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ATV Injury on Australian Farms

The Facts – 2007

Facts and Figures on Farm Health and Safety Series #8



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ATV Injury on Australian Farms – The Facts

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Foreword

Agriculture and horticultural enterprises produce commodities of more than \$30 billion value per annum on around 145 000 enterprises spread across all states of Australia.

High rates of serious injury and deaths on Australian farms are of concern to agricultural industry agencies, farmers and farm enterprises and federal and state governments.

This document has been produced to provide guidance to those agencies and individuals who are working to reduce risk associated with operation of All-Terrain Vehicles (ATVs) on Australian farms. It is the eighth in a series on facts and figures on farm health and safety.

This project was funded by the RIRDC managed Joint Research Venture in Farm Health and Safety which is partnered by the Grains R&D Corporation, Meat and Livestock Australia, Australian Wool Innovation, Cotton R&D Corporation, Sugar R&D Corporation and the Rural Industries Research & Development Corporation.

This report, an addition to RIRDC's diverse range of over 1600 research publications, forms part of our Joint Research Venture in Farm Health and Safety R&D program, which focuses on the adoption of improved systems for Farm Health and Safety.

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Contents

Executive Summary	5
1. Introduction	7
2. ATV related deaths and injury	8
ATV deaths	8
ATV on-farm injury	10
ATV injury and workers' compensation claims.....	11
3. Human and behavioural risk factors – age, gender and riding status	12
4. Human and behavioural risk factors – work activity	13
5. Machine risk factors	15
ATV rollover	15
Load.....	16
Machine maintenance	16
6. Environment risk factors	17
7. Nature and mechanism of injury	18
8. ATV injury – surveys of ATV practice and safety perceptions ...	20
References	23
Contacts	24

Executive Summary

What this report is about

This document has been produced to provide guidance to those agencies and individuals who are working to reduce risk associated with All-Terrain Vehicles (ATVs) on Australian farms.

Who this report is aimed at

This document is aimed at agencies and individuals working to reduce risk associated with the operation of farm machinery, particularly those working with ATVs on Australian farms. It is particularly relevant to educators, speakers and developers of public and industry policy interested in improving farm safety.

Background

Small farm vehicles such as 2 wheel motorcycles and 4 wheeled ATVs have become important to most agricultural production systems in Australia. There has been a steady increase in the number of ATVs in use on farms over the past decade and more recently a number of All-Terrain Utility vehicles (ATUs) have emerged as having a role in agriculture and horticultural enterprises. Work previously undertaken by horses, tractors, 2 wheel motorcycles and utilities are now being undertaken by ATVs.

Objectives

The objective of this document was to present the facts and figures on the risks involved in the use of ATV's on Australian farms.

Methods

Information for the document was collated by the National Farm Injury Data Centre which sources data from agencies including the Australian Bureau of Statistics (ABS), the National Coroners Information System, the NSW Health Department, the Commonwealth Department of Health and Ageing and field day surveys.

Results

Surveys conducted at field days in NSW, Victoria and SA in 2005 record that 66.5 percent of farmers reported that they owned at least one ATV, with the maximum number of ATVs on any one farm being 12 (ACAHS, 2006). Motorcycle sales figures record that a total of 17,068 ATVs (farm and non farm use) were sold across Australia in 2005 reflecting a 15.8 percent increase from 2004 sale figures (FCAI, 2006).

Implications

This document will provide guidance to agencies and individuals working to reduce risk associated with the use of ATVs on Australian farms. The publication is available electronically for use by educators and speakers and those whose role is the development of public and industry policy to improve safety.

Recommendations

It is recommended that:

- This document is used to provide guidance to agencies and individuals working to reduce risk associated with ATVs on Australian farms.
- Wearing a helmet is an important preventive practice when riding ATVs to reduce the risk of head injury.



1. Introduction

Small farm vehicles such as 2 wheel motorcycles and 4 wheeled All-Terrain Vehicles (ATVs) have become important to most agricultural production systems in Australia. There has been a steady increase in the number of ATVs in use on farms over the past decade and more recently a number of All-Terrain Utility vehicles (ATUs) have emerged as having a role in agriculture and horticultural enterprises. Work previously undertaken by horses, tractors, 2 wheel motorcycles and utilities are now being undertaken by ATVs.

Surveys conducted at field days in NSW, Victoria and SA in 2005 record that 66.5 percent of farmers reported that they owned at least one ATV, with the maximum number of ATVs on any one farm being 12 (ACAHS, 2006). Motorcycle sales figures record that a total of 17,068 ATVs (farm and non farm use) were sold across Australia in 2005 reflecting a 15.8 percent increase from 2004 sale figures (FCAI, 2006).

ATVs are commonly used on farms in Australia for

- personal travel around the farm
- mustering of livestock
- supervision of working field crews
- inspection of farm structures and activities
- carrying and towing of equipment and animals
- spraying of weeds.

