



Implementing milk recording in developing countries

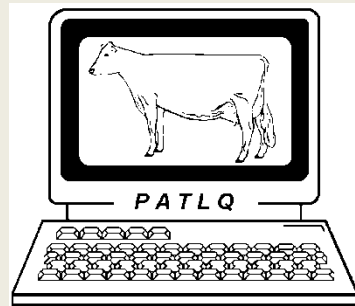
Humberto Monardes
McGill University - Valacta
Canada



McGill
UNIVERSITY



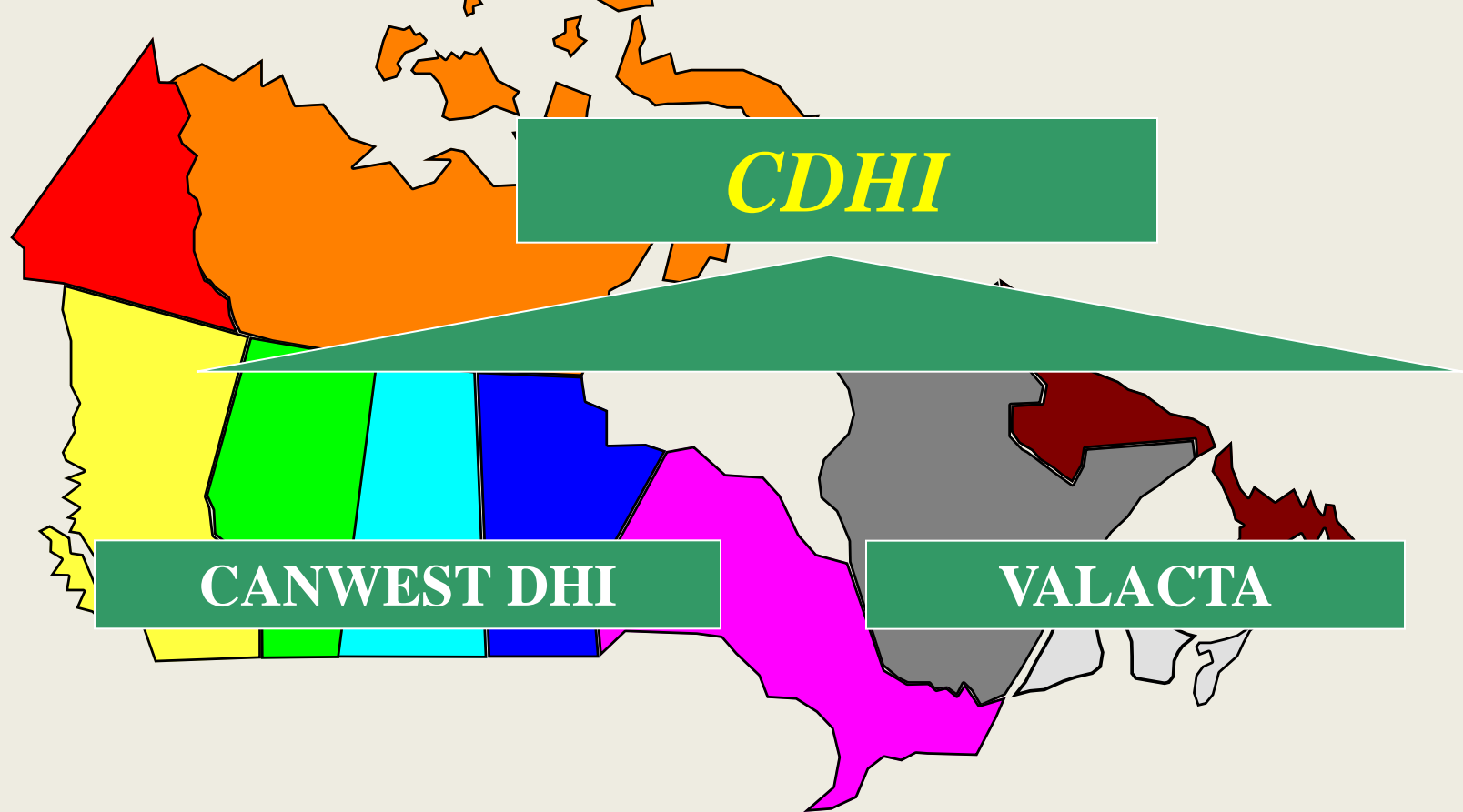
Originally, Valacta was named
PATLQ/QDHAS: Quebec Dairy Herd
Analysis Service



