

2011 ANNUAL REPORT

# Iowa's Center for Agricultural Safety and Health

*Helping Farmers Stay  
Alive and Well*



 I-CASH | Iowa's Center for  
**Agricultural Safety and Health**

A PARTNERSHIP OF: The University of Iowa • Iowa State University • Iowa Department of Public Health  
Iowa Department of Agriculture and Land Stewardship

# **Iowa’s Center for Agricultural Safety and Health (I-CASH) Annual Report**

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## **I-CASH Staff**



Kelley J. Donham  
Director



Eileen Fisher  
Associate Director



LaMar Grafft  
Rural Health and  
Safety Specialist



Aaron Kline  
Research Assistant



Kay Mohling  
Program Coordinator



Julia Venzke  
Information/Web  
Specialist

### **Iowa’s Center for Agricultural Safety and Health (I-CASH)**

Department of Occupational and Environmental Health

College of Public Health

UI Research Park #124 IREH

The University of Iowa

Iowa City, IA 52242-5000

Telephone: 319/335-4438 FAX: 319/335-4225

**[www.public-health.uiowa.edu/icash](http://www.public-health.uiowa.edu/icash)**

# Board of Directors and Advisory Council

## 2011 I-CASH Board of Directors

### Marilyn Adams

Founder and President, Farm Safety 4 Just Kids

### Kelley Donham (Chair)

Pioneer Professor in Rural Safety & Health, The University of Iowa

### Bill Furlong

Producer

### Fred Gerr

Professor, Occupational and Environmental Health, The University of Iowa

### Mark H. Hanna

Agricultural and Biosystems Engineer, Iowa State University Extension

### Paul A. James

Head, Department of Family Medicine, The University of Iowa

### Kathy Leinenkugel

Coordinator, Occupational Health & Safety Surveillance Program,  
Iowa Department of Public Health

### Stephen Moline

Director, Consumer Protection and Industry Services,  
Iowa Department of Agriculture and Land Stewardship

### Dan Neenan

Manager, National Education Center for Agricultural Safety

### Chris Petersen

President, Iowa Farmers Union

### Jeris Peterson

Producer

### Michael Rosmann

Executive Director, AgriWellness, Inc.

### Kristine Schaefer

Program Coordinator, Iowa State University Extension

### Ken Sharp

Director, Division of Environmental Health,  
Iowa Department of Public Health

### Carolyn Sheridan

Clinical Director, AgriSafe Network

### Dustin Vande Hoef

Communications Director,  
Iowa Department of Agriculture and Land Stewardship

## I-CASH Vision Statement

*To make Iowa the world's healthiest and safest agricultural environment in which to live and work through creative leadership and collaboration among I-CASH, its partners and Iowa's agricultural community.*

## 2011 I-CASH Advisory Council

### Nancy Boettger

State Senator, Senate District 29

### Shari Burgus (Chair)

Education Director, Farm Safety 4 Just Kids

### Jim Drummond

Risk Management Consultant, Nationwide AgriBusiness Insurance

### Gary Edwards

Producer

### Rich Gassman

Transportation Supervisor, Amana Farms

### Jan Goldsmith

Highway Safety Consultant

### Heather Hora

Producer

### Charles A. Jennissen

Associate Professor, Emergency Medicine, The University of Iowa

### Mike Kelly

Loss Control Consultant, Nationwide AgriBusiness Insurance

### Mark Kuhn

Producer

### Gayle Olson

Producer

### Linda Reynolds

Administrative Services Coordinator, Pediatrics, The University of Iowa

### Roger Stutsman

Producer

### Cheryl Tevis

Farm Issues Editor, Successful Farming Magazine

### Margaret VanGinkel

Program Specialist, Iowa State University Extension

### Gloria Vermie

Director, State Office of Rural Health,  
Iowa Department of Public Health

## I-CASH Mission Statement

*The Mission of I-CASH is to enhance the health and safety of Iowa's agricultural community by establishing and coordinating prevention and education programs.*



## 2011 I-CASH Annual Report

Kay Mohling, Editor

Cover Design by Patti O'Neill,  
University of Iowa College of Public Health

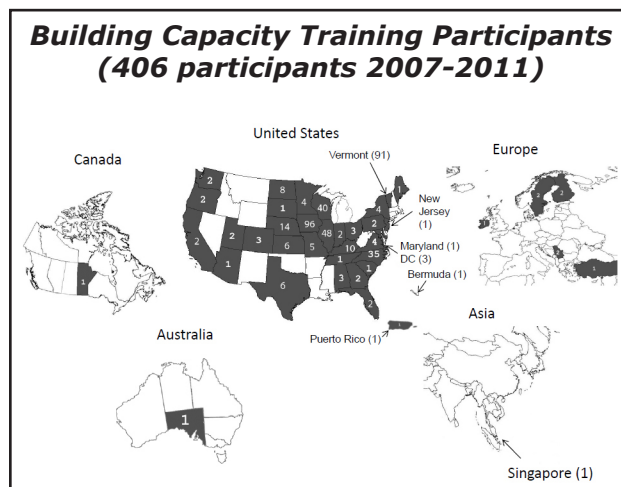
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# Opening Thoughts From The Director



We are now twenty-one years into a new level of agricultural health and safety. In 1990, the *Agriculture at Risk* process of the previous three years resulted in two significant initiatives: 1) the National Institute for Occupational Safety and Health (NIOSH) agricultural health and safety centers program, and 2) the founding of Iowa's Center for Agricultural Safety and Health (I-CASH). To improve the health and safety of our farm community we recognized a need for research, a research to practice effort, and a professional community educated in agricultural health and safety to deliver services to the agricultural population. The *Agricultural at Risk* report indicated the need for 1,000 industrial hygienists, 1,000 physicians, and 8,000 nurses, all specifically trained in agricultural health and safety.

At the University of Iowa, we began agricultural medicine training in the mid 1970's. Funding from NIOSH and I-CASH helped us to expand that training. By 2006 we initiated the first MS and PhD programs, and one-year certificate program. That same year, we initiated the Building Capacity program, launching the agricultural medicine training program in other states around the country. Based primarily on "spark plug" individuals who had completed the training at the University of Iowa, programs have been established in Illinois, Nebraska, North Carolina, North Dakota, Vermont, Wisconsin, and Victoria, Australia. Sites in Australia, Illinois, North Carolina, Vermont, and Wisconsin have all had repeat training programs, and appear to be well on their way to sustainability.



Since 2007, the Building Capacity program has trained 406 health and safety professionals from 32 U.S. states, Washington DC, Puerto Rico, and ten additional countries. The map at left indicates the location of these students.

This training effort requires a large demand of time and expertise from our staff, including countless hours participating in conference calls and planning meetings. In addition, LaMar Grafft and I have traveled to all the training sites, in some cases multiple times, to provide lectures, case studies, and farm safety tours. Aaron Kline and LaMar Grafft have provided technology support and coordinated the examination process. Kay Mohling spent

numerous hours working with staff at the various sites coordinating and implementing the courses, and Eileen Fisher was responsible for evaluation of the program.

I think this program has greatly exceeded the goals originally set, and has been one of the most successful, and perhaps, most important programs I have been involved with as director of I-CASH. Our training course at the University of Iowa has remained the "flag ship" of the Building Capacity program, resulting in approximately 200 health professionals trained at the Iowa Agricultural Medicine Training from 2007-2011.

