



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

# 2011 Fact Sheet

## Childhood Agricultural Injuries

### Population at Risk

Farms	<ul style="list-style-type: none"> <li>In 2009, there were approximately 2.2 million farms in the United States.<sup>1</sup></li> </ul>
Children	<ul style="list-style-type: none"> <li>Over 1.04 million youth lived on farms in 2009.<sup>2</sup></li> <li>More than half of all household youth performed work on the farm in 2006, with the highest group being 10-15 year olds.<sup>3</sup></li> <li>An additional 307,000 youth (youth not living on farms) were hired to do work on US farms in 2006.<sup>3</sup></li> <li>Only 30% of farm households with children younger than eight years reported having an enclosed, fenced off play area in 2006.<sup>4</sup></li> </ul>
Industry	<ul style="list-style-type: none"> <li>The National Safety Council's 2009 edition of <i>Injury Facts</i> ranks agriculture as our nation's most dangerous industry with 28.6 deaths per 100,000 adult workers.<sup>5</sup></li> </ul>

### Toll of Childhood Agricultural Injuries

Deaths	<ul style="list-style-type: none"> <li>Agriculture has the second highest fatality rate among youth workers at 21.3 per 100,000 full-time equivalents compared to 3.6 per 100,000 across all industries.<sup>6</sup></li> <li>Between 1995 and 2000, there were 695 total farm-related youth fatalities on US farms (55.8 fatalities per 100,000 youth).<sup>7</sup></li> <li>Of the leading sources of fatal injuries to youth on U.S. farms, 25% percent involved machinery (includes tractors), 17% involved motor vehicles (includes ATVs), and 16% were due to drowning.<sup>7</sup></li> </ul>
Nonfatal Injuries	<ul style="list-style-type: none"> <li>In 2006, an estimated 3,601 household youth were injured while performing farm work.<sup>2</sup></li> <li>According to data from 2006, approximately 3,026 injuries (26%) occurred to children under 10 years of age living on farms.<sup>3</sup></li> <li>Nearly 75% of injured children were not actively working when the injury occurred.<sup>3</sup></li> <li>Falls (40%) were the most common injuring event among household youth.</li> </ul>
Injury Rate	<ul style="list-style-type: none"> <li>In 2006, youth living on livestock operations had a significantly higher rate of injury (11.9 injuries/1,000 youth) compared to their counterparts in crop operations (8.4 injuries/1,000 youth).<sup>3</sup></li> </ul>
Injury Trend	<ul style="list-style-type: none"> <li>Over the eleven years from 1998 to 2009, the rate of childhood agricultural injuries per 1,000 farms (includes youth who live on, visit, and are hired to work on farms) declined by 59% (from 16.6 to 6.8). The rate of injuries per 1,000 household youth (those living on farms) declined by 48% (from 18.8 to 9.8) during that same period.<sup>2</sup></li> </ul>

Childhood Agricultural Injury Estimates of Youth Farm Injuries<sup>2</sup>

Year	Farm Injuries Youth < 20	Injuries/1000 Farms	Farm Household Youth < 20	Farm Household Youth Injuries	Injuries/1000 Household Youth
1998	37,774	16.6	1,460,000	27,321	18.8
2001	29,277	14.0	1,350,000	22,144	16.4
2004	27,590	13.1	1,260,000	18,800	15.0
2006	22,900	10.4	1,120,000	11,700	10.4
2009	15,012	6.8	1,040,221	10,251	9.8

## Minority Operated Farms

Population at Risk	<ul style="list-style-type: none"><li>▪ In 2003, an estimated 27,400 youth were living on 57,000 racial minority (excluding Hispanic) operated farms and an additional 34,500 youth were living on 47,200 Hispanic operated farms.<sup>8,9</sup></li></ul>
Injuries/Fatalities	<ul style="list-style-type: none"><li>▪ During 2003, there were 630 agricultural injuries to youth under 20 years of age on a racial minority (excluding Hispanic) operated farm. An additional 540 agricultural-related injuries occurred to youth on Hispanic operated farms.<sup>7,10</sup></li><li>▪ Between 1995 and 2002, there were 81 minority youth fatalities and 77 Hispanic youth fatalities.<sup>8,9</sup></li></ul>