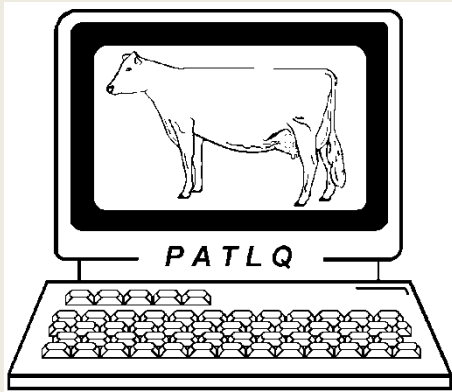
It was a milk recording agency,
founded in 1966 by Dr John E. Moxley,
Professor of Animal Genetics at McGill
University



Two milk recording agencies in Canada serve 75% of farms.



Since 1998, the Canadian agencies work in partnership under the name *Canadian Dairy Herd Improvement (CDHI)* and one program, Vision 2000



2006

valacta

Valacta is a Centre of Expertise in
Dairy Production that belongs to producers

Key milk recording elements at Valacta

- 1. Routine measurement of performance indicators in animals**
- 2. Recording data collected in the field**
- 3. Data analysis and processing**
- 4. Data Interpretation**
- 5. Use data for management decision making**

- 215 Field staff (4 regions)
- 35 Laboratory
- 21 IT + Customer Service
- 15 Administration (incl. HR, Communication and QA)
- 15 R&D

~300
employees





- Individual cows' milk
- Feed analysis
- Milk quality
- Reference lab
- Bulk tank milk for payment

• **ISO 17025** accredited



Canadian milk recording and its associated activities has helped to take Canada from a discreet place in the world dairy industry 50 years ago, to a world leadership in productivity, quality of dairy products, industry performance and rural equity.



Ukraine



Valacta
around
the world

China



Paraguay



Brazil



Argentina





From Milk Recording to Dairy Herd Management Services in Brazil

**Improvement of Teaching, Research and Extension
through the creation of a Dairy Management Service
operated and used jointly by university, breeders and
dairy coops in the state of Paraná, Southern Brazil**

A ICDS/CIDA project

1987-1992

Executing Agency: McGill University

Partners: PATLQ-QDHAS, UFPR, APCB, OCEPAR

Funding Agency: CIDA

Main objectives

- Develop milk recording operations and services to producers.
- Training of programmers, field staff, lab technicians and other professionals.
- Assist to exploit milk recording as a management tool.
- Organize round tables, symposia, meetings, in Brazil.
- Purchase of main lab equipment.
- Applied research using the data bank.

Phase I
Paraná Dairy Herd Analysis Program
- PARLPR

A Program of APCB
Execution : UFPR and McGill
1987-1992

Phase I - RESULTS.

Paraná, 1993.



Phase II

Extension and Rural Development in Dairy Production in Brazil.

An ICDS/CIDA project
1993-1997

Executing Agency: McGill University
Partners: PATLQ, UFPR, APCBRH
Funding Agency: CIDA

Main objectives of Phase II

- Improve rural extension for dairy production.
- Improve teaching capabilities of UFPR
- Collaborative research in genetics and nutrition of cows using the newly built data bank.
- Implement a feed analysis service
- Purchase a NIRS feed analyzer



Paraná Dairy Herd Analysis Program - PARLPR



Quantifiable outputs from the project, 1997.

- Students trained at the M.Sc. and Ph.D level at McGill.
- Veterinarians, agrologists and field supervisors trained in Brazil.
- Nutritionists from Coops on short intensive training at McGill.
- Organization of three symposia in the state of Paraná.
- Milk analysis lab capability expanded to 60,000 samples per month.

