

Accidents on Farms

Case Analysis

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Abstract

Farm work involves numerous hazards that can lead to accidents or occupational diseases, often representing a tragedy for families and, for the farm itself, a loss that is difficult to compensate. The aim of this article is to analyse the causes and circumstances of accidents occurring during farm work. An accident in agricultural work must simultaneously meet three conditions: it must be sudden, have an external cause, and be connected with the performance of agricultural work, while the absence of any of these criteria means that the incident cannot be recognised as an agricultural work accident. The article also addresses the issue of essential work performed during sick leave, during which a farmer may suffer an accident, and the most common reasons for refusing a one-off compensation payment in connection with an accident on a farm are also discussed. The preventive measures undertaken by the Agricultural Social Insurance Fund (KRUS, the Fund) aim to reduce the number of agricultural work accidents and minimise risks that may lead to such incidents. The article presents an analysis of accidents on farms, methods of preventing accidents, and rules for ensuring safety during work, and also highlights the primary causes of accidents within specific groups. A case analysis was utilised as a research method in this article.

Keywords: safety and prevention, definition of accident at work, category of agricultural work accidents.

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Introduction

Agriculture is a key sector of the Polish economy, and one of many characteristic features of individual farming is the involvement of an entire family in farm work. The profession of farming is distinguished by a wide variety of tasks performed – from caring for large, strong animals to construction and renovation work, and operating specialised agricultural equipment and machinery. Farmers or family members frequently operate machines, but also act as mechanics or maintenance workers in the event of a breakdown, and the seasonal nature of agricultural work additionally leads to an increase in certain risks during specific times of the year. All these factors contribute to the presence of numerous health and safety hazards on farms, resulting in farmers being more frequently exposed to work-related accidents compared to individuals employed in other sectors.

Entitlements to benefits for work-related accidents and occupational diseases were first granted to Polish farmers under the Act of 27 October 1977 on pension provision and other benefits for farmers and their families¹, which provided for a one-off benefit, now referred to as a one-off compensation payment. These benefits were available to farmers, their spouses, and dependent children under the conditions and amounts defined for one-off compensation in employee insurance. The amount of the benefit was determined by the specific health impairment sustained.

Under the current Act of 20 December 1990 on Farmers' Social Insurance, an agricultural work accident is defined as a sudden event caused by an external factor that occurs while performing activities related to agricultural operations or directly connected with those activities: on the premises of the agricultural holding that the insured person operates or regularly works on; on the premises of a household directly associated with the agricultural holding; or while commuting from the insured person's residence to the agricultural holding referred to in paragraph 1, or returning from the agricultural holding; while performing ordinary activities outside the premises of the agricultural holding referred to in paragraph 1 that are related to agricultural operations or in connection with those activities; or while commuting to or returning from the location where the activities referred to in paragraph 3 are performed.

1. Ustawa z 27 października 1977 r. o zaopatrzeniu emerytalnym oraz innych świadczeniach dla rolników i ich rodzin, Dz. U. nr 32 poz. 140.

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For a farmer's assistant, an agricultural work accident is defined as a sudden event caused by an external factor that occurs while the assistant is performing tasks specified in the agreement for harvest assistance, such as: harvesting hops, fruit, vegetables, tobacco, herbs or herbal plants; removing unnecessary parts of plants; classifying or sorting harvested or picked hops, fruit, vegetables, tobacco, herbs or herbal plants, or performing other tasks to prepare these crops for transport, storage or sale, or related to crop care and quality improvement².

In agriculture, accidents most frequently occur as a result of sudden events caused by external factors during routine work on the farm premises, and among the many causes of accidents, the "human factor" plays a crucial role. This includes non-compliance with occupational health and safety regulations, ignorance or disregard of hazards, haste and stress, disorganisation around the farm and workplace, operating machinery and tractors under the influence of alcohol, performing repairs independently, and a lack of personal protective equipment or proper work attire. In addition to these human factors, accidents can also result from poor technical conditions of farm buildings, stairs, ladders, machinery and tools. Given the varying circumstances under which accidents can occur, twelve main groups of accident events can be identified:

- 1) falls of individuals;
- 2) falling objects;
- 3) contact with sharp tools;
- 4) being struck or crushed by transported objects;
- 5) being run over, struck or entangled by a vehicle;
- 6) being entangled or struck by moving parts of machinery;
- 7) being struck, crushed or bitten by animals;
- 8) fire, explosion or natural forces;
- 9) exposure to extreme temperatures;
- 10) exposure to hazardous materials;
- 11) sudden illnesses;
- 12) other incidents.

