

# I-CASH

2004 ANNUAL REPORT

## *Helping Farmers Stay Alive & Well*



A partnership of:

The University of Iowa  
Iowa State University  
Iowa Department of Public Health  
Iowa Department of Agriculture  
and Land Stewardship

**I-CASH**  
UI ♦ ISU ♦ IDPH ♦ IDALS



# *IOWA'S CENTER FOR AGRICULTURAL SAFETY AND HEALTH*

## *2004 Annual Report*



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### ***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.*

### ***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.*

### ***2004 I-CASH Annual Report***

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University of Iowa College of Public Health

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# Opening Thoughts From The Director

## *Creating and Sustaining Effective Policy Partnerships for Agricultural Safety and Health*



The planning committee for our Midwest Rural Agricultural Safety and Health Forum took a bold step to focus on policy for this year's conference. It is 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 alone 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, 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 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. I-CASH policies follow the recommendations made by the International Labour Organization. We work with Iowa State University Extension, the Iowa Department of Agriculture and Land Stewardship, the Iowa Department of Public Health, and our non-governmental affiliates, in local communities with people who know best the problems and the solutions.

The last few years have seen extensive cuts in state budgets. I-CASH has received over a 30% budget cut in the past few years. However, we are still passionate about our work. The University of Iowa and Iowa State University are initiating an endowment campaign, seeking \$2,000,000 from private sources, the interest to be used to provide preventive services to our rural agricultural communities well into the future. Our will is strong to achieve our stated goals of reducing agricultural-related injuries and deaths by the year 2010. I-CASH has developed a sound policy that supports our mission and vision, summed up in our motto "Helping Farmers Stay Alive and Well."

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

# I-CASH Partner Programs

*The following are brief descriptions of major 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 the Iowa State University (ISU) Extension and the US Environmental Protection Agency (EPA) conduct the pesticide applicator certification program. Private pesticide applicators are certified to apply Restricted Use Pesticides and Commercial Pesticide Applicators are certified to apply General and Restricted Use Pesticides. As of June 30, 2004, Iowa had 11,614 certified commercial applicators, 464 certified commercial handlers, and 27,478 certified private applicators. Certification testing will be held at about 1,931 sites in fiscal year 2005. Approximately 180 private and 255 commercial continuing instruction certification training sessions are expected to be offered by ISU Extension in fiscal year 2005.

### **Worker Protection Standard**

The Worker Protection Standard (WPS) for agricultural pesticides is a regulation issued by the US Environmental Protection Agency (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. With matching funds from EPA and IDALS, ISU Extension developed and distributed WPS training materials and held presentations for agricultural employers concerning their responsibilities to their employees. ISU Extension distributed 205 WPS information packets to the Iowa Seed Association, developed a web stream for a video to be used in a website presentation, and revised the ISU Extension publication IPM-55, Pest Management and the Environment Program.

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

## Iowa Department of Public Health

### **Agricultural Injury Registry**

The Iowa SPRAINS program has provided valuable insight into Iowa's agricultural-related morbidity and mortality since its inception in 1990. Injury is defined as being "incurred on a farm, by a farmer, farm worker, farm family member, or other individual or off the farm injuries related to producing, transporting, handling, processing, or warehousing farm commodities."

Agricultural injury surveillance has four objectives:

- 1) provide descriptive epidemiologic associations for contemporary agricultural injury;
- 2) identify high-risk groups and high-risk circumstances for injury;
- 3) identify potential educational, regulatory, and engineering intervention strategies to prevent farm injury; and
- 4) evaluate effectiveness of established intervention control measures.

These data continue to be used by injury prevention specialists to make the case for specific injury prevention measures in grant proposals. They are used to focus data-driven interventions on specific high-risk groups.

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



# Iowa State University

## Farm Safety Program

The activities of the Iowa State University Extension farm safety program are directed towards five major goals identified by the I-CASH Board of Directors. These activities are:

- The *Safe Farm* radio program produced and distributed 52 weeks of broadcast-quality one-minute messages to 68 radio stations.
- ISU Extension organized articles on farm safety issues by involved partners (AgrAbility, AgriSafe, FACE, FaRM, FS4JK, I-CASH, IDPH, IFSC, ISU, NECAS/NSC, and SHAUN) and distributed them to Iowa newspapers during National Farm Safety and Health Week September 21-27, 2003.
- ISU Extension staff in 6 counties offered tractor safety training courses to 95 youth (age 14 - 15) during 2004.
- Safety day camps conducted by extension staff were held throughout the state. A total of 34 counties participated reaching 4,035 youth with their educational messages.
- A total of 28 county extension offices provided an in-school farm safety program that delivered safety materials and education to 5,161 children.
- Safety meetings that reached 835 adults were conducted in 6 counties by extension staff.
- A monthly electronic farm safety newsletter was produced and distributed to 103 educators.
- The World Wide Web home pages that provide valuable farm safety resources were maintained.

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

[www.tmvc.iastate.edu](http://www.tmvc.iastate.edu)

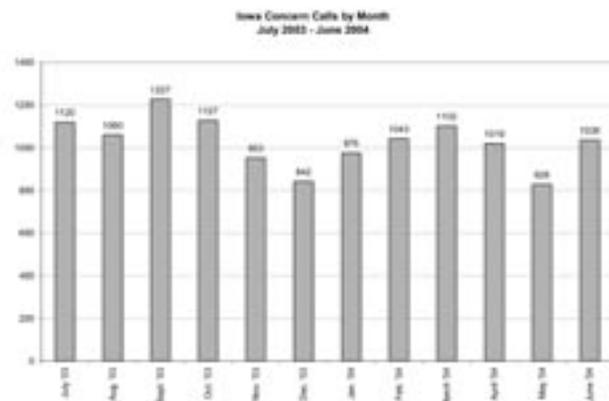
[www.extension.iastate.edu](http://www.extension.iastate.edu)

## Iowa Concern Hotline

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 12,333 calls from July 2003 through June 2004, which was about 200 more calls than received the year before. Approximately 25% of the calls were from farm and rural families.

Although farm prices were more encouraging this year, some families were struggling with debt. The calls demonstrated that families were concerned with their financial condition. Some of the rural and farm families had lost a second or third job that helped support their farm operation and/or paid for insurance benefits. Some had credit card debts and school loans they were paying. These families were struggling to make decisions about whether to stay on the farm or to leave. Many were dealing with family conflicts on an intergenerational farm, and issues of who would leave the farm operation or who would make farm decisions. Other situations encountered on the hotline included legal problems with divorce, child custody issues, the Iowa fence law, contracts, and landlord/lease cases.