ATVs are also used by family members and visitors for recreational purposes.

There is a growing concern over the number of deaths and serious injury occurring in association with ATV use both for agricultural work and recreational use, in Australia and overseas.

Farmsafe Australia, the national association of agencies with a commitment to reducing injury risk on Australian farms, has established an ATV Safety Reference Group which is working with relevant bodies and has formulated a national strategy to improve ATV safety on Australian farms. The *Safe Operation of All-Terrain Vehicles and Utilities on Australian Farms – An Industry Strategy 2004–2009* has

resulted in a program funded by RIRDC and the Australian Department of Health and Ageing. The National Farm Injury Data Centre has also established an ATV Deaths Database which sources data from coronial files and media sources.

This document has been produced to provide guidance to agencies and individuals working to reduce risk associated with operation of farm machinery on Australian farms. The publication is available electronically for use by educators and speakers to raise awareness and promote machinery safety, and for those whose role is the development of public and industry policy to improve safety.

2. ATV related deaths and injury

ATV deaths

Information reporting on ATV fatalities in Australia has been available for a number of years. Data collected over the last 20 years suggests that the annual number of deaths associated with ATVs have risen with a more widespread use of ATVs, especially on farms.

Recent information indicates that there are more than 10 deaths associated with ATV use each year in Australia, primarily in the agriculture and horticulture industries. This estimate represents an increase in annual deaths from 1 per annum for the period 1989–1992 (Franklin et al, 2000).

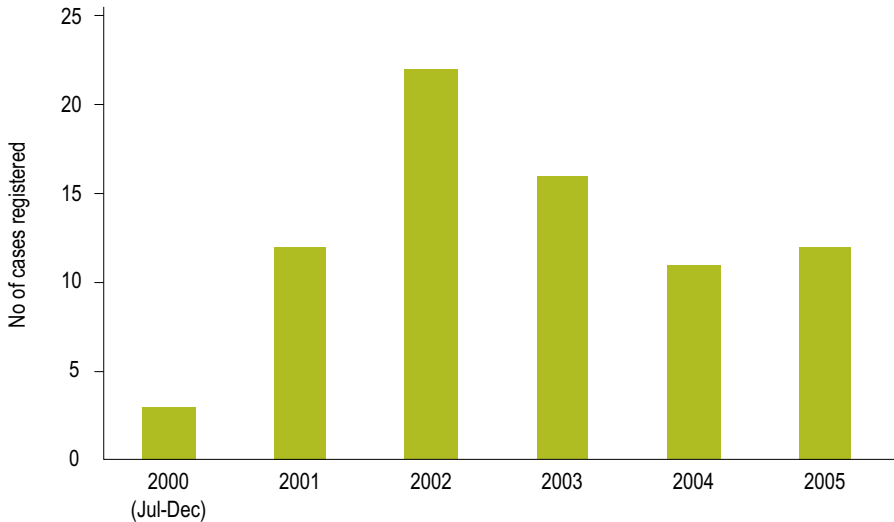
ABS mortality data for the period 1999–2002 indicates that ATVs were associated with at least 2.4 percent of all non-intentional traumatic deaths in Australia of those whose occupation was farm manager or agricultural worker (Fragar and Thomas, 2005).

A recent study of 384 farm fatalities for the period 2001–2004 using National Coroners Information System data found that 13.3 percent of on-farm deaths were associated with ATVs and that ATVs were the second leading agency associated with death following tractors over those 4 years (details of these deaths are included in the ATV Deaths Register below).

The **ATV Deaths Register** established by the National Farm Injury Data Centre has identified a total of 76 ATV associated fatalities that have occurred on and off farms throughout Australia from July 2000 to December 2005 (see Figure 1).

Details of these cases are gathered from the National Coronial Information System (NCIS) and media sources (the data available is current as at January 1st 2006, but may be subject to change as additional information becomes available from NCIS).

Figure 1: Number of ATV associated fatalities, by year, Australia July 2000–Dec 2005



Source: NFIDC ATV Deaths Register (Jan 2006)

Table 1: ATV associated fatalities by state and use, Australia July 2000–Dec 2005

State	No of cases			
	Farm related*	Non-farm	Unknown	Total
NSW	19	4	0	23
QLD	15	2	2	19
VIC	7	0	3	10
SA	3	0	1	4
WA	3	4	2	9
NT	1	0	0	1
TAS	5	5	0	10
Total	53	15	8	76

Source: NFIDC ATV Deaths Register (Jan 2006)