An agricultural work accident must meet three conditions simultaneously. The first is suddenness, which means that the event is unpredictable, occurs suddenly, and happens at once, in an instant, such as a lightning strike. However, suddenness should not be interpreted strictly as an instantaneous and one-off event, as the action could be repeated or take place over a certain period. The duration within which the sudden

2. Ustawa z dnia 20 grudnia 1990 r. o ubezpieczeniu społecznym rolników, Dz. U. 2024 poz. 90.

event should occur to retain its classification as an accident is subjective. An event that unfolds over a longer time should not lose the characteristic of suddenness. The second critical component of an accident is determining that the cause of the accident originated externally, meaning it existed outside the injured individual. An external cause refers to the action of external factors, such as machine components, electrical energy, chemicals, etc. Incidents caused by a combination of external and internal factors – those inherent to the victim's body – are also considered externally caused, provided that the internal cause alone would not have resulted in the event (e.g. a heart attack triggered by excessive physical exertion). Each accident is assessed individually. The third necessary condition for recognising an event as an agricultural work accident is that it must be directly related to agricultural work. Every agricultural work accident should be reported without undue delay, but no later than six months from the date of its occurrence, and can be reported by the injured person or another individual. Delayed reporting may prevent determining the circumstances and causes of the accident, potentially leading to the denial of compensation rights. The injured person or the individual reporting the accident should, in particular, take the following steps: secure, as far as possible, the scene and objects related to the accident; provide access to the accident site and objects related to the accident; identify witnesses of the accident; submit any available medical documentation; provide information and comprehensive assistance to the employee of the Fund, authorised by the Fund's President to conduct evidence proceedings aimed at determining the circumstances and causes of the accident.

This article is dedicated to the analysis of accidents on farms and promoting knowledge of methods for working safely and avoiding accidents.

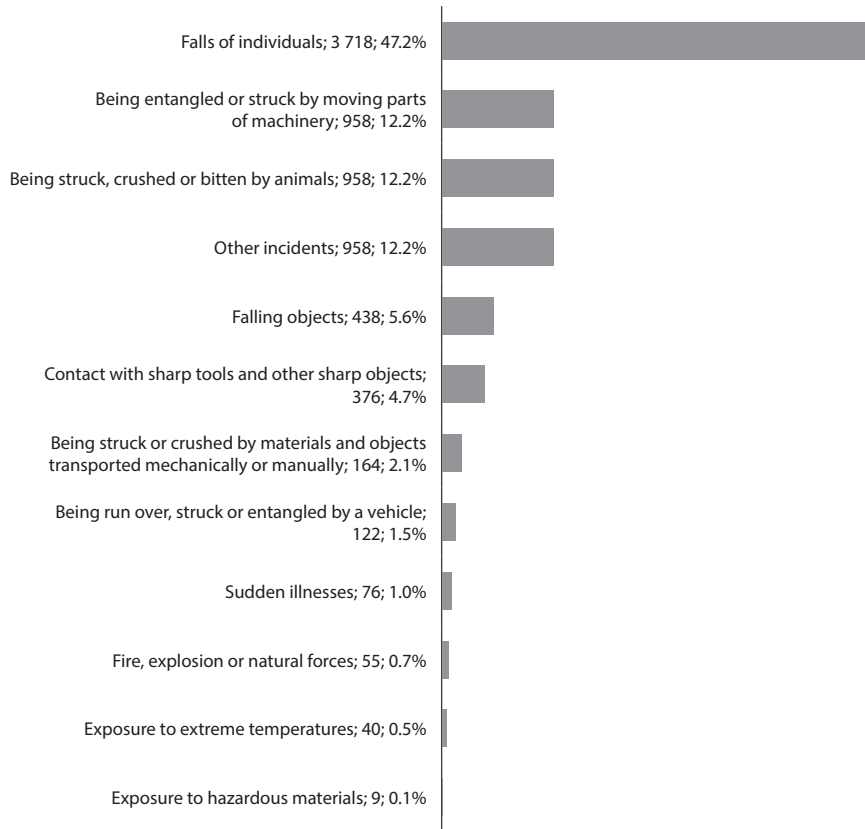
Characteristics of accidents on farms in the period 2014–2023

Over the past ten years, the structure of accidents, based on events causing injuries, has remained similar. The most common causes of accidents continue to be:

- falls of individuals;
- being entangled or struck by moving parts of machinery and equipment;
- being struck, crushed or bitten by animals;
- other incidents.

