

I-CASH

2007 Annual Report



*Helping Farmers Stay
Alive and Well*



A PARTNERSHIP OF:

THE UNIVERSITY OF IOWA
IOWA STATE UNIVERSITY

IOWA DEPARTMENT OF PUBLIC HEALTH
IOWA DEPARTMENT OF AGRICULTURE
AND LAND STEWARDSHIP

Opening Thoughts From The Director

New Programs Help Meet the I-CASH Mission



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. I-CASH has been working on several new initiatives to further support this mission.

Alternative Agriculture

Alternative agriculture production is growing in our state with many enterprises finding niche markets and emphasizing sustainable systems. According to the Iowa Department of Agriculture there are 450 certified organic farms in Iowa totaling 100,000 acres. Iowa also has 176 farmers markets, ranking third nationally in the number of such markets. To our knowledge, there has been no research into the health and safety issues of these producers. In response, we recently convened a group of alternative agricultural producers in Eastern Iowa to advise us on their health and safety concerns. We found that two of their main concerns were affordability of health care and safety training for their employees. At our recently held conference, *The Changing Face of Agricultural Health and Safety*, a panel of alternative agriculture producers and a panel of health and safety professionals were featured. These panel members worked together to discuss health and safety risks in their operations, and concerns about affordability and accessibility of health and safety services. Our intent with this forum was to outline a new program to address these health issues in our alternative agriculture producers.

It's Preventable!!!

This I-CASH Producers Committee-driven initiative was inaugurated during the summer. The program is aimed at preventing rural roadway farm equipment collisions. The goal is to create a broad awareness of the issues by producing a series of collecting cards (like baseball cards) featuring different rural roadway hazards and how to prevent them. We plan to connect this initiative with a new collaborative program with the Iowa State Highway Patrol. PSAs and videos will be developed to educate operators of cars and operators of farm machinery on our rural roadways. This program will build during the harvest season and gain momentum during the spring planting seasons over the next few years.



New Graduate Training Programs in Agricultural Health and Safety

One of our long term goals has been to educate health professionals about agricultural health and safety hazards. This year we have gained approval for a new graduate certificate program in agricultural health and safety, and new MS/PhD degrees in agricultural health and safety. These programs will help to increase the professionalism of the individuals involved in agricultural health and safety. To go along with these new degrees, we have published a textbook which highlights important information to identify, treat, and prevent agricultural illnesses and injuries. *Agricultural Medicine: Occupational and Environmental Health for the Health Professions*, by Kelley Donham and Anders Thelin, was published in 2006 by Blackwell Scientific.

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

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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.

2007 I-CASH Annual Report

Kay Mohling, Editor

Cover Design by Patti O'Neill,
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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 Extension (ISUE) 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, 2007, Iowa had 37,230 certified applicators. There were 11,866 certified commercial applicators, 441 certified commercial handlers, and 24,923 certified private applicators. Certification testing will be held at about 1,250 sites in fiscal year 2008. Approximately 180 private and 255 commercial continuing instruction certification training sessions are expected to be offered by ISU Extension in fiscal year 2008.

www.agriculture.state.ia.us

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 provided the Iowa Department of Public Health with the English/Spanish brochure *Iowa Pesticides - Tips & Complaints* for distribution at migrant camps throughout Iowa.

With matching funds from EPA and IDALS, ISUE completed two WPS outreach projects. The first project was transferring the ISUE *Worker Protection Standard for Nursery, Greenhouse and Vegetable Growers* video to a digital format. The video, produced in 2002, helps growers learn what is needed to comply with the WPS.

The second project was to develop outreach materials on the WPS. It is important for growers to know how to contact IDALS, ISUE, EPA, and other WPS sources of information to better protect their workers in areas treated with pesticides. ISUE designed and purchased 17,000 decals with reference information and contact numbers for agencies involved in WPS and pesticide safety. The decals withstand outdoor environmental conditions and are to be placed on spray equipment or other readily visible locations. They will be distributed at private pesticide recertification trainings and other pesticide applicator meetings. In addition, 5,000 vinyl key chain card holders with WPS and pesticide safety contact information printed on the cover were purchased. A personal protective glove display focusing on appropriate glove selection and sizing was created, which compliments the new ISUE glove publication *Protect Your Hands With Gloves*. The display will be used at training meetings for various groups across the state. There are six displays available upon request for ISUE county offices and others involved in WPS training.

www.extension.iastate.edu/pme/pat/workerprotection

Iowa Department of Public Health

The Iowa Department of Public Health (IDPH) recently observed 125 years of organized public health for the state of Iowa. *Advancing Health Through the Generations* was the theme, and it reflects public health efforts in the past, the present, and the future.

IDPH views health as a critical component of Iowa's future. Healthy kids are ready to learn, healthy adults are ready to work, and healthy communities are ready to grow. This includes a commitment to promoting and protecting the health of Iowans in the workplace.

In collaboration with programs such as I-CASH, IDPH is developing an Occupational Safety and Health Surveillance Program (OSH-SP). This program will network core public health functions throughout IDPH and other state agencies that are involved in the field of occupational safety and health. This includes establishing a fundamental surveillance program to gather data for assessment of the health and safety of all Iowa workers. In turn, this information will be used to help develop policies and assure the provision of services through a collaboration of community partnerships across the state.

