


Network News

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

Small Steps Offer Big Protection

“We don’t have an adequate understanding of the toxicity of many herbicide and pesticide formulations to humans. The farmer’s best strategy is to minimize exposure.” – Allan Cessna, PhD



A study by Allan J. Cessna, a research scientist with Agriculture and Agri-Food Canada (AAFC) currently on secondment to the Environment Canada National Water Research Institute in Saskatoon, and R. Grover, then director of the AAFC Research Station in Regina, provides convincing evidence that very simple steps such as wearing clean clothing and pulling on a pair of neoprene gloves can offer farmers significant protection from the potentially toxic effects of herbicides during spraying.

Cessna and Grover studied the exposure to and absorption of bromoxynil by 13 farmers near Regina during mixing and spraying operations. Bromoxynil is an herbicide used to control weeds in cereal crops, and was applied using tractor-drawn sprayers. The study used air samples, hand washes and dermal-patch dosimeters to measure the amount of herbicide available for inhalation or skin absorption during spraying, and tested urine samples to estimate herbicide residues in the body.

All participants used their own tractors and spraying equipment, and followed their normal application procedures. They were

issued with standardized clean clothing for all exposures, including socks, workpants, t-shirts and cotton coveralls, along with knee-high rubber boots and hard hats. In addition, for 5 of the 13 exposures, farmers wore gauntlet-style neoprene gloves during spray operations.

The study showed that farmers using sprayers with larger-capacity tanks (thereby reducing the number of refills needed) and those with tractor cabs received significantly less exposure to bromoxynil than did those with smaller tanks and no cabs. However, the study also demonstrated that newly laundered clothing and neoprene gloves provided significant protection against herbicide absorption by the skin.

Specifically, the study showed that the two layers of cotton worn by the farmers reduced levels of herbicide exposure by over 15 times. Gauntlet-style neoprene protective gloves reduced levels of herbicide deposited on the hands by 25 times.

“The hands are the primary location for exposure to chemicals during spraying,” Cessna says. “Hands are involved in all stages of the spraying operation. Gloves may feel awkward, but they reduce risk

considerably. Wearing clean clothing during each spray operation also helps to reduce exposure.”

Cessna points out that while herbicide container labels do provide specific direction in cases where special precautions—such as using respirators—should be taken, all such chemical formulations have the potential to be toxic. By taking very basic steps, farmers can dramatically reduce their risk of exposure.

Points to Consider

- Wearing gauntlet-style neoprene gloves can reduce exposure of hands to herbicides during mixing and spraying by 25 times.
- Two layers of freshly laundered cotton can reduce levels of exposure in the chest region by 15 times.

The Cessna and Grover study was published in 2002 by Archives of Environmental Contamination and Toxicology (Vol. 42, pp. 369-382, “Exposure of ground-rig applicators to the herbicide bromoxynil applied as a 1:1 mixture of butyrate and octanoate.”)

This article has been prepared and provided by Johanne Asselin, Canadian Centre for Health and Safety in Agriculture – Centre for Research Development, with the support of the Canadian Institutes for Health Research (CIHR) and the Canadian Agricultural Safety Association (CASA).

Return undeliverable Canadian addresses to:
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WHERE WAS THE NETWORK THIS WINTER?

SUCCESSFUL LOW STRESS CATTLE HANDLING AT CEYLON

The Agricultural Health and Safety Network and Border Line Feeders cohosted a seminar on Low Stress Cattle Handling. Reg Steward, BC Provincial Ranching Consultant to the Farm and Ranch Safety and Health Association (FARSHA), spent the morning presenting the techniques. Donuts and coffee were provided by the Radius Credit Union, and after lunch sponsored by Elanco Animal Health, Reg took the group of cattle handlers out to the pens to demonstrate. Those who attended left with a wealth of techniques that they couldn't wait to try out. They represented feed lot workers, farmers, trucking companies, and the surrounding RMs.

It would be ideal to have people in Saskatchewan who could train their workers and community members in the art of Low Stress Cattle handling. If you are interested in learning to be a trainer, please call us at the Network (306)966-6647. We are expecting to have more of these workshops in various locations around the province. If your organization would like to cohost such an event, please contact us.



