

Canadian Agriculture Injury Reporting

Child & Youth Injuries in Agriculture 1990 – 2020



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Canadian Agricultural Injury Reporting
Surveillance des blessures agricoles au Canada

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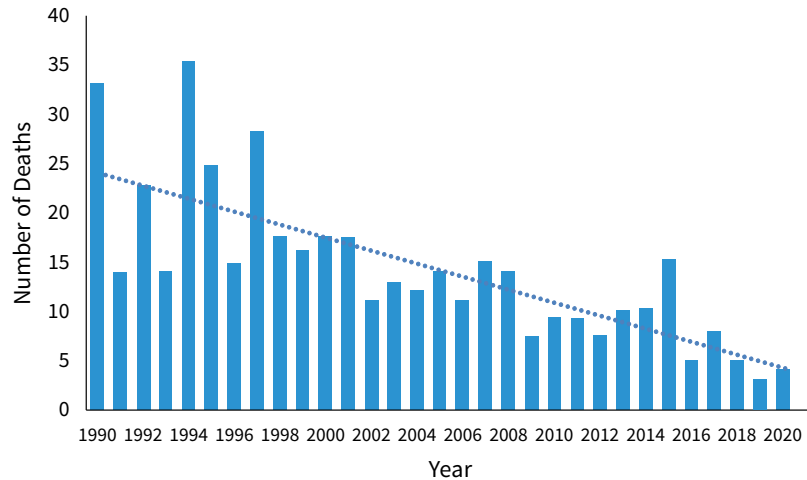
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NUMBER OF CHILD & YOUTH AGRICULTURE-RELATED DEATHS BY YEAR, 1990-2020



Over the 31-years period from 1990 to 2020, there were 435 children and youth who died as a result of an agriculture-related injury.

During the first 16 years (1990 to 2005), there were 19 child / youth agriculture-related deaths each year. During the latter 16 years (2006 to 2020), there were an average of 9 deaths each year. There was a 53% decrease between the 2 averages.

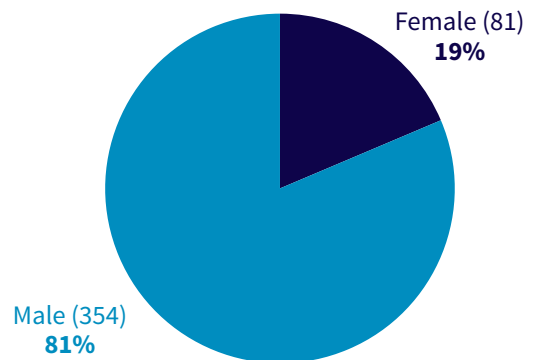
PERCENT OF CHILD & YOUTH AGRICULTURE-RELATED DEATHS BY SEX, 1990-2020

Over the 32-year period from 1990 to 2021, there were 435 agriculture-related deaths of children and youth.

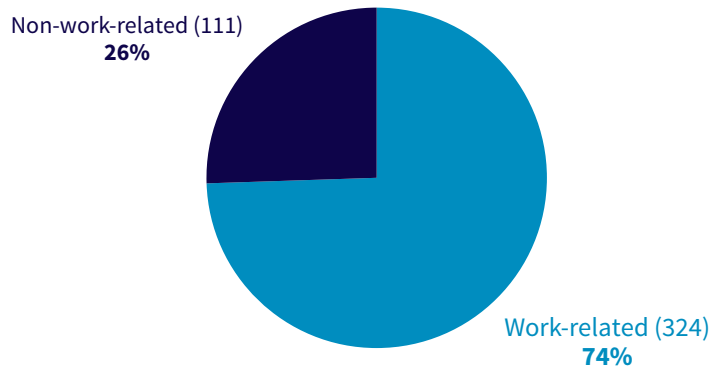
Four out of every five (81%) child / youth agriculture-related deaths were male (n=354).

The remaining 19% (n=81) were females who died as a result of an agriculture-related injury.

