

### Canadian Livestock Markets Pilot Project with Radio Frequency Identification (RFID)

In order for Canada to achieve whole life traceability all livestock movement must be recorded. Within Canada, approximately 75% of the cattle are sold through livestock markets. Hence, it is extremely important that recent advances in RFID tag reading technology and the multitude of available tag RFID systems be demonstrated to Canadian livestock markets.

The “Canadian Livestock Markets Pilot project with RFID” will demonstrate, first hand, in real situations, the challenges surrounding reading ISO RFID tags. Portable reading systems will be installed and cattle will be read through a variety of different systems. The project results will identify the gaps in whole life traceability and the benefits of low frequency RFID.

The project will enable livestock market owners to gain a better understanding of the infrastructure and cost associated with RFID tag reading systems. This will help ensure accurate budgeting for such future systems. As well, the project will provide an opportunity for livestock markets to pose inquiries and to become involved in the manufacturing (i.e. design) of equipment. Canadian livestock markets sell cattle through the use of a sales ring, thus, if the systems are to be adopted in the livestock markets it is imperative that the project demonstrate that the RFID readers will not slow down the speed of commerce.

#### *Benefits*

Although many areas of Europe, Australia, South America and the United States have adopted RFID technologies into their livestock markets there is a need to demonstrate this technology in the unique Canadian environment. Canadian livestock markets must be provided with an opportunity to view working systems, travel to other countries is not always a viable option. Not all livestock markets are set up in the same manner, each reader must be installed to meet the individual livestock market design. The size of Canadian livestock markets vary by region/province, what works well in one market will not always be applicable to another.

RFID reading systems range in cost from \$1000-\$40,000. It is important that livestock market owners are aware of the limitations of each reading system so that they can make an informed decision on the type of reader that will best meet their individual needs. Demonstrating various systems will allow livestock markets to understand each readers’ limitations, animal throughput, stress each system puts on cattle, personal/operating requirements, cost associated with software and infrastructure upgrades, system placement requirements, potential environmental issues, outside radio frequency noise that may inhibit reading results and most importantly help them find a RFID reader that can meet their needs and financial constraints.

## Goals

- Demonstrate the implementation of animal tracking by installing proven RFID Readers into real time situations in Canadian Livestock Markets.
- Demonstrate the different types of RFID readers available. (Hand Readers, Wand Readers, Panel Readers)
- Demonstrate the different types of panel reader installations currently available. (Single Alley Systems, Dual Lane Systems, Multi Animal Systems)
- Validate that the current method of reading Low Frequency RFID tags are able to be used as cattle move through commerce without slowing down the day to day business in a Livestock Market.
- Help each individual Livestock Market identify the hidden costs around a RFID Reading system such as electrical requirements, interference, additional staff costs (if any), software requirements, data reporting requirements and infrastructure costs to their current alleys.
- Give each individual Livestock Market the opportunity to try a system of their choice on a sale day to see the system work in a real time situation.
- Help Livestock Market owners understand the added benefits to a reading system such as inventory control, management issues and age verification.

## Results

This pilot project will help Canadian livestock markets understand that it is possible to implement RFID reader systems to read cattle at the speed of commerce without affecting or changing the way they currently run their sales operations. RFID Reader manufacturers will have an opportunity to address the concerns that the livestock markets bring forth during each of the demonstrations by developing and manufacturing systems that will meet their future needs. Although the pilot project is focused on cattle, it will also give multi-species markets a chance to determine and address possible concerns regarding readings. Considering the increasing importance of age verification in the Canadian cattle industry, a successful project of this nature would also provide livestock markets with the capacity to be able to link the age of the cattle they sell to the tag reading system and add value for the Canadian cattle producers. This pilot project will also help determine the total investment required by the Canadian livestock markets to properly implement a national traceability system. The pilot will help demonstrate the feasibility of livestock traceability and will support the Federal-Provincial-Territorial Traceability Task Team (FTP TTT) in its efforts to implement a National Livestock Traceability System.

If you have any questions in regards to these pilot projects or if you wish to participate in these pilot projects please contact:

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