SPRING TIPS FOR SAFE CATTLE HANDLING

Calving season is a rewarding time of the year, and for many farms, spring is calving season.

Any animal can be unpredictable at times, and a skilled handler can learn to expect these reactions and work with them. A cow's maternal instinct may kick in at any time. A cow that has been

docile and calm may become instantly aggressive and could kick or charge you when they perceive a threat. It is normal for a cow to protect their young from danger, so it is a bad idea to get between a mother and her calf. When entering a pen, if possible, separate the mother in a nearby holding area.

Beware of these Signs of Aggression:

- Quick, erratic movements
- Raised tail/flicking tail
- Pawing the ground
- Turning sideways
- Raised ears
- Snorting

Call the Network for a Low Stress Cattle Handling fact sheet. (306) 966-6647



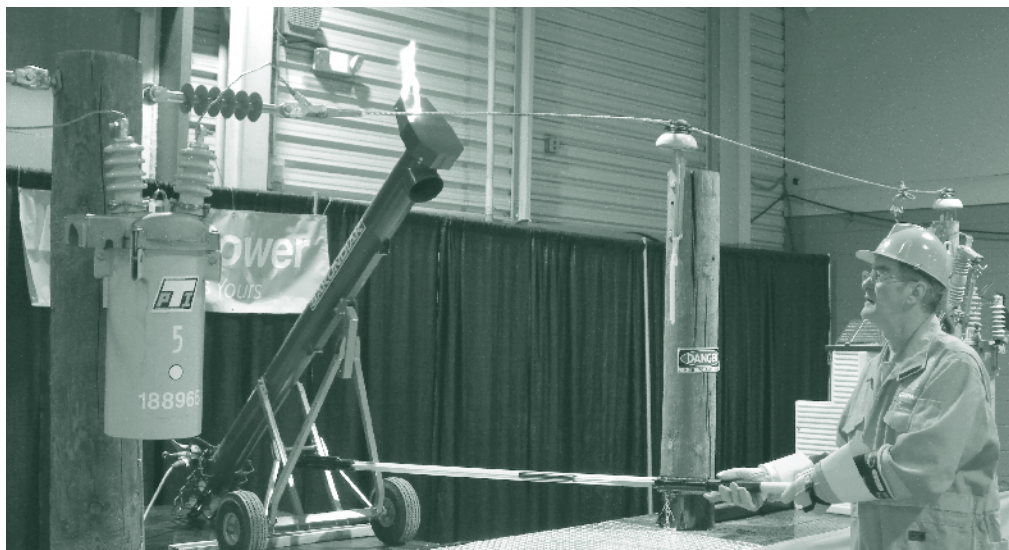
Reg Steward demonstrating Low Stress Cattle Handling

THE AGRICULTURAL HEALTH AND SAFETY NETWORK AT THE CROP PRODUCTION SHOW



Kendra Ulmer, Bonita Mechor, Anna Marie Mechor

Network staff talked to hundreds of people at this event. It was a great opportunity to connect with many farmers who attended this year's show. We received a great deal of positive feedback.



Also at the Crop Production Show, Wilf Messer demonstrating

The Network was located right beside the Sask Power electricity demonstration. The demonstration showed many curious onlookers how to prevent electrocution on the farm. When the sparks began to fly, there were many eyes that got really big.

If your vehicle contacts a power line,
try to stay inside
until rescue workers de-energize the line.

PROTECT YOURSELF

- Take these three steps around power lines to be safe:
- Locate nearby lines. Contact your utility company before starting work, and ask if safety measures can be taken. Before you dig, find out about underground lines.
 - Show others the lines, and warn of their danger.
 - Keep your distance. Make sure booms, ladders, and other equipment clear lines by at least 10 feet in every direction.

IF YOUR VEHICLE IS TOUCHING A POWER LINE

- Stay inside and wait for rescue workers.
- Warn others to stay away from the vehicle.
- If you must get out because of fire or other danger, jump out without touching the vehicle and the ground at the same time. Shuffle away with very small steps.
- Don't try to help others out of the vehicle – you could be shocked.

