



The Agricultural Health and Safety Network



WINTER 2017

FIND YOUR
ROPS
RESOURCE
IN CENTER



NetworkNews

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

Looking back on 150 years of Canadian agricultural advancement one can't help but notice the improvements to machinery, engineering, technology and safety on the farm. 150 years ago the first riding cultivator was designed to allow disabled veterans to farm. Soon after riding cultivators were adapted for all farmers resulting in a reduction in farmer fatigue. Each development in the mechanization of farming resulted in a steady increase in the size of equipment resulting in new safety concerns that needed to be addressed.

As the equipment increased in size,

manufacturers considered engineering safety controls such as sound proofing cabs and Rollover Protective Structures (ROPS) detrimental to farmer safety.

Prairie Agricultural Machinery Institute (PAMI) was founded in 1975 and continues to design safety features. Today they are involved in developing ROPS to retrofit older tractors among other projects.

Grain workers were studied in 1976 resulting in significant research of farm workers and their lung function. The Canadian Centre for Health and Safety in Agriculture (CCHSA)

continues this research.

The Network (1988) encompasses a broad range of agricultural health and safety programs. The essential, long standing Stress Initiative Program continues to be relevant in the Network's activities to improve the mental health of farming communities particularly focusing on the effects of stress, health and sleep.

The farming industry is increasingly aware of safety concerns, engineering controls, hazard identification and safe play areas for children on the farm. You will read about some of them in this newsletter.

Return undeliverable Canadian addresses to: 104 Clinic Place Saskatoon, Saskatchewan S7N 5E5

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AG IN MOTION SPONSORS



SAFETY AT WESTERN CANADA'S OUTDOOR FARM EXPO



The Saskatchewan Safety Council hosted Farm Safety Place at Ag In Motion in Langham, Saskatchewan in July. The successful three day event brought many attendees through the participating safety displays including: The Agricultural Health and Safety Network, Saskatoon Health Region, SGI,

Northern Strands, SaskPower, WorkSafe Saskatchewan/Mission Zero and the Safety Council.

The agricultural and rural related health and safety activities and demonstrations for children and adults included: grain safety, PTO and auger safety, ATV safety, driving impairment

simulation, fall restraint systems, fallen power line demo, and more.

Thank you to Ag In Motion for sponsoring such a great area to promote agricultural health and safety at a venue with our producers. It was an energizing venue for everyone to attend with exciting activities throughout each day.



BEGRAINSAFE PROGRAM @ AG IN MOTION

CASA has partnered with various organizations to initiate the BeGrainSafe Program. The program and trailer will travel across the country to agricultural trade shows for grain safety demonstrations. The demonstration was designed and manufactured by Prairie Agricultural Machinery Institute in Humboldt. It is the first of its kind in Canada.

The Network is pleased to be involved with the grain safety trailer demonstrations in Saskatchewan.

NEW:

Safety Workshop for Farming and Ranching Women



Although at times it is a struggle, women are at the heart of many Saskatchewan farming and ranching operations. This workshop will focus on the variety of health and safety challenges that

face women in agriculture.

The cost of this workshop is included with Network membership. If you received this letter in your mailbox, your RM is a member of the Network.

Are you interested in hosting a farm health and safety workshop specifically designed for women in your community this winter? If so, please contact (306) 966-6647 for more information.



PROPANE



WINTER IS QUICKLY APPROACHING

This could mean high snowfall, cold temperatures and potentially hazardous conditions. Although Mother Nature can be unpredictable, you can take several measures to maintain a safe propane tank and ensure your family stays safe and warm throughout the winter.



Maintain a clear pathway to your propane tank for safe and efficient deliveries.



Avoid snow piling up on propane tank. Use a broom to clear the snow from on or around the tank, valves or meters.



Avoid using machinery in close proximity to any propane tank or valves. Consider marking the tank location with a brightly coloured flag or stake to avoid accidents.



Maintain an adequate supply of propane in the tank. As a rule of thumb, a propane tank used for home heat should not fall below 30 per cent. Speak to your propane supplier about scheduled delivery options or using tank monitoring technology.



If you suspect any propane appliances or equipment has been damaged, immediately contact your propane supplier to have it inspected.

For reliable propane supply and delivery this winter, contact your local Co-op propane supplier.

South SK
306-721-7798

Central SK
306-242-1505

North SK
306-425-5594

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CO-OP AGRO IT'S HERE.



Thursday December 21 is the start of winter in the Northern Hemisphere and the shortest day of the year, commonly referred to as the Winter Solstice and a time to celebrate.

The Agricultural Health and Safety Network will host a 10 Day Winter Safety Challenge beginning on December 11 and concluding just in time for the first day of winter.