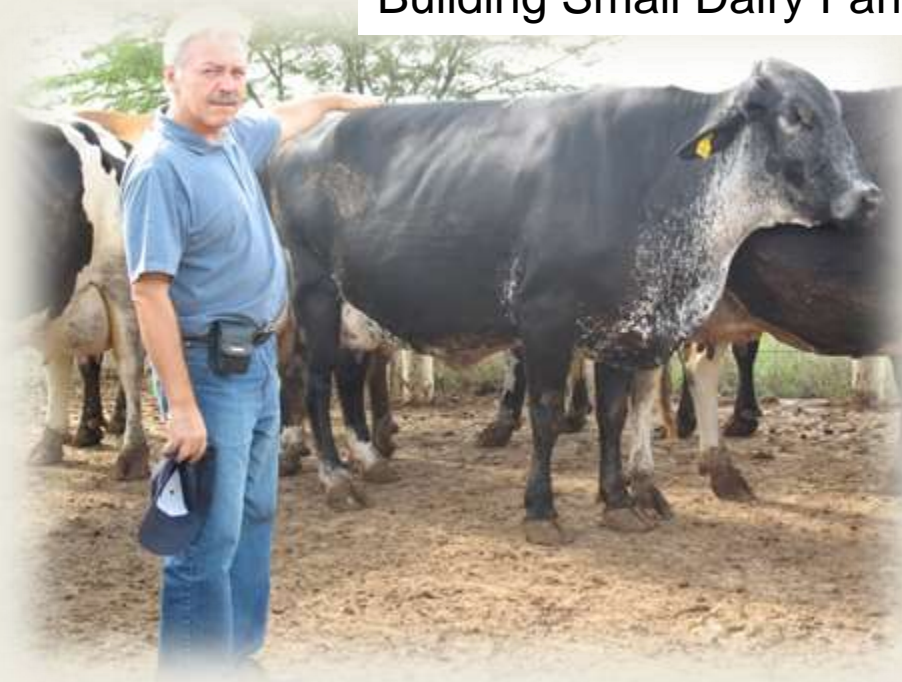
Herds and cows on milk recording in the state of Paraná, Brazil

	Herds	Cows	
1987	236	9 276	
1991	304	13 501	Full lab operation
2006	231	19181	
2015	474	39698 +150000 BT	

Outreach activities. The state of Rio Grande do Sul built at its UPF (Passo Fundo) a central dairy laboratory and 50 professionals are trained as dairy nutritionists