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Figure 1. Structure of accidents in 2020 by accident groups



Source: Kasa Rolniczego Ubezpieczenia Społecznego (KRUS), *Wypadki przy pracy i choroby zawodowe rolników oraz działania prewencyjne KRUS w 2020 r.*, Warszawa 2021.

Analysis of Circumstances and Causes of Accidents

Pursuant to Article 63(1) of the Act on Farmers' Social Insurance, KRUS annually analyses the causes and circumstances of work-related accidents and occupational diseases among farmers. During accident investigation procedures, prevention inspectors conduct inspections of locations and items involved in the incidents, assess work methods and the technical condition of production equipment, review medical records related to the provision of first aid, and examine documentation provided by law enforcement authorities. They also collect information from injured parties and witnesses concerning the circumstances and progression of the incident. During the

evidentiary process, the causes of the accident are identified, and preventive recommendations are issued to mitigate the risk of similar incidents occurring in the future.

In the early years of KRUS, over 60,000 accidents were reported annually to organisational units (66,000 in 1993), while by 2020, the number had decreased to 10,977, representing an over 80% reduction compared to 1993.

Accident Categories – Circumstances and Causes

Group 02 – falls of individuals

The majority of accidents in this group were caused by tripping and slipping on surfaces in farmyards, fields and pathways, as well as falls from ladders, stairs and transport vehicles.

The most common causes of accidents in this group include:

- poor surface conditions in farmyards and disorganised farm surroundings, along with inadequate maintenance of pathways, particularly during the winter season;
- use of self-made ladders lacking anti-slip or stabilising features;
- lack of ladders attached to trailers;
- failure to use ladders or platforms during work at heights;
- structural defects in buildings and stairs (e.g. a lack of handrails);
- placement of thresholds in the doorways of livestock buildings;
- failure to use appropriate safety footwear;
- incorrect methods of climbing onto or descending from agricultural machinery, trailers, carts, ladders or stairs;
- use of old, worn-out and poorly maintained agricultural machinery; performing farming work in haste or under difficult weather conditions.

Example 1

On the day of the accident, the injured party, Sebastian S., was spreading manure from his own beef cattle on a field, using a tractor with a manure spreader. As he neared the end of the task, he heard a metallic sound coming from the spreader, and decided to exit the tractor to investigate the issue. To do so, Sebastian S. turned off the tractor's engine and climbed up the ladder permanently attached to the spreader. While standing with one foot on the ladder and the other on the spreader's edge, his left foot slipped on the edge, causing him to fall approximately 3 metres onto his back, landing in the field. As a result of the incident, Sebastian S. sustained injuries to his

sternum, spine and chest. There were no witnesses to the accident. At the time of the accident, the injured party was wearing work shoes with a treaded sole, although without a steel toe cap or ankle support. After the accident, Sebastian S.'s brother, Radosław S., continued the work on the field by sowing rapeseed. During the investigation, it was established that Sebastian S. sustained the aforementioned injuries due to falling from the manure spreader onto the field of his own farm. The cause of the accident was haste and a failure to exercise particular caution when climbing the ladder on the spreader. No defects in the production equipment or irregularities in the service provided were identified. The accident was reported to KRUS 112 days after the incident, following the completion of medical treatment. There were no indications of the accident being caused intentionally or through gross negligence.

Preventive recommendations for the injured party: (1) before beginning work involving agricultural machinery, familiarise yourself with the safety guidelines and exercise particular caution and attention; (2) avoid haste; (3) ensure you are rested, focused and in good physical and mental condition before starting work, never begin work if your well-being or physical condition does not ensure safety; (4) include rest breaks when performing strenuous tasks that lead to excessive physical exertion; (5) always wear certified footwear with ankle support and steel toe caps; (6) maintain order and tidiness on the farm.

