lender, the legal title will not pass to the buyer if the seller fails to pay their lender.

Except for these two situations, LIS brand inspection assists in the passage of title because of the provisions of the livestock legislation. Under the Brand Act, a brand is prima facie proof of ownership. This means that unless a person brings forward more compelling evidence of ownership, the Courts will rely on the brand to determine ownership. Furthermore, only brands registered under the Brand Act can be applied to livestock. Finally, under the Livestock Identification and Brand Inspection Act, the livestock must be manifested in the name of the brand holder. This allows the brand inspector to compare the brand on the livestock against the owner's name recorded in the brand registry with the manifest.

If the seller has previously pledged the livestock as security to a lender, the legal title will not pass to the buyer if the seller fails to pay the lender. This has given rise to the issue of conversion and some high profile conversion actions in the Alberta cattle industry. Individuals and businesses in the Alberta cattle industry are attempting to address this issue by increasing their own levels of due diligence when buying or selling livestock. A great deal of work has also been done in this regard through the Alberta Titles Committee.

Key participants in attempting to address these issues include the major cattle industry associations as well as AAFRD, Alberta Justice and the Canadian Bankers Association. One of the many important conceptual challenges associated with resolving this issue relates to the balance between individual due diligence and the role of LIS as a third party in helping to identify security interests. In other words, one side of the debate would note that LIS is already an active participant in the sales transaction. As such, the incremental cost of increasing their involvement in helping to identify security interests is minimal. On the other hand, there are already long standing mechanisms in place to check security interests (Personal Property Security Regimes, Bank Act Registry). As such, an increase in LIS's role would reduce the propensity of individual due diligence and increase the role of a third party in these business transactions.

For its part, LIS has developed a protocol with the objective of providing assurance to buyers that they will not pay for cattle twice. Key elements of the protocol include:

- ▶ the manifest will contain a declaration in which the seller can disclose the names of any lenders who have a security interest in the seller's livestock
- ▶ LIS will carry out random audits by doing Bank Act and PPR searches after the payment has been made.
- ▶ If the seller does not fill out the declaration, single sales over a certain amount will result

- in a hold on the funds until LIS performs a Bank Act search.
- ▶ LIS is prepared to provide financial assistance for defendants in conversion law suits. The assistance is capped at \$1 million over two years.

Legislative Technical Problems

Research for this project examined, from a broad perspective, conflicts and interpretive challenges associated with the legislation, regulations and policies that LIS operates under. These challenges are numerous but vary greatly in nature and impact. Furthermore, there are a wide array of interpretations that are possible regarding the seriousness of the specific problems.

The technical problems with the legislation LIS is responsible for administering can be divided into categories as follows:

- ▶ There have been a number of amendments, many of which have been made in response to a particular problem without regard to the impact on the other statutes. This has created inconsistencies between the statutes.
- ▶ There are provisions in various statutes which are not clearly drafted, giving rise to different interpretations by different readers and internal inconsistencies within a statute.
- ▶ There are inconsistencies between LIS' governing legislation and other provincial legislation.

Examples of each of these types of legislative technical problems are given below.

1. Livestock and Livestock Products Act (LLPA)

Licensing and bonding of livestock dealers and livestock dealers' agents is governed by the Livestock Dealers and Livestock Dealers' Agents Regulation. There are a number of problems with this Regulation:

- ▶ In some places, the term "livestock dealer" includes livestock dealers' agents, and in other places it does not. This creates interpretation difficulties in terms of which requirements apply to dealers and which apply to dealers' agents. For example, livestock dealers are required to post a bond, but livestock dealers' agents are not. Further, there is nothing in the Regulation that expressly states that a livestock dealer's bond is available to pay for defaults by that dealer's agent.
- ▶ Section 3(4)(b) of the Regulation prohibits issuance of a livestock dealer's licence to someone who is associated with a person who has contravened the livestock legislation, but does not prohibit issuance of a licence to the person who actually committed the contravention.

There are some operational difficulties under this Act arising from the fact that some, but not all, of the Minister's and inspectors' powers under the Act have been delegated to LIS:

- ▶ The Act gives LIS the authority to issue stock yard and stock yard operator's licences, but is silent on LIS' authority to revoke, suspend or cancel such licences.
- ▶ Inspectors can demand and supervise the re-weighing of livestock, but cannot supervise the original weighing.

2. Livestock Identification and Brand Inspection Act (LIABA)

- ▶ The provisions relating to livestock manifests and livestock permits are complex and confusing. In particular, it is difficult to know when LIS may or may not charge a brand inspection fee.
- ▶ The term "feedlot" is used in two different senses in the Act. This creates confusion and the possibility of varying interpretations.
- ▶ Section 18 is not clearly drafted. One interpretation is that it applies only to livestock that are unloaded for a "rest stop" during transportation.
- ▶ This Act may be inconsistent with the Livery Stable Keepers Act. The lien-holder is rarely the registered owner of the brand or brands on the animal. When the lien-holder brings the animals for sale, the result is a hold on the sale proceeds, which is not what is envisioned by the Livery Stable Keepers Act. (The Livery Stable Keepers Act is the legislation that custom feedlots use to place a lien on cattle to ensure payment of feed bills and other charges. However, the Act has not been changed in over 100 years and requires some liberal interpretations to apply it to the custom feedlot situation.)

3. Stray Animals Act

- The Stray Animals Regulation does not make adequate provision for reimbursement of LIS' expenses in capturing or destroying stray animals.
- Wild boars are included in the definition of "livestock." There is significant risk to LIS' brand inspectors in attempting to capture or destroy these animals. There is a legitimate question as to why the wild boar problem in Alberta is the responsibility of LIS.

The list above is not intended to be seen as a complete listing of the technical problems with the legislation, but rather to demonstrate the types of challenges and conflicts that exist. LIS itself has identified and cataloged, in detail, questions and concerns regarding the legislation and regulations. As well, at least one independent producer group has obtained legal counsel on these questions and has also enumerated some of the issues.

The point is that the legislation administered by LIS does need to be reviewed with regard to clarity and modernization.

Composition of the LIS Board

There is debate as to whether the LIS Board is representative of the industry and whether several of LIS's member organizations should be allowed to appoint representatives to the Board of Directors. It is noted, however that there were deliberate efforts by the Alberta Government to ensure that representation on the LIS Board was as broad as possible. The government made it a mandatory requirement of privatization that no one sector of the industry had an overriding influence on the Board. The government was very mindful of the regulatory responsibilities it was conferring on LIS and made clear their view that the regulatory framework would be susceptible to political interference from certain sectors unless there was a broadly composed Board of Directors.

With that said, however, there remains room for reasonable disagreement as to whether sectors

which serve the industry such as the auction markets, feeder associations and dealers actually belong on the board. In some instances, auction markets and in particular the Feeder Associations are direct beneficiaries of some of the regulations. In such cases a hands-off approach to policy-making is often advisable. Furthermore, there is much to be said for the idea that those who pay the fees should be the only ones represented on the LIS board.

Beneficiaries of Brand Inspection

The issue of “who benefits” or where the value of brand inspection lies is often discussed, particularly between the feedlot and the cow-calf sectors. This is a confusing issue since it can be difficult to see how a feedlot can benefit from having cattle inspected at the lot or packing plant. This is especially true given the fact that they have been inspected going into the yard. The benefit, however, is the ability of the total inspection system to deter theft. Benefits or value must be looked at from the perspective of the whole system as opposed to individual feedlot or packing inspections.

The brand inspection system does not deter thefts in process, it deters theft by making stolen property harder to sell and by increasing the risk of being caught with stolen property. It also deters theft by making the act of fraud more difficult to undertake. For the system to be effective in deterring livestock theft, inspections must be done at points of sale or bottlenecks in the system. Therefore, there must be inspections where there is the risk of stolen livestock being sold. This risk exists throughout the marketing chain from ranch to packer.

With that said, there must be a matching of risk and resources. It is almost universally agreed that the greatest risk of theft as well as lost or missing livestock is in the pastures, ranches and range lands of Alberta. It therefore is the cows, calves and yearlings in the countryside that are most vulnerable to theft. Conversely, in larger sophisticated feedlots with sound inventory systems and secure premises, the risk of theft is greatly reduced, but not eliminated. In addition, the fact is that a feedlot could be a suitable location for harboring stolen livestock. Feedlots and packing plants therefore must be a part of an effective total inspection system.

Next, with regard to beneficiaries of the system, there is the issue of the various sectors’ ability to deal with theft and inventory control. According to Statistics Canada, there are about 31,000 farms with cattle in Alberta. In Western Canada there are about 69,000 farms reporting cattle. These farms market over three million head of cattle each year. Feeder cattle from those 69,000 farms are sold to and fed in approximately 200-250 feedlots in Alberta. From that point the cattle are either exported or are slaughtered in four packing plants (two XL Food operations in Moose Jaw and Calgary, as well as Lakeside and Cargill).