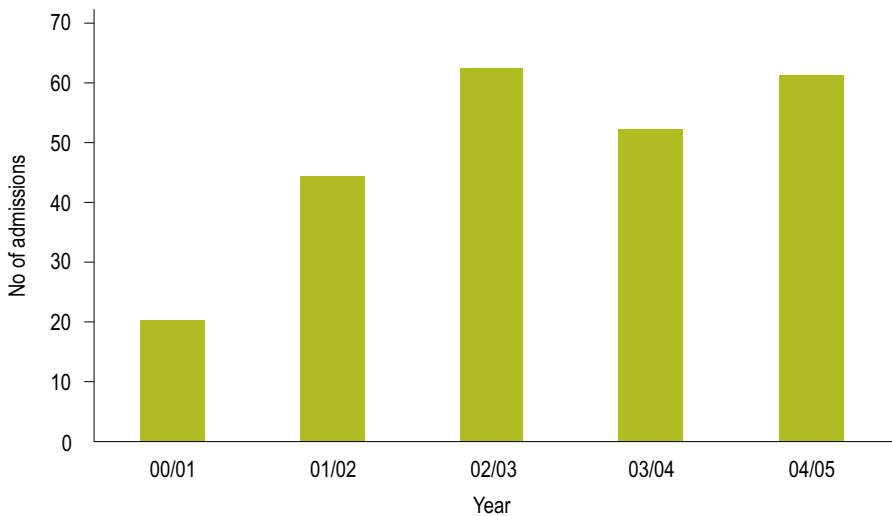
*Note: Farm related = use of farm ATV, on or off a farm

Fifty three fatalities in the ATV Deaths Register were associated with ATVs used for agricultural purposes, either on or off a farm (Table 1). This equates to 78 percent of cases where ATV use was known.

ATV on-farm injury

Data pertaining to on-farm ATV injury is available from NSW hospital admissions. For the 5 year period 2000 to 2005, 228 cases admitted to NSW hospitals were recorded as being associated with All-Terrain Vehicles in NSW. While exact type of All-Terrain Vehicle was not always recorded, 4 wheel ATVs were specifically coded in 45 percent of cases.

Figure 2: Number of hospitalised cases where agent of on farm injury was coded as ATV*, NSW July 2000–June 2005 (n=228)



Source: NFIDC (2005) NSW Health HOIST database

* ICD10 code = V86 occupant of special all terrain or other motor vehicle designed primarily for off-road use, injured in transport accident. Cases where ATV was known to be 2 or 3 wheel (11 cases) have been excluded.

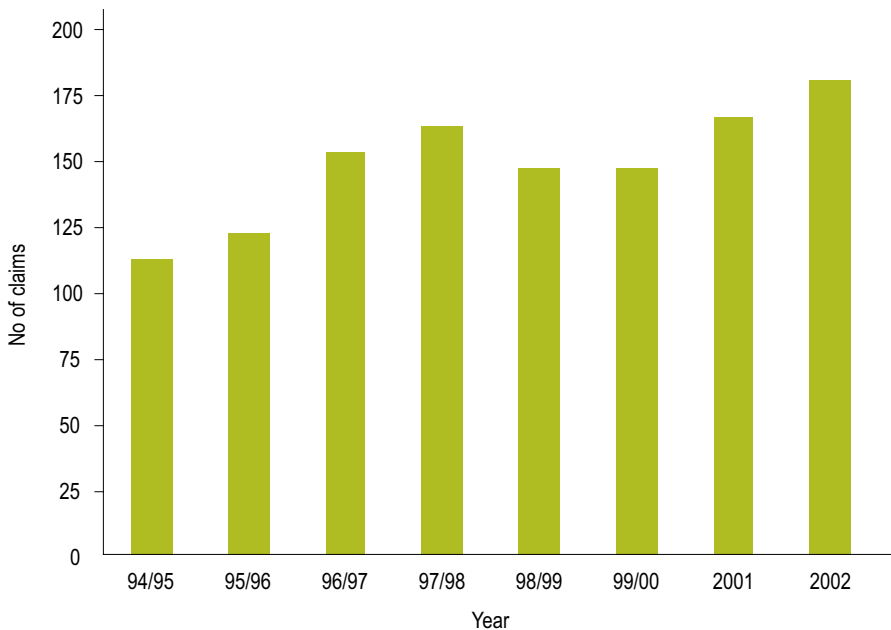
A survey of approximately 280 Australian ATV riders conducted in 1999 as part of a larger study of farm motorcycle riders found that 35–47 percent of ATV riders reported seeking medical treatment following an ATV associated injury (Schalk & Fragar, 2000). Approximately 46 percent of participants rode ATVs on a regular basis.

Year 11 and 12 students attending agricultural colleges in Western Australia surveyed in 2004, recorded that of a total 326 participants, 44 percent rode ATVs and 54 percent of those riders reported that they had at some stage required medical treatment following an ATV injury (Lower et al, 2005). The majority of respondents (79 percent) also reported riding ATVs for recreational purposes.

ATV injury and workers' compensation claims

Information on ATV injury is not readily available from workers' compensation data in Australia, as all motorcycles/trailbikes are grouped together as a subcategory of *Mobile plant and transport – road transport*. However the number of claims associated with *motorbikes/scooters/trailbikes* in the agriculture industry is significant and has shown a general upwards trend over the last decade (Figure 3).

