



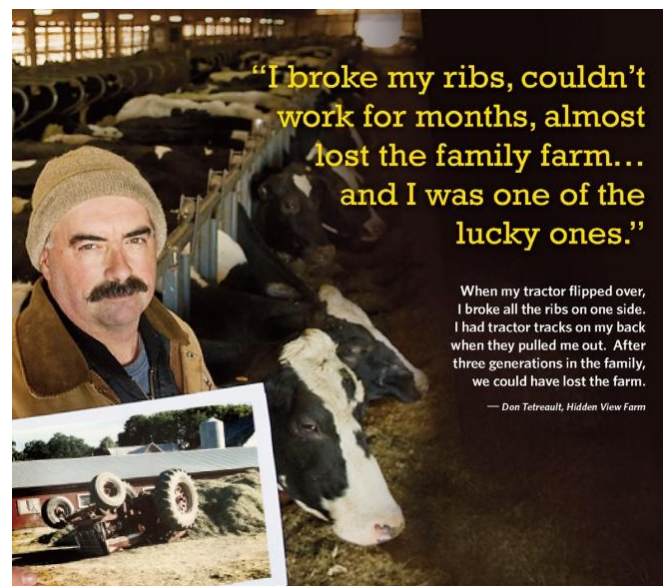
## Centers for Agricultural Disease and Injury Research, Education and Prevention

### History and Mission

- Established by Congress in 1990 (P.L. 101-517) in response to evidence that agricultural workers were suffering higher rates of occupational injury and illness than other U.S. workers, even those in other extractive industries.
- An innovative feature of P.L. 101-517 was the call for NIOSH to establish extramural centers. The legislation specifically charged NIOSH with responsibility to select and fund agricultural occupational safety and health centers at select universities. (NAS 2008)
- Today the NIOSH AFF Initiative includes seven regional Centers for Agricultural Disease and Injury Research, Education, and Prevention and one national center to address children's farm safety.
- The AFF Program is the only substantive federal effort to meet the obligation to ensure safe working conditions for workers in one of our nation's largest and most vital production sectors.

While agriculture, forestry, and fishing constitute one of the largest industry sectors in the U.S. (DOL 2011), most AFF operations are themselves small: nearly 78 percent employ fewer than 10 workers, and most rely on family members and/or immigrant, part-time, contract and seasonal labor. **Thus, many AFF workers are excluded from labor protections, including many of those enforced by OSHA.**

In 2008 the AFF sector had a work-related fatality rate of 24.8 per 100,000 workers. More than 1 in 10 AFF workers incur nonfatal injuries resulting in lost work days each year. These reported figures do not even include men, women, and youths on farms with fewer than 11 full-time employees. In addition to the harm to individual men, women, and families, these deaths and injuries inflict serious economic losses including medical costs and lost capital, productivity, and earnings. The cost of agricultural occupational injuries has been estimated to exceed \$4 billion in direct and indirect costs (range \$4.5 to \$13.9 billion).



### The life-saving, cost-effective work of the NIOSH AFF program is not replicated by any other agency:

- State and federal OSHA personnel rely on NIOSH research in the development of evidence-based standards for protecting workers and would not be able to fulfill their mission without NIOSH.
- While committed to the well-being of farmers, USDA has little expertise in the medical or public health sciences. Moreover, USDA no longer funds, as it did historically, land grant university-based farm safety specialists.
- Staff members of USDA's National Institute of Food and Agriculture interact with NIOSH occupational safety and health research experts *to keep abreast of cutting-edge research* and new directions in this area.  
[http://www.nifa.usda.gov/nea/ag\\_systems/in\\_focus/workforce\\_if\\_research.html](http://www.nifa.usda.gov/nea/ag_systems/in_focus/workforce_if_research.html)

## Examples of NIOSH Agricultural Centers Accomplishments

**Preventing the # 1 cause of traumatic injury deaths on U.S. farms:** NIOSH AFF Center research has shown that the use of rollover protective structures (ROPS or rollbars) and seatbelts on tractors can prevent 98 percent of overturn related deaths. A New York program has increased the installation of ROPS by 10-fold and has documented 63 close calls with no injuries among farmers who had installed ROPS.

**Protecting children:** More than 1 million youths under age 20 live on farms, and more than half perform farm work or chores. Center-developed guidelines for parents to match chores with a child's developmental and physical capabilities have helped to reduce injuries and deaths among children who live and work on farms: Between 1998 and 2006, the rate of childhood agricultural injuries per 1,000 farms dropped by 59 percent.

**Reducing Pesticide Exposures:** Working in partnership with producers and farm owners, the NIOSH AFF Centers have developed evidence-based solutions for reducing exposure to pesticides and other farm chemicals. This work has been important for the protection of farmers, workers and their children. Since the Centers' inception, there have been major advances in pesticide science, with Center researchers duly recognized as experts in their field and often called upon to provide objective, reliable data and serve on regional and national advisory committees.

**Commercial Fishing** had a reported annual fatality rate 28 times higher than the rate for all U.S. workers in 2007. Research has shown that knowledge of maritime navigation rules and emergency preparedness means survival. An interactive navigation training CD has been produced in three languages, effectiveness of refresher survival drill instruction has been demonstrated, and US Coast Guard regulations have been changed to require commercial fishing vessel captains to complete navigation training. This work has been accomplished efficiently and in collaboration with the Department of Homeland Security through the US Coast Guard.

**Partnering with Stakeholders:** The Centers leverage \$2 million per year in external support and in-kind contributions from private sector partners who recognize that preventing occupational injuries is cost-effective and protects not only workers but also the financial bottom line. **Collaborative, on-farm efforts:** Centers have worked with dairy producers and industry associations throughout the Great Plains, Southwest and Western U.S. to develop bilingual safety training tools and safety management manuals; have provided workshops on safety as sound business practice, and led safety audits to help producers incorporate safety and health protocols into daily practice to protect workers and ensure industry productivity and growth. California researchers used on-farm testing to demonstrate that 5-minute rest breaks every hour reduce musculoskeletal symptoms among migrant farm workers. In Washington State, investigators have partnered with the WA Tree Fruit Research commission and manufacturers to design safety into new technologies to increase productivity and maintain a healthy workforce. In Maine, on-farm research led to improved design of a blueberry rake that increased productivity while reducing musculoskeletal problems. The rake has been adopted by 73% of workers.

**Safety for Forest Workers:** In 2008, the logging industry had a reported fatality rate of 108.1 deaths per 100,000 workers – a rate more than 30 times higher than the fatality rate for all US workers. NIOSH AFF Centers including the Southeast and the Northwest are uniquely positioned to ensure the safety of our nation's 86,000 workers in forestry & logging. Loss of funding would leave these at-risk workers without the Centers' support.

**Agromedicine:** Center researchers have partnered with producers and employers, the federal migrant health program, physicians, occupational health nurses, and internet technology specialists to bring 21<sup>st</sup> Century teaching and tools to rural health care.

**Worker Safety: Essential to sustainable agriculture, forestry, and fishing . . .**

**Safe, sustainable agriculture: vital to food security and national prosperity**

