NIOSH brings industry sector approach to agriculture, forestry, and fishing safety and health

George A. Conway, MD, MPH & Bradley J. Husberg, BSN, MSPH, NIOSH Agriculture, Forestry, and Fishing Program

Disclaimer: The findings and condusions in this presentation have not been formally disseminated by NIOSH and should not be construed to represent any agency determination or policy.

Outline

- Describe NIOSH Sector organization
- Describe AFF sector and planning process
- Review surveillance data & trends
- Assessed unmet needs
- Mobilizing for change
- While progress documented in F&F, most unmet need is in production agriculture
- Tractor hazards and mitigation
- Seek your input





The Sector-based Approach

- NIOSH and its partners have formed eight National Occupational Research Agenda (NORA) Sector Councils,
- Include academia, industry, labor, & gov't.
- Each Council drafting goals, performance measures, and implementation plans for U.S.
- Agendas will provide guidance to the OS&H community for moving research to practice in workplaces.
- Cross-sector Research Council will be formed to identify opportunities for common research across sectors.





What are the sectors?

North American Industry Classification System (NAICS), (replaced the U.S. Standard Industrial Classification (SIC); more info @ U.S. Census Bureau NAICS page).

NAICS defines 20 sectors, which NIOSH aggregates into:

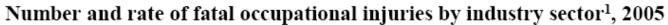
8 NORA Sector Groups

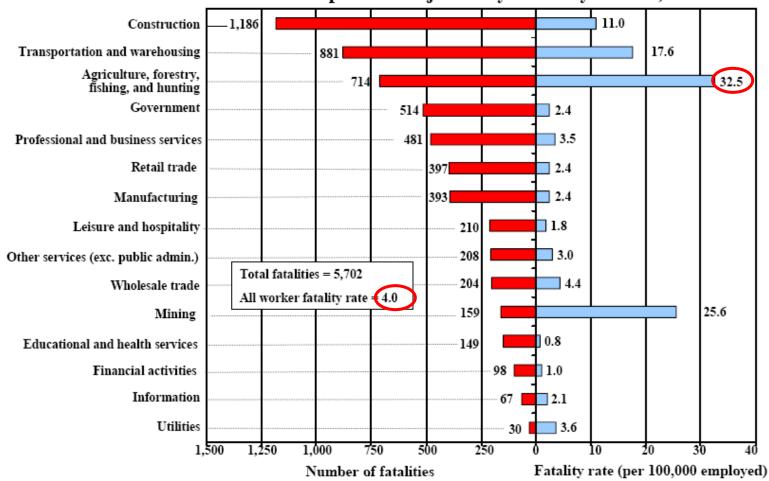
- Agriculture, Forestry & Fishing
- Construction
- Healthcare & Social Assistance
- Manufacturing
- Mining
- Services
- Transportation, Warehousing & Utilities
- Wholesale and Retail Trade





3.1 Million US AFF Workers have high fatality rates:





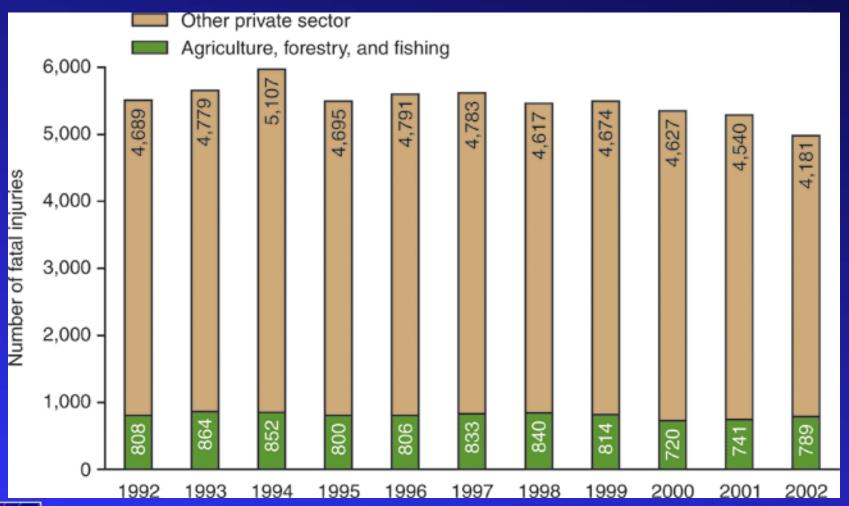
¹ Individual industry sectors exclude data for employees of governmental agencies, which are provided separately.
Rate = (Fatal work injuries/Employment) x 100,000. Employment data based on the 2005 Current Population Survey (CPS) and Department of Defense (DOD) figures.
SOURCE: US Department of Labor, Bureau of Labor Statistics, Current Population Survey, Census of Fatal Occupational Injuries, and US Department of Defense, 2005.





