

NFAHW Council Forum 2015  
MONDAY NOVEMBER 23, 2015  
OTTAWA, ON

# Dairy Welfare Research

Gary Bowers  
Dairy Farmers of Canada

Dairy Research for a  
Healthy World.

Dairy Farmers  
of Canada



Les Producteurs laitiers  
du Canada

# Typical Canadian Dairy Farmer

- \* 47 year-old, has family, 1-3 generations on farm
- \* Involved in community
- \* Works with animals 365 days/year
- \* 70 milking cows
- \* Loves the land





# DFC Research Investments

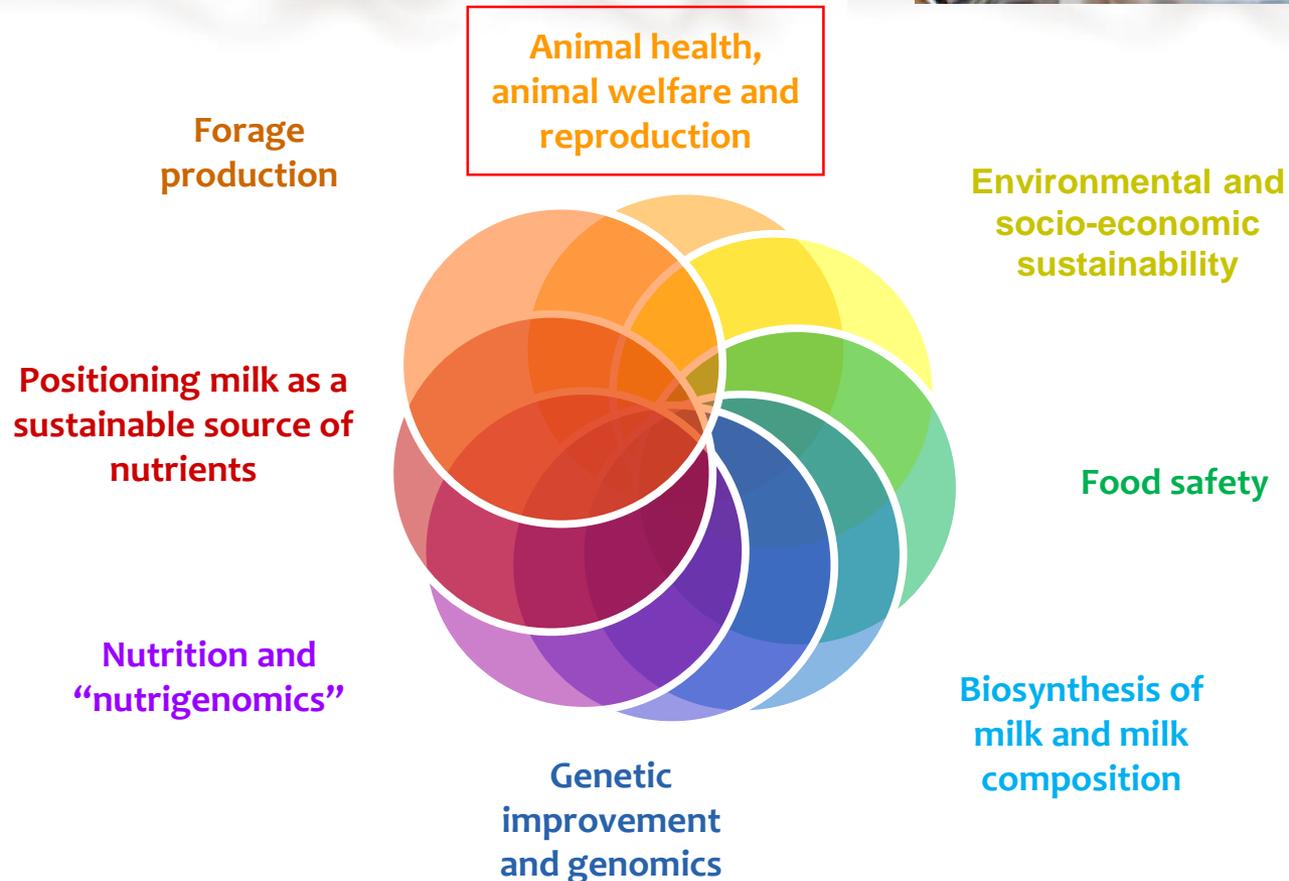
**Annual budget: \$1,960,000**

- \* Human nutrition research = \$1,200,000
- \* Milk production research = \$760,000



