

Non-intentional Farm Related Incidents in Australia

Since 2004 AgHealth Australia has collated farm injury data to provide the most comprehensive evidence on which to build prevention approaches towards the safety and well-being of people in Australian agriculture. Information collated for the purpose of this project is captured through Australian print and online media. The process of media monitoring is utilised to highlight the prevalence of farm related deaths and injuries.

Deaths

During the period of January 1 - December 31, 2019 a total of 58 on-farm deaths were reported. In the corresponding period for 2018 there were 68 cases. A state-by-state comparison of 2018 and 2019 is provided in Figure 1.

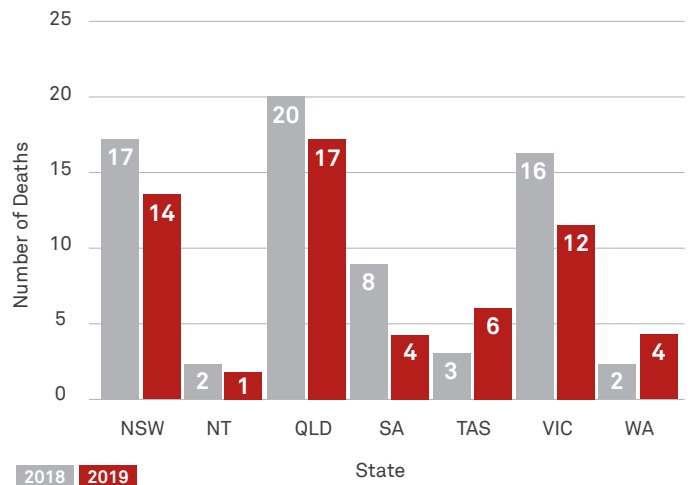
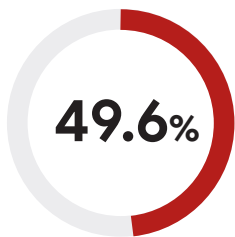
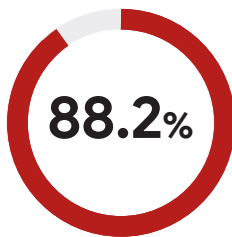


Figure 1 On-farm deaths reported in Australian media by state, Jan 1 - Dec 31, 2018 and Jan 1 - Dec 31, 2019.

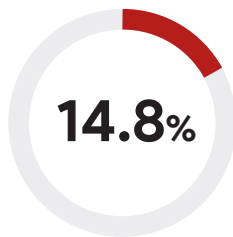
Since 2001, across Australia 1,495 people have lost their life on a farm due to non-intentional injury



Persons in the 50+ years category (n=742) accounted for 49.6% of all reported incidents.



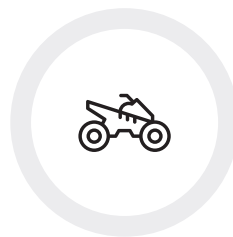
Males were involved in 1,318 cases (88.2%).



Children under 15 years accounted for 222 cases (14.8%).



Tractors (n=240) are one of the leading agents causing fatal injury.



Quads (n=185) are one of the leading agents causing fatal injury.



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For 2019, quads (n=11) and tractors (n=8) were reported most frequently. Males were involved in 55 of these cases (94.8%), with data for age and gender presented in Table 2.

Table 1 Agents of injury by age group involved in on-farm deaths, Jan 1 – Dec 31, 2019.

Category	Agent	2018			2019		
		<15yrs	>15yrs	Total	<15yrs	>15yrs	Total
Animal	Cattle		3	3		1	1
	Deer					1	1
	Dog	1		1		1	1
	Horse		2	2			
	Snake		1	1			
	Animal NEC*		1	1			
Farm Structure	Dam		2	2	2	1	3
	Electric Fence	1	1	2			
	Powerline		2	2			
	Water Storage		1	1			
Farm Vehicle	Aircraft		1	1		3	3
	Car	2	1	3	1	2	3
	Motorbike	2	3	5		3	3
	Quad		6	6	2	9	11
	Side By Side		1	1	4	1	5
	Trailer		1	1			
	Truck		3	3		1	1
	Utility	3	5	8		3	3
	Farm Vehicles NEC*					1	1
Materials	Hay Bale		3	3		1	1
Mobile Farm Machinery	Earth Moving Equipment		1	1		1	1
	Fertiliser Spreader				1		1
	Field Bin					1	1
	Grader					1	1
	Grain Auger		1	1			
	Hay Baler		1	1			
	Seeder/Planter					1	1
	Slasher		1	1			
	Tractor	1	8	9		8	8
	Mobile Farm Machinery NEC*					2	2
Other	Firearm		1	1			
	Other NEC*					1	1
Working Environment	Fire/smoke/flame		3	3			
	Log		1	1		1	1
	Trees being felled		3	3		4	4
Total		10	58	68	10	48	58

*NEC: Not elsewhere classified

Table 2 Number of fatalities by age group and gender
Jan 1 – Dec 31, 2019.