Fatal occupational injuries in agriculture, forestry, and fishing and the private sector, 1992-2002.

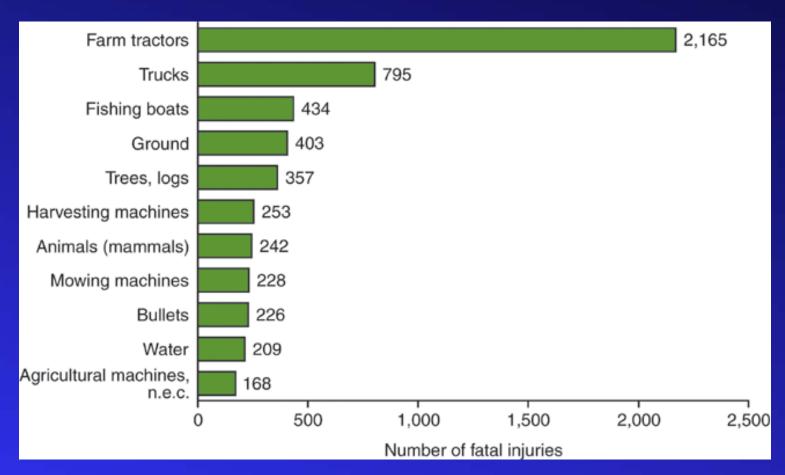
(NIOSH Worker Chartbook, 2004: BLS [2003]; Myers [2003].)







Leading Sources of Occupational Injuries in Agriculture, Forestry, and Fishing (1992-2001)



Source: Worker Health Chartbook 2004 NIOSH Publication Number 2004-146





Issues

 Tractors killed 2,869 farmers and farm workers between 1992-2005. Overturns caused 1,412 of these deaths, or about 100 per year







The Problem

- •50% of 4.8 million U.S. tractors: no rollover protection structure (ROPS) or seat belt.
- •Mostly older, pre-1985
- Tractors last 60+ years
- •Disproportionate: minority and lowerincome farmers
- •<0.75 seconds to point of no recovery</p>