The essence of this issue is that the structure, scale and business procedures change radically after the cow-calf sector. This structural change is dramatically different from the times in which the brand inspection system was developed of course, but even dramatically different from the way the industry looked only fifteen years ago. The modern feedlot operation does not require or rely on a brand inspection system for inventory management or theft deterrence like the cow-calf sector. As noted above however, this does not mean that a feedlot could not be the victim or perpetrator of cattle theft or fraud. In addition, as noted above, it is also clear that for a system of brand inspection to be effective, there does need to be inspection at the feedlot level.

There are other important points to be considered with regard to this issue:

- ▶ Other than counting cattle and comparing to the manifests, effective brand inspection at the packing plant is practically impossible
- ▶ The Canadian Cattle Identification program is not intended to play a role in ownership verification nor can it help in theft deterrence. Nevertheless, over time, it will likely play a role in each of these areas by default.
- ▶ Health and safety concerns are making packer to farm trace-back a fact of business in all livestock sectors
- ▶ There is a greater need to share information about cattle traits and performance between cow-calf operators, feedlot operators and packers.

None of the above points mean that brand inspection is out-dated or unnecessary at the feedlot level. Furthermore, based on the audit of inspections at the packing plant, it is also clear that brand inspection has benefitted cattle feeders who have improperly filled out manifests. The above points do mean, however, that the need for brand inspection and the benefits derived from it are fewer at the feedlot level. This research has concluded that the risks and therefore the need for brand inspection are greatest at the cow-calf level, yet since both sectors pay the same fee, cross subsidization is occurring.

System Encouragement of Branding

It is understandable why cow-calf producers choose to rely on branding their cattle. It is equally understandable why some feedlots, with secure premises, do not see a need to brand cattle. With that said, however, based on input from both feedlots and brand inspectors, this research has concluded that cattle that are not re-branded do tend to receive a greater degree of inspection or scrutiny. The fact that this occurs is counter-intuitive, given that thieves may be inclined to re-brand in order to cover their actions.

While there is nothing in the regulations or the LIS processes that make re-branding a given, the fact is that re-branding can expedite the inspection process. It is possible, therefore, that the brand inspection system does encourage re-branding of cattle in order to facilitate the marketing process. As such, there are instances where brands may be placed on cattle not for the deterrence of theft or other management reasons. Instead they are put on as a result of the system. This in turn points to a weakness in the system regarding the balance between meeting the system's objectives and accommodating industry participants that do not brand or re-brand.

Another issue related to this topic is the question of how the system would work if producers began to gradually decrease their use of branding. It is important to note that this research has found no evidence that producers intend to reduce their use of branding. With that said, however, it is a logical and appropriate question for the future.

Audit Versus Total Inspection

One issue that is related to the re-branding challenge is the fact that the system is premised on the physical inspection of nearly 100% of animals sold in Alberta. By contrast, law enforcement and police procedures do not operate under the burden of checking all people for stolen property. Instead the deterrence effect upon would-be criminals is the presence of police and the possibility

of detection and punishment. Another example is food safety regulations. The food inspection system does not analyze each individual product for food safety compliance; a well designed and valid auditing process works to protect human health. Alternatively, however, many retail outlets actually physically check all customers via electronic means as they leave the store. Effective deterrence then is a balance between the risks and resources available.

In this regard, there is a legitimate question as to whether inspection of all cattle at each channel is the most effective way to utilize LIS resources that are focused on deterring theft. Those sectors or markets that are least risky could be allocated fewer deterrent resources (audit for example) compared to those sectors or markets that are most at risk.

Brands That are Not Unique

Cattle feeders are increasingly confronted by the fact that brands are not unique across western Canada. While this research has not been able to determine the magnitude of the problem, it is clear that duplication of brands between Alberta and other provinces have become a source or reason behind holds being placed on cattle. While the holds themselves are problematic, the other question then becomes the merits of the brand if there is duplication across the prairies.

Alternatives to Branding

The cattle industry has sought alternatives to branding in order to ease animal welfare concerns and in order to seek improvements in the identification process. This issue could accelerate if downstream industry participants such as grocers or fast food chains try to develop a marketing advantage by dealing exclusively in non-branded cattle.

Most of the alternatives being considered involve electronic devices on or inside the animal. LIS itself has a working committee dedicated to the pursuit of branding alternatives. While the research into alternatives continues, as of now branding is the only method that satisfies the criteria of being permanent, tamper resistant and easily identifiable. If however, electronic means are developed that are easily understood, practical and meet the above criteria, ownership identification and the inspection system could be radically altered. The system could involve inspectors utilizing scanners or it could mean that inspection as it is now conducted becomes redundant.

As such, the question of “where is the industry headed with regard to identification as a means of determining ownership/security interests?” is largely constrained by available technology. As long as the alternatives to branding fall short in terms of ease of application and efficacy regarding identification, the industry will continue to utilize brands.

Canadian Cattle Identification Agency

The national cattle identification program that was instituted recently has generated several concerns with regard to the impact of this program on the brand inspection system. One of these concerns is the potential for overlap and duplication between the two systems. The two systems, however, have two different purposes. The national ID program is a traceback system intended to find the source of an animal disease outbreak, while LIS/brand inspection deters theft and verifies ownership of livestock. The CCIA tag, although a form of cattle identification, is not tamper proof, and therefore cannot replace brands. Likewise, brands are not unique to each individual

animal, and therefore cannot replace the CCIA tags.

There is some potential for overlap of human resources, as both the CCIA tags and brands are inspected or read at the packing plant. Currently, these functions must be carried out by two separate people, for technical and legislative reasons.

The CCIA system may be able to benefit the brand inspection system, as CCIA tags are another form of identification and source of information on each animal. Incorporating this information into LIS' identification system presumably would only strengthen its ability to deter theft and correctly identify ownership. Likewise, LIS information could benefit CCIA. Sharing of such information, however, is currently not possible due to the legislative framework of both organizations.

E. Cost-Benefit Conclusions

The services provided by Livestock Identification Services play an important role in the facilitation of commerce through brand inspection and by helping to verify ownership. In this regard, the newly privatized LIS continues to successfully fulfil its mission.

The goals of LIS are:

- Value
- Accountability
- Flexibility
- Recognition
- Viability
- Effective enforcement.

Based on the research conducted for this project, it can be concluded that during the three years in which LIS has been in existence, the organization has met its goals. LIS has been found to be an efficient, well managed organization with a dedicated staff.

With regard to costs and benefits, the primary benefits associated with the regulations administered by LIS relate to the deterrence of theft as a result of the brand inspection system. Another related benefit is the identification of livestock through branding and the brand inspection process.

While these benefits are extremely difficult to quantify, they do in fact have a dollar value associated with them. The benefits that have dollar values attached to them include:

- livestock thefts deterred
- lawsuits avoided
- prosecutions avoided
- reduced police investigations
- cattle returned to rightful owners
- manifest corrections

Unlike benefits, costs are easier to quantify. Direct costs such as the dollar inspection fee and the overall budget associated with LIS is open to public scrutiny. There are other indirect costs that

are may result from complying with the regulations that LIS is responsible for carrying out. Such indirect costs include additional weight loss and inventory management effort. With that said, however, this research has not found these additional indirect costs to be significant. The one additional cost associated with brand inspection that was identified in this research is hide damage. This is a material cost, but given that branding is not mandatory, it is questionable whether the damage can be considered a cost of compliance.

Due to the nature of the benefits associated with LIS, it is not appropriate to take a ledger approach and add up the dollar value of benefits in order to determine a specific benefit-cost ratio. This inability to calculate a specific ratio is due to the fact that each of the benefits have a very wide range of possible values. With that said, the evidence associated with each of the benefit calculations leads to the conclusion that total value of each of the LIS benefits exceeds the direct and material or significant indirect costs of LIS (not counting damaged hides).

The same line of thought and rationale for determining benefits also leads to the conclusion that most of the benefits of brand inspection rest at the cow-calf sector.

While benefits exceed costs, and while LIS has successfully met its mission and goals, the organization and the industry continue to adjust to LIS' role as a private sector organization. For example some of the government policies and directives utilized in the past have at times been shown to be at cross purposes with how LIS must operate now. This has created tension in the industry. The issue of conversion has highlighted questions as to the efficacy of brand inspection with regard to ownership verification. Furthermore, the organization also continues to adjust to the fact that the legislation it is responsible for was written at a time when the feedlot sector was radically different in size and structure than it is today. Finally there needs to be a better matching of benefits and costs between the feedlot and cow-calf sectors. These are the main challenges of the future for LIS.

Part Two: Producer Survey and Focus Groups

Introduction

One of the primary goals of this project is to assess the views of producers regarding the value of brand inspection and related services as delivered by LIS. To accomplish this goal, two methods were employed. First, a random telephone survey of cow/calf producers and feedlot operators was conducted. Second, two focus groups comprised of people from various segments of the cattle industry were held. This section of the report details the findings and results of the producer surveys.