Again this year, Iowa Concern was fortunate to have access to the *Sowing the Seeds of Hope Grant*. This grant is part of a seven state project that is available for farm families. Vouchers are issued through the Iowa Concern Hotline for families to take to providers for up to five free counseling sessions. This grant is funded through the US Department of Health and Human Services Office of Rural Health Policy, and the Bureau



of Primary Health Care. Funds will be available through 2005.

Iowa Concern continues to receive 6,000-7,000 visits each month on their web site. The site has many of the frequently asked questions that people might ask on the phone, features success stories, and a Live Personlink.

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

## **Private Pesticide Applicator Statewide Training Program**

Federal and State laws require that people who purchase and apply restricted use pesticides be certified according to established standards. Iowa State University Extension delivers training programs each year for private pesticide applicators (primarily farmers). The topics for training include laws, use of safety equipment to prevent pesticide poisoning, the Agricultural Health Study, safe transportation and storage of pesticides, and crop pest topics. Statewide, 335 meetings were conducted with 18,861 participants.

To determine if there was an impact on the participants, an evaluation assessed behavioral changes toward safer pesticide-use practices. After receiving information about locking or securing hazardous materials during transportation, 42% of the respondents indicated that they adopted this practice after training, whereas 39% had adopted this practice prior to training.

In addition, the evaluation examined if participants had successfully implemented new pesticide safety activities as a result of last years' training. Eighty-six percent of the respondents now observe a minimum of 50 feet as a setback from wells, water sources, or surface waters when mixing, loading, and applying pesticides.

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

## **The University of Iowa**

*Projects led by I-CASH core faculty and staff*

### **Agricultural Occupational Health Training**

I-CASH's annual training program for health care professionals who treat and help prevent occupational illnesses and injuries on the farm was held May 19-21 and June 9-11, 2004. Thirty-eight health care professionals attended from South Dakota, Kentucky, Oklahoma, Iowa, and Kongsberg, Norway, as well as students from the University of Iowa Physician Assistant program. The course could be taken for three graduate credit hours from the University of Iowa College of Public Health, and continuing education credits for physicians and nurses were offered.

All the training sessions were led by recognized experts in the various topic areas. Topics included agricultural health care delivery, respiratory hazards, agricultural trauma, skin diseases, occupational hearing impairment, behavioral health issues, ergonomics and farming, agricultural toxicology, biological hazards, and zoonoses.

Training and certification through the Agricultural Occupational Health Training Program is required for a health care professional or clinic to become a member of the AgriSafe Network, a nonprofit organization representing rural-based hospitals, health clinics and county health departments that provide occupational health services for the farming community. The next training is scheduled for May 18-20 and June 8-10, 2005.



## Certified Safe Farm



The Certified Safe Farm (CSF) program uses health screenings, education, and on-farm safety reviews to improve health and safety behaviors in farmers. The previous 5-year CSF program was provided to family farmers from Northwest Iowa. Health and safety changes were tracked in enrolled farmers through self-reporting of illness and injury occurrences.

The CSF intervention program is now in its second phase of implementation. Through funding and in-kind support provided by the National Institute for Occupational Safety & Health (NIOSH), Pioneer Hi-Bred International, Monsanto, Wellmark Inc., and a state agribusiness organization, we are enrolling up to 600 Iowa farmers to participate in a 4-year CSF program that compares health insurance claims data from farmers enrolled in CSF with claims data from Iowa farmers not enrolled in the program. After the program is completed in 2007, we envision that CSF will be supported by a variety of insurers and agribusinesses as a result of lower-than-average illness and injury claims in CSF farmers.

In addition to the large CSF program described above, two other CSF programs are currently being conducted in Iowa:

- Three (of five) years of the Certified Safe Dairy Farm in Northeast Iowa have been completed. The Great Plains Center for Agricultural Health, through NIOSH funding, provides this program to 25 dairy farmers.
- We have been awarded funding from NIOSH to implement a CSF program for farmers aged 60 and older. The AgriSafe Network, Iowa Easter Seals Rural Solutions Program, and the Area Agency on Aging will collaborate with I-CASH on this project, which will focus on how older farmers adapt to their changing physical abilities.

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

## Farm Safety Youth Grant

Each year I-CASH designates funds for community grants targeted at the prevention of farm-related injury in young people (less than 19 years of age). This year, grant funds were distributed for the following projects:

- Age Appropriate Use and Safety of Mowers and ATVs - Grundy County AgriSafe Rural Neighbors
- ATV Educational Session at Iowa FFA Conference - Farm Safety 4 Just Kids
- After-School Farm Safety Program - Washington County Extension
- Animal and Grain Safety on the Farm - AgriSafe Rural Neighbors and Butler County Public Health
- Water Safety: It's more than Lifeguards and Life Preservers - Keokuk County Extension
- Safety Day Display Board - Sheldon FFA
- Johnson County Farm Safety Youth Clinic - Johnson County 4-H
- Safety Education for Children 4-7 by Young Farm Students - Agri-Safe Rural Neighbors, Franklin County
- Montgomery County Ag Safety - Montgomery County Extension
- Grain Safety Program - Sioux County Extension, Farm Bureau, Dordt College, and Sioux Center Community Hospital and Health Center
- Chickasaw County Farm Safety Camp - Chickasaw County Extension 4-H/Youth Program
- Fall Harvest Safety and Health Workshop - National Education Center for Agricultural Safety



Area FFA students help with the animal and grain safety program in Butler County. *Photo courtesy of AgriSafe Rural Neighbors - Butler County.*

## Hall of Fame Award

I-CASH was pleased to name Carolyn Sheridan of Spencer Hospital as the 2003 recipient of its Hall of Fame Award. Sheridan received the award November 5, 2003 during the Midwest Rural Agricultural Safety and Health Forum in Des Moines, a two-day conference hosted by I-CASH and the Iowa Rural Health Association. The award was presented by Marilyn Adams, founder and president of Farm Safety 4 Just Kids, and one of last year's winners of the Hall of Fame Award.

As a nurse and farmer, Carolyn has long held a genuine interest in improving health and safety within the farming community. In 1990 she was one of the first individuals to become certified as an agricultural occupational health nurse by completing I-CASH's Agricultural Occupational Health Training. With this training, she established an AgriSafe program of health services at the Spencer Hospital, the first of now 18 clinics that make up the AgriSafe Network.

The breadth of the AgriSafe network is a testament to Carolyn's efforts. She has helped bring to reality a vision of comprehensive preventive services for farmers. She attracted and solicited ideas and support from talented, dedicated people and has now helped launch the new AgriSafe non-profit organization; all of this done during challenging economic times in the health care industry.



Carolyn Sheridan, at left, receives the I-CASH Hall of Fame Award from Marilyn Adams (one of the 2002 recipients).

