

## What are Midwestern farmers' top concerns and stressors?

by Kanika Aurora, PhD, Assistant Professor and Jenn Patterson, MLitt, GPCAH Communications Coordinator

Kanika Aurora, PhD and researchers at the University of Iowa College of Public Health asked 540 farmers about their top concerns and stressors. The results were recently published in the *Journal of Agricultural Safety and Health*, available at <https://doi.org/10.13031/jash.13660> or at <https://gpcah.public-health.uiowa.edu/wp-content/uploads/2020/01/assessing-health-and-safety-concerns.pdf>.

According to this study, Midwestern farmers' top concerns include: farm chemical safety, equipment and tools, and specific health conditions experienced by farmers. Nearly half of farmers surveyed specifically asked for information on safe chemical handling, storage and use, and the effect of farming chemicals on health.

Regarding the safety of equipment and tools, farmers were specifically concerned about entanglement hazards and maintaining old equipment in safe operating condition. Over one-third of those surveyed had questions regarding health outcomes associated with farming exposures, including respiratory health, hearing loss, depression, pain, and acute illnesses.

Unsurprisingly, finances dominated the responses to questions about stress, especially concerning market/commodity prices. Farmers also identified climate/weather workload and labor concerns. Many also reported being stressed about family and personal issues, farm-specific activities, health and safety, regulations and politics, and aging. Discussions with farmers about multiple factors, particularly in times of economic uncertainty and weather extremes, may be recommended to diffuse anxiety in order to promote mental health among farmers.



The Great Plains Center for Agricultural Health, one of 11 national agricultural safety programs funded by the Center for Disease Control, has compiled information across many of these topics to begin helping farmers address their concerns and reduce stressors. For more information about how farmers get hurt and how to prevent these injuries, visit [gpcah.org](http://gpcah.org) and select "resources" from the menu options.

This study was supported by the University of Iowa Great Plains Center for Agricultural Health located at the University of Iowa College of Public Health, and is funded by the National Institute for Occupational Safety and Health CDC/NIOSH Grant U54 OH007548.

# Director's Message: Traumatic Injuries Experienced by Iowa Farmers

by Renée Anthony PhD, CIH, CSP

The Great Plains Center for Agricultural Health (GPCAH) has analyzed four years of injury case reports from Iowa's Trauma Registry to better understand how farmers are hurt on the job. With approval by The Iowa Department of Public Health, we examined cases from 2014 through 2017 where farmers or other workers were injured on the farm. Iowa's data is unique in the US in that it identifies injuries through its work-related field and a farm-related field, allowing identification of farmer injuries in this state-wide database. The goal of our evaluation was to help identify how farmers are getting hurt and what necessary interventions are needed to reduce severe injuries on Midwest farms.



Renée Anthony PhD,  
CIH, CSP

There were a total of 1981 emergency room (ER) visits over this time period from farm work, which translates into an average of 1.8 farmer visits to Iowa ERs each day. Broken bones and lacerations were the main reasons why farmers were seeking medical care, but we also wanted to know *how* farmers were getting hurt.

We examined the sources of these injuries and found that interactions with machines, falls, transportation events, and being struck by an animal were the leading causes.

- One in three injuries (634) were caused by interactions with machines. Iowa farmers getting caught in moving equipment accounted for 87% of the 47 on-farm amputations.
- Falls accounted for 1 in 5 ER visits (428), and 52% of persons who fell ended up with broken bones. Farmers older than 55 sought medical attention 60% more often than younger farmers.
- One in five farmer injuries (416) were also caused by "transportation" events. Events leading to seek medical care included crashes on the roadway (65), falling off animals when riding (102), and injuries sustained when riding off-road vehicles (102).
- An additional 235 farmers sought emergency medical care after being struck by an animal, and 80% of these were from interactions with horses or cows.

Injury outcomes were also examined. Over all farmer ER visits, the most common outcome was a broken bone (37%), and falls, contact with machines, and animal-interactions caused 56% of these fractures. Twenty-two percent of these ER visits were because of lacerations, with machine interactions causing most of these cuts.

Farmers seeking emergency treatment for on-farm injuries included severe outcomes, such as amputations (2% of the cases) and deaths (1%). After initial medical treatment in the emergency room, 18% of the farmers treated needed acute follow-up treatment and 8% needed long-term care after treatment.

To learn more about these cases and the detailed data analysis and trends within injury sources, visit our website. The downloadable report includes a handout intended to start a conversation about on-farm injuries, to bring attention to these persistent hazards using a data-driven approach. Additional injury prevention materials are available on our Resources page, but send us a note if you are in need of specific information to help prevent injuries on your farm. By knowing how farmers across Iowa are being hurt, we can better communicate the need and strategies to reduce the risk of injuries on the farm.

