

Network News

THE NETWORK providing agricultural occupational health and safety information and programs to Saskatchewan farm families since 1988

*Dr. John Gordon,
Director of the Canadian
Centre for Health and
Safety in Agriculture
welcoming Summit
participants*



Special
Issue:

A CELEBRATION OF
RURAL RESEARCH

A National Summit

*The Canadian AgriSafety Applied Research Program:
Underpinning Industrial Occupational Hygiene Programs
for Canadian Agricultural Workers*

On February 16th in Saskatoon 110 stakeholders including producers, policy makers, safety practitioners, researchers and industry partners gathered at a National Summit to discuss the priorities and gaps in agricultural safety research. The knowledgeable energetic people from across the province and representing national institutions received a challenge: to provide input into the priorities and recommendations of the proposed Canadian AgriSafety Applied Research Program. It is a program to change the way agricultural safety research is performed, perceived, and followed through.

Rising to this challenge, and exceeding initial expectations, the invited stakeholders provided key input on issues integral to a proposed national program of applied research necessary to develop occupational hygiene programs in agriculture with the mission: "to achieve, through a Canadian coordinated approach to applied research and its effective translation, a safe, healthy and productive agricultural sector for farmers, farm workers, rural communities, and the Canadian public."

What is Industrial Hygiene?

It is a preventive practice in the workplace including the development of corrective measures in order to control hazards by reducing or eliminating the exposure. The Hierarchy of Control is explained in detail on page seven.

The diversity and wisdom of all participants contributed to a proposal for The Canadian AgriSafety Applied Research Program. It has the potential to change the face of agricultural health and safety, and promises historical significance leading the way into a golden era where no one is hurt farming.

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Letter from the Editor

A Visit to the Agricultural Hall of Fame

As I climbed the staircase to the Saskatchewan Agricultural Hall of Fame with anticipation of what I might find, I could feel energy radiate from the room that celebrates individuals who have contributed to the advancement of Saskatchewan agriculture. Surrounded by legends radiating far beyond the confines of the Western Development Museum, I sat down with Jack Hays.

Amidst a plethora of positive agricultural energy I asked Jack to describe the significance of the Saskatchewan Agricultural Hall of Fame: "The Saskatchewan Agricultural Hall of Fame is made up of ordinary individuals that have been involved in organizations to fight for the betterment of agriculture. Agriculture is continually changing due to individuals who fight for positive change. It includes men and women who have spent a tremendous amount of time on activities for the betterment of agriculture."

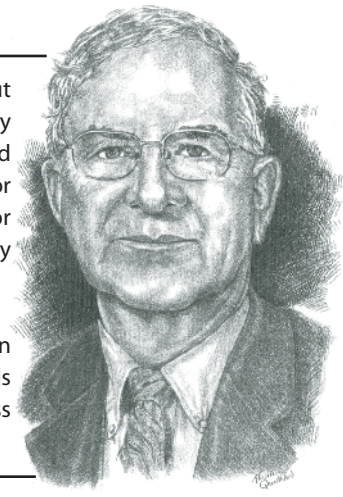
Introduced to community involvement by his parents at a young age, Jack challenges individuals and organizations to continue their efforts to make positive agricultural changes. He notes that volunteer work was a significant part of the lives of those inducted into the Hall of Fame. I came away with a deeper sense of the value of community involvement, and a sense of pride to be part of this amazing province.

Bonita

The inside four pages of this issue is a summary of the Saskatchewan Farm Injury Project. Saskatchewan farmers participated in this study and it is important for the results of the study to find their way into the hands of the primary stakeholders of agriculture health and safety. Look on page 7 for an update of Phase 2 of the study.