*Agricultural health projects at other University of Iowa research centers:*

## Agricultural Health Study in Iowa

The Agricultural Health Study (AHS) is a prospective cohort study of agricultural exposures and chronic disease (especially cancer) in Iowa and North Carolina, primarily funded by The National Cancer Institute, National Institute of Environmental Health Sciences, and the Environmental Protection Agency. This is the 12th year of the study, which involves commercial or private pesticide applicators and spouses of married private applicators. The first five years were devoted primarily to enrolling eligible subjects; 89,658 subjects were enrolled in the two states, including 58,564 in Iowa. Since 1997, cohort members have been linked annually to Iowa mortality and incidence databases. Through 2002, over 1,400 deaths and 2,300 incident malignant cancers have been identified after enrollment.

Since 1998, the primary activity has been attempting to recontact each cohort member to conduct a computer-assisted telephone interview to update exposure information (completed with 38,020 private applicators and their spouses), obtain dietary health questionnaire data (completed with 24,466 private applicators and their spouses), and obtain buccal cells (completed with 23,837 private applicators and their spouses). Currently, the same tasks are being completed with commercial applicators. Preparations are being made to go into the field for the first pilot study for Phase III, in which pesticide exposure histories and self-reported disease information will be updated.

The study has already been used to evaluate farm-related work injuries, high pesticide exposure events, retinal degeneration, wheeze, fertility, cancer incidence related to pesticide exposure, and specific pesticide exposure related to cancer. Abstracts and/or pdf versions of these publications can be found at the website.

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

## Center for Health Effects of Environmental Contamination

The Center for Health Effects of Environmental Contamination (CHEEC) was established at the University of Iowa in 1987 as part of the Iowa Groundwater Protection Act. The mission of the Center is to determine the levels of environmental contamination that can be specifically associated with human health effects. CHEEC is an interdisciplinary research, education and service organization whose major activities include:

- 1) developing and maintaining environmental databases to be used in conducting environmental health research;
- 2) managing a seed grant program to support innovative environmental research; and
- 3) providing a variety of education and service programs to the citizens of the state, region, and nation.

In 2004, CHEEC collaborated in the Muscular Dystrophy Surveillance, Tracking and Research Network (MDSTARnet), the Agricultural Health Study, the Comprehensive Assessment of Rural Health in Iowa (CARHI) project and ongoing drinking water contaminant studies. In cooperation with the University Hygienic Laboratory, CHEEC sponsored the *Iowa Conference on Emerging Infectious Diseases* in April 2004.

[www.cheec.uiowa.edu](http://www.cheec.uiowa.edu)

## Center for International Rural and Environmental Health

The Center for International Rural and Environmental Health (CIREH) connected with countries around the world with a new program that uses the internet to share graphics (PowerPoint, Excel, Word, etc.) simultaneously with live, two-way audio. Some of the events conducted include a series of environmental health seminars that connected more than 30 participants from Poland, Slovakia, Romania, and Estonia, program planning sessions for Iowa students

and their summer internship hosts in Peru, and demonstration sessions with colleagues in Nigeria. The most appealing features of this program (Illuminate Live) are the minimal computer requirements for participants, and the high degree of interactivity which creates a great climate for communicating.

Robin Ungar, CIREH Associate Director, participated in the First International Conference on Occupational and Environmental Health in Mediterranean, South East and Central European Countries held in Belgrade, Serbia and Montenegro at the end of May. CIREH's Fogarty trainees and collaborators were well represented among the presenters.

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

## Environmental Health Sciences Research Center



The mission of The Environmental Health Sciences Research Center (EHSRC) is to continually advance knowledge and awareness of environmental health science that improves the quality of life among rural and agricultural populations. Health concerns such as community and occupational exposures to airborne hazards from concentrated livestock feeding operations, asthma among rural children, and adverse health effects arising from exposures to agricultural chemicals and bioaerosols are among the issues being studied by the Center's multidisciplinary team. In the past year, investigators explored several specific concerns, including the role of endotoxin in respiratory disease, the immunomodulatory effects of CpG (bacterial) DNA, measurements and modeling of rural environmental exposure assessments, and how innate immune system responses modulate the effects of environmental exposures. In addition, the Center's community outreach program hosted a summer institute on environmental health sciences for high school students and an international conference on the health effects of concentrated animal feeding operations.

[www.ehsrc.uiowa.edu](http://www.ehsrc.uiowa.edu)

## Great Plains Center for Agricultural Health



The Great Plains Center for Agricultural Health (GPCAH) is dedicated to promoting and helping to protect the health and safety of farmers, farm workers, their families, and the agricultural community.

The Center is one of 10 NIOSH-funded agricultural health and safety centers, including the National Children's Center for Rural and Agricultural Health and Safety. The GPCAH serves the Midwest, especially Iowa, Missouri, Kansas, and Nebraska (Federal Region VII). The GPCAH is structured into four core areas.

### *Administrative Core*

During the past year five feasibility projects were completed addressing a variety of issues concerning agricultural health:

- Prevalence of Musculoskeletal Symptoms and Disability Among Iowa Dairy Farmers
- Pilot Study of Neurological and Neurobehavioral Outcomes Among Farm Workers
- Evaluation of Ammonia Absorption to Particles
- The Whole Blood Assay as a Biomarker of Exposure, Effect and Susceptibility in Workers Exposed To Organic Dust
- Safety and Health Needs of the Hispanic Population Involved in Agriculturally-Related Occupations in Nebraska and Western Iowa

A surveillance effort using press clippings of farm and agricultural injuries was continued and at the end of 2004, two full years of press clipping data will be available for evaluation. The GPCAH collaborated with the other agricultural health and safety centers to develop a national initiative to reduce injuries and fatalities associated with tractors.

### *Research Core*

Four projects build on our experience addressing important agricultural health and safety needs. The

Keokuk County Rural Health Study and organic dust project are ongoing, the other two in the final stages.

- The Keokuk County Rural Health Study (KCRHS): The Epidemiology of Disease and Injuries in an Agricultural County
- New Methods for Evaluation of Organic Dust Aerosols
- Health Tracking of Musculoskeletal Disorders Among Iowa Farmers
- Genetic Studies in Non-Atopic, Non-Smoking Farmers with Airway Obstruction

### *Education and Outreach Core*

The Education and Outreach Core provides structure and content for a full range of agricultural safety and health educational training. This core supports a number of outreach activities, such as newsletters, presentations and articles, as well as a formalized curriculum that provides a specialty emphasis in agricultural safety and health with courses for MS and PhD candidates.

### *Prevention and Intervention Core*

The Prevention Core includes one project to reduce injuries and illnesses with a modified Certified Safe Farm (CSF) program for dairy farmers. This is important work as we continue to improve the basic CSF program, making it more comprehensive and adaptable.