*Dr. Renée Anthony directs the GPCAH, housed in the Department of Occupational and Environmental Health of the College of Public Health. She can be reached at 319/335-4429 ([renee-anthony@uiowa.edu](mailto:renee-anthony@uiowa.edu)).*



# University of Iowa now offering interactive online agricultural safety and health classes to the public

by Jenn Patterson, MLitt, GPCAH Communications Coordinator

Learn how to protect the health and safety of people living and working in agriculture by participating in a new on-line course, available at <https://agsafetyhealth.training-source.org/>. Created by specialists in this area at the University of Iowa, an internationally known leader in agricultural safety and health, these online courses are available to safety and health managers, nurses, physicians, veterinarians, and anyone interested in the special health and safety needs of rural and agricultural communities.

There are currently five online modules available, all are free of charge. Topics include a description of the tasks and hazards associated with agriculture, forestry, and fishing; potential health risks associated with physical agents (such as noise and temperature), occupational lung and skin disease; and selecting personal protective equipment. Modules take between 45-60 minutes to complete, which includes a pre-test, an interactive module, and a post-test. Upon successful completion of each module a certificate is available.

Course instructor Diane Rohlman said, "I'm excited about this opportunity to use the technology and disseminate this important information throughout the United States. Our students will benefit from the flexibility and time-saving qualities of the online modules." Those interested in learning more can attend an in-person training June 8-12 at the University of Iowa. Visit <https://gpcah.public-health.uiowa.edu/education/ag-safety-and-health-course/> for course details, registration link and fee waiver application.

Sign up today at <https://agsafetyhealth.training-source.org/>. Questions? Contact [diane-rohlman@uiowa.edu](mailto:diane-rohlman@uiowa.edu).

This program is made possible through The Great Plains Center for Agricultural Health, located at the University of Iowa College of Public Health, and is funded by the National Institute for Occupational Safety and Health CDC/NIOSH Grant U54 OH007548.



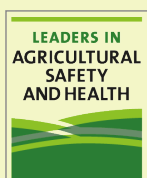
## Agricultural Safety and Health: The Core Course

June 8-12, 2020

University of Iowa College of Public Health  
Iowa City, IA



*The Agricultural Safety and Health Core Course has been the national model of effective agricultural safety and health education for over a decade. Expert instruction is provided by experienced faculty and specialists including Board Certified Physicians, Veterinarians, and Certified Industrial Hygienists.*



### Course Includes

- Agricultural Safety and Health Activities
- Classroom Instruction
- Safety and Rescue Demonstrations
- Farm Tours
- Case Studies/Panel Discussions
- Producer and Provider Perspectives

Visit [gpcah.org](http://gpcah.org) for course agenda, registration, and fee waiver application.

## REMINDER! Opportunities for on-farm safety resources: Two studies still need farmer participation

by Jenn Patterson, MLitt, GPCAH Communications Coordinator

Are you interested in learning about health and safety as it relates to your farming operation? Researchers want to see if the tools they are developing are useful to helping farmers make safety and health decisions on the farm. Farmers have the opportunity to compare their operations to others in a general "safety survey," and they can participate in a study to help farmers prevent hearing loss. Those who participate in these studies can receive \$50 for completion.

### Farm Safety Survey

Participation in this study will help us understand how to prevent injuries from occurring on your farm. Farmers agreeing to participate in this study will have a team visit their farm and complete a 60-90 minute survey based on observations. The visit is scheduled at a time that works for everyone, between 8 am and 6 pm, any day of the week. After the survey is complete, participants will receive \$50 at the end of the visit. This is a confidential study, so participant names and farm addresses will not be shared. Any individual who owns or operates a farm with row crops in Iowa is invited to participate in this study. Learn more about the Iowa Farm Safety Study at <http://bit.ly/2QPPoE5>.



Mention "Iowa Farm Safety Study" when you call or email.

## Iowa Farm Safety Study

IOWA FARMERS ARE INVITED TO TALK TO US ABOUT SAFETY ON THEIR FARMS.

CALL US AT 855.204.4693  
OR EMAIL [ISRC-RESEARCH@UIOWA](mailto:ISRC-RESEARCH@UIOWA) TO PARTICIPATE.

Flexible schedule | Confidential |  
Single 60-90 min farm visit |  
\$50 compensation

 **GREAT PLAINS**  
Center for Agricultural Health



### ARE YOU INTERESTED IN HELPING TO UNDERSTAND THE NOISE OF FARMING?

**HEARSAFE**

Researchers are developing a new training system to help farm workers understand the hazards of noise in the workplace. This system will consist of a small noise monitor, smart phone, and a laptop. We are looking for farm workers to try these new devices. You will learn how to protect your hearing.