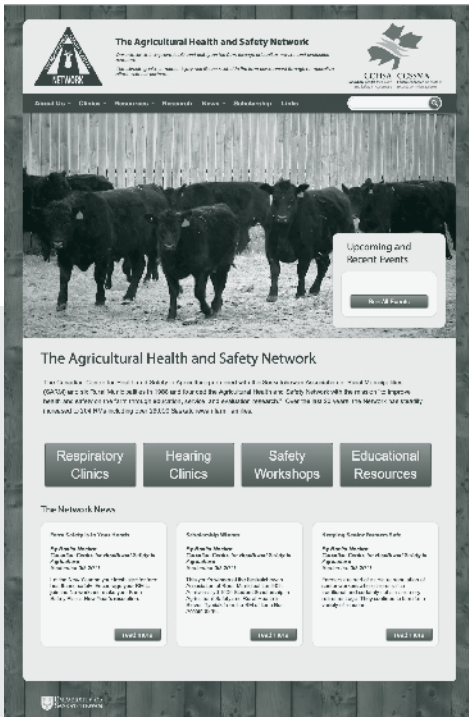
These findings focus the Agricultural Health and Safety Network's injury prevention activities. The most recent example, the Farm Safety Plan Project is a response to the results found in this research as it addresses all the concerns raised by the conclusions of this study. A Children's Factsheet and an Older Farmers' factsheet are available. The Sleepless in Saskatchewan tour and subsequent DVD production address the fatigue and sleep findings. Please contact the Network if you are interested in these or other safety resources.

Another example of Saskatchewan leading Canada!



You aren't called the "Father of Agriculture Medicine" without contributing significant findings in the area of health and safety of farm workers. Dr. James Dosman has broken unprecedented ground in Saskatchewan, establishing the Canadian Centre for Health and Safety in Agriculture in 1986, identifying the need for prevention and establishing the Agricultural Health and Safety Network. His continuing work is far-reaching.

Dr. James Dosman was inducted into the Saskatchewan Agricultural Hall of Fame in 2011. Surrounded by family, friends and colleagues, he accepted his award. He attributes his success to the contributions of many strong individuals in his life.



New Website

Technology is making its way into the countryside, and the Network is doing its best to serve both sides of this growing change.

Our website received an overhaul this year to provide all of our resources at your fingertips. With an updated look and an easy set up, we look forward to receiving your feedback.

We are also offering the opportunity to stay connected to the Network by periodic email. If you would like to be on our email list to keep you connected to the Network throughout the year, please send your email address to aghealthandsafety@usask.ca

PURPOSE: to understand risk factors associated with agricultural injury, with the long-term goal of informing the development of prevention programs.

SASKATCHEWAN FARM *Injury Project*

“This project is a major Canadian study, and its results could have an impact upon research and practice in farm populations in many parts of the world. I have especially valued the opportunity to work closely with my colleagues from the University of Saskatchewan. We are trying to honour the participants, and the people of Saskatchewan, by making the most of the information that they have so graciously provided”
~ *Dr. William Pickett, Queen’s University*

THE POPULATION HEALTH FRAMEWORK

A cohort is a group of people sharing a common factor such as, in this case, agriculture.

What drives the farm injury epidemic? Is it our work practices? Is it economics? Is it our longstanding farm traditions? Or is it simply the physical dangers of a very hazardous occupation?

Using a large cohort study, back in the winter of 2007, we asked farmers about themselves, their families and their farm operations. They provided us with a very detailed picture. We kept in touch with those farmers until 2009, and used their earlier information to predict their farm injury experiences over time. In doing so, we applied a new theory called the “Population Health Framework” to study what determines whether or not a farm person is injured. That theory would suggest that it is a combination of individual work exposures, and the type of farm environment they work in, that decides whether or not someone gets injured.

What we found was a bit surprising ... it certainly wasn’t predicted by the new theory. We found that what really drives the farm injury epidemic wasn’t financial, stress, or their traditions and views about farm safety. What was really important was much simpler than that ... it was the physical state of their farms, and the hours they were putting in that best predicted their injury experiences. This is really helpful information,

in that it tells us what provides new evidence on what to emphasize in occupational health and safety campaigns on farms. The physical work environment matters a whole lot on farms. So does the fatigue associated with those long work hours. Other factors had less importance as determinants of farm injury experiences.