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



## Injury Prevention Research Center



Since 1990, the University of Iowa Injury Prevention Research Center (UI 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 sixteen departments within the Colleges of Public Health, Medicine, Engineering, and Liberal Arts participate on research in the Center.

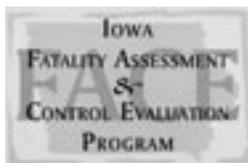
In addition to supporting research, the UI IPRC also serves as a national resource for rural injury prevention. The Center provides information, educational programs, and multi-disciplinary training to injury control advocates and programs across the Midwest.

Large research studies currently underway at the UI IPRC include:

- 1) evaluating emergency medical services within Iowa;
- 2) comparing the effectiveness of various types of smoke detectors in rural homes;
- 3) examining risk-taking behavior of children using a bicycle simulator; and
- 4) studying the driving abilities of persons with sleep apnea syndrome.

[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 a program 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. The FACE 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. During calendar year 2003, sixty-five Iowans were killed while at work. Workers in agriculture and industrial jobs continue to experience a high number of fatal injuries in Iowa. Since January 2003, 35 (53.8%) of the victims were employed in the agricultural sector and 27 (41.5%) workers in industrial jobs were killed.

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



# 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 diverse group of eighteen rural-based hospitals, health clinics, and county health departments that provide preventive occupational health services to Iowa farmers. AgriSafe clinics are staffed by nurses who have completed advanced training offered by I-CASH. The AgriSafe clinics serve as an early point of entry into the health care system before serious health conditions develop. Chronic health conditions (such as diabetes, and skin cancer) have been averted in farmers as a result of referrals made by AgriSafe nurses. These conditions, if left untreated, can greatly diminish quality and length of life.

The Network collaborates with researchers and national safety organizations to assist AgriSafe clinics in the development of effective agricultural health and safety services. Research institutions, as well as other rural health and safety organizations, may benefit from collaborative partnerships with the Network. Organizations interested in developing an AgriSafe clinic are encouraged to visit our website.

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



## AgriWellness, Inc.



AgriWellness, Inc. is a nonprofit corporation that builds behavioral health supports for the agricultural population in a seven-state regional partnership, *Sowing the Seeds of Hope* which includes Iowa, Kansas, Minnesota, Nebraska, North Dakota, South Dakota and Wisconsin. Our accomplishments in 2003 include:

- 9,371 persons attended outreach events, 777 providers were professionally trained, and crisis hotlines responded to over 15,000 calls.
- *Sowing the Seeds of Hope* was selected as a "best practice model" in Rural Healthy People 2010: A Companion Document to Healthy People 2010.
- With Ecumenical Ministries of Iowa, the Iowa Concern Hotline, and ISU Extension, AgriWellness, Inc. received the 2003 *Iowa Community Health Prize*.
- *Iowa Recovers 2004*, a program providing support to 75 Iowa counties affected by weather disasters this spring, undertook 950 individual crisis counseling contacts, 210 group educational contacts and 2,895 informational contacts.
- In conjunction with the state of Iowa, we train outreach workers who deliver crisis counseling services in response to disasters.

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

## Easter Seals Rural Solutions



Creating solutions. changing lives.

The Easter Seals Rural Solutions Program was developed in 1986 to address the technological and psychological needs of farm families affected by a disability. The Rural Solutions Program provides on-site rehabilitation services that promote the return to farming and the community, and increased independence. Services offered include providing adaptive equipment, modifications to the farm and home, secondary injury prevention education, equipment loan, and peer support.

Easter Seals collaborates with Iowa State University Extension through the AgrAbility Project, and the Division of Vocational Rehabilitation Services to assist farm family members to remain in farming after a disability.

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

## Farm Safety 4 Just Kids



In March 2004, Farm Safety 4 Just Kids (FS4JK) hosted their largest leadership conference, *Score 4 Farm Safety... Everyone Wins!* FS4JK received a public health conference support grant from the Department of

Health and Human Services CDC to pay for travel for many volunteers to attend the training. Participants learned about exciting programs such as the Generations of Safe and Healthy Farmers generational programming and the Buckle Up or Eat Glass teenage seat belt program. During the two-day conference, volunteers networked about local programs and received training about upcoming programs and projects. A separate youth track was created to help make youth stronger leaders in the farm safety movement. The Kentucky Department of Agriculture attended the conference with the first in the nation tractor roll-over simulator.

Farm Safety 4 Just Kids is pleased to be in the third

year of funding from the Monsanto Fund to bring community farm safety programs to locations in a nine state area. In 2004, a community action planner was produced for use by the seed sites who were previously involved. Fifteen locations are being planned in 2004 and a farm safety brochure written in Spanish has been produced.

Farm Service Agency launched an exciting initiative in 2004. In addition to the previous Memorandum of Understanding to support FS4JK, they issued an addendum that gave employees the ability to do farm safety activities without using sick time or leave, as well as the opportunity for individual states to add a line item budget to conduct farm safety activities.

FS4JK received a grant from Iowa's Center for Agricultural Safety and Health (I-CASH) to present a session on ATV safety at the Iowa FFA Convention in April. In October, FS4JK is setting up plans to replicate the session at the National FFA Convention in Louisville, KY.

Traditions of safer farming and ranching are the goals of the *Generations of Safe and Healthy Farmers* focus area. This project brings kids and older farm related people into the classroom in a storytelling type atmosphere. Completed last year, the program manual has been used to help teach others the concepts of the program. In Nebraska, special train the trainer workshops have allowed for the program to go into local communities with a well prepared facilitator. Programs in Iowa, North Dakota, and Wisconsin have been positive. Through a grant from the USDA Risk Management Agency (RMA) the sites were tested and the manual completed.

FS4JK is creating a health safety resource kit and brochures for children and adults to address rural health issues including food safety, water safety, sun safety, hearing protection, respiratory protection, and ergonomics. Activities and hands-on demonstrations on proper hand washing around livestock, wearing appropriate sun protection, hearing loss, and exposure to dust are included.

Successful Farming® magazine worked with Farm Safety 4 Just Kids to offer Farm Family Incentive

grants, in the amount of \$250, to families making safety improvements on their farms. They also worked to create “Keep On Track” community grants of \$100 each.

Farm Safety 4 Just Kids is working with the National Children’s Center in Marshfield, Wisconsin to distribute the recently released Safe Play Area Document; counter top displays, press releases, and public service announcements were developed. Two Farm Service Agency locations in Iowa and Washington have been identified as key to testing distribution.

[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.