Figure 3: Workers' compensation claims associated with motorcycles/scooters/ trailbikes in the agricultural industries, Australia 1994/95–2002



Source: NOSI1 Database, NOHSC website July 2005

Note: Duration of absence greater than one week and excludes all journey claims

3. Human and behavioural risk factors – age, gender and riding status

Riders of all ages are at risk of serious injury and death. The majority of fatalities appear to involve ATV operators or riders, however passengers and bystanders are also at risk. Fourteen percent of deceased persons in the ATV Deaths Register were riding as passengers at the time of the accident. All but one passenger fatalities occurred to young people under the age of 20 years.

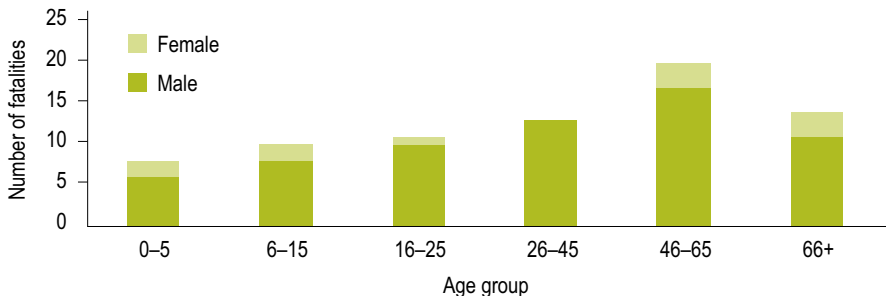
Of the 58 deaths occurring to adults registered with the ATV Deaths Register, 88 percent were male. Of the 18 deaths occurring to children under the age of 16, 22 percent occurred to females and 78 percent to males.

Table 2: ATV associated fatalities, by age and riding status, Australia July 2000–Dec 2005

Age group	Rider	Passenger	Bystander	Unknown/ other	Total
0–5	3	5	–	–	8
6–15	5	4	–	1	10
16–25	9	1	1	–	11
26–45	13	–	–	–	13
46–65	19	1	–	–	20
66+	12	–	1	1	14
Total	61	11	2	2	76

Source: Fragar & Pollock (Jan 2006)

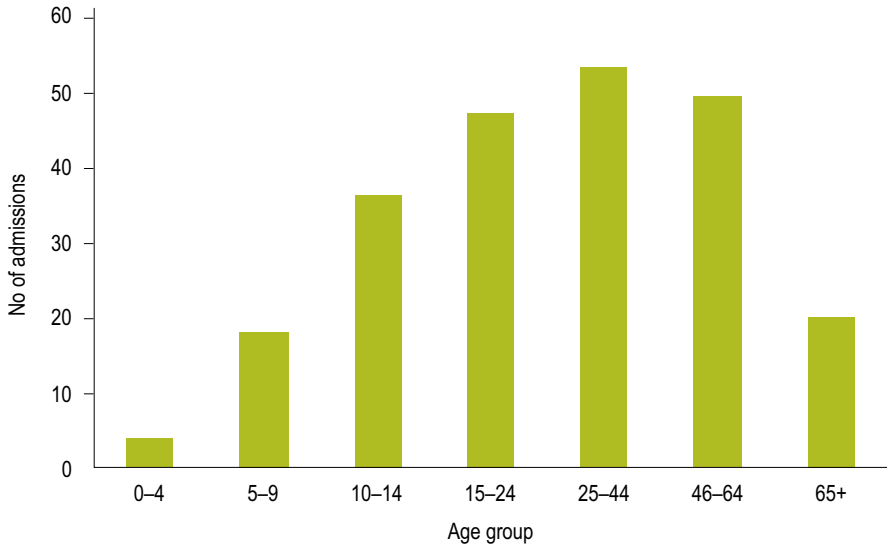
Figure 4: Age and sex of ATV associated fatalities, Australia July 2000–Dec 2005



Source: NFIDC ATV Deaths Register (Jan 2006)

A similar age profile of ATV associated injury can be seen in hospitalised cases in NSW, where 26 percent of ATV injuries occurred to children under 15 years of age. Insufficient data is available concerning riding status of the injured person.

Figure 5: Age of hospitalised cases where agent of on farm injury was coded as ATV*, NSW July 2000–June 2005 (n=228)



Source: NFIDC (2005) NSW Health HOIST database

* ICD10 code =V86 occupant of special all terrain or other motor vehicle designed primarily for off-road use, injured in transport accident. Cases where ATV was known to be 2 or 3 wheel (11 cases) have been excluded.

4. Human and behavioural risk factors – work activity

ATV related deaths are associated with a wide range of work activities including mustering, spraying, transporting and travelling on farms, as well as non work-related activities.

Table 3 indicates activities recorded at time of death of cases in the ATV Deaths Register. Of the cases where use was known, 79 percent of the fatalities were associated with ATVs used in agriculture. Of the cases where work context was known, 20 deaths (44 percent) were associated with non work-related activity.

