2019 Pennsylvania Farm Fatal Injury Summary

Annual summaries of farm fatalities help identify hazards and risks associated with production agriculture.

This report summarizes Pennsylvania's 2019 farm fatality data. In 2019, there were 27 farm and agricultural fatalities in Pennsylvania.

Table 1 provides summary statistics by demographics of the 2019 fatality cases. Almost 19% of the fatalities were to youth younger than 18 years and 44% of the fatalities were to 65 and older. All victims were male (100%) and 30% of the victims were Anabaptist. Further analysis of the cases showed that all the victims under 18 years old were Anabaptists.

Table 1. Demographics of the victims

		Frequency	Percentage
Age of victim	0 - 4	1	3.7
Age of victim	5 - 9	2	7.4
Age of victim	10 - 19	2	7.4
Age of victim	20 - 24	1	3.7
Age of victim	25 - 34	2	7.4
Age of victim	35 - 44	3	11.1
Age of victim	45 - 54	1	3.7
Age of victim	55 - 64	3	11.1
Age of victim	65 and older	12	44.4
Gender	Male	27	100/td>
Gender	Female	-	-
Religious sect	Anabaptist	8	29.6
Religious sect	Non-Anabaptist	19	70.4
	2019 TOTAL	27	100

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Farm and Agricultural Injury Code (FAIC)

The Farm and Agricultural Injury Classification (FAIC) Code is a standard classification scheme used to separate out incidents not directly related to the work of production agriculture (ASAE S575.2 NOV 2019). FAIC codes allow identification of farm production work cases as well as unique situational exposures in production agriculture, such as non-workers in work environments. Table 2 provides summary statistics for FAIC classifications of 2019 fatalities. Thirteen fatality cases (48.1%) were classified as FAIC-1 Farm Production Work. For seven (26%) cases, the FAIC-10: Undeterminable category was used. The FAIC-10 category is used when news reports and death certificates supplied enough information to know that the case occurred within the agricultural industry but did not have sufficient detail to assign a more specific FAIC code.

Table 2. Fatalities by Farm and Agricultural Injury Code (FAIC)

FAIC Category	Number (n=27)	%
Agricultural Occupational (n=13, 48.1%)		
FAIC-1: Farm Production Work (Crop Production, Animal Production)	13	48.1
Non-Agricultural Occupational (n=7, 25.9%)		
FAIC-5: Farm Hazard Exposure, outside services	1	3.7
FAIC-6: Farm Hazard Exposure, Nonworkers: equipment, tools, objects and products	2	7.4
FAIC-7: Farm Hazard Exposure, Nonworkers: structures and landscape	3	11.1
FAIC-9: Farm Hazard Exposure: Roadway collision 1 3.7%	1	3.7
FAIC-10: Undeterminable (n=7, 25.9%)		

Fatalities by Injury Source

Fatality reports since 2000 have been used by the Bureau of Labor Statistics (BLS) Occupational Injury and Illness Classification System (OIICS) to characterize primary and secondary sources of injury. The Source of injury or illness identifies the object, bodily motion, or exposure which directly produced or inflicted the previously identified injury or illness. For example, if the worker was operating a farm tractor when it rolls over on the victim, the source would be the farm tractor. Table 3 provides the frequencies and percentages of primary injury sources.

Agricultural and Garden Machinery (n=3, 11.1%)

Agricultural and garden machinery	- 83 yr. old male pinned to wall by farm equipment
Combines	- 35 yr. old male pinned under the combine harvester
Mowing machinery	- 68 yr. old male farmer killed by mower

Construction, Logging, and Mining Machinery (n=3, 11.1%)

Skid steer loader, mini loaders	- 22 yr. old male killed after driving the skid steer he was operating into a manure pit
Skid steer loader, mini loaders	- 72 yr. old male killed after falling underneath a skid loader when he was pushing manure into a pit
Skid steer loader, mini loaders	- 84 yr. old male killed after falling off a skid steer while doing farm work

Building Materials (n=1, 3.7%)

Pipes, ducts, tubing	- 15 yr. old male killed after hit with a pipe while farming with a mule

Animals (n=2, 7.4%)

Bees, hornets, wasps	- 59 yr. old male stung by bees while moving grass
Cattle and other bovines	- 69 yr. old male was attacked by a bull while he was checking oil/gas well

Buildings—office, plant, residential (n=2, 7.4%)

Barn	- 28 yr. old male fell from barn
Barn	- 88 yr. old male fell outside of barn on resident's property

Floors, walkways, ground surfaces (n=1, 3.7%)

Existing floor opening	- 80 yr. old male farmer fell from hay loft

Geographical structures (n=2, 7.4%)

Natural ponds	- 5 yr. old male fell into farm pond off dock while fishing
Natural ponds	- 38 yr. old male fell into deep farm pond and was unable to get out and drowned

Water vehicles (n=1, 3.7%)

Rowboat, kayak, canoe	- 5 yr. old male drowned in retention pond on farm

Highway Vehicles, Motorized (n=2, 7.4%)

Passenger vehicle	- 38 yr. old male killed when his vehicle crossed the double yellow center line and struck an oncoming farm truck
Motorcycle	- 30 yr. old male killed in motorcycle crash while passing farm tractor

Animal- and Human—Powered Vehicles (n=1, 3.7%)

Animal-powered wagon	- 14 yr. old male died after falling under a horse-drawn tobacco cart

Off-road and Industrial Vehicles—Powered (n=8, 29.6%)

ATV, all-terrain vehicle	- 50 yr. old male farmer killed in an ATV crash on his farm
Farm tractor	- 62 yr. old male died from injuries he received when the tractor overturned
Farm tractor	- 87 yr. old male died when the tractor overturned
Farm tractor	- 80 yr. old male killed when the tractor in gear and run over by the back tire
Farm tractor	- 79 yr. old male killed while plowing a field with a tractor- run over

Farm tractor	- 81 yr. old male fell from tractor and was struck by weed cutter
Farm tractor	- 85 yr. old male killed in farm tractor rollover
Power take-off (PTO)	- 57 yr. old male fatally injured while mowing a field: his clothing became entangled in a spinning driveshaft which is connected to the tractor to the fail chopper

Plant and Industrial Vehicles – nonpowered (n=1, 3.7%)

Wagon	- 2 yr. old male killed after falling off the wagon filled with onions

Summary

In 2019, a total of 27 farm and agricultural-related fatalities were recorded in Pennsylvania. Farm tractor overturns are a major source of fatalities in Pennsylvania. Roll-over protection structures (ROPs) are 99.9% effective at preventing deaths due to tractor roll-overs when operators appropriately use a functional seatbelt. Retrofit ROPs options are available for older farm tractors that pre-date ROPs as standard OEM equipment. More information can be found about retrofit options at the National ROPS website.

Youth under 18 years of age represented 18% of the cases. Seniors age 65 and older represented 44% of the cases, a higher percentage than the previous years. Together, these age groups represented more than 60% of the 2019 fatalities. Almost half of the 2019 farm and agricultural-related fatalities were directly considered agricultural work-related, while 26% of the cases involved non-workers exposed to hazards in the farm work environment or farm hazards on roadways.

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