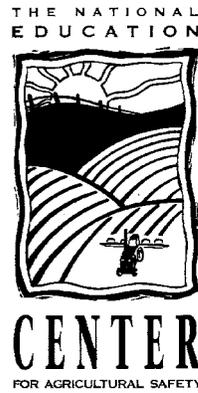
Thousands of children across Iowa participated in the Council’s Fire Prevention Education Program. The Council provides this educational program for the children of Iowa with support from the State Fire Marshall, Iowa Firemen’s Associations, and many industry and insurance leaders.

This year, the Council’s ongoing efforts to promote good safety and health practices resulted in a visible presence at both the Iowa State Fair and the Iowa Power Farming and Machinery Show. In August, the Council also coordinated the safety and health exhibits at the Farm Progress Show.

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

### **National Education Center for Agricultural Safety**

The National Education Center for Agricultural Safety (NECAS) is located in Peosta, Iowa on the Northeast Iowa Community College campus.



NECAS delivers hands-on safety training at its 12 acre safety facility as well as outreach programs throughout the United States and will be expanding to do safety training on the internet. The NECAS training program includes rescue courses for tractor rollover, combine rescue, grain bin entrapment, manure pit rescue, silo rescue, and a new farm chemical training site that opened in January of 2004. All of these sites serve a dual purpose of providing safety and rescue training.

NECAS hosted the national “Train the Trainer” for the updated tractor certification program this summer. Master trainers from 38 states attended and learned the new curriculum for the Fair Labor Standards Act of 1938, amended in 1968 to include the Hazardous Occupations Order for Agriculture (HOOA).

The center received a grant from USDA Cooperative State Research, Education and Extension Service to develop a tractor safety program for high school vocational teachers to use as part of their curriculum for students. The curriculum is based on a John Deere 1/8 scale tractor with 18 different safety hazards. The student will receive 10 hours of instruction on the hazards and will then retro-fit the tractor to bring it up to today’s safety standards.

[www.nsc.org/necas](http://www.nsc.org/necas)



Photo courtesy of NECAS

## **PROTEUS**

Proteus, Inc. is a not-for-profit organization that since 1990 has operated the BPHC-funded Migrant Health Project in the state of Iowa. From offices located in Des Moines, Fort Dodge, and Muscatine, Proteus provides outreach, home visits, and clinics around the state where migrant and seasonal farmworkers are found.

After farmworker families are certified as eligible, Migrant Health Aides conduct health histories, then the families are seen by the Project's Physician Assistants (PA), student PAs, volunteer providers or contracted providers. Proteus conducts clinics, and educational activities at sites such as migrant camps, employer sites, motels and other living sites. Between 1,000 to 2,000 migrant farmworkers come to Iowa each year to perform work which includes seed corn rouging, pollinating, detasseling, sorting and bagging. Other jobs include walking beans, and working with crops such as flowers, grapes, apples, cucumbers, potatoes, and melons. At times, the entire family travels together and many of the family members work together, but in recent years there has been a trend for growers to bring single men crews, rather than entire families.

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 for other farmers, work in hog confinement operations, egg production, or are employed as general farmhands.

This past calendar year, the Proteus Migrant Health Project served 1,307 farmworkers throughout the state of Iowa, and this year the Project is well on its way to serving over 1,500 farmworkers. In addition, the National Farmworker Jobs Program was able to provide support for Workplace and Pesticide Safety training for 113 migrant farmworkers, utilizing the EPA curriculum and issuing certification cards.

<http://showcase.netins.net/web/proteus>

## **Sharing Help Awareness United Network**



Sharing Help Awareness United Network (SHAUN) leaders and outreach workers continue to provide support to farmers, farm workers, and their families who have experienced a death, disability, or loss in farming. Educational resources, referrals, and peer support help families cope with financial, emotional, health, spiritual, and grief issues. SHAUN staff attended Rural Advocacy 2004 meetings, and served on the Iowa Disaster Human Resource Council. SHAUN continues to be involved as a farm safety advocate working with Extension in tractor safety courses, farm safety day camps, and providing speakers at conferences promoting safety and health care. SHAUN strives to promote safe and ethical farming and livestock practices.

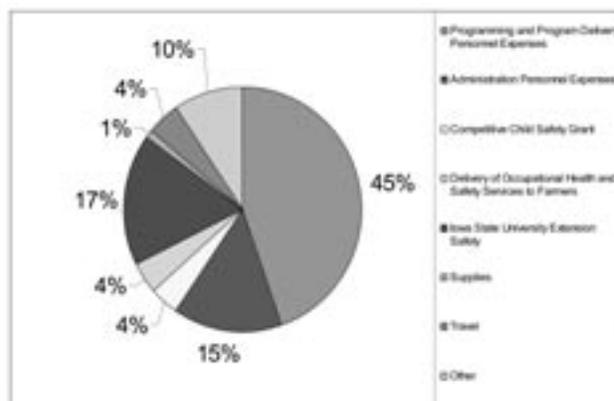
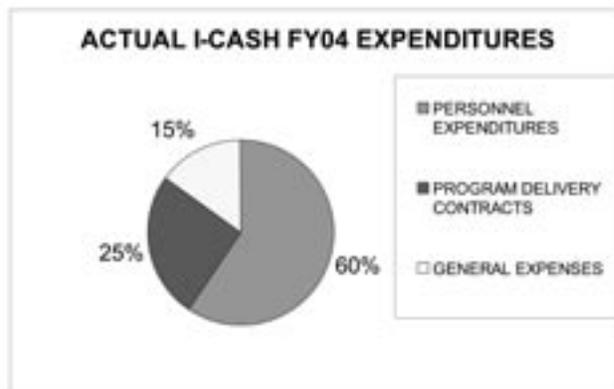
[www.shaunnetwork.org](http://www.shaunnetwork.org)



# Financial Report

The I-CASH budget consists of FY 2004 state funds, plus competitive grant and contract funds listed below. The following table and graphs depict the state appropriated expenditures divided into three areas: 1) personnel expenditures for programming and administration; 2) program delivery contracts; and 3) general expenditures.