Iowa Department of Public Health OSH Affiliated Programs

- Occupational Safety and Health Surveillance Program
- Adult Blood Lead Epidemiology and Surveillance Program
- Pesticide Poisoning Surveillance Program
- Hazardous Substances Emergency Events Surveillance System
- Bureau of Emergency Medical Services
- Trauma Registry
- Farm Injury Registry (previously SPRAINS)
- Traumatic Brain or Spinal Cord Injury Registry
- EMS Registry
- Bureau of Health Care Access
- Center for Rural Health and Primary Care
- State Office of Rural Health
- Bureau of Health Statistics – Vital Records & Health Statistics
- Bureau of Disability Prevention
- Iowa Disease Surveillance System
- Center for Acute Disease Epidemiology
- Comprehensive Assessment of Rural Health in Iowa

- Office of the State Medical Examiner
- Iowa Fatality Assessment & Control Evaluation Program
- Healthy Iowans 2010

www.idph.state.ia.us

Iowa State University

Extension Farm Safety Program

Iowa State University Extension farm safety program and activities that are directed towards I-CASH goals are:

- The Safe Farm radio program produced and distributed 52 weeks of one-minute messages to 68 radio stations, completing 16 years of continuous safety audio programming efforts.
- ISU Extension organized articles on farm safety issues by involved partners (FS4JK, IFSC, Easter Seals of Iowa, ISU, Progressive Agriculture Foundation, NECAS, and University of Iowa) and distributed them to Iowa's newspapers during National Farm Safety and Health Week September 16-22, 2007.
- ISU Extension staff in 5 counties offered tractor safety training courses to 106 youth (14 and 15 year-olds) during 2007.
- A total of 11 safety day camps, conducted by extension staff, were held throughout the state reaching 862 youth.
- A total of 14 safety events conducted by extension staff reached 244 participants.

www.abe.iastate.edu/safety

Iowa Concern

The Iowa Concern Hotline at 800/447-1985 offers information and referral, stress counseling, and legal education 24 hours per day, seven days per week. The Hotline received 12,651 calls from July 2006-June 2007. Approximately 25% of those calls were from farm and rural families.

Farm and rural issues varied this year. The crop situation was generally very good, however some

areas reported problems with hail, wind, or dry weather, and those that experienced weather problems felt isolated. Prices for livestock and crops were favorable this year, but the input for feed and crops increased, along with fuel prices. Farm and rural families called the hotline regarding issues such as divorce, credit card debt, and health insurance costs. Other legal concerns included contracts, leases, and fence laws.

The *Sowing the Seeds of Hope* grant provides money for farm families to receive behavioral health counseling. Iowa Concern has the list of providers and issues vouchers for people to receive up to five free counseling sessions. This service is confidential and counseling providers are available throughout the state. Approximately 58 families have accessed the program in the past year.

Iowa Concern continues to receive questions and concerns through the web site, receiving approximately 5000 hits per month. The site has many *Frequently Asked Questions*, 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.

www.extension.iastate.edu/iowaconcern

The University of Iowa

Projects led by I-CASH core faculty and staff

Agricultural Occupational Health Training

I-CASH's annual training for health care professionals who treat and help prevent occupational illnesses and injuries on the farm was held June 11-15, 2007. Thirty individuals from Alabama, Colorado, Florida, Indiana, Iowa, Kentucky, Nebraska, New York, North Carolina, Puerto Rico, Tennessee, Virginia, Washington, and Wisconsin were trained in a variety of agricultural safety and health topics ranging from agricultural respiratory issues to zoonoses. In addition to the on-campus course, the first half of the training was offered through the web-

based technology Elluminate. The course can be taken for three graduate credit hours from the University of Iowa College of Public Health, and continuing education credits are offered.

Training and certification through the Agricultural Occupational Health Training is required for a health care professional or clinic to become an AgriSafe provider affiliated with the AgriSafe Network. AgriSafe Network, Inc. is a non-profit organization representing rural-based hospitals, health clinics, and county health departments that provide occupational health services for the farming community.

www.public-health.uiowa.edu/icash

Certified Safe Farm



The Certified Safe Farm (CSF) program is an agricultural health and safety research study consisting of occupational health screenings, on-farm safety evaluations, and personalized education. CSF is currently being implemented in over 25 Iowa counties in a variety of formats.

- *The CSF Elderly Farmer Study* concluded this year. The focus was on improving working conditions for older farmers so as to reduce their risk of farm-related illnesses and injuries.
- *The CSF Evaluating Health Insurance Claims Study* will continue through September. The focus is to analyze health insurance claims information and other self-reported measures to quantify occupational health risks and to identify long-term measures of program success.
- CSF staff are working with Amana Farms of Amana, Iowa, to develop a new CSF program for large farms. A CSF program for large scale swine facilities is also being developed.

The CSF program has found a 47% savings in insurance costs for occupational illnesses and injuries for intervention farmers to date. Throughout these studies, findings have also shown a 22% reduction in Organic Dust Toxic Syndrome (ODTS) in intervention farmers.

www.public-health.uiowa.edu/icash/CSF/index.htm

Comprehensive Assessment of Rural Health in Iowa

The Comprehensive Assessment of Rural Health in Iowa (CARHI) is a project of the Iowa Department of Public Health (IDPH), the Center for Disease Control and Prevention, and the University of Iowa. The goal is to test a surveillance system that links health data and environmental contaminants data within a geographic information system (GIS). The system is designed to test the potential to evaluate relationships between environmental exposures and health outcomes.

