

New thinking needed on quad-bike deaths: Australian study

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Quad-Bike crush protection device

The current logic surrounding the effectiveness of crush protection devices in preventing deaths and injuries caused by quad-bikes on farms, is flawed, according to new research.

In 2011, 23 [Australians](#) died as a result of quad-bike accidents, with 18 of these deaths occurring on farms. Around half of all Australian quad-bike fatalities occurred due to roll-over of the bike, resulting in crushing injuries and asphyxiation.

A literature review conducted by Dr. Scott Wordley and Dr Bruce Field from the Department of Mechanical and Aerospace Engineering at Monash University has found that a crush protection device shows

some potential to reduce fatalities and injuries due to quad-bike roll-over events.

[The Quad Bike Safety Devices study](#), commissioned by the Institute for [Safety](#), Health and Recovery Research (ISCRR) looked at the newly available Quad Bar™, which has been designed to provide increased protection from quad-bike crush injuries and to reduce the likelihood of riders being pinned beneath an over-turned bike. This device can be retro-fitted to most bikes, and is a padded, hairpin shaped metal hoop which is mounted behind the rider.

“Many potential problems and limitations were found in the computer simulation methods previously used to estimate the effectiveness of quad-bike safety devices like the Quad Bar,” Dr. Wordley said.

“The results from such studies are commonly cited to argue against the provision of any form of crush protection for quad-bike riders, but this view is slowly changing.”

New experimental data and improved simulation results generated by Australian-based researchers now indicates that the Quad Bar crush protection device has the potential to reduce injuries and fatalities, particularly those arising from low speed lateral rolls and back flip events.

In response to these findings, the Victorian Branch of the Australian Workers Union has already moved to ban the use of quad-bikes by its members in the workplace unless they are fitted with an appropriate crush protection device, like the Quad Bar.

The report is currently being considered by members of the Quad Bike Trans-Tasman Working Group.

This group, comprising of quad-bike manufacturers, farmer representatives, road safety and workplace safety authorities, was convened with the support of workplace safety authorities in Australia and New Zealand to help contribute to the reduction of fatalities and serious injuries of quad-bike use on farms in a work setting.

Provided by Monash University

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