**WHY PARTICIPATE?**

- Equipment and training are provided
- Will not interfere with your work
- Compensation for participation (\$50)
- Research activities are short term

**WHO IS ELIGIBLE?**

- Currently active in farm production
- Ages 18+
- Lives in Midwest
- Speaks English
- Has access to internet device

**FOR MORE INFORMATION CONTACT:**  
[Jacqueline-curnick@uiowa.edu](mailto:Jacqueline-curnick@uiowa.edu)  
319-335-4425

 **College of Public Health**

### Noise Study

Another research group is developing a system to monitor and give feedback to train farmers on noise hazards in their workplace. This prototype system consists of a small noise monitor, smart phone, and a laptop, all of which will be deployed to participants with instructions. If you like technology, you might have fun looking at the data and giving feedback on the output generated by the HearSafe system. We are looking for farm workers to try these new devices and give feedback. Contact Jackie Curnick at [Jacqueline-curnick@uiowa.edu](mailto:Jacqueline-curnick@uiowa.edu) for more information or to sign up.

## TransFARMatIon Podcast: A successful GPCAH pilot-grant that has received further funding

We invite you to join over 25,530 people who have listened to the TransFARMatIon podcast. The podcast, dedicated to increasing farmers' awareness of stress and offering relevant resources, airs monthly on the Red River Farm Network. The GPCAH funded the first five episodes. Currently, there are 21 episodes (12-20 minutes long) available at: <https://www.rfn.com/transFARMatIon>. Current episodes discuss a broad range of topics relevant to on-farm stressors, including: marriage, maneuvering through difficult times, seeking compromise between the farmer and the lender, the tough economy, suicide, and many more emotional stories. If you have a story idea, please contact Meg Moynihan at [meg.moynihan@state.mn.us](mailto:meg.moynihan@state.mn.us).

## NEWS AND UPDATES

### GPCAH Pilot Grants due July 1, 2020

The Center funds pilot grant projects (up to \$30,000 per project) to community members and academic researchers intending to promote innovative outreach and research efforts to prevent agricultural injury and illness. Learn more at <http://bit.ly/2XGoAcu>. Keep an eye on our website for updates and follow us on Facebook and Twitter @GPCAH (#GPCAHPILOTS | #USAGCENTERS | #FARMSAFETY).

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In 2019, The National Education Center for Agricultural Safety (NECAS) joined forces with Nationwide and Corteva to deliver 55 grain rescue tubes and training in 23 states, and provided 22 additional grain rescue trainings nationally. NECAS is increasing its capacity to offer safety and rescue trainings by constructing a second grain rescue trailer, thanks to the generous support of Nationwide, Corteva Agriscience, Hawkeye Electric, and Sump Saver. NECAS plans to improve the current trailer's design to enhance the ability to train in various locations, and will hire a new full-time safety and rescue instructor to help with the new grain rescue trailer and training programs. To learn more about the safety and rescue instructor opportunity visit <https://nicc.peopleadmin.com/postings/3894>.

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The Iowa Department of Public Health Occupational Health & Safety Surveillance Program will once again coordinate the Health & Safety Tent for the 2020 Farm Progress Show, September 1-3 in Boone, Iowa. Contact Kathy Leinenkugel at [kathy.leinenkugel@idph.iowa.gov](mailto:kathy.leinenkugel@idph.iowa.gov) for more information.

### Save the Date



## Midwest Rural Agricultural Safety and Health Conference (MRASH)

**November 17 - 18, 2020**

Heartland Acres Agribition Center  
Independence, Iowa

[www.i-cash.org/2020-mrash](http://www.i-cash.org/2020-mrash)

## Upcoming Events

March 19-20

### **ASHCA North American Agricultural Safety Summit**

Las Vegas, NV

April 7-8

### **2020 Iowa Governor's Conference on Public Health**

Des Moines, IA

June 8-12

### **Agricultural Safety and Health: The Core Course**

Iowa City, IA

June 22-26

### **The International Society for Agricultural Safety and Health (ISASH) Annual Conference**

Asheville, NC

July 12-15

### **ASABE Annual International Meeting**

Omaha, NE

July 14-17

### **Agricultural Health and Safety Course**

Omaha, NE

September 1-3

### **Farm Progress Show**

Boone, IA

September 14-16

### **Midwest Stream Forum for Agricultural Worker Health**

Austin, TX

September 15-17

### **Husker Harvest Days**

Grand Island, NE

September 20-26

### **National Farm Safety and Health Week**

September 21-23

### **Ag Innovation Showcase**

Minneapolis, MN

September 29-October 3

### **World Dairy Expo**

Madison, WI