A GIS environmental database was created to locate a variety of potential toxic substance sources. The CARHI team developed and tested a privacy protection tool within the GIS system that will allow the IDPH to collaborate on investigations into the relationship between environmental exposures and health outcomes while protecting privacy. Although developed for one county in Iowa, the project shows that it would be possible to develop a GIS system for the whole state, in the future.

Hall of Fame Award

I-CASH named Charlotte Halverson the 2006 recipient of its Hall of Fame Award. Halverson is a skilled occupational health nurse who has served the farming community for more than 25 years. She is the rural health training coordinator at the National Educational Center for Agricultural Safety (NECAS) and Parish Health Coordinator at Mercy Medical Center in Dubuque, Iowa.

Halverson received the award August 11, 2006 during the WOI midday radio show broadcast from the Iowa State University Extension booth at the Iowa State Fair in Des Moines, Iowa. The award was presented by Senator Robert Dvorsky.

Halverson is known in Iowa and throughout the country as a pioneer in the fields of agricultural health and parish nursing. Halverson's contributions include activities such as providing



Kelley Donham, Charlotte Halverson, recipient of the 2006 I-CASH Hall of Fame Award, and Senator Robert Dvorsky at the Iowa State Fair.

Certified Safe Farm services to area farmers, implementing health screening programs, and developing farm safety first-aid kits specifically designed for farmers.

www.public-health.uiowa.edu/icash

Injury Prevention in Agricultural Youth Grant

Each year I-CASH designates funds for community grants targeted at the prevention of farm-related injury to young people. This year grant funds were awarded to the following projects:

- Adams County Youth & 4-H, *Kids Safety Day Camp*
- Iowa State University Extension - Louisa County, *Growing Safe Youth: A Valuable Crop*
- Town and Country Farm Safety, *Safe Tractor and Machinery Operation Program*
- O'Brien County Extension, *Farm Safety Scene*
- Iowa State University Extension - Jefferson County, *Farm Safety Day Camp*
- Kossuth & Palo Alto County Agricultural Extension Districts, *Farm Safety Awareness Program*
- Orient Bulldogs 4-H Club, *Rounding up the Cows*

Grant recipients were invited to present a poster of the project at the annual I-CASH conference

and received special recognition for their efforts. Technical assistance in preparing future proposals is available to all potential applicants free of charge. Reports and materials from these projects are posted on the I-CASH web site.

www.public-health.uiowa.edu/icash/programs/youthgrant/index.htm

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 15th year of the study. During the first 5 years of the study eligible subjects were enrolled; a total of 89,658 subjects were enrolled including 58,564 in Iowa. Phase II began in 1998 and involved re-contacting each cohort member to update exposure information, obtain dietary health data, and obtain buccal cells. Phase III, which updates pesticide exposure histories and self-reported diseases, is ongoing and has been completed by 11,330 Iowans through August 2007.

The study has resulted in over 85 peer-reviewed publications 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 and diseases, respiratory diseases, and reproductive abnormalities. Abstracts and pdf versions of these publications can be found at the Agricultural Health Study website.

www.aghealth.org

Environmental Health Sciences Research Center



The Environmental Health Sciences Research Center (EHSRC) is one of

25 National Institute of Environmental Health Science-funded Core Centers of Excellence. Established in 1990, the EHSRC is the only center in the rural Midwest and the only center to focus on rural environmental exposures and related pulmonary diseases. The EHSRC, comprised of 49 faculty and 25 staff, is at the forefront of research in environmental lung disease, inflammation and innate immunity, and oxidative stress. 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, radon, and bioaerosols are among the issues being studied by the Center's Investigators. The EHSRC also operates a pilot grant program, an enrichment program, and an outreach program. In October 2006, the Community Outreach and Education program hosted the conference, *Asthma Education for Tribal Health Officers Serving the Aberdeen Area*. In November 2006, a publication series was released addressing major environmental health issues associated with large, industrialized livestock production facilities.

www.ehsrc.org

Great Plains Center for Agricultural Health



The Great Plains Center for Agricultural Health (GPCAH) is dedicated to finding ways to protect and promote health and safety of farmers, farmworkers, their families, and neighbors. The Center focuses on hazards and exposures facing Midwestern farm families, and is currently conducting three multi-disciplinary projects.

- *The Keokuk County Rural Health Study* is a population-based cohort study of 750 households in a rural county that evaluates the association between agricultural hazard exposures and diseases and injuries. Data are being collected through medical screenings, in-

person interviews, and environmental assessments. Surveys cover respiratory disease, injuries, hearing and vision impairment, and neurobehavioral outcomes.

- *Determinants of Dust and Gas Exposures Among Swine Workers.* This exposure study of swine workers focuses on determining work tasks that result in high dust and gas exposures. Sampling includes both gravimetric and real-time aerosol measurement devices, as well as an ammonia sampler. Small backpacks hold the personal sampling devices so as not to encumber work practices. Area sampling devices hanging from ceiling fixtures are also used to provide an association between building operating conditions and building dust and gas concentration levels.

