

# The

# NETWORK News

Spring 2001



the  
centre  
for Agricultural Medicine  
UNIVERSITY OF SASKATCHEWAN

Brought to farming families by their Rural Municipal Council and the Agricultural Health and Safety Network

## Gleanings from Farm Injury Control Summit II

*"It's mid-harvest. The newspaper reports another serious farm work-related injury, or worse yet . . . a farm death. Words can never express the great loss we all feel."*



These words set the scene for the second annual Farm Injury Control Summit, held in Saskatoon on November 22, 2000. A moment of silence followed in recognition of all farm families who had lost a loved one to a farm fatality.

A crowd of over 90 delegates from across the province attended the Summit sponsored by Saskatchewan Agriculture and Food, the Saskatchewan Association of Rural Municipalities and the Centre for Agricultural Medicine. Delegates represented community agencies, organizations, health districts, individual farm families, rural municipalities and provincial government.

In his opening remarks, Dr. Jim Dosman, Director of the Centre for Agricultural Medicine, contrasted the prevalence of farm injuries and fatalities with safety advances in other industries. He provided delegates with the hard facts:

*"Between 1990 and 1996, 147 persons lost their lives on Saskatchewan farms. Those killed ranged in age from one year to 89 years of age. During this time, another 2,293 farm injuries requiring hospitalization occurred. This is NOT acceptable - we cannot afford to lose any more individuals to farming injuries."*



Darlene and Tony Potoreyko with daughters Devra, Denise, Tristina and TeLeah

Keynote speakers, Tony and Darlene Potoreyko of Porcupine Plain, Saskatchewan, captured the delegates' attention and emotions with a heart-wrenching testimonial about the effects of a serious farm injury. Tony recounted the story of the baler incident on August 6, 1993 that left him with a permanently disabled right arm. Darlene spoke about the ripple effects the incident had on their farm operation, their marriage and four daughters, and their role as members of an extended family and community.

Break-out sessions gave delegates an opportunity to examine farm injury statistics for their health district, establish priorities for change and develop a local action plan. A Strategy Fair featuring interactive booths promoted a variety of farm health and safety resources. At the Media Booth, delegates had their picture snapped and recorded "I can make a difference in farm safety" messages. (See page 4).



Industrial hygienist, Shelley Kirychuk, shows Carl Siemens an H2S monitor at the Strategy Fair

Displays and door prizes were provided by 21 sponsors including Acklands-Grainger Inc., CFQC, CSP Foods, Direct West, Drivers Discount Auto Parts, Farm and Garden Centre, Midtown Plaza, PAMI, Prairie Mobile Communications, Quality Hotel, Regina Health District, Saskatchewan Labour, Saskatchewan Safety Council, Sask Tel, Saskatoon District Health, Royal University Hospital, Saskatoon Amputees' Support Group, Staples, The Canadian Hearing Society, University of Saskatchewan Extension Division and Wheatland GMC Ltd.

The third annual Farm Injury Control Summit will take place during the week of November 26, 2001. Check the Fall issue of Network News for further details. ♦

# Saskatchewan Smarts

In this column, we highlight health and safety inventions by Saskatchewan farmers. If you are aware of such an innovation, please alert the Editor. Publishing product information does not necessarily constitute endorsement.



Ralph Wasylyniuk

Ralph Wasylyniuk farms near Raymore, in the R. M. of Touchwood #248. In the 1980's, he and his brother, Don, cropped between three and five thousand acres. Ralph did the spraying, using a tractor with a pressurized cab and a large pull-type sprayer. He recalls, "For many years, I experienced flu-like symptoms in spraying season that I suspected were caused by exposure to pesticides. Later, when I used the tractor for baling or deep tilling, the residual chemicals in the sound-

absorbing material of my cab would still make me nauseous."

During the winter of 1984-85, Wasylyniuk was intrigued by the possibility of designing a chemical filter for air entering the tractor cab. As well as removing pesticides, the device would maintain a controlled environment by filtering out grain dust, manure and diesel odours, pollens and mold spores. With a degree in Agriculture from the University of Saskatchewan, Wasylyniuk used his knowledge of chemistry to investigate different types of carbon for the filter. He eventually selected a Sri Lankan product with pore spaces that could trap very small molecules.

Once a prototype was built, he was anxious to try it out. With spraying season still distant, he decided to test its effectiveness with another chemical hazard, diesel fumes. He opened the doors to the quonset, started up the 2090 Case and proceeded to let it run. Wasylyniuk recalls that the quonset was so full of fumes he could barely see the walls, but he could smell no diesel fumes.

Notable features of the Protect-Air Cab Filter™ are easy installation and economical, replaceable components.

Formal testing by a reputable agency was the next step. Lab and field tests were performed by Saskatchewan Research Council and by the federal Department of Agriculture's Regina and Saskatoon research stations. The results showed that:

- The filter was found to be, on average, 98% efficient in the removal of both herbicides and insecticides from the airstream.
- The filter performed efficiently even when challenged with chemical concentrations 10 times higher than chemical concentrations found in the field.
- The unique air flow design of the filter provided proper flow of air through the filter medium.
- Air flow reduction through the filter was 10 to 12%, with the balance more than adequate to maintain cab pressurization.

