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

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

**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. Vaccines are the most common drug involved in needlestick injuries (40%), followed by swine blood draws (37%), antibiotic administration (35%), and prostaglandins (1%).

**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

**Prevention is the Key!**

Download fact sheets on prevention strategies for:
- Farm Workers
- Veterinary Personnel

If you have additional questions please see these resources:
- [http://www.porkgateway.org/FileLibrary/PIGLibrary/Factsheets/a6672v1-0.pdf](http://www.porkgateway.org/FileLibrary/PIGLibrary/Factsheets/a6672v1-0.pdf)
- [http://www.cdc.gov/niosh/stopsticks/sharpsinjuries.html](http://www.cdc.gov/niosh/stopsticks/sharpsinjuries.html)

**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](http://umash.umn.edu/events.html)

**2013 North American Agricultural Safety Summit**

**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**

UMASH is a partner organization for the 2013 NAASS conference and will be hosting the poster discussion session.
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
UMASH Presence at the Minnesota Veterinary Medicine Association Annual Convention (MVMA)

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 8th, 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 1st.

Ag Safety and Health SPOTLIGHT

Stories from the Field

Featured Spotlight:
Needlestick Risk

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 19th.

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 2nd.

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