WHAT IS IT?

The Winter Safety Challenge is a quick and easy way for you to brush up on

your family's winter safety practices and preparation. For 10 days you will receive a short email with a safety message for you to consider. There is absolutely no obligation and no one will check. It is a personal challenge for you and your family.

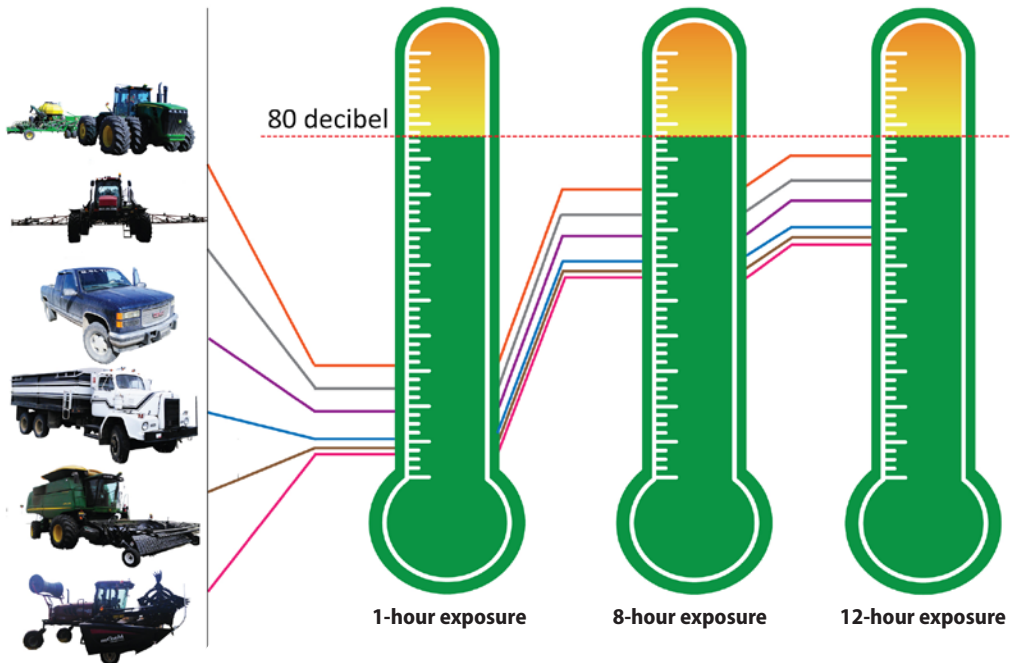
DO IT FOR YOUR FAMILY. BE SAFE!

Sign up by emailing bonita.hus@usask.ca.



SASKATCHEWAN FARMERS BACK STUDY

MACHINERY NOISE



WHAT IS NOISE?

Noise is unwanted sound, and high levels of noise can lead to hearing loss. On the farm, mobile machinery can produce noise on the farm.

WHAT DID WE MEASURE?

Noise was collected inside the mobile machinery cab during farming tasks. In total, we measured 24 noise measurements on 6 different machinery types: tractor, sprayer, pickup truck, grain truck, combine, and swather.

WHAT DID WE FIND?

Noise is measured in units of 'decibel' or dB. In this graph, the green zones are below 80 dB and considered low risk; the yellow zones are above 80 dB, when the 8-hour exposure reaches and exceeds 85 dB, protective action should be taken to reduce exposure.

WHAT DOES THIS MEAN FOR YOUR HEARING?

- All the machinery types measured in our study show noise exposure at a safe level. However, we did not measure augers, grain cleaners, or concentrated animal feeding operations.
- We only measured inside the cab, but the noise level outside the cab around the large machines can damage your hearing.
- Tractors and sprayers tended to be louder than combines or swathers.
- Just like vibration, noise dose increases with time of exposure. This is shown in the graph as duration
- increases from 1 hour to 12 hours, dose approaches the yellow zone.



How is your hearing?

Are you interested in having a hearing test?

Do you know how to prevent noise-induced hearing loss? What type of earing protection should I use on the farm? If you are interested in answering these questions and learning more about hearing health and safety please make an appointment to attend our ONE2ONE Hearing Clinic for Farmers at the University of Saskatchewan at (306)966-6643. ONE2ONE Hearing Clinics are also held throughout the province at RM Network member offices.



The current projects of the **Canadian AgriSafety Applied Research Program** are in their final phases, and are set to wrap up in 2018. As we eagerly anticipate the final output from each of these projects, a brief update on each of the projects offers a sneak peek of what is to come.