Although we did not receive NIOSH funding to continue the program, our staff is committed to "building capacity" in agricultural safety and health. We will continue the Building Capacity program to evaluate, and translate research to prevention and treatment of our farm population. Our goal, as always, is "helping farmers stay alive and well in agriculture."

*Kelley J. Donham, MS, DVM  
Director, Iowa's Center for Agricultural Safety and Health*

# ***I-CASH Partner Programs***

*The following are brief descriptions of activities of the four I-CASH state institutional partners (the Iowa Department of Agriculture and Land Stewardship, Iowa State University, The University of Iowa, and the Iowa Department of Public Health).*

## ***Iowa Department of Agriculture and Land Stewardship***

### ***Pesticide Applicator Certification***

The Iowa Department of Agriculture and Land Stewardship (IDALS) in cooperation with Iowa State University (ISU) Extension and the US Environmental Protection Agency (EPA) conduct the pesticide applicator certification program. Private pesticide applicators must be certified to apply restricted use pesticides and commercial pesticide applicators must be certified to apply general and restricted use pesticides. As of June 30, 2011, Iowa had 36,070 certified applicators. There are 13,306 certified commercial applicators, 623 certified commercial handlers, and 22,141 certified private applicators. Certification testing was held at about 2,600 sites in fiscal year 2011. Approximately 312 private and 2,085 commercial continuing instruction certification training sessions (including satellite downlink sessions) were offered by ISU Extension in fiscal year 2011.

[www.IowaAgriculture.gov](http://www.IowaAgriculture.gov)

### ***The Worker Protection Standard***

The Worker Protection Standard (WPS) for agricultural pesticides is a regulation issued by the EPA. The WPS emphasizes educating agricultural employers on farms, forests, nurseries, and greenhouses of the need to train their workers and pesticide handlers regarding the safe use of pesticides. The Pesticide Bureau worked in cooperation with the Iowa Department of Public Health, Proteus Inc., I-CASH, EPA, and ISU Extension to promote WPS compliance. With matching funds from EPA Region 7 and IDALS, ISU Extension has developed a series of WPS self-inspection checklists to assist agricultural employers, pesticide dealers, and growers. Separate checklists were developed for agricultural workers and pesticide handlers in both greenhouse/nursery and agricultural applications. Using the checklists agricultural establishments can conduct a walk-through of their operation prior to an inspection by IDALS. The checklists are available from the ISU Extension Distribution Center as downloadable pdf files.

[www.extension.iastate.edu/pme/WorkerProtect.html](http://www.extension.iastate.edu/pme/WorkerProtect.html)

## ***Iowa Department of Public Health***

The Iowa Department of Public Health (IDPH) Occupational Health and Safety Surveillance Program (OHSSP) and State Office of Rural Health (SORH) continue to work with I-CASH and its partners to promote healthy and safe workplaces for all Iowans, including those living and working in agricultural settings. IDPH personnel continue to serve on the I-CASH Board and Advisory Committee.

IDPH is in the second year of a five-year competitive funding agreement from the National Institute of Occupational Safety and Health (NIOSH) for the Iowa State-Based Occupational Health & Safety Surveillance Program (OHSSP). This program includes funding for the Fatality Assessment and Control Evaluation (FACE) program based at the University of Iowa and funding for the SENSOR Pesticide (human pesticide exposures) surveillance in Iowa. Data and reports for both of these programs are available online or by contacting the IDPH OHSSP at 800/972-2026.

IDPH OHSSP and Rural Health personnel were part of a statewide collaborative team that participated in the Children's Safety Network National Rural Injury Prevention Community of Practice. The team developed a preliminary plan to address ATV injuries and deaths in rural Iowa, and is investigating ways to incorporate the plan into their primary programming.

Per Iowa Legislative Code Chapter 135.107, the Department continues to coordinate activities for the Center for Rural Health and Primary Care (CRHPC). The CRHPC addresses issues related to rural health care access and agricultural safety. I-CASH serves on the CRHPC Advisory Committee and partners in the February Legislative Breakfast held at the Capitol building.

IDPH recently completed the *Iowa Rural and Agricultural Health and Safety Resource Plan* fulfilling the rural health care resource plan requirement in the Iowa Code. Section Five of the plan was dedicated to agricultural health and safety in Iowa ([www.idph.state.ia.us/hpcdp/common/pdf/health\\_care\\_access/2011\\_safety\\_resource\\_plan.pdf](http://www.idph.state.ia.us/hpcdp/common/pdf/health_care_access/2011_safety_resource_plan.pdf)).

To further promote our mutual goal of access to health care and safe work environments in rural Iowa,

I-CASH staff and programs have been featured in the Bureau of Oral and Health Delivery Systems electronic newsletter, and ACCESS Update. Additionally, the IDPH SORH provided scholarships for public health and medical professionals to attend the 2011 Agricultural Medicine training, and funded specific projects for I-CASH partner activities.

IDPH continues to investigate options to provide better surveillance of agriculturally-related injuries. The OHSSP program is partnering with the Iowa Data Warehouse (DWH) and the Environmental Public Health Tracking (EPHT) programs to increase access to databases that capture existing injury and fatality data. This includes plans to utilize these resources for dissemination of data in the future. As of February 2011, OHSSP has taken on the responsibility of collecting data from medical providers reporting ag-related injuries to IDPH, as required under Iowa Administrative Code. The reports from trauma centers had previously been handled by the Bureau of Emergency Medical Services.

A key component of the IDPH OHSS program is collaborating with existing internal and external programs to analyze and disseminate data findings, impacting the development of prevention and intervention strategies for agricultural safety and health, and working with our partners to assure the implementation of effective programming. Use of the internet and social media to facilitate dissemination is planned for 2012. OHSSP will also coordinate the Health & Safety Tent of the 2012 Farm Progress Show near Boone, Iowa.

[www.idph.state.ia.us](http://www.idph.state.ia.us)

## **Iowa State University**

### **Extension Farm Safety Program**

The Iowa State University Extension Farm Safety Program activities that are directed towards I-CASH goals include the following events.

- ISU Extension organized articles on farm safety issues by involved partners (Farm Safety 4 Just Kids, Iowa Farm Safety Council, ISU, Easter Seals, AgriWellness, and University of Iowa) and distributed them to Iowa's newspapers during the National Farm Safety and Health Week, September 19-25, 2010.
- Fifteen safety day camps conducted by extension staff were held throughout the state reaching 1,611 youth with their educational messages.
- A total of 11 safety events conducted by extension staff reached 211 participants.

[www.abe.iastate.edu/safety](http://www.abe.iastate.edu/safety)

## **Iowa Concern**

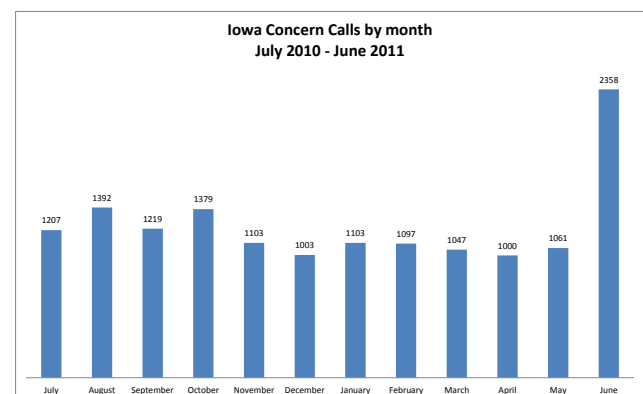
Iowa Concern is a part of Iowa State University Extension and offers information and referral, stress counseling, and legal education. The Iowa Concern Hotline received 14,969 calls from July 2010 to June 2011. Approximately 15% of the calls were from farm and rural families. The hotline received disaster calls this year due to flooding in western Iowa, and tornado damage in other parts of the state. Additionally, the Hotline is still taking calls from those impacted by the disasters of 2010, and received a grant through the Department of Human Services to help with disaster crisis counseling, and the crisis outreach program.