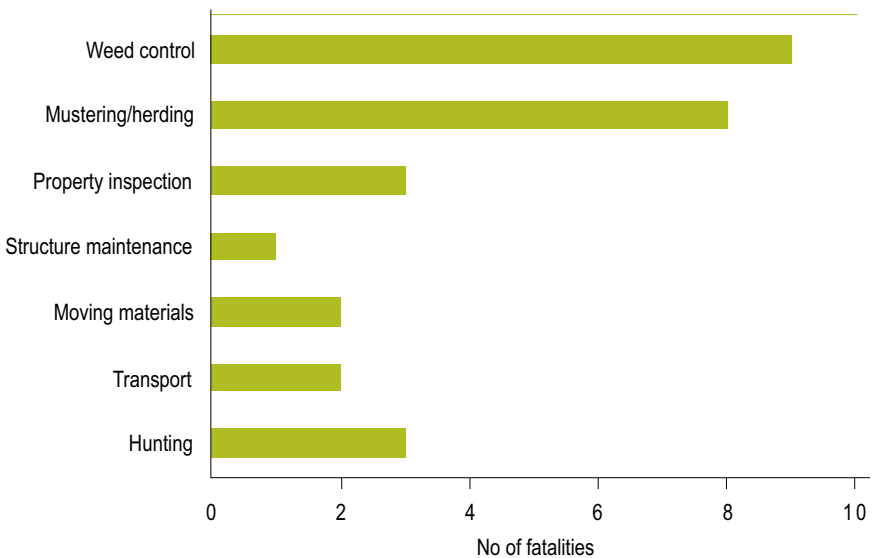
Table 3: Industry of ATV associated fatality, by work context, Australia July 2000–Dec 2005

Industry	Work context			Total
	Work*	Non work	Unspecified	
Agricultural	24	8	21	53
Non agricultural	1	12	1	14
Unknown industry	0	–	9	9
Total	25	20	30	76

Source: NFIDC ATV Deaths Register (Jan 2006)

Note*: Work related as classified by Coroner

Figure 6: Activity* undertaken at time of ATV associated fatality, agricultural industry, Australia July 2000–Dec 2005 (n=28)



Source: NFIDC ATV Deaths Register (Jan 2006)

Note*: Where activity has been specified

The task of weed control was associated with the greatest number of agricultural fatalities where work was being undertaken. Features of this activity such as load or terrain may be associated with increased risk.

5. Machine risk factors

Risk factors that may be associated with ATV machines include a potential to rollover, the load on the machine and maintenance.

ATV rollover

Table 4 shows a description of injury event according to police reports contained in coronial files. A large number of deaths were associated with machine rollover (at least 43 percent of registered cases).

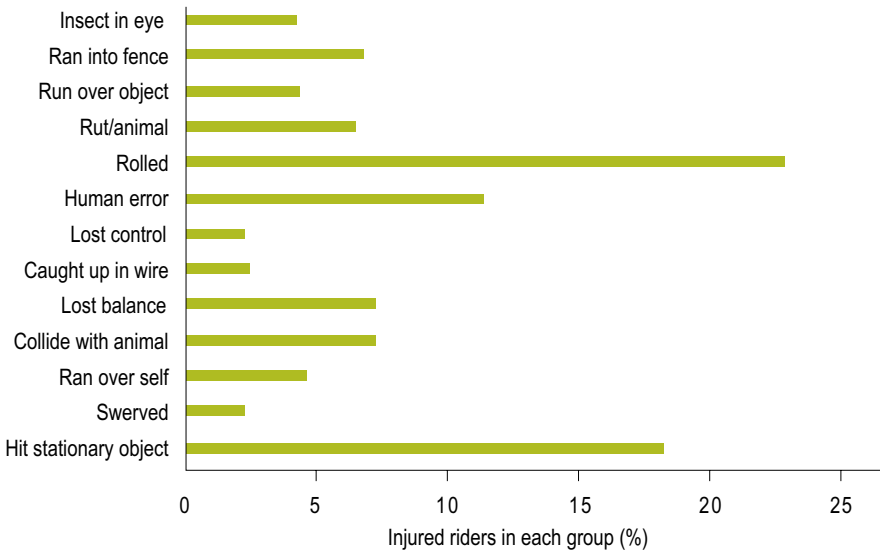
A survey of ATV riders by Schalk and Fragar (2000) also indicated that machine rollover is associated with a large number (over 20 percent) of non-fatal ATV accidents (see Figure 7).

