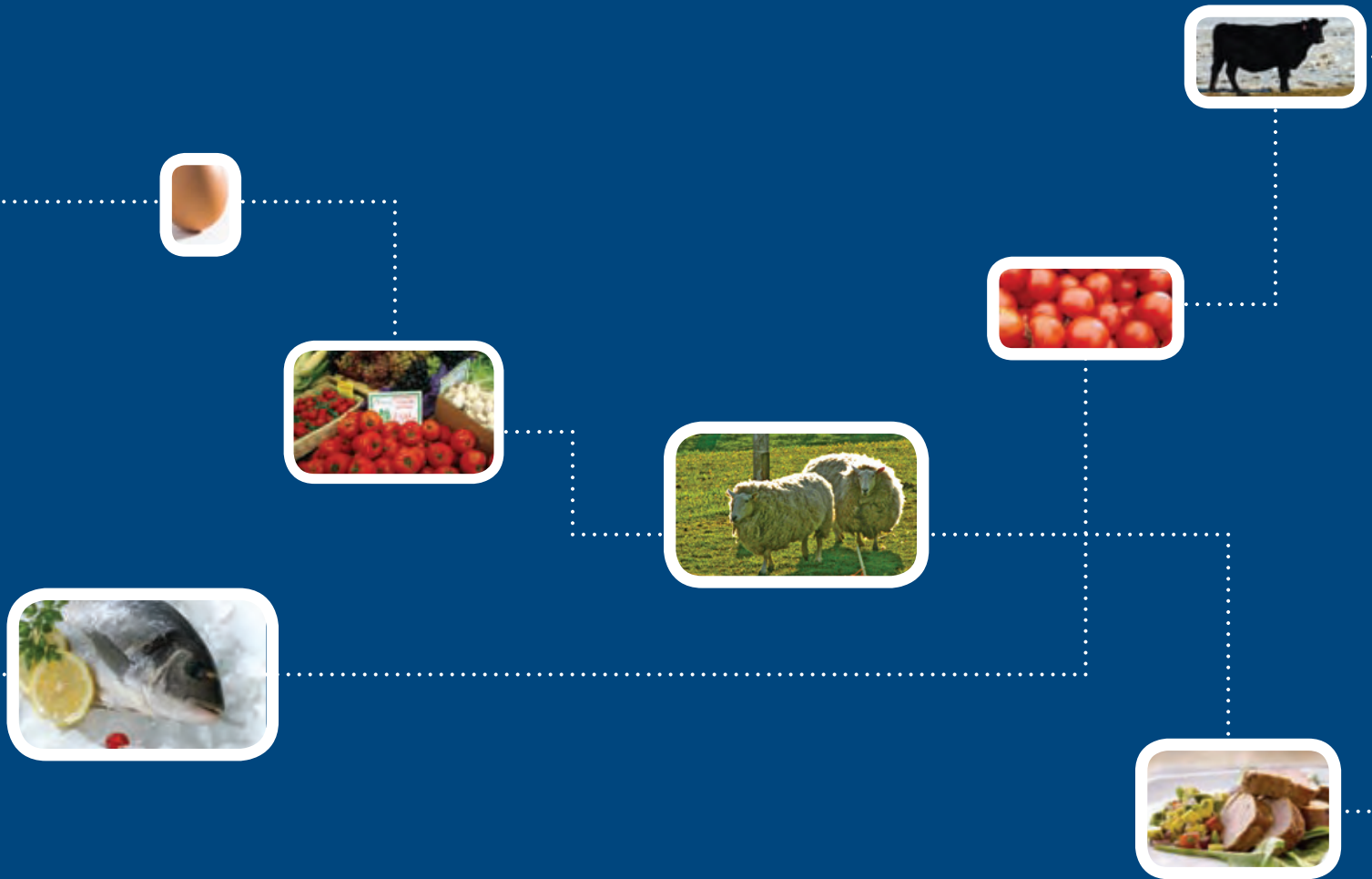


JUNE 2-3 2009 WINNIPEG MANITOBA CANADA



trace r&d | 2009



Hosted by



UNIVERSITY
OF MANITOBA

Faculty of Agricultural and Food Sciences
Richardson Centre for Functional Foods and Nutraceuticals

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UNIVERSITY
OF MANITOBA

Faculty of Agricultural and Food Sciences
256 Agriculture Building, University of Manitoba
Winnipeg, MB Canada R3T 2N2
Phone: 474-6082 Fax: 474-7525



June 2, 2009

Dear Delegates

The Trace R&D 2009 organizing committee welcomes you to Winnipeg and to the first national conference related to traceability research and development in agriculture and food. From the outset, the goals for this event have been to bring together people and organizations that have a shared interest in the development of a national research and development strategy and to provide a setting in which delegates can share ideas and make new connections. It is our hope that you will benefit from the synergy that is created when industry, academia and government learn and work together to build a stronger vision for traceability in Canada.

Plenary and concurrent sessions, coupled with a poster session and trade show, will feature research, technologies and insights of traceability leaders in Canada. The workshop on the second day of our program will build upon knowledge gained to develop a traceability R&D strategy that will ensure the continued strong domestic and global outlook for Canada's agriculture and food industries.

The organizing committee and I would like to thank the generous support of sponsors, our event coordinator Dallas Ballance and workshop facilitator Cindy Bishop, for helping bring Trace R&D 2009 into fruition.

Thank you for participating in Trace R&D 2009!

Yours truly,

Karin Wittenberg
Chair, Organizing Committee
Trace R&D 2009

ORGANIZING COMMITTEE

Dr. Karin Wittenberg, conference chair
University of Manitoba

Eric Aubin
Canadian Food Inspection Agency

Bill Ballantyne
Maple Leaf Consumer Foods

Dr. Gary Crow
University of Manitoba

Dr. Gary Fulcher
University of Manitoba

John Graham
IBM Canada

David Hunt
Manitoba Agriculture, Food and Rural Initiatives

Nilos Korodimas
Agriculture and Agri-Food Canada

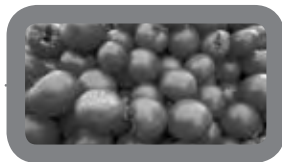
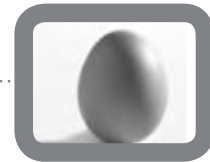
Dr. Curtis Rempel
Richardson Centre for Functional Foods & Nutraceuticals

Dr. Michael Trevan
University of Manitoba

Conference Program

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Conference Program

OVERVIEW

Fairmont Hotel, Winnipeg Canada

JUNE 2, 2009

07h30	REGISTRATION OPENS
07h45	CONTINENTAL BREAKFAST
07h45 – 18h30	TRADESHOW / POSTER SESSION
08h30	WELCOME FROM HOSTS
08h45	R&D IN SUPPORT OF TRACEABILITY SYSTEMS: EXPERIENCES ACROSS THE FOOD CHAIN
10h00	BREAK
10h15	CONCURRENT SESSIONS: <ul style="list-style-type: none"> • Consumer and Market Demand • Seafood Traceability • Data and Database Management
12h00 – 13h00	BUFFET LUNCH WITH GUEST SPEAKER
13h00	CONCURRENT SESSIONS: <ul style="list-style-type: none"> • Traceability and Food Safety • Economics and Market Access • Livestock Traceability, Technologies
15h00	BREAK
15h30	R&D IN SUPPORT OF TRACEABILITY SYSTEMS: EXPERIENCES ACROSS THE FOOD CHAIN
16h50 – 17h10	WRAP-UP
17h15 – 18h30	RECEPTION

JUNE 3, 2009

07h30	REGISTRATION OPENS
07h45	CONTINENTAL BREAKFAST
07h45 – 16h30	TRADESHOW / POSTER SESSION
08h30	OPENING REMARKS
08h35	STRATEGIC WORKSHOP: SETTING THE STAGE
9h10	PERSPECTIVES ON TRACEABILITY R&D: PANEL DISCUSSION
10h15	BREAK
10h30	PANELISTS QUESTIONS & ANSWERS
11h00	CRITICAL ISSUES: TRAVERSE FIELDS OF WORK AND STAKEHOLDER INTERESTS
12h00 – 13h00	BUFFET LUNCH WITH GUEST SPEAKER
13h00	A COMPELLING VISION: CANADIAN TRACEABILITY R&D STRATEGY
14h30	BREAK
15h00	A COMPELLING VISION... CONTINUED
15h30	REACHING A TRACEABILITY R&D APEX
16h00	NSERC – STRATEGY DEVELOPMENT PROGRAM SUPPORT
16h15	MOVING FORWARD
16h30	STRATEGIC JOURNEY END



Conference Program
**PLENARY
OPENING SESSION**
Midway Ballroom

JUNE 2 – MORNING

INTRODUCING TRACE R&D 2009

08h30 WELCOME FROM HOSTS

Allan Preston, Assistant Deputy Minister, Manitoba
Agriculture, Food and Rural Initiatives

Michael Trevan, Dean, Faculty of Agricultural and Food
Sciences, University of Manitoba

**R&D IN SUPPORT OF TRACEABILITY
SYSTEMS: EXPERIENCES ACROSS
THE FOOD CHAIN**

SESSION CHAIR: Karin Wittenberg, University of Manitoba

**08h45 THE DEVELOPMENT OF A NATIONAL AGRICULTURE
AND FOOD TRACEABILITY SYSTEM IN CANADA
IN PARTNERSHIP BETWEEN INDUSTRY AND
GOVERNMENTS**

Susie Miller, Director General, Food Value Chain Bureau,
Agriculture and Agri-Food Canada

09h10 A FOOD PROCESSOR'S PERSPECTIVE

Len Penner, CEO, Cargill Limited

09h35 A FOOD RETAILER'S PERSPECTIVE

David Wilkes, Senior Vice President, Canadian Council of
Grocery Distributors

10h00 BREAK

Conference Program
**CONCURRENT
SESSION #1**
West Ballroom

JUNE 2 – MORNING

**SESSION PROVIDED BY CONSUMER
AND MARKET DEMAND NETWORK**
www.consumerdemand.re.ualberta.ca

SESSION CHAIR: Curtis Rempel, Richardson Centre for Functional Foods
and Nutraceuticals

**10h15 TRACEABILITY AND QUALITY ASSURANCE:
WHO DO CONSUMERS TRUST?**

Jill E. Hobbs, Department of Bioresource Policy, Business
& Economics, University of Saskatchewan

**10h40 JAPANESE WILLINGNESS TO PAY FOR TRACEABILITY
IN IMPORTED BEEF FROM CANADA**

Ellen Goddard, Department of Rural Economy, University
of Alberta

**11h05 COSTS, BENEFITS AND LEVELS OF TRACEABILITY:
FINDINGS FROM A SURVEY OF ITALIAN FISH
PROCESSORS**

Andreas Boecker, Department of Food, Agriculture &
Resource Economics, University of Guelph

**11h30 TRACEABILITY AND LIABILITY IN THE
AGRI-FOOD VALUE CHAIN**

Patricia L Farnese, College of Law, University of
Saskatchewan

**12h00 LUNCH – "VISION OF RESEARCH AND DEVELOPMENT IN
CANADA'S AGRICULTURE AND FOOD SECTORS"**



Conference Program
**CONCURRENT
SESSION #2**
Harrow, Essex, Canterbury

JUNE 2 – MORNING

SEAFOOD TRACEABILITY

SESSION CHAIR: Jeff Clark, Manitoba Pork Council

10h15 TRACEABILITY IN THE NEWFOUNDLAND AND LABRADOR SEAFOOD SECTOR: EVIDENCE OF CONSUMER PREFERENCES IN THE SALMON INDUSTRY

Morteza Haghiri, Department of Business and Economics, Memorial University

10h45 VALIDATION TOOLS FOR TRACEABILITY

Begoña Pérez-Villarreal, Business Director – Food Research Division. AZTI-Tecnalia (Spain)

11h15 TRACEABILITY IN A CHANGING WORLD

Erling P. Larsen, National Institute of Aquatic Resources. Lyngby (Denmark)

Conference Program
**CONCURRENT
SESSION #3**
Midway Ballroom

JUNE 2 – MORNING

DATA AND DATABASE MANAGEMENT

SESSION CHAIR: Pascal Lemire, Holstein Canada

10h15 TRACEABILITY OF LIVING ANIMALS AND THEIR PRODUCTS AT THE EUROPEAN UNION LEVEL

Didier Carton, European Community, TRAdE Control and Expert System (TRACES)

10h45 THE CHALLENGES OF TRACEABILITY: AUTOMATION!

