Canadian AgriSafety Applied Science Program

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Rolling Out a ROPS Program in Canada

Rollover Protection - The Numbers

- 70% of all agriculture-related fatalities are caused by machinery
- Tractors account for 62% of farm machinery injuries
- Between 2003 – 2012 there were 143 tractor rollover deaths in Canada
- 43% of tractors in Saskatchewan do not have rollover protective structures (ROPS)
- ROPS in combination with seat belts are 99% effective at preventing fatalities due to tractor rollovers

The good news: studies in Sweden, Norway, Finland, and West Germany have demonstrated that mandatory ROPS retrofitting and mandatory ROPS on all new tractors has virtually eliminated fatal tractor rollovers. In the US, the development of a national ROPS rebate program was established in 2017 to help reduce the financial barrier of installing ROPS on older model tractors.

How can Canada Reduce Tractor Rollover Fatalities?

The *Low Cost ROPS National Program Rollout* is a project led by Prairie Agricultural Machinery Institute (PAMI). In a previous pilot project, PAMI tested the idea of developing blueprint ROPS drawings that were then given to farmers to fabricate their own on-farm built ROPS for about $250 worth of materials. The project was highly successful in demonstrating:

- Development of a ROPS blueprint drawing to fit Massey Ferguson tractor models T035, 35, 130, 150, 230, and 235
- Development of a ROPS design that moved the weld sites away from the high stress points and utilizes larger welded areas to further reduce stress, making it feasible for any farmer with basic welding skills to be able to build a high-quality, structurally sound ROPS on their farm.
- Development of a process to certify on-farm built ROPS to make sure they meet health and safety requirements.

Next Steps Toward a National Program

Moving forward PAMI will be building on the pilot project through the following steps:

- We are conducting a survey of tractor models currently in use on Canadian farms. The the survey at: www.agrivita.ca or scan the code below.
- Based on the survey results PAMI will design, develop blueprints, and test three more ROPS.
- A ROPS website will be developed and launched. The website will allow farmers to search the make and model of their tractor and see if there is a commercial ROPS option available, if so, where to purchase a ROPS, or if blueprint drawings are available, how to build an on-farm ROPS.
- A certification process for on-farm built ROPS. Farmers who participate in the ROPS program will need to have their on-farm built ROPS certified to make sure they meet provincial regulatory requirements. To do this, farmers will need to submit a checklist and several photos of their ROPS through the website to PAMI. PAMI engineers and tradesperson welders will review the checklist and photos for integrity of welds and proper installation. Pending engineer approval the farmer will then be mailed a certification sticker to be put on their ROPS.

With the previous generation of agricultural equipment built to last, the lifespan of older tractors has often surpassed currently safety advancements. The Low Cost ROPS project aims to fill this gap across Canada by providing access to blueprint drawings that give farmers the opportunity to build a ROPS for their older tractors at a reasonable cost. The ultimate goal of this project is reduce than number of fatalities caused by tractor rollover through a simple and effective solution.

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For contact information, please visit www.agrivita.ca

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