Group 07 – becoming entanglement or being struck by moving parts of machinery

The occurrence of accidents in this group is often influenced by the challenging economic situation of many farms, with farmers frequently using old machinery and equipment in poor technical condition. Such machinery often lacks appropriate safeguards for moving parts, and makeshift protective covers are often used, which do not always provide adequate protection against accidents.

Example 2

On the day of the accident, the injured party, Daniel T., was attempting to repair the wooden doors of a barn on his own farm. He planned to replace a hinge on the left door of the barn, as the old hinge was damaged, causing the door to sag. Daniel T. initially intended to cut the hinge bolts using an angle grinder. He began work in the yard under a covered area, securing the new hinge in a vice mounted on a wooden

table. Holding the angle grinder with both hands, he started cutting the first hinge bolt. During this operation, the angle grinder slipped from his hands, and its blade severed his left hand's second finger, injured the third finger, and caused a laceration on his fifth fingertip. The angle grinder was not switched off and fell to the ground, cutting through its power cord. There were no witnesses to the accident. The barn was being used to store hay for ducks raised for personal needs. According to the injured party's account, he was not wearing protective gloves at the time of the incident, although he was wearing protective goggles. The accident investigation revealed that Daniel T. sustained injuries in the farmyard while cutting a hinge bolt with an angle grinder, which was intended for the barn door. The cause of the accident was improper protection of his hands within the danger zone and failure to exercise particular caution when cutting the hinge bolt with an angle grinder. Upon inspection, the angle grinder was found to be defective, with a severed power cord, a broken blade guard, and a worn-out cutting disc. The accident was reported 16 days after the incident during ongoing medical treatment. The collected documentation did not indicate that the accident was caused intentionally or through gross negligence. Furthermore, there was no evidence that the victim had consumed alcohol or similar substances on the day of the accident.

Preventive recommendations for the injured party: (1) before starting any work involving power tools, familiarise yourself with the safety procedures; (2) a person operating an angle grinder should undergo proper safety training; (3) secure the material being worked on firmly in a vice and keep your hands away from the cutting surface; (4) avoid haste; (5) during operation, hold the angle grinder securely with both hands and maintain a safe distance and position to avoid accidental injuries to yourself or others nearby; (6) work should be carried out in appropriately lit auxiliary workshop spaces; (7) use personal protective equipment, such as workwear and protective gloves.

Example 3

On the day of the accident, Halina was transporting manure from her livestock from the manure storage area to a field using a tractor connected to a manure spreader. After completing her work, she returned with the tractor and spreader to the manure storage area behind the barn. She disembarked from the tractor with the intention of disconnecting the spreader so that she could store the tractor in the barn. While standing to the right behind the tractor, she disconnected the electrical connections from the

tractor and then removed the pin securing the spreader drawbar to the tractor. After removing the pin, the drawbar support leg collapsed, causing the drawbar to strike her right knee and fall onto her left foot. As a result, Halina sustained a crushed left foot, a laceration on her left foot, fractures of the shaft of the first, second and third metatarsal bones, the shaft of the fourth toe's proximal phalanx, and the shaft of the fifth toe's middle phalanx, as well as bruising to her right knee. The incident occurred without witnesses, as Halina was performing these tasks alone. She indicated that the weather conditions on the day of the accident were challenging – it was raining and the ground was muddy. The spreader wheels had been secured with chocks to prevent uncontrolled movement. According to her statement, she was wearing short, insulated rubber boots on the day of the incident. The accident investigation determined that Halina sustained the injuries described above due to the fall of the manure spreader drawbar while working on her own farm. The cause of the accident was the detachment of the spreader from the tractor on an unpaved surface, causing the drawbar support leg to sink into the sandy, wet ground, resulting in the drawbar falling onto the victim's foot. Additionally, inappropriate footwear may have contributed to the accident. The accident was reported 83 days after the incident during prolonged medical treatment. Halina was engaged in standard agricultural work at the time. There was no evidence of intentional actions or gross negligence.

Preventive recommendations for the injured party: (1) exercise particular caution and focus when connecting or disconnecting a tractor to or from agricultural equipment; (2) perform such tasks without haste; (3) machinery coupling and decoupling should only be performed on solid, stable ground; (4) any platforms or raised areas should be stable and properly secured to prevent accidental falls; (5) use certified footwear with a treaded sole, ankle support and a steel toe cap.