**Total leveraged investments  $\approx$  \$6,600,000**  
(plus research in provinces – DFO, Novalait, etc)

# Milk Production Research Priority Areas





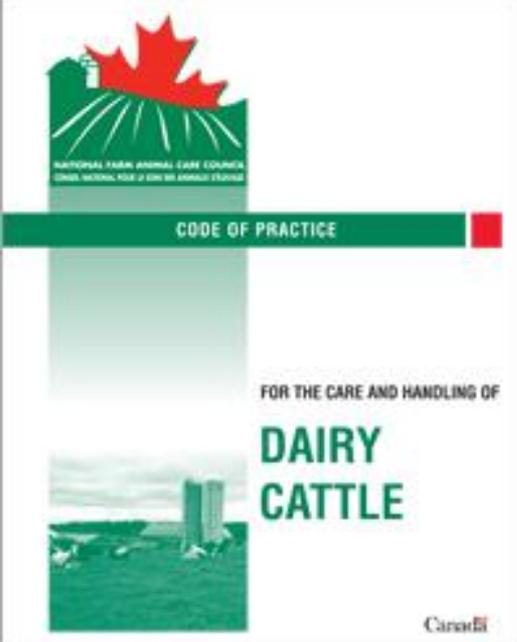
# Where Does Research Fit?

## DFC Priority Issues

- \* **proAction /Sustainability**
- \* **Productivity and Efficiency of Farms**
- \* **Human Nutrition**

## Associated Research Priorities

- \* Best management practices and program standards based on sound science (ex.: animal care assessment)
- \* Better environment stewardship and lower carbon, water and land footprints
- \* Gains to improve feed efficiency, production techniques and management, genetics, lower costs of production, health of animals, etc.
- \* Increase awareness of the nutritional value and health benefits associated with milk products, as part of a healthy, balanced diet



# Ex: Research priorities gaps identified in 2008

1. Lameness and other transition diseases of the dairy cow; treatment, pain prevention, extent of culling etc.
2. Factors affecting unweaned calf health and welfare (calving area, colostrum, feeding, housing)
3. Surgical interventions
4. Feed management/nutrition
5. Facility design (stalls, feeding areas, flooring, stocking, heating, cooling etc.)
6. Human attitudes and the handling of animals

# Ex.: Animal Care Assessment Tool

(available on [www.dairyresearch.ca](http://www.dairyresearch.ca))



SCORE 0	SCORE 1	Injured SCORE 2
		
No swelling. No hair is missing, some hair loss or broken hair.	No swelling. Bald area visible	Broken skin <b>or</b> scab <b>and/or</b> swelling. May have bald area

Dairy Research Cluster

Dairy Research  
for a Healthy World.