Producer Surveys

The producer surveys were intended to address the following objectives:

- Determine producers' awareness level of LIS services and functions
- Determine satisfaction levels with LIS overall and with specific services provided by LIS
- Determine producers' views on the value and benefits of LIS
- Determine awareness of LIS' transfer to the private sector and whether there has been a change in service level
- Compare producer awareness and satisfaction, using the 1996 Angus Reid study as a benchmark

Approach

Telephone interviews were conducted with 196 cow/calf producers and 65 feedlot operators in Alberta, for a total of 261 interviews. The survey took approximately 10 minutes to complete, and producers were told that the purpose of the survey was to get their feedback on the services provided by Livestock Identification Services. The majority of the surveys were completed in late May and early June, and the remainder in August 2001.

The LIS database of clients/brandholders was used to generate a sample of potential cow/calf interviewees. A randomization method was used and no criteria of any kind were specified in creating the list. The list of feedlot operators was obtained from a respected industry source that requested confidentiality, as well as some publicly available lists.

The sample sizes were selected based on a population of 38,000 cow/calf producers and 220 feedlots with greater than 1000 head onetime capacity. The statistical margin of error for the sample of cow/calf producers is $\pm 6.98\%$ at a confidence level of 95%, and for the feedlot group is $\pm 10.23\%$. The sub-samples by operation size for each of the two sectors have a much larger margin of error due to the smaller number of respondents and should not be viewed as a statistically accurate picture of the corresponding sub-population group. Rather, the results for each operation size sub-group are to be used as a general guide.

Survey Findings

Sample Characteristics

Table 1: Respondents' Size and Type of Operation

Cow/Calf			Feedlot		
Size	Number	% of Total	Size	Number	% of Total
<50	39	20	0-100	5	7.5
50-99	66	34	101-1499	14	21.5
100-199	47	24	1501-4999	11	17
200-399	34	17	5000-10000	12	18.5
400-999	6	3	10,001-15000	11	17
>1000	1	0.5	>15,000	12	18.5
Not Reported	3	1.5			
TOTAL	196	100	TOTAL	65	100

In total, 196 cow/calf producers and 65 feedlot operators were surveyed. Table 1 illustrates the breakdown of respondents according to their size and type of operation. Cow/calf producers were asked how many head make up their base herd and feedlot operators were asked how many animals go through their operation each year. The cow/calf group also includes 8 horse operations (4%), the majority of which have less than 50 animals. The largest horse operation reported having 250 animals. Horse operations have been included in the cow/calf group since they are also LIS clients, and their operations are most similar to those of cow/calf producers, rather than feedlots.

The average size of operation in the cow/calf group was 134 animals, and the median of the group was 90 animals. In the feedlot group, the average size of operation was 13,300 cattle and the median was 6,000 cattle.

Secondary Operations

In the feedlot group, 5 respondents (1.6%) indicated they also had cow/calf operations and 1 indicated they had a backgrounding operation. On the cow/calf side, 10 respondents (5%) also had backgrounding operations and 3 (1.5%) also had feedlots. One respondent in the cow/calf group reported backgrounding as their primary operation.

Inspection Activity

Table 2: Location of Inspections

	Cow/Calf ⁹				Feedlot			
	<100	100-199	>200	All	<1,500	1,500-10,000	>10,000	All
	n=108	n=47	n=41	n=196	n=19	n=23	n=23	n=65
	% of Respondents							
On Premises	4	21	29	13	47	70	83	68
Auction Mart	84	72	76	80	58	39	43	46
Packer	0	4	7	3	21	43	48	38
Other	6	0	7	5	5	0	9	5
Not Inspected	5	9	2	5	0	0	0	0
No Response/Unknown	3	2	0	2	5	0	0	1.5

In all of the cow/calf groups, the majority of cattle are inspected at the auction mart. On premises inspections are more common in the middle and large cow/calf operations, but account for only 13% of the overall cow/calf group. Inspections at other locations included such places as feedlots, bull sales, private sales and community pastures. A few producers indicated that their animals had not been inspected in the past year (5%), or that they did not know where inspection had taken place (2%).

Feedlot operators report that the majority of inspections take place on their premises, however a significant proportion of inspections also take place at the auction mart and at the packer. 23% of operators indicated their cattle had been inspected at two locations and 15% reported inspection at all three locations.

Frequency of On-Premises Inspections

Respondents who indicated that their animals had been inspected by LIS on their own premises in the past year were asked how many times in the past year an inspector had come, and on average how many animals were inspected during each visit.

The majority of cow/calf producers in this group reported brand inspectors visiting their operation once or twice a year, and a few producers had three or four visits a year. The number of animals inspected each visit varied significantly, from less than 20 to more than 200, depending in part on the size of operation. The larger the operation, the more animals that are likely to be inspected.

In the feedlot group, there is a significant difference in frequency of on-premises inspections between the group of small feedlots and the two larger groups. The two larger feedlot groups reported that inspection frequency ranges between 24 times a year and daily. In the remaining feedlot operations, brand inspections occur between two and ten times a year. The number of cattle inspected during each visit also varies between the groups. In operations that have on-premises inspections only a few times a year, 50 to 300 cattle are inspected per visit, while between 100 and 2000 animals are inspected at the larger feedlots where inspections occur more

⁹The number of sub-groups utilized for the remainder of the tables has been reduced to three in order to simplify the reporting. The number of base respondents in each group are as follows. Cow/calf <100: **108**; 100-199: **47**; >200: **41**. Feedlot <5000: **10**; 5-10000: **8**; >10000: **8**.

than once a month.

Producer Awareness

Awareness of the transfer of brand inspection services to the private sector is detailed in Table 3. The vast majority of both producer groups are aware of the privatization, and in both groups awareness increases as size of operation increases.

Table 3: Awareness of LIS Privatization

	Cow/Calf				Feedlot			
	<100	100-199	>200	All	<1,500	1,500-10,000	>10,000	All
	n=108	n=47	n=41	n=196	n=19	n=23	n=23	n=65
	% of Respondents							
Aware of Privatization	75	81	95	81	69	95	100	91
Not Aware of Privatization	25	19	5	19	31	5	0	9

Producers were asked what types of services LIS provides in order to determine the awareness of level of LIS services. Table 4 shows the responses to this question. The service that has the highest level of awareness with both cow/calf producers and feedlot operators is brand inspections. Inspections at auction marts is the service most often mentioned by all respondents, but inspections at other locations also recorded a high level of awareness.

The lower awareness levels of all services in the feedlot group, especially in the largest feedlot group, are partially due to the fact that some respondents did not want to provide any answers to this question. A few operators also stated that LIS does not provide any services they find to be useful. However, it is still apparent that brand inspection in general is by far the LIS service that is most top-of-mind for all producers.

Table 4: Unaided Awareness of LIS Functions

	Cow/Calf				Feedlot			
	<100	100-199	>200	All	<1,500	1,500-10,000	>10,000	All
	n=108	n=47	n=41	n=19	n=19	n=23	n=23	n=65
	% of Respondents							
Brand Inspections at Auction Marts	88	96	93	91	58	83	52	65
Brand Inspections at Field Sales	69	89	76	76	32	78	52	55
On-farm Brand Inspections	61	79	68	67	37	78	48	55
Brand Inspections at Packers	60	79	61	65	37	83	48	57
Random Feedlot Brand Inspections	46	62	51	51	47	83	52	62
Verifies Ownership	63	68	95	71	47	61	48	52
Capture & Return of Lost/stray/stolen animals	23	36	29	28	11	17	17	15
Registers Brands	14	28	27	20	0	13	17	11
Investigates Livestock Theft	4	23	10	10	10	0	10	6

Other services that were mentioned less frequently include:

- Maintaining a record of manifests (7% of cow/calf producers, 5% of feedlots)
- Maintaining a record of inspections (10% of cow/calf, 5% of feedlots)
- Administering the Patron’s Assurance Fund (2% of cow/calf, 3% of feedlots)

Respondents were then asked if they were aware of the LIS services that they had not previously mentioned. For each service listed in Table 5, the percentage of respondents indicating they are aware of the services includes those who mentioned the service on their own, *and* those who stated they are aware of the service when asked about it specifically. The percentage of producers who stated they are *not* aware of a specific service is the difference between the percentage reported in Table 4 and 100.

All respondents from both groups are aware of brand inspections at auction marts, and again there is a very high awareness level of brand inspections at the various locations listed. A majority of producers in both groups are aware of almost all of the services LIS provides, however cow/calf producers have a relatively low level of awareness of dealer bonding and licensing, administration of the Patron’s Assurance Fund, and administration of the Restricted Feeder Entry Program.