Farm and rural issues this year varied. In general, the crop situation was good; both grain prices and yields were high. Wet and cool conditions early in the season caused some farmers to get crops in a little late, and hot and dry weather later in the season caused some disease and insect problems. Some crops also received wind and hail damage. Farm and rural families called the hotline with concerns such as divorce, contracts, leases, fence law, and health insurance costs. Dairy producers were still struggling this past year with financial issues

Unfortunately the Sowing the Seeds of Hope program lost its funding in 2010. This program provided vouchers for farm related families to receive behavioral health counseling. Iowa Concern had issued over 1700 vouchers to families since 2002, when the program started.

Iowa Concern continues to receive questions and concerns through the web site, receiving approximately 6,000 hits per month. The site has FAQ's, links to other organizations and agencies, success stories from persons who have accessed mental health facilities, and a "Live person" chat to talk directly with stress counselors. Iowa Concern is available 24 hours a day by calling 800/447-1985.

[www.extension.iastate.edu/iowaconcern](http://www.extension.iastate.edu/iowaconcern)



## **The University of Iowa**

Projects led by I-CASH core faculty and staff

### **Agricultural Medicine Training**

The course, *Agricultural Medicine: Occupational and Environmental Health for Rural Health Professionals* was held June 13-17 in Iowa City, IA. Thirty-nine health care professionals from Arizona, Colorado, Georgia, Illinois, Iowa, Kentucky, Maryland, North Carolina, South Dakota, Virginia, Washington DC, Serbia, and Turkey attended the training. Led by recognized experts in the various topic areas, the training provides information and skills to enable health care professionals to function in the prevention of occupational illnesses and injuries in the farm community. Topics include agricultural respiratory hazards, acute agricultural injuries, skin diseases, physical factors affecting health in agriculture, behavioral health issues, musculoskeletal diseases and ergonomics, health effects of pesticides, zoonotic diseases, cancer in agricultural populations, and agricultural health care delivery.

In addition to the didactic training, the participants toured Amana Farms, followed by a barbeque dinner at the farm. The annual course can be taken for three graduate credit hours from the University of Iowa College of Public Health, and continuing education credits are offered. The 2012 training will be held June 11-15 in Iowa City.

[www.public-health.uiowa.edu/icash/education/agmedtraining.html](http://www.public-health.uiowa.edu/icash/education/agmedtraining.html)

### **Alive and Well Updates Listserv**

Since 2003, I-CASH has maintained this free listserv, originally developed for the AgriSafe Network nurses as a continuing education service. It has become an efficient way for a variety of healthcare professionals to receive monthly abstracts from current research publications on rural and agricultural health and safety issues. Recent topics include the marketing of safety behaviors, an evaluation of prevention messaging in print media, and predictors of hearing protection use. Upon request, subscribers receive full-text articles from I-CASH's Information Specialist. The listserv can also be utilized by subscribers to post notices about upcoming agricultural safety and health-related events offering continuing education credit. Subscriptions to this listserv continue to grow. Currently there are subscribers from health and safety organizations in California, Iowa, Kentucky, Texas, and Canada.

[www.public-health.uiowa.edu/icash/programs/alive-well-updates-listserv.html](http://www.public-health.uiowa.edu/icash/programs/alive-well-updates-listserv.html)

## **Building Capacity of Health and Safety Professionals**

Iowa's Center for Agricultural Safety and Health began training health care professionals about the special needs of farmers in 1988. Building Capacity for Health Care Professionals is a program of the Great Plains Center for Agricultural Health (GPCAH). This education/translation project impacts farmers in the U.S. by educating the rural health care and safety professionals who care for, or teach them. The "train the trainer" strategies support translation of research information and disseminate educational and intervention programs developed at Iowa and other NIOSH-supported agricultural health centers. The primary goal of this project is to address the critical shortage of agricultural occupational health and safety researchers and program leaders by educating the next generation of agricultural safety and health specialists through our graduate and continuing education program

Over the last 5 years, the continuing education course *Agricultural Medicine – The Core Course* has been offered fifteen times. Over 400 students from 32 states, Washington DC, Puerto Rico, and 10 other countries have attended the course. The training was held in Illinois, Iowa, Nebraska, North Carolina, North Dakota, Vermont, and Wisconsin. Although funding from the GPCAH has ended, Iowa and many of the other states have found other resources to sustain the training.

[www.public-health.uiowa.edu/icash/education/agmedtraining.html](http://www.public-health.uiowa.edu/icash/education/agmedtraining.html)

### **Certified Safe Farm**



The Certified Safe Farm (CSF) program has been an agricultural health and safety intervention research project since 1996. The methods are multifactorial, consisting of occupational health screenings, wellness screenings, on-farm safety evaluations, incentives, and personalized education. The program has been implemented in over 40 Iowa counties, 5 counties in North Carolina, and 4 counties in Wisconsin. Some of the essential findings include:

- a 47% savings in insurance costs for occupational illnesses and injuries
- an increased use of personal protective equipment
- a 22% reduction in Organic Dust Toxic Syndrome (ODTS) in intervention farmers
- a reduction in bronchitis

The current phase is Research 2 Practice within different segments of production agriculture. The applications are in a variety of formats and include studies

with senior farmers and large farms, and analysis of insurance claims and workman's compensation. Meetings are being held with representatives from Vermont to investigate the possibility of establishing the program in that state. The CSF program is one of the few interventions that has shown effectiveness in reducing occupational injuries and illnesses and providing a cost savings in medical care. Our goal is to make CSF sustainable by integrating it into the agricultural infrastructure.

[www.public-health.uiowa.edu/icash/programs/CSF/index.html](http://www.public-health.uiowa.edu/icash/programs/CSF/index.html)

### **Certified Safe Farm for Large Farms**

LaMar Grafft, I-CASH Rural Health and Safety Specialist, has continued to work with Amana Farms, Inc. of Amana, IA to refine their health and safety program, utilizing Certified Safe Farm program principles. This experience has helped in the development of a CSF for Large Farms Program that can be implemented in any large-scale agricultural operation which includes both crops and livestock. The program includes both on-farm safety reviews and personalized education. In addition, the large farms program concentrates on OSHA compliance issues as well as preparing the operation for applying for OSHA's Voluntary Protection Program. Since the Amana Farms, Inc. program began in April 2007, I-CASH has completed two rounds of on-farm safety reviews with recommendations for removing the hazards that were found. Several safety hazards have been repaired, and many more are being worked on. Like any busy farm, it takes time and effort to make safety changes. Several new practices have been implemented such as strategic placement of first aid kits, personal protective equipment, confined space program, and a lock out/tag out program. In addition, over 20 educational meetings have been presented to the employees.

