

## Past Accomplishments



With funding from NIOSH from 1996–1999, the North American Guidelines for Children's Agricultural Tasks (NAGCAT) were developed using a consensus-derived approach involving 16 individuals with various types of

expertise in agriculture production, safety, and child development. The NAGCAT became the “gold standard” for children’s work in agriculture, and numerous (10) research studies were conducted to validate the content (e.g., weight-bearing limits, field of vision, strength), promotion strategies, and efficacy of guidelines. NAGCAT were disseminated to farm parents across North America using a variety of strategies including direct mailings, newspaper inserts, calendars, and presentations. Farm organizations also distributed the guidelines directly to farmers.<sup>1</sup> The NAGCAT were modified for use in Sweden and the Philippines and were used as a reference by the International Labour Organization.<sup>2</sup> Stories shared with NCCRAHS staff by farmers through personal communications indicate that some parents were using NAGCAT. However, these illustrated, paper-printed, web-accessible guidelines have become outdated over time. Guideline content became outdated as more scientific evidence became available on performing these tasks, and technology changed the way youth were performing tasks and the type of work being done.

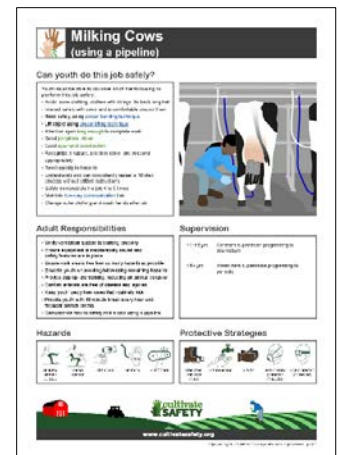


From 2016–2019, under the leadership of Marsha Salzwedel, EdD, the original NAGCAT resources were updated, creating the Agricultural Youth Work Guidelines (AYWG). Funding for updating the guidelines was

provided through the Strengthening Organizational Capacity project, with supplemental funding supplied by CHS Inc. An 16-person steering committee, comprising stakeholders from across the agricultural industry (Progressive Ag Foundation, American Farm Bureau, NIOSH, USDA, FFA, 4-H, Insurance, farm parents, and others) was formed to provide overall guidance on topics, assess “practicality vs. science” issues, help maximize messages with minimal text, address cultural relevancy, and guide the overall design of the guidelines and website that would house them. To help address cultural relevancy and make the guidelines more attractive to equipment manufacturers and industry, the steering committee recommended the guidelines should have modifiable skin tones and equipment colors and selected the vector graphic style to allow for these adaptations. The steering committee recommended that not only should the guidelines be accessible through a mobile friendly website, they should also be available in multiple formats, including view, print, download, and interactive.

Once guideline topics were determined by the steering committee, numerous content consultants with expertise in the physical performance of the tasks were recruited to create or update the content in the job hazard analysis (JHA) chart using the latest scientific evidence. Once the physical review was completed, a child development specialist reviewed the materials and addressed developmental concerns. NCCRAHS staff then used the updated JHAs to create the new guidelines. The Marshfield Clinic Biomedical Informatics team, working with NCCRAHS staff, developed the website pages for the newly created guidelines and added them to the website as they were completed. Subsequently, the guidelines and the associated web pages were translated into Spanish and French. Supplemental materials were developed on child development, supervision, communications, and benefits of farm work. Videos on how to bend, lift, and climb properly were developed and added. The website now contains 51 guidelines, which can be filtered by age or task category ([www.CultivateSafety.org/work](http://www.CultivateSafety.org/work)), and supplemental materials – all available in English, Spanish, and French.

The debut of the guidelines the opening keynote session of the 2017 International Society for Agricultural Safety and Health. To assist with promoting the work guidelines, a media kit was developed by the NCCRAHS communication team and shared with the work guidelines steering committee and the Childhood Agricultural Safety Network (CASN), which has over 60 member organizations. Both groups were enthusiastic about promoting the guidelines, resulting in several articles, including Farm Progress, Brownfield media, and AgUpdate. The guidelines were promoted to over 2000 youth and FFA advisors at each of the 2017, 2018, and 2019 National FFA Expo events. The AYWG were an integral part of the Child Agricultural Injury Prevention



Workshops in 2018 and 2019, and they have also been included in numerous other presentations, such as agritourism “worker training” presentations given at the Great Lakes Expo (Michigan) and the North American Farm Direct Marketing Association (Indiana). In the past few years, AYWG have been featured in numerous other presentations, webinars, press releases, newsletter articles, social media posts, and other promotions.

The AYWG are gaining acceptance from safety and health professionals and organizations who work with farmers. The guidelines are featured and/or linked on many different websites including Penn State, Carle Hospital, the Upper Midwest Agricultural Safety and Health Center, Oregon Farm Bureau, and Rural Mutual Insurance. In a recent needs assessment of child agricultural injury prevention stakeholder organizations conducted by the NCCRAHS, the AYWG were one of the top three resources identified as being currently used by respondents, with over half (52%) of responding organizations currently using the guidelines.<sup>3</sup> Many organizations have also either posted or shared the AYWG on social media (see image below). Farmers also revealed an interest in the AYWG. When the NCCRAHS featured them at the Wisconsin Farm Technology Days in 2018, discussions with 26 farm parents revealed an interest, and in some cases intent to use, the AYWG (M. Salzwedel, personal communication, July 10-12, 2018).

Website and social media analytics indicate that others are sharing and accessing the AYWG. Facebook data from 2018-2019 include 62 posts featuring AYWG, which reached 31,520 people, garnering 964 likes, 221 shares, and 11 comments. Website data from 2019 indicate that while the majority of users are still accessing the guidelines using a desktop, over 20% of the 11,827 users were on mobile devices. Data also revealed the main search page for the guidelines was visited over 3,800 times. The guidelines were “interacted with” over 2,800 times in 2019, with an average time of 2:26 minutes, indicating that people are reading the information and not just clicking and exiting. Some users are also using “interact” mode, where they respond to a series of questions, ultimately resulting in guidance on whether the task is appropriate for a youth.



Groundbreaking and innovative, the NAGCAT provided farm parents and supervisors with a valuable tool to ensure work they were assigning to youth matched their abilities. It is anticipated that updates of this vital tool, will increase the use of work guidelines for youth, ultimately reducing injuries and fatalities.

Comparison of Work Guidelines		
Logo	NORTH AMERICAN GUIDELINES FOR children's AGRICULTURAL TASKS	AGRICULTURAL YOUTH WORK GUIDELINES
Acronym	NAGCAT	AYWG
Release Date	1999	2017
Development Process	Consensus of 30 safety professionals; series of in-person meetings, teleconferences, etc.	16 person steering committee, in-person, teleconferences, Evidence-based – from NAGCAT, published research
Poster Format	Paper, PDF	Paper, PDF, Read, Print, Interact
Graphics	Illustrated Drawings	Vector Graphics
PDF Features		Tooltips, Hyperlinks
Website	Static	Mobile responsive
Customizable	None	Skin tones, Equipment colors
Number	62+5 Tractor developmental	50+5 Tractor developmental
Language	English + 10 in Spanish	English, Spanish, French
Supplemental Materials	Resource Manual: Job Hazard Analyses charts; child development checklists; training materials; Calendars	Job Hazard Analysis Charts, Checklists, Bending, Lifting & Climbing Videos; Supervision, Communication, Child Development, Benefits of Farm Work
Booklets	Categories of NAGCAT in 7 booklets, Farm Equipment, Gardening	Farm Equipment, Gardening, Animals Customized for organizations (under development)