

2014 International Dairy Research Consortium
Health and Safety in Dairy Production: Global Issues
October 19, 2014, Saskatoon, Saskatchewan, Canada



Workshop Report

Held during the 7th International Symposium: Safety & Health in Agricultural & Rural Populations: Global Perspectives (SHARP)

Organizing Committee – Steve Reynolds, Shelley Kirychuk, David Douphrate, Joshua Schaeffer

Agenda

9:50 – 11:30 am: Tour of Rayner Dairy Research Teaching Facility, University of Saskatchewan.

1:00 – 4:00 pm: Workshop (see presentation on page 6)

- Introductions
- Overview of Initiative (Mission and Goals, Gaps, Key Elements from J. Agromedicine Editorial) – S Reynolds
- Highlight J Agromedicine Special Issue (Development/Purpose, Structure, Research Gaps) – J Schaeffer
- Priorities (IDRC Start and Current State, Partnerships, Networks) – D Douphrate, R Hagevoort
- Discussion – D Douphrate, S Kirychuk

Key Topics of Discussion and Next Steps - All

Notes

Magzamen, Schaeffer and Reynolds have a new NIOSH funded study to develop and evaluate interventions to reduce bioaerosol exposures and improve worker lung health. Douphrate, Nonenmann, Hagevoort, and Roman-Munize are collaborating. This project addresses gaps identified in the J. Agromedicine Dairy Issue. Discussion of collaborating with Kirychuk and colleagues at Saskatoon Rayner Dairy Facility were initiated. **Follow up** - Magzamen, Schaeffer Reynolds, Kirychuk.

relationship for both managers and workers, cross-cutting nature over commodities, and need to think more broadly about prevention resources and Total Worker Health approaches. Possible interventions/solutions were discussed including – empowerment of workers, regulations, developing Best Management Practices and Return on Investment business case. Examples of existing programs include: Worksafe BC and the BC Certificate for Worker Care – recognition of employers; State of Washington Workers Comp and apple producers; possible Promotores approaches where workers are trained to recognize and address mental health issues (Amy Liebman and Matt Keifer may be resources for this). **Follow up** – Developing and sharing an inventory of example programs (it would be most helpful to evaluate evidence for success of programs). Responsible persons for follow up not identified yet.

Global Distributers could have a powerful impact on worker health as well as animal health (e.g. Global Gap program). The question would be how to engage them – consumer driven?? Examples included Nestle, Costco, and Pepsi. **Douphrate** was asked to join Pepsi's Sustainability Board – worker health is included in their efforts (a good model). Additional **follow up** not identified.

Douphrate has a new study conducting a **management survey** using electronic (smart phone, ipads) and asked about pushing this out more widely through AgFF centers and internationally. Several attendees were interested in assisting through their networks. **Follow up** – Douphrate with all (didn't get names of individuals).

The utility of **sharing training videos** was also discussed. **Follow up** – Allison send link to AgFF Centers Youtube channel to all IDRC.

Conduct of controlled research trials to determine **effective metrics** for measurement of management (training and other components) interventions was suggested. **Follow up** – no specific follow up determined yet.

Participants

Name	Country	Affiliation	email
1. Jacquie Cotton	Australia	National Centre for Farmer Health	j.cotton@deakin.edu.au
2. Margaret Davidson	U.S.A.	HICAHS, Colorado State University	ma.davidson@colostate.edu
3. David Douphrate	U.S.A.	University of Texas School of Public Health	david.i.douphrate@uth.tmc.edu
4. Nate Fethke	U.S.A.	University of Iowa	nathan.fethke@uiowa.edu
5. Kit Galvin	U.S.A.	PNASH, University of Washington	kgalvin@uw.edu
6. Robert Hagevoort	U.S.A.	New Mexico State University Dairy Extension	dairydoc@ad.nmsu.edu
7. Deb Haupstein	Canada	Sask Milk (producer marketing board)	deb.haupstein@saskmilk.ca
8. Shelley Kirychuk	Canada	Canadian Centre for Health and Safety in Agriculture	shelley.kirychuk@u.sask.ca
9. Valerie Letourneau	Canada	Quebec Heart and Lung Institute, Université Laval	valerie.letourneau@criucpq.ulaval.ca
10. Jeffrey L. Levin	U.S.A.	SW Ag Center, University of Texas Health Science Center at Tyler	jeffrey.levin@uthct.edu
11. Tadhg O'Leary	Canada	Farm and Ranch Safety and Health Association	tadhg.oleary@farsha.bc.ca
12. Anna Rask-Andersen	Sweden	Uppsala University, Sweden	anna.rask-andersen@medsci.uu.se
13. Steve Reynolds	U.S.A.	HICAHS, Colorado State University	stephen.reynolds@colostate.edu