- *Building Capacity of Health and Safety Professionals.* A meeting was held at the University of Iowa where an expert advisory committee reached consensus on core learning objectives for agricultural health and safety curriculum. Agricultural occupational training courses using this curriculum will be offered to practitioners in ten states in the Midwest over the next four years.

www.public-health.uiowa.edu/gpcab

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, Liberal Arts, and Pharmacy participate on research in the Center.

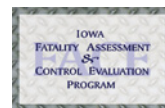
In addition to supporting research, the UI IPRC also serves as a national resource for rural injury prevention. The Center provides information, educational programs, and multi-disciplinary training to injury control advocates and programs across the Midwest.

Large research studies currently underway at the UI IPRC include:

- examining the psychosocial consequences of collegiate athletic injuries;
- comparing the effectiveness of various types of smoke detectors in rural homes;
- examining decision making behavior of children using a bicycle simulator;
- evaluation of a teen driving safety program;
- studying the effects of phenytoin, a drug commonly prescribed for epilepsy, on cognitive ability and driving;
- measuring domestic violence longitudinally and identifying the role of physical violence in relationship dissolution; and
- an evaluation of improvements of Batterer's Education Programs.

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. 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 2006, seventy-nine Iowans were killed while at work (down from 95 in 2005). The fatalities tend to involve older workers with 34% being sixty years of age or older. Workers in agriculture jobs continue to experience a high number of fatal injuries in Iowa. Since 2000, nearly 40% of the victims were employed in the agricultural sector.

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, Inc.



The AgriSafe Network is a national organization that represents health

professionals and educators who are concerned about the health and safety of farm families. Many agricultural injuries, diseases, and fatalities can be prevented through the delivery of agricultural occupational health services.

Participation is encouraged in monthly web-based presentations which are open to both members and non-members. Past sessions have included topics such as migrant health, respirator selection, and ergonomics. Archived presentations are available on the AgriSafe website.

The AgriSafe Network membership categories have recently expanded to include organizational membership, which includes the same resources and technical assistance provided to clinic members. Members benefit from the networking opportunities and updates on the most recent developments in agricultural health and safety. During the past year several resources and training programs have been developed including:

- Personal Protective Equipment (PPE) Start Up Program
- The Respirator Selection Guide
- The Respirator Brochure
- The Respirator Selection Training Program
- Mentor Program

The AgriSafe Network strives to provide services in the communities where farm families live, work and play, and has dramatically increased accessibility nationwide.

www.agrisafe.org

AgriWellness, Inc.



AgriWellness, Inc., a nonprofit organization, builds behavioral health supports for the agricultural population in seven states: Iowa, Kansas,

Minnesota, Nebraska, North Dakota, South Dakota and Wisconsin. In 2006, partnering organizations in this region provided behavioral health education and training to over 4,800 persons. State hotlines responded to 16,870 calls and distributed 4,106 vouchers for professional behavioral health services to farmers and their families.

In 2007, AgriWellness Inc. convened the third biannual *The Clock is Ticking for Rural America* behavioral health and safety conference in Sioux Falls, South Dakota. AgriWellness has also managed crisis counseling programs by contracts with the Iowa Department of Human Services.

- **Responding to Katrina** was a program that responded to the needs of persons relocated to Iowa following Hurricane Katrina, including a special day at the Iowa State Fair for native Gulf Coast residents.
- **Iowa Recovers 2007** included two programs provided by AgriWellness, Inc. One program was offered in western Iowa after the May floods and one program was offered in southeastern Iowa after the May tornadoes.

www.agriwellness.org

Easter Seals Rural Solutions



Easter Seals' Rural Solutions Program helps Iowa farm family members with disabilities continue to farm and help farm family members make modifications to farm equipment and homes. Rural Solutions promotes increased

independence through adaptive equipment, modifications and support services that provide the opportunity for a family to continue its livelihood on the farm and remain active members of their communities.

Program components include agricultural work site and home modification consultations, peer support, services for the family, information and referrals, and equipment loan services.

www.eastersealsia.org

Farm Safety 4 Just Kids



Farm Safety Farm Safety 4 Just Kids (FS4JK) is a non-profit organization working to promote farm safety for kids. The organization produces and distributes farm safety educational materials and includes a chapter network of volunteers throughout the United States and Canada. Collectively, they reach approximately one million children, youth and farm family members each year. In 2007, FS4JK celebrated twenty years of helping keep kids safe in rural environments. This anniversary was highlighted at the National Leadership Conference which also allowed chapter volunteers and sponsors to network and learn new strategies to promote a safe farm environment. The following activities were provided by FS4JK:

- FS4JK New Chapter Training was held prior to the Leadership Conference. The training helped familiarize new members with the chapter network, FS4JK's resources, and hands-on safety demonstrations.
- Farm safety regional workshops funded by the USDA Risk Management Agency were held in Michigan and Ohio. Participants learned about farm injuries and prevention techniques.
- FS4JK helped Farm Safety USA promote their new CD series. The series uses animal characters to teach safety lessons and was created to educate children about farm dangers.
- FS4JK Outreach Coordinators (ORCs)

joined Farm Journal Media and AgDay on Monsanto's tour to promote its new line of insecticides. The ORCs shared their safety expertise and held hands-on demonstrations at ten locations across the central corn belt.