In the spring of 1986, Wasylyniuk patented his design and Dutch Industries of Pilot Butte, Saskatchewan began manufacturing the Carbo-gran filled device. At the Farm Progress Show in Regina, the Protect-Air Cab Filter™ won the "New Inventions Award." Notable features included ease of use: the device can be installed in five minutes with no modification to the tractor cab; and Cost-effectiveness: filter components are bought separately and replaced as needed. Since then, many models and modifications have made the filter adaptable to a variety of spray applicators, combines, tractors and industrial equipment.

Personal experience also factored into the development of a second product. Wasylyniuk will never forget applying anhydrous ammonia late one evening in damp conditions. When the tractor

ran out of fuel, he had to walk over the sprayed field and was reminded how irritating ammonia fumes are to the nose, eyes and throat. This experience, and research suggesting long term exposure to low levels of ammonia causes permanent lung damage, led to the development of the Ammo-gran cab filter. The product is now widely used in intensive hog and dairy operations and for dealing with barnyard wastes as well as for anhydrous ammonia application.

Dutch Industries manufactures and sells Protect-Air Cab Filters™ all over the world with sales in Canada, the U. S., France, Germany, Belgium, the Netherlands, Australia, Argentina and South Africa. The manufacturer will also build custom cab filters to meet producers' needs.

Currently, Wasylyniuk is the Canadian sales representative for AGSCO Inc., a North Dakota company that specializes in seed treatment and agricultural chemical transfer systems. He also raises beef cattle and quarter horses. Wasylyniuk crops only about 600 acres nowadays. Nonetheless, he appreciates the air quality his Protect-Air Cab Filter™ provides.

For further information, contact Dutch Industries, Tel: (800) 663-8824, P.O. Box 568, Pilot Butte, SK, S0G 3Z0 or Ralph Wasylyniuk, Tel: (306) 746-4495, Box 578, Raymore, SK, S0A 3J0. ♦

## Gotcha!

It was hard to tell which man was more surprised at the Saskatchewan Association of Rural Municipalities March convention in Saskatoon.

Dr. Jim Dosman, Director of the Centre for Agricultural Medicine - tongue firmly in cheek - announced the "Sinclair Harrison Prize" to be awarded to a farm family in the SARM Division that is first to enrol all its R. M.'s in the Agricultural Health and Safety Network. The prize was news to SARM President, Sinclair Harrison who, nonetheless, graciously agreed to personally fund the all-expenses-paid, three day trip to Disneyland, should the terms of the prize be met.

Minutes later, Sinclair Harrison presented Dr. Dosman with a framed plaque expressing "recognition and appreciation for meritorious service to the people of Saskatchewan." No joke here - the SARM award was a salute to Dr. Dosman's role in establishing the Centre for Agricultural Medicine in 1986, the Agricultural Health and Safety Network in 1988, the Saskatchewan Alliance for Agricultural Health and Safety and the Canadian Coalition for Agricultural Safety and Rural Health in 1993; and for conceiving and negotiating funding for the Canadian Agriculture Safety Program in 1995.

Not only an administrator, Dr. Dosman examines and treats farmers and others with respiratory disease at a weekly clinic at Royal University Hospital in Saskatoon. And as often as he can, he travels Saskatchewan roads to speak to Rural Municipalities and Health Districts about farm safety and rural health. ♦



Sinclair Harrison presents SARM award to Dr. Jim Dosman

# Farmers and diesel engine exhaust emissions

Diesel engine exhaust emissions or fumes are a mix of gases, vapours, liquid aerosols and particles. They contain products of combustion including: carbon (soot), nitrogen, water, carbon monoxide, aldehydes, nitrogen dioxide, sulphur dioxide and polycyclic aromatic hydrocarbons. The soot content may be 60% or higher. Most contaminants are carried on the soot. Gas engines produce more carbon monoxide but much less soot than diesel engines.

## What factors affect the composition of diesel fumes?

The quantity and make-up of diesel fumes varies depending on the type of engine (eg: standard, turbo or injector), how it is tuned, the fuel pump setting, the workload demand on the engine, the engine temperature and whether the engine has been regularly maintained.

## What does the colour of the smoke indicate?

- Blue smoke (mainly oil and unburnt fuel) indicates a poorly serviced and/or tuned engine.
- Black smoke (soot, oil and unburnt fuel) indicates a mechanical fault with the engine.

- White smoke (water droplets and unburnt fuel) is produced when the engine starts cold and disappears when the engine warms up.

## Do diesel fumes affect your health?

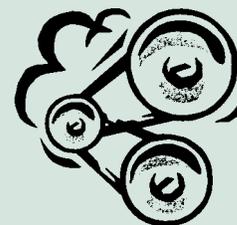
Short term exposure to diesel fumes can cause irritation of the eyes and respiratory tract. Prolonged exposure, especially to blue or black smoke, can lead to coughing, phlegm and shortness of breath. In the long term (over about 20 years), there is some evidence that repeated exposure to diesel fumes may increase the risk of lung cancer, a risk not posed by gas engines.

