

I-CASH

2006 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

Answer: Rural Roadway Safety

Question: What is one of the top safety concerns of Iowa farmers?



Please look again at the picture on the cover of this report. What do you see? A beautiful farm scene, peaceful and safe? Envision a tractor pulling a grain wagon down the road approaching the T intersection. Imagine a pickup truck approaching the T intersection from the right of the tractor at a high rate of speed. The pickup driver can't see the approaching tractor because the tall corn blocks his vision at the intersection. He slows a little and cruises through the intersection, just in time to see the tractor and grain wagon pull in front of him.

Rural roadways are hazardous and roadway safety is one of the most important issues on the minds of our farm and rural residents. Roadway safety was also

raised as a major concern by the I-CASH Producer's Committee, because so many have either experienced a collision or close call, or know someone who has. Production agricultural workers and others driving on rural roads are at risk of collision between farm equipment and motor vehicles. The risk increases as harvesting, planting, and tillage machines are becoming larger and traveling more frequently on rural roads as farming operations become larger and more spread out.

In January 2003, the I-CASH Producers Committee made the following recommendations:

- •Changes should be made in the Driver's Education Manual and exam to include safety issues related to operation of farm machinery on public roads.
- •Changes should be made in the Driver's Education Curriculum to include safety issues related to operation of farm machinery on public roads.
- •Educational training for driving instructors should be augmented in safety issues related to operation of farm machinery on public roads.
- •Farm machinery operated on public roads should have proper lighting and marking that meets ASAE standards (promotions, incentives, or regulations).
- •Farmers should receive reimbursement for set-back of crops at corners to increase visibility at rural intersections.
- Awareness programs should be implemented to alert the public during high farm traffic usage of public roads.

I-CASH has initiated work on these recommendations and began having conversations with representatives of the Iowa Department of Transportation, Iowa Driver Services, Iowa Driver Instructor Training, and the Iowa Highway Patrol. Subsequently, the Driver's Education Manual and exam have been changed to include material on rural roadway safety. This is just one example of how I-CASH committees initiate, develop, and promote agricultural safety and health activities to help keep farmers alive and well.

I-CASH is starting a series of position papers on critical health and safety issues in production agriculture, the first is on rural roadway safety. We hope the public and private sector will use these papers as reference materials to facilitate education and policy decisions on these important issues.

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.

2006 I-CASH Annual Report

Kay Mohling, Editor

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

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www.public-health.uiowa.edu/icash

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).

lowa Department of Agriculture and Land Stewardship

Pesticide Applicator Certification

The Iowa Department of Agriculture and Land Stewardship (IDALS) in cooperation with Iowa State University (ISU) Extension and the US Environmental Protection Agency (EPA) conduct the pesticide applicator certification program. Private pesticide applicators are certified to apply Restricted Use Pesticides and commercial pesticide applicators are certified to apply General and Restricted Use Pesticides.

- •As of June 30, 2006, Iowa had 11,788 certified commercial applicators, 422 certified commercial handlers, and 25,525 certified private applicators.
- ◆Certification testing will be held at approximately 1,875 sites in fiscal year 2007.
- *Approximately 180 private and 255 commercial continuing instruction certification training sessions are expected to be offered by ISU Extension in fiscal year 2007.

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. This year the Pesticide Bureau provided the Iowa Department of Public Health (IDPH) with the English/Spanish brochure, *Iowa Pesticides - Tips & Complaints*, which was distributed at migrant camps throughout Iowa. With matching funds from EPA and IDALS, ISU Extension completed three WPS outreach projects:

- *Data collected during the 2004-2005 Private Pesticide Applicator training was analyzed and used to produce a summary report. Information gathered on WPS knowledge, pesticide use, and personal protective equipment use will help direct future outreach and training efforts.
- ◆The new EPA manual, *How to Comply,* became available in November 2005. This manual, along with the pesticide handlers training manuals and the workers training manual (both in English and Spanish) were combined on the CD *Tools for WPS Compliance.* This CD is available through the ISU Extension Distribution Center and also on the ISU web site, with links to the IDALS/Pesticide Bureau web page.
- •ISU Extension and the Pesticide Bureau provided an overview of the WPS to 160 K-12 teachers, and distributed safety materials at the annual conference of the Iowa Association of Agricultural Educators in June 2006.

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

Iowa Department of Public Health

Redesigning Public Health in Iowa

What should every Iowan expect from local and state level public health? That is the primary question to be answered by a collaborative effort of local and state level public health partners to "redesign" our public health system in this state. The effort is appropriately titled, Redesigning Public Health in Iowa.

For the past two years, local and state public health partners worked together to develop public health standards and criteria for local boards of health and local health departments in Iowa. The standards and criteria define basic organizational capacity and public health services for the state. Version One of the Local Public Health Standards was released in

September 2006 and incorporates many suggestions received during a public comment period and series of regional meetings.

A second phase in the redesign process is the development of standards and criteria for state level public health. These standards will define the role of the state in supporting local public health. A draft version of the state standards is projected to be available in April 2007 with a public comment period to follow.