PERSONNEL EXPENDITURES			
	Total I-CASH Effort	Budget Dollars	Actual Dollars
Programming and Program Delivery	75%	98,466	115,296
Administration	25%	32,822	38,432
<b>Total</b>		<b>131,288</b>	<b>153,728</b>
PROGRAM DELIVERY CONTRACTS			
Competitive Child Safety Grant		5,000	9,754
Delivery of Occupational Health and Safety Services to Farmers		11,000	11,000
Iowa State University Extension Safety		45,000	45,000
<b>Total</b>		<b>61,000</b>	<b>65,754</b>
GENERAL EXPENSES			
Supplies		2,000	2,944
Travel		3,000	11,472
Other: Includes computer system support, required semi-annual meetings, outreach materials, annual report, telephone and newsletters.		61,233	24,623
<b>Total General Expenditures</b>		<b>66,233</b>	<b>39,039</b>
<b>TOTAL BUDGET</b>		<b>258,521</b>	<b>258,521</b>



## *Grants and contracts that I-CASH faculty and staff have successfully competed for to conduct intervention and research activities in Iowa:*

<b>Ag. Ed. and Outreach Components of the Great Plains Center (CDC, NIOSH)</b>	\$ 602,944 (2001 - 2006)
<b>Certified Safe Farm Dairy Project (CDC, NIOSH)</b>	273,491 (2001 - 2006)
<b>Certified Safe Farms (CDC, NIOSH, Iowa Pork Producers, Pioneer)</b>	687,018 (1999 - 2003)
<b>Comprehensive Assessment of Rural Health in Iowa (CDC, IDPH)</b>	780,378 (2002 - 2005)
<b>Ag. Occupational Safety and Health Training (CDC, NIOSH)</b>	171,272 (2001 - 2003)
(Component of the Heartland Center for Occupational Health and Safety)	
<b>Physicians Assistant Training Grant (Bureau of Health Professions)</b>	95,124 (2001 - 2004)
<b>Evaluation of Organic Dust Aerosols (NIOSH, Great Plains Center for Agricultural Health)</b>	<u>122,000</u> (2003-2004)
<b>Total:</b>	<b>\$ 2,732,227</b>

# Appendix A

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

### July 2003

“Preparing an effective presentation.” LaMar Grafft. Presentation to the Environmental Health Sciences Institute. July 17; Iowa City, IA.

“Environmental concerns with concentrated livestock production: So what’s new?” Kelley Donham. Presentation at the American Veterinary Medical Association Annual Convention. July 22; Denver, CO.

“Occupational and environmental health hazards in swine confinement: So what’s new?” Kelley Donham. Presentation at the American Veterinary Medical Association Annual Convention. July 22; Denver, CO.

### August 2003

“PTO and auger entanglements.” LaMar Grafft. The Cedar Rapids Gazette. August 10.

I-CASH display. I-CASH staff. Exhibit at the Iowa State Fair. August 11; Des Moines, IA.

“Environmental and occupational risks associated with livestock confinement: A review and updates.” Kelley Donham. Presentation at Governor’s Conference on Public Health. August 14-15; Des Moines, IA.

“Injuries in the Iowa Certified Safe Farm Study.” Risto Rautiainen. Presentation at the Nordic Meeting on Agricultural Safety and Health. Aug 25-27; Kongsberg, Norway.

“Status of occupational health in agriculture in the United States.” Risto Rautiainen. Presentation at the Nordic Meeting on Agricultural Safety and Health. August 25-27; Kongsberg, Norway.

### September 2003

I-CASH display. Meggan Fisher. Exhibit at the Pioneer Employee Health Fair. September 4; Des Moines, IA.

“Farm electrocution hazards.” LaMar Grafft. The Cedar Rapids Gazette. September 14.

### October 2003

“Helping farmers stay alive and well in agriculture.” Kelley Donham, Sara Schneiders, Risto Rautiainen, and Murray Madsen. Certified Safe Farm presentation for Iowa Farm Bureau. October 6; Des Moines, IA.

“Zoonotic diseases.” LaMar Grafft. The Cedar Rapids Gazette. October 12.

“Agricultural trauma.” LaMar Grafft. Presentation to the West Union Fire Department. October 13; West Union, IA.

“Adolescent mental health in a rural county: Risk behaviors, depression, and suicide.” Ann Stromquist, Kevin Kelly, Leon Burmeister, Craig Zwerling, and James Merchant. Poster at the Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities. October 19-23; Saskatoon, SK, Canada.

“Certified Safe Farms.” Kelley Donham. Presentation at the Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities. October 19-23; Saskatoon, SK, Canada.

“The Certified Safe Farm: A novel incentive-based farm health intervention.” Kelley Donham, Sara Schneiders, Risto Rautiainen, Jeff Lange. Presentation at Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities. October 19-23; Saskatoon, SK, Canada.

“Depression among farmers: Links to stress, health, and safety.” Carol Hodne, Kelley Donham, and Risto Rautiainen. Presentation at the Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities. October 19-23; Saskatoon, SK, Canada.

“Development of the farm stressors scale: Links to farmers’ injuries and health.” Carol Hodne and Kelley Donham. Presentation at the Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities. October 19-23; Saskatoon, SK, Canada.

“Dose-Response relationships in mixed agricultural aerosols: Implications for exposure limit setting for endotoxin, particulate matter, and ammonia in confined animal feeding operations.” Kelley Donham. Presentation at the Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities. October 19-23; Saskatoon, SK, Canada.

“Evaluation of the Certified Safe Farms on-farm safety review process.” Risto Rautiainen, LaMar Grafft, Jeff Lange, Murray Madsen, Sara Schneiders, and Kelley Donham. Presentation at Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities. October 19-23; Saskatoon, SK, Canada.

I-CASH display. Eileen Fisher. I-CASH Exhibit at the Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities. October 19-23; Saskatoon, SK, Canada.

“Injuries in the Iowa Certified Safe Farm Study.” Risto Rautiainen, Jeff Lange, Carol Hodne, Sara Schneiders, Kelley Donham. Presentation at the Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities. October 19-23; Saskatoon, SK, Canada.



“Keokuk County farm machinery and associated injuries.” Murray Madsen, Wayne Sanderson, Risto Rautiainen, Ann Stromquist, Craig Taylor, James Merchant. Presentation at Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities. October 19-23; Saskatoon, SK, Canada.

“Musculoskeletal symptoms in a population based cohort of farmers and rural residents.” Linda Merlino, Dan Anton, John Rosecrance. Presentation at Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities. October 19-23; Saskatoon, SK, Canada.

“Needles in the hay: US press clips on farm injuries (Sept 02—Aug 03).” Murray Madsen. Poster at Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities. October 19-23; Saskatoon, SK, Canada.

“Pesticide exposures of rose greenhouse workers.” Wayne Sanderson. Presentation at the Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities. October 19-23; Saskatoon, SK, Canada.

“The press on Midwest farm and agricultural injuries.” Murray Madsen. Presentation at the Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities. October 19-23; Saskatoon, SK, Canada.

“The relationship between partner abuse and depressive symptoms in a rural cohort.” Ann Stromquist, Kevin Kelly, Leon Burmeister, Craig Zwerling and James Merchant. Presentation at the Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities. October 19-23; Saskatoon, SK, Canada.

“Respiratory symptoms, pulmonary function, and respirator use among Certified Safe Farm participants.” Kelley Donham, Sara Schneiders, Risto Rautiainen, and Jeff Lange. Presentation at the Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities. October 19-23; Saskatoon, SK, Canada.

“Rural health issues in the United States.” James Merchant. Presentation at the Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities. October 19-23; Saskatoon, SK, Canada.