COSTLY problems can occur with electrical hazards on farms
***This includes worker fatality or at the very least,
decreased production.***

THIS YEAR'S CANADIAN AGRICULTURAL SAFETY CAMPAIGN THEME:

FARM SAFETY: PPE ONLY WORKS IF YOU USE IT!

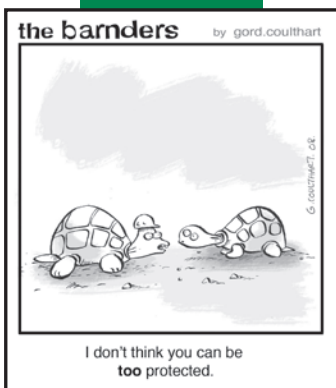
The campaign is delivered by the Canadian Federation of Agriculture (CFA) and Canadian Agricultural Safety Association (CASA) in partnership with Farm Credit Canada (FCC) and Agriculture and Agri-Food Canada (AAFC).

THERE ARE TWO PARTS TO THIS THEME:

"The first part encourages producers to think through their work before starting so they can anticipate and correct any hazards that may occur. The second part encourages producers to ensure the correct access, use, and fit of personal protective equipment, if needed" says Marcel Hacault, Executive Director of CASA.

Using PPE is only one element in a complete safety plan that uses a variety of strategies to maintain a safe and healthy occupational environment.

PPE should not be seen as an expense, but as an insurance policy against preventable injuries. Choose the right personal protective equipment for the job, and teach your children and ag-workers by your example. Safety is doing the right thing, even when no one is looking.



HEARING PROTECTION IS A SOUND INVESTMENT

The Agricultural Health and Safety Network is promoting hearing protection this year. The December educational package included a hearing resource and a sample of hearing protection to the 27,000 farm families who are members of the Network. If you would like a copy, call (306)966-6644.

Sound is measured in decibels (dB). A normal conversation takes place at about 60 dB, whereas a gun shot is above 130 dB and will cause ear pain. Most power tools operate at between 90 and 120 decibels, chickens inside a building are about 105 dB and a pig's squeal can reach up to 130 dB. Hearing protection should be worn if noise levels exceed 85 dB.

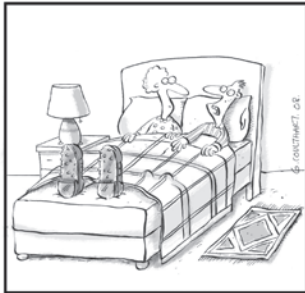
SAFETY GLASSES: MAKING FORESIGHT 20/20

Flying or falling objects or sparks striking the eye cause almost 70 percent of eye injuries states the OSHA study; and often the injurious particle is smaller than a pinhead. Another 20 per cent of eye injuries are from contact with chemicals, which in agriculture could include anything from cleaning solutions to pesticides to anhydrous ammonia fertilizer.

There are three key actions you can do to help prevent an eye injury:

- Know the eye safety dangers at work by completing an eye hazard assessment.
- Eliminate hazards before starting work by using machine guarding, work screens, or other engineering controls.
- Use proper eye protection.

the barnders by gord.coulthart



Why didn't you just say I had cold feet?

the barnders by gord.coulthart



Not to worry ! I have warm hands today .

the barnders by gord.coulthart



I wear a hard hat ever since my buddy Earl got nailed by a Golden Delicious last week.

the barnders by gord.coulthart



See, once you get know me I'm not that bad.

PUT YOUR BEST FOOT FORWARD

Proper footwear not only protects your feet from possible injuries, it also prevents the pain and fatigue that can lead to injuries due to distraction, slower reactions and unsafe shortcuts.

Job and workplace designs also have the potential to increase foot safety:

- Keep mobile equipment away from areas usually used for foot traffic.
- Ensure guards are installed properly on all machinery.
- Keep walkways and work areas tidy.
- Keep stairs, ramps, walkways and work areas clear of debris and well lit to reduce slips, trips and falls.

GET A GRIP ON FARM SAFETY

Hands are one of our most valuable, and vulnerable tools when it comes to performing our jobs. Ironically, these amazing parts of our bodies are also the most susceptible to injuries – injuries that happen all too often on farms and ranches.

