



**CASA | ACSA**

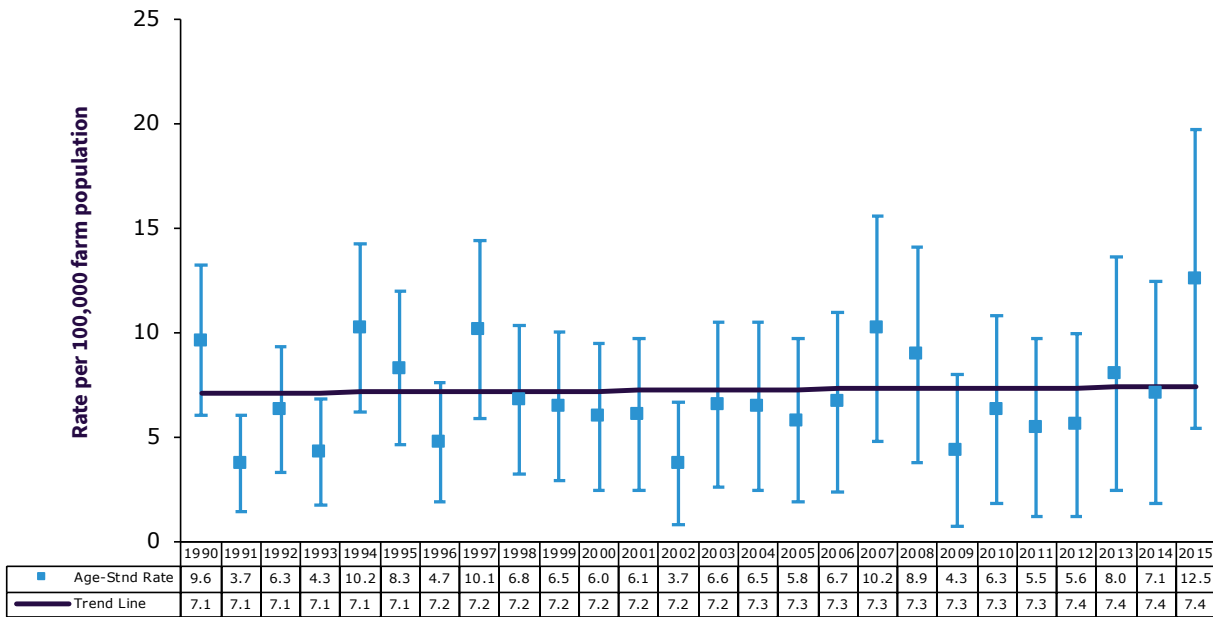
Canadian Agricultural Injury Reporting  
Surveillance des blessures agricoles au Canada