“Using injury information to guide prevention.” Risto Rautiainen, Craig Zwerling, Kelley Donham, Leon Burmeister, Nancy Sprince, Steve Reynolds, Erkki Eskola, and Pentti Saarimaki. Presentation at the Fifth International Symposium, Future of Rural Peoples: Rural Economy, Healthy People, Environment, Rural Communities. October 19-23; Saskatoon, SK, Canada.

### November 2003

“Evaluation of the Certified Safe Farm on-farm safety review process.” Risto Rautiainen, LaMar Grafft, Sara Schneiders, and Kelley Donham. Presentation at the Midwest Rural Agricultural Safety and Health Forum. November 5-6; Des Moines, IA.

“Injuries in the Iowa Certified Safe Farm Study.” Risto Rautiainen. Presentation at the Midwest Rural Agricultural Safety and Health Forum. November 5-6; Des Moines, IA.

“Occupational health concerns of concentrated livestock production: So what is new?” Kelley Donham. Presentation at the Midwest Rural Agricultural Safety and Health Conference. November 5-6; Des Moines, IA.

“The press on Midwest farm and agricultural injuries.” Murray Madsen. Presentation at Midwest Rural Agricultural Safety and Health Forum. November 5-6; Des Moines, IA.

“A Review of *Fast Food Nation*: Implications for improved health for Iowans.” Kelley Donham. Presentation at the Midwest Rural Agricultural Safety and Health Conference. November 5-6; Des Moines, IA.

“Injuries in the Iowa Certified Safe Farm Study.” Risto Rautiainen. Presentation at the Governor’s Safety Conference. November 6; Des Moines, IA.

“Keeping guests safe on the farm.” LaMar Grafft. The Cedar Rapids Gazette. November 9.

“Farm safety and health.” LaMar Grafft. Presentation at the University of Iowa Roy J. and Lucille A. Carver College of Medicine. November 17; Iowa City, IA.

### December 2003

“Respiratory issues for turkey growers.” LaMar Grafft. Presentation to Iowa Turkey Growers. December 4; Des Moines, IA.

“Agricultural skin diseases.” Kelley Donham. Presentation at Iowa Lutheran Hospital. December 12; Des Moines, IA.

“Slips, trips and falls.” LaMar Grafft. The Cedar Rapids Gazette. December 14.

“Skin diseases of farmers.” Kelley Donham. Presentation at Iowa Lutheran Hospital. December 18; Des Moines, IA.

### January 2004

“Avoiding hypothermia.” LaMar Grafft. The Cedar Rapids Gazette. January 18.

“Certified Safe Farm.” LaMar Grafft. Presentation to AgriSafe Clinic Farm Audit Training. January 22-23; Spencer, IA.

“Practical ergonomics for farmers.” Kelley Donham. Presentation at the AgriSafe Clinic Farm Audit Training. January 22-23; Spencer, IA.

“Comprehensive assessment of rural health in Iowa.” Kelley Donham. Presentation to Iowa Department of Public Health. January 26; Des Moines, IA.

“Make your farm certified safe.” Pioneer Growing Point Magazine. Vol 3 (3): 4-6. January 2004.

## February 2004

“Certified Safe Farm.” Kelley Donham. Presentation to Allied Insurance. February 3; Des Moines, IA.

“Farm safety issues.” LaMar Grafft. Presentation to Farm Credit Managers. February 6; Ames, IA.

“Be prepared for medical emergencies.” LaMar Grafft. The Cedar Rapids Gazette. February 18.

“Certified Safe Farm: A description of hearing illnesses and hearing protection device use in a Midwestern agricultural population.” Sara Schneiders, Greg Flamme, Jeff Lange, and Kelley Donham. Poster presentation at the National Hearing Conservation Conference. February 19-21; Seattle, WA.

## March 2004

“Farm safety and health.” LaMar Grafft. Presentation at the University of Iowa Roy J. and Lucille A. Carver College of Medicine. March 1; Iowa City, IA.

“Safety concerns for farmers.” LaMar Grafft. Presentation at the North Iowa Farm Exposition. March 4; Mason City, IA.

“Community health concerns in agriculture, respiratory illness and toxicity conditions.” Kelley Donham. Visiting Professorship at Allen Hospital. March 8; Waterloo, IA.

I-CASH display. I-CASH staff. I-CASH exhibit at the Occupational Health Symposium. March 11; Iowa City, IA.

“Safety with chemicals.” LaMar Grafft. The Cedar Rapids Gazette. March 14.

“Evaluation of the Certified Safe Farm program.” Risto Rautiainen, Kelley Donham, Sara Schneiders, and Carol Hodne. Presentation Ohio State University. March 15; Columbus, OH.

“Agricultural trauma for emergency physicians.” LaMar Grafft. Presentation at the Emergency Room Conference. March 19; Omaha, NE.

“Certified Safe Farm.” Kelley Donham. Presentation to Wellmark and Farm Bureau. March 22; Des Moines, IA.

“An overview of trends in agricultural injury, illness, or death.” Murray Madsen. Presentation at the Rural Occupational and Environmental Safety and Health Summit. March 23-24; Jackson, MS.

I-CASH display. Eileen Fisher. I-CASH exhibit at the Environmental Health Impacts of CAFOs: Anticipating Hazards – Searching for Solutions conference. March 29; Iowa City, IA.

“Occupational hazards of confinements.” Kelley Donham. Presentation at the Environmental Health Impacts of CAFOs: Anticipating Hazards – Searching for Solutions conference. March 29; Iowa City, IA.

I-CASH display. Eileen Fisher. I-CASH exhibit at the Iowa Public Health Association Conference. March 30-31; Ames, IA.

## April 2004

“State of I-CASH.” Kelley Donham. Presentation at I-CASH Spring Meeting. April 1; Des Moines, IA.

“Certified Safe Farm.” Kelley Donham. Presentation to Iowa Farm Bureau. April 3; Des Moines, IA.

“Staying safe on the farm.” LaMar Grafft. The Cedar Rapids Gazette. April 11.

“Skin diseases of farmers.” Kelley Donham. Visiting Professorship at Iowa Lutheran Hospital. April 14; Des Moines, IA.

## May 2004

“Agricultural health and safety programs at Iowa.” Kelley Donham. Presentation at USDA Symposium. May 5; Chicago, IL.

“Community health concerns in agriculture: From hog lots to water pollution.” Kelley Donham. Presentation at Broadlawns Medical Center. May 5; Des Moines, IA.

“Skin diseases of farmers.” Kelley Donham. Presentation at Broadlawns Medical Center. May 5; Des Moines, IA.

“Safety around livestock.” LaMar Grafft. The Cedar Rapids Gazette. May 9.