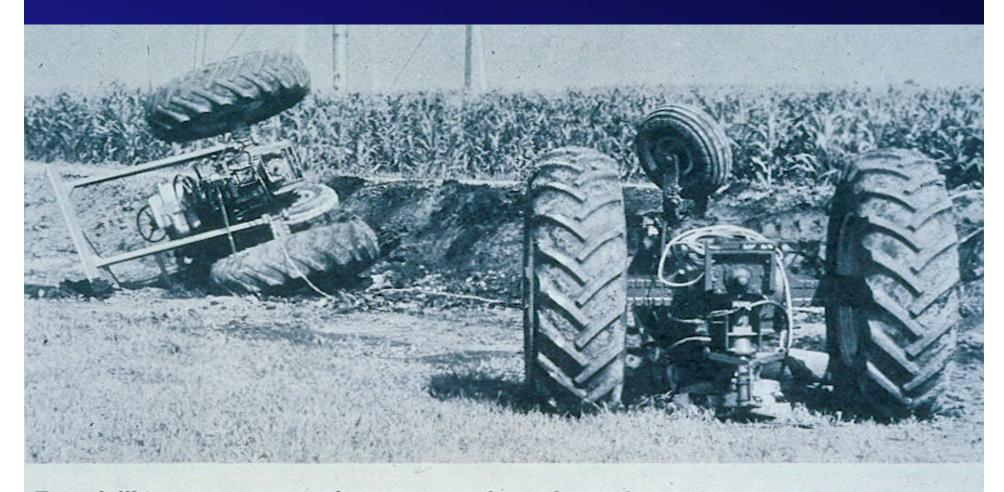






Copyright 2007, George A. Conway, gconway@cdc.gov

The solution

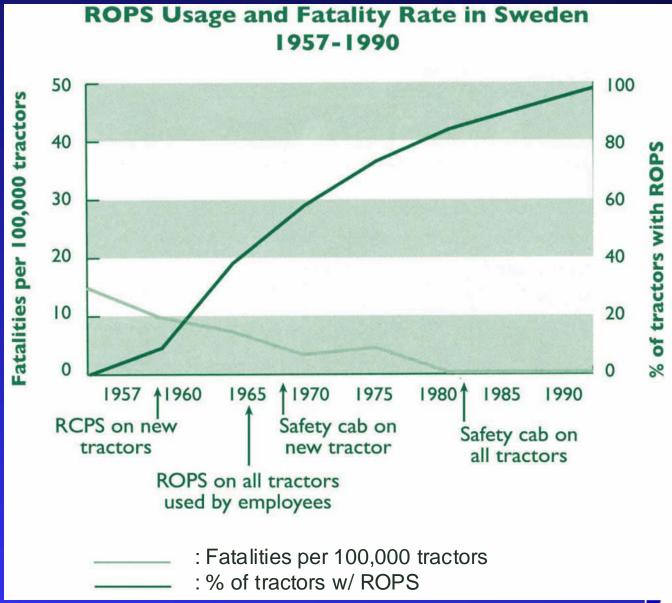


Two deliberate overturns demonstrate the safety advantage of roll-over protective systems (ROPS). The tractor without ROPS completely rolled over. The operator probably would have been killed. The frame-equipped tractor's roll was limited to 90° degrees.





Proof







"Standard" Statewide Ad



ROPS RETROFIT REBATE

New York State Sponsored ROPS Retrofit Rebate

Who: all New York farmers are eligible.

What: 70% of cost to retrofit up to \$600. Limit one tractor per year, per farm. Rollbars, ROPS awnings or cabs.

How: call 1-877-ROPSR4U for approval and assistance. We will help you find the right model and dealer, set up the appointment and file the papers.

80% OF DEATHS CAUSED BY ROLLOVERS HAPPEN TO EXPERIENCED FARMER



infrator dens that the court of 2011 is contibuted with a contact, is 21% effective in presenting doubts countries to the extense.

12/5/2006 1:47:11 PM







ONLY DOGS SHOULD ROLL OVER.

You probably think it will never happen to an old hound like you. But when it happens, rolling your tractor over can be disastrous—even deadly. Now, getting rollover protection has never been easier or more affordable.

Call now and save up to \$600 off installation depending on your tractor. We will help you find the right model and dealer, set up the appointment and file the papers.



80% OF DEATHS CAUSED BY ROLLOVERS HAPPEN TO EXPERIENCED FARMERS











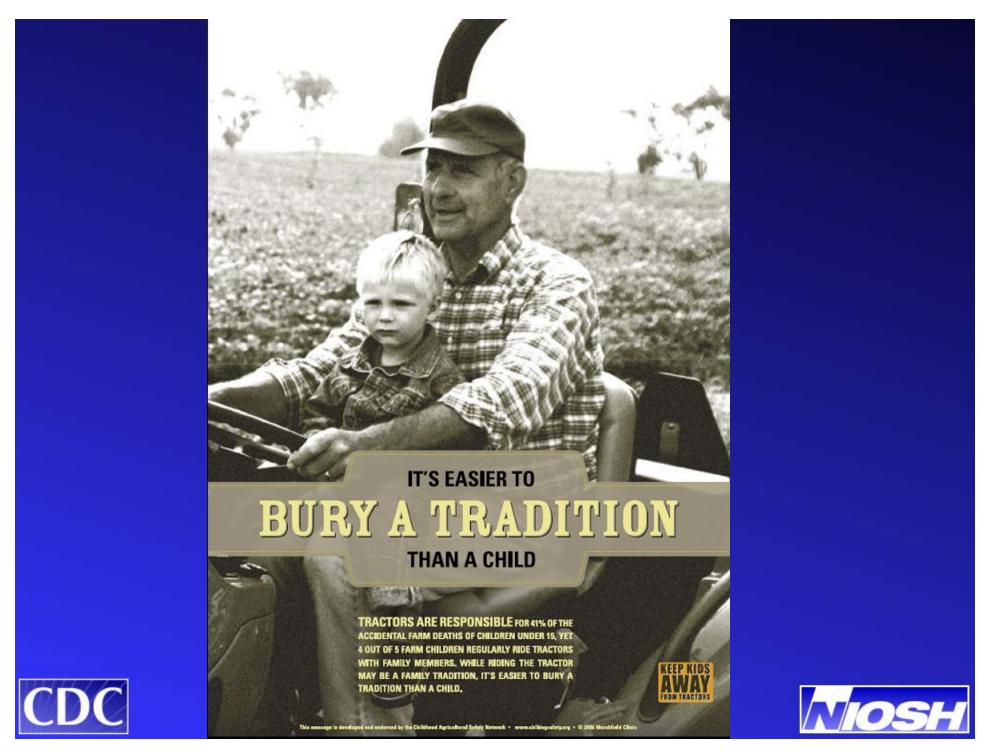
James L, Seward
Catharine M, Young







Studies have shown that the use of a ROPS in combination with a seatbelt, is 99% effective in preventing deaths associated with tractor rollovers.