**CHILD AND YOUTH**

# **Agriculture-Related Fatalities in Canada**

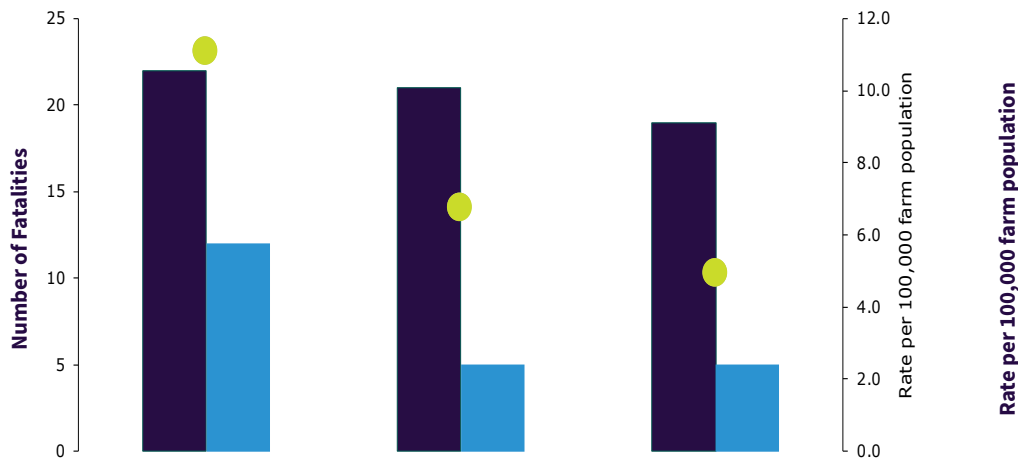
**2006 – 2015**

## AGRICULTURE-RELATED FATALITY RATE BY YEAR, 1990-2015



Over the 26 year period the fatality rate for children remained relatively constant with a slight increase of 0.2% each year.

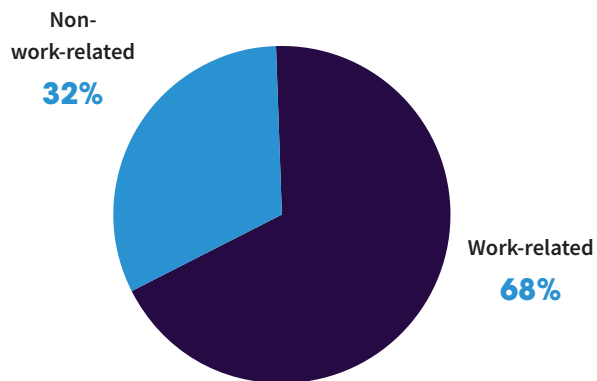
## AGRICULTURE-RELATED FATALITY NUMBERS BY AGE GROUP AND SEX, 2006-2015



	< 5 yrs	5-9 yrs	10-14 yrs	Total	%
<b>Males</b>	22	21	19	62	74
<b>Females</b>	12	5	5	22	26
<b>Total</b>	34	26	24	84	100
<b>Percent of all child/youth fatalities</b>	40	31	29	100	
<b>Age specific rate per 100,000 farm population</b>	11.1	6.8	4.9	7.1	

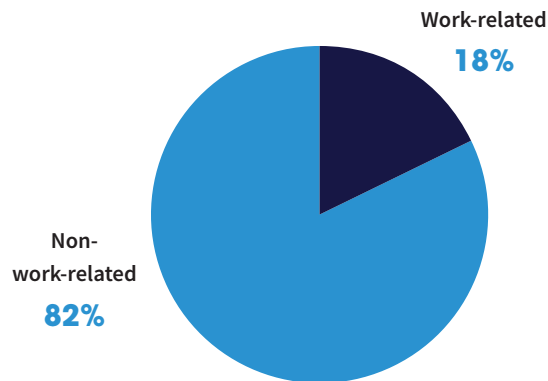
Seventy-four percent of the agriculture-related child/youth fatalities were male. Children less than 5 years of age had the highest fatality rate of 11.1 fatalities per 100,000 farm population.

## AGRICULTURE-RELATED FATALITIES BY RELATIONSHIP TO AGRICULTURE-RELATED WORK, 2006–2015



Of the 84 agriculture-related fatalities, 68% (57 deaths) of the children died while an agriculture-work related activity was being performed.

The remaining 32% (27 fatalities) were non-agriculture-work-related and include fatalities related to the farm environment such as riding horses, riding ATVs, and falling into dugouts and troughs.



Of all the child fatalities on the farm, 82% (68 fatalities) of the victim (children) were not performing agriculture-related work, but died while someone else was engaged in agriculture-related work at the time of the incident.