“Agricultural trauma.” LaMar Grafft. Presentation at the Agricultural Occupational Health Training Program- Session 1. May 19-21; Iowa City, IA.

“Biological hazards,” “Zoonoses,” “Agricultural skin diseases,” “Rural environmental health problems,” “Agricultural respiratory issues.” Kelley Donham. Presentations at the Agricultural Occupational Health Training Program- Session 1. May 19-21; Iowa City, IA.

“Farm safety and health.” LaMar Grafft. Presentation at the University of Iowa Roy J. and Lucille A. Carver College of Medicine. May 24; Iowa City, IA.

“Agricultural health and safety programs in Iowa.” Kelley Donham. Presentation to Teagasc, The Irish Agriculture and Food Development Authority. May 31; Ireland.

## June 2004

“Agricultural case scenarios.” Kelley Donham and LaMar Grafft. Presentation at the Agricultural Occupational Health Training Program- Session 2. June 9-11; Iowa City, IA.

“Farm tour: Identifying selected hazards.” LaMar Grafft and Risto Rautiainen. Presentation at the Agricultural Occupational Health Training Program- Session 2. June 9-11; Iowa City, IA.

“Protect skin from the sun.” LaMar Grafft. The Cedar Rapids Gazette. June 13.

“Agricultural tractor safety: Perspectives on history and data.” Murray Madsen. Presentation to the NIOSH Agricultural Safety and Health Center’s National Tractor Safety Initiative. June 20-24; Keystone, CO.

“Case study: Fatal tractor overturn where a self-made roll-bar failed.” Risto Rautiainen and Wayne Johnson. Presentation and proceedings publication at the 2004 National Symposium on Ag Health and Safety. June 20-24; Keystone, CO.

“Driver awareness: Sharing roads with farm equipment.” Murray Madsen. Presentation and proceedings publication at the 2004 National Symposium on Ag Health and Safety. June 20-24; Keystone, CO.

“Evaluation of the Certified Safe Farm on-farm safety review process. Risto Rautiainen, LaMar Grafft, Jeff Lange, Murray Madsen, Sara Schneiders, and Kelley Donham. Presentation and proceedings publication at the 2004 National Symposium on Ag Health and Safety. June 20-24; Keystone, CO.

“Press clippings: US farm and agricultural injuries – 2003.” Murray Madsen. Presentation and proceedings publication at the 2004 National Symposium on Ag Health and Safety. June 20-24; Keystone, CO.

“Qualitative evaluation of the Iowa Certified Safe Farm program.” Sara Schneiders, Murray Madsen, Kristi Fisher, and Kelley Donham. Presentation and proceedings publication at the 2004 National Symposium on Ag Health and Safety. June 20-24; Keystone, CO.

“Sharing rural roads with farm equipment.” Murray Madsen, Lisa Neuendorff and Thomas Bean. Presentation and proceedings publication at the 2004 National Symposium on Ag Health and Safety. June 20-24; Keystone, CO.

“A Study of the respiratory health and injury experience of pork producers in the Certified Safe Farm program: Evaluation and implications for intervention. Kelley Donham, Jeff Lange, Sara Schneiders, and Risto Rautiainen. Presentation and proceedings publication at the 2004 National Symposium on Ag Health and Safety. June 20-24; Keystone, CO.

“Tractor risk abatement and control project in Iowa.” Kelley Donham. Presentation and proceedings publication at the 2004 National Symposium on Ag Health and Safety. June 20-24; Keystone, CO.

“Preparing an effective presentation.” LaMar Grafft. Presentation to the Environmental Health Sciences Institute. June 24; Iowa City, IA.

# Appendix B

## I-CASH Publications

- Abbott R, W Ross, L White, W Sanderson, C Burchfield, M Kashon, D Sharp, K Masaki, D Curb, H Petrovitch. 2003. Environmental, life-style, and physical precursors of clinical Parkinson's disease: Recent findings from the Honolulu-Asia Aging Study. *J Neurol* 250 (Suppl 3): III/30-III/39.
- Anderson CI, SG Von Essen, LM Smith, J Spencer, R Jolie, KJ Donham. 2004. Respiratory symptoms and airway obstruction in swine veterinarians: A persistent problem. *Am J Ind Med* 46(4): 386-92.
- Curwin B, M Hein, W Sanderson, W Buhler, M Nishioka. 2003. Acephate exposure and decontamination on tobacco harvesters' hands. *J Expo Anal Environ Epidemiol* 13: 203-210.
- Donham K, J Wheat, B Simpson, P James, S Kirkhorn. 2004. Agricultural medicine: What's in a name – revisited. *J Agromedicine*. (In press)
- Freeman, SA, CV Schwab, and T Pollard. 2003. Assessment of Iowa farmers' perceptions about auger safety. *ASAE Journal Agricultural Safety and Health* 9(1): 61-74.
- Humann M, K Donham, M Jones, C Achutan, B Smith. 2004. Occupational noise exposure assessment in intensive swine farrowing systems: Dosimetry, octave band, and specific task analysis. *J Agromedicine*. (In press)
- Lee JA, KJ Donham, SJ Reynolds, K Thu. 2004. Assessment of air quality in the vicinity of swine confinement facilities in Iowa. *J Agromedicine*. (In press)
- Nonnenmann MW, KJ Donham, RH Rautiainen, PT O'Shaughnessy, LF Burmeister, SJ Reynolds. 2004. Vegetable oil sprinkling as a dust reduction method in swine confinement. *J of Agricultural Safety and Health* 10(1): 7-15.
- North Central Region 197 Committee on Agricultural Safety and Health. 2003. National land grant research and extension agenda for agricultural safety and health. ISU Reference No. EDC-292. 18 pp. Ames, Iowa: Iowa State University.
- Rautiainen RH, JL Lange, CJ Hodne, S Schneiders, KJ Donham. 2004. Injuries in the Iowa Certified Safe Farm Study. *J Agricultural Safety and Health* 10(1): 51-63.
- Rautiainen R, J Ledolter, N Sprince, K Donham, L Burmeister, R Ohsfeldt, S Reynolds, K Phillips, P Saarimäki. 2004. Insurance incentive as a preventive measure in agriculture in Finland. *American Journal of Industrial Medicine*. (Submitted)
- Schwab, CV, LJ Miller, and L Graham. 2004. Club Misterio: Sigue las huellas del tractor por el camino seguro. Iowa State University Extension publication Pm-1877as. ISU University Extension, Ames, IA 50011-3080.
- Sigurdarson ST, KJ Donham, JN Kline. 2004. Acute toxic pneumonitis complicating chronic obstructive pulmonary disease (COPD) in a farmer. *Am J Ind Med* 46(4): 393-5.



# Notes