This includes injuries as a result of direct agriculture-related work / activity, or injury-related deaths due to living in a farming environment.



PERCENT OF WORKING-RELATED AGRICULTURE DEATHS, 1990-2020



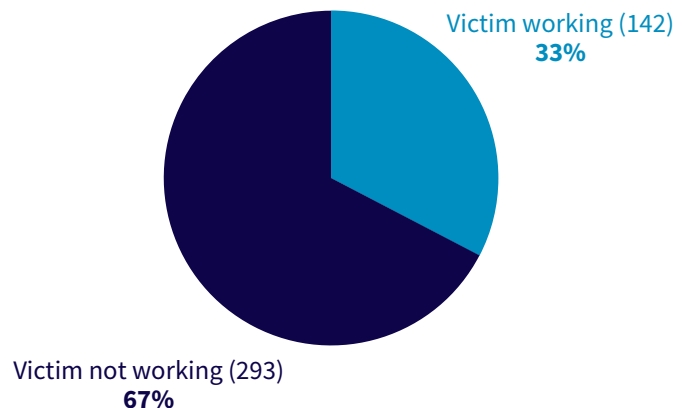
The majority, 74% (n=324), of childhood agriculture deaths involved some form of work-related activity at the time of death.

The remaining 26% (n=111) of deaths were non-work-related and were due to hazards in the farm environments. (e.g.: riding a horse, drowning in a dugout).

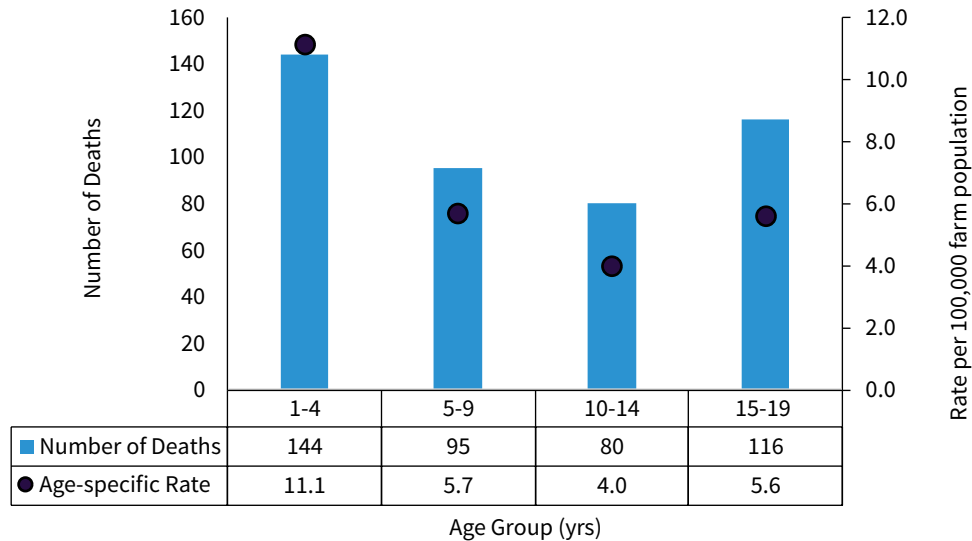
PERCENT OF VICTIM WORKING-RELATED AGRICULTURE DEATHS, 1990-2020

In the majority of the 435 child and youth deaths – 67% (n=293) – the child was not working at the time. They were, however, within the region of a work-related activity being performed (e.g.: run over by a tractor that was being used for agriculture work).

The remaining 33% (n=142) agriculture-related injury deaths among children and youth occurred when the deceased was performing agriculture work.