Main causes in this category of accidents:

- improper positioning of limbs within the danger zone;
- incorrect handling or gripping of tools, equipment and work items;
- lack of guards or safety features for moving parts of agricultural machinery, or inadequate guards and safety features on moving machinery and equipment.

Group 08 – being struck, crushed or bitten by animals

In most cases within this group, the improper handling of animals is the primary cause of the accident. An example of such an accident is provided below:

Example 4

On the day of the accident, the injured party was performing evening cattle chores in the barn on his own farm. He was feeding corn to the livestock. While feeding two bulls, the farmer noticed that one of them had broken loose from its chain. In an attempt to secure the bull, the injured party picked up a wooden stick and approached the animal to tie it to the sidewall of the barn. As he tried to secure the bull, the animal charged at him with its horns. While attempting to escape towards the barn's exit, the farmer was attacked by the bull, which knocked him onto the manure heap and then began striking him against the wall with its horns in a corner of the barn. As a result of the incident, the farmer sustained fractures of the fifth, sixth, seventh and eighth ribs on his left side, as well as injuries to his knee and left thigh.

There were no witnesses to the accident. On the day of the accident, the injured party was wearing work boots with a treaded sole, although without ankle support or a steel toe cap. During the post-accident investigation, it was established that the farmer sustained the above injuries as a result of being gored by the bull in a barn on his own farm. The accident was reported to KRUS 11 days after the incident, and so without undue delay. The cause of the accident was the sudden and unexpected behaviour of the bull and the lack of special caution while handling the animal. There was no evidence to suggest that the injured party had caused the accident intentionally or due to gross negligence. The collected documentation also confirmed that the injured party had not consumed alcohol or any other substances with similar effects on the day of the accident.

Preventive recommendations for the injured party: (1) understand the physiology and natural behaviour of farm animals, as they exhibit different temperaments, ways of expressing emotions, and sensitivities to external stimuli; (2) before starting work, carefully observe the animals and signal your presence, especially when approaching from behind, by using your voice; (3) exercise particular caution when working with large, strong animals, temperamental or particularly aggressive animals should be removed from the herd; (4) maintain order in the workplace; (5) use treaded footwear with a steel toe cap and ankle support; (6) where possible, adapt the barn for bull rearing by implementing structural solutions that eliminate the need to enter the pen with the animal.

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The main causes of accidents in this category are as follows:

- improper methods of handling or restraining animals, such as approaching from behind or acting suddenly;
- animal reactions to unfamiliar stimuli or environments;
- the temperamental or aggressive behaviour of animals;
- poor condition of livestock buildings and facilities;
- unpredictable animal behaviour.

Group 09 – fire, explosion or natural forces

Example 5

On the day of the accident, the injured party, Elżbieta, intended to add fuel to the central heating boiler in the utility room of the residential building on her farm to heat water for livestock and warm the house. While in the boiler room, she attempted to add fuel (dry oak and pine wood) to the furnace. As she opened the second door from the top of the boiler, she used her right hand to move a metal handle on the side of the boiler to stoke the fire. At that moment, there was an outburst of flame, hitting her face and right hand. The fire then spread throughout the boiler room. As a result, Elżbieta suffered burns to her face and right hand. According to her statement, she was not wearing protective gloves on the day of the accident, and she was wearing leather lace-up boots. She confirmed that she had not consumed alcohol, intoxicants or other psychotropic substances on the day of the incident. The post-accident investigation determined that Elżbieta sustained the burns from a flame erupting from the central heating boiler. The sudden movement of the metal handle used for stoking the fire may have contributed to the incident. No defects in the production equipment or irregularities in the service provided were identified. The accident was reported seven days later without undue delay.

Preventive recommendations for the injured party: (1) exercise extreme caution and focus when operating a central heating boiler; (2) concentrate on the task at hand; (3) regularly inspect and maintain the central heating boiler, preferably at least once a year and before the heating season; (4) all repairs and maintenance should be carried out by an authorised service provider using only original replacement parts; (5) during every inspection and maintenance, ensure the safety systems are functional, and that the gas fittings and connections are leak-free.

Group 13 – other incidents

This group includes accidents that cannot be classified within the previously mentioned categories, and include incidents such as unfortunate foot placement on uneven or slippery surfaces, limb strains due to lifting excessively heavy loads, and injuries caused by impacts from moving objects.