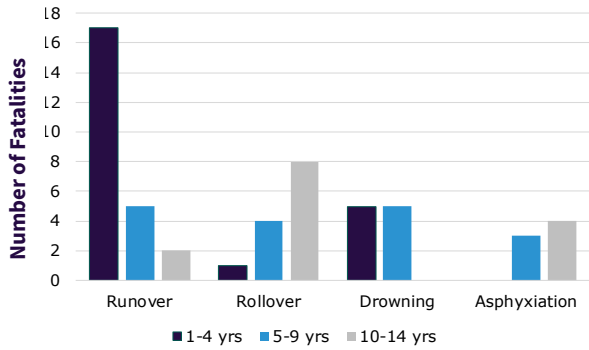
Of the 84 fatalities between 2006 and 2015, the majority 63% (53 fatalities) were machine-related. This includes machine runovers, machine rollovers, struck or entangled by a machine component, or by being struck by an object falling from a machine i.e. large bale falling from a front end loader. The remaining 36% (31 fatalities) were non-machine-related. This includes animal-related, drowning, grain/soil asphyxiation, fires, or by being struck by non-machine objects.

Two out of every 3 fatalities (64%) of children and youth who died were as a result of one of these 4 leading causes of death:

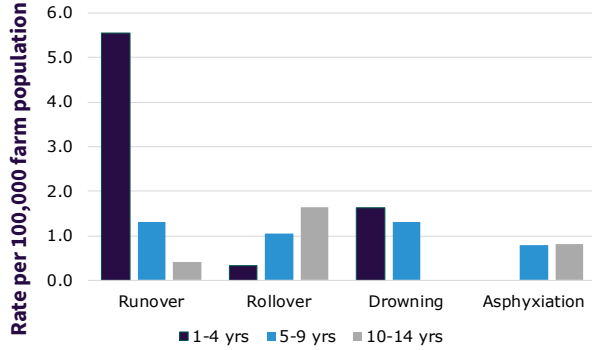
MECHANISM OF INJURY	# OF FATALITIES	%
Runover	24	29
Rollover	13	15
Drowning	10	12
Asphyxiation	7	8
Other	30	36

# AGRICULTURE-RELATED FATALITY NUMBER AND RATE BY AGE GROUP AND MECHANISM, 2006–2015

NUMBER OF FATALITIES



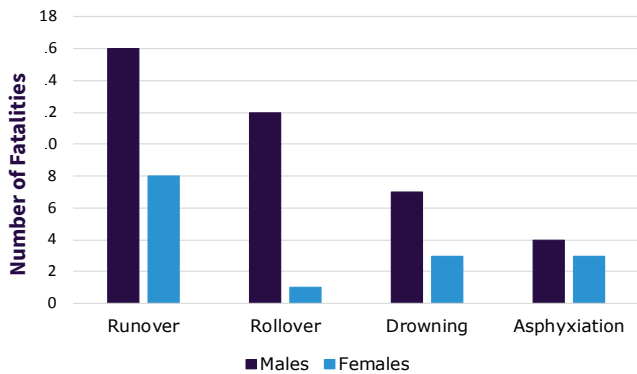
RATE OF FATALITIES



The mechanism of injury of fatalities differs with age. Children 1 to 4 years of age had the highest number and rate of fatalities due to being runover by a piece of farm machinery. Whereas, youth 10 to 14 years of age are more likely to die due to a rollover.

Children 1 to 4 years of age and those 5 to 9 years of age each had 5 drowning fatalities. However, when farm population is considered, children 1 to 4 years of age had a higher drowning fatality rate.

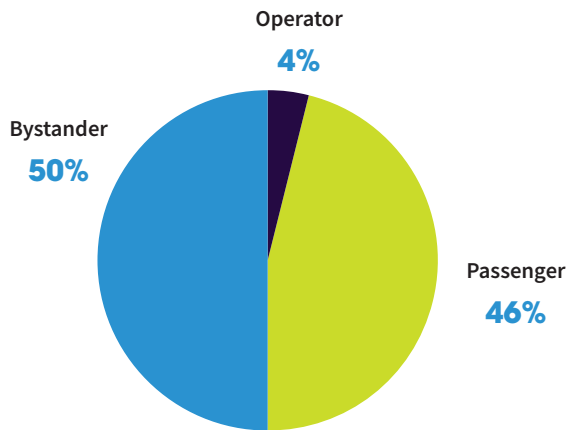
# AGRICULTURE-RELATED FATALITY NUMBER BY SEX AND MECHANISM, 2006–2015



Boys consistently had a higher number of fatalities than girls in all the leading causes of agriculture-related fatalities.