## Roadmap for Preventing Childhood Agricultural Injuries

- National Committee for Childhood Agricultural Injury Prevention. Children and Agriculture: Opportunities for Safety and Health: A National Action Plan (1996). [http://www.marshfieldclinic.org/nfmc/pages/default.aspx?page=nfmc\\_reports\\_action\\_plan](http://www.marshfieldclinic.org/nfmc/pages/default.aspx?page=nfmc_reports_action_plan)
- Migrant and Seasonal Hired Adolescent Farmworkers: A Plan to Improve Working Conditions (2001). [http://www.marshfieldclinic.org/nfmc/pages/default.aspx?page=nccrahs\\_adol\\_farmworkers](http://www.marshfieldclinic.org/nfmc/pages/default.aspx?page=nccrahs_adol_farmworkers).
- Childhood Agricultural Injury Prevention: Progress Report and Updated National Action Plan from the 2001 Summit (2002). <http://www.marshfieldclinic.org/nfmc/Pages/Proxy.aspx?Content=MCRF-Centers-NFMC-nccrahs-reports-summitreport.1.pdf>.

## Childhood Agricultural Fatality Investigation Reports

- NIOSH Childhood Agricultural Injury Prevention Initiative. *Childhood Agricultural Fatality Investigation Reports*. <http://www.cdc.gov/niosh/childag/ChildAgFACErpts.html>.

## References

1. USDA, NASS publications: Farms, Land in Farms, and Livestock Operations 2009 Summary, February 2010. Available at [http://usda.mannlib.cornell.edu/usda/current/FarmLandIn/FarmLandIn-02-12-2010\\_revision.pdf](http://usda.mannlib.cornell.edu/usda/current/FarmLandIn/FarmLandIn-02-12-2010_revision.pdf)
2. NIOSH. 2010. Trends in childhood agricultural nonfatal injury rates, 1998-2009. Internal analysis of the Childhood Agricultural Injury Survey (CAIS) surveillance system. Morgantown, WV: National Institute for Occupational Safety and Health.
3. Hendricks, KJ and Goldcamp, EM. Injury Surveillance for Youth on Farms in the U.S., 2006. *Journal of Agricultural Safety and Health*. 16 (4): 279-291.
4. NIOSH. Internal analysis of the CAIS database. Morgantown, WV: National Institute for Occupational Safety and Health, 2007.
5. National Safety Council (2010). Injury Facts 2009 Edition. Available by contacting National Safety Council at 1-800-621-7619 or [www.nsc.org](http://www.nsc.org).
6. Occupational Injuries and Deaths Among Younger Workers-United States, 1998-2007. *Journal of the American Medical Association*, 304 (1). 33-35 (2010).
7. Goldcamp, M., Hendricks, KJ., Meyers, JR. Farm Fatalities to youth 1995-2000: A comparison by age groups. *Journal of Safety Research*. 35 (2004). 151-157.
8. National Institute for Occupational Health and Safety (2007) *Injuries to Youth on Hispanic Operated Farms - 2003*. Available at: <http://www.cdc.gov/niosh/docs/2007-162/>.
9. National Institute for Occupational Health and Safety (2007) *Injuries to Youth on Racial Minority Operated Farms - 2003*. Available at: <http://www.cdc.gov/niosh/docs/2007-163/>.
10. USDA-National Agricultural Statistics Service (2004). *2001 Childhood Agricultural-Related Injuries*. Available at <http://jan.mannlib.cornell.edu/reports/nassr/other/injury/injr0104.pdf>.

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