Table 5: Awareness of Specific LIS Functions

	Cow/Calf				Feedlot			
	<100	100-199	>200	All	<1,500	1,500-10,000	>10,000	All
	n=108	n=47	n=41	n=196	n=19	n=23	n=23	n=65
	% of Respondents							
Brand inspections at auction marts	100	100	100	100	100	100	100	100
Brand inspections at field sales	85	96	95	90	79	100	100	94
On-farm brand inspections	76	96	93	84	84	100	100	95
Brand inspections at packers	83	96	93	88	89	100	100	97
Random feedlot brand inspections	69	83	73	73	84	100	100	95
Verifies ownership	94	91	98	94	90	100	100	97
Capture & return of lost/stray/stolen animals	72	83	88	78	74	91	100	89
Registers brands	81	87	85	84	90	83	100	91
Investigates livestock theft	78	74	80	78	68	87	96	85
Maintains record of inspections	66	77	78	71	79	91	100	91
Maintains record of manifests	58	77	83	68	68	96	100	89
Holds stock lacking proof of ownership	79	74	90	80	68	96	100	89
Administrates dealer licensing & bonding	35	49	51	42	32	57	70	54
Maintain 'safe' environment for cash transactions	46	57	61	52	53	87	87	77
Observes for inhumane transportation of animals	53	66	78	61	58	70	78	69
Observes for animal welfare, slaughter & processing irregularities	45	57	63	52	32	61	87	62
Administers Patron's Assurance Fund	23	38	41	31	21	61	87	59
Administers Restricted Feeder Entry Program	29	32	39	32	37	78	91	71

Reading the table from the perspective of services that producers are not aware of indicates that:

- 15% of cow/calf producers and 9% of feedlot operators are not aware that LIS registers brands
- A small percentage of cow/calf producers are not aware that brand inspections verify ownership of livestock

- 20% of cow/calf producers do not know that livestock lacking proper proof of ownership are held by LIS

These statistics are worth noting because they concern LIS core services/functions, and indicate that the purpose of LIS and its services are not fully understood by all of its clients.

Benefits of LIS

Producers were asked what the most important function of LIS and its brand inspectors is in their own operation. Their responses are tabulated below in Table 6.

Table 6: Most Important Function of LIS in Respondents' Operations

	Cow/Calf				Feedlot			
	<100	100-199	>200	All	<1,500	1,500-10,000	>10,000	All
	n=108	n=47	n=41	n=196	n=19	n=23	n=23	n=65
	% of Respondents							
Verification of ownership/ brand inspections/ checking brands	56	57	49	55	63	70	43	58
Watching for sick animals/animal welfare	6	0	2	4	0	0	0	0
Finding/tracking/returning lost/stolen livestock	13	17	17	15	5	4	9	6
Deter/prevent/avoid theft and keeping people honest	10	6	10	9	11	0	0	3
Other	6	11	12	9	11	22	25	17
Not much/Nothing	5	6	2	5	0	0	30	11
Not sure/Don't know	4	0	2	3	0	0	0	0
No response	1	2	5	2	11	4	0	5

The majority of cow/calf producers and feedlot operators feel that verification of ownership is the most important function of LIS in their own operations. Cow/calf producers, however, place more value in the deterrence of theft and the return of lost or stolen livestock than do feedlot operators, indicating that they feel more vulnerable to theft and have lost or stolen livestock returned to them more often. It should also be noted that 30% of the largest feedlot operators feel that, in their operations, LIS has no important function.

Services and functions mentioned in the 'Other' category include:

- Making sure I don't lose cattle
- Counting cattle for me
- Record keeping
- Keeping track of cattle
- Disease traceback
- Monitoring restricted feeder entry program
- Ability for us to sell cattle

Producers were also asked what the main benefit is of brand inspection and the other services provided by LIS. This question may seem very similar to the one above, but the two do have different purposes. The previous question involved the most important *function*, this question is

intended to determine what producers feel is the main *benefit* of the LIS services overall, not just in their own operation. Table 7 displays the results of this question.

Table 7: Main Benefits of Brand Inspection and Other Services

	Cow/Calf				Feedlot			
	<100	100-199	>200	All	<1,500	1,500-10,000	>10,000	All
	n=108	n=47	n=41	n=196	n=19	n=23	n=23	n=65
% of Respondents								
Verify ownership	56	62	61	59	63	65	35	54
Return lost/stray animals	18	23	27	21	16	17	13	15
Return stolen animals	13	11	12	12	0	9	13	8
Detect fraud/opportunistic behaviour	6	13	12	9	0	13	4	6
Deter fraud/opportunistic behaviour/theft	18	26	17	19	5	13	13	11
Maintain a safe environment for cash transactions	3	2	2	3	0	0	0	0
Hold stock lacking proof of ownership	1	0	2	1	0	0	0	0
Other	8	2	10	7	21	9	35	22

Although the responses to this question are similar to those of the previous question, there are some differences that should be noted. A higher percentage of both groups indicated that the deterrence of fraud and theft is the main benefit than indicated this was the most important function in their operations. The return of stolen animals was also the main benefit for more producers in both groups than had indicated this was the most important function of LIS.

Included in the ‘Other’ category are the following responses:

- A sense of confidence in the industry for organizations that provide financing
- None
- Unsure
- Trace back in case of disease
- Preventing sick animals from entering Canada/AB
- Security for producers
- Safety program for producers

The response that there is no main benefit was particularly prevalent among the largest feedlot operators, which closely mirrors the responses to the previous question.

Respondents were asked who they believe receives the greatest benefit from brand inspection and other LIS services (i.e. which segment of the industry). Table 8 contains the results of this question.

A majority of both cow/calf producers and feedlot operators feel that cow/calf producers are the primary beneficiary of LIS services. Almost one-fifth of the cow/calf group feel that the industry as a whole benefits the most, and a small percentage in both groups feel that feedlots benefit the most. There were a variety of responses in the ‘Other’ category, however several were mentioned more than once:

- Sellers/Current Owners (4% of all cow/calf producers)

- Buyers (1.5% of cow/calf producers, 5% of feedlot operators)
- All producers (6% of feedlot operators)
- Brand inspectors/LIS (3.5% of cow/calf producers, 11% of feedlot operators)
- Not sure (2% of cow/calf producers)

Responses that were mentioned only once included: no one; cattle on lease/feeder association cattle; big producers of any type; bank; auction mart; and government.

Table 8: Main Beneficiary of LIS Services

	Cow/Calf				Feedlot			
	<100	100-199	>200	All	<1,500	1,500-10,000	>10,000	All
	n=108	n=47	n=41	n=196	n=19	n=23	n=23	n=65
	% of Respondents							
Cow/calf producers	55	62	61	58	42	61	70	59
Feedlots/feedlot operators	4	2	2	3	11	4	9	7
Packing plants	1	0	2	1	0	4	9	5
Industry as a whole	17	23	17	18	11	4	0	5
Consumers	4	0	0	2	0	9	0	3
Society as a whole	6	4	0	4	11	9	0	5
Other	16	11	17	15	32	13	30	25

Producer Satisfaction

Producers were asked to rate their overall satisfaction with LIS and the services it provides on a scale of 1 to 5, where 5 is the highest level of satisfaction and 1 the lowest. Table 9 contains the percentage of responses recorded for each value on the scale, and the average satisfaction value for each group and sub-group.

Cow/calf producers are quite homogeneous in their responses across all sizes of operations, with a small percentage selecting the two lowest values, and approximately three quarters selecting the two highest values. Taken together with an average satisfaction rating of 3.975, this indicates that cow/calf producers are satisfied with LIS services.

Feedlot operators' average satisfaction rating is slightly lower than that of the cow/calf group, at 3.58, but still indicates overall relative satisfaction with LIS services. Notwithstanding this, it should be noted that a significant proportion of feedlot operators chose the lowest rating values. As well, in the group of the largest feedlots, the ratings were either positive or very negative, indicating there are more polarized opinions in this sub-group than the other feedlot sub-groups.

Table 9: Overall Satisfaction with LIS

Rating	Cow/Calf				Feedlot			
	<100	100-199	>200	All	<1,500	1,500-10,000	>10,000	All
	n=108	n=47	n=41	n=196	n=19	n=23	n=23	n=65
% of Respondents								
1	3	6	2	4	0	9	26	13
2	3	4	7	4	0	4	9	5
3	15	13	17	15	11	17	9	13
4	42	40	34	40	67	39	39	47
5	36	34	37	36	22	30	17	23
Average Response Value	4.1	3.9	4.0	3.975	3.89	3.78	3.13	3.58

Table 10 illustrates producer satisfaction with specific services provided by LIS, using the same rating scale of 1 to 5. Since not all producers provided a rating for each service, the percentage of producers who did respond in each group has also been included in the table. This has been done for two reasons. First, it is an indication of how familiar producers are with each service (the less familiar they are, the less likely they are to rate a service). Second, the response rate for some services is very low, and this affects the reliability and accuracy of the results. The latter reason is especially applicable to the last three services listed in the table for the cow/calf group.