[www.public-health.uiowa.edu/icash/programs/CSF/modules.html](http://www.public-health.uiowa.edu/icash/programs/CSF/modules.html)

### **Hall of Fame Award**

Iowa's Center for Agricultural Safety and Health (I-CASH) named Shari Burgus of Waukee, Iowa, and Michael Rosmann of Harlan, Iowa the 2010 recipients of its Agricultural Safety and Health Hall of Fame Award. The recipients were recognized at the Midwest Rural Agricultural Safety & Health forum banquet on Wednesday, November 17, 2010.

Shari Burgus is the Education Director at Farm Safety 4 Just Kids (FS4JK), a nonprofit organization

which promotes a safe farm environment to prevent health hazards, injuries and fatalities to children and youth. Joining FS4JK in 1991, she initiated the first chapter system and now develops educational materials and programs, including the "Great Grain Harvest" packet for educating youth about hazards associated with grain. Additional efforts range from offering family farm seminars to working on child safety interventions for Anabaptist audiences. She also serves on numerous state and national agricultural safety and health initiatives including: I-CASH Advisory Committee (Chair), Children's Agricultural Safety Network, and the National Institute for Farm Safety (NIFS) Professional Improvement Committee.

Michael Rosmann is a clinical psychologist in agricultural behavioral health. He is known nationally as an advocate and spokesperson for better behavioral health care for agricultural producers. In 2001, Rosmann founded, and is currently Executive Director of, the AgriWellness, Inc. nonprofit organization, which promotes accessible behavioral health services for the underserved and at-risk populations affected by rural crisis in agricultural communities. Previously he was a professor at the University of Virginia and the founding director of Prairie Rose Mental Health Center in Harlan. From 1999-2000, Rosmann was the interim Associate Director of I-CASH and Research Associate at the University of Iowa College of Public Health. He has served on the I-CASH Board of Directors since 2000, and he regularly lectures at the Agricultural Medicine course.

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.

[www.public-health.uiowa.edu/icash/programs/Hall-of-Fame/index.html](http://www.public-health.uiowa.edu/icash/programs/Hall-of-Fame/index.html)



I-CASH Director Kelley Donham, with 2010 Hall of Fame recipients Shari Burgus and Mike Rosmann.



## **Agricultural Youth Injury Prevention Grants**

Since 1990, I-CASH has designated funds for Iowa community grants targeted at prevention of farm-related injury in young people (less than 19 years of age). This year, I-CASH awarded funds to eight all-terrain vehicle (ATV) safety projects.

*Calhoun County Public Health* - The local public health departments will partner with ISU Extension to present ATV safety information and distribute visibility items during pesticide trainings.

*Clark County Extension* - An ATV Safety Workshop is planned to provide educational materials and create awareness of ATV safety.

*Dike-New Hartford Junior High School* - A safety course including activities for ATV training, lawn mower training, sun safety, and noise exposure is planned.

*East Pottawattamie County 4-H* - An ATV Safety Day is planned including presentations and the opportunity for county youth to bring their ATVs and learn safe riding techniques.

*Grant 4-Hers* - ATV safety information will be shared at the Ida County Fair, distributing ATV flags, as well as visibility and safety information.

*Manchester Area Chamber of Commerce* - ATV safety instruction is already included in the 7th grade Farm Safety Day, but this grant will enhance those activities and add an instruction session open to anyone.

*National Education Center for Agricultural Safety* - A train-the-trainer model, providing program packets to FFA senior leadership and their FFA advisors in each school district, will be utilized. Packets will include ATV safety handouts, current data on ATV injuries and fatalities, laminated photos to post, and a flash drive with an ATV safety power point presentation loaded and ready for use.

*Town and Country Farm Safety* - Educational opportunities, including a poster contest, will be provided in a four-county area, promoting health and safety on the farm and injury prevention to youth.

[www.public-health.uiowa.edu/icash/programs/Youth-Ag-Safety-Grants/2011.html](http://www.public-health.uiowa.edu/icash/programs/Youth-Ag-Safety-Grants/2011.html)

## **Midwest Rural Agricultural Safety & Health Forum**

Iowa's Center for Agricultural Safety and Health (I-CASH) marked its 20th anniversary in 2010 with a November 17th celebration banquet held in conjunction with the Midwest Rural Agricultural Safety and Health (MRASH) forum in Iowa City. The after-dinner program was emceed by David Osterberg, clinical as-

sociate professor of occupational and environmental health, and College of Public Health Dean Sue Curry welcomed the 103 attendees to the campus.

The keynote speaker was Dr. Paul Gunderson, director of the Dakota Center for Technology-Optimized Agriculture at Lake Region State College in North Dakota. In his presentation, "Historical Perspective on I-CASH: Where We've Been and Where We're Going," Gunderson reflected on the influence of I-CASH on reducing farm injury and illness.

Other highlights of the evening included recognition of the 2010 I-CASH Hall of Fame Award winners, Shari Burgus and Michael Rosmann. I-CASH director Kelley Donham received the inaugural I-CASH Lifetime Achievement Award in recognition of his 20 years as director and his steadfast commitment to enhancing the health and safety of Iowa's agricultural community. Donham received the surprise award during the MRASH banquet. Selected conference presentations are available on the MRASH website.

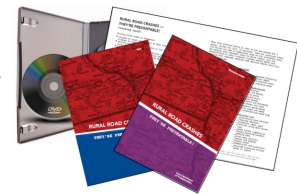
[www.public-health.uiowa.edu/icash/events/MRASH/2010/presenter-slides.html](http://www.public-health.uiowa.edu/icash/events/MRASH/2010/presenter-slides.html)

## **Rural Roadway Safety Committee**

The I-CASH Rural Roadway Safety Committee completed production on the educational video "Rural Road Crashes... They're Preventable." The 10-minute video contains valuable information

for drivers of all ages. It can be useful in driver education training, company or community presentations, or for anyone who wants to improve their driving skills on rural roads. The project was led by Iowa's Center for Agricultural Safety and Health with funding from Iowa DOT (Safety Management System) and a grant from the Great Plains Center for Agricultural Health. The Iowa DOT, the Governor's Traffic Safety Bureau, the Iowa Traffic Safety Alliance, Iowa State University Institute for Transportation, law enforcement experts, a county engineer and other stakeholders also collaborated on the project.

The Committee is now focused on using the video and "It's Preventable" tips cards to raise awareness about rural road hazards including the need for awareness of farm equipment on roadways. The video kit includes the DVD, a curriculum guide, a test and a parents' guide to helping train young drivers about the hazards of rural roads. The "It's Preventable" tips cards can be used with the learning experience as a



“take home” guide. The video and tips card can be obtained by contacting 515/725-6123 or [ods@dot.iowa.gov](mailto:ods@dot.iowa.gov). For more information call Eileen Fisher 319/335-4224.

[www.public-health.uiowa.edu/icasb/programs/rural-roadway-safety-video-project.html](http://www.public-health.uiowa.edu/icasb/programs/rural-roadway-safety-video-project.html)

### **Safe Play Areas**



This study is a randomized controlled trial to measure the effectiveness of two interventions promoting the safe play area strategy among farm families.

The study has successfully enrolled and randomized 450 farm families with children age 6 and younger into two intervention groups and a control group. The interventions are now being implemented to motivate parents to build safe play areas. At the end of the trial, the families will report on any changes they have made to reduce the risk of injury to young children on their farm. Data will be collected through surveys, focus groups, and farm visits. The long-term goal of this research is to decrease injuries and deaths to children living on and visiting farms. The study is a collaboration involving a national insurance company, The National Children’s Center for Rural and Agricultural Health and Safety in Marshfield, Wisconsin, The University of Nebraska, and The University of Iowa.

