

E45 Death on the Farm: Suicide by Tractor Runover

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Learning Overview: The goal of this presentation is to highlight the relevance of the work of the forensic pathologist and engineer in order to discover the real dynamics of the crime by joining their competencies in this rare case of suicide by tractor runover.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by presenting a rare case of suicide by tractor runover.

Several studies have found that in numerous countries across the world, agricultural workers, especially farmers, are at an elevated risk of suicide.¹⁻³ According to literature, firearms, hanging, precipitation, and poisoning are the most popular suicide methods among farmers, due to them being quite rapidly lethal and the means readily available. Agricultural machines, such as farm tractors, however, are seldom employed for suicidal purposes.⁴⁻⁶ This study reports the nearly unique case of a man who committed suicide by letting himself get run over by his tractor.

A 48-year-old farmer was found dead in a field near his house. About 250 meters ahead of the body a crawler farm tractor was retrieved, with keys inserted in the panel and the gear engaged. The man had a long history of depression and was under pharmacological treatment. Given a recent worsening of his symptoms, his drug dosage had been increased by his psychiatrist. Moreover, he had repeatedly stated in front of his relatives that he often had suicidal thoughts. At the postmortem examination, observations included an otorrhagia from the left ear and multiple crushing wounds, such as bone fractures, contusions and abrasions, mostly located on the left side of the body; craniofacial and ribcage crushing; phalangeal fractures in the left hand; and abrasion and contusions on the left forearm. Toxicological exams revealed a therapeutic concentration of sertraline, as well as traces of oxazepam, in the blood. An engineering evaluation was also required, in order to assess whether it had been possible for the victim to start the tractor himself, then still have time to place himself on the trajectory of the moving machine.

Tractors are, undoubtedly, key equipment in farming because they can be used for transportation and transfer purposes, in addition to their agricultural use. On the other hand, farm tractors are the major cause of occupational fatalities in the agricultural industry.^{7,8} Tractor-related deaths are typically the result of being run over or crushed by the tractor, becoming entangled in the moving parts of the machine, or accidents on roadways and tractor rollovers, which involve the tractor tipping sideways or backwards.⁹⁻¹¹ Agricultural machinery, however, is rarely used for suicidal purposes, because more quickly lethal and easily accessible methods are generally preferred. Tractor-related suicides are indeed so exceptional, that only one other case report was found, involving a farmer who beheaded himself using a tractor loader.¹² In this case, the combination of forensic and engineering investigation allowed not only the exclusion of any third-party implication, but also the assessment of the manner of death as a suicide: the man had repeatedly revealed to his relatives his suicidal intentions, even discussing the different methods he could use to enact them; the body showed no injuries, except for those consistent with a run-over by the machine; plus, the engineering evaluation stated that a tracked agricultural tractor, like the aforementioned one, is able to march “in abandonment” (driverless), further demonstrating the thesis of suicide.

As exemplified by this study, farm tractors, although only on rare occasions, can be used as suicidal means. In such cases, it is fundamental that forensic pathologists and engineers join their expertise in order to correctly assess the manner of death.

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Tractor-Related Death, Tractor Runover, Farmer’s Suicide

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