- The youth-led *Buckle Up or Eat Glass* community project continues to help youth understand the importance of wearing a seat belt. The emphasis is on the dangers found within the rural environment. This year twenty sites in Iowa held educational sessions, conducted media campaigns, and rewarded others for wearing seat belts.
- FS4JK partnered with Country Living Association, a group focused on families who reside in the country and marketers who supply these families with goods and services, to teach ATV safety at workshops held around the country.
- For the thirteenth year, FS4JK and *Successful Farming* magazine have joined forces to sponsor fifteen grants, each with a maximum of \$250, for families and communities to make safety improvements for children on the farm.

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 visible presence at the Iowa Power Farming and Machinery Show and the Iowa State Fair.

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

National Education Center for Agricultural Safety



Over the past year, the National Education Center for Agricultural Safety (NECAS) has had the opportunity to build on its relationships with Nationwide Agribusiness and Growmark, Inc. In February, approximately 300

commercial pesticide applicators participated in a week-long training school which included classroom and behind-the-wheel learning opportunities. Other courses held at NECAS for agribusiness included LP safety, propane safety, and general employee safety trainings.



Pesticide applicator training at NECAS.

Photo courtesy of NECAS

NECAS continued to offer its regular programming for farm families including *Surviving Summer Safely* for elementary school youth and three Progressive Agriculture Safety Days. More than 150 high school students attended the 2006 Fall Harvest Safety Days with their FFA chapters and learned about combine safety, grain wagons and bins, augers, tractors, and other harvest-related safety topics. Eighty-eight farm families also participated in the Certified Safe Farm project through occupational health screenings and on-farm safety reviews with NECAS staff.

Fire and EMS training for rural/volunteer departments has also grown over the past year. Six-hundred firefighters from several communities were trained in workshops covering

tractor rollover and combine entrapment extrications. Both courses were granted official approval by the Iowa Fire Service Training Bureau and now can be offered throughout Iowa at no cost to the community. A grain bin fire and rescue course is planned for 2008.

www.nsc.org/necas

Proteus, Inc.

PROTEUS
INC

Proteus, Inc. is a not-for-profit 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 where migrant and seasonal farmworkers are found.

After farmworker families are certified as eligible Migrant Health Aides conduct health histories and 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 and employer sites. Between 1,000 to 2,000 migrant farmworkers come to Iowa each year to perform work such as seed corn rouging, pollinating, detasseling, sorting, and bagging. Other jobs include working with crops such as 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 2006 the Proteus Migrant Health Project served 1,300 farmworkers in Iowa and this year the Project is well on its way to serving over 1,500 farmworkers. The National Farmworker Jobs Program was able to provide support for Workplace and Pesticide Safety training for over 100 migrant farmworkers utilizing the EPA curriculum and issuing certification cards.

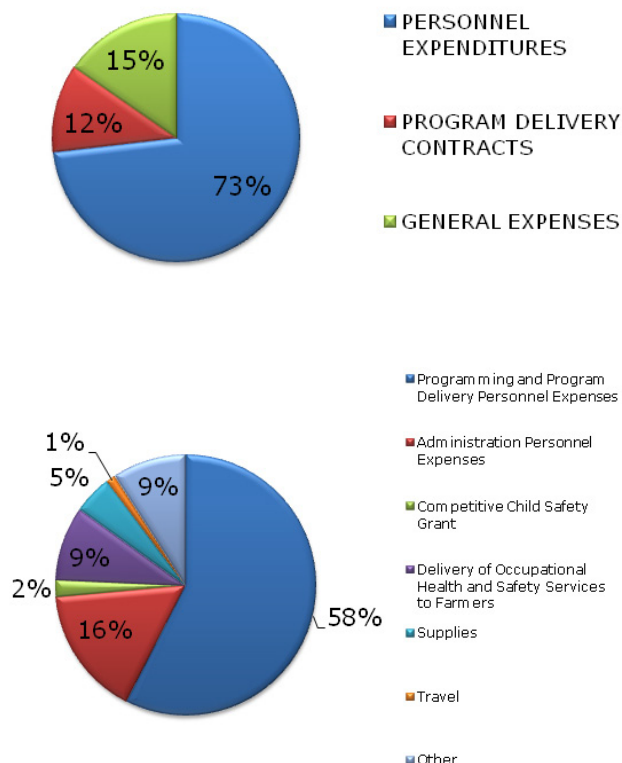
www.proteusinc.net

Financial Report

The I-CASH budget consists of FY 2007 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 expenses.

PERSONNEL EXPENDITURES		
	Budget Dollars	Actual Dollars
Programming and Program Delivery	136,706	133,601
Administration	43,351	38,503
Total Personnel Expenditures	180,057	172,104
PROGRAM DELIVERY CONTRACTS		
Child Safety Grant	5,000	5,000
Delivery of Occupational Health and Safety Services to Farmers	11,000	22,000
Total Program Delivery Contracts	16,000	27,000
GENERAL EXPENSES		
Supplies	3,500	11,525
Travel	5,500	2,673
Other: Includes computer system support, required semi-annual meetings, outreach materials, annual report, telephone and newsletters	27,183	21,942
Carry-over from FY 2005-2006	3,004	
Total General Expenses	39,187	36,140
TOTAL BUDGET	235,244	235,244