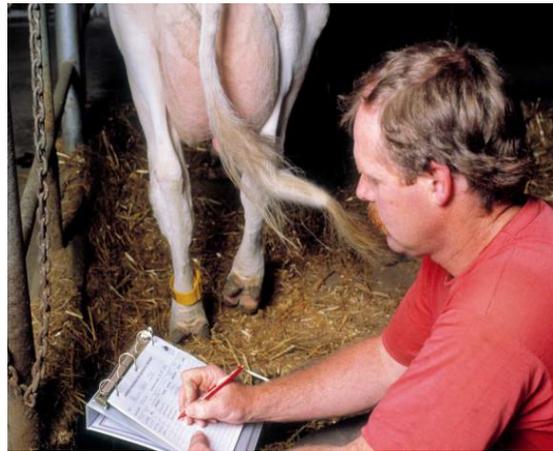
## preAction<sup>®/MD</sup>



Milk Quality



Food Safety



Traceability



**proAction**



Animal Care



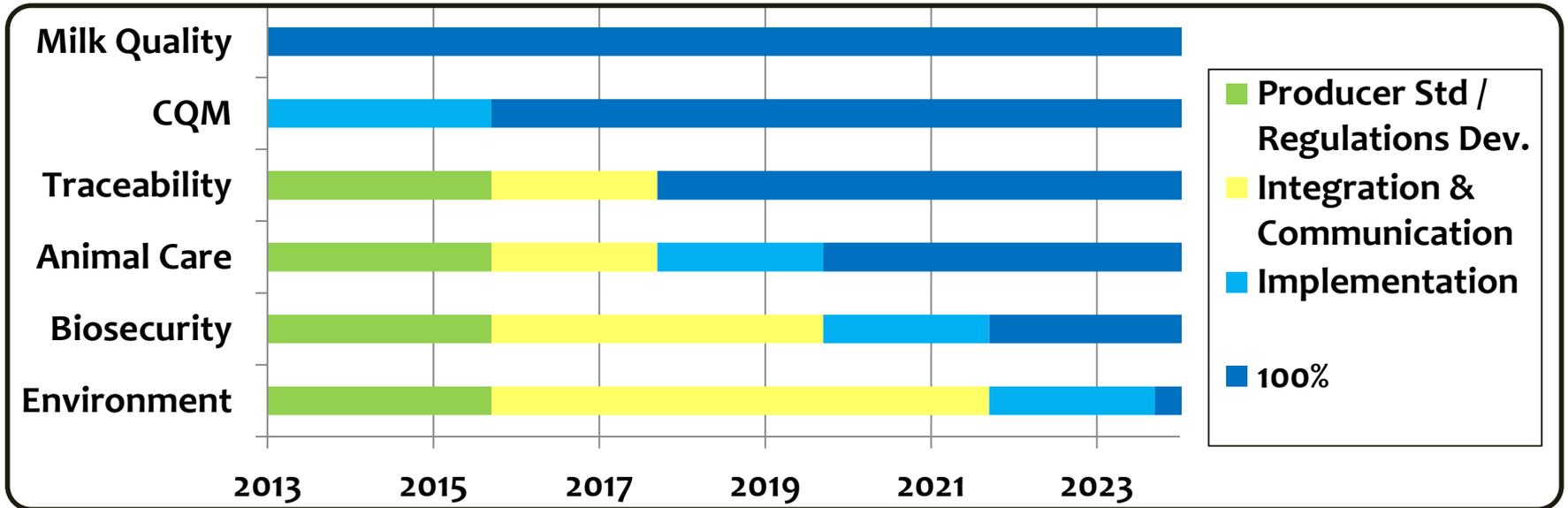
Biosecurity



Environment



# Timelines



\* Traceability timeline is dependent on federal regulation.



# Main Funding Programs

1. AAFC Agri-Innovation program
  - A. Dairy Research Cluster
  - B. Organic Science Cluster
2. DFC's Expert Scientific Advisory Committee annual competition in Human Nutrition (ESAC)
3. DFC's Production Expert Scientific Advisory Committee annual competition (PESAC) - *temporarily suspended*
4. NSERC Industrial Research Chairs Grant
5. DairyGen Committee of the Canadian Dairy Network open competition

