

# NIOSH\* Centers for Agricultural Disease and Injury Research, Education and Prevention

## U.S.A. agricultural health & safety facts:

Approximately 1,750,000 full-time workers were employed in production agriculture in the United States in 2007. Farmers are at high risk for fatal and nonfatal injuries, work-related lung diseases, noise-induced hearing loss, skin diseases and certain cancers associated with chemical use and prolonged sun exposure.

An estimated 1.12 million children and adolescents under 20 years of age lived on farms in 2006, with about 590,000 of these youth performing work on the farm. In addition to the youth who live on farms, an additional 307,000 children and adolescents were hired to work on U.S. farms in 2006.

In 2006, an estimated 23,100 children and adolescents were injured on farms; 5,800 of those injuries were due to farm work.

In an average year, 516 workers die doing farm work in the United States (1992-2005). Of these deaths, 101 are caused by tractor overturns.

Every day, about 243 agricultural workers suffer lost-work-time injuries, and about 5 percent of these result in permanent impairment.

\*NIOSH – National Institute for Occupational Safety and Health

## Purpose and scope of work:

We are a regional network of scientific research and outreach centers with input from stakeholders, producers, hired ag workers and their families, working to reduce agricultural-related injuries and illnesses. First established by NIOSH in 1990, centers are distributed throughout the nation to respond to issues unique to the different regions.

## Targeted efforts:

- Research into the prevention of disease and injury of agricultural workers and their families;
- Educational outreach and intervention programs and materials promoting disease and injury prevention in agriculture;
- Consultation and training of researchers, health and safety professionals, graduate students, agricultural extension agents and others to improve the health and safety of agricultural workers;
- Collaboration with governmental and non-governmental bodies involved in agricultural health and safety with special emphasis on communications with other CDC/NIOSH-sponsored programs.

### Pacific Northwest Agricultural Safety and Health Center

University of Washington, Seattle  
Richard Fenske, Director

### Great Plains Center for Agricultural Health

University of Iowa, Iowa City  
Wayne Sanderson, Director

### National Children's Center for Rural and Agricultural Health and Safety

Marshfield Clinic, Marshfield, WI  
Barbara Lee, Director

### Western Center for Agricultural Health and Safety

University of California, Davis  
Marc Schenker, Director

### Northeast Center for Agricultural Health

Chamberlain Center of Bassett Healthcare, Fly Creek, NY  
John May, Director

### Southeast Center for Agricultural Health and Injury Prevention

University of Kentucky, Lexington  
Robert McKnight, Director

### High Plains Intermountain Center for Agricultural Health and Safety

Colorado State University, Ft. Collins  
Stephen Reynolds, Director

### Southwest Center for Agricultural Health, Injury Prevention and Education

University of Texas Health Center, Tyler  
Jeffrey Levin, Director



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**Great Plains Center for Agricultural Health**  
([www.public-health.uiowa.edu/GPCAH/index.html](http://www.public-health.uiowa.edu/GPCAH/index.html))

The Great Plains Center for Agricultural Health (GPCAH) is located on the University of Iowa's Oakdale Research Campus and has served as the NIOSH Agricultural Health and Safety Center since 1990. GPCAH serves Iowa, Nebraska, Kansas, Missouri, Illinois, Wisconsin, Minnesota, North Dakota and South Dakota; all states that share similar agricultural production and thus similar occupational and environmental exposures. This is America's most agriculturally intensive region. The GPCAH advances knowledge about agricultural injuries and illnesses through its research activities and prevents them through its education, outreach and intervention efforts.

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**High Plains Intermountain Center for Agricultural Health and Safety** ([www.hicahs.colostate.edu](http://www.hicahs.colostate.edu))

The High Plains Intermountain Center for Agricultural Health and Safety (HI-CAHS), established in 1993 at Colorado State University, Fort Collins, has an outstanding record of service to Public Health Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming). HI-CAHS has been nationally and internationally recognized for research on organic dust aerosols and respiratory disease, pesticides and tractor roll-over protective structures (ROPS) engineering. Education and outreach, built on strong partnership with Cooperative Extension, have served as national models.