Table 4: Description of ATV incident causing fatal injury, Australia July 2001–Dec 2005

Description of incident*	No of cases
Rollover	33
Side rollover	(7)
Rear rollover	(8)
Front rollover	(1)
Unknown rollover	(17)
Collision	16
With tree	(5)
With vehicle	(5)
With fence	(3)
With animal	(1)
With stationary object	(2#)
Thrown from ATV, unspecified	10
Fallen/knocked from ATV	7
Thrown over handlebars	2
Pushed by passenger into handlebar	1
Pinned between ATV and object	2
Unknown	5
Total	76

Source: NFIDC ATV Deaths Register (Jan 2006) Note#: Operator & passenger of one ATV

Figure 7: Responses of farm ATV riders on cause of accident, Australia 1996–1997 (n=550)



Source: Schalk & Fragar (2000)

Load

Limited information is available to assess the load present in each case. Eight rollover fatalities in the ATV Deaths Register were known to be carrying an additional load but data on the weight of the load was usually not recorded. Five of the 11 fatalities where passengers were involved resulted in rollover.

More information is required to understand the role that loading plays in ATV rollover.

Machine maintenance

The role of machine maintenance in ATV accidents is not clear from Australian study results. Lower et al (2005) reported that 75 percent of ATV riders undertook annual servicing on their machines and that 91 percent of injured riders rode ATVs with properly functioning brakes and hand levers.

Schalk and Fragar (2000) found that 79 percent of ATV riders undertook routine maintenance every 1–6 months and that of the 256 riders undertaking this maintenance, 10 percent reported an injury.

6. Environmental risk factors

Slope and ground surface appear to play a key role in ATV accidents. Tables 5 and 6 show information recorded in police reports and findings in the ATV Deaths Register case notes concerning slope and surface conditions present at the site of the incident.

Of the 35 cases where slope of terrain is recorded, approximately 57 percent of fatal accidents occurred on a slope described as steep (Table 5). Limited assumptions can be made based on the information available about ground surface conditions (Table 6).

Table 5: Slope of terrain at site of ATV fatal incident, Australia July 2001–Dec 2005

Slope of ground at accident site*	No of cases
Steep (greater than 45 degrees)	20
Undulating	1
Slight (less than 30 degrees)	6
Level	8
Unknown/not recorded	41
Total	76

Source: Fragar & Pollock (Jan 2006)

Note*: Taken from police report description



Table 6: Ground surface at site of ATV fatal incident, Australia July 2001–Dec 2005

Ground surface at accident site*	No of cases
Public road	12
Paddock	11
On-farm road or track	7
Embankment	6
Hillside	3
Shed/garage	4
Irrigation channel	2
River/watercourse bank	5
Racetrack (bike)	1
Beach/sandy track	4
Airstrip	1
House yard	1
Cattle yard	1
Driveway	2
Loading ramp	1
Unknown	15
Total	76

Source: Fragar & Pollock (Jan 2006)

Note*: Taken from police report description

ATV operators should be made aware that there are **terrain limits** for All-Terrain Vehicles.

7. Nature and mechanism of injury

Table 7 indicates the nature of injury in ATV associated fatalities, where at least 27 percent of deaths (where injury type is known) in the ATV Deaths Register were recorded as being caused by head injury. The mechanism of injury (which identifies action, exposure or event associated with direct cause of injury) in the majority of cases was recorded as blunt force with the body crushed beneath the ATV, or contact of the body with another surface, having been flung from the ATV.

Table 7: Cause of death in ATV related fatalities by ICD10 code, Australia Jul 2001–Dec 2005

Category	Injury	ICD 10 Code	No. of Cases
Circulatory system	Acute myocardial infarction	I21	1
	Chronic ischemic heart disease	I25	1
Respiratory system	Other symptoms involving respiratory systems	R09	1
Head injury	Fracture of skull and facial bones	S02	5
	Intracranial injury	S06	6
	Other and unspecified injuries of the head	S09	9
Neck injury	Fracture of neck	S12	6
	Injury of blood vessels at neck level	S15	1
	Crushing injury of neck	S17	2
Thorax injury	Injury of other and unspecified intra thoracic organs	S27	3
	Crushing injury of thorax	S28	8
	Injury of intra-abdominal organs	S36	1
	Crushing injury of abdomen, lower back & pelvis	S38	1
Hip/thigh injury	Injury of blood vessels at hip and thigh level	S75	1
Multiple injuries	Crushing injuries involving multiple body regions	T04	1
	Other injuries involving multiple body regions NEC	T06	2
	Unspecified multiple injuries	T07	7
Unspecified	Injuries of unspecified body region	T14	1
Other	Asphyxiation	T71	9
	Unknown		9
Total			76

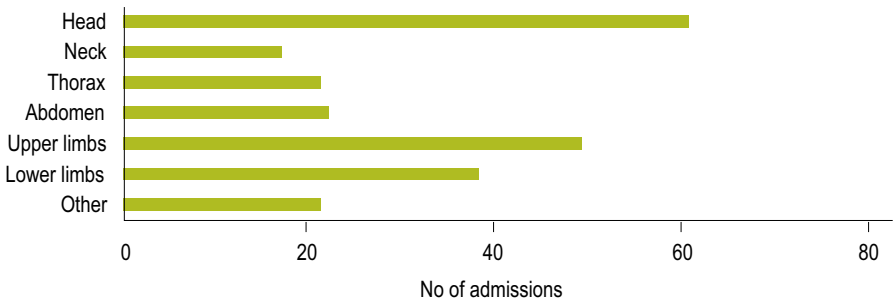
Source: NFIDC ATV Deaths Register (Jan 2006)

Note*: The cause of death for another 3 cases were related to circulatory conditions.