NUMBER AND RATE OF CHILD & YOUTH AGRICULTURE-RELATED DEATHS BY AGE GROUPS, 1990-2020



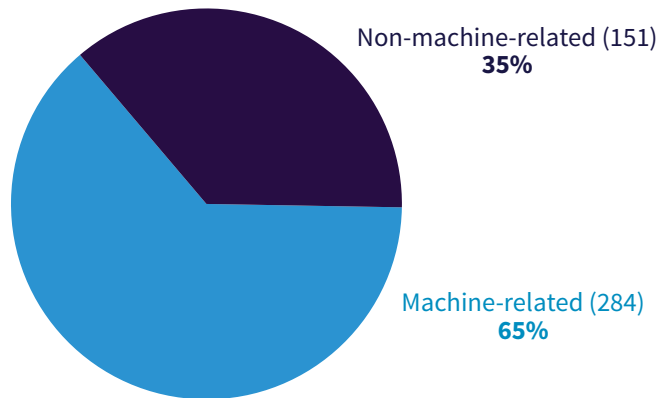
When analyzing the number and rate of child / youth agriculture-related deaths, children 1 to 4 years of age had the highest number of deaths (n=144), and a rate of 11.1 deaths per 100,000 population.

Youth 15 to 19 years of age had the second highest number of deaths with 116 and a rate of 5.6 deaths per 100,000 population.

Children 5 to 9 years of age had 95 agriculture-related deaths, and the second-highest rate for children and youth with a rate of 5.7 deaths per 100,000 population.

Children 10 to 14 years of age had 85 deaths and a rate of 4.0 deaths per 100,000 population.

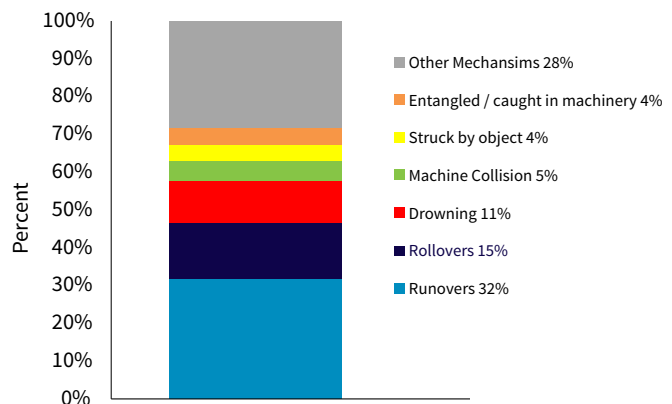
PERCENT OF CHILD & YOUTH AGRICULTURE-RELATED DEATHS BY MACHINE OR NON-MACHINERY-RELATED, 1990-2020



Of the 435 children and youth who died as a result of an agriculture-related injuries, 65% (n=284) involved machinery. Another 35% (n=151) were non-machine-related.

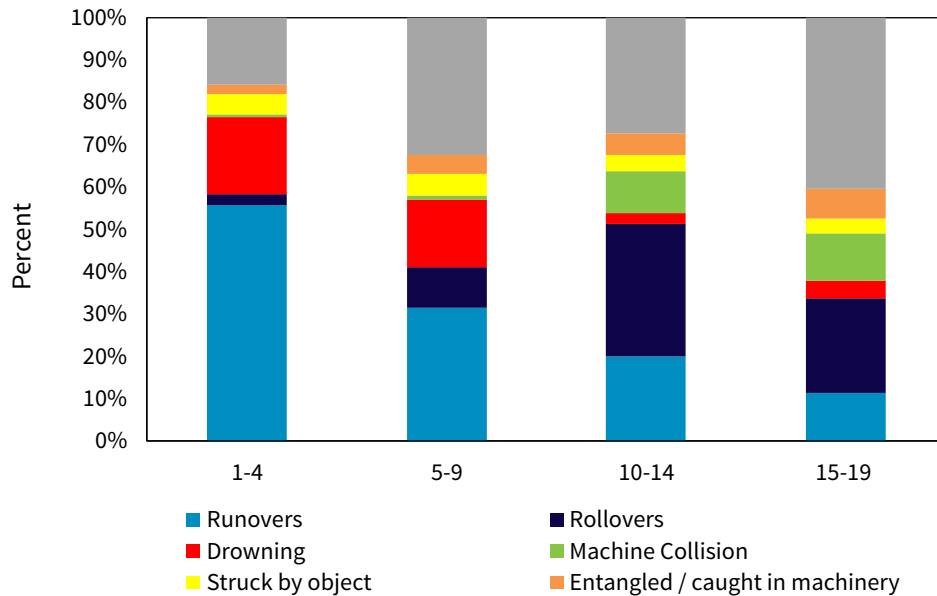
PERCENT OF CHILD & YOUTH AGRICULTURE-RELATED DEATHS BY MACHINE OR NON-MACHINERY-RELATED, 1990-2020