Satisfaction with specific services varies from a rating of 3.6 to 4.3 for the cow/calf group, and from 2.8 to 4.3 in the feedlot group. The cow/calf group's ratings are higher than those of the feedlot operators for all services, which is consistent with the difference in overall satisfaction levels between the two groups. The services that received the lowest ratings from cow/calf producers are:

- detecting and discouraging fraud and opportunistic behaviour
- administering the Patron's Assurance Fund
- administering dealer licensing and bonding
- administering the Restricted Feeder Entry Program

The services that received the lowest ratings from feedlot operators are:

- Maintaining a safe environment for cash transactions
- Observing for inhumane transportation
- Observing for animal welfare
- Administering the Restricted Feeder Entry Program
- Capturing and returning lost, stolen or stray animals

The feedlot group as a whole also gave a significantly lower rating to verifying ownership/brand inspections than did the cow/calf group (3.6 versus 4.3). As well, within the feedlot group, satisfaction with this service declines noticeably as feedlot size increases.

In general, the specific satisfaction ratings indicate that, as with overall satisfaction, both producer groups are satisfied with the individual services. Although some services received lower ratings, they are still not below the middle value of 3. It should also be noted that, in the cow/calf group, the services that received the lowest ratings also were rated by less than half of respondents.

Table 10: Satisfaction with Specific Services

	Cow/Calf				Feedlot			
	<100	100-199	>200	All	<1,500	1,500-10,000	>10,000	All
	n=108	n=47	n=41	n=196	n=19	n=23	n=23	n=65
	% of Producers Who Provided a Value Between 1 and 5 ¹⁰ /Average Response Value							
Verifying ownership/ inspections on-farm, at auctions, etc.	87%/4.3	91/4.3	93/4.2	89/4.3	90/4.1	100/3.7	100/3.1	97/3.6
Capturing & returning lost stolen or stray animals	67/4.0	68/3.6	73/3.5	68/3.8	74/3.5	90/3.5	80/2.8	80/3.2
Registering brands	81/4.4	91/4.2	80/4.4	83/4.3	84/4.1	90/4.1	100/4.3	91/4.2
Detecting & discouraging fraud/opportunist behaviour	68/3.9	87/3.6	63/3.6	71/3.7	84/3.6	90/3.2	90/3.0	88/3.3
Investigating livestock theft	70/4.0	74/4.0	68/4.0	71/4.0	84/4.0	100/3.7	90/2.8	91/3.5
Holding stock that lack proof of ownership	76/4.1	79/3.7	85/4.0	79/4.0	79/3.9	90/3.7	90/3.1	88/3.5
Maintaining record of inspections	53/4.1	72/3.9	73/4.4	62/4.1	79/4.0	90/3.8	90/3.9	86/3.9
Maintaining record of manifests	49/4.0	62/4.0	68/4.1	56/4.0	74/4.4	100/3.6	90/3.8	86/3.9
Maintaining safe environment for cash transactions	51/4.0	55/3.8	49/3.9	52/3.9	68/3.2	80/3.6	90/2.5	79/3.1
Observing for inhumane transportation	46/4.0	60/3.7	59/3.7	52/3.9	79/3.0	70/3.4	70/3.1	75/3.1
Observing for animal welfare	38/4.1	53/4.0	56/3.8	45/4.0	79/3.3	70/3.5	70/2.9	71/3.2
Administering Patron's Assurance Fund	15/3.6	23/3.6	34/3.6	21/3.6	63/3.7	80/3.6	70/3.4	74/3.5
Administering dealer licensing & bonding	40/3.8	47/3.7	39/3.6	41/3.7	74/3.1	80/3.6	70/3.6	74/3.4
Administering Restricted Feeder Entry Program	26/3.6	30/3.7	32/3.8	28/3.7	63/2.8	70/3.7	80/3.1	74/3.2

Respondents were asked what concerns they have in terms of the services provided by LIS. The majority of producers in both groups overall stated that they did not have any concerns. Table 11 shows the breakdown according to the sub-groups. In both the cow/calf and feedlot groups, the percentage of respondents with no concerns declines as size of operation increases, with the largest feedlots recording the highest level of concern.

¹⁰Some producers did not rate every service because they were unfamiliar with a service, or simply did not have an opinion.

Table 11: Concerns with LIS Services

	Cow/Calf				Feedlot			
	<100	100-199	>200	All	<1,500	1,500-10,000	>10,000	All
	n=108	n=47	n=41	n=196	n=19	n=23	n=23	n=65
% of Respondents								
No Concerns	73	55	59	66	52	61	9	54

In the feedlot group, the concerns that were mentioned cover a variety of issues and are not generally focused in one area. These concerns are listed below.

- Don't see a point in having to brand cattle coming into feedlots (2)
- Inspections out of feedlot are unnecessary
- LIS needs to have more authority/has no authority to prove ownership (4)
- All cattle should be inspected before they go to the packers
- Attitude of brand inspectors is rude and authoritarian (2)
- Billing is confusing; A form and manifest #'s should be included on bill
- As a whole the system is often redundant
- Not responsible enough for payment being received by the proper person
- Why do I have to pay brand inspection fees twice? i.e. cross border, inter-provincial shipments (3)
- Seems like a make-work system, not a viable service package
- Lack of prosecution for livestock theft
- Ear tag system unnecessary
- System is becoming over-regulated
- Costs
- Inconsistency in services provided from area to area
- Legislation outdated (2)
- Mandatory nature - should be user-pay and/or voluntary

Cow/calf producers' concerns can be grouped into four general categories: administrative; livestock theft; CCIA; and animal welfare. The majority of concerns are in the administrative category, and include the following issues.

- Not enough brand inspectors/more inspectors needed (7)
- Brand inspectors have a poor attitude/over inspect (3)
- Process involved in holding/returning livestock lacking proof of ownership (4)
- Would like to see a better system for people who deal with horses primarily
- 24 hour hotline would be helpful and/or advertise who to get a hold of
- Inconsistency in service delivery/don't follow up with services (3)
- Give attention to historical brands
- Make provincial government and courts recognize brand ownership
- Dealer bonds should be higher due to value of livestock
- Instead of requiring a dealer license for a private sale, should be bonded with auctioneer
- LIS should get the previous brand fund (from the provincial government)
- With respect to the RFEP, some animals are going straight to a rancher instead of to the designated feedlot
- Cost is high/Would like to see costs come down (4)

In the livestock theft category (8 responses), producers are primarily concerned that the

missing/stolen cattle are not being dealt with quickly enough, and that the animals are not returned quickly enough or often enough. As well, there is some concern regarding the difficulty and lack of success in prosecuting livestock thieves.

The issue of ear tagging and CCIA was mentioned by 15 producers as a concern. These responses indicate that people are either unaware that LIS is not responsible for administering the new ear tagging system, or simply that they are concerned it will impact on the delivery of LIS services. Several producers stated that they do not want LIS to implement ear tagging, and a couple believe that only one system is needed/will prevail in the long term. A few statements demonstrate the confusion regarding the ear tag system, as two producers stated that they don't understand how disease can be traced back through branding, and another is worried that the tagging will be used to monitor cattle. One producer commented that the ear tagging program 'makes farmers look like criminals'.

Only a couple of concerns were mentioned regarding animal welfare. One respondent had concerns about animal welfare at a specific location and another felt that handling of livestock at auction marts in general is inhumane.

Overall, it is important to remember that the largest group of respondents indicated they had no concerns. The specific concerns discussed above cover a wide variety of issues, and cannot be considered statistically significant, due to the low number of people who mentioned each one. The specific concerns, however, are an indication of what is on producers' minds and give a general idea of what types of issues are of concern. This is especially true of the largest feedlot operations, since most in this group have concerns.

The last question regarding service delivery was whether the level of service LIS provides has improved, declined or remained the same since being privatized. Table 12 details the responses to this question.

Table 12: Change in Service Delivery Following Privatization

	Cow/Calf				Feedlot			
	<100	100-199	>200	All	<1,500	1,500-10,000	>10,000	All
	n=108	n=47	n=41	n=196	n=19	n=23	n=23	n=65
	% of Respondents							
Service Improved	10	28	17	16	11	17	26	18
Service Declined	6	2	5	5	11	17	17	15
No Change	52	45	63	53	47	48	43	46
Unsure/No Response	31	26	12	26	32	17	13	20

The most common response from both feedlot operators and cow/calf producers feel was that there has been no change in service level. Another quarter and one-fifth of respondents from the two groups were unsure, indicating they do not have strong feelings either way, were not aware that LIS had been privatized, or did not deal with LIS prior to privatization. Of those that feel the service level has changed, more cow/calf producers and feedlot operators feel it has improved than declined.

In the feedlot group, few gave reasons as to why the service level had either declined or improved. Reasons for an improvement in service included brand inspectors being more hands-on

and having a better attitude, and LIS is more efficient. Reasons given for a decline in service were the billing system is more complex, there are more hassles involved in the system now, and having to book brand inspectors much further in advance than previously. Two thirds of cow/calf producers also could not say why the service level had declined or improved. Those who did offer a reason for stating that the service level has increased feel that inspectors are more visible, more conscientious and more focused on their duties.