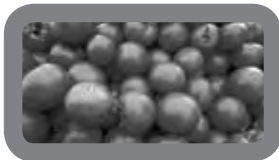
Mélissa Lalonde, Agri-Traçabilité International

11h15 BRIDGING THE TRACEABILITY R&D GAP: AN ONTARIO SOLUTION

Brian Sterling, OnTrace Agri-food Traceability



> **Guest speaker: Christiane Deslauriers**, Director General, Science Policy and Planning, Agriculture and Agri-Food Canada



Conference Program
**CONCURRENT
SESSION #4**
West Ballroom

JUNE 2 – AFTERNOON

**TRACEABILITY AND
FOOD SAFETY**

SESSION CHAIR: Wayne Lees, Manitoba Agriculture, Food and Rural Initiatives

13h00 FOOD SAFETY – RECALL IMMUNITY AND THE TRACEABILITY FIX

Rick Holley, Department of Food Science, University of Manitoba

13h30 A NEW WAY OF COMMUNICATING PRODUCT RECALL INFORMATION

Tim White, GS1 Canada

14h00 FOOD TRACEABILITY INTEGRATION WITH FOOD SAFETY

Inteaz Alli, Department of Food Science, McGill University

14h30 ADVANCES IN TRACEABILITY SYSTEMS; THE INTEGRATION OF SUPPLY CHAIN LOGISTICS AND QUALITY

Greg Bennet, Department of Agricultural & Biosystems Engineering, Iowa State University

15h00 BREAK > An Opportunity To See The Trade Show and Poster Session!



Conference Program
**CONCURRENT
SESSION #5**
Harrow, Essex, Canterbury

JUNE 2 – AFTERNOON

**ECONOMICS AND
MARKET ACCESS**

SESSION CHAIR: Susan Wilkinson, IBM Canada

13h00 HURDLES FACING TRACEABILITY ADOPTION FOR CANADIAN MEAT EXPORT MARKETS: PERSPECTIVES ON COMPETITIVENESS FROM AN ANIMAL HEALTH ECONOMIST

David C. Hall, Department of Ecosystem and Public Health, University of Calgary

13h30 THE BENEFITS AND COSTS OF IMPLEMENTING A NAIS-BASED ANIMAL ID AND TRACEABILITY SYSTEM IN CALIFORNIA

Leslie J. Butler, University of California, Davis

14h00 A REVIEW OF COUNTRY OF ORIGIN LABELLING IMPACT STUDIES FROM SUPPLY CHAIN EFFECTS TO TRADE FLOW EFFECTS

Derek Brewin, Agribusiness and Agricultural Economics, University of Manitoba

14h30 IMPLEMENTING FULL VALUE CHAIN PRODUCE TRACEABILITY – SIMPLY AND COST EFFECTIVELY

Andrew Kennedy, FoodLogiQ

Conference Program
**CONCURRENT
SESSION #6**
Midway Ballroom

JUNE 2 – AFTERNOON

**LIVESTOCK TRACEABILITY,
TECHNOLOGIES**

SESSION CHAIR: Brent McEwan, Alberta Agriculture and Rural
Development

- 13h00** **ALBERTA LAMB TRACEABILITY
PILOT PROJECT**
Susan Hosford, Alberta Agriculture and Rural
Development
- 13h15** **Paul Laronde**, Destron Fearing
- 13h30** **Ronan Loftus**, IdentiGEN
- 13h45** **Jake Burret**, ViewTrak Technologies
- 14h00** **Victor Darias**, HUBtechnologi
- 14h15** **Yves Gervais**, Référence Systèmes
- 14h30** **Grégory Pétrieux**, Epsilia
- 14h45** **Michael Miskin**, Merit-Trax Technologies Inc.



Conference Program
**PLENARY
SESSION**
Midway Ballroom

JUNE 2 – AFTERNOON

**RESEARCH AND DEVELOPMENT
IN SUPPORT OF TRACEABILITY
SYSTEMS: EXPERIENCES ACROSS THE
FOOD CHAIN**

SESSION CHAIR: Dan Lutz, Agriculture and Agri-Food Canada

- 15h30** **TECHNOLOGICAL VISION IN TRACEABILITY**
Mary Helander, Research Scientist, IBM
- 15h55** **LEGAL ISSUES IN TRACEABILITY**
Hina Thaker, Canadian Cattle Identification Agency
&
Tom McMahan, AAFC Legal Services
- 16h25** **BULK GRAIN EXPORTS: IS FULL TRACEABILITY
A REALISTIC GOAL?**
Ian White, CEO, Canadian Wheat Board

WRAP-UP

- 16h50** **DAY'S WRAP-UP**
Michael Trevan, Dean, Faculty of Agricultural and
Food Sciences, University of Manitoba
- 17h10** **CLOSING STATEMENT**
- 17h15 – 17h30** **RECEPTION AT THE HOTEL**

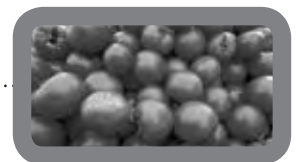


CANADIAN TRACEABILITY RESEARCH & DEVELOPMENT STRATEGY WORKSHOP

The purpose of the workshop is to appreciate and capitalize on the diverse interests of industry – users and providers, government, and academia stakeholders in forging a coordinated, targeted, and needs-driven Canadian traceability research & development strategy for the agriculture and food sectors.

THE OBJECTIVES OF THE WORKSHOP ARE:

- To identify and prioritize critical issues impacting both work in progress and prospective traceability research and development initiatives.
- To articulate a compelling vision for a 5-year Canadian Traceability Research & Development Strategy. The vision will encompass strategic outcomes and guiding principles that will channel investment of resources, effort and collaborative work across various fields of work.
- To determine the next steps in supporting collaboration, information exchange, and further development of the Strategy.
- To recognize work in progress, build on information presented at the Conference (Day 1), and harvest common ideas for a Strategy that serves the complementary interests of industry, government and the research community.



Trace R&D
**STRATEGY WORKSHOP
BREAKOUT**
Midway Ballroom

JUNE 3 – FULL DAY

8h30 SETTING THE STAGE

Eric Aubin, IGAC Traceability R & D Core Strategy Development Leadership Team
Pierre Bilodeau, Director, Bio-Industries Division, NSERC
Cindy Bishop, Facilitator/Moderator

9h10 PERSPECTIVES ON TRACEABILITY R&D – panel discussion

Workshop participants will gain a broad appreciation of the needs and interests of stakeholders as individual panel members, representing various stakeholder groups, tell their story. These presentations will set the stage for strategic “big picture” thinking and further discussion at the Workshop.

User – Betty L. Green, Cattle Producer from Manitoba
Funding Agency – Andrew Watt, Ontario Ministry of Agriculture, Food and Rural Affairs
Researcher – David C. Hall, University of Calgary
Product, Service Provider – Jake Burlet, ViewTrak
Communication, Extension Agent – Linda Marchand, Agri-Traçabilité Québec

10h15 BREAK

10h30 PANELISTS QUESTIONS & ANSWERS

11h00 CRITICAL ISSUES – TRAVERSE FIELDS OF WORK AND STAKEHOLDER INTERESTS

12h00 LUNCH

“From the Farm and into the Fryer: An Industry Perspective on Traceability Demands”

Phillip Huff, Manager of Quality Assurance, Richardson Oilseed Ltd.

13h00 A COMPELLING VISION: CANADIAN TRACEABILITY R & D STRATEGY

14h30 BREAK

15h00 A COMPELLING VISION... CONTINUED

15h30 REACHING A TRACEABILITY R & D APEX

16h00 NSERC – STRATEGY DEVELOPMENT PROGRAM SUPPORT

Doris Braslins, Bio-Industries Division, NSERC

16h15 MOVING FORWARD

Karin Wittenberg, University of Manitoba, Committee Chair

16h30 STRATEGIC JOURNEY END



Trace R&D POSTER SESSION

Trace R&D 001

ADVANCES IN TRACEABILITY SYSTEMS: THE INTEGRATION OF SUPPLY CHAIN LOGISTICS AND QUALITY

Greg Bennett, Iowa State University

Email: gsbennet@iastate.edu

I work in advanced agricultural traceability systems at Iowa State University; this involves the integration of already established industry systems such as supply chain logistics with quality control systems. The benefit—improved economic efficiencies in quality and profit, and reduced exposure to liabilities from process batch rejections to product recall. At present I'm working on tying ISO 22000 HACCP, ISO 22005 traceability, and the draft ISO 22006 quality standards together for selected supply chain participants for the benefit of increasing the sale of US product to overseas markets. My presentation and poster help illustrate our work towards improved traceability.

Trace R&D 002

USE OF NEAR-INFRARED AND RAMAN SPECTROSCOPY FOR QUICK TRACING OF FOOD MATERIAL ORIGINS AND DETECTION OF CONTAMINATION

Wenbo Wang and Jitendra Paliwal, University of Manitoba

Email: J_Paliwal@UManitoba.ca

Processing, handling, and shipping of raw and processed agricultural products need to happen very swiftly and efficiently in today's industry. This makes quick and accurate tracing of food movement a demanding task. The raw food materials and processed products have different spectral signatures due to a difference in their chemical compositions. The compositional variance is attributed the origins of raw material, additives, production batch, contamination, adulteration, and spoilage. These minute spectral differences could be detected using near-infrared and Raman spectroscopy and distinguished using chemometrics. With proper calibration of spectroscopic methods, fast and accurate tracking of food movement and distribution is possible. The paper explores the application of spectroscopic techniques for tracing food movements and detecting contamination hazards.

Trace R&D 003

TRACEABILITY INFORMATION MANAGEMENT SYSTEMS (TIMS)

Andrew Watt, Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)

Email: andrew.watt@ontario.ca

This project was a study of Traceability Information Management Systems (TIMS) among Producers and Vendors of Oilseeds and Tree fruit in the province. TIMS comprise elements that can include hardware, software or any infrastructure related to collecting, storing and transferring traceability data electronically either up or down the value chain. Findings included a needs analysis for the respective sectors to allow for the adoption of traceability systems, an evaluation of 15 TIMS software applications and a costs and benefit assessment of selected systems.

Trace R&D 004

TRACEABILITY GAP ANALYSIS

Andrew Watt, Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)

Email: andrew.watt@ontario.ca

The objective of this project was to determine the gaps to implementing facility-level traceability systems that will collect, keep and share traceability information along the Agri-Food value chain in accordance with CanTrace Data Standards. Gaps were analyzed and presented in 8 separate categories including:

Horticulture / Field Crops / Livestock – Commingling Facilities / Livestock Individual ID / Livestock – Group ID / Processing; Livestock and Crop Transportation / Other Crops.