Nationally, there is movement towards accreditation of state and local health departments. It is anticipated that at some point in the future, receipt of federal funds may be dependent upon accreditation status. The work of the redesign in developing local and state public health standards will soundly position Iowa to comply with any future national accreditation models.

www.idph.state.ia.us

lowa 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.
- •ISU Extension organized articles on farm safety issues by involved partners (AgriWellness Inc., Blank Children's Hospital, Farm Safety 4 Just Kids, Iowa Department of Public Safety, Iowa Farm Safety Council, Iowa Safe Kids Coalition, ISU, Iowa AgrAbility, MidWest Plan Service, National Education Center for Agricultural Safety, and Sharing Help Awareness United Network) and distributed them to Iowa's newspapers during the National Farm Safety and Health Week September 18-24, 2005.
- •ISU Extension staff in two counties offered tractor safety training courses to 34 youth (14 and 15 year-olds) during 2006.

- •A total of 12 safety day camps, conducted by extension staff, were held throughout the state reaching 1,573 youth.
- •Agricultural safety meetings that reached 439 participants were conducted in 10 counties by extension staff.

www.abe.iastate.edu/safety

Iowa Concern Hotline

Iowa Concern is a part of Iowa State University and offers information and referral, stress counseling, and legal education. The Iowa Concern Hotline received 12,538 calls from July 2005-June 2006; approximately 25% of the calls were from farm and rural families.

Farm and rural issues this year varied. Some callers indicated that they were struggling with too much debt, and credit card debt was a concern for others. The price of fuel and energy also entered into the equation this year. Weather and crop conditions were generally good until June, when some dry weather concerns were reported.

The largest concern this year with farm and rural callers was divorce. Other legal concerns common on the hotline included contracts, leases, and fence laws. Health insurance costs were another issue with rural families.

Iowa Concern continues to offer funding for behavioral health counseling. The *Sowing the Seeds of Hope* grant has provided money for "farm" families to receive behavioral health counseling. Iowa Concern has the list of providers and issues vouchers for individuals to receive up to five free counseling sessions. Approximately 32 families have used 82 vouchers this past year.

Iowa Concern continues to receive approximately 4,600 hits per month on their web site. The site has "Frequently Asked Questions," links to other organizations and agencies, success stories from individuals who have accessed mental health facilities, and a "Live 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 program for health care professionals who treat and help prevent occupational illnesses and injuries on the farm was held May 30 - June 3. Thirty health care professionals from Iowa, Alabama, Florida, Kansas, Mississippi, Missouri, North Dakota, Ohio, Wisconsin, and Australia were trained in a variety of agricultural safety and health topics. The instructors delivered practical, timely information, and their expertise was highly praised by the participants. In addition to the oncampus course, Session 1 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 Program is required for a health care professional or clinic to become an AgriSafe provider affiliated with the AgriSafe Network, Inc. Founded by I-CASH in 1990, the AgriSafe Network is now a nonprofit 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, an agricultural health and safety research study consisting of occupational

health screenings, on-farm safety evaluations, and personalized education, is currently being implemented in over 25 Iowa counties. CSF is being tested in a variety of formats:

◆The *Dairy Study* conducted on 24 dairy farms in Northeast Iowa was completed this year.

- ◆The second year of the *CSF*: *Elderly Farmer Study* began this year with a focus on improving working conditions for older farmers so as to reduce their risk of farm-related illnesses and injuries.
- ◆The fourth year of the *CSF*: Evaluating Health Insurance Claims Study commenced this year 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.
- ◆The CSF: Evaluating Health Insurance Claims Study has found a 47% savings in insurance costs for occupational illnesses and injuries for intervention farmers. 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 collaborative project of the Iowa Department of Public Health, 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 has the potential to evaluate relationships between a broad array of environmental exposures and health outcomes.

Existing environmental data has been gathered, geocoded, and entered into a GIS system. Exposure estimates for a number of contaminants have been made for each residential address in the pilot county and the data sent to the Iowa Department of Public Health (IDPH). IDPH will now combine the contaminant data with health surveillance data and look for relationships between potential exposure and health.



Hall Of Fame Award

I-CASH named Janis F. Stone, PhD, the 2005 recipient of its Agricultural Safety and Health Hall of Fame Award. I-CASH created the Hall of Fame Award as a lifetime achievement award for individuals or organizations that have made significant and lasting contributions to agricultural safety and health in Iowa. Stone retired in September 2003 as a professor at Iowa State University (ISU) and a textiles and clothing specialist with ISU Extension. She spent most of her career working with safety issues, and her research focused on protective clothing for pesticide applicators and sun exposure.

Stone's safety-related work goes beyond research, integrating her research efforts into outreach programming. During the national Farm Progress Shows she created, organized and staffed effective farm safety education demonstrations. These included a sun cancer screening display that examined farmers for skin cancer; a sun hat survey display evaluating farmers' options about protective sun apparel; and a chemical glove display that provided information for chemical applicators.