The most common causes are as follows:

- poor surface conditions;
- failure to use appropriate safety footwear;
- incorrect methods of climbing onto or descending from agricultural machinery, trailers, carts, ladders or stairs;
- improper handling and gripping of tools, equipment and work items.

An example of an accident in this category is as follows:

Example 6

On the day of the accident, the injured party, Michał, was transporting silage using a Massey Ferguson tractor equipped with a bucket-crocodile loader from a location behind the barn to the yard on his farm. The silage was intended as feed for beef cattle. After transporting a bale of silage, the injured party decided to step out of the tractor to adjust the silage manually. While exiting the tractor, facing the vehicle, his right foot slipped off the step, causing him to strike his right heel against the frozen ground in the barnyard. As a result, the farmer sustained a fracture of the right calcaneus (heel bone). The work was performed independently, and there were no witnesses. On the day of the accident, the injured party was wearing work boots with thin soles and ankle support, although without a steel toe cap. The investigation established that Michał sustained the heel bone fracture while getting out of the tractor in his farmyard. The causes of the accident were inadequate footwear, the poor condition of the yard surface, and a lack of sufficient caution while dismounting the tractor. The accident was reported 14 days later during prolonged medical treatment. The injured party was performing tasks related to agricultural operations. There was no evidence to suggest that the accident was intentional or due to gross negligence, nor that the injured party had consumed alcohol or similar substances on the day of the incident.

Preventive recommendations for the injured party: (1) perform agricultural work with all the necessary precautions in place; (2) use certified footwear with a treaded sole, a steel toe cap, and ankle support for farm work; (3) keep work boots clean, as

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residual mud or manure can increase the risk of slipping and falling; (4) regularly clean the tractor steps of mud to ensure safe mounting and dismounting; (5) ensure three-point body support when mounting and dismounting the tractor; (6) maintain clear pathways by removing unnecessary items, and levelling and hardening surfaces; (7) during winter, clear pathways of snow and spread sand, ash or gravel to improve traction.

Fatal accidents

The following example illustrates a fatal accident involving a fall.

Example 7

According to witness statements, the injured party, Adam, was assisting his uncle, Kazimierz, in moving a grinder from the barn to the granary to mill grain intended for sowing (as stated by the witness, such grain is cultivated on the farm). The grinder was initially transported on a wheelbarrow, but approximately two metres from the granary, it was carried by hand by the injured party and Kazimierz. While carrying the grinder towards the granary, the injured party walked backwards, and Kazimierz walked forwards, facing the granary. During this process, the injured party tripped and fell backwards onto his back, landing on the flat, level concrete surface of the yard near the granary. The witness to the incident, Kazimierz, called an ambulance. The injured party sustained multiple organ injuries, according to medical documentation. Witness testimony indicates that the injured party was wearing leather lace-up work boots. The post-accident investigation showed that the lace-up work boots were worn out, had treaded soles, and lacked a steel toe cap and ankle support. During the inspection, the surface near the granary was found to be dry, flat and level, with concrete paving. Lighting was provided by a lamp mounted on the barn, but it was still daylight at the time of the incident. The accident was reported to KRUS 37 days after the event, with undue delay, although this did not affect the determination of its circumstances and causes. The accident was reported posthumously.

Due to discrepancies in the date of death between the medical documentation and the death certificate, the post-accident investigation remains unresolved. A one-time compensation payment was denied.

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Table 1. Accidents ending in denial of one-off compensation

| Year | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Number of accidents resulting in a decision denying the right to one-off compensation | 6,625 | 5,900 | 5,787 | 4,695 | 4,059 | 3,328 | 3,267 | 3,051 | 2,868 |

Source: Kasa Rolniczego Ubezpieczenia Społecznego (KRUS), Wypadki przy pracy i choroby zawodowe rolników oraz działania prewencyjne KRUS w 2023 roku, Warszawa 2024.

Along with the decrease in reported accidents, a year-on-year decline in the number of accidents resulting in a denial of one-off compensation has been observed, as indicated in the table.

The reasons for denying the payment of one-off compensation included:

- lack of permanent or long-term health impairment;
- non-recognition of the event as a work-related accident due to the absence of a connection with agricultural work as defined by the law;
- failure to fulfil obligations by the applicant;
- the accident being caused through gross negligence;
- a significant contribution to the accident by the injured party being under the influence of alcohol or substances with similar effects;
- lack of eligibility to apply for the benefit;
- intentionally causing the accident.