## RUNOVER FATALITIES

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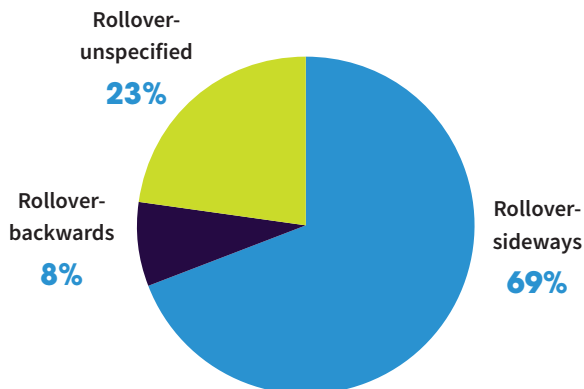


Of the 24 runover fatalities, for the majority (96%), the child was either a passenger or a bystander runover by a piece of farm machinery.

- Of the 24 runover fatalities, the majority, 58% (14 fatalities) involved a tractor.
- Of the 24 runover fatalities, for the vast majority 92% (22 fatalities) the child was not performing agriculture-related activities but died while someone else was engaged in agriculture-related activity at the time of the runover.

## ROLLOVER FATALITIES

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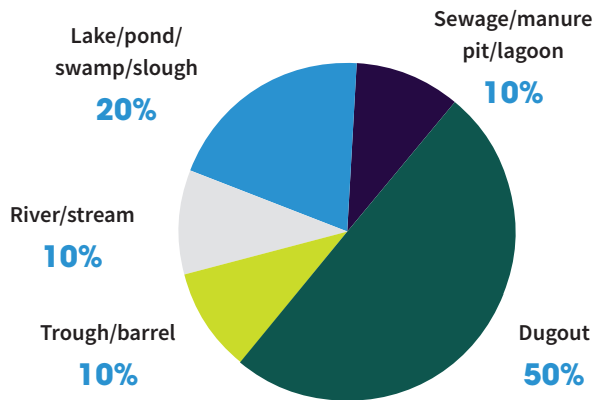


Of the 13 rollover fatalities, the majority (69%) were sideways in direction.

- Of the 13 rollover fatalities, the majority, 69% (9 fatalities) involved an all-terrain vehicle.
- Of the 9 fatalities involving an ATV for 7 fatalities (78%) the child/youth was not performing agriculture-related activities. There is lack of documentation to analyze helmet use.

## DROWNING FATALITIES

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Of the 10 drowning fatalities, half of them (50%) occurred in a dugout. For all 10 drowning fatalities, the children were less than 10 years of age.

## ASPHYXIATION FATALITIES

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- Of the 7 fatalities due to asphyxiation, all the children were older than 4 years of age.
- The majority of the fatalities, 86% involved grain/silage (6 fatalities).
- For the 6 fatalities involving grain/silage, 2 incidents involved more than one child dying due to asphyxiation.

## PREVENTION MESSAGES

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Enhance relatively ineffective, education-based interventions by implementing multifactorial interventions which include financial incentives (i.e. reduced insurance premiums) or legislation to support farm safety measures.

### FOR CHILDREN AND YOUTH IN AGRICULTURAL SETTINGS:

- Facilitate further dissemination and use of the Ag Youth Work Guidelines on family farms.
- Support the use of evaluated farm safety school based programs to provide short term increased knowledge about farm safety.
- Facilitate the provision of childcare options for farm families.
- Support production design of physical barriers that prevent access to work sites.
- Provide formal safety and supervision training for caregivers, emphasizing proximity.



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