Trace R&D 005

TRACEABILITY PILOT PROJECT – FACILITY PROFILE: CEDAR BEACH ACRES

Andrew Watt, Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)

Email: andrew.watt@ontario.ca

The objective of this project was to implement a traceability solution for a greenhouse and pack-house operation. The poster provides a high-level outline of the system components that allowed Cedar Beach Acres to enhance traceability by labeling each carton of produce and linking their system to their distribution centre. The poster also summarizes the most significant benefits Cedar Beach has realized from the system.

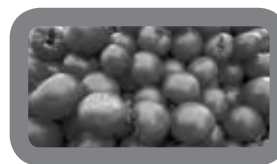
Trace R&D 006

TRACEABILITY PILOT PROJECT – FACILITY PROFILE: BEAR CREEK FARMS

Andrew Watt, Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)

Email: andrew.watt@ontario.ca

The objective of this project was to establish a technology-based facility-level traceability solution for this small cow-calf to finishing operation. The poster provides a high-level outline of the system components that allow Bear Creek to have full traceability of their animals from the time of birth through to the cuts of beef they receive back from the abattoir. The poster also summarizes the most significant benefits Bear Creek has realized from implementing the system.



Trace R&D 007

TRACEABILITY PILOT PROJECT – FACILITY PROFILE: BRENN-B FARM

Andrew Watt, Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)

Email: andrew.watt@ontario.ca

The objective of this project was to implement a comprehensive facility-level traceability system for this potato grower and packer. The poster provides a high-level outline of the system components that allow Brenn-B to have traceability of each bag of potatoes all the way back to the field and harvest date and even back to the seed potato lot number. The poster also summarizes the most significant benefits Brenn-B has realized from implementing the system.

Trace R&D 008

GALLAGHER SMART TSI. TRACEABILITY SOLUTIONS:

TRUSTED WORLDWIDE

Scott Cumming, Gallagher Canada

Email: scotto@gallagher.ca

Gallagher provides equipment to assist in the data collection for a full traceability system. This equipment is rugged and farm-ready for all types of environments and allows easy access to the information for both viewing and sending to other organizations.

Trace R&D 009

COLLECTION PRESERVATION OF DNA (C-POD)

Ron Liscombe, DNA Ident Inc

Email: info@dnaident.com

For those involved with disease surveillance and pathogen detection, we will illustrate a newly developed rapid method to collect samples from poultry/livestock at the field site and show its integration with DNA-based platforms at the laboratory level.

By definition the C-POD is a sampling container & procedure for the collection and preservation of DNA specimens (patent pending). The C-POD is being positioned as a universal DNA collection device that accommodates DNA capture from many sources, i.e. buccal swabs, blood stain, hair root, meat tissue, dried fluid spot, animal ear tag, etc. Its inherent specimen storage compartment houses a chemical gel pack that stabilizes and preserves genetic material at point of sampling prior to laboratory testing. The DNA isolation chemicals are formulated for long term (in-situ) biological specimen storage at room temperature. The formulation is proprietary to Trent University and the Natural Resources DNA Profiling & Forensic Centre (NRDPFC). The casing is designed to fully integrate with automated laboratory systems thus contributing to increased efficiency levels of high throughput genotyping platforms. It utilizes an interchangeable embedded RFID read/write data chip or bar code (application dependent) to capture and track specimen information thus eliminating manual data input and associated error.

Trace R&D 010

INACTIVATION OF *MYCOBACTERIUM AVIUM* SPP. *PARATUBERCULOSIS* (CAUSATIVE AGENT OF JOHNE'S DISEASE) BY DEAD-STOCK COMPOSTING

Victoria Tkachuk, University of Manitoba

Email: umtkach2@cc.umanitoba.ca.

Johne's disease is a chronic wasting disease in cattle caused by the bacterium *Mycobacterium avium* subspecies *paratuberculosis* (MAP). On farm dead-stock composting of animals with Johne's disease has been suggested as a low cost means to inactivate MAP. This study investigates the survival of MAP in Johne's infected tissue in compost piles initiated at subzero temperatures in Manitoba.



TRADE SHOW EXHIBITORS



Agri-Traceability International

Stand number: (1)
Contact name: Linda Marchand
E-mail: lmarchand@agri-tracabilite.qc.ca
Web: www.agri-trace.org

Agri-trace™, a solution adapted by Agri-Traceability International, offers an all-inclusive package solution, including the entire range of products and services needed to implement, manage and maintain either a complete or a modular system for permanent identification and traceability of agri-food products.



Allflex

Stand number: (12)
Contact name: Glenn Fischer
E-mail: gfischer@allflexusa.com
Web: www.allflexusa.com

Allflex is the world leader in design, technology, manufacturing and delivery of animal identification for traceability systems across all production. We bring cutting-edge, practical applications of visual, electronic and radio frequency animal identification technology to livestock industries across the world, contributing to a safer global food supply.



BCS

Stand number: (6)
Contact name: Job Beekhuis
E-mail: job@ovotrack.nl
Web: www.ovotrack.nl

OVOTRACK is a full traceability system for egg grading centres and egg processing companies. OVOTRACK consists of hardware components as well as several software modules. Communication with specific hardware on the work floor like grading machines as well as with existing ERP systems is a crucial part of the solution. The solution has been installed at 25 egg grading centres in Europe so far. OVOTRACK not only offers traceability but also full stock control and an integrated labelling solution which offers huge benefits to egg graders and processors.



CIMS Industries

Stand number: (5)
Contact name: Bob Hayre
E-mail: bhayre@cimsindustries.com
Web: www.cimsindustries.com

Description: CIMS builds wireless backbone for 2.5/5.8 Gigahertz networks in rugged, industrial locations – worldwide. We sell brand-name handheld computers that improve business processes in those networks. Our software developers and systems analysts integrate specially designed solutions into those systems at the customer's request. Very often these systems are solutions to problems involving product tracking and inventory control.



Compass Animal Health

Stand number: (7)
Contact name: Shane Menzak
E-mail: smenzak@compass-ah.com
Web: www.compass-ah.com

Compass Animal Health's range of products include RFID and visual identification tags, RFID tag readers and assorted antennae, general farm hardware, veterinary pharmaceuticals, as well as a wide range of animal health supplies. We also provide the installation and associated maintenance of the RFID reading solutions that we supply.

Compass Animal Health is a leading distributor of animal health supplies and veterinary pharmaceuticals based in Edmonton, Alberta. We have a long history of putting our customers first and in working with them to find practical solutions for their individual requirements. Compass Animal Health has a positive reputation in the RFID industry providing both high quality RFID tags as well as reading systems across Canada.



Destron Fearing

Stand number: (13)
Contact name: Paul Laronde
E-mail: laronde@golden.net
Web: www.destronfearing.com/

Destron Fearing products include e.Tag transponders, readers, scanners, antennae and associated equipment which is used in the building and customization of commercial RFID reading and scanning systems for fish and livestock. Destron Fearing, based in South St. Paul, Minnesota, has been a leading developer and manufacturer of visual and electronic animal identification solutions since 1945. A pioneer in the development of miniaturized microchip technology in the 1980s, Destron Fearing provides radio frequency identification (RFID) solutions for numerous species of livestock, wildlife, fish, and companion animals.



Epsilia

Stand number: (3)
Contact name: Grégory Pétieux
E-mail: gpetrieux@epsilia.com
Web: www.epsilia.com

Epsilia provides a traceability solution, tracks in real time, before as well as after, from raw materials to finished products throughout the logistic chain. The solution is a succession of multi-purpose, flexible, and easy-to-use modules which retrieve in real time precise data from leading edge equipment to ensure an automated identification and an optimal data acquisition process. The information collected along the chain is stored and compiled in a very powerful database. One of the major strengths of the solution is its capacity to trace the detailed history of resources used (material and human), conditions (temperature, duration, humidity, etc.), and events (inspection, etc.) giving access to highly precise information.

**EIDAP**

Stand number: (8)
 Contact name: John Vrolijk
 E-mail: john@eidap.com
 Web: www.eidap.com

Eidap Inc. has been established to respond to the ELECTRONIC IDENTIFICATION market in all those areas that may need to avail themselves to this technology. Eidap Inc. responds to those needs using unique TROVAN® transponders, flexible AEG-ID transponders, state-of-the-art readers, and the EIDAP REGISTRY.

**FoodLogiq**

Stand number: (16)
 Contact name: Kerry Farrell
 E-mail: kfarrell@foodlogiq.com
 Web: www.foodlogiq.com

FoodLogiq provides traceability solutions for growers/producers, packers, shippers through to retailers for animal, item, case and pallet level traceability. FoodLogiq provides farm of origin to item labelling solutions leveraging GS1 standards. Farm to fork traceability is enabled using industry standard barcodes and RFID with off-the-shelf label printing equipment or pre-printed labels. Consumers are able to leverage text code messaging directly from their mobile devices to learn more about brands, production practices, and nutritional information there-by increasing their confidence in the food supply.

**Fort Supply Technologies**

Stand number: (10)
 Contact name: Malcolm Harvey
 E-mail: malcolm@fort-supply.com
 Web: www.fort-supply.com

Fort Supply Technologies introduces FaST: TRACE, EID, BRAND and TRACK. These field proven tools provide unprecedented value for managing and tracking livestock. Electronic data collection is now easy for CLTS compliance, animal research, veterinary sample and semen collection. FaST products are featured on the truly rugged hand held PC ARCHER.

**Growing Forward** (Initiative name)

Stand number: (9)
 Contact name: Nilos Korodimas
 E-mail: Nilos.Korodimas@agr.gc.ca
 Web: www.agr.gc.ca

Description: Under the new national agricultural policy framework known as Growing Forward, federal, provincial, and territorial agriculture ministers have committed to phasing-in a National Agriculture and Food Traceability System (NAFTS), beginning with livestock and poultry.

**HUBtechnologi Inc.**

Stand number: (4)
 Contact name: Victor M. Darias
 E-mail: victor.darias@hubtechnologi.com
 Web: www.hubtechnologi.com

HUBtechnologi is a Canadian enterprise mobility systems and Wireless BroadBand Network intergrator, incorporating mobile computing devices, wireless infrastructure and mobile applications. We help drive corporate bottom lines by exploiting the power of mobile technology to improve operations and earnings.

**Merit-Trax Technologies Inc.**

Stand number: (14)
 Contact name: Michael Miskin
 E-mail: mmiskin@merit-trax.com
 Web: www.merit-trax.com

Merit-Trax Technologies is an IBM Business Partner and a Microsoft Certified Partner for ISV Software solutions that specializes in developing traceability solutions for the food industry supply chain, including producers, slaughterhouses, packers, warehouses and distributors.

Pacific Ag Consulting**Pacific Ag Consulting**

Stand number: (11)
 Contact name: Yancy Crosier
 E-mail: pacificag@telus.net

Livestock Exchange Pty Ltd (LE) is a privately owned and operated Australian company with headquarters in Brisbane Australia that has recently established a subsidiary company in Canada called Integrated Traceability Solutions (ITS). ITS has acquired the staff, business operations and resources of Pacific Ag Consulting and Champion Traceability. These businesses where based near Calgary in Alberta, Canada, providing traceability solutions to auction markets, dealers, producers and feedlots within the Canadian Livestock Industry.

**Référence Systèmes Inc.**

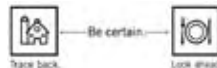
Stand number: (2)
 Contact name: Gaston Hains
 E-mail: ghains@reference.qc.ca
 Web: www.fastauctionsoftware.com

Specialization in traceability for the livestock industry. Introducing the Fast Auction Software for managing a complete livestock auction based on the permanent identification and traceability of agricultural products.

Founded in 1996, the head office is in Québec city which excels in the field of high technologies with one of the highest concentrations of research and technology transfer in Canada. Our online services can assist our customers in all fields worldwide. Our worldwide business partnership also allows us to provide services on site within hours. Our solutions are proven and guaranteed.