Reducing Pathogen Distribution from Animal Transport

To recap, the *Reducing Pathogen Distribution* project has been working on designing and constructing a swine transport trailer that is self-contained to prevent the spread of airborne diseases between farms and animals in transport. The initial designs were developed and tested using computer simulations to test a variety of scenarios and technologies that allow for adequate reduction in pathogens and in maintaining a suitable environment for animals in transport.

The simulations are complete and the design conceptualized into a prototype trailer that is currently under construction by Prairie Swine Centre. The main component of the trailer was purchased from Europe and additional

components including a power generator for the air filtration system and fans are being added. Air inlets at the front and outlets at the back are also in the process of being installed on the prototype. The team is wrapping up assembly of the prototype trailer and will be commencing with both static and road tests of the trailer to determine effectiveness and cost analysis. The results of these tests will help the team determine the feasibility of the prototype trailer for the current animal transport market.

Air Quality in Canadian Pig Buildings: Reduction of airborne dust, gas and human pathogens in buildings and their environmental dispersion

The *Air Quality in Canadian Pig Buildings* project has been examining how contaminants from pig barns affect the health of industry workers, rural communities and animals alike. The research team has determined that the combination of three technologies –

manure separation, oil sprinkling and biotrickling filters provide the most effective protection against airborne contaminants for both workers and rural communities. This is based on the results of experiments where each technology was tested independently for its effectiveness at reducing odorous compounds, gases and bioaerosols. The results demonstrated that manure separation removed ammonia, while oil sprinkling reduced dust emissions, both of these methods also helped reduced odours. Biotrickling filters provided the best performance, but only affect air emitted from the barns and does not improve indoor air quality. Up next, the research team will test the three strategies together in a commercial scale swine building to examine the potential effectiveness for use in the industry.

Other interesting findings of note from the project so far include the development and testing of laboratory protocols for identifying and quantifying pathogens found in the air samples collected from pig buildings. Preliminary results show that a variety of pathogens including *S. aureus*, *Salmonella* and MRSA were found. These results indicate that pig buildings are a risk for workers due to the presence of human pathogens and antibiotic resistance genes.

The Air quality in Canadian pig buildings project, is one of two projects in the Animal Housing Environment priority area, under Agrivita Canada Inc.'s Canadian AgriSafety Applied Research Program, lead by a national team of researchers from the Institut de recherche et de développement en agroenvironnement (IRDA), and Centre de recherche de l'Institut universitaire de cardiologie et de pneumologie de Québec at the Université Laval (CRIUCPQ), University of British Columbia, the Canadian Centre for Health and Safety in Agriculture (CCHSA) and the Canadian Agricultural Safety Association (CASA).

The Reducing Pathogen Distribution from Animal Transport project, is one of two projects in the Animal Housing Environment priority area, under Agrivita Canada Inc.'s Canadian AgriSafety Applied Research Program, lead by a national team of researchers from Prairie Swine Centre (PSC), the Canadian Centre for Health and Safety in Agriculture (CCHSA), the University of Saskatchewan College of Engineering, the School of Population and Public Health at the University of British Columbia and the Canadian Agricultural Safety Association (CASA).

This document has been prepared by the Canadian Centre for Health and Safety in Agriculture (CCHSA) for Agrivita Canada Inc. and the Canadian AgriSafety Applied Research Program, which is supported under Growing Forward 2 (GF2).

For more information: www.agrivita.ca

STRESS

Ashton Kryzanowski,
3rd year medical student,
University of Saskatchewan

WHAT CAUSES STRESS?

Stress can be caused by many factors, some out of our control. Some factors include: the weather, equipment failure, animal disease outbreaks, pests, long hours, uncertain crop yield, conflict, and personal difficulties.

RECOGNIZING STRESS

PHYSICAL SYMPTOMS:

- Increased heart rate
- Rapid breathing
- Muscle tension
- Increased blood pressure
- Upset stomach
constipation, diarrhea
- Chest pain
- Fatigue

EMOTIONAL SYMPTOMS:

- Irritability
- Impatience
- Feeling overwhelmed
- Low self-esteem
- Loneliness
- depression

BEHAVIOURAL SYMPTOMS:

- Overeating or neglecting to eat
- Substance use
(alcohol, drugs)
- Change in sleeping habits
- Difficulty relaxing or quieting your mind
- Forgetfulness
- Short temper


COPING WITH STRESS

Different methods of coping with stress work for different people, so it is important to identify when you're stressed, how and why you react to stressful situations, and what works for you in alleviating that stress. Commonly used techniques can include avoiding being overly critical of yourself or others, sharing the workload with others, being well-rested, exercising regularly, and taking time for yourself and your hobbies. If you find you need a little more support, talking to someone you trust, or even seeking help from a professional counsellor or the Farm Stress Line can lift a weight from your shoulders.