Actual FY 2007 Expenditures



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

	Annual Total Amounts	Project Term
Certified Safe Farm: Evaluating Health Insurance Claims (US Dept. of Health and Human Services, CDC, Pioneer, Monsanto, Iowa Farm Bureau Federation)	\$ 250,087.00	9/01/2003 to 8/31/2008
Comprehensive Assessment of Rural Health in Iowa (CDC, IDPH)	\$ 124,297.00	10/1/2002 to 8/31/2007
ERC Ag (Heartland Center for Occupational Health and Safety)	\$ 65,176.00	7/01/2002 to 6/30/2008
GPCA H Building Capacity	\$ 150,000.00	9/30/2006 to 9/29/2007
GPCA H CSF Dairy	\$ 44,500.27	9/30/2001 to 9/29/2006
GPCA H CSF Elder Farmer Supplement	\$ 125,500.00	9/30/2001 to 3/31/2007
GPCA H Evaluation of Organic Dust Aerosols	\$ 165,675.00	9/30/2001 to 9/29/2007
Tractor Safety Initiative (US Dept. of Health and Human Services, CDC)	\$ 24,433.00	1/01/2006 to 8/31/2006
Total	\$ 949,668.27	

I-CASH Presentations/ Educational Activities/ Newspaper Publications

July 2006

"Aggressive dogs can be liability." LaMar Grafft. The Gazette. July 9, 2007.

"Safety as criteria for animal housing floor surface design." Risto Rautiainen. Presentation at the 6th World Congress of the International Ergonomics Association. July 10-14; Maastricht, the Netherlands.

"Agricultural trauma." LaMar Grafft. Presentation at the University of Iowa Carver College of Medicine. July 17; Iowa City, IA.

"Agricultural trauma." LaMar Grafft. Presentation to the Lisbon/ Mt. Vernon Ambulance Service. July 20; Lisbon, IA.

"Create kid-safe play areas." LaMar Grafft. Iowa Farmer Today. July 22, 2006.

Farm safety display. LaMar Grafft. Exhibit at the Johnson County Fair. July 25; Iowa City, IA.

"Dangers on the farm." LaMar Grafft. Presentation to the Monticello Rotary Club. July 31; Monticello, IA.

August 2006

I-CASH Hall of Fame ceremony. Kelley Donham and Eileen Fisher. Award presentation at the Iowa State Fair. August 11; Des Moines, IA.

"Watching out for eye injuries." LaMar Grafft. The Gazette, August 13, 2006.

Farm safety display. LaMar Grafft. Exhibit at the Iowa State Fair. August 17-18; Des Moines, IA.

"Fully lit, marked farm equipment key to safety." LaMar Grafft. Iowa Farmer Today. August 19, 2006.

"Agricultural trauma." LaMar Grafft. Presentation at the University of Iowa Carver College of Medicine. August 21; Iowa City, IA.

"Impact of changes in operational environment of agriculture to the working environment," "Trends in agriculture: Implications for agricultural safety and health professionals," and "Cost of compensated injuries and occupational diseases in agriculture in Finland." Risto Rautiainen. Presentations at the Nordic Meeting on Agricultural Occupational Health. August 21-23; Kuopio, Finland.

"Agricultural rescue." LaMar Grafft. Presentation to the Sigourney Fire Department. August 27; Sigourney, IA.

Farm safety display. I-CASH staff. Exhibit at the Farm Progress Show. August 29-31; Amana, IA.

"Farmer killed when raised front-end loader bucket attachment falls." Iowa Fatality Assessment and Control Evaluation Program case study. August 31; Iowa City, IA.

September 2006

"Farm Families Alive & Well Newsletter." I-CASH and GPCAH staff. Vol 12(4). September 2006.

"September 2006 GPCAH Farm and Agricultural Injury Monitoring System press clips report." Murray Madsen. Iowa City, IA.

"Safety features included on farm show equipment." LaMar Grafft. The Gazette, September 10, 2006.

"Agricultural health and safety at the University of Iowa: A brief history." Kelley Donham. Presentation at the Occupational and Environmental Health Seminar. September 12; Iowa City, IA.

"Farm progress." LaMar Grafft. Iowa Farmer Today, September 16, 2006.

October 2006

"Certified Safe Farm," "Agricultural health certificate program," and "Dust control in swine buildings." Kelley Donham. Presentations to the Worker Safety Round Table of the National Pork Board. October 4; Memphis, TN.

"Avian Influenza – The next pandemic." Kelley Donham. Presentation at the North American Agromedicine Consortium. October 15-17; Tuscaloosa, AL.

"Organic dust triggers breathing problems." LaMar Grafft. The Gazette, October 15, 2006.

"Respiratory protection helps in dusty places." LaMar Grafft. Iowa Farmer Today, October 18, 2006.

"Medical responses to acute agricultural injuries." Kelley Donham. Presentation at the University of Iowa Emerging Medicine Conference. October 27; Iowa City, IA.

November 2006

"November 2006 GPCAH Farm and Agricultural Injury Monitoring System press clips report." Murray Madsen. Iowa City, IA.

"Get serious about kids on the farm." LaMar Grafft. The Gazette, November 12, 2006.

"Agricultural trauma." LaMar Grafft. Presentation at the University of Iowa Carver College of Medicine. November 13; Iowa City, IA.

"Building capacity for agricultural health and safety training." Kelley Donham. Presentation at the Midwest Rural Agricultural Safety and Health Forum. November 16; Coralville, IA.

