

# Farm families **ALIVE & WELL**

News from Iowa's Center for Agricultural Safety and Health (I-CASH) & the Great Plains Center for Agricultural Health

Vol. 11, Issue 1 - 2004

## Schwab Receives I-CASH Hall of Fame Award

Iowa's Center for Agricultural Safety and Health (I-CASH) has named Charles Schwab, PhD, of Ames, Iowa the 2004 recipient of its Agricultural Safety and Health Hall of Fame Award. Schwab, an associate professor of agricultural and biosystems engineering and an extension safety specialist at Iowa State University, will receive the award November 18th during the [Midwest Rural Agricultural Safety and Health Forum](#) in Coralville.

Schwab has been a driving force behind farm safety and health education throughout Iowa for many years. At ISU, he teaches agricultural safety classes to future agricultural leaders. Schwab designed a "Tug of War" grain demonstration and educational package that allows kids and adults an opportunity to see the strength needed to pull someone buried in grain. He also produces weekly radio spots that are sent to all radio stations in Iowa.

Schwab has worked with the national organization Farm Safety 4 Just Kids and is a nationally

recognized authority on child and youth safety issues in agriculture. His "Mystery Club" initiative is an innovative method of reaching youth with extension safety programming. This effort, along with his book, *What Would You Do: Helping Children Understand Farm*



Charles V. Schwab, PhD

*Hazards*, have put ISU Extension at the leading edge of providing childhood farm safety programming.

Schwab serves as the treasurer for the Iowa Farm Safety Council, and is currently president of the National Institute for Farm Safety, Inc. For more than a decade, Schwab has provided leadership in farm safety efforts across Iowa and the nation.

I-CASH created the Hall of Fame Award in 2002 as a lifetime achievement award for individuals or organizations that have made significant and lasting contributions to agricultural safety and health in Iowa.

## Conference Focuses on Policy

The planning committee for our Midwest Rural Agricultural Safety and Health Forum (MRASH) took a bold step to focus on policy for this year's conference. It's bold because policy is readily translated in many peoples' minds as government regulations. We all know that government regulations within some segments of the agricultural community are about as popular as a fly on your french fries. However, there are two important points I wish to make:

1. Policy does not just mean regulations; it's a very broad term. Webster defines policy as "a definite course or method of action selected from among alternatives and in light of given conditions to guide and determine present and future decisions."

2. We, as an agricultural health and safety community, are not going to make substantial progress in reducing illnesses and injuries in agriculture unless we develop, implement, and sustain sound policies.

Farm health and safety policy must be more than providing awareness education to the farm community. Numerous manuscripts have been published about the marginal effectiveness of educational programs on the actual reduction of illnesses and injuries in agriculture.

The International Labour Organization's policy entitled "Recommendation 192: Safety and Health in Agriculture Recommendation,"



Kelley J. Donham  
MS, DVM,  
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2001" was developed for governments and organizations to adopt worldwide. The policy advises nation states to develop accessible and affordable occupational health and safety services for all of agriculture and develop programs that accomplish the following:

- elimination of the risk;
- control of the risk at the source;
- changes in work practices or hazardous agent substitution; and
- proper selection and use of personal protective equipment.

Most agricultural health and safety specialists in the US would agree with these recommendations. However, many times these interventions are not implemented in our prevention programs, relative to awareness level education. Our resources and time are limited; we need to put our energy into programs that can make a difference. This takes courage, perseverance, creativity, and sound policy.

The MRASH Conference has the tag line of "Creating Partnerships for Agricultural Health and Safety Policy." I encourage all concerned to be involved in this process, and to take agricultural health and safety to the next level in this state. Iowa already has the highest number of agricultural health and safety specialists, and perhaps the most resources for agricultural health and safety in the US. It is up to us to be leaders and develop, implement and maintain sound policy to help our farm community members "Stay Alive and Well in Agriculture."

