

# The **UMASH** Connection Farms and People

A newsletter of the Upper Midwest  
Agricultural Safety and Health Center



umash.umn.edu

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## ONE HEALTH IN AGRICULTURAL SAFETY AND HEALTH



UMASH embraces a **One Health** philosophy that recognizes connections between human, animal, and environmental health when addressing occupational health and safety issues in agriculture.

## FROM THE DIRECTOR

One of the goals of the Upper Midwest Agricultural Safety and Health Center (UMASH) is to provide **opportunities for the exchange of ideas related to health and well-being of agriculture workers and their families.** Whether the topic is an emerging issue, translating science-based information into practice, or brainstorming to develop ways to address persistent problems, it is always helpful to get input from multiple sources.

In this issue of the UMASH Connection we highlight three forums that we believe will move the discussion of agricultural health and safety forward. In January we held the **Finding Common Ground Forum**, in collaboration with partners from the Global Initiative for Food Systems Leadership and the Center for Integrative Leadership, on the intersection of worker health and well being and animal welfare. This was our first of what I hope will be many opportunities to engage a broad representation of people interested in both topics and look for ways to enhance the well-being of food animals and the people who care for them. In April the **first UMASH Annual Forum** will be held to publically highlight the work of the center and provide an opportunity to receive feedback. This forum will include the main projects of the center, the funded pilot projects, and some of the ancillary work developing as a result of this collaboration. In September UMASH is pleased to be a part of the **2013 North American Agricultural Safety Summit**, which is sponsored by the Agricultural Safety and Health Council of America (ASHCA). This meeting will bring together people representing production agriculture, workers, agribusiness, health care, public health, veterinary medicine, and insurance to explore how best to ensure the well-being of the people who are feeding the world.

Finally, our feature article in this issue addresses the problem of **needlestick injuries in animal agriculture.** Needlestick injuries have been a major concern in human health care, primarily due to the risk of disease transmission. For veterinary care of food animals the risks are somewhat different, but the topic is every bit as important and more recently becoming a focus for prevention. By cataloging a variety of potential needlestick hazards, learning from the experience of human health care, and applying this to a veterinary care model, Dr. Jeff Bender and his colleagues have developed some novel safety training messages. We believe the discussion of needlestick injuries will become more prevalent in agriculture health and safety forums in the future.

**Bruce Alexander, PhD**  
Director, Upper Midwest Agricultural Safety and Health Center

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## 2013 UMASH ANNUAL FORUM

*Making Connections to Improve  
Agricultural Worker Safety and Health*

Wednesday, April 17, 2013  
9 am to noon

Cargill Building - Seminar Room 105  
University of Minnesota St Paul Campus  
1500 Gortner Ave • St. Paul, MN



LEARN MORE AND REGISTER ONLINE  
[umash.umn.edu/annualforum.html](http://umash.umn.edu/annualforum.html)



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# NEEDLESTICK INJURIES IN ANIMAL AGRICULTURE



For farmworkers and veterinarians, injections are a routine part of animal agriculture. Needlestick injury research shows that **over 80% of farm workers and 73% of swine veterinarians working in animal agriculture** have accidentally stuck themselves<sup>1</sup>. Vaccines are the most common drug involved in needlestick injuries<sup>2</sup> (40%), followed by swine blood draws (37%), antibiotic administration (35%), and prostaglandins (1%)<sup>3</sup>.

## Injuries

While the majority of needlestick injuries tend to be mild or limited to local reactions, some injuries may lead to severe wound infections, even deep tissue reactions requiring surgery. Sometimes generalized (systemic) reactions to vaccines

and antibiotics can occur. An example might be the accidental injection of hormones like oxytocin that may cause miscarriages. Needlestick injuries with some tranquilizer or anesthetic agents can cause loss of consciousness and even death. These are rare events. Some products can cause severe reactions or problems. Needlestick injuries due to an antibiotic called tilmicosin (Micotil) have caused cardiac problems including cardiac arrest leading to death. As a result of this concern, the drug manufacturer has provided a special advisory and caution for safe administration of this drug.

## Other products of concern:

- Oil-based products often in vaccines can cause deep tissue reactions
- Modified live vaccines such as Erysipelas vaccine
- *Brucella abortus* Strain RB51 vaccine
- Johne's vaccine
- Antibiotics

Certain products can only be administered by a veterinarian.

