

Farm families ALIVE & WELL

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

Vol. 11, Issue 2 - 2005

Tractor Safety: Results from the Keokuk County Rural Health Study

What is the average age of an Iowa tractor? And how many tractors do Iowa farmers own on the average? How many of these tractors have rollover protection structures (ROPS)? These are just a few of the questions we have been asking in the Keokuk County Rural Health Study. Why? Because we want to learn more about the cause of tractor-related injuries and fatalities and how to prevent them. Tractors are the leading cause of injury and death in agricultural production in the United States. Between 1992 and 2000, more than 200 tractor-related



Tricycle front end, raised loader, and no ROPS were contributing factors to this fatal overturn. Photo from the Iowa FACE Program.

fatalities occurred each year, and the majority of them were due to overturns. Studies have shown that the use of ROPS and seatbelts on tractors reduce death rates dramatically. For example, over a 20-year period in Sweden, when the percentage of tractors with ROPS increased from nearly 0% to nearly 100%, death rates fell from 17.2 deaths per 100,000 tractors to 0.3 deaths per 100,000 tractors.

We asked farmers questions about agricultural machinery use, presence of safety equipment on the machinery,

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Injuries and Deaths from All-Terrain Vehicles

Last year I witnessed my neighbor bury his 15-year old daughter who was killed in an ATV accident. It was a pleasant summer day; she and her cousin were riding down a rural Iowa road when they decided to pick flowers for their grandmother. As they pulled the ATV onto the shoulder of the road they slipped over a steep embankment and the ATV rolled on top of her breaking her neck. Her death has had a tragic impact on her family and our small community.

Approximately 5.6 million ATVs were owned by Americans in 2001 and sales are increasing. ATVs are useful tools for a variety of occupational tasks and they provide recreational enjoyment. Many rural families own ATVs to help with agricultural chores and to enjoy the countryside. However, these vehicles are dangerous.

In 2003, the U.S. Consumer Product Safety Commission (CPSC) published a report on injuries

associated with ATVs, comparing the results of nationwide surveys conducted by the CPSC and the ATV industry in 1997 and 2001 (Levenson, 2003). The number of injuries associated with ATVs increased dramatically from 54,700 in 1997 to 111,700 in 2001. About one third of the victims were under 16 years old and the injury rates were greatest among drivers with less than one year's driving experience.

The CPSC and the American Academy of Pediatrics have made recommendations for the safe use of ATVs.

- Children under the age of 16 should not ride ATVs with engines bigger than 90 cubic centimeters.
- A helmet should always be worn while on an ATV.
- ATVs should not be driven on paved roads.



Wayne Sanderson
PhD, CIH

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I-CASH will host the **Agricultural Occupational Health Training** May 18-20 (Session 1) and June 8-10 (Session 2). Nurses, nurse practitioners, physicians, physician assistants, physical therapists and other health care providers are invited to participate. Both sessions are approved for continuing education credits for physicians and nurses. The training program also may be taken for three graduate credit hours from the University of Iowa College of Public Health. For more information about the training sessions contact [Kay Mohling](mailto:kay-mohling@uiowa.edu) at 319/335-4219 or visit the I-CASH web site at www.public-health.uiowa.edu/icash/programs/index.html for the training brochure and schedule.

Good Neighbor Award - The Iowa Department of Agriculture and Land Stewardship and the Iowa Ag Radio Network have created a partnership to honor Iowa livestock producers for their commitment and continued dedication to the care of the land, the environment, and their livestock. Secretary Patty Judge stated, "We are calling on the neighbors of livestock producers, the people living with the operation year round, to nominate producers and tell us why their neighbor should be designated a Good Neighbor. We want these nominations to be a grassroots process. The award will honor those livestock producers who exhibit the qualities that we as rural citizens know characterize a good neighbor." For more information visit www.agriculture.state.ia.us/goodneighbor.htm or contact [Machelle Shaffer, Communications Director](mailto:mshaffer@iastate.edu), at 515/281-7808.

The 2004 I-CASH Annual Report is now available on the I-CASH website at www.public-health.uiowa.edu/icash/pubs.htm, or contact I-CASH at 319/335-4438 for additional copies.

The University of Iowa College of Public Health's WORKSAFE IOWA and Heartland Center for Occupational Health & Safety is offering the **NIOSH-Approved Spirometry Training for Workers Screening Course** on April 15 & 16, 2005 in Iowa City. The course will be offered again on July 28 & 29 and November 3 & 4, 2005. For more information contact Colleen Gross-Advani at 319/335-4684 or e-mail colleen-gross-advani@uiowa.edu.



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- ATVs should not be driven with a passenger.
- A hands-on safety course should be taken before operating an ATV.

In the 2003 CPSC report, only 7% of ATV drivers had learned to operate an ATV through a dealer or organized training program. The ATV industry has developed training programs to teach owners how to operate vehicles safely and a number of groups have developed training materials and offer ATV safety courses. The Great Plains Center for Agricultural Health is supporting efforts by Farm Safety 4 Just Kids to develop ATV safety training materials and to present safety training at regional and national conferences. We are also supporting work by the University of Missouri to provide ATV safety training to trainers who will provide the training in their communities.

From our press clips surveillance project conducted by Murray Madsen at the University of Iowa, 18 ATV related incidents were recorded in Iowa, Missouri, Kansas, and Nebraska during 2004. Eleven of these incidents involved a fatality. Statistics from surveys indicate the magnitude of the problem, but they do not tell each individual story of how the incident occurred and how lives were impacted. We hope our efforts and those of our colleagues serve to reduce injuries and fatalities caused by ATVs.