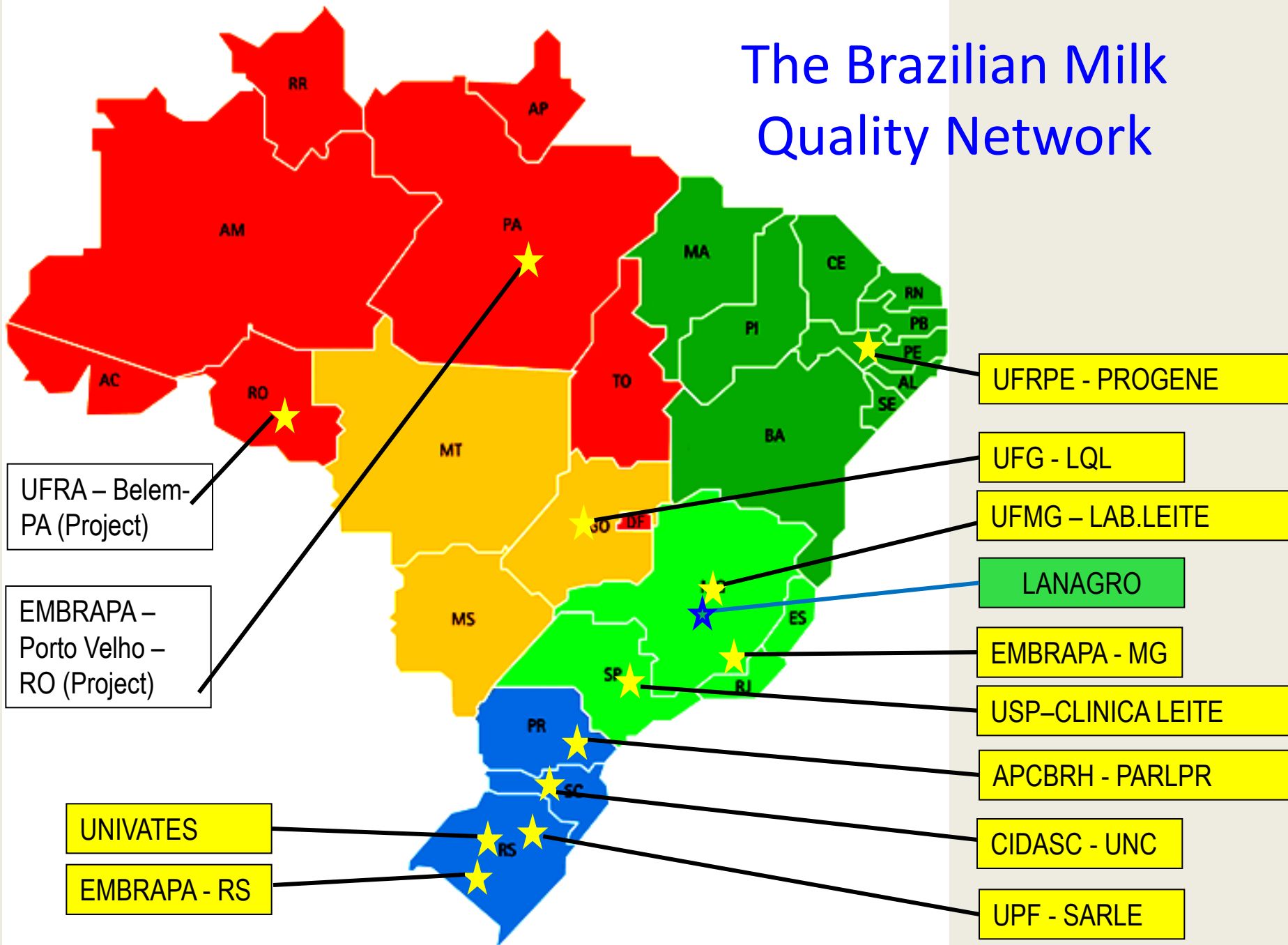


Outreach: Knowledge Exchange for Capacity Building Small Dairy Farmers in Northeast Brazil









The Brazilian Milk Quality Network



Milk recording, Brazil, 2015

Herds and cows on MR- Holsteins - 2015			
States prov. services	Herds	Cows	%
Paraná 	474	39698	58,7
São Paulo	77	9051	13,4
Minas Gerais	108	8252	12,2
Rio Grande do Sul 	106	3613	5,3
Santa Catarina 	89	3141	4,6
Goiás	22	2093	3,1
Espirito Santo	28	1519	2,2
Pernambuco 	11	212	0,3
Total	915	67579	100



**From Milk
Recording
to Dairy Herd
Improvement
in Argentina**

Rural Development and Technology Transfer in the Dairy Sector in the Province of Santa Fé, Argentina

A Canada-Southern Cone Technology Transfer Fund

2000-2005

Executing Agency: McGill University

Partners: QDHAS-PATLQ, ALECOL

Funding Agency: CIDA

Goal and objectives of the Argentina Project

- Goal: To assist in the development of the dairy sector in Argentina.
- To upgrade knowledge and skills of professionals, technicians and producers.
- Use milk recording as a management tool.
- To create a centralized dairy management system providing technical services to producers.
- To facilitate the empowerment of farmers to negotiate and commercialize their milk.



**Regional Laboratory
for Analytical Services
(LARSA), ALECOL,
Esperanza, Santa Fe,
Argentina. 2004**





**Regional
Laboratory for
Analytical Services
(LARSA), ALECOL,
Esperanza, Santa
Fe, Argentina. 2016**



	ENTITIES	HERDS	COWS
1992	12	503	59 536
1995	16	727	104 096
2000	19	613	107 271
2005	20	610	118 866
2010	21	696	142 021
2015	20	492	115 128

Outreach?