**ViewTrak**

Stand number: (15)
 Contact name: Jake Burlet
 E-mail: jburlet@viewtrak.com
 Web: www.viewtrak.com



Viewtrak Provides Innovative Solutions for Capturing and Creating Value for the Food Supply Chain. Viewtrak's suite of products provide value to cow-calf producers, feedyards, auction markets, packing plants and retail branded beef programs. Value is captured by improving production practices and gaining efficiencies. Value is created by product differentiation and new market opportunities.

Trace R&D

SPEAKER BIOGRAPHIES

Inteaz Alli, McGill University

Inteaz Alli is Professor of Food Quality Assurance, Food Analysis and Food Traceability at McGill University. He has directed research projects of 40 graduate student theses (15 Ph.D., 25 M.Sc.) mainly in the areas of isolation and characterization of food proteins and food quality, has published more than 110 research papers in refereed journals and has two patents. He is a Fellow of the American Society for Quality.

Eric Aubin, Canadian Food Inspection Agency

Eric Aubin obtained his bachelor degree in soil science at the Macdonald Campus of McGill University (Montréal) in 1989. After completing a Diploma in Groundwater Contamination and Waste Management, he obtained his Master degree in 1994. He worked as a research assistant at the Soil Science and Agricultural Engineering Department of the Université Laval (1994-97). He was then employed as an agricultural policy analyst in the fields of environment, animal health and traceability with the Union des producteurs agricoles (1999) and with the Canadian Pork Council (1999-2004). Since July 2004, he occupies the position of Regulatory Principle Officer for livestock traceability programs with the Canadian Food Inspection Agency.

Greg Bennet, Iowa State University

Greg is a post-doctoral associate at the Iowa Grain Quality Initiative working on grain focused traceability systems (ISO 22000 & 22005 based). His MBA and Ag Business History degrees have benefited from his military career experience, especially towards the research and design of practical approaches for improving traceability in agriculture.

Pierre Bilodeau, Natural Science and Engineering Research Council (NSERC)

Dr. Bilodeau joined the Bio-industry division at NSERC at the beginning of May 2008. His main responsibilities are to develop, establish, deliver, and promote policies and programs, and provide operational and analytical framework to promote research, training, and public-private collaborations in Natural Sciences and Engineering in Canada. His portfolio covers a wide range of industry sectors including biotech, pharma, medical devices, biomedical technologies, agriculture, novel food and bioproducts, fisheries and aquaculture. Dr. Bilodeau sits on many national committees related to bioproducts such as the NRC-AAFC-NRCan National Bioproduct Program Advisory Committee, and the Canadian Biomass Innovation Network Executive Committee. Prior to this, he was Director, Scholarships and Fellowships at NSERC where he managed all of NSERC scholarships programs from undergraduate to postdoctoral levels in both academia and industry.

Cindy Bishop, Alberta Agriculture and Rural Development

Cindy Bishop is involved in the creation of high-performing teams, partnerships, and organizations that support the growth and expansion of agri-based business and industry.

In 2006, Cindy assumed the role of Process Lead – Industry Involvement and Strategic Management for her Ministry's work in establishing Alberta's Agriculture Traceability Systems. In the time since, she has contributed her process design and facilitation skills to the Federal Provincial Territorial Traceability Task Team crafting the NAFTS (National Agriculture and Food Traceability System). She has also lent her expertise to the IGAC (Industry Government Advisory Committee) Management and Working Groups concerned with livestock and poultry traceability.

In addition to her work with Traceability, Cindy is involved with the Food and Health Innovation initiative in ARD, making "Good for Health, Healthy for Business" food-health connection through research, policy, accessibility, and commercialization.

Andreas Boecker, University of Guelph

Dr. Andreas Boecker obtained his MSc and PhD in agricultural economics at Kiel University, Germany. In 2005, Andreas joined the Department of Food, Agricultural and Resource Economics at the University of Guelph as Assistant Professor. His research interests are traceability in the food system and consumers' perceptions of food-borne risks. He teaches Food and Agricultural Marketing Management and Marketing Research and Analysis.

Doris Braslins, Natural Science and Engineering Research Council (NSERC)

Derek Brewin, University of Manitoba

Derek Brewin has years of experience in applied economic analysis, but his most recent research focus has been the on spatial problems in agricultural markets. The topics of his most recent research include: rural development, the effect of processor location in oilseed pricing, and state trading effects on international trade.

Jake Burlet, ViewTrak

Dr. Burlet is an agribusiness entrepreneur with broad experience in the livestock industry. Having been raised on a cattle ranch west of Edmonton and having worked as a practicing food animal veterinarian, Dr. Burlet has an in-depth understanding agribusiness from a production and animal health management perspective. Dr. Burlet has served in an executive capacity for a number of industry professional organizations, has sat on the advisory boards of two multi-national veterinary pharmaceutical companies, is a Chairman of the Board of Trustees for the University of Alberta Hospital Foundation and serves on the Board of Directors for three privately held Canadian corporations. Dr. Burlet is an alumnus of the Western College of Veterinary Medicine, University of Saskatchewan and has post graduate training in animal nutrition and herd management from the Ontario Veterinary College, University of Guelph. He also holds a Masters of Business Administration degree from the Richard Ivey School of Business, University of Western Ontario.

Leslie J. Butler, University of California, Davis

Leslie Butler is a dairy marketing and policy analyst in the Department of Agricultural & Resource Economics at the University of California-Davis. Butler earned his B.S. degree at Lincoln College, University of Canterbury, New Zealand. He also holds a M.S. in Agricultural Economics from Reading University, England, and a Ph.D. in Agricultural Economics from Michigan State University.

Didier Carton, TRACES

Doctor of veterinary medicine (Lyon '85), law degree (Aix en Provence '93) Former director of veterinary services and plant protection for New Caledonia (1988-2002)

New Caledonia delegate to the World Organization for Animal Health;

Secretary General of the World Organization for Animal Health for Asia, Oceania and the Far East (1991- 2002);

TRACES area manager within DG SANCO of the European Commission (2002-2009) (TRACES implementation in Europe and internationally).

Victor Darias, HUBtechnologi

As President and founder of HUBtechnologi Inc., Victor has been a successful business development specialist with 20+ years of proven success securing multi-million dollar contracts in the international IT and telecommunications industry. Deploying Network Infrastructures as well as developing traceability solutions that capture information via RFID and Bar Codes.

Victor spent several years in the Middle East working in National Defense Projects and as General Manager for Federal Express in Saudi Arabia. Prior returning to Canada the past 10 years were in Australia working for organizations such as Cisco System Asia Pacific as Director for the telecommunication industry and as a National Sales Manager for Telstra in the banking and finance industry.

HUBtechnologi vision is to help drive corporate bottom lines by exploiting the power

of mobile technology to improve operations and earnings. Our growing expertise has become recognised as a catalyst for businesses practice in this arena.

Christiane Deslauriers, Agriculture and Agri-Food Canada

Christiane Deslauriers' training and interests are in plant breeding and biotechnology. She has worked within Agriculture and Agri-Food Canada (AAFC) in regulatory, scientific research and management roles. In recent years, she has focused on the bioeconomy and on research policy and planning. She has been responsible for AAFC's Charlottetown and Saskatoon Research Centres, and worked within a collaborative agreement between the University of Prince Edward Island, the National Research Council's Institute for Nutrisciences and Health and AAFC, developing more effective models for the delivery of cross-cutting multi-disciplinary research. Dr Deslauriers is currently AAFC's Director General, Science Policy and Planning in Ottawa.

Patricia L. Farnese, University of Saskatchewan

Professor Farnese is an Assistant Professor of Law at the University of Saskatchewan. She is also a faculty member with the Indigenous Peoples Resource Management Program. Professor Farnese completed graduate work at the University of Arkansas in the area of Agricultural Law and her current research activities include on-farm liability and risk, wetland policy, obesity and animal health. Prior to doing graduate work, Professor Farnese clerked with the Saskatchewan Court of Appeal and was admitted to the bar in 2002.

Yves Gervais, Référence Systèmes

Mr. Gervais is senior software developer and consultant for the firm Référence Systèmes Inc., of which he is co-founder. He concurrently performs the duties of development services director and vice president.

For over 20 years, his work has enabled him to meet significant challenges for various private, public and semi-public organizations. In addition to being leader of the development team which has developed and operationalized various systems, particularly production management and complete management of major labour organizations,

More recently, he led the team that engineered the FAST AUCTION system, which is installed in all animal auctions in Quebec. This system permits the automated processing of the sale of animals from their arrival until their departure from the auction. This system integrates the management of all functions of the sale as well as the traceability functions required for Quebec.

Ellen Goddard, University of Alberta

Ellen Goddard is Cooperative Chair in Agricultural Marketing and Business, University of Alberta. She came to Alberta from a position as National Australia Bank Professor of Agribusiness and Associate Dean, Coursework, at the Institute of Land and Food Resources, the University of Melbourne. Prior to that Australian appointment Ellen Goddard worked in the Department of Agricultural Economics at the University of Guelph. Over the past 20 years Professor Goddard's research has been focused on economic modeling of domestic and international commodity sectors for policy analysis purposes, including assessment of the effectiveness of investment in advertising. Current research includes various aspects of food marketing including consumer response to food safety incidents, consumer interest in labels, demand for credence attributes and certification. She also currently leads a national policy research network for Agriculture and Agri-food Canada in Consumer and Market Demand for Food and a major socio-economic research program examining the examining the impact of BSE on Canada.

Betty L. Green, Cattle Producer from Manitoba

Morteza Haghiri, Memorial University

Dr. Haghiri has joined the Memorial University in Corner Brook as Assistant Professor of Economics since July 2006. He graduated from the Department of Bioresource Policy, Business, and Economics at the University of Saskatchewan in 2003. From 2003 to 2006 Dr. Haghiri was full-time faculty member of the Economics Department

at Mount Allison University. He has a B.Sc. and M.Sc. from the Department of Agricultural Economics, University of Tehran, Iran. Dr. Haghiri has presented more than 40 papers in different conferences in Canada and international countries including Brazil, Iran, Italy, Malaysia, New Zealand, Switzerland, and the United States. As date, he published over 20 papers in academic journals, conference proceedings, and working papers. Dr. Haghiri has served as referee in several journals including Applied Economics, Journal of Food Distribution Research, International Journal of the World Universities Forum, and Canadian Journal of Agricultural Economics.

David C. Hall, University of Calgary

Dr. Hall is a veterinarian with a PhD in agricultural economics, specializing in animal health economics, policy, and international development. He has extensive experience working in livestock development and animal health in Asia and Africa. His research includes economics of prion diseases and livestock markets in developing countries.

Mary Helander, IBM

Dr. Mary Helander is a Math Scientist with the Business Analytics and Mathematical Science Department at IBM's T.J. Watson Research Center, and is the Research Division leader for the Consumer Products Industry. Mary's current research focus involves sustainable supply chain management, and she recently took on the role of exploring risk management research in safety and security within consumer product supply chains. Mary has more than 20 years of combined industry and academic experience in supply chain management, operations research, optimal network and transportation planning and software engineering. Prior to joining IBM Research in 2003, Mary led the Supply Chain Transportation System Management group for IBM's Business Innovation Services. She has led and participated in over 20 client projects related to design and implementation of supply chain management solutions, using both package and custom approaches, spanning industrial, distribution, public and communications sectors. Prior to work at IBM, Mary was the Director of the Applied Software Engineering Lab at Linköping University in Sweden, where she was a faculty member of the Computer and Information Science Department and a Research Fellow with the Department of Mechanical Engineering / Quality Technology. Her publications include articles appearing in: IEEE Transactions on Software Engineering, Networks, Transportation Science, Software Quality Journal, Empirical Software Engineering, and Computers and Industrial Engineering.