Dr. Wayne Sanderson directs the Great Plains Center for Agricultural Health, housed in the Department of Occupational and Environmental Health of the College of Public Health. He can be reached at 319/335-4207 (wayne-sanderson@uiowa.edu).

References: Levenson M. (January 2003): All-Terrain Vehicle 2001 Injury and Exposure Studies. U.S. Consumer Product Safety Commission, Washington, DC.

work practices, and attitudes about farm safety. Study participants owned an average of 3.1 tractors, but some had seven tractors or more. The average age of the tractors was 27 years. Only 39% of the tractors had ROPS. Not surprisingly, the older tractors (manufactured before 1960) were less likely to have ROPS (only 3%), whereas 84% of those made after 1984 had ROPS. We also found that the larger the size of the farm, the newer the tractors were. Only 4.1% of subjects reported that their tractors have seatbelts and that they wear these seatbelts when operating their tractors. Even those farmers who have newer tractors with ROPS and seatbelts often continue to use their older tractors, without these safety features, to mow ditches and around ponds.

What did we learn about tractor rollovers? Of the 880 people (farmers and non-farmers) who answered a question about whether anyone in their household had ever been involved in a tractor rollover, 64 (7.3%) responded that someone had. We are now interviewing those people who were involved in a rollover to obtain information about the age and type of the tractor involved, the tasks that were being performed at the time, the conditions of the ground, weather, etc. It is clear to us that until farmers are convinced that ROPS and seatbelts save lives, and act on their conviction, injury and death rates from tractor rollovers will remain high.

Dr. Wayne Sanderson and Dr. Ann Stromquist are co-investigators with the Keokuk County Rural Health Study. Dr. Sanderson can be reached at 319/335-4207 (wayne-sanderson@uiowa.edu). Dr. Stromquist can be reached at 319/335-4232 (ann-stromquist@uiowa.edu).

More information about the study can be obtained at www.kcrhs.org.



FS4JK Announces Focus Areas for 2005

Farm Safety 4 Just Kids (FS4JK) covers many different aspects of safety and health on the farm and in the rural environment. They have chosen to give special attention to the following areas in 2005:

- **ATV Safety-** As the prevalence of ATV use rises, so do the number of ATV-related injuries and deaths, especially those involving children.
- **Tractor Safety-** Tractors continue to top the list as the leading cause of death to children on the farm. FS4JK will focus on children as extra riders. "Just one seat, just one driver, tractors have no place for riders," as the FS4JK mascot, Watch-It sings.
- **Rural Health Issues-** FS4JK will be expanding on the issues of sun safety, food safety, water safety, and ergonomics as they pertain to rural children and youth.
- **Water Safety-** Two unique hazards are related to water, physical water safety and contaminants in drinking water. FS4JK plans to create an educational tool to help rural children, youth, and farm families recognize the dangers.
- **Community Outreach-** Community involvement is vital to the communication of farm safety and health education and injury prevention. FS4JK will continue to foster relationships that help spread the farm safety and health message and keep rural kids safe and healthy.

calendar

March 29-30

2005 Public Health Conference
"Partnering for A Healthy Iowa"
Ames, IA
www.idph.state.ia.us/common/pdf/conferences/2005_conference_brochure.pdf

April 15

I-CASH Spring Meeting
Ames, IA
www.public-health.uiowa.edu/icash

May 18-20 & June 8-10

I-CASH Agricultural Occupational Health Training
Iowa City, Iowa
www.public-health.uiowa.edu/icash

June 25-28

2005 Meeting of the North American Agromedicine Consortium (NAAC)
Wintergreen, VA
www.agromedicine.org

June 26-30

National Institute for Farm Safety, Inc. Annual Conference
Wintergreen, VA
www.ag.ohio-state.edu/~agsafety/NIFS/meetings2005.htm

July 11-13

The Clock is Ticking for Rural America: A Behavioral Health and Safety Conference
Bloomington, MN
www.agriwellness.org

July 28-29

The Governor's Conference on Public Health - Barn Raising V: Building Iowa as a Healthy Community
Des Moines, IA
www.idph.state.ia.us/common/pdf/conferences/barnraising_agenda.pdf

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I-CASH Spring Meeting

I-CASH will hold it's annual spring meeting **April 15, 2005** at the Memorial Union on the Iowa State University Campus in Ames, Iowa. The I-CASH Board of Directors and Advisory Council will evaluate progress made on agricultural safety and health objectives and revise strategic action plans for the coming year. To register for this event e-mail meggan-fisher@uiowa.edu. Interested parties are encouraged to contact [Eileen Fisher](#), Associate Director of I-CASH for more information.

+++++It All Adds Up

Farm and Agricultural Injuries in Press Clippings (IA, NE, KS, MO)

	2003		2004	
	Press Clips	Fatalities	Press Clips	Fatalities
				
Tractors & Machinery				
Overturns	49	29	54	34
Crashes	27	7	25	10
Runovers	16	7	22	14
Entanglements	6	0	15	6
Other and Unknown	26	13	25	11
Livestock	17	7	15	2
Bins, Silos, Pits	14	7	10	7
Electric Current	6	5	3	2
Other and Unknown	46	30	30	18
Total - All Press Clips	207	105	199	104

Sources: NewzGroup and Burrelle's LUCE

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