Rural Development and Technology Transfer of the Dairy Sector in the Province of Entre Rios, Argentina

A Canada-Southern Cone Technology Transfer Fund
2005

Executing Agency: McGill University
Funding Agency: CIDA

Phase I

Improvement of the Competitiveness of the Dairy Sector in Paraguay, especially the coops associated to FECHOAGRO.
Building a Milk Analysis Lab



2007 - 2012



Executing Agency: SOCODEVI

Consulting partner: Valacta

Funding: ACDI-CIDA, BID, FECHOAGRO

Obra: Laboratorio de Control de Calidad Láctea



Empresa Constructora:
Ing. Pedro Torres Amarilla

Proyecto y Fiscalización:
Nuevo Concepto

Inicio: **Abril 2014**

Culminación:
Setiembre 2014

M² a Construir: 381.86

Con el Apoyo Financiero de:



Our commitment to the development of the Ukrainian dairy sector





Affaires étrangères, Commerce
et Développement Canada

Foreign Affairs, Trade and
Development Canada

Ukraine Dairy Business Development Project (2014-2021)

Executing Agency: SOCODEVI

Consulting partner: Valacta

Funding: ACIDI-CIDA, Ukraine Local gov.



SOCODEVI

- A network of cooperatives that share their technical expertise and knowledge with partners in developing countries such Ukraine

PROJECT

- 2 locations: L'viv (Western UA) and Dnipropetrovsk (Eastern Ukraine)
- Three main components:
 - Development of the dairy sector – Where Valacta is mandated
 - Development of the grain sector in small communities
 - Gender project



Affaires étrangères, Commerce
et Développement Canada

Foreign Affairs, Trade and
Development Canada

Ukraine Dairy Business Development Project (2014-2021) phase II

Executing Agency: SOCODEVI

Partners: UA Gov., Heifer Int., Danone, Valacta, LADS, DAAS

Funding Agency: CIDA

Objectives (2014-2018)

SOCODEVI is using the expertise of VALACTA for the implementation of both DMS.

1. Training staff for extension services
2. Building two dairy labs in two ukrainian provinces
3. Data processing
4. Organizational structure and business model for two Dairy Management Services in Lviv and Dnipro



EXTENSION SERVICES STAFF TRAINING PROGRAM

In a class room



In the field



In the barn



LABORATORY COMMISSIONING



Training in Canada
July 2015





LVIV, October 07, 2015



DNIPRO, 18 mai, 2016



Challenges

- Family farms on MR? Coops to the rescue!
- Central laboratory services...the lab is power!
- Capacity building... where to start?
- Definitely lost in translation!
- Habits and customs (3x milkings, winter feed, safety, seasonality)
- Milk quality
- Quod scriptum est Manet...that is written, remains, even if it is garbage. Garbage in, garbage out!
- The market



Big Challenge

The recording of animal performance is useless unless the data are subsequently used to improve production, productivity or product quality.

(FAO, Rome, 1998)



*Quod scriptum
est manet*

Will the market help?



Challenges for ICAR....

- **Members of ICAR will change. ICAR members in 2025 will may be different from the members we have now. (Wilmink, 2014)**
- **Dairy products are on greater demand and consumers want availability, accessibility, quality and environmental sustainability.**
- **It is estimated that, throughout the world, almost 150 million farm households are engaged in milk production. (IFCN, 2015)**



Lessons learnt

- It's a lifelong partnership
- Be creative... adapt and improvise!
- The perennity of milk recording depends on its adoption
- Technology is not enough,... Human beings are the true responsables for the succes or the failure.

Acknowledgements

(in order of appearance)

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- Martin Beaurivage
- Ivan Pankiv
- Maksym Maksymov
- Anne-Marie Christen
- Daniel Lefebvre

Thank You!



McGill
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valacta



POUR VOUS ET AVEC VOUS!