### **Agricultural Health Projects at other University of Iowa Research Centers**

#### **Agricultural Health Study**



The Agricultural Health Study is a prospective cohort study of agricultural exposures and chronic disease in Iowa and North Carolina among private pesticide applicators, their spouses, and commercial pesticide applicators. This is the 19th year of the study. Eligible subjects were enrolled during the first five years (Phase I); 89,656 in total including 58,562 in Iowa. Phase II began in 1998 and involved recontacting each cohort member to update exposure information, obtain dietary health questionnaire data, and obtain buccal cells. Phase III, which began in 2005, involved updating pesticide exposure histories and self-reported diseases, ended in 2010. Through 2009, only 9% of the cohort is deceased.

The study has resulted in over 150 peer-reviewed publications (over 25 since 2010) evaluating methods, exposure assessment, high pesticide exposure events, environmental pesticide measures, farm work-related

injuries, and health outcomes including mortality, cancer, eye disorders, neurologic symptoms/diseases, respiratory diseases, reproductive abnormalities, diabetes, and immunologic diseases. The study is now widely recognized as the best prospective cohort study of agricultural exposures and disease in the world. More information concerning these publications can be found at the website, as well as information for scientific collaboration.

[www.aghealth.org](http://www.aghealth.org)

### **Center for International Rural and Environmental Health**



The Center for International Rural and Environmental Health (CIREH) conducts the International Training and Research in Environmental and Occupational Health (ITREOH) Program.

It also houses the International Collaborative Trauma and Injury Research and Training (ICTIRT) Program, and the International Training and Research in Non-communicable Diseases Program in Romania. The programs are funded by the NIH Fogarty International Center. In fifteen years more than 100 young professionals have come to Iowa as Fogarty trainees. Trainees have conducted 50 in country workshops after returning home, and have received funding from various sources for more than 40 collaborative research projects. The programs have welcomed trainees from Poland, Slovakia, Croatia, Serbia, Macedonia, Romania, China, and The Gambia. Research interests include childhood injuries, domestic violence, traffic and bicycle safety, the establishment of national injury registries, indoor air quality, workplace health promotion, environmental contamination, and pesticide exposure. Additionally, CIREH hosts a fourth program funded by the NIH, the Minority Health and Health Disparities Research and Training Program, which focuses on providing international research internships for 10 American minority students in the health sciences each year. Over the past five years, the program has worked with over 60 students.

[www.public-health.uiowa.edu/Cireh](http://www.public-health.uiowa.edu/Cireh)

### **Environmental Health Sciences Research Center**



The Environmental Health Sciences Research Center (EHSRC), established in 1990, is one of 23 NIEHS-funded Core Centers of Excellence, and the only one located in the Midwest. Comprised of 56 faculty and 25 staff, the EHSRC

is at the forefront of research in environmental lung disease, inflammation and innate immunity, oxidative stress, environmental genomics, and nanotoxicology. Health concerns such as community and occupational exposures to airborne hazards from concentrated livestock feeding operations, asthma among rural children, and exposure to agricultural chemicals and bioaerosols, are among the many issues currently under study by Center investigators. The EHSRC operates a pilot grant program and an enrichment program. The center has also co-hosted educational workshops for state legislators from across the Midwest, a Partnerships for Environmental Public Health workshop, and an Environmental Justice Listening Session for the Midwest region in 2011.

[www.ehsrc.org](http://www.ehsrc.org)

### **Great Plains Center for Agricultural Health**



**GREAT  
PLAINS  
CENTER FOR  
AGRICULTURAL  
HEALTH**

The Great Plains Center for Agricultural Health (GPCAH) serves America's most agriculturally intensive region: Illinois, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, and Wisconsin.

The GPCAH advances knowledge about agricultural injuries and illnesses through its research activities, education, outreach, and intervention efforts.

The Keokuk County Rural Health Study (KCRHS) is a prospective cohort study of approximately 1,000 rural Iowa families funded by the GPCAH for over 16 years. This landmark study of rural community members has completed data collection in the field and is entering a phase of intensive data analysis.

The Building Capacity of Health and Safety Professionals is a GPCAH Education and Translation project that has played a major role in training health and safety professionals on agricultural hazards and ways to prevent disease and injury. The Agricultural Medicine course has been presented in Illinois, Iowa, Nebraska, North Carolina, North Dakota, Vermont, and Wisconsin. More than 400 health and safety professionals now augment their clinical practices with agricultural health and safety services they were introduced to during the Building Capacity program.

The GPCAH Pilot/Feasibility Projects Program has funded new and creative research projects which show promise of leading to more comprehensive research for prevention of agricultural illness and injury. Three projects were funded in the last funding cycle:

- Web-based Social Networking Encourages Safe and Healthy Rural-related Behavior

- Using Community Based Partnerships for Grain Safety Awareness and Prevention Training Across the Grain Handling Spectrum

- Prevention of Injury, Illness, & Fatality Due to Grain Entrapment and Exposure

Outreach opportunities included the annual Midwest Regional Agricultural Safety and Health conference which featured a keynote address by Dr. Michael Alavanja of the National Cancer Institute and Project Director for the Agricultural Health Study.

The Farm Families Alive & Well newsletter and distribution of press clippings (Farm and Agricultural Injury Monitoring System-FAIMS) accounts of farm and agricultural injuries provide additional outreach in the 9-state GPCAH region.

[www.public-health.uiowa.edu/gpcab](http://www.public-health.uiowa.edu/gpcab)

### **Injury Prevention Research Center**



Since 1990, the University of Iowa Injury Prevention Research Center (IPRC) has been a national leader in identifying ways to reduce the high number of preventable injuries that occur in rural communities. Faculty and staff from twenty-three departments within the Colleges of Public Health, Medicine, Engineering, Nursing, and Liberal Arts participate on research in the Center.

In addition to supporting research, the IPRC also serves as a national resource for rural injury prevention. The Center provides information, educational programs, and multi-disciplinary training to injury control advocates and programs across the Midwest.

The IPRC is a partner on an active ATV safety task force. This group is comprised of IPRC staff, UI physicians and trauma nurses, IDPH, Iowa Department of Natural Resources, and Iowa Safe Kids representatives. Collaboration between the UI Emergency Department and representatives of the Iowa Driving Simulator will explore simulation modeling of ATV crashes.

The IPRC is serving as a board member and providing evaluation guidance to an elderly fall prevention task force in Johnson County, IA. A key component of the group's fall prevention strategy is an emergency department-based intervention which originated as an IPRC funded pilot program project.

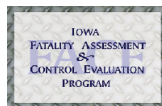
The IPRC is a partner on a fire safety task force organized by the Iowa State Fire Marshal. A major focus of this group involves working through schools in the state to distribute residential smoke detectors for students to take home. The IPRC is currently working

with the State Fire Marshall to develop a research project utilizing the department's statewide data to better focus prevention efforts.

On April 6-8, 2011 the IPRC hosted a combined Safe States Alliance, SAVIR, and CDC Core State Injury Program conference in Coralville, IA. This national conference had over 300 attendees, 34 concurrent sessions, 60 scientific posters, and multiple exhibitors.