Stone's work has changed the way Iowans and others think and act in relation to sun safety and pesticide practices. Her publications and presentations on applied research have been shared nationally and internationally.

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



Janis Stone, (left) recipient of the 2005 Hall of Fame Award, with Kelley Donham and Marilyn Adams.

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:

- ◆ ATV Safety for Youth AgriSafe Rural Neighbors Butler & Grundy Counties
- •ATV/ Snowmobile Safety and Slow Moving Vehicle Awareness - Town & Country Farm Safety 4 Just Kids
- ◆ Safety Awareness and Farm Education Training for Youth Guthrie County Extension
- ◆ Farm Safety Day Camp Jefferson County Extension
- ◆ Tractor Safety Certification Course Kossuth FFA Farm Safety Chapter
- ◆ Tractor Safety Certification Course Marion County Extension
- ◆Ag. Awareness Farm Safety Display Ventura FFA

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 14th year of the study. The first five years (Phase I) were devoted to enrolling eligible subjects; a total of 89,658 subjects were enrolled, including 58,564 in Iowa. Phase II began in 1998 and involved recontacting each cohort member to update exposure information (completed with 60,138), obtain dietary health questionnaire data (completed with 35,164), and obtain buccal cells (completed with 35,164). Phase III, which

updates pesticide exposure histories and self-reported diseases, is ongoing and, as of August 2006, has been completed by 7,593 individuals.

The study has resulted in over 70 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, wheeze, and fertility. Abstracts and/or pdf versions of these publications can be found at the Agricultural Health Study website.

www.aghealth.org

The Center for International Rural and Environmental Health

The Center for International Rural and Environmental Health's (CIREH) *International Training and Research in Environmental and Occupational Health Program*, funded by NIH Fogarty International Center celebrated its 10th anniversary this year. In ten years more than 60 young professionals have come to Iowa as Fogarty trainees. These trainees have conducted 45 in-country workshops after returning home, and have received funding from various sources for more than 25 collaborative research projects.

Two new Fogarty funded programs began in 2006:

- ◆The training program for trauma and injury prevention research welcomed trainees from Croatia, Serbia, Macedonia and Romania. Research interests for this group include childhood injuries, domestic violence, traffic and bicycle safety, and the establishment of national injury registries in these countries. Several trainees are in the process of planning workshops for 2007.
- •Minority International Research Training, provides minority students from Iowa an opportunity to spend 8-10 weeks at a foreign research institution. During the first year, students went to Slovakia, Poland, The Gambia, and Cameroon. This program benefits from the institutional connections that have been developed in CIREH's other training programs. The students were able to work with mentors in a laboratory setting, and also had the chance

to participate in field trips, such as visits to Roma camps in Slovakia and rural clinics in The Gambia.

www.public-health.uiowa.edu/Cireh

Environmental Health Sciences Research Center



The Environmental Health Sciences Research Center (EHSRC) is one of 22 NIEHSfunded 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 48 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 January 2006, Center investigators joined other Regents institutions in presenting to the Iowa General Assembly science-based information on the energy balance, performance, tax incentives and mandates, health effects, and sustainability of ethanol, biodiesel and other bio-based alternative fuels. In June 2006, the Center's Community Outreach and Education Program hosted the 9th Annual Environmental Health Sciences Institute for Rural Youth (EHSI).

www.ehsrc.org

Great Plains Center for Agricultural Health



The Great Plains Center for Agricultural
Health (GPCAH) has served as a national
leader in addressing agricultural
health and safety issues for over
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15 years and it was recently

refunded until 2011. The Center has focused on hazards facing Midwestern farm families, including women and children. The GPCAH is currently conducting three multi-disciplinary projects.

- The Keokuk County Rural Health Study (KCRHS) is a population-based cohort study of a rural county that evaluates the association between agricultural hazards and diseases and injuries. The study's focus has been respiratory diseases (including child asthma), injuries, noise-induced hearing loss, and psychosocial problems (depression and suicide).
- ◆The Center also developed a project titled Determinants of Gas and Dust Exposures Among Swine Workers. This project will identify factors associated with the greatest inhalation hazards in swine confinement buildings and reduce worker exposure to high dust concentrations.
- The third project is Building Capacity of Health and Safety Professionals. This project will impact farmers in a 10-state region by developing the rural health care and safety infrastructure of professionals who care for or teach them. Another project goal is to address the critical shortage of agricultural occupational health and safety researchers and program leaders in the nation. The project develops a model core curriculum and competencies for agricultural health and safety training, and introduces health professions students to the field of agricultural safety and health.

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:

- •evaluating emergency medical services within Iowa;
- •comparing the effectiveness of various types of smoke detectors in rural homes;
- •examining risk-taking behavior of children using a bicycle simulator;
- •studying the driving abilities of persons with sleep apnea syndrome;
- •studying the effects of phenytoin, a drug commonly prescribed for epilepsy, on cognitive ability and driving; and
- •measuring domestic violence longitudinally and identifying the role of physical violence in relationship dissolution.