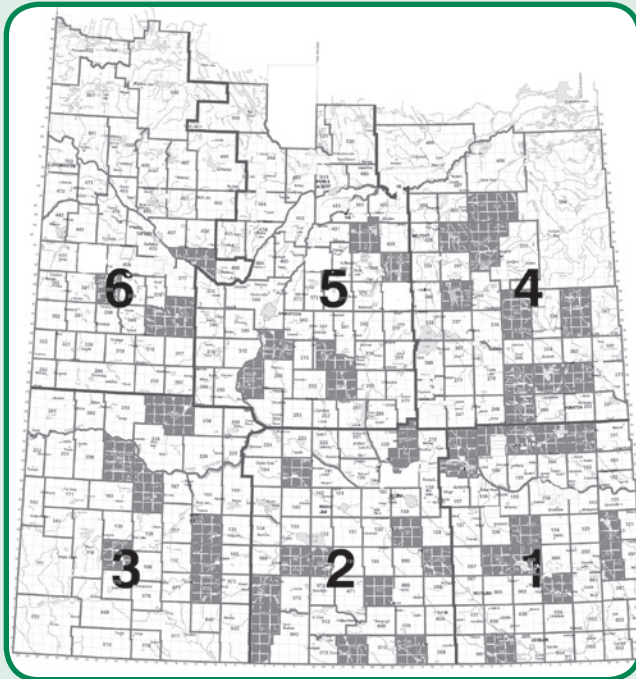


In the following pages you will discover interesting answers to a number of questions posed by the members of the research team. In each case the researchers have raised points for your consideration. The research team continues to develop questions that will be examined using the study data. The new information provided by the study will assist farmers, health and safety professionals, and policy makers in making the farm a safer place to live and work.

STUDY DESIGN

WHO PARTICIPATED?

Fifty-three rural municipalities (RMs) were randomly selected to participate in the study. During 2006 the research team met with each RM Council. We had terrific cooperation from 96% of the RMs that chose to participate.



MAIL SURVEY

During the winter of 2007 the main study survey was mailed to all of the active farms located in the 50 RMs. At the end of the survey 5,502 persons living on 2,422 farms had participated.

PARTICIPATING FARMS

TOTAL NUMBER	No.	100%
By size – average acres		
• Grain crops	2012	800 ac
• Forage crops	1222	180 ac
• Pasture	1055	260 ac
By animals - %		
• Beef cattle	1259	52%
• Dairy cattle	12	2%
By operating arrangement:		
• Individual family farm	1558	67%
• Partnerships	451	19%
• Family corporation	301	13%
Family lives on farm:		
• All	1602	66%
• Some	420	17%
• None	363	15%

INJURY EXPERIENCES

Injuries were tracked on 2,043 farms for the 2 year period beginning in April 2007 and ending in March 2009. A total of 467 injuries occurred during the period.

- Persons most frequently injured were males between the ages of 40 and 69 years.
- Over 91% of injuries occurred during farm work.
- Treatment by a health professional was required for 64% of injuries and 6% required hospitalization.
- Machines were involved in 44% of injuries.
- Animals were involved in 28% of injuries.
- Falls were involved in 24% of injuries.

Researchers were interested in farm characteristics, safety practices, safety hazards, injury on the farm, and economic stress. Some of this research aimed to provide comprehensive information on important health questions suggested by farmers. One hope was to confirm or disprove common perceptions about the health of Saskatchewan farmers. The researchers also hoped to gain new knowledge about personal and operational factors that lead to injury. Specific research questions included:

- Does formal education help to reduce risks for injury on farms?

- How does economic strain affect the health and safety of farmers?
- What role does poor sleep play in causing injuries?
- How often do older farm people work, and how much does this vary over the farm seasons?
- Why are children exposed to so many hazards on the farm worksite?
- How much does machinery maintenance matter to the safety of farm workers?
- Could some new Population Health Theory be applied to the problem of farm injury?

RESEARCH CONCLUSIONS:

It appears that what is driving the epidemic of farm injury is the physical state of the farm and the exceptionally long hours producers are spending at work on the farm. Five major themes emerged from this research:



THEME 1 FATIGUE

- Farmers are working exceptionally long hours and the resulting fatigue puts them at higher risk for injury.
- Many farmers report insufficient sleep during peak seasons. Many also report diagnosed and undiagnosed sleep disorders. These too can lead to injury.

THEME 2 THE PHYSICAL ENVIRONMENT MATTERS

- The physical condition of machinery, vehicles and buildings is strongly related to farm injury experiences.
- Many teenage and older workers are operating older equipment without safety features.
- Interestingly, economic conditions were not strongly related to injury experiences.

THEME 3 OLDER FARMERS ARE VULNERABLE

- Farmers over the age of 75 average about 30 hours of farm work a week. This puts them at high risk for injury.
- Senior farmers report more hearing loss and double the rate of asthma compared to other Canadians of the same age.

THEME 4 CHILDREN AND TEENS ARE VULNERABLE

- The effects of long work hours put in by parents influence the health of their young children.
- Parents use many strategies to cope with child supervision issues. Some of these strategies put their children at risk.
- Teen workers are more frequently exposed to hazardous farm work when the owner-operator reports excessive hours.