To prevent needlestick injuries, it is important to consider work routines, avoid distractions, have appropriate restraint equipment and additional help. Surveys show that worker injuries are most often related to:

- Time constraints or rushing (most common)
- Inadequate number of personnel for animal restraint
- Insufficient training of personnel
- Lack of proper animal restraint equipment and/or techniques
- Improper disposal of needles
- Inadequate availability of sharps containers

## If you have additional questions please see these resources:

<http://www.porkgateway.org/FileLibrary/PIGLibrary/Factsheets/a6672v1-O.pdf>

<http://www.cdc.gov/niosh/stopsticks/sharpsinjuries.html>

## PREVENTION IS THE KEY!

Download fact sheets on prevention strategies for:

- Farm Workers
- Veterinary Personnel

[umash.umn.edu/resources](http://umash.umn.edu/resources)

## References:

1. Poole, A. G., et al. "Survey of Occupational Hazards in Large Animal Practices." *Journal of the American Veterinary Medical Association* 215:10 (1999): 1433-5. Web.
2. Jennissen, C., et al. "Unintentional Needlestick Injuries in Livestock Production: A Case Series and Review." *Journal of Agromedicine* 16:1 (2011): 58-71. Web.
3. Hafer, AL, et al. "Occupational Hazards Reported by Swine Veterinarians in the United States." *J. Swine Health Prod* 4:3 (1996): 128-41. Print.

# 2013 NORTH AMERICAN AGRICULTURAL SAFETY SUMMIT

The 2013 North American Agricultural Safety Summit will use non-traditional sessions to match safety interventions with production practices and emerging safety issues. The Summit, hosted by ASHCA, will build upon sessions that bundle global thinking with hands-on learning and networking. Summit attendees will include agribusiness representatives, farm organization leaders, state and national public officials, news media, and agricultural safety and health professionals. Key topics include: Evidence-based best safety and health practices, interventions for vulnerable populations working in agriculture, and priorities described in the NORA Agriculture, Forestry & Fishing Strategic Plan.

## CALL FOR ABSTRACTS

**Deadline: Wednesday, April 17, 2013**

Poster Session and Journal Publication  
Translational Research in Agricultural Safety and Health

Download the Call for Abstracts at: <http://umash.umn.edu/events.html>

**Call for Abstracts**  
2013 North American  
Agricultural Safety Summit

**Submission Deadline:**  
Wednesday, April 17, 2013

Poster Session and Journal Publication  
Translational Research in Agricultural Safety and Health



September 25-27, 2013  
Marriott Minneapolis City Center Hotel

UMASH is a partner organization for the 2013 NAASS conference and will be hosting the poster discussion session.



# 2013 UMASH ANNUAL FORUM

*Making Connections to Improve  
Agricultural Worker Safety and Health*

## AGENDA

- **Welcome to UMASH**  
Meet the UMASH team and learn about our Vision and Mission
- **World Cafe ala UMASH**  
*Join others in small group conversations about UMASH research projects*
- **Connecting with UMASH**  
Hear about UMASH Pilot Projects, Outreach & Engagement Initiatives, and Evaluation
- **UMASH Conversations**  
Identify and discuss opportunities and challenges to be part of the solution to improving agricultural worker safety and health
- **Networking & Poster Session**

Come hear about the work of the UMASH center and engage in discussions to promote the health and safety of agricultural workers and their families.

**Wednesday, April 17, 2013**  
**9 am to noon**

**Cargill Building - Seminar Room 105**  
**University of Minnesota St Paul Campus**

*This event is free and open to the public.  
Space is limited. REGISTER BY APRIL 10, 2013.*

**Register Online:**

[umash.umn.edu/annualforum.html](http://umash.umn.edu/annualforum.html)

## FINDING COMMON GROUND FORUM HIGHLIGHTS

### Finding Common Ground Improving Animal and Worker Health and Welfare

On January 17, 2013, seventy-nine participants from 5 states representing different disciplines, sectors and interests gathered at the St Paul Humanities Center to explore the policy issues surrounding animal welfare and worker health. The dialogue was hosted by the Center for Integrative Leadership, the Center for Animal Health and Food Safety, the Global Initiative for Food Systems Leadership, and the Upper Midwest Agricultural Safety and Health Center (UMASH).

Panelists representing animal production, human occupational health, and animal welfare started the conversation by providing three perspectives on the issues. The rest of the day was spent in facilitated small group conversations exploring opportunities for improving both the well-being of food animals and the health and safety of the workers who care for them.