With care, many hand and arm injuries can easily be avoided if you:

- Make sure all machinery has the proper shields and guards in place.
- Establish and follow lockout/tagout procedures.
- Ensure proper PPE is available at all times.
- Train employees on how to do the job, including the proper use and fit of any PPE needed.

SKID LIDS SAVE LIVES – USE A HELMET

The vision of a farmer wearing a ball cap could soon be replaced with a hardhat. Skid lid, brain bucket, noggin wrapper, skull shell – call it what you like – just as long as you and your ag-workers are wearing one.

“It is hard for parents and employers to expect children and employees to wear head protection if they do not follow the same practice,” says Greg Stewart, FCC President and CEO. “The strongest way to deliver a safety message is to lead by example.”

SAFETY IS IN THE AIR

Dusty fields, moldy hay, silos, grain bins, bird droppings, dust from animal hair, feathers, or fur, chemicals, manure, feedstuffs – the list of potential air-borne hazards on a farm is endless. Farmer’s Lung and Organic Dust Toxicity Syndrome (ODTS) are just two of many reactions to farm-related respiratory hazards and can result in costly medical treatment, permanent lung damage or death.

Try to reduce or eliminate the source of the hazard before resorting to a respirator. For example, provide improved ventilation in your barn or work outdoors instead of in an enclosed building. After you have tried to reduce or eliminate the hazard, if you are still at risk, use appropriate respirator protection for the type of hazard.

MORE INFORMATION

This safety campaign is available at www.casa-acsa.ca.
For resources available from the Agricultural Health and Safety Network
call 966-6644.

THE CORRECT GLOVES FOR USE WITH PESTICIDES STATISTICS AND THE USE OF SAFE GLOVES

Statistics from Health Canada have shown that 94% of workers make use of gloves yet many farmers are not aware of the types of gloves that need to be worn, how effective they are and when they need to change them. In the following section, various gloves and types used will be summarized (Health Canada, 1998).

All pesticide labels give options for the type of glove material to wear. These options are not generic selections but are based on the ability of that material to withstand the pesticide formulation. Do not assume that one type of glove will work for all the pesticides you may use.

In order to determine which gloves are needed for the jobs that are being completed, the following categorization will be used:

- A** Any dry or water-based pesticide formulation
- B** Any pesticide with acetate as the carrier solvent
- C** Any pesticide with alcohol as the carrier solvent
- D** Any pesticide with halogenated hydrocarbons as the carrier
- E** Any pesticide with ketones (such as acetone) as the carrier solvent
- F** Any pesticide with a ketone and aromatic petroleum distillates mixture as the carrier solvent
- G** Any pesticide with aliphatic petroleum distillates (such as kerosene, petroleum oil, or mineral oil) as the carrier solvent
- H** Any pesticide that has aromatic petroleum distillates (such as xylene) as the carrier solvent

All types of gloves are available in Canada are all types, but it is sometimes not practical to wear the best type due to the flexibility of the glove (therefore posing another health hazard) or the cost associated.

1) barrier laminate (foil type)—This glove gives the highest resistance, costs more and is not as flexible, the worker may not be able to feel what they are doing therefore posing another safety risk.

2) butyl rubber (at least 14 mils)—This glove is resistant to water and fuels and it is easy to work with when completing farm tasks. The chemical resistance is high for categories A, D and F; slight for E, G, and H.

3) natural rubber (latex) (at least 14 mils)—A natural glove, which provides only protection for pesticides that are only water based.

4) nitrile rubber (at least 14 mils)—Provides a natural grip and reduced chance of being punctured or torn easily. This glove comes in thicker versions depending on how sensitive you want it for completing specific tasks. The chemical resistance is high for categories A, C, E, and F; moderate for D; and slight for B, G, and H.

5) neoprene rubber (at least 14 mils)—Limited protection for some pesticides, remains intact at low temperatures and they are easy to work with and put on. Some gloves have different layers in which a colour change indicates that the glove should be replaced. The chemical resistance is high for categories A, C, and E.

6) polyethylene—These types of gloves are on the market, but are not recommended for protection against pesticides.