Jill E. Hobbs, University of Saskatchewan

Jill Hobbs is a Professor and Head of the Department of Bioresource Policy, Business and Economics (formerly the Department of Agricultural Economics) at the University of Saskatchewan, a position which she has held since 2006. Prior to joining the University of Saskatchewan in 1999 as an Assistant Professor, Dr. Hobbs held academic appointments in the UK and at Mount Royal College (Calgary). Professor Hobbs holds a PhD in agricultural economics from the University of Aberdeen in Scotland. Her recent research focuses on supply chain and food economics, including: analyses of supply chain relationships in the agri-food sector, the economics of food safety, quality assurance and traceability, consumer attitudes toward food quality attributes, and assessments of the regulatory and business environment for functional foods.

Rick Holley, University of Manitoba

Rick Holley is currently Professor Food Microbiology and Food Safety, Department of Food Science, University of Manitoba. He has published over 150 papers in peer reviewed journals, a book and book chapters. Research interests include microbial ecology of meats, use of natural antimicrobials in food, and zoonotic pathogens in animals and the environment. He is a former head of the Department of Food Science and chair of the Canada Committee on Food. He is presently chair of the International Standards Organization Technical Committee 34 for Food and Agriculture in Canada and is a member of NSERC, CRC and Killam Foundation Research committees in Canada. He is a Fellow of the Canadian Institute of Food Science and Technology and recently received awards for research accomplishments from the CIFST, the Canadian Meat Council and the University of Manitoba.

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SPEAKER BIOGRAPHIES continued

Susan Hosford, Alberta Agriculture and Rural Development

Alberta Agriculture 1984 to 2009. Sheep program management: Building Better Lambs, Lakeland Carcass Sire Project, Lamb Traceability Pilot Production extension, business development, committees: National and Provincial BSE programs, On-Farm Food Safety National Advisory Committee, Provincial OFFS Pilot manager, WCFHP Advisory Committee, Western Suffolk Sire Reference Program, etc.

Phillip Huff, Richardson Oilseed Ltd.

I have been conducting research and working in the area of Fats & Oils since 1995. I completed my Bachelor's degree in Lipid Biochemistry in 1998 from the University of Lethbridge after which I conducted research on transgenic canola for 2 years at the University of Lethbridge. I then traveled to Germany to conduct my Masters in Lipid Biochemistry, working on the proteomic aspects of fat development in cattle, which I completed in 2003. I taught biochemistry at the U of Lethbridge after my masters degree. In 2004 I moved to Los Angeles, California to work at the Burns & Allen Research Institute at Cedars-Sinai Medical Center. At Cedars I conducted tissue reconstruction research focused on wound healing after an injury to skin. I returned to Lethbridge to begin working at Richardson Oilseed Ltd (formerly Canbra Foods Ltd) in the research and development department followed by me taking over the Quality Assurance manager role.

Andrew Kennedy, FoodLogIQ

Mr. Andrew Kennedy has developed and implemented world-class business systems for Fortune 500 manufacturing companies, utilities, telecoms, state governments and for his family's in-vitro diagnostic company, Diba Industries, (sold to Halma Holdings, LSE:HLMA). Mr. Kennedy serves as a board advisor to Issuer Direct (OTC:ISDR) and is the Vice-Chair of the National Institute for Animal Agriculture. Andy is a frequent speaker at events including the Deep South Fruit and Vegetable Conference and the North American Strawberry Growers Association. Andy also serves as a working team chair for the Center for Environmental Systems Committee on Building a Sustainable Local Food Economy in North Carolina: From Farm-to-Fork.

Mélissa Lalonde, Agri-Traçabilité International

Mélissa Lalonde, an agronomist also holding a master's degree in project management, has over eight years of experience in the agricultural and environmental field, including four years in project management. Mrs Lalonde ensures the management and methodological approach of internal and external projects with Agri-Traçabilité International (ATI). Highly structured and organized, she makes sure that ATI's projects are carried out with the utmost efficiency and quality. As an international Project Manager, Ms. Lalonde is also called upon regularly to present Quebec's vision on food safety to Canadian, American and international decision makers.

Paul Laronde, Destron Fearing

Paul Laronde is a consultant, specializing in the sales and technical aspects of animal identification, RFID and traceability. Paul has over 15 years experience in the field of livestock identification and implementing RFID for animals. Previously, Paul worked for two of the largest livestock identification distributors in Canada, as well as the two major livestock identification manufacturers. Before becoming a consultant, Paul served as the Livestock Traceability Coordinator for the Ontario Ministry of Agriculture and Food.

Erling P. Larsen, National Institute of Aquatic Resources

Mr Erling Larsen, DTU Aqua, has considerable experience in management of research projects, industrial application projects, and demonstration activities and in dissemination information both to the fish sector and to the consumers. He has just finished coordinating the activity "Seafood traceability to ensure consumer confidence" in the EU funded SEAFOODplus IP project www.SEAFOODplus.org

Ronan Loftus, IdentiGEN

Dr. Ronan Loftus is a co-founder of IdentiGEN Ltd with more than 15 years' experience in the agri-biotech sector. In his role with IdentiGEN he has focused on the development and commercialisation of DNA based traceability systems in the meat chain and has overseen the deployment of this technology in a number of countries.

Linda Marchand, Agri-Traçabilité Québec

Born in Trois-Rivières, Québec, Linda Marchand has always been interested in business administration. In 1988, she worked at the establishment of an electronic sale system for Quebec's swine industry, to become later on, the auction's sale site general manager at the Fédération des producteurs de porcs du Québec.

Her experience of more than 20 years in the agri-food industry, added to her double master's degrees in business administration from the Université du Québec à Montréal and the Université Dauphine de Paris, allowed her to become the general manager of Agri-Traçabilité Québec. She was actively involved in the creation and growth of the organization, whose mission is to see to the development, establishment and operation of a permanent identification and traceability system for agricultural products, for both animal and crop productions.

Working actively at managing operations, Ms. Marchand is also called upon regularly to present Quebec's vision on food safety to Canadian, American and international decision makers.

Tom McMahon, Agriculture and Agri-Food Canada

Tom McMahon is Senior Counsel, Department of Justice Canada. Tom is part of the Department of Justice Canada Legal Services Unit that is assigned exclusively to the Department of Agriculture and Agri-Food Canada (AAFC). AAFC and the Canadian Food Inspection Agency, and the Legal Services Units for AAFC and CFIA, work very closely together on issues relating to traceability. Tom is the lead lawyer within AAFC Legal Services for providing legal advice in relation to traceability, privacy and access to information issues. Tom has worked with the Department of Justice Canada in various capacities since 1992, including within the Department's Information Law and Privacy Section. Tom has a B.A. and LL.B. from the University of Manitoba, an LL.M. from the University of Ottawa, and was called to Manitoba Bar in 1986.

Susie Miller, Agriculture and Agri-Food Canada

Susie Miller is a Director General, Food Value Chain Bureau in Agriculture and Agri-Food Canada, and has the responsibility for working with the Canadian agriculture and food industry on issues of marketing, competitiveness and industry development. She is the lead for the Canadian government in working with industry and other levels of governments to develop and implement traceability systems, starting with livestock and poultry. Ms. Miller has worked in the agriculture field for over 30 years, mainly for government, but also for industry associations. She has a Master of Science in Agriculture from the University of Guelph, Canada.

Michael Misikin, Merit-Trax Technologies Inc.

Michael Misikin has more than 10 years of experience in the implementation of traceability solutions. He was instrumental in the development of the traceability system at Atlantic Beef Products and is currently working on traceability solutions for the Ontario Veal Association and the Ontario Corn Fed Beef Program.



Leonard J. Penner, Cargill Limited

Len Penner was appointed President of Cargill Limited, one of Canada's leading agricultural companies, in December 2005. He is also President and Business Unit Leader of Cargill AgHorizons Canada, which consists of Cargill's businesses focused on serving crop-producing farmers in Canada. Through a network of farm service centers, these businesses provide grain-handling services, risk management tools and crop input products and services to Canadian farmers. Mr. Penner joined Cargill in 1975 and held sales, sales management, and general management positions in the seed business. He has held various management positions within the Commodity Marketing Division prior to being appointed to his current position. Currently Mr. Penner serves as a Director of Grain Insurance and Guarantee Company. He is a member of the Business Council of Manitoba and the Canadian Council for Chief Executives.

Begoña Pérez-Villarreal, AZTI-Technalia (Spain)

Begoña Pérez-Villarreal is the Director of Business of the Food Research Division of AZTI. She has been the project leader of more than 80 national and international projects, has 50 publications within Food Technology and is co-author of five new food product patents. She is a member of the board of the Spanish Food Microbiology Society and of different other societies and committees (AENOR, FEDIT). Further, she is an advisor and evaluator for several councils and administrations for strategic and R&D plans for the food sector. She has been involved in R&D&I activities and technology transfer to the food industry in the last 14 years, particularly in the SME area, concerning quality issues and product development. She has been participant and management team member of several EU R&D projects dealing with Traceability issues: CA-FQLM; FAIR PL98-4174; Tracefish; GoodFood (Demonstration and Exploitation Coordinator); SEAFoodplus (Demonstration and SME involvement Coordinator) and Trace. She works in Spanish, French and English.

Grégory Pétrieux, Epsilia

Mr. Grégory Pétrieux, Vice-President, Business Development. Epsilia is a software company developing eTrace, an agri-food traceability solution that tracks in real time, from raw materials to finished products throughout the logistic chain. Mr. Pétrieux specializes in traceability solutions and productivity optimization, using RFID and Barcode technologies, for the agri-food sector, he followed several management implementations for the Epsilia's clients. M. Pétrieux is on the GS1 Traceability sub-Committee. This Committee will provide focused technology leadership, direction and expertise to help move Canadian industry to adopt global standards-based supply chain traceability for food and consumer products.

Brian Sterling, OnTrace Agri-food Traceability

Brian is Chief Executive Officer of OnTrace Agri-food Traceability, having been appointed to that position after its incorporation in 2006. He is responsible for management of all aspects of OnTrace operations and is recognized in Canada and internationally for his leadership on food traceability. Brian spent nearly twenty years in his early career with the DuPont Company, advancing through a broad range of positions in North America. Since 1996, he progressed through senior roles in management and technology consulting. Prior to joining OnTrace, he was Director of Business Development for RFID and Product Traceability at IBM Canada. In that role he became recognized as a traceability expert, helping clients understand and achieve the business benefits of traceability. Before joining IBM, Brian was Vice President/General Manager of a mid-sized engineering and technology consulting firm. It was at that time that he first developed a vision for whole-chain food traceability and led projects in the USA and Canada, including Can-Trace. During that project, he led development of a business case for whole-chain food traceability.

Hina Thaker, Canadian Cattle Identification Agency

Andrew Watt, Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)

Andrew Watt hails from Guelph, Ontario and is an alumnus of the University of Guelph with a background in microbiology. For more than 10 years, he held positions in Quality Assurance in the brewing industry, food processing and in nutraceutical manufacturing. During his 10 years in industry, he worked closely with the Canadian Food Inspection Agency, Health Canada and the United States Department of Agriculture on food inspection, food safety and bio-security initiatives. Upon joining the Ontario Ministry of Agriculture, Food and Rural Affairs in 2007, Andrew led the Food Safety Initiative – Traceability Grant Program and Traceability Pilot Project, which saw almost 200 small- to medium-sized agri-food operations implement comprehensive facility-level traceability systems. As Traceability Coordinator for Agriculture, Andrew is working closely with provincial stakeholders to raise the awareness of traceability and traceability systems. He is a provincial representative on the Federal-Provincial-Territorial Traceability Task Team and Industry Government Advisory Committee on traceability. One current area of interest in traceability includes full-chain or "value chain traceability" – the conversion of the supply chain into the value chain using traceability-based systems and principles.