Of the 435 child and youth agriculture-related deaths, runovers accounted for 32% (n=139), rollovers accounted for 15% (n=64), and drowning deaths accounted for an additional 11% (n=48). This was followed by collision-related deaths, accounting for 5% (n=23). Deaths by being struck by a non-machine object and being entangled / caught in machinery each accounted for 4%, (n=19 each).



The second-largest portion was ‘other mechanisms’ accounting for 28% (n=123). This category consists of 19 different machine and non-machine mechanisms.

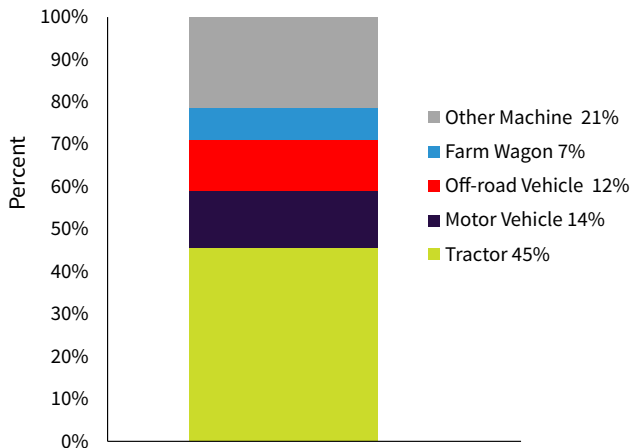
PERCENT OF CHILD & YOUTH AGRICULTURE-RELATED DEATHS BY TOP 4 MECHANISMS AND AGE GROUPS, 1990-2020



When analyzing the leading cause of agriculture-related injuries for children and youth by age group, the leading cause differs:

- runovers were the leading cause of deaths accounting for 56% (n=80) of all deaths for children 1 to 4 years of age. This was followed by drownings accounting for 18% (n=26).
- runovers were the leading cause of deaths accounting for 32% (n=30) of all deaths for children 5 to 9 years of age. This was followed by drownings accounting for 16% (n=15).
- rollovers were the leading cause of deaths accounting for 31% (n=25) of all deaths for youth 10 to 14 years of age. This was followed by runovers with 20% (n=16).
- rollovers were the leading cause of deaths accounted for 22% (n=26) of all deaths for youth 15 to 19 years of age. This was followed by deaths due to runovers and machine collisions, each accounting for an additional 11%, (n=13 each).

PERCENT OF CHILD & YOUTH AGRICULTURE-RELATED DEATHS BY MACHINE TYPE, 1990-2020



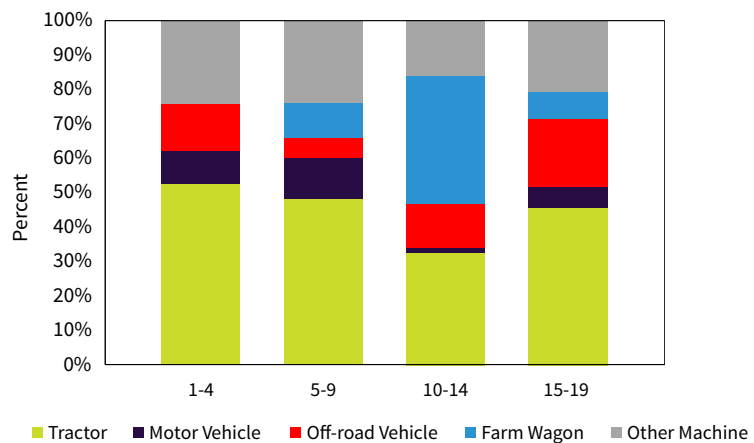
Of the 284 machine-related child and youth deaths, 45% (n=129) involved a tractor. In 14% (n=39), the deceased was either the driver, passenger, or bystander of a motor vehicle collision with a piece of farm equipment. Another 12% (n=34) involved an off-road vehicle; this would include all-terrain vehicles, dirt bikes, and snowmobiles. Another 7% (n=21) of agriculture-related deaths of children and youth involved a farm wagon.