Table 2. The most common reasons for refusing a one-off compensation payment in 2014–2023

| Year | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|-------------------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lack of permanent or long-term health impairment | 55.2% | 56.1% | 55.7% | 54.8% | 53.0% | 52.1% | 58.5% | 50.2% | 48.0% | 49.4% |
| Non-recognition of the event as a work-related accident due to the absence of a connection with agricultural work | 24.7% | 24.7% | 23.7% | 23.5% | 23.2% | 25.4% | 26.7% | 26.4% | 29.1% | 29.3% |
| Failure to fulfil obligations by the applicant | 15.2% | 14.7% | 15.8% | 16.9% | 17.8% | 16.3% | 19.0% | 16.8% | 16.8% | 15.8% |
| The accident being caused through gross negligence | 2.4% | 1.9% | 2.2% | 2.4% | 3.2% | 3.4% | 2.8% | 3.5% | 3.3% | 3.2% |

Source: Kasa Rolniczego Ubezpieczenia Społecznego (KRUS), Wypadki przy pracy i choroby zawodowe rolników oraz działania prewencyjne KRUS w 2023 roku, Warszawa 2024.

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For years, the most common reason for denying the payment of one-off compensation has been the lack of permanent or long-term health impairment, and farmers who suffer accidents unrelated to agricultural work receive denial decisions regarding compensation. Over the past decade, these cases have consistently accounted for as much as one-quarter of all accidents reported to KRUS. Another frequent reason for denying one-off compensation is the applicant's failure to fulfil obligations, usually involving the failure to provide the required documents, such as an N-14 form completed by a doctor (a certificate of the insured person's health status). A significant proportion of denial decisions, ranging from 2% to 3% of all decisions rejecting one-off compensation over the past decade, still pertains to accidents caused by gross negligence, which persists despite numerous training sessions aimed at farmers, highlighting dangerous behaviours in agricultural work. This situation requires a detailed discussion.

Gross negligence

According to Article 10(2)(1) of the Act of 20 December 1990 on Farmers' Social Insurance, one-off compensation for a work-related accident is not granted to the insured person if the accident was caused intentionally or as a result of gross negligence.

In judicial practice, gross negligence is understood as situations where the injured party is aware of the danger they face. This danger exists in given factual circumstances to such an extent that any person of average prudence would recognise it as evident. Despite this, the person exposes themselves to the danger unnecessarily, violating safety and hygiene regulations. They either ignore the consequences of their actions or fail to recognise the danger, even though they could and should have foreseen it. This was noted, for example, by the Supreme Court in its ruling of 6 April 2001, case No: II UKN 321/00³.

Below are examples of accidents that occurred due to gross negligence. In these cases, proposals were made to exclude them from being classified as work-related agricultural accidents.

3. A. Moroz, *Kiedy KRUS może odmówić wypłacenia odszkodowania za wypadek przy pracy?*, "Tygodnik Poradnik Rolniczy" 2017, nr 48.

Example 8

The injured party, Tomasz (49 years old), entered a storage room where he kept grain, in order to fill some sacks with it. He placed a ladder next to the spreader in order to climb onto it. The ladder he used was a single-section, wooden, unstable ladder without safety hooks, non-slip rubber feet, or a type plate. Tomasz climbed the ladder barefoot, explaining that wearing shoes would cause grain to get inside them. When stepping on the first rung and attempting to place his left foot on the second rung, his left foot slipped, and he fell onto the dirty concrete floor of the storage room, bracing his body with his right arm. The task was performed alone, and there were no witnesses to the accident. As a result of the accident, the injured party sustained a fracture of the distal radius of his right arm. The investigation revealed that Tomasz had used a ladder that did not comply with occupational health and safety regulations, contributing to the occurrence of the accident. The collected evidence indicates that the accident resulted from gross negligence on the part of the injured party. He used an unstable, homemade, single-section wooden ladder lacking safety features, such as handrails for support when climbing or descending, non-slip rubber feet, safety hooks, and a type plate. The injured party caused the accident through gross negligence.