Ian White, Canadian Wheat Board

Ian White became President and Chief Executive Officer of the Canadian Wheat Board on March 31, 2008. He has extensive senior management, agribusiness and commodity marketing experience, being a previous Managing Director and CEO of Qumited and Queensland Cotton's US Operations. Ian holds a Bachelor of Economics (Honours) degree from Sydney University, is a member of the Australian Society of CPAs, and is a Fellow of the Australian Institute of Company Directors. He has been a Director of a number of organizations including Queensland Sugar Limited, Cubbie Group Pty Ltd, The Queensland Competition Authority, Queensland Cotton Corporation and Defiance Milling Limited.

Tim White, GS1 Canada

Tim White is Director, Product Development for EPCglobal Canada. EPCglobal Canada is a wholly owned subsidiary of GS1 Canada, the not-for-profit, industry-led GS1 member organization promoting and maintaining global standards for the identification of goods. Tim was instrumental in architecting and implementing standards based Product Recall Portal in Canada and the United States.

David Wilkes, Canadian Council of Grocery Distributors

David Wilkes is Senior Vice President, Trade and Business Development of the Canadian Council of Grocery Distributors (CCGD). CCGD is a trade association representing the grocery and foodservice distribution industry in Canada at the national and regional levels. The food distribution industry in Canada is \$70.1 billion in retail and \$12 billion in foodservice sales. Members employ over 455,000 Canadians, and represent 85% of all grocery sales in Canada. Dave oversees CCGD's supply chain agenda. Most recently he Chaired the Canadian RFID center. An industry led group exploring the practical benefits of the emerging radio frequency technology. Prior to joining CCGD in November 1998, David was the President of the Coffee Association of Canada. Prior to that David was with the Ontario Government for six years. He served as the Executive Assistant to the Deputy Minister of Industry and Trade and was a member of the policy group advising the Premier on the Canadian/U.S. Free Trade negotiations.

Trace R&D

SPEAKER ABSTRACTS

PLENARY/OPENING SESSION

JUNE 2 MORNING

R&D IN SUPPORT OF TRACEABILITY SYSTEMS: EXPERIENCES ACROSS THE FOOD CHAIN

THE DEVELOPMENT OF A NATIONAL AGRICULTURE AND FOOD TRACEABILITY SYSTEM IN CANADA IN PARTNERSHIP BETWEEN INDUSTRY AND GOVERNMENTS

Susie Miller, Agriculture and Agri-Food Canada

A FOOD PROCESSOR'S PERSPECTIVE

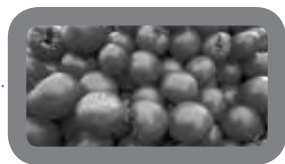
Len Penner, Cargill Limited

Cargill is a large and complex operation that lies between the primary producer and final consumer of food products. To such a company traceability has many ramifications and nuances. Some of these will be explored with particular reference to where the industry must migrate over the next decade.

A FOOD RETAILER'S PERSPECTIVE

David Wilkes, Canadian Council of Grocery Distributors

CCGD will present review the outcomes of a grocery industry RFID pilot that was undertaken in 2007/08, including RFID functionality and business case surrounding the implementation of this technology. CCGD will also discuss current trends in traceability and provide a perspective on the grocery industry's plans concerning both the overall implementation of RFID and potential implications of traceability. CCGD is the national trade association representing the retail grocery and foodservice industry in Canada.



CONCURRENT SESSION #1

JUNE 2 MORNING

SESSION PROVIDED BY CONSUMER AND MARKET DEMAND NETWORK

TRACEABILITY AND QUALITY ASSURANCE: WHO DO CONSUMERS TRUST?

Jill E. Hobbs, University of Saskatchewan

Traceability systems can perform many functions, from managing food safety problems and assisting in more efficient food recalls to providing a vehicle for delivering credible quality assurances about food attributes and verifying the source of a food product. Given these diverse functions there are also different roles for private sector actors (firms, industry associations, third party information providers) and public sector (government) in delivering credible traceability assurances and quality verifications. Data from a survey of Canadians conducted in summer 2008 are used to explore the nature of trust in different sources of quality certification for food attributes. Attitudes towards firm-level, third party and government involvement in quality verification are examined. Separate segments of consumers with distinctly different attitudes are identified. Future research needs are identified.

JAPANESE WILLINGNESS TO PAY FOR TRACEABILITY IN IMPORTED BEEF FROM CANADA

Ellen Goddard, University of Alberta

Food safety is a prime concern of consumers and governments. Outbreaks such as bovine spongiform encephalopathy (BSE) and foot and mouth disease may have decreased confidence in the safety of meat products worldwide. In 2003, Japan was the world's biggest importer of meat. The country has seen major changes in the domestic marketing of meat due to outbreaks of BSE, among other food safety incidents. As of July 2003, Japan brought in a system of full traceability for all domestic cattle. All cattle are tested for BSE and the government has established a traceability system where consumers can access the full history of the meat they are purchasing.

Given that Canada and Japan have each faced BSE outbreaks (and Japan has had a death from vCJD) it is interesting to consider how different the views of Japanese consumers are from Canadian consumers. Since BSE the debate in Canada about animal testing and traceability has been driven more by cost and science than by an assessment of consumer willingness to pay for these attributes. Identifying significant differences in consumer views in Japan and Canada about food safety in general and about food safety associated with Canadian beef, in particular, would be useful knowledge in the planning of future traceability systems. In this research, we examine (a) Japanese consumer attitudes toward traceability and animal testing related to beef from different countries in Japan and (c) Japanese consumer willingness to pay for different levels of animal testing and traceability associated with imported Canadian beef. Methods used include a stated preference internet survey of Japanese consumers.

This enables us to quantify Japanese consumer desire for traceability and animal testing associated with Japanese and Canadian (imported) beef. The results may help the government and the food industries meet the requirements of the public by designing a traceability protocol for beef exports to Japan.

COSTS, BENEFITS AND LEVELS OF TRACEABILITY; FINDINGS FROM A SURVEY OF ITALIAN FISH PROCESSORS

Andreas Boecker, University of Guelph

Given a firm's characteristics and strategy, implementing traceability practices is an investment decision to maximize net benefits through the optimal level of traceability. Level of traceability is measured on the dimensions depth, breadth and precision. Benefits are measured as seven specific types of benefits and overall, while costs are measured as six specific set-up costs, maintenance cost and overall. Based on a sample of 60 Italian fish processors the empirical challenges in measuring levels, benefits and cost of traceability are discussed and key findings highlight the uniqueness of traceability practices and the associated combinations of costs and benefits. The three traceability level dimensions are not found to be correlated among each other; firm characteristics are not found to be associated with traceability level, cost or benefits; no strong significant link was found between costs and level of traceability; however, overall benefits are strongly driven by the precision of traceability. Finally, government support in the process of traceability implementation was found to have raised level, cost and benefits of traceability but also the discrepancy – as a negative surprise – between actual and expected costs and benefits.

TRACEABILITY AND LIABILITY IN THE AGRI-FOOD VALUE CHAIN

Patricia L Farnese, University of Saskatchewan

Many are reluctant to enter into traceability programs, which would create a record of the source and movement of raw farm products through to retail sale. There are concerns that traceability programs could make food processors and farmers more vulnerable to regulatory offence, prosecution and negligence lawsuits, as the protection afforded by anonymity is lost. The presentation will assess the validity of these concerns by reviewing litigation trends and Canadian jurisprudence on statutory and negligence liability.

CONCURRENT SESSION #2

JUNE 2 MORNING

SEAFOOD TRACEABILITY

TRACEABILITY IN THE NEWFOUNDLAND AND LABRADOR SEAFOOD SECTOR: EVIDENCE OF CONSUMER PREFERENCES IN THE SALMON INDUSTRY

Morteza Haghiri, Memorial University

The Aquaculture and Fishery sector plays important role in the development of business plants and economic activities in Newfoundland and Labrador by providing several opportunities and new venues of investment that help retain the economic viability of both rural and urban communities in the province. Despite all the industry's achievements, recent controversial issues in the agricultural food markets and the observance of a series of communicable diseases, including Avian Flu, Bovine Spongiform Encephalopathy (BSE), and Atlantic farmed salmon, i.e., the case of Polychlorinated biphenyls have made consumers think seriously about the quality of foods they consume. The outcomes of these food incidences have raised quality assurance of food, which have become the main concerns of consumers, producers, and policymakers in recent years. Traceability in the agriculture, aquaculture, and fishery products is one of the solutions that could mitigate public concerns on quality assurance, food safety and environmental protection, which, in turn, leads to reduce the risks or minimize the impact of the communicable disease problems.

VALIDATION TOOLS FOR TRACEABILITY

Begoña Pérez-Villarreal, AZTI-Technalia (Spain)

Despite existing legislation, there is no general provision that defines exactly the way a traceability system should be implemented, but food companies in EU have to be able to demonstrate that the system put in place is efficient and effective. Validation procedures for the traceability system settled in seafood companies have been recommended inside an EU project. Control parameters, together with a map of indicators of efficiency and reliability in relation to safety and quality assurance, fraud prevention and data management and information flow, have been defined in a practical guide of reference available on line in the form of a web page specifically constructed for this purpose.

There are multiple traceable data important for the fish sector, and for each one diverse methodologies have been described for measuring them. In the majority of the cases, there are not standards that allow easy or simple comparison of data between interested parties, and not every methodology is suitable for each link in the fish chain. For some of them, official methods exist, although the majority of them are time consuming and quite slow showing results that could be used to make decisions along the fish chain. In general, some specific sensors and probes have recently appeared, but there is a lack of validation and reference methods are needed to see the possibility of having them as rapid quality control tools for the fish industry. As the development of new, faster and simpler methods will continue, identity, safety and quality parameters will be more frequently controlled, contributing to a safer and more reliable fish distribution chain.

The establishment of a validated system for traceability management including the set-up of standards for the analysis of relevant traceability parameters and inspection procedures in each link of the food chain is of primary importance in these circumstances. The tools developed could be used as models for further implementation in relevant food chains.

TRACEABILITY IN A CHANGING WORLD

Erling P. Larsen, National Institute of Aquatic Resources, Lyngby (Denmark)

Traceability is looked upon as one of the major tools to be used in the revision of the European Unions fisheries policy leading to a new regime in 2012. Using a reliable traceability system should facilitate that reporting of catches and banning of IUU (illegal catches) would be minimized. The presentation will focus on describing a generic tool used to determine the usefulness of traceability, an ongoing project to map the specifications for having a useful system, with the correct data and different verifications methods.

The presentation will try to illustrate the difference in perception of traceability, not only between the US/Canada and the EU, but also the differences ranging from different food sector to the individual stakeholders, such as primary producers and industry.



Trace R&D SPEAKER ABSTRACTS **continued**

CONCURRENT SESSION #3

JUNE 2 MORNING

DATA AND DATABASE MANAGEMENT

TRACEABILITY OF LIVING ANIMALS AND THEIR PRODUCTS AT THE EUROPEAN UNION LEVEL

Didier Carton, TRACES

TRACES (TRAdE Control and Expert System) is the European Commission's first trans-European electronic government system. This computer network is INTERNET-based and uses JAVA technology (J2EE) and ORACLE bases to link all health authorities of all EU member states and associated countries to ensure the traceability of the movements of live animals, their semen and embryos and animal products, as part of the intra-community exchanges and imports.