*Dr. Kelley Donham is the director of Iowa's Center for Agricultural Safety and Health (I-CASH) and the Associate Department Head for Agricultural Medicine in the Department of Occupational and Environmental Health. He can be reached at 319/335-4190.*

*Safety and Health in Agriculture Recommendation, 2001 can be accessed at: [www.ilo.org/ilolex/english/recdisp2.htm](http://www.ilo.org/ilolex/english/recdisp2.htm)*

I-CASH is seeking proposals for its grant program aimed at decreasing the risk of illness and injury to young people living on Iowa farms or involved in agriculture. Each year I-CASH designates funds for communities to develop farm injury prevention and education programs targeted for Iowa's youth. This year, a total of \$5,000 is available. For more information or an application packet, contact Leah Meinel at 319/335-4438 or by e-mail at [leah-meinel@uiowa.edu](mailto:leah-meinel@uiowa.edu). Applications also are available online at [www.public-health.uiowa.edu/icash](http://www.public-health.uiowa.edu/icash).

The deadline for applications is Jan. 15, 2005.

I-CASH invites readers to join *Alive and Well Updates*, a monthly update that provides continuing education for rural health care providers. To subscribe, go to [www.its.uiowa.edu/cs/email/listserv](http://www.its.uiowa.edu/cs/email/listserv) select **List Archives**, then select **ALIVE-WELL-UPDATES**.

"Keep On Track" was the theme for **Farm Safety 4 Just Kids (FS4JK)** during **National Farm Safety and Health Week 2004**, September 19-25, and keep on track they did! In all, FS4JK staff traveled 13,254 miles with over 40 events reaching more than 3,500 children, youth, and farm families. "I am extremely proud of the extra effort we were able to extend for National Farm Safety and Health Week 2004. This very important week served not only as a reminder about safety and health, but also as a springboard for building grassroots relationships and recognizing those people and places where farm safety and health is a priority," said Marilyn Adams, FS4JK Spokesperson, President, and Founder. For more information contact Mindy Williamson, Community Relations Director at 515/758-2827 or visit the web site at [www.fs4jk.org](http://www.fs4jk.org).

The 2005 **Farm Progress Show** will be held August 30, 31, and September 1, 2005 on a new semi-permanent facility northeast of Decatur, Illinois. The show will be held every-other-year on this site with alternate years at an Iowa location. The show site will be 640 acres of exhibits and field demonstrations. Nearby Richland Community College will close for the show and make campus facilities available for show use as needed. For additional information visit [www.FarmProgressShow.com](http://www.FarmProgressShow.com).



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# New ISU Lab Targets Link Between Livestock Diet and Air Emissions

The first residents of a new laboratory at Iowa State University arrived Sept. 14th. And while the 44-pound pigs get used to their new digs, they're also getting used to a new, low-protein diet. "We're not taking the Atkins approach here," said Wendy Powers, associate professor of animal science and environmental extension specialist. Powers is the lead researcher in the new Animal Emission Laboratory. Sarah Bastyr, assistant scientist, is the lab manager. The goal of the research is to discover whether changes in diet can effectively reduce gas emissions from animals in livestock facilities. Results of the work could lead to new dietary recommendations for livestock producers that will improve air quality both inside and outside of production buildings.



Photo courtesy of Iowa State University

To study the impact of diet, a facility was needed to precisely measure emissions. In the new lab, animals of all species can be fed individually or in groups, with emission measurements collected the same way. Money and in-kind contributions for the lab totaling \$700,000 came from the ISU College of Agriculture, the Department of Animal Science, small business and private donations.

The laboratory consists of eight rooms for housing animals. Each room can accommodate one horse, one lactating cow, two growing heifers, six finishing pigs, 25 turkeys, 60 broilers or 85 laying hens. Penning, feed and water handling systems and manure handling apparatus for each species can be removed from the chambers to accommodate the needs of different species. Powers said this flexibility makes the laboratory the only one of its kind in the nation.

The pigs now housed in the laboratory will be fed one of three diets until they reach market weight in late January. The diets include protein levels of 20 percent, 18 percent, and 16 percent. Manure collected from the animal rooms is measured daily and matched against the animals' daily feed intake. The project is funded by the US Department of Agriculture.

