

Roll-Over Protective Structure (ROPS) Educational Demonstration for Kids

In Year 3 of the AgriSafety Program, increased efforts were made to promote the research being conducted by the current AgriSafety projects. An informative demonstration was developed to educate youth on the use of Roll-Over Protective Structures (ROPS) on tractors. This demonstration was designed to showcase the importance of the Low-Cost, Farm-Built Engineered ROPS project, which is a pilot project aimed at designed affordable ROPS that farmers can build themselves for their older model tractors that are still in use. The objective of the ROPS project is to design a ROPS that is affordable to produce and does not rely on journeyman welding skills to be structurally sound. By providing an affordable and simple ROPS design the project's goal is to increase the use of ROPS on farms to prevent roll-over injuries and fatalities.

How Does the Demonstration Work?

The ROPS demonstration teaches youth that the combination of ROPS and seatbelts can save the lives of farm workers. In fact, this life saving combination is 99% effective. The demonstration consists of two toy tractors: one without a ROPS and one with a ROPS, tractor turn-over base and eggs. The kids witness the demonstration of each tractor losing its center of gravity on the turn-over base. The results of the tractor without a ROPS shows the egg breaking, demonstrating what would happen to the tractor driver in the event of a roll-over event on a tractor not equipped with a ROPS.



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The results of the second tractor with a ROPS demonstrates that when the tractor tips the egg remains in the tractor and is protected by both the ROPS and by wearing a seatbelt. This demonstration provides a great visualization for kids to see the difference a ROPS can make in preventing injury to the tractor operator and teaches them about the center of gravity of large farm machinery.

ROPS Demonstration Success

In Year 3, the Agricultural Health and Safety Network launched its educational demonstration pilot project, which included the ROPS demonstration. In the first year of the project, 28 rural Saskatchewan schools and community events hosted the demonstration, reaching nearly 2000 students. School divisions visited included: Living Sky, Sun West, Horizon, Chinook, Prairie Valley, North East, Prairie South, Prairie Spirit, and South East Cornerstone. The ROPS demonstrations is geared toward kids age 9-12 (Grades 4-6), but can be tailored to younger or older grades if requested by school administration.



How to Sign-Up Your Class

The ROPS demonstration will continue to be part of the Agricultural Health and Safety Network's Discovery Days in the coming year. The presentation runs for approximately 45-60 minutes. If your community or school is interested in hosting a morning or afternoon with Discovery Days, please contact Bonita Hus at (306) 966-6647 or blm118@mail.usask.ca.

The Low Cost Roll-Over Protective Structures Intervention Project is one part of Agrivita Canada Inc.'s Canadian AgriSafety Applied Research Program, led by a national team of researchers from the Prairie Agricultural Machinery Institute (PAMI), the Canadian Centre for Health and Safety in Agriculture (CCHSA), the University of Alberta, the Injury Prevention Centre (IPC, formerly ACICR), and the Canadian Agricultural Safety Association (CASA).

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