This multi-lingual system (all EU official languages) which was implemented on January 1, 2005, is the sole portal dealing with health matters related to trade for health authorities in the EU. It allows all imported animals and animal products to be tracked either from the third party country when this particular country participates in the program, or at EU border inspection posts until arrival at their final destination, as well as the supervision of all exchanges of live animals in the Community. It also records all health controls (documents, physical, laboratory) performed at the departure point, during transport and at the final destination.

A system for issuing the certificates that are required for exchanges or import is duplicated with notification for informing all parties involved as well as in the animal health field, animal welfare or public health. This system which integrates private operators and health authorities, is used by 16,000 stakeholders who produce 85,000 certificates per month, generating 300,000 notifications.

TRACES allows health risk assessment and management. This system is the central component of the emergency response mechanism in the event of disease by allowing all data related to the movements of the animals or products called into question to be immediately provided: place of origin, destination, individual identification, nature and quantity of the merchandise. Recent news on animal diseases in Europe (foot and mouth disease, bluetongue, avian flu) or public health (milk contaminated with melamine) have demonstrated TRACES' value.

THE CHALLENGES OF TRACEABILITY: AUTOMATION!

Mélissa Lalonde, Agri-Traçabilité International

Agri-Traçabilité Québec (ATQ) is responsible for the development and implementation of a permanent identification and traceability system for agricultural products from the farm to the table and must rely on various state-of-the-art technologies for carrying out its many mandates. This organizations thus has recourse to various livestock identification technologies (RFID chips), as well as technology related to data gathering (scanning instruments), electronic sound transfer (software and communication networks) and finally, storage (multi-species data base).

The ATQ also conducts research, and the modification and development of new technologies related to the transportation and animal auction sectors. By promoting the use of these new technologies, which facilitate the work of various stakeholders involved and allow practical, effective application in the field, the Quebec-produced traceability system is creating new ways of doing things.

BRIDGING THE TRACEABILITY R&D GAP: AN ONTARIO SOLUTION

Brian Sterling, OnTrace Agri-food Traceability

OnTrace Agri-food Traceability is a not for profit, industry led corporation dedicated to delivering food traceability systems and solutions to:

Improve emergency management; and drive innovation to strengthen industry competitiveness and food brand equity

OnTrace is working with the Ontario government, industry and academia to develop the vision for an agriculture and agri-food traceability centre in the province of Ontario. This centre will provide a focal point for traceability knowledge and applied solutions. It will encourage collaboration between academia, government, businesses and industry to deliver pragmatic solutions to the real problems of whole chain traceability. The centre will build on existing infrastructures and has a business model that includes education and outreach; industry competitive development; emergency management and protocol development; and technology transfer.

A key theme of the centre will be facilitation and support of applied research and innovation with a focus on developing practical answers to traceability gaps and problems. The R&D strategy will support partnerships amongst researchers, technology developers and end users.

This presentation will provide an overview of the centre concept and review the potential areas of business interest for participants at the symposium.

CONCURRENT SESSION #4

JUNE 2 AFTERNOON

TRACEABILITY AND FOOD SAFETY

FOOD SAFETY – RECALL IMMUNITY AND THE TRACEABILITY FIX

Rick Holley, University of Manitoba

Product recall is a positive element in a properly operated HACCP (FSEP) program. It succeeds when product recovery prevents human or animal illness, but fails when product recovery is incomplete before illness occurs. Recalls involving suspect companion products because of uncertain risk and repeated expansion of recalls can de-sensitize some employees (e.g. those responsible for capturing product to be quarantined) as well as the consuming public. A sense of reduced urgency, complacency or "recall immunity" develops. In the U.S. the premature tomato (Serrano/jalapeno pepper) recall where the wrong food was initially identified and the PCA peanut butter recall which was expanded daily for weeks, are examples where this response was evident in businesses and homes. Access to more complete information initially would have reduced the inefficiency apparent in these recalls and pre-empted illnesses.

Since 2004 the European Union has required that records of ingredient origin/use and product destination be kept for food and feed. When, at each step in the production chain, records are kept that look both "one step backward and one step forward", the result is a continuous map that documents product movement to consumption. International access to ingredients and consumer markets adds to record keeping complexity, variation in record consistency and cost. But can we afford to not keep such records? Unfortunately, recall immunity does not cross-protect against toxicants and Salmonella.

A NEW WAY OF COMMUNICATING PRODUCT RECALL INFORMATION

Tim White, GS1 Canada

Over 3500 products were recalled last year worldwide. There are many approaches for communicating product recall notifications such as email, news broadcasts, telephone, etc. Each was communicated differently by every manufacturer.

The Product Recall Portal, developed by GS1, leverages today's technology to facilitate and standardize industry recall notifications while offering the most comprehensive, efficient, and accurate recall solution available. This session will provide a comprehensive overview of this exciting new application designed to complement your company's current recall communication process. The session will also present a roadmap for future recall enhancements, including building recall processes into an overall traceability solution.

FOOD TRACEABILITY INTEGRATION WITH FOOD SAFETY

Inteaz Alli, McGill University

Traceability is a recognized component of food processing/manufacturing industry programs/systems for food safety, and has served as the basis for food recalls. The emergence of national and international food traceability standards has resulted in formal recognition of concepts that needs to be (a) introduced into existing food traceability activities and (b) the basis of emerging food traceability practices in certain industry sectors. Food establishments must now formally recognize (a) the various traceable items that are within their operations, the acceptable tools and techniques for identification of all traceable items and the requirements for gathering and maintaining traceability data and information, and (b) their roles as creators, sources or recipients of traceable items.

ADVANCES IN TRACEABILITY SYSTEMS; THE INTEGRATION OF SUPPLY CHAIN LOGISTICS AND QUALITY

Greg Bennet, Iowa State University

I work in advanced agricultural traceability systems at Iowa State University; this involves the integration of already established industry systems such as supply chain logistics with quality control systems. The benefit—improved economic efficiencies in quality and profit, and reduced exposure to liabilities from process batch rejections to product recall. At present I'm working on tying ISO 22000 HACCP, ISO 22005 traceability, and the draft ISO 22006 quality standards together for selected supply chain participants for the benefit of increasing the sale of US product to overseas markets. My presentation and poster help illustrate our work towards improved traceability.

CONCURRENT SESSION #5

JUNE 2 AFTERNOON

ECONOMICS AND MARKET ACCESS

HURDLES FACING TRACEABILITY ADOPTION FOR CANADIAN MEAT EXPORT MARKETS: PERSPECTIVES ON COMPETITIVENESS FROM AN ANIMAL HEALTH ECONOMIST

David C. Hall, University of Calgary

Traceability is a critical tool for maintaining and developing Canadian competitiveness in international meat markets. High adoption rates of the increasing technical options offered by traceability (and demanded by importers) are critical to increasing Canadian competitiveness in international meat markets. Domestic barriers include non-legislated information sharing, costs and methods for comprehensive herd implementation, and objective identification of animal health critical control points that optimize economic returns while minimizing shared stakeholder risk. International barriers include harmonization of technological standards, identification and enforcement issues, and weak appreciation for the value of traceability relative to products from low cost emerging markets.

THE BENEFITS AND COSTS OF IMPLEMENTING A NAIS-BASED ANIMAL ID AND TRACEABILITY SYSTEM IN CALIFORNIA

Leslie J. Butler (and James Oltjan), University of California, Davis

This paper summarizes a recently completed (August 2008) Benefit-Cost Analysis of implementing an animal ID and traceability system in California. There are both primary and secondary benefits associated with animal ID systems. Primary benefits are those related exclusively to the benefits of tracking and minimizing the economic impacts of animal disease outbreaks. Secondary benefits are those related to other benefits of an animal ID system such as increased efficiencies in management and marketing, inventory control, age and source verification, reduced theft, etc. Almost all previous benefit-cost analyses (Canada, Australia, Europe, and UK) have included the secondary benefits in evaluating the overall benefits of the system. This study uses network externality theory to separate the primary and secondary benefits of animal ID systems for increased accuracy of evaluation.

A REVIEW OF COUNTRY OF ORIGIN LABELING IMPACT STUDIES FROM SUPPLY CHAIN EFFECTS TO TRADE FLOW EFFECTS

Derek Brewin, University of Manitoba

This presentation would review trade and supply chain cost studies focused on Country of Origin Labelling legislation in the U.S. and its impact on Canadian supply chains over the last several years. It would compare assumptions made in those models with the actual evolving regulations and industry response in the U.S.

IMPLEMENTING FULL VALUE CHAIN PRODUCE TRACEABILITY - SIMPLY AND COST EFFECTIVELY

Andrew Kennedy, FoodLogIQ

With recent high profile produce-related outbreaks in North America, the industry, consumers and growers/packers/shippers are increasingly demanding solutions to effectively implement and integrate on-farm food safety and traceability. The adoption of an integrated on-farm food safety (OFFS) and traceability program can help producers reduce food safety risks and retain, even expand, market share, strengthening relationships with customers and consumers through proactively addressing risks and creating trust. The industry has come a long way in identifying OFFS standards including GAP and HACCP and now there are new standards for traceability by GS1. However, it is not enough to provide a set of guidelines from a government agency or producer association and expect growers to comply with standards. Industry organizations and their producer members must be provided with on-going, technology and solutions that allow them to adopt these new standards and practices.

More precisely, Andrew will cover:

- 1) Practical approaches to implementing an integrated OFFS and traceability program
- 2) Specific case studies in produce
- 3) Practical ways to implement the GS1 standards leveraging low cost technology solutions

CONCURRENT SESSION #6

JUNE 2 AFTERNOON

LIVESTOCK TRACEABILITY, TECHNOLOGIES

ALBERTA LAMB TRACEABILITY PILOT PROJECT

Susan Hosford, Alberta Agriculture and Rural Development

The goal of the project is to develop the capacity of the lamb supply chain to implement electronic systems in farm management; tracing lambs from farm to processor to consumer; and to assess benefits of farm systems. Underway this year: identify, test and implement radio frequency identification (RF ID) technology at key points in the supply chain farm (ten flocks, two Colleges, one 15,000 head feedlot) and processor (Sunterra Meats) on farm: test different equipment options (tag readers, three management software programs, scales); breeding flocks tagged, systems installed and operational completed the Shearwell SET tag trial; lower cost tags received Canadian Sheep Identification Program approval for 2009 develop, install and activate traceability module at Sunterra Meats (live animal ID reader, carcass identification / grading / reporting, linking software and developing remote data repository/exchange) complete a full year analysis of cost / benefit and production cycle analysis / identify gaps (March 2010)

THE USE OF WIDE ALLEY SCANNING SYSTEMS FOR CAPTURING LIVESTOCK RFID AT THE SPEED OF COMMERCE

Paul Laronde, Destron Fearing

Traditional low frequency ISO RFID scanning systems used for the scanning of livestock identification tags on animals have been slow and restrictive. Short relative read ranges and tag orientation issues forced producers and commercial operators to line

continued on next page

Trace R&D

SPEAKER ABSTRACTS continued

up livestock in a nose-to-tail fashion allowing only one tag to enter the antenna read-field at a time. Even tightly controlled scanning system designs such as this could not produce 100% tag readability, and would cause stress, shrinkage and bruising to livestock being organized in this manner. The use of a Wide Alley Scanning system design permits animals to move through the RFID tag read field two or three abreast without restriction at the speed of commerce allowing current technology to be utilized throughout the value chain.