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**National Children's Center for Rural and Agricultural Health and Safety**  
([www.marshfieldclinic.org/NCCRAHS/](http://www.marshfieldclinic.org/NCCRAHS/))

The National Children's Center for Rural and Agricultural Health and Safety, established in 1997, is a key part of the NIOSH-led Childhood Agricultural Injury Prevention Initiative, which includes intramural and extramural activities. Using consensus-development methods, this center has produced the North American Guidelines for Children's Agricultural Tasks (NAGCAT), and guidelines for agritourism and creating safe play areas on farms, as well as safety guidelines for hired adolescent farm workers. The Children's Center led a coalition of national youth-serving organizations in launching the national "Keep Kids Away from Tractors" campaign.

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**Northeast Center for Agricultural Health**  
([www.nycamh.com/](http://www.nycamh.com/))

The Northeast Center (NEC) is a collaborative effort of investigators from institutions throughout the New England and mid-Atlantic states. It is based at the New York Center for Agricultural Medicine and Health (NYCAMH) in Cooperstown, N.Y., where its administrative core resides. An outgrowth of pioneering research into agricultural respiratory and injury problems in the early 1980s, NYCAMH was established by the New York Legislature in 1987 with funding to address research, educational and clinical consultative needs related to occupational problems in New York farming. NYCAMH is a member of the New York State Department of Health's Occupational Health Clinic Network.

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**Pacific Northwest Agricultural Safety and Health Center**  
(<http://depts.washington.edu/pnash/>)

The PNASH Center conducts research and promotes best health and safety practices for Northwest producers and workers in farming, fishing and forestry. Affiliated with the University of Washington's School of Public Health, PNASH integrates expertise from multiple disciplines, institutions and community partners. Areas of emphasis include new production technologies and the needs of under-served and vulnerable populations. PNASH faculty provide regional and national expertise in chemical hazard exposure assessment. Current projects address workplace injuries, pesticide safety, microbial hazards and heat-related illness.

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**Southeast Center for Agricultural Health and Injury Prevention**  
([www.mc.uky.edu/scahip/](http://www.mc.uky.edu/scahip/))

The Southeast Center for Agricultural Health and Injury Prevention was established at the University of Kentucky, Lexington, in late September 1992. Now a mature center, it serves six states in the region (Kentucky, Tennessee, Virginia, North Carolina, South Carolina and Georgia) through the multidisciplinary nature of the center staff with faculty from the University of Kentucky Colleges of Public Health, Medicine, Nursing, Education, Agriculture and Engineering.

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**Southwest Center for Agricultural Health, Injury Prevention and Education**  
([www.swagcenter.org](http://www.swagcenter.org))

The Southwest Center for Agricultural Health, Injury Prevention and Education (SW Center) was established in October 1995 to initiate programs in agricultural safety and health in U.S. Public Health Service Region VI. The early focus on responsiveness to regional issues, including beef owner/operators, migrant children, Vietnamese shrimpers, Navajo farmers/ranchers, and youth in agriculture has resulted in a broad range of partners for the development of agricultural safety and health research, intervention and outreach activities throughout Arkansas, Louisiana, New Mexico, Oklahoma and Texas.

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**Western Center for Agricultural Health and Safety**  
(<http://agcenter.ucdavis.edu>)

The Western Center for Agricultural Health and Safety (WCAHS) at the University of California, Davis, has made strides in areas of research, prevention/intervention and education/outreach. WCAHS has taken a leadership role in addressing western agricultural health and safety issues, including health among migrant and seasonal (hired) farm workers, ergonomics of labor-intensive crop work, respiratory hazards in dry-climate farming, health of women and children in agriculture and pesticide safety. The public (general and agricultural) have been recipients of educational programs. WCAHS' electronic communications (newsletter, list server) have expanded educational efforts of the center internationally.

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