[www.public-health.uiowa.edu/iprc](http://www.public-health.uiowa.edu/iprc)

### **Iowa Fatality Assessment and Control Evaluation Program**



The Iowa Fatality Assessment and Control Evaluation Program (FACE) is carried out by the Department of Occupational and Environmental

Health under a subcontract with the Iowa Department of Public Health. The FACE program identifies all occupational fatalities in the state and conducts in-depth investigations of specific incidents. Program investigators develop recommendations aimed at preventing similar occupational injuries.

Fatal injuries while on the job remain a serious public health concern in Iowa, as well as the entire country. Iowa FACE cases identified 79 fatalities from

January 1, 2010 to March 31, 2011. Two were under twenty-one years of age and 28 were sixty years or older. The most frequent occupation was farming (16 cases) and motor vehicle crash was the most common cause of death (24 cases).

A unique aspect of the Iowa FACE Program in the past year has been work by Dr. Ryan Sullivan, a UI emergency medicine resident physician. Dr. Sullivan, along with FACE colleagues, examined the prevalence of positive toxicology testing in fatal occupational injuries occurring in the state of Iowa. They conducted a retrospective study of the FACE reports of workplace related fatalities from 2005 to 2009. In Iowa, workplace fatalities require a medical examiner's report, frequently including toxicology analysis. A total of 429 cases were examined in this period. Of these, 42 cases were excluded due to incomplete or missing records. Of the remaining 387 cases, 77 or 19.9%, were found to have positive toxicology testing. Commonly identified drug classes included Cannabinoids (19 cases), Alcohols (15 cases), and Amphetamines (8 cases). Further analysis will include descriptive statistics and models predicting which occupations and industries have the highest prevalence of positively tested drugs involved in traumatic deaths.

[www.public-health.uiowa.edu/face](http://www.public-health.uiowa.edu/face)

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## **I-CASH Affiliate Programs**

*The following are brief descriptions of Iowa farm safety and health programs and organizations that are associated with I-CASH and its mission of enhancing the health and safety of Iowa's agricultural community.*

### **AgriSafe Network**



The AgriSafe Network is a national nonprofit organization representing rural based clinicians who provide preventive occupational health services to farmers and seasonal farm workers. AgriSafe assists health professionals in delivering occupational health programs that are effective in improving the lives of farmers.

Because of the transition in board leadership, 2011 marks a critical year for AgriSafe. AgriSafe was founded in 2003 by a core group of board members who envisioned a future where farmers had access to highly trained health professionals. Their vision and leadership during the past nine years has advanced AgriSafe to a recognized leader in the field of occupational agricultural health. Kelley Donham, Charlotte Halverson, Jim Williams, and Fred Moskol's board term has now expired, but their passion will impact the lives of future farm families.

[www.agrisafe.org](http://www.agrisafe.org)

### **AgriWellness, Inc.**



AgriWellness, Inc. is a nonprofit organization that offers behavioral health supports for the agricultural population. In 2010 it became a national membership organization with individual, organizational and state affiliate members. Despite difficult financial times, participating partners fielded over 7,500 calls on farm crisis hotlines and helplines, and continued to offer free counseling to farm families in need of assistance, as long as funds were available. In June of 2011, AgriWellness joined with the National Association for Rural Mental Health in sponsoring their fifth conference, *Navigating the Currents of Change & The Clock is Ticking for Rural America*. The conference was held in Dubuque, IA and 102 participants attended. Administrative services for AgriWellness are shared with Mental Health America of North Dakota and the Harlan, Iowa AgriWellness staff.

[www.agriwellness.org](http://www.agriwellness.org)

## Farm Safety 4 Just Kids

### Farm Safety



Farm Safety 4 Just Kids (FS4JK) is a nonprofit organization with a mission of promoting a safe farm environment to prevent health hazards, injuries, and fatalities to children and youth.

This year an educational packet about rural chemicals was produced in English and Spanish. The packet contains resources useful when conducting chemical programs and was developed for a variety of ages.

A national training workshop for FS4JK Chapters took place at the Pioneer headquarters in Johnston, IA on March 16. This culminated a three year project to identify the strengths of the FS4JK chapters and ways to address weaknesses. Treavor Hoff, survivor of a tractor run over incident at age 14, gave the key note address. A videotape of the workshop will be distributed as a local training resource.



Youth in Yuma, CO try their hand at a grain demonstration.

Farm safety and health workshops, addressing issues relevant to their areas, took place in Alaska, Colorado, Idaho, North Dakota, and South Dakota. FS4JK staff attended each event and helped facilitate the programs.

Working with Successful Farming magazine, ten farm family incentive grant winners were awarded up to \$250 for their projects to help make their farm a safer place for their family.

[www.fs4jk.org](http://www.fs4jk.org)

## Iowa Farm Safety Council

The Iowa Farm Safety Council is a volunteer organization that has worked to make rural Iowa a safer place to live, work, and raise a family for over 60 years. The Council is a grass roots effort supported by a network of professionals in agricultural production, education, insurance, industry, and government. This year the Council's ongoing efforts to promote good safety and health practices resulted in a presence at the Iowa Power Farming and Machinery Show. While the number of members in the Iowa Farm Safety Council is relatively small, the people involved have consistently turned out to staff events and continue to bring the safety and health message to farmers and their families.

[www.abe.iastate.edu/safety/ifsc.html](http://www.abe.iastate.edu/safety/ifsc.html)

## National Education Center for Agricultural Safety



The National Education Center for Agricultural Safety (NECAS) is dedicated to preventing illnesses, injuries, and deaths among farmers and ranchers, agricultural and horticultural workers, their families, and their employees.

In the past year NECAS has been on the road with a new grain engulfment simulator, teaching grain safety to farmers and agribusiness personnel, and grain bin rescue to rural volunteer firefighters. In August, NECAS hosted President Obama and the White House Rural Economic Forum. The theme for the 2011 National Farm Safety and Health week promotion was "Safety Counts: Your Community Depends on It" and focused on three topics, grain safety, vineyard safety, and tobacco fieldworker safety. For more information visit the NECAS website or Facebook at [www.facebook.com/necasag](http://www.facebook.com/necasag).

[www.necasag.org](http://www.necasag.org)

## Proteus, Inc.



Proteus, Inc. is a nonprofit organization that since 1990 has operated the Bureau of Primary Health Care-funded Migrant Health Project in the state of Iowa. From offices located in Des Moines, Fort Dodge, and Iowa City, Proteus provides outreach, home visits, and clinics around the state for migrant and seasonal farmworkers.

After farmworker families are certified as eligible, Migrant Health Aides conduct health histories and the families are seen by the Project's providers. Clinics and educational activities are held at migrant camps and employer sites. Each year, 1,000 to 2,000 migrant farmworkers come to Iowa to perform work with seed corn, flowers, grapes, apples, cucumbers, and melons.

Iowa is also home to as many as 10,000 low income seasonal farm workers. These individuals reside in Iowa throughout the year and perform seasonal agricultural work, work in hog confinement operations, egg production, or are employed as general farmhands.

In 2010 the Proteus Migrant Health Project served 1,400 farmworkers in Iowa and this year the Project is well on its way to serving the same number of farmworkers. Over the past 2 years, the National Farmworker Jobs Program was able to provide support for workplace and pesticide safety training for over 300 migrant farmworkers utilizing the EPA curriculum and issuing certification cards.