7) PVC (at least 14 mils)—This type of glove can come in a liquid-proof PVC-coating that can be used for protection against anhydrous ammonia. The chemical resistance is high for categories A and C; moderate for E; and slight for B and F.

8) Viton (at least 14 mils)—Is a registered trademark of DuPont – it is comfortable and easy to wear, this glove gives the best resistance to chemicals. The chemical resistance is high for categories A, C, E, and H; slight for B and D. The reality of the glove is that it can be easily torn and punctured.

GLOVE USE TIPS WHEN ON THE FARM

When mixing or applying any pesticide keep one set of gloves for pouring and mixing concentrates and another set for spraying. It is important to know that washing your gloves and other personal protective equipment after each use will also lengthen their effectiveness. Allow them to dry in a cool place out of the direct sunlight (since the UV from the sun can degrade them) before they are placed in a designated area for storage.

It is highly recommended not to use gloves that contain a lining because the lining will absorb pesticides. Gloves that contain a thin lining of flocking are acceptable. These gloves will have a thin, white coating, making the gloves more comfortable to wear. (Adapted from the Mississippi State University Extension).

WHEN AND WHAT TYPE?

The pesticides that are made by Bayer Crop Science Inc., fall in either Category A or H. Products that qualify for class A are typically Unity 75 WG, Converge 75 WDG, Liberty 150 and Liberty 200. Products that fall under Category H are: Puma and Buctril M. Sevin XLR Plus and Rovral Green can also be classified in this category.

It is recommended that a nitrile chemical resistant glove used for these products. With current chemical tests and laboratory certification, these gloves were found to be highly recommended for our products (Bayer CropScience Inc, 2003). By following the correct procedures and working with the product safely, adequate protection could be given by these gloves.

WHERE?

In Saskatchewan, typical safety supply stores can sell you these gloves.

FOR FURTHER INFORMATION:

Dr. Darren C Deonarine
HSE Canada
Bayer CropScience Inc.
Tel: 1-306-721-0310
Fax: 1-306-721-4595



RESPIRATORY AND HEARING CLINICS FOR FARMERS

THE RESPIRATORY HEALTH CLINICS for Farmers is an educational and respiratory screening service provided free of charge to rural residents in the Network RMs. A registered nurse works with the farmers and their families in their local community to increase awareness of health and safety risks associated with respiratory hazards on the farm, develop methods to reduce their exposure and discuss how they can monitor the effects such hazards have on their respiratory health. Demonstration of respiratory personal protective (PPE) equipment allows the farmers to explore various types of PPE that will work best for them on their farm given the types of hazards they are exposed to. It is stressed at the clinics that if farmers are using a disposable respirator for grain dust exposures that it needs to be a N95 or P-100 2-strap respirator with a nose clip in order to ensure a good seal. P-100 respirators are necessary to protect against small hazardous particles such as mould spores and viruses eg: Hantavirus.

THE HEARING SCREENING CLINIC

for Farmers is provided in a format similar to the respiratory clinics. A registered nurse works with farmers and their families in their local RM to increase awareness of noise hazards on the farm, develop methods to reduce their exposure to harmful noise and show how they can monitor the effects of hazardous noise on their hearing through regular audiometric testing.



Hearing clinics included demonstration of hearing protection, counseling and referrals based on participants' questionnaires and screening results.

Since the farm is a noisy place farmers and their families should be wearing some sort of hearing protection when exposed to noises over 85 dB (decibels).

Q: How do you know when you are exposed to 85 dB or louder?

A: If you are standing 3 ft. or 1 m away from someone and they have to speak up so you can hear them, you should be wearing hearing protection!

Both of the clinics provide an opportunity for a registered nurse with expertise in agricultural health and safety to address various health concerns with farmers in a confidential environment. Health promotion resources and initiatives are directed with a holistic approach to include a variety of health issues: diabetes education, hypertension, smoking cessation, stress, skin cancers screening, prostate /breast cancer, and healthy lifestyle choices. Farmers come and talk to the nurse about various health concerns and this opportunity allows the nurse to offer resources and referrals to assist the farmer. These clinics are extremely important to farmers of Saskatchewan as there are various

hazards and health concerns related to their individual agricultural environment that they are working and living in.