Value for Fees

Answers to the question “Overall, do you feel there is good value for the fees paid for LIS services?” are found in Table 13. Cow/calf producers overwhelming feel that they do receive good value for LIS fees, while feedlot operators are essentially split on this question.

Table 13: Value for LIS Fees

	Cow/Calf				Feedlot			
	<100	100-199	>200	All	<1,500	1,500-10,000	>10,000	All
	n=108	n=47	n=41	n=196	n=19	n=23	n=23	n=65
% of Respondents								
Yes	83	87	78	83	79	56	26	52
No	12	9	20	13	16	44	74	46
Unsure	5	4	2	4	5	0	0	2

Feedlot operators who feel they do receive good value said this is because the services are needed; someone has to be paid for the services; the fees are fair; the money goes back and benefits the industry; and it is extremely cheap insurance. Reasons given for not receiving good value include: it is too expensive because you are paying for services you don’t use; LIS is too political; service is inadequate; not enough cattle are returned; cattle are held for an unnecessarily long time; A-form doesn’t prove ownership and feedlots don’t get good value but cow/calf producers do. The complaint regarding paying for services not used was mentioned several times.

In the cow/calf group, 26% of those who feel they do receive good value for LIS fees had no response when asked why they felt this way. Another 20% said simply that the services are needed, or that someone has to provide these services. Other reasons for good value were:

- Good service/brand inspectors do a good job
- It is cheap for all the services they provide
- Fees are fair/reasonable
- Without branding even more money would be lost
- Brand inspectors have a tough and dangerous job and deserve every dollar

Cow/calf producers who feel they do not receive good value had some of the same reasons as feedlot operators, such as paying for services that are not used, and inconsistent service levels. Other reasons given by this group were that it is too expensive; unaware that there is a fee; purchase of sick animals in the past; and they don’t do anything for the rancher.

Future of LIS Services

Producers were asked if there was one thing they would like to see changed in the way LIS services are carried out. Half of feedlot operators and 64% of cow/calf producers stated there was nothing they would like to see changed. The breakdown by size of operation very closely

matches that of the earlier question regarding concerns with LIS services, and for the most part, those who had no concerns also did not suggest any changes that should be made.

In the feedlot group, the following are the changes that were suggested:

- Should be a user pay system, with full cost attributed only to those who need a service
- Brand inspections should only be paid for once, i.e. interprovincial shipments
- Inspections should be stopped on cattle coming into feedlots and instead should only be done on sellers at auction marts and randomly for feedlots
- Fee structure should be revised/lowered
- Need more brand inspectors
- Get rid of the gray area concerning ownership, i.e. conversion issue
- Eliminate brand inspection altogether

Cow/calf producers mentioned many of the same things that they listed as concerns, such as hiring more inspectors, speeding up the process/devoting more resources to livestock theft investigation and return of lost/stolen animals (one producer said that cattle rustlers should be hung), more diligence in monitoring animal welfare, and increasing awareness of LIS services among producers. The ear tagging issue was also mentioned several times, but in various contexts. Several producers think that LIS should administer the tags, while others do not want LIS to get involved at all. Other changes suggested by this group are:

- Hire people with more knowledge
- Get rid of the Patron's Assurance Fund
- Change manifest to allow more room for ID of cattle
- Should do some customer appreciation
- Get more women in the PR department
- Lower the fee
- Get rid of brand inspectors/abolish the system
- Should not maintain a record of manifests

In the feedlot group, suggested changes, as with service concerns, largely revolve around the fee level and where cattle need or do not need to be inspected. For cow/calf producers, the changes suggested indicate that they are more concerned with the issues surrounding missing and/or stolen livestock - ensuring that there are enough inspectors to detect and discourage theft, making sure that missing livestock are found and returned quickly, and that resources are devoted to the investigation of livestock theft.

When asked if LIS should continue to provide all of the services it currently offers, the vast majority of both cow/calf producers and feedlot operators answered 'yes', as shown in Table 14. In the feedlot group, however, some of the yes responses were conditional, stating that the services should be provided only to those who need/value them. The reason given by most respondents (cow/calf and feedlot) for LIS continuing to provide all of the present services is simply that these services are needed and are an important part of the industry. Those who feel that LIS should not continue to provide all the current services for the most part feel that LIS as a whole should be abolished.

Table 14: Should LIS Continue to Provide All of the Current Services?

	Cow/Calf				Feedlot			
	<100	100-199	>200	All	<1,500	1,500-10,000	>10,000	All
	n=108	n=47	n=41	n=196	n=19	n=23	n=23	n=65
	% of Respondents							
Yes	94	94	93	93	100	87	70	85
No	4	2	5	4	0	13	30	15
Unsure	3	4	2	3	0	0	0	0

Producers were also asked if LIS should have any additional responsibilities or provide any services it currently does not. Again, producers overwhelmingly indicated they prefer the status quo. When asked which services or responsibilities should be added, most of those who answered yes said that LIS should administer or get involved with the ear tag system. Some of the other suggestions are:

- Work more closely with feeder associations to ensure people pay their bills
- Provide proof of ownership in a court
- Provide indemnification of purchase
- Brand histories
- Responsibility for where money goes on purchases/who gets paid

Table 15: Additional Responsibilities/Services

	Cow/Calf				Feedlot			
	<100	100-199	>200	All	<1,500	1,500-10,000	>10,000	All
	n=108	n=47	n=41	n=196	n=19	n=23	n=23	n=65
	% of Respondents							
Yes	8	15	15	11	5	17	22	15
No	91	83	80	87	95	83	74	83
Unsure	1	2	5	2	0	0	4	2

Taken together, the latter two questions demonstrate that, overall, both feedlot operators and cow/calf producers prefer the status quo - they do not want to see services taken away nor do they want to see LIS take on any additional responsibilities.

The final question of the survey asked whether LIS' resources could be used in any additional ways to benefit the industry overall. Few respondents in both groups had any suggestions in this regard. Many of the responses concerned the ear tag issue again (i.e. LIS should be involved), but it was also mentioned several times that LIS should do more to promote itself both to producers and to the public, and improve communication between producers and LIS. It was also suggested that communication between provinces should be improved in terms of livestock identification and investigation of stolen animals.

Comparison to 1996 Angus Reid Survey

Producer Awareness

The results of this survey are very similar to the 1996 survey in terms of awareness of LIS functions and services. In both surveys, the services that have the highest level of awareness are those associated with brand inspections, i.e. where brand inspection is done, and verification of ownership. As well, the same services had the lowest level of awareness - administration of dealer licensing and bonding; administration of the Patron's Assurance Fund, and observing for animal welfare.

Benefits of LIS

The function rated most important by producers, verification of ownership, has not changed since the 1996 survey. The percentage of producers who gave this response has actually increased somewhat in both groups since the earlier survey. The next most important function remains finding/tracing/returning lost or stolen animals. One of the biggest differences is the increased number of feedlot operators' responses that fell into the 'other' category. This is worth noting, as many of these responses were that LIS has no important function at all.

The main benefit of LIS has changed since the 1996 survey. In the first survey, the largest group of producers stated that discouraging fraud was the main benefit; in the current survey it is verification of ownership. The return of lost/stray/stolen animals was also chosen by significantly more producers as the main benefit in the current survey. Although there are some differences between the surveys with regard to this question, they do not indicate a major shift in opinion, as verification of ownership is a means by which to detect and discourage fraud and theft.

The primary beneficiary of brand inspection and other LIS services in the 1996 survey was cow/calf producers. This is also true in the current survey, however the percentage of producers who feel this way has changed somewhat. In the previous survey, only 19% of feedlots said that cow/calf producers benefitted the most, while in the current survey this number rose to 59% of feedlots. In addition, the percentage of both feedlot operators and cow/calf producers that feel feedlots benefit the most from LIS services has declined noticeably since the earlier survey. These changes indicate that a shift in opinion has likely occurred on this subject, in both the cow/calf and feedlot groups.

Producer Satisfaction

The rating scale used for this survey was not exactly the same as that used in the previous survey, however they are similar enough that comparisons can still be drawn. The results from both surveys indicate that producers are satisfied with LIS as a whole. However, the percentage of producers who chose the highest (very satisfied) rating has fallen significantly in both groups, and the percentage who chose the lowest (very dissatisfied) rating has risen marginally in the cow/calf group and slightly more in the feedlot group.

Satisfaction levels with specific services are also generally the same. Producers reported higher levels of satisfaction with the services they are more familiar with, such as verifying ownership and brand inspections at auction marts, than the services they have less experience with, such as administering the Patron's Assurance Fund.

Although the nature of producers' concerns has changed since the 1996 survey, those who do not have any concerns remain the largest group overall. The concern mentioned the most in the previous study was 'maintain higher standards', which was not mentioned at all in this survey. The area of primary concern now for cow/calf producers is the ear tagging issue, and whether or not LIS should be involved with this program. Some concerns are the same though - the need for more brand inspectors and inconsistent level of service. In the feedlot group, the percentage of operators with no concerns has actually gone up slightly overall, but declined significantly in the group of large operations. Cost of the services provided by LIS remain a concern for the large feedlot operators, especially in the context of paying for inspections they feel are not necessary.