"Moving ideas to action." I-CASH staff. Midwest Rural Agricultural Safety and Health Forum. November 16; Coralville, IA.

“Get serious about child safety.” LaMar Grafft. Iowa Farmer Today, November 18, 2006.

December 2006

“Farm Families Alive & Well Newsletter.” I-CASH and GPCAH staff. Vol 13(1). December 2006.

“Child safety.” LaMar Grafft. Presentation at the Iowa Farm Safety Council Annual Meeting. December 1; Des Moines, IA.

Certified Safe Farm and I-CASH display. Aaron Kline. Exhibit at the Iowa Farm Bureau Annual Convention and Trade Show. December 8-9; Des Moines, IA.

“Heat your home safely.” LaMar Grafft. The Gazette, December 10, 2006.

“Time to prepare New Year’s resolutions.” LaMar Grafft. Iowa Farmer Today, December 16, 2006.

January 2007

“January 2007 GPCAH Farm and Agricultural Injury Monitoring System press clips report.” Murray Madsen. Iowa City, IA.

“Do as I say...” LaMar Grafft. The Gazette, January 14, 2007.

“Cancer in farm populations.” Kelley Donham. Visiting Professor at Sioux Center Hospital. January 18; Sioux City, IA.

“Rural environmental health.” Kelley Donham. Presentation at Cornell College. January 19; Mount Vernon, IA.

“Think before entering confined spaces.” LaMar Grafft. Iowa Farmer Today, January 20, 2007.

I-CASH display. LaMar Grafft. Exhibit at the Iowa Pork Congress. January 24-25; Des Moines, IA.

I-CASH display. LaMar Grafft. Exhibit at the Overall Women Conference. January 26-27; Coralville, IA.

I-CASH display. LaMar Grafft. Exhibit at the Iowa Power Farming Show. January 30-February 1; Des Moines, IA.

February 2007

“February 2007 GPCAH Farm and Agricultural Injury Monitoring System press clips report.” Murray Madsen. Iowa City, IA.

“Special risk populations in agriculture.” Kelley Donham. Presentation at Iowa Lutheran Hospital. February 7; Des Moines, IA.

“Be careful operating on ice.” LaMar Grafft. Iowa Farmer Today, February 17, 2007.

“Be careful on the icy spots around farm.” LaMar Grafft. The Gazette, February 18, 2007.

March 2007

“Farm Families Alive & Well Newsletter.” I-CASH and GPCAH staff. Vol 13(2). March 2007.

“Protecting the health of pork producers.” Kelley Donham. Iowa Pork Producer Headlines, a publication of the Iowa Pork Producers Association. Vol. 6 No 2.

“Agricultural safety & health.” LaMar Grafft. Presentation at Mississippi State University. March 1; Greenville, MS.

“Farmer fatally injured in tractor posthole auger entanglement.” Iowa Fatality Assessment and Control Evaluation Program case study. March 7; Iowa City, IA.

“Farmer pitched from cart that tipped while being unloaded by grain vacuum.” Iowa Fatality Assessment and Control Evaluation Program case study. March 7; Iowa City, IA.

“Accidents in news show child safety’s importance.” LaMar Grafft. The Gazette, March 11, 2007.

“Child safety—it takes focus.” LaMar Grafft. Iowa Farmer Today, March 17, 2007.

“An overview of community health concerns relative to concentrated animal feeding operations.” Kelley Donham. Presentation at the Society of Toxicology Annual Meeting. March 27; Charlotte, NC.

I-CASH display. I-CASH staff. Exhibit at the Occupational Health Symposium. March 29; Iowa City, IA.

April 2007

I-CASH display. Eileen Fisher. Exhibit at the Iowa Public Health Conference. April 3-4; Ames, IA.

“Trip gives another view of farm safety.” LaMar Grafft. The Gazette, April 8, 2007.

“Help farmers stay alive and well.” LaMar Grafft. Iowa Farmer Today, April 21, 2007.

“Farm safety for children.” LaMar Grafft. Presentation at Benton County Ag Day. April 26; Vinton, IA.

May 2007

“Rural occupational and environmental health: A primer of agricultural medicine.” Kelley Donham. Presentation at Carle Clinic. May 3; Urbana, IL.

“Farm safety for children.” LaMar Grafft. Presentation to Johnson Elementary School. May 9; Cedar Rapids, IA.

“New automated system high-tech, yes, but safe?” LaMar Grafft. The Gazette, May 13, 2007.

“High tech, yes, but is it safe?” LaMar Grafft. Iowa Farmer Today, May 19, 2007.

June 2007

“June 2007 GPCAH Farm and Agricultural Injury Monitoring System press clips report.” Murray Madsen. Iowa City, IA.

“Agricultural occupational health training.” Kelley Donham and LaMar Grafft. Continuing Education Course. June 11-15; Iowa City, IA.

“Appropriate care needed to heal back pain.” LaMar Grafft. *The Gazette*, June 17, 2007.

“Finding common ground.” I-CASH staff. Presentation at the I-CASH Producers Dinner. June 19; Iowa City, IA.

Farm safety display. LaMar Grafft. Exhibit at the Farm Progress Hay Expo. June 20-21; Westgate, IA.

“Farmer run over by tractor and rotary cutter.” Iowa Fatality Assessment and Control Evaluation Program case study. June 22; Iowa City, IA.