THEME 5 EDUCATION ALONE IS NOT THE ONLY SOLUTION

- Education is a necessary component for safe farming.
- However, the evidence suggests that education alone is not enough to cause the change in behaviour that will result in safer farms.

SO WHAT?

FATIGUE:

- Injury prevention efforts should involve identifying agricultural work tasks associated with high levels of fatigue. Task specific fatigue management strategies should be developed.
- We need to evaluate methods to minimize the effects of fatigue on injury risks.
- Farmers with undiagnosed sleep disorders require clinical care.

PHYSICAL HAZARDS

Injury prevention programs need to focus on:

- Use of safety shields on machinery
- Importance of safe operational practices
- Enhancement of the physical safety of the farm environment

SENIOR FARMERS

- This is a unique occupational group that needs focused occupational health and safety programs.

CHILDREN AND TEENS

- Children continue to be exposed to increased hazards by parents choosing to keep their children with them, while parents are coping with long work hours.
- Teens are at greater risk when exposed to work hazards such as tractors without ROPS, old machinery and working at heights.

SAFETY EDUCATION

- The agricultural sector needs to include the full public health model in its prevention initiatives including education, engineering and regulation.
- Injury prevention efforts should focus on: occupational health and safety practices associated with long work hours, physical risks and hazards on farms and behavioural modifications to minimize occupational injury risks.

“Working together, we can prevent the epidemic of farm injuries.”

Dr. James Dosman

WHAT'S NEXT?

- Members of the research team will continue to analyze the existing data from this cohort to look at other agricultural topics of interest.
- The College of Medicine at the University of Saskatchewan has undertaken a large and in-depth evaluation of the respiratory health status and the use of health services with rural Saskatchewan people.
- In the future we can look forward to the establishment of a similar children's cohort.



The study was funded by Canadian Institutes of Health Research (CIHR), the leading agency for supporting health research in Canada, for a five year period (2005-2010). CIHR is responsible for funding health research in Canada. The goal of CIHR is to create new health knowledge and to transfer that knowledge from research to real world application.



The Canadian Centre for Health and Safety in Agriculture (CCHSA) has evolved its 20 years of leadership in agricultural health and safety into a national centre of excellence encompassing the field of agricultural safety, rural health, knowledge translation and the delivery of training programs. CCHSA will continue to focus resources on addressing public rural and agricultural health issues and link research to community and policy.

**THE INTERNATIONAL RESEARCH TEAM**

Dr. William Pickett, Professor of Epidemiology, Queen's University

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Dr. Barbara Marlenga, Research Scientist, National Farm Medicine Center, Marshfield Clinic Research Foundation, Wisconsin

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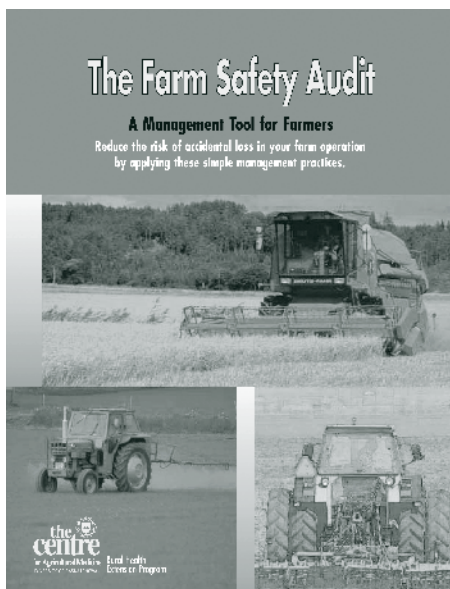


Have You Done A Safety Audit of Your Farm?

The Farm Safety Audit is a valuable business management tool for farmers. Apply the simple management practices to reduce the risk of accidental loss in your farming operation.

The most important step in the audit is the corrective action taken to make your farm a safer place to work. Corrective actions are aimed at putting in place the most effective hazard control. Hazardous conditions are best corrected by replacing, repairing or removing the deficiency. Always try to choose the highest level of control possible for your situation. Although injury reduction is the number one reason for making the necessary changes, the control solutions will likely also increase productivity by reducing injury and property damage.

HIERARCHY OF CONTROL



Most Effective



Least Effective

Eliminate the hazard*

Substitute for a lesser risk*

Engineering/design*

Work Practices

Personal Protective Equipment

Remove from use.