There was insufficient information to determine if helmet wearing had any impact on occurrence of head injuries with the fatality cases.

Figure 8 shows types of on-farm injury associated with ATV operation resulting in hospitalisation in NSW for 5 years. Head, neck and thorax injuries accounted for 43 percent of hospitalised cases.

Figure 8: Hospitalised cases where agent of on farm injury was coded as ATV*, by type of injury, NSW July 2000–June 2005 (n=228)



Source: : *NFIDC (2005) NSW Health HOIST database*

Note*: *ICD10 code =V86 occupant of special all terrain or other motor vehicle designed primarily for off-road use, injured in transport accident. Cases where ATV was known to be 2 or 3 wheel (11 cases) have been excluded*

A study of Emergency Department presentations over one year (1997 to 1998) concluded that the type of injuries sustained by ATV riders were significantly more likely to result in hospital admission (70 percent of cases) than two-wheel motorcycles (Davies and Franklin, 2006). The type of injuries were more severe and included crush or internal organ injury and amputation. One injury resulted in a fatality.

Wearing a helmet is an important preventative practice when riding ATVs to reduce the risk of head injury.

8. Surveys of helmet use, ATV practice and safety perceptions

An ongoing survey monitoring child and ATV safety conducted at agricultural field days in NSW, Victoria, WA and SA sampled 859 respondents throughout 2004 who lived or worked on a farm. Where respondents were asked to select 5 major hazards associated with injury or death of children on farms, ATVs were perceived as being of high injury risk following tractors (Table 8). The responses for ATV riding by parents in Figure 9 suggest that there is mixed assessment of the risks to children associated with these relatively new machines.

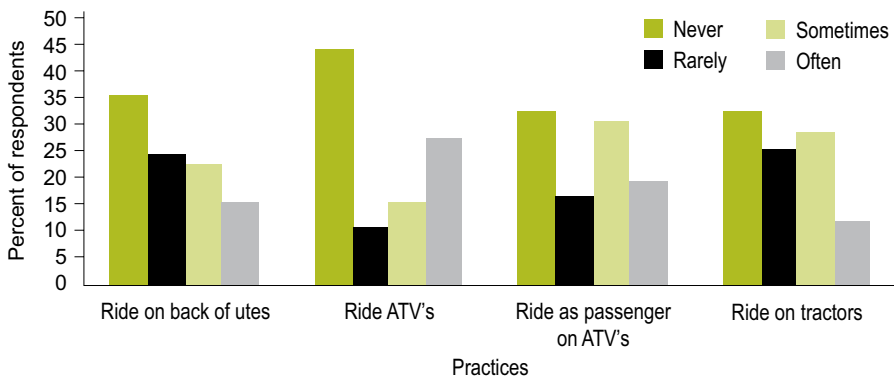
This information is being used to guide promotional activity by Farmsafe Australia on ATV Safety.

Table 8: Number of field day respondents who identified key child safety hazards, NSW, Vic, SA, WA, 2004 (n=844)

Hazard	No of responses	% of responses
Tractors	580	15.3
ATVs	517	13.6
Water	443	11.7
Farm vehicles	435	11.4
Chemicals	375	9.9
Motorcycles (2w)	361	9.5
Augers	295	7.8
Snakes	164	4.3
Guns	141	3.7
Livestock	133	3.5
Powered hand tool	121	3.2
Horses	105	2.8
Electricity	97	2.6
Other	28	0.7

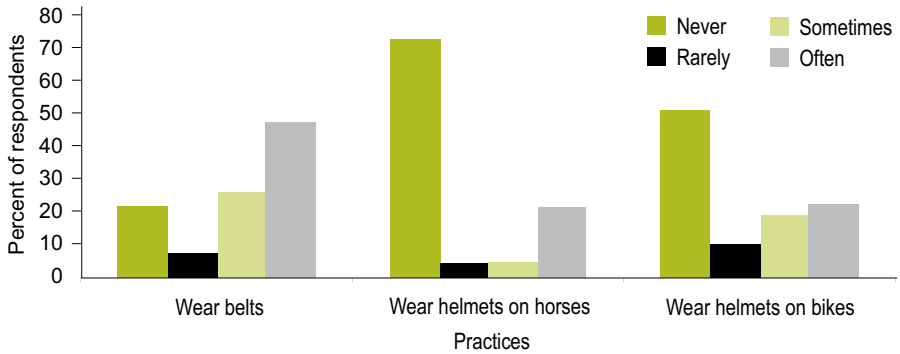
Source: Stiller et al (unpublished)