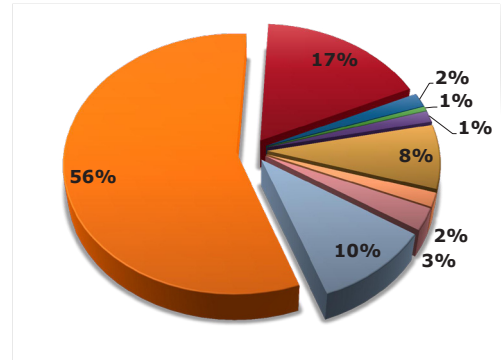
[www.proteusinc.net](http://www.proteusinc.net)

# Financial Report

The I-CASH budget consists of FY 2011 state funds, plus competitive grant and contract funds listed below. The following table and chart depict the state appropriated expenditures divided into three areas: 1) personnel expenditures for programming and administration; 2) program delivery contracts; and 3) general expenses.

PERSONNEL EXPENDITURES		
	Budget Dollars	Actual Dollars
Program Delivery	131,882	132,468
Administration	57,735	40,340
<b>Total Personnel Expenditures</b>	<b>189,617</b>	<b>172,808</b>
PROGRAM DELIVERY CONTRACTS		
Competitive Youth Safety Grant	5,000	4,000
AgriSafe State Affiliate	4,701	1,250
Partner Initiatives	5,000	3,300
Outreach Grant Program	0	18,700
<b>Total Program Delivery Contracts</b>	<b>14,701</b>	<b>27,250</b>
GENERAL EXPENSES		
Supplies	4,750	4,063
Travel	6,000	6,445
Other: Includes computer system support, required semi-annual board meetings, conferences, outreach materials, annual report, telephone, and newsletters	19,659	24,161
<b>Total General Expenses</b>	<b>30,409</b>	<b>34,669</b>
<b>TOTAL BUDGET</b>	<b>234,727</b>	<b>234,727</b>

## Actual FY 2011 Expenses



- Program Delivery
- Administration
- Competitive Youth Safety Grant
- AgriSafe State Affiliate
- Partner Initiatives
- Outreach Grant Program
- Supplies
- Travel
- Other

### Grants and contracts that I-CASH faculty and staff have received to conduct intervention and research activities in Iowa

	Annual Total	Project Term
<b>ERC Ag</b> (Heartland Center for Occ. Health and Safety)	<b>\$ 118,000</b>	<b>07/01/2002 to 06/30/2013</b>
<b>GPCAH Building Capacity</b>	<b>\$ 150,988</b>	<b>09/30/2006 to 09/29/2011</b>
<b>GPCAH Rural Road Crashes</b>	<b>\$ 18,900</b>	<b>07/01/2010 to 09/29/2011</b>
<b>GPCAH Swine Worker Exposure</b>	<b>\$ 164,122</b>	<b>09/30/2006 to 09/29/2011</b>
<b>Iowa Dept. of Transportation Rural Road Crashes</b>	<b>\$ 19,554</b>	<b>07/01/2010 to 06/30/2011</b>
<b>Motivating Farm Owners to Create Safe Play Areas</b> (National Children's Center for Ag. Health and Safety/NIOSH)	<b>\$ 73,800</b>	<b>10/01/2008 to 09/30/2013</b>
<b>Total</b>	<b>\$ 545,364</b>	

# ***I-CASH Presentations/Educational Activities/ Newspaper Publications***

## ***July 2010***

“Celebrating the 20th year of Iowa’s Center for Agricultural Safety and Health (ICASH).” Kelley Donham. Iowa Pork Producer Magazine. July 2010.

“Agricultural respiratory issues,” “Agricultural dermatology,” and “Agricultural pesticides.” Kelley Donham. Presentations at the Des Moines University Agricultural Medicine Workshop. July 17; Des Moines, IA.

## ***August 2010***

“Safe tractor operation.” LaMar Grafft. Presentation to the Ministry of Agriculture employees. August 17-20; Grenville, Grenada.

“Case studies in rural ambulatory medicine.” Kelley Donham. Presentation at the University of Iowa Carver College of Medicine. August 23; Iowa City, IA.

“Work smart/ride safe – Safe use of ATVs for agricultural use.” I-CASH staff. Exhibit at the 2010 Farm Progress Show. August 30-September 2; Boone, IA.

## ***September 2010***

“Heat and humidity: Hard on hogs and people.” Kelley Donham. Iowa Pork Producer Magazine. September 2010.

“CSF auditor training.” LaMar Grafft. Webinar presentation for CSF auditors. September 29.

## ***October 2010***

“Farm Families Alive & Well Newsletter.” I-CASH and GPCAH staff. Vol 16(4). October 2010.

“Agricultural trauma.” LaMar Grafft. Presentation at the Mercy Medical Center Monthly Trauma Conference. October 6; Des Moines, IA.

“CSF auditor training.” LaMar Grafft. Presentation at East Carolina University. October 11-14; Greenville, NC.

“Agricultural medicine and environmental health: Linking the land to lives.” Kelley Donham. Presentation at the National Centre for Farmer Health Conference 2010. October 12; Hamilton, Victoria, Australia.

“MRSA, MRSA, MRSA!!! An emerging infectious epidemic in people from livestock??” Kelley Donham. Presentation at the National Centre for Farmer Health Conference 2010. October 13; Hamilton, Victoria, Australia.

“Agricultural trauma.” LaMar Grafft. Presentation to the Iowa County EMS. October 18; Marengo, IA.

## ***November 2010***

“What is the most common safety concern of agricultural producers?” Kelley Donham, Eileen Fisher, and Aaron Kline. Iowa Pork Producer Magazine. November 2010.

“Farm safety day training.” LaMar Grafft. Presentation at the National Education Center for Agricultural Safety. November 2-4; Peosta, IA.

“Agricultural safety & health.” LaMar Grafft. Presentation at the University of Iowa Carver College of Medicine. November 15; Iowa City, IA.

“Agricultural medicine training course: Program evaluation.” Eileen Fisher. Presentation at the Midwest Rural Agricultural Safety and Health Forum. November 17; Iowa City, IA.

“Celebrating the 20th Year of Iowa’s Center for Agricultural Safety and Health.” Kelley Donham. Presentation at the Midwest Rural Agricultural Safety and Health Forum. November 17; Iowa City, IA.

“Continued safety improvement on a large Iowa farm.” LaMar Grafft. Presentation at the Midwest Rural Agricultural Safety and Health Forum. November 17; Iowa City, IA.

“The making of ‘Rural Roadway Crashes...They’re Preventable!’ An educational video.” Eileen Fisher and Jan Goldsmith. Presentation at the Midwest Rural Agricultural Safety and Health Forum. November 17; Iowa City, IA.

“Increased usage of personal respiratory and hearing protection among Certified Safe Farm participants.” Kelley Donham. Presentation at the Midwest Rural Agricultural Safety and Health Forum. November 18; Iowa City, IA.

## ***December 2010***

“2010 I-CASH 20th Anniversary Annual Report.” I-CASH staff. December 2010.



## January 2011

“Farm Families Alive & Well Newsletter.” I-CASH and GPCAH staff. Vol 17(1). January 2011.

“Accidents hurt – Safety doesn’t: Insurance and OSHA.” Kelley Donham. Presentation at the Iowa Pork Congress. January 27; Des Moines, IA.

## February 2011

“I-CASH.” Kelley Donham and Eileen Fisher. Display at the Iowa Legislative Breakfast. February 10; Des Moines, IA.