Use a different machine, material or work practice which poses less risk to perform the same task

Redesigning or modification of the machinery or work processes to reduce or eliminate the risk or to isolate the hazard from the worker.

Making and enforcing rules about work practices for ones self and other workers. Set a good example.

When no other control measure is possible, isolate the worker from the hazard by providing a protective device worn by the person.

**Preferred and most effective methods*

Check to make sure that the control measure chosen does not introduce a new hazard and the measure provides the desired control.

The above information has been obtained from the Network's Farm Safety Audit

Contact the Network at (306) 966-6643 to have a copy of The Farm Safety Audit sent to you. This resource comes in an easy to use booklet of checklists for the most potentially hazardous areas of your farm. It is also available on our website.

Saskatchewan Farm Injury Project – Phase 2

Phase 1 of the Saskatchewan Farm Injury Project was conducted from 2005 to 2011. The study enjoyed the support of 50 rural municipalities and more than 5500 farmers and their families. The insert describes the participation in the study and some of the results.

The results of the study have added important new information to our understanding of the nature and risk factors for farming related injuries. These findings have advanced the study of farm injury and will contribute to the development of more effective prevention strategies. This study has been funded to continue for another 5 years. New features of Phase 2 include the establishment of a cohort of children to participate in the study and we will also gather more information about the safety practices and attitudes of

farm operators. Another new feature will be the study of musculo-skeletal injuries in addition to traumatic injuries. Very little is known about musculo-skeletal injuries experienced by farmers and the results of this study will help to fill that gap. Of the 2422 farms that participated in Phase 1, 852 have agreed to continue in Phase 2.

We hope to be recruiting new participants from 25 RMs to bring the total farms participating to 2000 or more. The baseline survey for Phase 2 will be conducted beginning in January 2013. We look forward to working with the rural municipal councils and farmers of Saskatchewan in this new phase of the Saskatchewan Farm Injury Project. For further information about the study you can contact Louise Hagel, project manager, at (306) 966-6648 or by email at louise.hagel@usask.ca.

Canadian Agricultural Safety Campaign

Studies show that farm businesses with written farm safety plans tend to be 25 per cent more profitable than their peers. Do you have a farm safety plan? Canadian producers are encouraged to Plan • Farm • Safety by developing a farm safety plan and putting it into practice throughout the year.

Steering Committee Members

The Steering Committee is The Network's advisory group that provides direction and feedback on programs delivered in the Network. It is made up of RM councilors from each of the six SARM divisions representing farmers, their families and their workers. The Steering Committee Members for the 2011-2012 year are:

- Division #1: Stan Lainton, RM of Coalfields No. 4
- Division #2: Duane Filson, RM of Wood River No. 74
- Division #3: Floyd Thunstrom, RM of Coateau No. 25
- Division #4: Brenda Zemluk, RM of Elfros No. 307
- Division #5: Eugene Matwishyn, RM of Prince Albert No. 461
- Division #6: Garry Hoppe, RM of Glenside No. 377

Welcome! Duane Filson is our newest Steering Committee Member from the RM of Wood River #74. We are very happy to have Duane on the committee!

Did you know

that the Network is celebrating 25 years of serving Saskatchewan farm families in 2013?

**Farm Stress Line: 1-800-667-4442
Monday to Saturday 8 A.M. to 9 P.M.**

The farm stress line is a confidential peer counseling service responding to the needs of farm families. When you call you will talk to people who understand farming—men and women who have experienced the pressures of farming today. They are there to help you explore options and connect you with programs and services so you are better able to address problems and make choices.

New Members

Congratulations to our newest Network members:
RM of Birch Hills #460
RM of Colonsay #342
RM of Waverly #44
RM of Mankota #45

There are currently 210 RM members in the Agricultural Health and Safety Network. If your RM is not a member, and you would like to find out more about becoming a member, please call (306) 966-6647.

Moved? Retired? Not Farming?

To remove your name from our mailing list call (306) 966-6644 or contact the editor.

Need more information?

There are a variety of resources available on line at: aghealthandsafetynetwork.usask.ca

Thank You to the Following Organizations for Supporting the Network News:



Saskatchewan
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the co-operators

A Better Place For You™



From the Editors:

Send your ideas, comments and suggestions to:

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University of Saskatchewan
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