Figure 9: Percent of field day respondents* who reported children riding as passengers on farm vehicles, NSW, Vic, SA, and WA, 2004 (n=859)



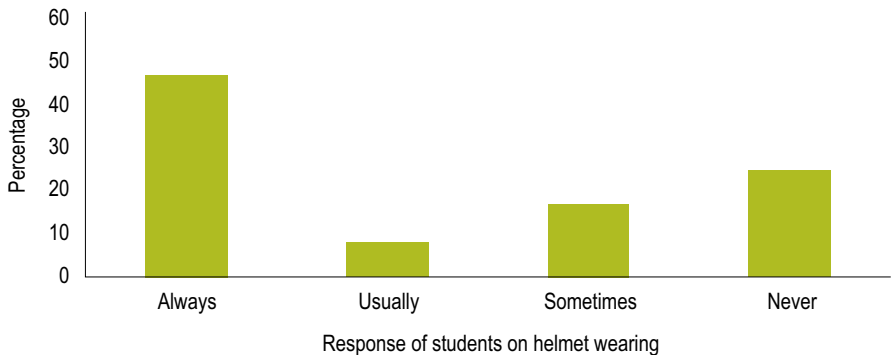
Source: Stiller et al (unpublished) Note*: Respondents who had children living on-farm or visiting at least monthly

Figure 10: Percent of field day respondents* who reported children wearing seatbelts and helmets, NSW, Vic, SA, WA, 2004 (n=859)



Source: Stiller et al (unpublished) Note*: Respondents who had children living on-farm or visiting at least monthly

Figure 11: Self-reported use of helmets when riding ag bikes/ATVs in agricultural college students, WA 2004 (n= 326)



Source: Lower et al (2005)

Information from surveys (see Figures 10 and 11) indicate that children or adolescents may be more inclined to wear helmets while riding horses than ATVs and that less than 50 percent of young motorcycle riders wear a helmet consistently.

Fragar (2004) has reported on meetings of agricultural industry representatives where issues concerning ATV safety were discussed. Helmet use on ATVs across all industries was “reportedly rare”.

Reasons given for poor adoption of helmet use on ATVs were:

- too hot and heavy
- can't see or hear
- uncomfortable
- need a wide hat
- employees will not wear them.

Difficulties with heat associated discomfort and lack of ventilation appear to be the prime reasons for poor helmet use on farm ATVs.

References

1. Australian Centre for Agricultural Health & Safety (2006). *Preliminary survey results from 4 field days held in NSW, Victoria and South Australia, 2005*. ACAHS, Moree.
2. Davies J, Franklin R (2006). Injuries resulting from horse riding and motorcycle incidents on farms. *J. of Occup. Health and Safety – Australia and New Zealand* 22(1): 51–59.
3. FCAI (2006). *Media Releases – Australian Motorcycle Sales Cruise into the Record Books*. Retrieved 21 March 2006 from <http://www.fcai.com.au/media/2006/02/00000105.html>.
4. Fragar L (2004). *Improving ATV Safety on Australian Farms and Current uses of ATVs on Australian Farms*. A report produced for the ATV Safety Reference Group. ACAHS, Moree.
5. Fragar L, Pollock K (2006). *All-Terrain Vehicle (ATV) Safety on Australian Farms. Briefing Paper prepared for the Farmsafe Australia Reference Group on ATV Safety*. January 2006 NFIDC, ACHAS, Moree.
6. Fragar L, Thomas P (2005). *Machine Injuries on Australian Farms-The Facts 2005*. RIRDC Pub No 05/050, Canberra.
7. Franklin R, Mitchell R, Driscoll T, Fragar L (2000). *Farm related fatalities in Australia, 1989–1992.*, NOHSC, RIRDC & ACAHS, Moree.
8. Lower T, Egginton N, Ellis I, Larson A (2005). *Reducing All-Terrain Vehicle Injuries – a randomized control study of the effect of driver training*. RIRDC, Pub no 04/174, Canberra.
9. National Occupational Health and Safety Commission: *The NOHSC Online Statistics Interactive National Workers Compensation Statistics Databases NOS1 and NOS2*. Retrieved 11 July 2005 from <http://www.nohsc.gov.au>.
10. National Farm Injury Data Centre (2005). *NSW Inpatient Statistics Collection*, NSW Health HOIST database.
11. National Farm Injury Data Centre (2006). *ATV Deaths Register Jan 2006*, ACAHS, Moree.
12. Schalk T & Fragar LJ (2000). *Injury Associated with Farm Motorcycles on Farms in Australia*. ACAHS, Moree.
13. Stiller L, Depczynski J, et al. (2004). In press. *Results of Field Day Surveys on Child Safety on Farms*. ACAHS, Moree

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