Value for Fees

Cow/calf producers' opinions regarding whether they receive good value for LIS fees are essentially the same in the current survey as they were in the previous survey. Some change has occurred however, in the opinion of feedlot operators. In the 1996 survey, three-quarters of all feedlot operators said they received good value for the fees they paid; in the current survey this number has fallen to 52%. This is one of the most significant differences between the two surveys.

The rationale for good value is slightly different, as more producers said in the current survey than the previous one that the services are needed/it is a necessary job. The reason given most frequently in the previous survey was that more cattle would be stolen without brand inspection. Although the words chosen are different, the meaning is very similar. Rationale for poor value is similar in both surveys, as both types of producers indicated that the cost is too high, service is inconsistent and the fee includes services that not everyone uses.

Summary of Focus Groups

Background

Two focus groups were held in mid-June, one in Calgary and the other in Lethbridge. At both locations, a mix of industry participants attended the focus groups. Both groups included representatives from auction marts, feedlot operations, cow/calf operations, the Alberta Cattle Commission and order buyers. The Calgary group also included a packer, an RCMP officer and people with the Alberta Grazing Council, Canadian Food Inspection Agency, Canadian Cattle Identification Agency, Alberta Farm Animal Care Association and the Wild Rose Equine Ranching Association. The Lethbridge group also included a representative from the Western Stock Growers Association, the Feeder Associations of Alberta, and a brand inspector. In total, 11 people attended the Calgary group and 7 people attended the Lethbridge group.

The purpose of the focus groups was to gain greater insight into some of the issues that had been identified in the surveys and in the course of the research regarding costs and benefits. Another purpose was to discuss the future direction of LIS. The same questions were asked in both groups. Focus group participants were told that their comments and statements would remain confidential, i.e. they would not be directly quoted.

Summary of Issues Discussed

Cost of Compliance

Both groups raised the same issues that have been discussed in our cost/benefit research report. These included administration and management time, hide damage, the stress of branding and shrinkage. Neither group was able to assign specific dollar values to these costs, aside from the premium for an unbranded hide, nor did they feel that these were significant costs. Both groups did feel, however, that the large feedlots are more likely to bear greater costs because of the number of cattle involved in their operations.

Benefits

In general, both groups felt that the benefits of LIS and brand inspection are felt by the entire industry. The paper trail associated with brand inspection adds value to the system in the form of confidence for money lenders and deterrence of theft, and facilitates the marketing of livestock.

Strengths of LIS

Some of the strengths that were identified include:

- Ability to determine ownership of livestock at auction, where there are hundreds of contributors
- Having a protocol in place to deal with ownership problems, i.e. holding funds
- Brand inspectors are experienced in what they do and are well-trained
- Administering the Restricted Feeder Entry Program
- Having industry input - the industry knows what its problems are
- It is the only cost-justified permanent form of identification and ownership available

Weaknesses of LIS

Participants listed the following weaknesses of LIS:

- LIS does not have an attitude of co-operation and seems to believe industry is working for them, rather than vice-versa
- Conversion is currently the biggest issue for auction marts

- Legislation is outdated/ regulations do not line up with current practice
The conversion issue was brought up in both groups, as was the issue of LIS not being co-operative or responsive enough to the needs of their clients.

Opportunities for LIS

The discussion in both groups on this question centred around the Canadian Cattle Identification Agency. Participants felt that there is a significant opportunity for LIS and CCIA to work together to streamline both systems and exchange information where appropriate and warranted. The groups did not suggest that LIS attempt to take over CCIA's responsibilities, or vice-versa, but rather that already they have seen instances where the information maintained in each system could benefit the other. It was suggested that perhaps LIS inspectors could perform some of the CCIA inspectors' duties for a fee, where there is overlap or the potential for overlap in inspection by the two systems.

Threats to LIS

Both groups identified essentially the same threats to the long-term success of LIS. These threats are the conversion issue/lack of a protocol to deal with conversion, and conflict within the industry regarding the future of LIS/lack of support for LIS across all sectors of the industry. An additional threat that was mentioned was the issue of animal welfare and public perception of branding.

Voluntary Brand Inspection System

Participants in the focus groups were asked whether a voluntary system of brand inspection would work, and what such a system would look like. There was some divergence in the collective opinions of the two groups on this issue. One group felt that a voluntary system would not work because it would not be widely used, costs at the packer would increase and enforcement would be ineffective. The other group initially thought that a voluntary system would be feasible, as the majority of system participants realize value from brand inspection and would therefore still utilize such services.

Future of LIS

The groups were in agreement that in order for LIS to move forward, the threats that have been identified must be addressed. The issue of conversion and the discord in the industry regarding LIS' role need to be resolved to the satisfaction of all industry participants if LIS is to move forward. The potential for electronic ID was mentioned in both groups as something that LIS should continue to investigate, and introduce to the industry if and when such technology is as reliable and permanent as brands.

Recommendations

1. LIS staff and officials with AAFRD and Alberta Justice need to commence work on a revised delegation agreement. This revised delegation agreement must correct inconsistencies between the legislation/regulations, the current agreement and current directives/policies.
2. LIS staff and officials with AAFRD and Alberta Justice need to commence work on correcting inconsistencies and clarifying the four pieces of legislation administered by LIS.
3. Prior to undertaking recommendations 1&2, LIS should initiate an industry consultation on regulatory review to ensure the legislation is consistent with the industry's objectives.
4. Inspections at the feedlot are normally carried out in cooperation with feedlot management and conducted at a time and in a manner in which stress, weight loss and time loss is minimized. While this best practice is the norm for LIS, it must be formalized as LIS policy or directive to staff. Logistics and inventory management are crucial management factors in any successful operation. LIS must strive to continue to fulfil the regulatory requirements at minimal disruption to the best logistical practices at the feedlot. Particular attention in this regard should be placed on dealing with cattle coming in from other inspected jurisdictions in order to reduce logistical and management problems.
5. Whether cattlemen re-brand cattle or not should be a management decision, not a decision based on ease of passage through the inspection system. LIS should adopt a formal policy and directive to staff in which inspections of re-branded cattle are treated in the same manner as cattle that have not been re-branded.
6. LIS and the Alberta Cattle Feeders Association should begin work on a new "Alberta Registered Feedlot Program." The primary characteristics of the new program would have similar characteristics to the feedlot-packer inspection system in Nebraska. The program would also be similar to the recommendations outlined in the Toma & Bouma report and those of the "Ad Hoc Committee" formed in January 2000 to review the feedlot to packer inspection procedures. The primary characteristics are as follows:
 - eligible candidates must be terminal feedlots
 - fees would be based on average annual one time capacity
 - animals would be inspected either upon entry to the feedlot or be accompanied by a inspection certificate (A-Form)
 - inventory controls must be acceptable to LIS protocols and regulatory requirements
 - feedlots would be subject to random inspections
 - feedlots would write their own "Shipping Permit" (A-Form) for cattle shipped to packing plants
 - all cattle shipped to destinations other than slaughter would be inspected
 - failure to comply with the new LIS system would result in prohibition or suspension from the program.
 - Brand inspection at the packing plant would be only for actual numbers of cattle and verification that the feedlot is registered. No fee is charged at the plant for registered lots.
 - The fees charged to registered lots would result in a significant reduction in costs

to those lots on a per head basis. A reduction in revenues from registered lots would mean that fees received from non-registered lots and cow-calf producers would have to be increased accordingly. Appendix B provides an example of how the fee structure *might* have to evolve.

- Given that random inspections should be subject to a cost recovery formula as devised by LIS and the ACFA.
7. LIS should continue to strengthen education efforts and then begin stricter enforcement of regulations regarding manifests. The Act itself states that incomplete, incorrect or false manifests are subject to a fine not exceeding \$1,000. It is clearly stated on manifest instructions that the owner of financed cattle is the financier.
 8. LIS protocols regarding conversion lawsuits appear to be logical extensions of LIS's current practices. The steps should help to deter some conversion law suits while providing increased buyer protection at minimal cost.
 9. LIS should work with AAFRD to review the composition of the LIS board. The board should only be comprised of some combination of ACC, ACFA, WSGA, as well as the Grazier and Equine representatives.
 10. Producers demonstrate that they place a value on brands by the fact that the overwhelming majority of cattle are branded in Alberta. The industry has yet to find alternatives to branding that fulfill requirements such as permanency and efficacy of identification. With that said, every system can be improved and furthermore, industry participants outside the cattle sector may seek alternatives to brands. The imperfections associated with brands are such that the industry must continue to explore technological alternatives.

Appendix A

Outline of the acts and regulations administered by LIS.