“Trying to ‘tough out’ back pain a bad idea.” LaMar Grafft. *Iowa Farmer Today*, June 23, 2007.

“Development and evaluation of weekly radio messages.” Charles V Schwab, Doug Cooper, and Linda Naeve. Technical paper presented at the 2007 National Institute for Farm Safety Conference. June 24-28; Penticton, BC, Canada.

“Evaluation of occupational carrying tasks for farm youth.” Jason C Gillette, Timothy R Derrick, Charles V Schwab, SA Freeman, Catherine A Stevermer, and Stacey A Meardon. Technical paper presented at the 2007 National Institute for Farm Safety Conference. June 24-28; Penticton, BC, Canada.

“Hearing loss as a risk factor for agricultural injuries.” SW Choi, C Peek-Asa, NL Sprince, RH Rautiainen, KJ Donham, GA Flamme, PS Whitten, and C Zwerling. Presentation at the 2007 National Institute for Farm Safety Conference. June 24-28; Penticton, BC, Canada.

“NIFS President’s Address.” Murray Madsen. Presentation at the 2007 National Institute for Farm Safety Conference. June 24-28; Penticton, BC, Canada.

“Qualitative evaluation of the Iowa Certified Safe Farm Program.” Aaron Kline, Sara Schneiders, Murray Madsen, Kelley Donham, and Kristi Fisher. Poster Abstract presented at the 2007 National Institute for Farm Safety Conference. June 24-28; Penticton, BC, Canada.

“Quantifying farm stressors.” SA Freeman, CV Schwab, and Q Jiang. Technical paper presented at the 2007 National Institute for Farm Safety Conference. June 24-28; Penticton, BC, Canada.

“Respiratory health risks of swine producers: Benefits of the Certified Safe Farm (CSF).” Kelley Donham, Jeff Lang, and Risto Rautiainen. Technical paper presented at the 2007 National Institute for Farm Safety Conference. June 24-28; Penticton, BC, Canada.

“Risk factors for serious injury in agriculture.” Risto Rautiainen, Johannes LeDolter, Robert Ohsfeld, Kelley Donham, and Craig Zwerling. Technical paper presented at the 2007 National Institute for Farm Safety Conference. June 24-28; Penticton, BC, Canada.

“Where are machinery dealers as facilitators of ROPS installation: A survey as part of the NIOSH National Tractor Initiative.” Kelley Donham, Wayne Sanderson, and Mark Purschwitz. Presentation at the 2007 National Institute for Farm Safety Conference. June 24-28; Penticton, BC, Canada.

I-CASH Publications

Culp K, R Kuye, K Donham, R Rautiainen, M Umbarger-Mackey, and S Marquez. 2007. Agricultural-related injury and illness in The Gambia. *Clinical Nursing Research* 16(3):170-188.

Donham K, R Rautiainen, J Lange, and S Schneiders. 2007. Injuries and illness costs in the Certified Safe Farm study. *The Journal of Rural Health* 23(4):348-355.

Donham KJ, JA Lee, K Thu, and S Reynolds. 2006. Assessment of air quality at neighbor residences in the vicinity of swine production facilities. *J Agromedicine* 11(3/4):15-24.

Donham KJ, S Wing, D Osterberg, JL Flora, C Hodne, KM Thu, and PS Thorne. 2007. Community health and socioeconomic issues surrounding concentrated animal feeding operations. *Environ Health Perspect* 115(2):317-20.

Freeman SA, CV Schwab, and JLP Judge. 2006. An investigation of three physical parameters of PTO entanglements. *ASAE Journal Agricultural Safety and Health* 13(3):191-197.

Keren N, SA Freeman, and CV Schwab. 2006. Does SH&E education in high education institutes lead to a change in cognitive patterns among graduates? *Journal of SH&E Research* 3(2).

Kline A, K Leedom-Larson, K Donham, S Schneiders, and R Rautiainen. Farmer assessment of the Iowa Certified Safe Farm Program. *J Agromedicine*. (In press)

Kuye RA, KJ Donham, SP Marquez, WT Sanderson, LJ Fuortes, RH Rautiainen, ML Jones, and KR Culp. Pesticide handling and exposure among cotton farmers in the Gambia. *J Agromed*. (In press)

Madsen MD. 2007. (Editorial) Impact agricultural safety and health: Know producers, know agriculture, and engage in a professional community of practice. *J Agricultural Safety and Health* 13(2):115-116.

Mazumdar S, G Rushton, B Smith, D Zimmerman, and K Donham. Geocoding accuracy and the recovery of relationships between environmental exposures and health. *International Journal of Health Geographics*. (Accepted for publication)

Nonnenmann MW, D Anton, F Gerr, L Merlino, and K Donham. Musculoskeletal symptoms of the neck and upper extremities among Iowa dairy farmers. *American Journal of Industrial Medicine*. (In press)

Rautiainen R, M Lehtola, L Day, S Salminen, E Schonstein, and J Suutarinen. 2007. Interventions for preventing injuries in the agriculture industry. The Cochrane Collaboration. Occupational Health Field. Systematic review protocol. *The Cochrane Library* Issue 1.

Tiesman H, C Zwerling, C Peek-Asa, N Sprince, and JE Cavanaugh. 2007. Non-fatal injuries among urban and rural residents: The National Health Interview Survey, 1997-2001. *Inj Prev* 13(2):115-9.



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