DNA BASED TRACEABILITY A TOOL TO CAPTURE VALUE IN THE MARKETPLACE

Ronan Loftus, IdentiGEN

DNA based traceability a tool to capture value in the marketplace

1. Traceability – what does it really mean?
2. Why traceability is becoming increasingly important in the global marketplace
3. Some examples on the use of DNA technology as a tool to trace and authenticate trace beef and pork products
4. Benefits to the industry of enhanced traceability for producers
5. Overview of experiences in using DNA based technology in the marketplace

A DECADE OF GLOBAL EXPERIENCE DEVELOPING AND DELIVERING TECHNOLOGIES AND SYSTEMS FOR FOOD TRACEABILITY: DRIVERS AND ROADBLOCKS ENCOUNTERED

Jake Burtlet, ViewTrak Technologies

ViewTrak is capable of speaking to the topic(s) of i) technologies and systems facilitating the identification and movement tracking of animals, food and agricultural products, and ii) hurdles and solutions to traceability technology and system adoption

Victor Darias, HUBtechnology

Our solution provided the option to the Farmers and the transport company the following services:

- Safety of scanning the animal in the field and transmitting the data to the ATQ in real time.
- Record and traceability of the animal location per capture of information. Time/Date/GPS positioning and Location
- The solution removes all human error.
- The solution captures the information from the RFID tags and transmits it to a Database of the Government or client.
- The solution can either be portable or fixed mounted in the vehicle providing accuracy, speed and safety of the loading and unloading of the animals.
- As the information is transmitted real time to a server currently at the ATQ (agri-tracabilite.qc.ca) this provides the government with critical information for preventative disease outbreak as well as able to assist in tracing any disease from birth to plate.
- The information is transmitted via either WAN/LAN/PAN.

Yves Gervais, Référence Systèmes

Our mission is to support our customers in their technological choices, whether in terms of their technological infrastructures or their applications, to assist in the implementation and support throughout the entire process. In 2000, our customers had new needs: internet services. We have therefore acquired the infrastructure and knowledge allowing us to offer complete range of products and services to answer those needs. Since then, we are able to offer the full range of services that companies required. Today, we are proud to be able to count on an exceptional team of professionals working for a stable and prestigious clientele.

SLAUGHTERHOUSE TRACEABILITY PROJECT

Grégory Pétrieux, Epsilia

eTrace is a traceability software solution for real-time tracking, from raw material to finished product, throughout the agri-food logistics chain. The application of

eTrace at Levinoff-Colbex starts with the killing of the cattle. eTrace collects, organizes and saves data throughout the slaughter process. Every piece of information is connected to the previous piece of information and is compiled in a database, which, when queried, very quickly provides information on the source and location of animal parts

HOW TRACEABILITY TECHNOLOGY BENEFITS A BEEF VALUE CHAIN

Michael Miskin, Merit-Trax Technologies Inc.

In a beef value chain producers collaborate with packers and receive payment according to the quality of their beef. The collecting and benchmarking of production and slaughter data are necessary to track actual performance against production targets. The presentation will demonstrate how producers and packers benefit from the use of traceability technology to collect and share this data.

The presentation will discuss real world experiences with the use of RFID tags and handheld computers for livestock identification and production management, RFID and wireless technology for data collection in packing plants and web services for communication with the CCIA database

PLENARY SESSION

JUNE 2 AFTERNOON

RESEARCH AND DEVELOPMENT IN SUPPORT OF TRACEABILITY SYSTEMS: EXPERIENCES ACROSS THE FOOD CHAIN

TECHNOLOGICAL VISION IN TRACEABILITY

Mary Helander, IBM

LEGAL ISSUES IN TRACEABILITY

Hina Thaker, Canadian Cattle Identification Agency

Tom McMahon, AAFC Legal Services

BULK GRAIN EXPORTS: IS FULL TRACEABILITY A REALISTIC GOAL?

Ian White, Canadian Wheat Board

Traceability and food safety are two separate but sometimes-related issues. For grain, a continuing focus on improved safety assurance is a more realistic and useful goal than traceability to individual farms.

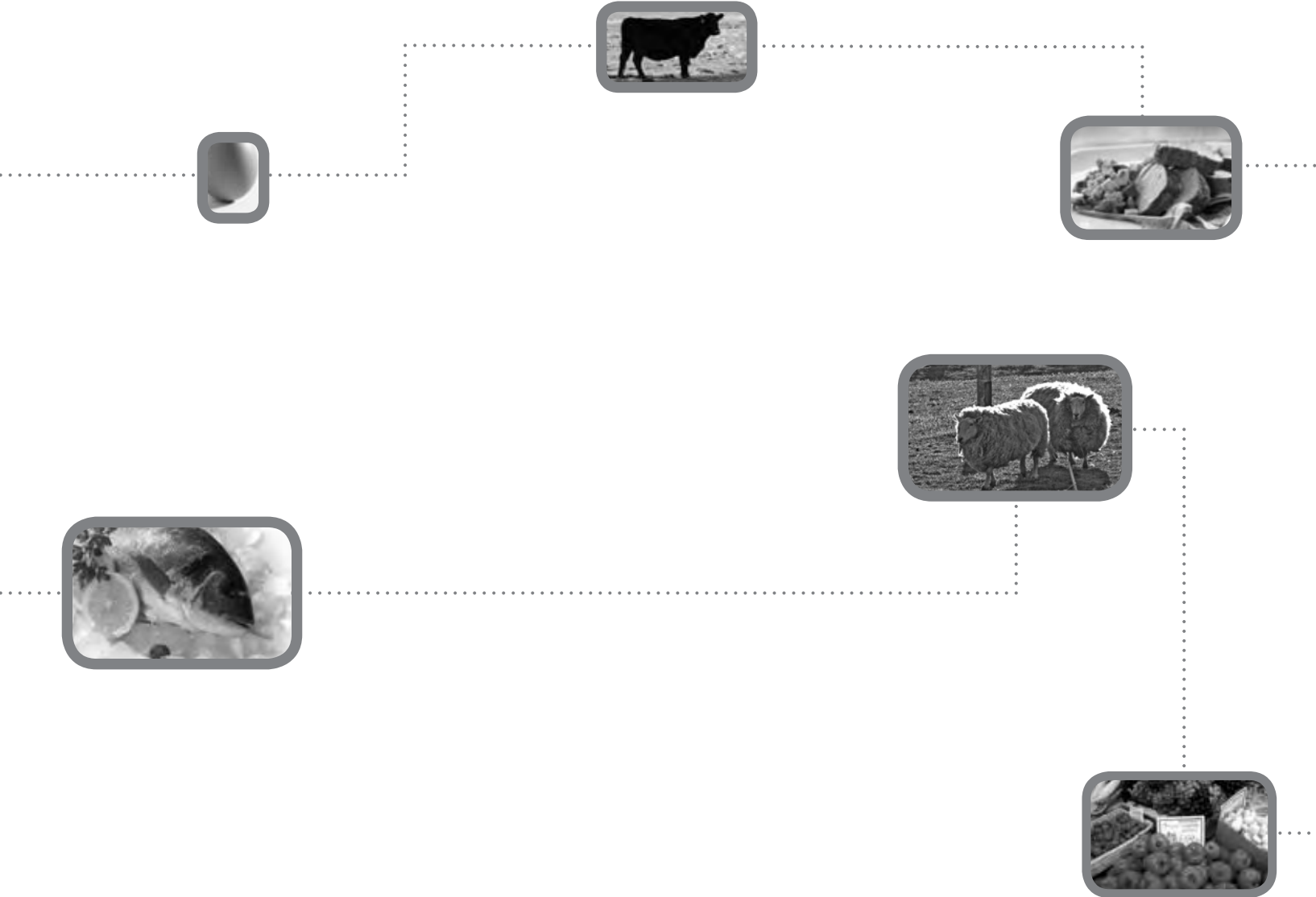
The vast majority of western Canadian wheat (about 20 million tonnes annually) is shipped through a bulk handling system. This involves moving small parcels of product of similar quality to port, segregated by class, grade, protein content and sometimes other factors. Originating from thousands of different producers, this grain is blended to create a very uniform and consistent quality profile. The constraints of traceability can work against this uniform quality perspective.

Grain is blended many times on its way to overseas customers: first in primary elevators, then in terminal elevators and finally while loading onto the vessel. Documentation identifying the producers of the grain shipped is not generally retained beyond delivery to the primary elevator. Because of this, the Canadian grain industry is not in a position to provide traceability on shipments of any significant size, except through an identity-preserved program at added cost.

Traceability in food products is done for a number of reasons. One is to assure end-users that their food product was produced on farms and handled by facilities with safety assurance certification – not necessarily to show exactly which farm grew a particular parcel of grain. Most CWB customers who have expressed an interest in this issue agree that other food safety measures and testing, and perhaps additional assurances related to food safety, are a more useful approach than one that traces originating farms for each shipment. As a result, continuing development and improvement of grain safety procedures and documentation may be the most reasonable focus.

Trace R&D

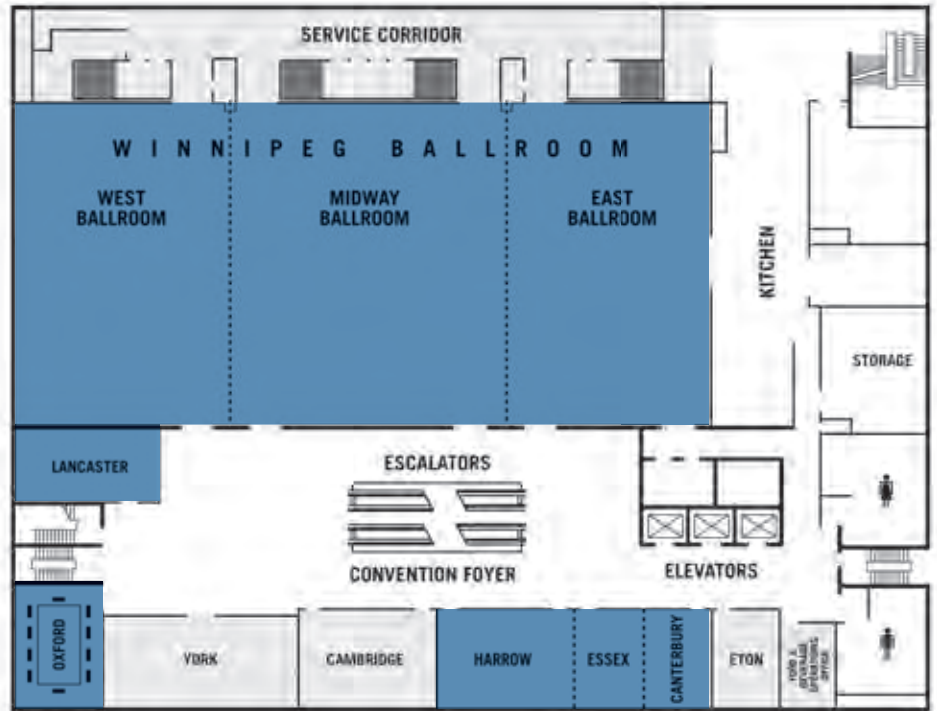
CONFERENCE ATTENDEES



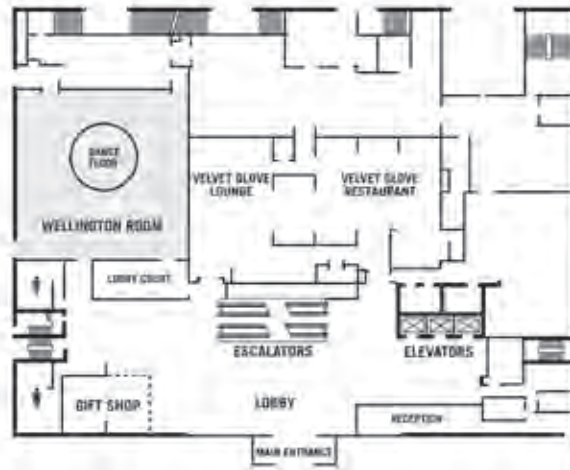


FAIRMONT HOTEL

Mezzanine Level



Lobby Level



Concourse Level