Other machine deaths accounted for 21% (n=61) involved 15 other various pieces of farm equipment.

PERCENT OF CHILD & YOUTH AGRICULTURE-RELATED DEATHS BY MACHINE TYPE, 1990-2020

When analyzing the leading machines involved in agriculture-related injuries for children and youth by age group, the leading cause differs for each age group:

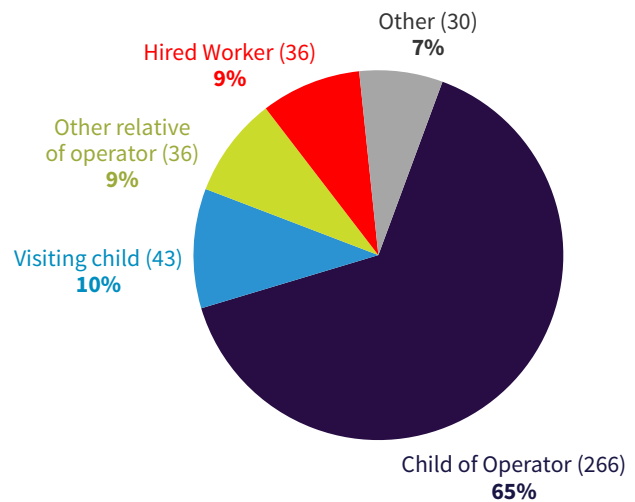
- Deaths involving tractors accounted for 53% (n=50) of all deaths for children 1 to 4 years of age. Deaths involving motor vehicle collisions accounted for 14% (n=13) and deaths involving a farm wagon accounted for 9% (n=9).
- Deaths involving tractors accounted for 48% (n=24) of all deaths for children 5 to 9 years of age. This was followed by deaths involving farm wagon with 12% (n=6), and deaths involving off-road vehicles accounted for 10% (n=5)
- Deaths involving off-road vehicles accounted for 37% (n=23) of all deaths for children 10 to 14 years of age. This was followed by deaths involving a tractor which accounted for another 32% (n=20). Deaths involving motor vehicle collisions accounted for 13% (n=8).
- Deaths involving tractor accounted for 45% (n=35) of all deaths of youth 15 to 19 years of age. This was followed by deaths involving a motor vehicle collision accounting for an additional 19% (n=15). Deaths involving off-road vehicles accounted for 8% (n=6) and deaths involving a farm wagon accounted for another 7% (n=5).



PERCENT OF CHILD & YOUTH AGRICULTURE-RELATED DEATHS BY RELATIONSHIP, 1990-2020

The relational connection to the farm operation was known and documented in 411 of the child and youth agriculture-related deaths.

One in 3, 65% (n=256) of the deceased was the child of the owner / operator of the farm. Another 10% (n=43) the children / youth were visiting the farm. Deaths identified as “other relative” of the owner / operator and hired worker each accounted for an additional 9% (n=36 each). “Other relative” would include granddaughters / grandson and nieces / nephews of owner / operator. ‘Other’ accounted for 7% (n=30) . Of these 30 ‘other’ deaths, 53% (n=16) of the deceased were not related to the owner / operator, and were drivers / passengers / bystanders of a motor vehicle collision with farm machinery.



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