# Dairy Research Cluster

## 3 research themes:

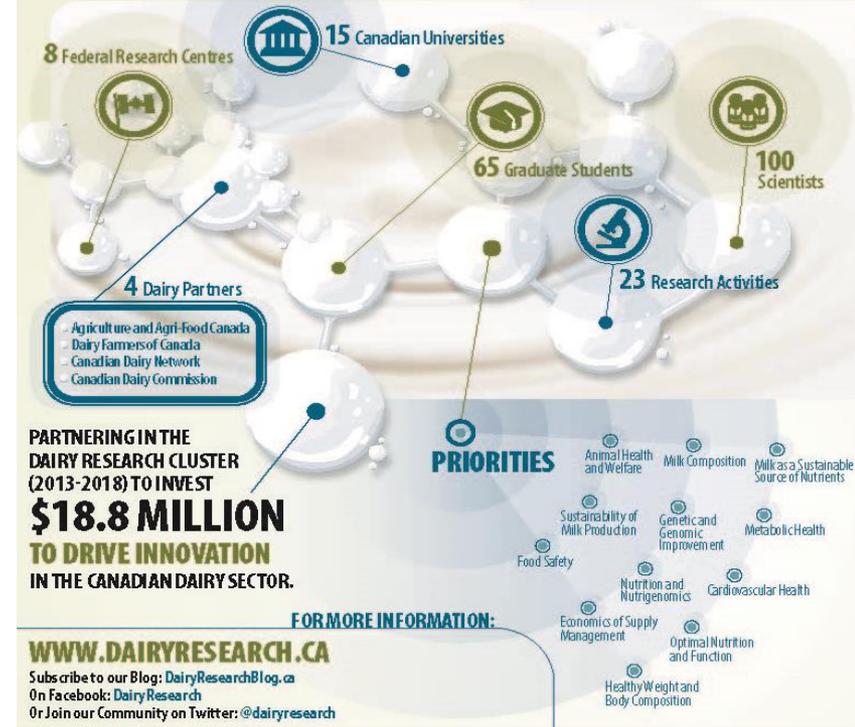
- Sustainable milk production (12 activities)
- Genetics and genomics (4 activities)
- Human nutrition and health (7 activities)

**Total budget = \$18,789,402**

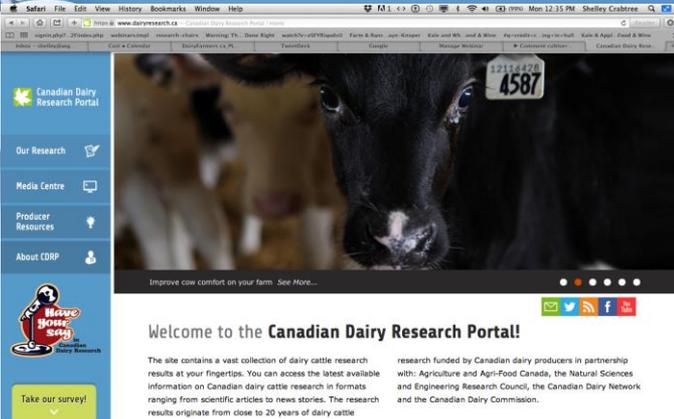
- \* Agriculture and Agri-Food Canada (\$12,000,00)
- \* DFC (\$5,370,301)
- \* Canadian Dairy Network (\$669,101)
- \* Canadian Dairy Commission (\$750,000)
- \* Knowledge transfer activities
- \* (Management costs)

## DAIRY RESEARCH FOR A HEALTHY WORLD

Together, Driving Innovation in the Dairy Research Cluster



# Communications and Knowledge Transfer Activities



- \* Pre-allocated budget ~ \$150,000/year
- \* Upcoming Key activities
  - \* Dairy Research Symposium – February 5, 2016
  - \* Animal Care Webinar Series – January – March 2016
- \* More info on the Web:
  - \* [www.dairyresearch.ca](http://www.dairyresearch.ca)
  - \* [www.dairyresearchblog.ca](http://www.dairyresearchblog.ca)
  - \* [www.youtube.com/user/DairyResearchCluster](http://www.youtube.com/user/DairyResearchCluster)
  - \* Twitter: @DairyResearch
  - \* Facebook: DairyResearchCluster



# Sustainable Milk Production Theme

([www.dairyresearch.ca](http://www.dairyresearch.ca) for summaries)