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 2005, ninety-five Iowans were killed while at work. 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 represents health professionals who provide agricultural occupational health and safety services to farmers and their families. Each member AgriSafe clinic is operated at the

local level by a clinician and supported by medical entities such as hospitals, public health organizations, and rural medical centers. Over 295 farmers have received Certified Safe Farm services through the network of AgriSafe clinics and over 525 farmers have received screening services, focusing on respiratory health, blood pressure and skin cancer detection. AgriSafe Network activities in the past year include:

- •A health and safety radio campaign reached 43,000 Iowans with messages on harvest safety.
- •A farm-specific personal protective equipment toolkit was developed.
- AgriSafe partnered for three professional education sessions via Elluminate, focusing on rural mental health issues and disability services.
- ◆New AgriSafe clinic development was encouraged in seven states, plus new sites in Iowa.
- AgriSafe staff presented at nine professional conferences throughout the country.

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 2005, partnering organizations in the seven states provided behavioral health education, training, or information to over 2,500 individuals. State hotlines responded to 14,216 calls and distributed 1,972 vouchers for professional behavioral health services to farmers, ranchers, farm workers and their families. Other AgriWellness, Inc. activities include:

- ◆Managed Responding to Iowa Tornadoes, a crisis counseling program in early November 2005.
- •Managed Responding to Katrina, the ongoing crisis counseling program to respond to the needs of persons relocated to Iowa following Hurricane Katrina.
- ◆Provided training to 353 Iowans on how to respond to behavioral health events that accompany disasters, and coordinated revisions to the Iowa Disaster Behavioral Health Plan.
- ◆Convened the second biannual, The Clock is Ticking for Rural America: A Behavioral Health and Safety Conference in Bloomington, MN.

www.agriwellness.org

Easter Seals Rural Solutions



The Easter Seals Rural Solutions Program was developed in 1986 to address the technological and psychological needs of farm families affected by a disability. Easter Seals offers

on-site rehabilitation services and assists farm family members to remain in farming after a disability. Services offered include consultation on adaptive equipment and home modifications, secondary injury prevention education, equipment loan, and peer support.

This year, Ryan Odens of Little Rock, Iowa was named the 2006 National Easter Seals Adult Representative. Five years ago Ryan was involved in a disabling rollover in his pickup truck. He suffered vertebrae fractures in his neck and back that initially left him paralyzed and unresponsive from his chest down. He was determined to walk and continue farming with his grandfather and brother. With support from his family, community, and Easter Seals' Rural Solutions Program, Ryan was back farming less than a year after the incident. In addition to farming, Ryan is an insurance agent, and with his brother sells seed and runs a small trucking business.

www.eastersealsia.org



Ryan Odens, (center) Iowa farmer and Easter Seals 2006 National Representative, operating a lift on the combine.

Farm Safety 4 Just Kids



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 a million children, youth and farm families each year. The following activities were provided by FS4JK:

- ◆The all-terrain vehicle (ATV) educational packet, *Ride Smart!* was completed and distributed in 2006. The packet teaches children the importance of ATV safety and training, and stresses the significance of wearing protective equipment, riding a properly sized ATV and not allowing passengers. Funding was provided by the seed companies of Syngenta.
- ◆Funding from Deere & Company made it possible to update the *Watch-It and Friends Puppet Shows* with a new packet design, puppet patterns and CD.
- •FS4JK's magnetic farm safety board was customized to include images of an Anabaptist community, their equipment, and animals. Funding was provided by the National Children's Center for Rural and Agricultural Health and Safety.
- •Through funding from Cargill, the *PAWS* packet was updated to include new demonstrations, games, and activity sheets on animal safety. New safety brochures with educational ideas and a colorful animal safety poster were also included.

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, the Iowa State Fair and the Farm Progress Show.

While the number of members in the Iowa Farm Safety Council is relatively small, the people involved have consistently turned out to staff events and continue to bring the safety and health message to farmers and their families.

www.abe.iastate.edu/safety/ifsc.html

National Education Center for Agricultural Safety



The National Education Center for Agricultural Safety (NECAS) announced the renewal of the partnership agreement started 10 years ago with the National Safety Council and Northeast Iowa Community College (NICC). NECAS celebrated this anniversary with an evening showcasing the NECAS facility

and celebrating the contributions of its staff and partners.

- •In 2005, NECAS worked with the National Institute for Occupational Safety and Health (NIOSH) to perform a user preference study on new AutoROPS (self-deploying rollover protection structure) technology.
- •NECAS completed its five-year Certified Safe Farm Dairy program in eastern Iowa and started the new Certified Safe Farm program with 88 farms in the Wellmark and Senior Farmer Studies.
- ◆The Dubuque Racing Association funded NECAS to purchase a trailer and rescue tools needed for tractor rollover, combine rescue, and grain bin extrication courses taught to EMS/firefighters across the Midwest.
- •A propane bottle filling station was added to the agrichemical training facility in 2005 in response to requests from agribusiness clients.
- •NECAS worked with Successful Farming magazine on a series of articles on farm security. Using an audit form created by NECAS, farmers were encouraged to perform an audit of security issues on their farm.

www.nsc.org/necas



The agrichemical training facility at NECAS.