“Rural roadway crashes – They’re preventable.” Eileen Fisher. Video presentation at the Iowa Legislative Breakfast. February 10; Des Moines, IA.

## March 2011

“Agricultural medicine: A growing professional specialty to care for agricultural producers, their families, and workers.” Kelley Donham. Iowa Pork Producer Magazine. March 2011.

“History of the Institute for Rural and Environmental Health.” Kelley Donham. Presentation at the University of Iowa. March 2; Iowa City, IA.

“Agricultural trauma.” LaMar Grafft. Presentation at SCD Radiology Conference. March 19; Des Moines, IA.

“Agricultural respiratory diseases,” “Zoonotic diseases,” and “Veterinary biological and therapeutic occupational hazards.” Kelley Donham. Presentations at the Agricultural Medicine: Occupational and Environmental Health for Rural Health Professionals course. March 22; Bismarck, ND.

“Veterinary pharmaceuticals, biologicals, antibiotics, and needle sticks,” “Zoonotic diseases,” and “Rural environmental health problems.” Kelley Donham. Presentations at the Agricultural Medicine: Occupational and Environmental Health for Rural Health Professionals Course - Session 1. March 31 – April 2; Marshfield, WI.

## April 2011

“Farm Families Alive & Well Newsletter.” I-CASH and GPCAH staff. Vol 17(2). April 2011.

“What’s coming down at Oakdale? A brief history of TB in Iowa.” Kelley Donham. Presentation at the University of Iowa. April 5; Iowa City, IA.

“Farm review.” LaMar Grafft. On-farm training program. April 6; Scranton, IA.

“The Xtreme risk: Rural roads.” Eileen Fisher and Tom McDonald. Presentation at the 2011 Driver’s Education Conference. April 9, 2011; Newton, IA.



“Access issues to rural health care.” LaMar Grafft. Presentation at Kirkwood Community College. April 11; Cedar Rapids, IA.

“It’s preventable: How to make crashes on rural roads not happen.” Jan Goldsmith, I-CASH Consultant. Exhibit and presentation at Governor’s Highway Traffic Safety Conference. April 12-13; Des Moines, IA.

“The state of I-CASH.” Kelley Donham. Presentation at the I-CASH Spring Meeting. April 19; Des Moines, IA.

“Safety around a manure digester.” LaMar Grafft. Presentation at the Biogas Conference. April 21; Amana, IA.

“Physical factors affecting health in agriculture.” Kelley Donham. Webinar presentation at the Agricultural Medicine: Occupational and Environmental Health for Rural Health Professionals course. April 22.

“The Johnson County Regional Agricultural Safety and Health Clinic.” Kelley Donham. Presentation to the Kiwanis Club. April 27; Iowa City, IA.

“Safety concerns for fire fighters.” LaMar Grafft. Presentation at the Amana Fire Department. April 27; West Amana, IA.

“Farm trauma.” LaMar Grafft. Presentation and tour for University of Iowa Carver College of Medicine ER residents. April 28; Iowa City, IA.

## May 2011

“Work safely around liquid manure.” Kelley Donham. Iowa Pork Producer Magazine. May 2011.

“Agricultural trauma.” LaMar Grafft. Webinar presentation. May 6.

“Agricultural trauma.” LaMar Grafft. Presentation at the ER Nurses Conference. May 10; Des Moines, IA.

“Agricultural trauma.” LaMar Grafft. Webinar presentation at the Agricultural Medicine: Occupational and Environmental Health for Rural Health Professionals course. May 20.



“Agricultural safety & health.” LaMar Grafft. Presentation at the University of Iowa Carver College of Medicine. May 23; Iowa City, IA.

## June 2011

“Farm Families Alive & Well Newsletter.” I-CASH and GPCAH staff. Vol 17(3). June 2011.

“Agricultural medicine: Occupational and environmental health for rural health professionals - The core course.” Continuing education course. I-CASH staff. June 13-17; Iowa City, IA.

“Rural road crashes...They’re preventable.” Eileen Fisher. Exhibit at the National Association for Rural Mental Health Conference. June 22-25; Dubuque, IA.

“Zoonoses,” “Agricultural occupational health,” “Agricultural respiratory hazards,” and “Occupational hazards of veterinary pharmaceuticals.” Kelley Donham. Professional improvement presentations at the International Society of Agricultural Safety and Health Conference. June 23; Boise, ID.

“A confined space program for a large Iowa farm.” LaMar Grafft. Presentation at the International Society of Agricultural Safety and Health Conference. June 29; Boise, ID.

“Reaching a confined space consensus.” I-CASH staff. Group presentation at the International Society of Agricultural Safety and Health Conference. June 29; Boise, ID.

“Agricultural trauma: What you need to know.” LaMar Grafft. Professional Improvement presentation at the International Society of Agricultural Safety and Health Conference. June 31; Boise, ID.



## I-CASH Publications

Donham K, J Lange, A Kline, R Rautiainen, L Grafft, and S Schneiders. 2011. Prevention of occupational respiratory symptoms among Certified Safe Farm participants. *Journal of Agromedicine* 16(1):40-51.

Fisher E, and K Donham. 2011. Agricultural Medicine Core Course: Building capacity for health and safety professionals. *Journal of Agromedicine* 16(2):106-116.

Jennissen C, J Wallace, K Donham, D Rendell, and S Brumby. 2011. Unintentional needlestick injuries in livestock production: A case series and review. *Journal of Agromedicine* 16(1):58-71.

Leedom-Larson KR, AL Harper, BM Hanson, MJ Male, SE Wardyn, AE Dressler, EA Wagstrom, S Tendolkar, DJ Diekema, KJ Donham, and TC Smith. 2011. Methicillin – resistant staphylococcus aureus in pork production shower facilities. *Applied Environmental Microbiology* 77(2):696-698.

Leedom-Larson KR, TC Smith, and KJ Donham. 2010. Self-reported methicillin-resistant staphylococcus aureus infection in USA pork producers. *Annals of Agricultural and Environmental Medicine* 17(2):331-334.

Schiller LS, KJ Donham, T Anderson, DM Dingledein, and RR Strebel. 2010. Incorporating occupational health interventions in a community based participatory preventive health program for farm families: A qualitative study. *Journal of Agromedicine* 15(2):117-126.

Vanderwal L, R Rautiainen, R Kuye, C Peek-Asa, T Cook, M Ramirez, K Culp, and K Donham. 2011. Effectiveness, safety, and sustainability of a hand water pump among women vegetable farmers in The Gambia. *Journal of Sustainable Agriculture* 35(4):394-407.

Vanderwal L, R Rautiainen, R Kuye, C Peek-Asa, T Cook, M Ramirez, K Culp, and K Donham. 2011. Evaluation of long- and short-handled hand hoes for land preparation, developed in a participatory manner among women vegetable farmers in The Gambia. *Applied Ergonomics* 42(5):749-756.

Vanderwal L, R Rautiainen, M Ramirez, R Kuye, C Peek-Asa, T Cook, K Culp, and K Donham. 2011. Participatory approach to identify interventions to improve the health, safety, and work productivity of smallholder women vegetable farmers in The Gambia. *International Journal of Occupational Medicine and Environmental Health* 24(1):36-47.

Wall R, R Litchfield, and CV Schwab. 2011. The Mystery Club: Preparing for race day. Iowa State University Extension publication PM-2069B.