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- \* Dairy cow management for the next generation
  - \* A national dairy cattle health and management benchmarking study
  - \* Canadian Bovine Mastitis and Milk Quality Research Network
  - \* Sustainable solutions to improve estrous detection and reproductive efficiency in dairy cows
  - \* Better animal welfare leads to improved animal health and longevity, and economic advantages to dairy Farmers
  - \* Innovative feeding and best management practices for the very young dairy calf to improve calf performance, welfare, and future productivity
  - \* Automatic milking systems: factors affecting health, productivity and welfare



# Organic Science Cluster II

- \* 4-year program
- \* DFC contribution: \$185,000
- \* 4 activities funded through the Organic Science Cluster II:
  - \* Alternative sources of bedding (Renée Bergeron, U.Guelph)
  - \* Effect of exercise and stall modifications on cow comfort and performance in tie-stall farms (Elsa Vasseur, U.Guelph)
  - \* Alternative therapies for the treatment of clinical mastitis (Simon Dufour and David Francoz, U.Montréal)
  - \* Bioactive products for the control of internal and external parasites in large ruminants (Simon Lachance, U.Guelph)



# NSERC Industrial Research Chairs

- \* 5-year program
- \* DFC contribution: \$50,000/year/chair
- \* Collaboration with provincial industry partners and NSERC
- \* 4 NSERC Industrial Research Chairs
  - \* Milk components – Dr. Yvan Chouinard, U.Laval (2009-2015)
  - \* Dairy Cattle Welfare – Drs. David Fraser, Marina von Keyserlingk and Dan Weary, UBC (3<sup>rd</sup> renewal in 2014-2019)
  - \* Infectious Diseases of Dairy Cattle – Dr. Herman Barkema, U. Calgary (2014-2019)
  - \* Dairy cow's sustainable life – Dr. Elsa Vasseur, McGill U. (awaiting NSERC's approval in December 2015)



# Growing Forward 3

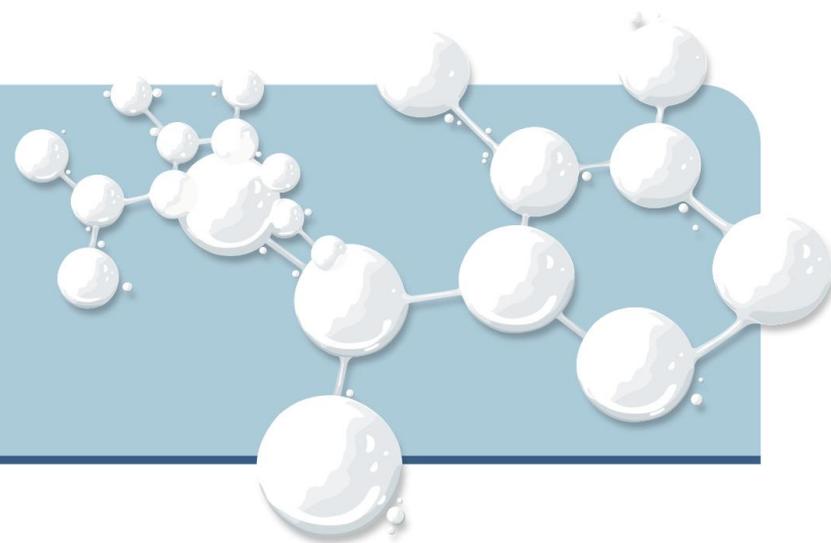
<b>December 2015</b>	End of survey on research priorities
<b>February 2016</b>	Presentation of priority survey results at research symposium
<b>September 2016</b>	Finalize research priorities of DFC and partners
<b>October 2016</b>	Call for research proposals
<b>October 2017</b>	Approval of proposals selected by the DFC Board of Directors
<b>December 2017</b>	Filing of DFC application for Dairy Cluster 3



# Thank you!

## Dairy Research Cluster

Dairy Research  
for a Healthy World.



Dairy Farmers  
of Canada  
dairyfarmers.ca



Les Producteurs laitiers  
du Canada  
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Agriculture and  
Agri-Food Canada

Agriculture et  
Agroalimentaire Canada



Canadian Dairy  
Commission

Commission  
canadienne du lait