PROTEUS 🚔

Proteus, Inc. is a not-for-profit organization that has operated the BPHC-funded Migrant Health Project in the state of Iowa since 1990. 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.

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. 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.

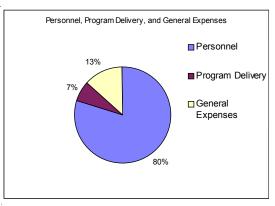
This past calendar year, the Proteus Migrant Health Project served 1,481 farmworkers throughout the state of Iowa. The project has been granted expansion funding that will allow services for an additional 150 farmworkers in 2007. In addition, the National Farmworker Jobs Program was able to provide support for Workplace and Pesticide Safety training for over 100 migrant farmworkers, utilizing the EPA curriculum and issuing certification cards.

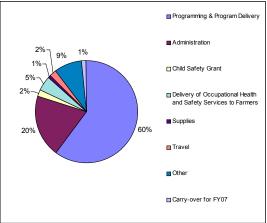
www.proteusinc.net

Financial Report

The I-CASH budget consists of FY 2006 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 EX	PENDITUR	ES				
	Total I-CASH Effort	Budget Dollars	Actual Dollars			
Programming and Program Delivery	75%	133,978	135,359			
Administration	25%	44,659	44,631			
Total		178,637	179,990			
PROGRAM DELIVERY CONTRACTS						
Child Safety Grant	5,000	5,000				
Delivery of Occupational Health and Safety Services to Farmers		11,000	11,000			
Total	16,000	16,000				
GENERAL EXPENSES						
Supplies		1,500	1,806			
Travel	3,500	5,133				
Other: Includes computer system support, required semi-annual meetings, outreach materials, annual report, telephone and newsletters		26,214	19,708			
Carry-over for FY07			3,214			
Total		31,214	29,861			
TOTAL BUDGET		225,851	225,851			





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 8/31/2007
Comprehensive Assessment of Rural Health in Iowa (CDC, IDPH)	\$ 203,000.00	10/1/2002 to 8/31/2007
ERC Ag (Heartland Center for Occupational Health and Safety)	\$ 65,175.00	7/01/2002 to 6/30/2008
GPCAH CSF Dairy	\$ 44,500.27	9/30/2001 to 9/29/2007
GPCAH CSF Elder Farmer Supplement	\$ 125,500.00	9/30/2001 to 9/29/2007
GPCAH Education & Outreach	\$ 100,326.04	9/30/2001 to 9/29/2007
GPCAH Evaluation of Organic Dust Aerosols	\$ 118,858.54	9/30/2001 to 9/29/2007
Total	\$ 907,446.85	

I-CASH Presentations/ Educational Activities/ Newspaper Publications

July 2005

"Birds can spread diseases to humans." LaMar Grafft. The Gazette. July 10.

"Mad Cow and Foot and Mouth Disease in the UK." Kelley Donham. Presentation to the University of Iowa Emeritus Alumni Council. July 11; Iowa City, IA.

"Certified Safe Farm: The basics." Sara Schneiders and Kelley Donham. Presentation to the Labor Ministry and Agricultural Extension Divisions of Ireland. July 13; Shannon, Ireland.

"Preparing an effective presentation." LaMar Grafft. Presentation at the Environmental Health Sciences Institute Camp. July 21; Iowa City, IA.

August 2005

"Of mad cows and Englishmen: Our window to agroterrorism." Kelley Donham. Presentation at the Marshfield National Farms Center. August 3; Marshfield, WI.

"Preventing falls from steep heights." LaMar Grafft. The Gazette. August 14.

"Connecting farmers and researchers...Agricultural safety and health E-conferencing." Murray Madsen and Risto Rautiainen. Display and Elluminate conferences at the Iowa State Fair. August 16; Des Moines, IA.

"Agricultural respiratory diseases: Farmers Lung and a whole lot more." Kelley Donham. Presentation at the University of Iowa Carver College of Medicine. August 18; Iowa City, IA.

Farm safety booth at the Iowa State Fair. LaMar Grafft. August 18-19; Des Moines, IA.

"Agricultural trauma." LaMar Grafft. Presentation at the University of Iowa Carver College of Medicine. August 22; Iowa City, IA.

September 2005

"Noise exposures and control in large scale swine confinement facilities." Kelley Donham. Presentation to the National Pork Board. September 12; Des Moines, IA.

"Keeping farm families alive and well in Iowa." Kelley Donham. Presentation to the Nova Scotia Farm Safety Committee. September 16; Halifax, Nova Scotia, Canada.