STRESS PREVENTION STRATEGIES


- Set realistic goals and prioritize
- Plan ahead and don't procrastinate
- Delegate to others and ask for help
- Communicate – talk and listen
- Allow some time in your schedule to accommodate for the unpredictable
- Make time for family, friends, and personal interests
- Exercise deliberately – don't just convince yourself that your job keeps you active

Don't hesitate to ask for help! Confidential Farm Stress Line 1-800-667-4442



The Agricultural Health and Safety Network
DAILY CHORE:
HANDLING STRESS ON THE FARM

UNDERSTANDING STRESS, ITS IMPACT,
AND EXPLORING COPING METHODS.

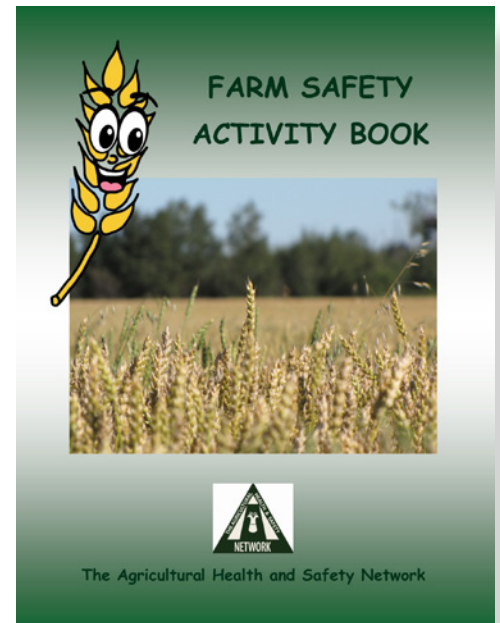


If you are a new member and didn't get our new Stress Resource last winter, call (306)966-6644 to get a copy or check out our website.



If you're experiencing symptoms of stress, the Farm Stress Line is available 24/7 at
1-800-667-4442



THE AGRICULTURAL HEALTH AND SAFETY NETWORK

DISCOVERY DAYS



Discovery Days are farm safety presentations delivered by representatives from the Agricultural Health and Safety Network who travel to schools throughout Saskatchewan. This opportunity is free to schools who operate within RMs that hold a membership with the Agricultural Health and Safety Network.

Discovery Days are tailored for children in grades 4-6 in agricultural communities. During each event, children are guided through fun and interactive farm safety activities. These activities include, but are not limited to, animal safety, chemical safety, hazard identification, grain safety, and machinery safety.

Participants have the opportunity to increase their understanding of agricultural health and safety hazards as well as how to avoid these risks. Each student goes home with an activity booklet and a resource to share with family members.

Please contact Kathryn for more information or to book a Discovery Day

Phone: (306) 966-5490

Email: kam999@mail.usask.ca

SCHOLARSHIP

reminder

Don't Forget!!!

Deadline December 15th

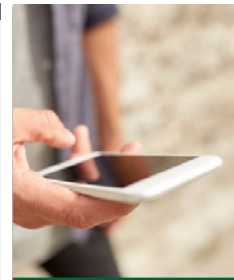
We have an early deadline because the winners are invited to receive their award at the SARM Convention in March, and we don't like to compete with Semester I Final Exams. We advertised this scholarship in the last issue, but wanted to provide this last minute reminder.

2017/18 Scholarship

If you are a grade 12 student planning on studying at a post-secondary Saskatchewan school in the fall of 2018, you should consider applying for our scholarship. This year there will be two scholarships of \$1500 available. The deadline is December 15, 2017. Your parents must own or rent land and pay taxes to a Rural Municipality. Download the application and additional information at <http://aghealth.usask.ca/scholarship/index.php>

Please contact us if your RM is interested in becoming a member, or if you would like to request a clinic or workshop in your community.

Phone: (306) 966-6647 or (306) 966-6644
 Email: aghealthandsafety@usask.ca
 Website: aghealth.usask.ca



If you're experiencing symptoms of stress, the Farm Stress Line is available 24/7 at

1-800-667-4442



Network Membership

There are currently 216 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: agsafety.usask.ca



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



From the Editors: Send your ideas, comments and suggestions to:

Network News:

Agricultural Health and Safety Network
 Canadian Centre for Health and Safety in Agriculture
 University of Saskatchewan
 104 Clinic Place PO Box 23, Saskatoon, Saskatchewan S7N 2Z4
 Phone: 306-966-6644 • Email: aghealthandsafety@usask.ca

Would you like regular email updates from the Network?

If so, email us at aghealthandsafety@usask.ca