Stray Animals Act

The Act and associated regulations address issues such as the following regarding stray livestock:

- liability for trespassing livestock
- liability for opening and not closing a gate
- capture of stray livestock
- damage done and associated expenses
- impoundment
- destruction of dangerous livestock
- entry of inspectors on land
- duties of inspectors
- release or disposition of proceeds from sale of impounded livestock
- protection of livestock and domestic fowl from dogs
- liabilities and penalties

Livestock and Livestock Products Act

The Act and associated regulations address issues such as the following regarding the terms and conditions of sale of livestock:

- the manner in which the purchaser of livestock and livestock products is to make returns to the seller
- requiring the licensing of stock yards
- require all persons dealing in livestock or livestock products to be licensed
- determine the manner in which a licensed person shall deal in livestock
- determine conditions of dealer default
- determine the amount of security for livestock dealers
- payment of levies

A primary component of this act is that all money received by a licenced dealer from a sale of livestock constitutes a trust fund in the hands of the dealer for the benefit of the patron who supplied the livestock. The dealer cannot use the money until the patron has been paid. Title does not change hands until the seller has been paid by the dealer.

Another critical component of this act is the Livestock Patron's Assurance Fund which allows the Minister to set up a fund for non-payment of sale proceeds by a dealer to a producers. The fund is paid for by a levy on eligible sales which include all livestock unless the owner wishes to withdraw from the fund.

Brand Act

The Act and associated regulations address issues such as the following regarding livestock brands:

- allotting of brands
- recording of brands
- use of brands
- publication of recorded brands
- transfer of brands
- offences and penalties

A brand is registered to the owner of the brand for their use only. The fee to purchase a brand is \$220 (+GST) and \$25 for transferring a brand. Penalties exist for changing or altering a brand and or branding animals with an unregistered brand.

Livestock Identification and Brand Inspection Act

The Act and associated regulations address issues such as the following regarding livestock identification and brand inspection:

- inspection of brands
- inspection fees
- bills of sale
- manifests
- right to enter
- shipment of livestock without inspection
- detention of livestock
- withholding settlement

In the course of conducting the brand inspection process, officers have several main responsibilities including: verification of brand ownership; verification of shipping documents; and control of proceeds in disputes of ownership.

Appendix B

One example of the financial implications of a new Registered Feedlot program.

Assumptions:

- ▶ 200 feedlots qualify for Registered Feedlot Status
- ▶ the 200 lots have a one time capacity of 1.5 million head
- ▶ total marketings from those lots would amount to 2.5 million head
- ▶ total LIS budget or expenses amount to \$6 million
- ▶ total inspections prior to the new program amounted to 6 million per year prior. Non-registered feedlot inspections prior to the new program amounted to 3.5 million per year.

Financial Implications for LIS and the Industry:

- ▶ the 200 feedlots currently pay around \$2.5 million in fees for brand inspection
- ▶ this revenue would be reduced by \$1 million (\$2.5 million less \$1.5 in fees)
- ▶ fees on the remaining 3.5 million inspections (6 million inspections less the 2.5 million from the registered lots) would have to increase by up to 25-30 cents per head.
- ▶ LIS revenue from inspections at registered feedlots will average roughly sixty cents per head marketed,
- ▶ Fees from cow-calf producers would be up to \$1.25/head

Appendix C

GMC/LIS SURVEY COW/CALF PRODUCERS AND FEEDLOTS

Primary Operation: _____

Number of Head: _____

Hello, is _____ in? (Try to use first names only).

If respondent is not available, try to schedule a callback.

Hello, _____, this is _____ calling from the George Morris Centre. We're looking for feedback on the services provided by Livestock Identification Service. Your input is needed to help determine the future direction of LIS and the services it provides. I realize this is a busy time of year for you, but this should only take about 5 minutes. May I proceed?

If now is not a good time, please try to schedule a callback.

1. First of all, are you aware that brand inspection and related services was transferred to the private sector in 1998? (yes/no)

IF NO: Livestock Identification Services (or LIS) is the organization that is now responsible for providing brand inspection and related services.

2. *Next, what type of operation do you have? Is it...*

Feedlot

Backgrounding

Cow/calf

(If multiple responses) What is your primary operation?

Feedlot

Backgrounding

Cow/calf

(If answer is feedlot or backgrounding) About how many animals do you put through your operation each year?

_____ head

(If answer is cow/calf) How many head make up your base herd? (i.e. number of cows)

_____ head

3. Where have your cattle/livestock been inspected by LIS in the past year?

On your premises

At the auction barn

At the packers

Other _____

(If answer is 'on premises') In an average year, how many times a year are brand inspections done on your cattle/livestock?

_____ times per year

4. About how many head of cattle/livestock are inspected during each visit by an inspector?

_____ head

5 a) As far as you are aware, what types of services does Livestock Identification Services provide? (Do NOT read list)

- | | |
|---|-----|
| <input type="checkbox"/> Brand inspections at auction marts | Y/N |
| <input type="checkbox"/> Brand inspections at field sales | Y/N |
| <input type="checkbox"/> On-farm brand inspections | Y/N |
| <input type="checkbox"/> Brand inspections at packers | Y/N |
| <input type="checkbox"/> Random feedlot brand inspections | Y/N |
| <input type="checkbox"/> Verifies ownership | Y/N |
| <input type="checkbox"/> Captures and returns lost, stray or stolen animals | Y/N |
| <input type="checkbox"/> Registers brands | Y/N |
| <input type="checkbox"/> Maintains a record of inspections | Y/N |
| <input type="checkbox"/> Maintains a record of manifests | Y/N |
| <input type="checkbox"/> Holds stock lacking proof of ownership | Y/N |
| <input type="checkbox"/> Administrates dealer licensing and bonding | Y/N |
| <input type="checkbox"/> Maintains a 'safe' environment for cash sale transactions | Y/N |
| <input type="checkbox"/> Observes for inhumane transportation of animals | Y/N |
| <input type="checkbox"/> Observes for animal welfare, slaughter and processing irregularities | Y/N |
| <input type="checkbox"/> Administers the Patron's Assurance Fund | Y/N |
| <input type="checkbox"/> Investigates livestock thefts | Y/N |

Administers the Restricted Feeder Entry program

Y/N

5 b) Were you aware that LIS also... Read items from list in 5a that were not mentioned and circle yes or no.

6. In your own operation, what is the most important function of LIS and its' brand inspectors?

7. Using a scale of 1 to 5, where 5 is very satisfied and 1 is very dissatisfied, how would you rate your satisfaction overall with LIS and the services it provides?

1 2 3 4 5

8. Next, I would like you to rate each of the following aspects of LIS services, where 5 is excellent and 1 is poor. Capture 0 for no response or unsure.

Verifying ownership of livestock (ex Inspections on-farm, at auctions) _____

Capturing and returning lost, stolen or stray animals _____

Registering brands _____

Detecting and discouraging fraud or opportunist behavior _____

Holding stock that lack proof of ownership _____

Maintaining a record of inspections _____

Maintaining a record of manifests _____

Maintaining a safe environment for cash sale transactions _____

Observing for inhumane transportation irregularities _____

Observing for animals welfare, slaughter and processing irregularities _____

Administering the Patron's Assurance Fund _____

Investigating livestock theft _____

Administering dealer licensing and bonding _____

Administering the Restricted Feeder Entry Program _____

9. What concerns do you have in terms of services provided by LIS?
Try to get as specific an answer as possible.

10. Overall, what do you feel is the main benefit of brand inspection and the other services provided by LIS? Only 1 – 2 answers.

- Return lost/stray animals
- Return stolen animals
- Detect fraud/opportunist behavior
- Deter/discourage fraud/opportunist behavior
- Verify ownership
- Maintain a safe environment for cash sale transactions
- Hold stock lacking proof of ownership
- Regulate licensing and bonding of dealers
- Other _____
-

11. In your view, who do you believe receives the greatest benefit from brand inspections and other service provided by LIS?
If they need prompting, ask them which segment of the industry.

- Cow-calf producers
- Feedlots/feedlot operators
- Packing plants/slaughtering plants
- Industry as a whole
- Consumers
- Society as a whole
- Other _____

12. a) Overall, do you feel there is good value for the fees paid for LIS services?

Yes

No

b) Why do you say that?

13. In your opinion, has the level of service LIS provides changed since privatization?

Yes

No

Unsure

IF YES: Has the level of service *improved* or *declined*? Circle answer.

IF NO or UNSURE: Why do you say this?

14. If there was ONE thing you would like to see changed in the way LIS services are carried out, what would it be? 1 answer only.

15.a) In the future, do you feel that LIS should continue to provide all of the services that it currently does?

Yes

No

IF YES: Why is that?

IF NO: Which service(s) in particular do you feel LIS should NOT continue to provide? 1 – 2 answers, no reasons necessary.

16. Should LIS have any additional responsibilities or provide any services it currently does not?

Yes

No

IF YES: Exactly what responsibilities or services?

17. Lastly, can you think of any additional ways in which LIS or its resources could be used to benefit the industry overall?