"The Certified Safe Farm: A volunteer health and prevention program with incentives." Kelley Donham. Presentation at the Department of Preventive Medicine, Dalhousie University. September 17; Halifax, Nova Scotia, Canada.

"Roadway warnings apply to all drivers." LaMar Grafft. The Gazette. September 18.

October 2005

"Farm safety needed in any language." LaMar Grafft. The Gazette. October 9.

"Farming increasingly dangerous." LaMar Grafft. Iowa Farmer Today. October 15.

"Safer farming through inspection." LaMar Grafft. Presentation at the Monsanto Voluntary Protection Program. October 18; Williamsburg, IA.

"Agricultural trauma." LaMar Grafft. Presentation to Emergency Medical Technicians. October 22; Morley, IA.

"Airborne antibiotic exposures in animal feeding operations." Wayne Sanderson. Presentation at the Midwest Rural Agricultural

Safety and Health Forum. October 27-28; Johnston, IA.

"Certified Safe Farm for the senior farmer." Kelley Donham. Presentation at the Midwest Rural Agricultural Safety and Health Forum. October 27-28; Johnston, IA.

"Cost-effective injury prevention – What can we learn from injury data?" Risto Rautiainen. Presentation at the Midwest Rural Agricultural Safety and Health Forum. October 27-28; Johnston, IA.

"Historical perspectives of I-CASH in the creation of R2P programs." Kelley Donham. Presentation at the Midwest Rural Agricultural Safety and Health Forum. October 27-28; Johnston, IA.

"Tractor overturn concerns in Iowa: Perspectives from the Keokuk County Rural Health Study." Wayne T. Sanderson. Presentation at the Midwest Rural Agricultural Safety and Health Forum. October 27-28; Johnston, IA.

November 2005

"Life on the farm has brighter side." LaMar Grafft. The Gazette. November 13.

"Agricultural trauma." LaMar Grafft. Presentation at the University of Iowa Carver College of Medicine. November 14; Iowa City, IA.

"Theories of intervention in agricultural populations." Kelley Donham. Presentation at the Department of Occupational and Environmental Health, the University of Iowa. November 15; Iowa City, IA.

"Eye injuries can be easy to prevent." LaMar Grafft. Iowa Farmer Today. November 16.

December 2005

"Shovel and be safe." LaMar Grafft. The Gazette. December 11.

"Occupational rural health perspectives in the globalized world: Three vignettes and four megatrends." Kelley Donham. Presentation at the Occupational and Environmental Health Seminar, the University of Iowa. December 13; Iowa City, IA.

"FMD potential terrorist threat." LaMar Grafft. Iowa Farmer Today. December 17.

January 2006

"Don't let safety slip when using tools." LaMar Grafft. The Gazette. January 8.

"The AgriSafe Network: Addressing the health and safety needs of the agricultural population." Kelley Donham. Presentations to Certified Safe Farm focus groups. January 12-13; Ida Grove, IA., Spencer IA., and LeMars, IA.

"Agricultural respiratory diseases: Farmer's Lung and a whole lot more." Kelley Donham. Presentation to the Family Medicine Residency Program, University of Iowa Carver College of Medicine. January 18; Iowa City, IA.

"Rural respiratory diseases." Kelley Donham. Presentation at the Department of Family Medicine, the University of Iowa. January 18; Iowa City, IA.

"Stress, depression on the farm." LaMar Grafft. Iowa Farmer Today. January 18.

"Overview of rural occupational and environmental hazards." Kelley Donham. Presentation to the University of Iowa Physicians Assistant Program. January 31; Iowa City, IA.

February 2006

"The need for agricultural health and safety services." Kelley Donham. Presentation at the Center for Rural Health and Primary Care. February 2; Des Moines, IA.

I-CASH display. Eileen Fisher. Exhibit at the Overall Women's Conference. February 10-11; Cedar Rapids, IA.

"How-to's for safe farm machinery operation." LaMar Grafft. Presentation at the Overall Women's Conference. February 11; Cedar Rapids, IA.

"Don't wait until later to take care of clutter." LaMar Grafft. The Gazette. February 12.

"Safe chemical handling." LaMar Grafft. Iowa Farmer Today. February 18.

"Respiratory diseases in rural and agricultural populations." Kelley Donham. Visiting Professorship at Mercy Medical Center - North Iowa. February 22; Mason City, IA.

"Agricultural trauma." LaMar Grafft. Presentation at the University of Iowa Carver College of Medicine. February 27; Iowa City, IA.

March 2006

"Fires cause biggest losses on farms." LaMar Grafft. The Gazette. March 12.

I-CASH display. Eileen Fisher. Exhibit at the Iowa Public Health Conference. March 28-30; Ames, IA.

"Linking environmental hazards to human health in rural Iowa." Kelley Donham. Presentation at the Iowa Public Health Conference. March 29; Ames, IA.

I-CASH display. Meggan Fisher and Aaron Kline. Exhibit at the Eighth Annual Occupational Health Symposium. March 30-31; Iowa City, IA.