**Read the full Summary Report and  
view the Consensus Ideas at:**  
[umash.umn.edu/commonground](http://umash.umn.edu/commonground)



# OUTREACH UPDATE

## UMASH Presence at the Minnesota Veterinary Medicine Association Annual Convention (MVMA)



Project Co-Investigator Joni Sheftel (far left) visits with convention attendees at the UMASH booth.

UMASH was well represented at the MVMA Convention February 7-9, 2013 in downtown Minneapolis with faculty and staff from the **Surveillance for Zoonotic Diseases in Agricultural Workers in Minnesota** Project including **Carrie Klumb**, **Joni Sheftel** (session speaker), **Heather Fowler** (session speaker), **Kirk Smith**, and **Samantha Saunders** participating.

Heather Fowler presented a summary of findings from their survey of occupational hazards in the veterinary clinic setting during the public health session of the convention. **Ruth Rasmussen**,

Outreach Coordinator, also assisted at the UMASH exhibit. Over 129 persons talked one-on-one with Project personnel and received Center materials of interest to them.

## IN THE FIELD

**In The Field** is a new addition to UMASH news on our website and in our newsletter! You'll be interested to know that UMASH folks are out and about, doing research and making connections with people who want to know more about what we do.

UMASH personnel have conducted **19 agricultural worker health and safety training events**, training 271 workers; made **94 visits** to farm, agronomy center and implement dealers in Minnesota and Wisconsin; visited 5 farms and 1 county fair; collected & tested fecal specimens for bacterial and parasitic pathogens and **developed 9 Educational Fact Sheets** related to agricultural safety and health which are posted on our website.

Co-Director **Jeff Bender** traveled to Dallas, Texas and presented an overview of UMASH and the Multidisciplinary Network project at the National Pork Board's Unified Research Review meeting in Dallas, Texas, January 28-30, 2013.

Graduate student **Anne Marie Castleman** did an oral presentation on the UMN campus on her evaluation study of 'Stakeholder Gap Analysis' at the Minnesota Evaluation Studies Institute Café on March 8<sup>th</sup>, an event showcasing the work of graduate students on a variety of projects.

Graduate student **Sandy Newton** conducted an oral presentation on mixed methods of data collection and interviewing regarding her work with UMASH at the Educational Psychology Graduate Research Day on the UMN campus on March 1<sup>st</sup>.

Project Co-Investigator **Amy Liebman** was a keynote panel speaker on dairy worker health and safety at the Pennsylvania Migrant and Immigrant Health Conference with NEC/NYCAM in Grantville, Pennsylvania March 19<sup>th</sup>.

Project Principal Investigator **Peter Davies** delivered a Research Update on Livestock Associated MRSA to the Human Health Committee at the American Association of Swine Veterinarians Conference in San Diego on March 2<sup>nd</sup>.

### Ag Safety and Health SPOTLIGHT

Stories from the Field

#### FEATURED SPOTLIGHT: Needlestick Risk

[umash.umn.edu/spotlight](http://umash.umn.edu/spotlight)

## UPCOMING EVENTS

**One Health Partnership Workshop**  
April 16, 2013  
Center for Animal Health and Food Safety  
University of Minnesota

**UMASH Annual Forum**  
April 17, 2013  
University of Minnesota

**MCN Webinar Series**  
*The Intersection of Primary Care and Migration Health*  
April 17, 2013 - 12:00 Noon CST

**Minnesota Dairy Health Conference**  
May 21-23, 2013  
Minneapolis, Minnesota

**Agricultural Medicine: Occupational and Environmental Health for Rural Health Professionals**  
June 10-14, 2013  
University of Iowa

**EPICOH 2013: Improving the Impact**  
June 18-21, 2013  
Utrecht, The Netherlands

**2013 ISASH Conference**  
*Exploring the Shores of Safety and Health*  
June 23-27, 2013  
Sandusky, Ohio

**Allen D. Leman Swine Conference**  
September 14-17, 2013  
University of Minnesota

**2013 North American Agricultural Safety Summit**  
September 25-27, 2013  
Minneapolis, Minnesota

Learn more and  
view a full list of events at:

<http://umash.umn.edu/events.html>

UMASH is a collaboration of the University of Minnesota School of Public Health, University of Minnesota College of Veterinary Medicine, the National Farm Medicine Center of the Marshfield Clinic with the Migrant Clinicians Network, and the Minnesota Department of Health. This collaboration brings together unique and complimentary expertise to address existing and emerging occupational health and safety issues in agriculture.

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