14. Josh Schaeffer	U.S.A.	HICAHS, Colorado State University	joshua.schaeffer@colostate.edu
15. Marc Schenker	U.S.A.	Western Center for AHS, University of California, Davis	mbschenker@ucdavis.edu
16. Heather Schinmann	Canada	Registered Nurse for the Occupational Health Department, Saskatoon Health Region	schinmann.heather@gmail.com
17. Amanda Van Dyke	U.S.A.	HICAHS, Colorado State University	avandyke2@gmail.com

WORKSHOP

Health and Safety in Dairy Production: Global Issues

Sunday, October 19, 2014

1300 - 1600

Salon Batoche, Delta Bessborough Hotel

The Objectives of this Session are to:

- Familiarize Dairy Producers and Scientists with the International Dairy Research Consortium (IDRC)
- Review IDRC activities and continue progress
- Explore further opportunities to address Dairy Producer needs and develop specific collaborations.

The dairy industry has experienced dramatic growth and change in recent decades. Expanding dairy production has required a larger workforce, most often consisting of immigrant labor, often with little experience in agriculture. Dairy farming is also among the most dangerous occupations, with high rates of injury, illness, and employee turnover. For dairy farmers trained to manage cows, the operation of a modern dairy employing a large immigrant workforce is a daunting challenge. To succeed the dairy industry must sustain a healthy, productive workforce.

In 2011, an International Dairy Research Consortium (IDRC) was organized to collaborate with other international researchers involved in improving the health and safety of dairy workers. This consortium is intended to facilitate collaborations and to share successful injury and illness prevention strategies, tested dissemination channels, and novel approaches used to improve the health and safety of dairy workers globally. Such leveraging of resources will augment dairy research efforts and lead to greater impact regionally, nationally, and internationally. To date members of the consortium represent the U.S., Sweden, Finland, Denmark, Germany, Italy, Canada, the Netherlands, Australia, and New Zealand. Seven of the NIOSH Agriculture Forestry and Fishing Centers are active in the consortium. This session will bring together those already active in the International Dairy consortium and invites anyone else interested in Dairy health and safety to attend this workshop.

Prior to the workshop there will be a Walking Tour of the Rayner Dairy Research Teaching Facility, University of Saskatchewan.
<http://cchsa-ccsma.usask.ca/sharp2014/tours.php>



Facilitator:
Stephen Reynolds
PhD, MSc
Colorado State University

Dr. Stephen Reynolds is the Director of the CDC/NIOSH-funded High Plains Intermountain Center for Agricultural Health and Safety in Colorado and in that role is involved in rural and agricultural health research, education, outreach, and policy on a regional and national level. He is a certified industrial hygienist with a background in chemistry and microbiology and has more than 25 years experience in exposure assessment in agricultural settings.

HICAHS International Dairy Research Consortium (IDRC)



Stephen J. Reynolds, PhD, CIH
Professor and Director HICAHS
Colorado State University

SHARP 7th International Symposium
IDRC Workshop – Saskatoon, SK, Canada
10 /20/14

IDRC Background



This group has collaborated on broader agricultural safety and health research since at least from early 1990's

- High Plains and Mountain Region Health and Safety Dairy Workshop – Denver, CO 2009.
Sponsored by HICAHS and the Southwest Ag Center
- DeLaval Meeting 2010 (United States)
- Planning meeting at Swedish University of Agricultural Sciences, Alnarp and DeLaval 2010.
- Joint symposium on our recent dairy health and safety dairy research at Seventh International Conference on Prevention of Work-Related Musculoskeletal Disorders in Angers, France 2010.