April 2006

"Chemical safety applies to urban cowboys." LaMar Grafft. The Gazette. April 9.

"Agricultural respiratory illness – Rural health and agricultural medicine." Kelley Donham. Presentation at Iowa State University College of Veterinary Medicine. April 10; Ames, IA.

"Drowning concern for youth." LaMar Grafft. Iowa Farmer Today. April 15.

"Farm safety." LaMar Grafft. Presentation at Vinton Ag Days. April 19; Vinton, IA.

May 2006

"Agricultural trauma." LaMar Grafft. Presentation to Emergency Medical Technicians. May 4; Elberon, IA.

"Tractor overturn concerns in Iowa: Perspectives from the Keokuk County Rural Health Study." Wayne Sanderson and Murray Madsen. Paper presented at the American Industrial Hygiene Conference and Exposition. May 13-18; Chicago, IL.

"Mower safety has many components." LaMar Grafft. The Gazette. May 14.

"Kids say the darndest things." LaMar Grafft. Iowa Farmer Today. May 15.

"Agricultural trauma." LaMar Grafft. Presentation at the University of Iowa Carver College of Medicine. May 22; Iowa City, IA.

"Cestodes: Tapeworms of zoonotic significance." Kelley Donham. Presentation at the University of Iowa. May 25; Iowa City, IA.

"Q Fever." Kelley Donham. Presentation at the University of Iowa. May 25; Iowa City, IA.

"Brucellosis." Kelley Donham. Presentation at the University of Iowa. May 26; Iowa City, IA.

"Agricultural occupational health training." Kelley Donham and LaMar Grafft. Continuing Education Course. May 30-June 3; Iowa City, IA.

"Influence of engineering controls on personal protective equipment use." CW Coffman, JF Stone, A Slocum, AJ Landers, CV Schwab, LG Olsen, and S Lee. Poster Abstract presented at the International Fiber Conference, Fiber Society, May 30-June 3; Seoul, Korea.

"Age and condition related differences during carrying tasks in farm youth." SA Meardon, JC Gillette, CA Stevermer, RH Miller, TR Derrick, and CV Schwab. Paper presented at the American College of Sports Medicine Conference. May 31-June 3; Denver, Co.

"Upper extremity torques during carrying tasks in farm children." JC Gillette, CA Stevermer, SA Meardon, TR Derrick, CV Schwab. Paper presented at the American College of Sports Medicine Conference. May 31-June 3; Denver, Co.

June 2006

"Rural driving no time to forget safety." LaMar Grafft. The Gazette. June 11.

"Economic benefits in health care costs for farmers participating in the Certified Safe Farm intervention program." Kelley Donham. Presentation at the International Congress for Occupational Health. June 14-18; Milan, Italy.

"Exposure assessment of cotton farmers to endosulfan insecticide in The Gambia." Rex Kuye and Kelley Donham. Presentation at the International Congress for Occupational Health. June 14-18; Milan, Italy.

"Agricultural rescue." LaMar Grafft. Presentation to the Tama Fire Department. June 15; Tama, IA.

"Sun safety." LaMar Grafft. Iowa Farmer Today. June 17.

"The AgriSafe Network and the Certified Safe Farm: Sustainable interventions for agricultural health," "Education of health professionals in agricultural medicine," and "Rural occupational health in the global economy: 2 perspectives." Kelley Donham. Presentations at the 16th International Congress of Agricultural Medicine and Rural Health. June 18-21; Lodi, Italy.

"Health and safety of farmers in The Gambia." Rex Kuye and Kelley Donham. Presentation at the 16th International Congress of Agricultural Medicine and Rural Health. June 18-21; Lodi, Italy.

Farm safety display. LaMar Grafft. Exhibit at the Farm Progress Hay Expo. June 21-22; Strawberry Point, IA.

"The economic benefits of the Certified Safe Farm Program: Further analysis." Kelley Donham. Presentation at the National Institute for Farm Safety Conference, National Farm Medicine Center. June 25-30; Marshfield, WI.

"Tractor overturn concerns in Iowa: Perspectives from the Keokuk County Rural Health Study." Wayne Sanderson, Murray Madsen, Risto Rautiainen, Kevin Kelley, Craig Taylor, Ann Stromquist, James Merchant. Poster presented at the National Institute for Farm Safety Conference. June 25-30; Sheboygan, WI

"Agricultural respiratory illnesses," "Health risks from veterinary biologicals and zoonotic infections," and "Health status of rural vulnerable populations." Kelley Donham. Presentations at the National Institute for Farm Safety, Inc. 2006 Agricultural Safety and Health Short Course. June 29-30; Sheboygan, WI.