The Network would like to thank all of the administrators and councilors of the RMs that hosted clinics this past year. Your assistance in organizing the events was greatly appreciated. The most common responses received from farmers that attended the clinics was that they found the clinics to be very informative and they plan to implement the use of more personal protective equipment in their farming operations this year. If you are interested in attending a clinic contact your local RM to request a clinic in your community.

Kendra Ulmer, RN, BSN

During the winter and spring, The Network conducted Respiratory and Hearing clinics for Saskatchewan farm families in the following Network member RMs:

RESPIRATORY CLINICS HELD IN:

Marquis #191 • Rosthern #403
Leroy #339 • Pleasant Valley #288
Lakeview # 337

HEARING CLINICS HELD IN:

Edenwold #158 • Buffalo #409
Bengough #40 • Leroy # 339
Sherwood #159 • Reford #379
Eyebrow #193 • Cupar #218
Marriott #317 • Foam Lake # 276

PERSONAL PROTECTIVE EQUIPMENT (PPE) IS IMPORTANT IN THE GARDEN TOO!

“In the average time it takes a person to react (3/4 of a second) a lawn mower blade will have gone around 39 times”

Many people enjoy the opportunity to have a large vegetable garden on their acreage or on the farm. Gardening tools and chemicals can cause injuries. Make sure you are using the appropriate PPE when working in your garden.

- Sunscreen (use at least SPF 15) protects exposed skin from sun burn
- A wide brimmed hat will help prevent heat stress
- Wear gloves when hoeing to prevent blisters which can

be very uncomfortable and become infected

- When using a weed wacker, wear goggles to prevent debris from flying into your eyes
- Wear ear protection when using the lawn mower or other loud equipment
- Proper boots or shoes should be worn when using power equipment and hand tools
- Use the appropriate rubber gloves when using garden chemicals

2008-2009 STEERING COMMITTEE MEMBERS

The steering committee is The Network's advisory group that provides direction and feedback on programs delivered in The Network. The steering committee is made up of RM councilors from each of the six SARM divisions.

The committee members representing farmers, their families and their workers in The Network for 2008-2009 are:

Division #1: Stan Lainton, RM of Coalfields No. 4

Division #2: Joan Seierdstad, RM of Eyebrow No. 193

Division #3: Floyd Thunstrom, RM of Coateau No. 25

Division #4: Brenda Zemluk, RM of Elfros No. 307

Division #5: Charmaine Bergman, RM of Prince Albert No. 461

Division #6: Garry Hoppe, RM of Glenside No. 377

The Agricultural Health and Safety Network Annual Meeting was held at SARM Annual Convention in Saskatoon on March 12, 2009.

SASKATCHEWAN PROGRESSIVE AGRICULTURE FARM SAFETY DAYS

At a progressive agriculture farm day children learn in hands-on, interactive ways about identifying farm hazards and how to avoid them and stay safe. These days are run by local volunteers and the costs are covered by sponsors. Call the corresponding number for more information on the days scheduled in the following areas:

Annaheim	306-682-0705
Broadview	306-697-4031
Canora	306-542-2212
Humboldt	306-682-0705
Kamsack	306-542-2212
Lipton	306-332-3301
Norquay	306-594-2277
Preeceville	306-594-2277
White City	306-771-4366

WELCOME NEW NETWORK MEMBERS!

The Network continues to grow as RMs recognize safe and health ratepayers are their most valuable asset. We welcome the RM of Biggar No. 347, the RM of Reford No. 379, the RM of Miry Creek No. 229, and the RM of Ituna Bon Accord No. 246.

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.

DID YOU KNOW ABOUT MAKING CONNECTIONS?

The Connections Services Directory is a directory accessed through the internet at www.agr.gov.sk.ca/connection providing information and links to government agencies, programs, volunteer organizations and their programs and services. Making Connections: 1-866-680-0006

THANK YOU!

Saskatchewan Agriculture and Food for supporting the publication of Network News and Sleepless in Saskatchewan.

Moved? Retired? Not Farming?

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

Need more information?

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

From the Editors

Send your ideas, comments and suggestions to:

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