## How to protect yourself

- ✓ Avoid exposure where possible or wear a chemical cartridge respirator.
- ✓ When vehicles or machines produce blue or black smoke, take prompt action to correct the problem.
- ✓ Keep doors and windows open to remove fumes where possible.
- ✓ Turn off engines when not required.
- ✓ Do not eat or smoke in areas exposed to diesel fumes.
- ✓ Wash your hands and face before drinking and eating.
- ✓ Avoid skin contact with cold diesel fuel and hot fuel or oil.

## Test your diesel fuel health hazard awareness

- Symptoms resulting from prolonged exposure to diesel fumes are:
  - seizures
  - cough, increased phlegm and shortness of breath
  - upset stomach
  - all of the above
- Skin contact with diesel fuel may cause dermatitis.  T  F
- There is some evidence that repeated exposure to diesel fumes over a period of about 20 years may increase the risk of \_\_\_\_\_ cancer.
- Exposure to gas engine exhaust emissions does not have the same cancer risk.  T  F



## Network Annual Meeting

The Agricultural Health and Safety Network held its 13th annual meeting in conjunction with SARM's annual spring convention in Saskatoon. Staff and Steering Committee members challenged representatives from 37 municipalities to be leaders in farm safety in their communities. Centre staff reported on the year's activities and invited audience members to participate as "incident investigators" in a slide-talk presentation of a tractor runover case study. New member RM's were welcomed; and existing member RM's received certificates and unique, made-in-Saskatchewan plaques commemorating Network membership for one, five, and ten years.

Members of the Network Steering Committee act on behalf of their constituents to advise the Centre for Agricultural Medicine on matters of policy, finance and program. Committee members re-elected by acclamation for 2001-02 are:

Robert Banbury	Div. 1	Tel: 698-2826
Vance Wensel	Div. 2	Tel: 472-3169
Dan West	Div. 3	Tel: 587-2844
Bernard Bigoraj	Div. 4	Tel: 592-4616
Bill Martens (Chair)	Div. 5	Tel: 253-4429
Marshall Veikle	Div. 6	Tel: 398-2251



Committee member, Vance Wensel and Committee Chair, Bill Martens

## Thank you!

For support in publishing Network News, the Agricultural Health and Safety Network wishes to thank:

**Saskatchewan Agriculture and Food**

# "I can make a difference in farm safety"

## MESSAGES



"For seasonal activities like running the combine or auger, orient those who will be operating the equipment before the time crunch, when stress levels are high. And re-orient them every year."  
Debra Morgan  
Hanley, SK

"Many farm accidents are stress related. Extended working hours and the poor farm economy make it extra important to take time for a break. It may save your life"  
Ray Orb  
Cupar, SK

"Make safety a priority in your hour-to-hour working day."  
Richard Polkinghorne  
Marsden, SK

"Ensure that someone knows where you will be working and when you will be back."  
Mildred Krieger  
Langham, SK

"Farm safety and older farmers – a family affair."  
Jack Drew  
Regina, SK

"Take regular breaks while out in the field."  
Bernard Bigoraj  
Buchanan, SK

"Take time and you'll be FINE."  
Edmee Korsberg  
Lanigan, SK

"Reduce or eliminate pesticide use for all food production. Protect everyone's health."  
Marc Loiselle  
Vonda, SK

**SMART RISK** "Where's your stupid line?"  
**STUPID RISK**

"Know the do's and don'ts of livestock handling."  
Colleen Seaman  
Eyebrow, SK

"A farm is a terrific place to work But in barns and granaries dangers lurk. Beware of cows with calves, and big machines Used to harvest corn, wheat and beans. Take care of yourself and those at home, Let trouble fine elsewhere to roam."  
Lefa Sproxton  
Kerrobert, SK

Carl Siemens  
Rush Lake, SK

"Let's all be 'Farm Wise.' What can you do?"  
Bryce Martin  
Wilkie, SK

## Farm Response Courses

To arrange for a Farm Response course in your community, contact:

Lori Lockinger, Network Program Coordinator  
Tel: (306) 966-6643 Fax: (306) 966-8799  
e-mail: lockinger@sask.usask.ca



## Welcome New Members!

The Agricultural Health and Safety Network is pleased to welcome the following new members:

R.M. of Perdue, #346  
R.M. of Cupar, #218

Have you used the facts you learned in a Farm Response Course? If so, please call Lori at (306) 966-6643.

### MOVED? PLANNING A MOVE?

Please fill out card below and send it to the above address.

Name \_\_\_\_\_

Address \_\_\_\_\_

Town \_\_\_\_\_ Postal Code \_\_\_\_\_

R.M.: \_\_\_\_\_ RM# \_\_\_\_\_

## From the Editor

We welcome your comments and contributions. Send correspondence to:

**The Editor**

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