I-CASH Publications

- Choi SW, C Peek-Asa, NL Sprince, RH Rautiainen, KJ Donham, GA Flamme, PS Whitten, and C Zwerling. 2005. Hearing loss as a risk factor for agricultural injuries. *Am J Ind Med* 48(4):293-301.
- Choi SW, C Peek-Asa, NL Sprince, RH Rautiainen, GA Flamme, PS Whitten, and C Zwerling. 2006. Sleep quantity and quality as a predictor of injuries in a rural population. *Am J Emerg Med* 24(2):189-96.
- Choi SW, C Peek-Asa, C Zwerling, NL Sprince, RH Rautiainen, PS Whitten, and GA Flamme. 2005. A comparison of self-reported hearing and pure tone threshold average in the Iowa Farm Family Health and Hazard Survey. *J Agromed* 10(3):31-39.
- Curwin BD, MJ Hein, WT Sanderson, DB Barr, D Heederik, SJ Reynolds, EM Ward, and MC Alavanja. 2005. Urinary and hand wipe pesticide levels among farmers and non farmers in Iowa. *J Expo Ann Environ Epidemiol* 15(6):500-508.
- Curwin BD, MJ Hein, WT Sanderson, MG Nishioka, SJ Reynolds, EM Ward, and MC Alavanja. 2005. Pesticide contamination inside farm and nonfarm homes. *J Occup Environ Hyg* 2(7):357-367.
- Donham KJ, and A Thelin. 2006. Agricultural medicine: Occupational and environmental health for the health professions. Ames, IA: Blackwell Publishing.
- Kuye R, K Donham, S Marquez, W Sanderson, L Fuortes, R Rautiainen, M Jones, and K Culp. 2006. Agricultural health in The Gambia I: Agricultural practices and developments. *Ann Agric Environ Med* 13(1):1-12.
- Kuye R, K Donham, S Marquez, W Sanderson, L Fuortes, R Rautiainen, M Jones, and K Culp. 2006. Agricultural health in The Gambia II: A systematic survey of safety and injuries in production agriculture. *Ann Agric Environ Med* 13(1):119-128.
- Myers KP, CW Olsen, SF Setterquist, AW Capuano, KJ Donham, EL Thacker, JA Merchant, and GC Gray. 2006. Are swine workers in the United States at increased risk of infection with zoonotic influenza virus? *Clin Infect Dis* 42(1):14-20.
- Rautiainen RH, J Ledolter, NL Sprince, KJ Donham, LF Burmeister, R Ohsfeldt, SJ Reynolds, K Phillips, and C Zwerling. 2005. Effects of premium discount on workers' compensation claims in agriculture in Finland. *Am J Ind Med* 48(2):100-109.
- Rautiainen RH, R Ohsfeldt, NL Sprince, KJ Donham, LF Burmeister, SJ Reynolds, P Saarimaki, and C Zwerling. 2005. Cost of compensated injuries and occupational diseases in agriculture in Finland. *J Agromedicine* 10(3):21-29.

- Reynolds SJ, DK Milton, D Heederik, PS Thorne, KJ Donham, EA Croteau, KM Kelly, J Douwes, D Lewis, M Whitmer, I Connaughton, S Koch, P Malmberg, BM Larsson, J Deddens, A Saraf, and L Larsson. 2005. Interlaboratory evaluation of endotoxin analyses in agricultural dusts comparison of LAL assay and mass spectrometry. J Env Monitoring 7:1371-1377.
- Sanderson WT, MD Madsen, R Rautiainen, KM Kelly, C Zwerling, CD Taylor, SJ Reynolds, AM Stromquist, LF Burmeister, and JA Merchant. 2006. Tractor overturn concerns in Iowa: Perspectives from the Keokuk County Rural Health Study. J Agric Saf Hlth 12(1):71-81.
- Schwab CV, LJ Miller, and L Graham. 2006. El Club Misterio: Descubriendo Los Peligros Escondidos De La Grandja. Iowa State University Extension publication Pm-1877fs.
- Schwab CV, LJ Miller, and L Graham. 2006. El Club Misterio: Los Máquinas Poderosas. Iowa State University Extension publication Pm-1877es.
- Schwab CV, LJ Miller, and L Graham. 2006. El Club Misterio: Los Quimicos: Lo Bueno, lo Malo Y Lo Mortal. Iowa State University Extension publication Pm-1877cs.
- Schwab CV, LJ Miller, and L Graham. 2005. El Club Misterio: Precauciones Con Aves, Abejas Y Otras Bestias. Iowa State University Extension publication Pm-1877bs.
- Schwab CV, LJ Miller, and L Graham. 2006. El Club Misterio: Problemnas En La Granja ¿A Quién LLanarás?. Iowa State University Extension publication Pm-1877ds.
- Schwab CV, LL Miller, and LM Graham. 2006. Tips for communicating agricultural safety to children. *Journal of Extension* 44(3).
- Tiesman HM, C Peek-Asa, P Whitten, NL Sprince, A Stromquist, and C Zwerling. 2006. Depressive symptoms as a risk factor for unintentional injury: A cohort study in a rural county. *Inj Prev* 12(3):172-7.
- Yang J, C Peek-Asa, V Allareddy, C Zwerling, and J Lundell. 2006. Perceived risk of home fire and escape plans in rural households. *Am J Prev Med* 30(1):7–12.