HICAHS Center Grant 2011 – 2016



- IDRC Formally Proposed – Base funding (travel, meetings) Reynolds, Douphrate, Rosecrance

Goals - Increase research capacity, share best practices, and optimizing resources. Collaborate on research and outreach projects that will ultimately result in the reduction of injuries and illnesses among dairy workers internationally.

Partners – Lundqvist, Lunner-Kolstrup, Pinzke, Colosio, Rautiainen, Levin, Nonnenmann, Keifer, Gordon, Kirychuck, Hagevoort, Ariano, Bruno, Brumby, Reed, Mulley, Elfman, Jakob, Lind, Smith, Marras, Murgia, Reuvekamp, Slutsky, Velez

IDRC Membership



Australia: National Centre for Farmer Health, University of Western Sydney

Brazil: FundaCentro

Canada: Canadian Centre for Health and Safety in Agriculture; University of Saskatchewan

Denmark: Aarhus University

Finland: TTS; MTT Agrifood Research Finland

Germany: Leibniz Institute for Agricultural Engineering Potsdam-Bornim

Ireland: Teagasc – the Irish Agriculture and Food Development Authority

Italy: University Hospital san Paolo, Milan; Occupational Health Service of Sassari (Sardinia, Italy), National Health Service; Department of Territorial Engineering, University of Sassari

The Netherlands: The Netherlands Center for Occupational Diseases

New Zealand: Employers and Manufacturers Association

Sweden: DeLaval; University of Uppsala; Swedish University of Agricultural Sciences

U.S. HICAHS, SW Center, NFMC-UMASH, Central States, GPCAH, Western Center, NMSU, Penn State

IDRC Initial Meeting Colorado July 2011



Meeting Goals and Accomplishments

- Share information on industry and programs in country
- Identify global issues and priorities
- Identify opportunities for collaboration
- Develop objectives and schedule
- Identify resources

IDRC Conferences / Workshops - Dissemination



- Colorado IDRC, July 2011
- Ireland Nordic Conference, August 2011
- Spain International Conference of Agricultural Engineering (CIGR-AgEng), July 2012
- Sweden Nordic Conference, August 2012
- Italy International Conference on Safety, Health and Welfare in Agriculture and Agro-food Systems, September 2012
- New Zealand World Safety Conference, September 2012
- ISASH, June 2013
- Italian Association of Agricultural Engineering: Horizons in agriculture, forestry and biosystems engineering, 2013.
- Colorado IDRC, July 2013
- Dr. Douphrate - new monthly column on Dairy Worker Safety and Health for *Progressive Dairyman* Partners in the IDRC contribute.



Italian Collaborations Faculty and Student Exchanges

- Rosecrance visiting professorship in Dept. Agricultural Engineering, University of Sassari in 2012 and 2013.
- Three CSU graduate students participating in dairy research in Italy and presenting their research at the University of Sassari.
- Rosecrance Sabbatical 2014 - University of Milan to build dairy research opportunities with Colosio's research team at the International Centre for Rural Health.
- Doctoral student from the University of Milan - visiting scholar at CSU in 2013 & 2014 focusing on ergonomic exposures of the upper limb among dairy workers. Working with Rosecrance and CSU graduate students involved in dairy research.
- International scientific board for two agricultural meetings in Italy in 2015 and the International Ergonomics Meeting in Florence in 2018.



Italian Collaborations Grant Proposals

- Professor Murgia (University of Sassari) grant in 2013 to study energy usage and ergonomic issues in cow and ewe dairy operations (Rosecrance, co-investigator) – funded.
- Writing ag health proposal with Colosio (Milan) to the European Commission, Directorate-General for Education and Culture. Marie Curie Programs related to Horizons 2020 (80 billion Euros).
- Writing a proposal with Federica Masci (Milan) to Italian MINISTRY OF AGRICULTURE, FOOD AND FORESTRY concerning the "International Congress on Rural Health, as social, economic and cultural engine" in Milan September 2014. Title of proposal: Prevention of zoonotic diseases among dairy workers in Italy.

Journal of Agromedicine (Volume 18, Issue 3, 2013).

Editors: Reynolds, Lundqvist, Colosio

A Global Perspective on Modern Dairy: Occupational Health and Safety Challenges and Opportunities