Category	n	%
0-14 years	10	17.2
15-29 years	7	12.1
30-44 years	6	10.3
45-59 years	12	20.7
60-74 years	14	24.1
75 + years	8	13.8
unknown	1	1.7
Gender	n	%
Male	55	94.8
Female	3	5.2

The fatal cases for this reporting period could potentially increase. Monthly queries are run by AgHealth Australia to identify any additional incidents which have not been captured by the media, historically this occurs in about 5-10% of cases. As new cases are identified, they will be included and reported in subsequent bi-annual reports.

Injuries

An additional 133 non-fatal on-farm injury events were reported in the Australian media for 2019.

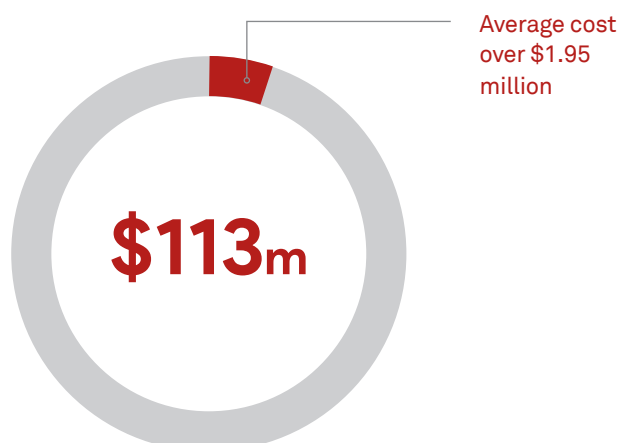
- Seventeen (13%) of the injury events involved children aged under 15 years.
- Quads (n=44) and tractors (n=15), were the leading cause of injury.
- These incidents were closely followed by horses (n=10) and cattle related injury (n=9).
- These four agents (n=78), accounted for more than half of all incidents.

References

1. Pollock K, Griffith G, Fragar L. The economic cost of farm-related fatalities. *Journal of Agricultural Safety and Health* 2012;18(1):11-30.
2. Lower T, Pollock K. Financial considerations for Health and Safety in the Australian Dairy Industry, *Journal of Agromedicine* 2017, 22(2):131-139. doi: 10.1080/1059924X.2017.1283279.
3. Lower T, Temperley J. Farm safety - Time to act. *Health Promotion Journal of Australia* 2018, DOI: 10.1002/hpja.166.
4. Australian Bureau of Statistics 6401.0 - Consumer Price Index (various). * Note - for the 2019 period, the September figures on an annualised basis were utilised as the full year data are yet to be released. <https://www.abs.gov.au/ausstats/abs@.nsf/mf/6401.0>

Economic impact

The estimated total cost of on-farm fatal injuries in 2019 surpassed \$113 million (\$113,252,998), with an average cost per incident of over \$1.95 million (\$1,952,638).



The economic model for measuring impact includes:

- Loss of future earnings
- Insurance payout
- Workcover investigations
- Police investigations
- Coronial costs
- Premature funeral costs
- Ambulance and hospital expenditure
- Loss of household contributions

The average cost per fatality was calculated based on estimates obtained for different age cohorts, defined in a previous study utilising cost estimates in 2015 Australian dollars.² The Consumer Price Index (CPI) increases for the 2016-19* period, were then applied to these averages, enabling an estimate of costs in 2019 Australian dollars to be ascertained.⁴ It is reasonable to assume that these estimates are conservative and are lower than the true costs. Additionally, the model does not consider the significant social costs associated with such fatal events.

Contact

Hon. Associate Professor Tony Lower

AgHealth Centre
University of Sydney
Dubbo NSW AUSTRALIA
+61 2 6882 1486
tony.lower@sydney.edu.au

Jennifer Medway

AgriFutures Australia
Senior Manager, Business Development
jennifer.medway@agrifutures.com.au

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