Final Thoughts

- Persistent problem
- So far largely refractory to publication, dissemination, and good intentions
- Much activity, little progress
- Some major, recent evidence of mobilization and organization
- Good policy might be:
 - Set time certain with firm goals for progress
 - Make "full court press"
 - Evaluate
 - Regroup and change course if goals not achieved
- APHA ideal venue for productive discussion
- Please take handout and stay in touch!





Acknowledgements

- Mr. John Myers
- Dr. John May
- Dr. Stephen Reynolds
- Dr. Barbara Lee
- Dr. Mark Purschwitz
- Dr. Henry Cole
- Mr. Melvin Myers
- Ms. Nicolle Mode
- Ms. Pietra Check
- Dr. Max Lum
- And many other colleagues at the NIOSH Ag S&H Centers and NIOSH







Copyright 2007, George A. Conway, gconway@cdc.gov



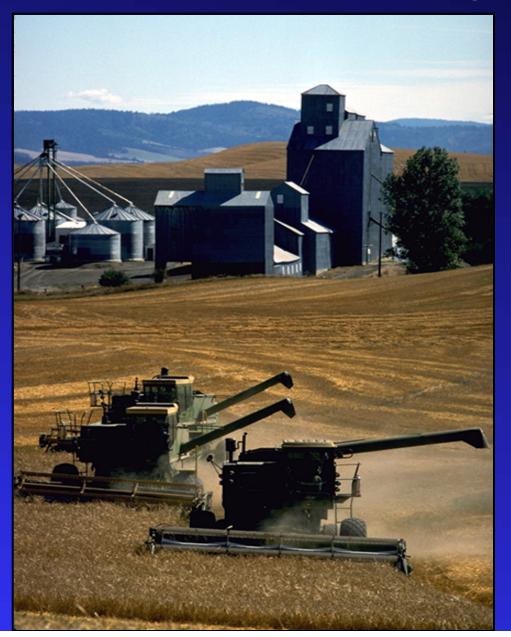
The Recurrent Public Policy Dilemma:





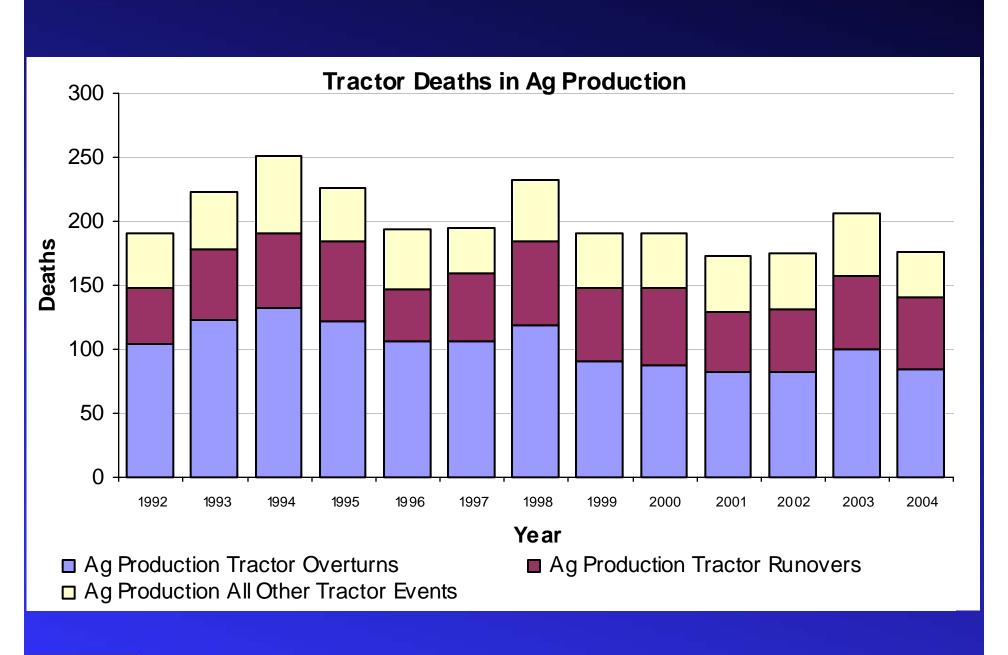


Example from Production Agriculture













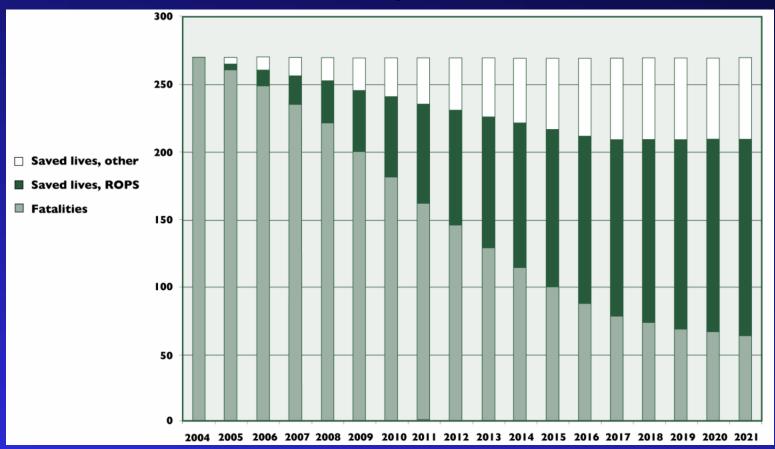
NIOSH Centers for Agricultural Disease and Injury Research, Education, and Prevention







Potential Lives Saved by ROPS and Other Means



If ROPS requirements were phased in over the next 18 years, 2,000 lives could be saved in the United States.

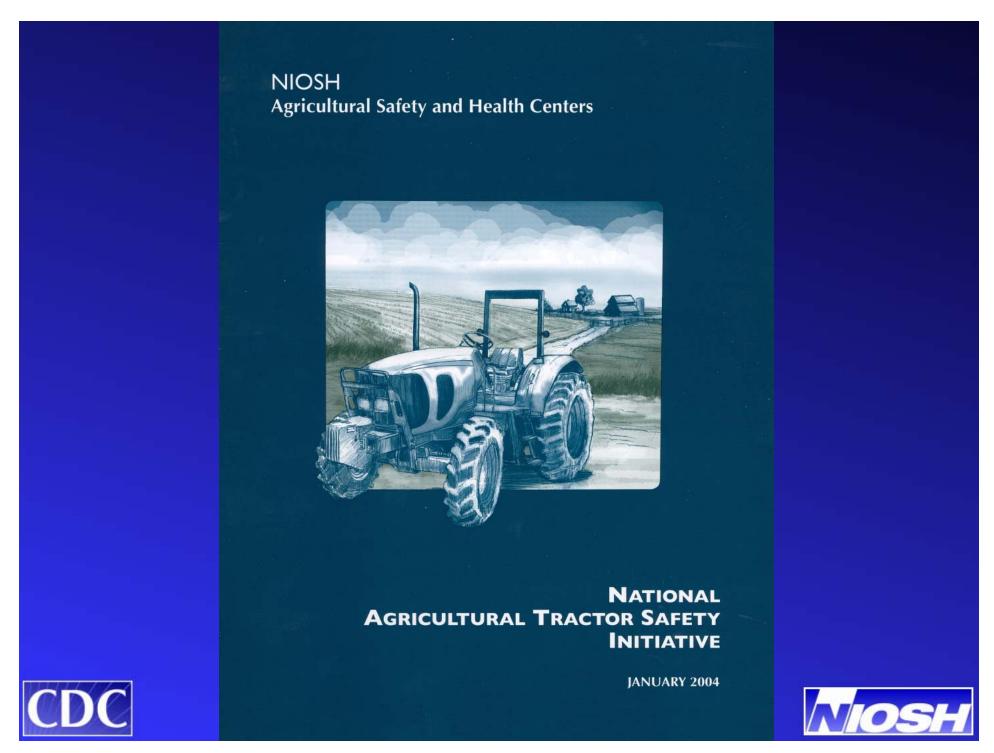
Cost per life saved - \$500,000 to \$900,000



Estimated Savings to Nation \$3 Billion (10 years)

Adapted from Tractor Risk Abatement and Control: The Policy Conference





Significance of AgFF Sector

- 3.1 Million workers employed (2001)
- Farm tractors accounted for 2,165 deaths (92-01)
 - Leading source of fatalities in AgFF
- Other circumstances (92-01):
 - Trucks, 795 deaths
 - Fishing boats, 434 deaths