The new lab has online monitoring capabilities for hydrogen sulfide, ammonia, nitrous oxides, nitrogen oxides, sulfur oxides, methane, carbon dioxide and volatile organic carbons. Through software control, gaseous concentration monitoring of the rooms occurs in sequen-

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## calendar

December 2-4

Canadian Agricultural Safety Association Annual Conference  
Quebec City, Quebec, Canada  
[www.casa-acsa.ca/english](http://www.casa-acsa.ca/english)

January 15, 2005

Application deadline for I-CASH Injury Prevention in Agricultural Youth Grant  
[www.public-health.uiowa.edu/icash](http://www.public-health.uiowa.edu/icash)

May 18-20

I-CASH Agricultural Occupational Health Training - Session 1  
Iowa City, IA  
[www.public-health.uiowa.edu/icash](http://www.public-health.uiowa.edu/icash)

May 21-26

American Industrial Hygiene Association Annual Conference  
Anaheim, CA  
[www.aiha.org/aihce05/aihce.htm](http://www.aiha.org/aihce05/aihce.htm)

June 8-10

I-CASH Agricultural Occupational Health Training - Session 2  
Iowa City, IA  
[www.public-health.uiowa.edu/icash](http://www.public-health.uiowa.edu/icash)

June 12-15

American Society of Safety Engineers: ASSE Professional Development Conference & Expo  
New Orleans, LA  
[www.asse.org](http://www.asse.org)

### 2005 I-CASH Agricultural Occupational Health Training

Session 1 -- May 18-20, 2005

Session 2 -- June 8-10, 2005

Information and skills for health care professionals to function as practitioners in the prevention of agricultural occupational illnesses and injuries. For more information contact: Kay Mohling 319/335-4219 [kay-mohling@uiowa.edu](mailto:kay-mohling@uiowa.edu)



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## Take Precautions When Vacuuming Corn From Bins

Following the recent deaths of two Iowa farmers who reportedly suffocated in separate grain bin accidents, agricultural safety experts at the University of Iowa are urging farmers to take extra precautions. The fatalities occurred about a week apart while the farmers were vacuuming grain from storage bins.

Here are some precautions to follow when using grain vacuums inside bins:

- Follow safety precautions in operator manuals and know the emergency procedures.
- Station an observer nearby who can communicate with both the person in the bin and another individual to shut down operating equipment in an emergency. To avoid anyone else becoming entrapped in the grain, the bin should not be entered until it is safe to do so.
- Grain vacuum operators, as well as farmers using other methods to empty grain bins, should be very cautious when working with grain that won't flow or has spoiled.
- Grain vacuum operators should move the vacuum intake frequently to avoid formation of a cone depression, keeping the grain surface level, working from the outside wall and moving inward, thereby reducing the risk of engulfment.

See [www.uiowa.edu/~ournews/releases.html](http://www.uiowa.edu/~ournews/releases.html) for entire press release. For more information about safe grain handling and agricultural practices, contact Risto Rautiainen, PhD, Assistant Professor, University of Iowa, 1-877-611-4971. Additional resources on grain handling, harvesting and storage are available from the National Agricultural Safety Database at [www.cdc.gov/nasd/menu/topic/grain.html](http://www.cdc.gov/nasd/menu/topic/grain.html).

New ISU Lab, continued from page 3

tial fashion, beginning first with incoming air for 30 minutes, then through each of the eight rooms' exhaust airs for 30 minutes. Airflow rates into and out of each room are measured as well, allowing the emission rates of each gas to be calculated. "For this first group of pigs, we are looking at cumulative emissions over their growth phase," Powers said. "We will do the same with the five flocks of broilers we bring in next spring. Layer hens also will be in the lab next spring, and dairy cows next winter. For these last two species, we will pick key production periods and keep animals in for two or three weeks at a time."

Each room is individually heated and cooled.

Temperatures are set independently and dictate the airflow rate in each room. The temperature and humidity of each room are monitored and recorded every two seconds. If the temperature falls outside a specified range, an alarm system places a series of phone calls to alert laboratory personnel.

Does Powers plan to someday fill the eight rooms with a mix of animal species, taking a sort of "Old MacDonald had a farm" approach? "We have the capabilities to do that," she said. "Right now, we're establishing some baseline data for each species so we plan to fill all rooms with a single species for the current slate of projects."

For more information contact: Wendy Powers, Animal Science, (515) 294-1635, [wpowers@iastate.edu](mailto:wpowers@iastate.edu) or Susan Thompson, Communications Service, (515) 294-0705, [sander@iastate.edu](mailto:sander@iastate.edu)

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