Example 9

Michał D., aged 33, was cutting firewood in the yard of his farm, intended as fuel for a boiler to prepare feed for chickens. He initially used a chainsaw, but it broke down, so he then continued the work with a circular saw. Towards the end of the task, while cutting wood on the circular saw, the injured party was struck on the forehead by a cut piece of wood (a wood block approximately 25 cm x 15 cm), causing him to fall backwards. As a result, he sustained a forehead injury. The task was performed alone, and there were no witnesses to the incident. According to the injured party's testimony, he lost consciousness after the incident. On the day of the accident, he was wearing protective glasses, gloves and work boots with a treaded sole. The investigation found that Michał, while working on the circular saw, sustained a lacerated wound on the frontal region of approximately 6 cm in length. The collected evidence indicates that the injured party contributed to the incident through gross negligence. He was working using a circular saw that lacked protective guards for the moving parts of the saw, which likely caused the cut wood block to rebound from the saw blade and strike the injured party on the forehead.

Operating in a farming environment under the influence of alcohol can also lead to a denial of one-off compensation, as illustrated by the following example.

Example 10

The injured party, Bogusława (57 years old), went to the henhouse on her farm to collect eggs for personal use. After collecting the eggs, she left the henhouse and walked toward her house carrying approximately 7–8 eggs in her hands. While crossing the yard, she slipped (unable to recall which foot) on the frozen, grassy surface covered with ice, falling onto her right side and injuring her right leg. She was performing this task alone, and there were no witnesses. On the day of the incident, the injured party was wearing rubber boots without tread, ankle support or steel toes. The yard had not been treated with any anti-slip products.

According to the injured party's testimony, she had consumed alcohol before the accident, specifically two beers with an alcohol content of approximately 4–4.8%, which was confirmed by the Emergency Medical Services team.

The investigation established that Bogusława slipped on ice in the yard of her farm, resulting in a fracture of the distal third of her right tibia accompanied by a dislocation of her ankle. On the day of the accident, the injured party was under the influence of alcohol, which contributed to the incident.

In 2020, the following fatal incidents were recorded:

- 9 fatalities in the group of being run over, struck or entangled by a vehicle, including 4 instances of being crushed by overturned agricultural tractors (caused by improper driving techniques on sloped and boggy terrains); 4 road traffic accidents on public roads, including 2 cases involving tractors (caused by violations of traffic regulations – excessive speed, failure to yield the right of way), and one accident where the victim drove into a drainage canal and was ejected from a tractor, without a cabin, into the water;
- 7 fatalities in the group of falling objects – most commonly these were accidents related to timber harvesting (3 cases); caused by improper work methods and being in hazardous zones. Three incidents involved being crushed by agricultural machinery during fieldwork or while coupling machines to tractors, and one case resulted from being crushed by a wheel during inflation;
- 6 accidents in the group of entanglement and being struck by moving parts of machines and equipment occurred due to improper and non-compliant use of machinery with operating instructions, lack of guards on

- PTO shafts, and failure to switch off the power to manure spreaders and straw balers before making adjustments or repairs;
- 4 fatal accidents in the group of being struck, crushed and bitten by animals occurred during the handling of livestock, with three victims attacked by animals in a farm building or on a pasture. The causes of these accidents included animal aggression, improper handling methods, and structural defects in buildings housing the animals, such as the lack of a feeding corridor. One victim was stung by insects while working in a decorative shrub nursery, suffering anaphylactic shock;
 - 4 fatalities in the group of sudden illnesses occurred while performing tasks related to the handling of farm animals in agricultural buildings. These incidents were caused by prolonged and excessive physical exertion, often accompanied by stress during the victims' work;
 - 3 fatalities in the group of other incidents included 2 cases of electrocution caused by poor electrical installation conditions, which occurred during the connection of a grain blower and the repair of a furnace. Another incident involved drowning in a pond while irrigating a plantation;
 - 2 fatal accidents in the group of sudden illnesses were caused by falls from a height. The underlying reason for these incidents was the lack of safety measures while working at height.

Conclusion

The countryside is not solely a workplace; it is primarily a place where its residents live. Agricultural work entails not only risk factors but also significant hazards.

“From a global perspective, agriculture is one of the most dangerous sectors of the economy”⁴. Actions aimed at improving safety in rural work and living conditions are essential, and the Agricultural Social Insurance Fund (KRUS) is exemplary in fulfilling this role. Farming requires coping with diverse weather conditions that vary with the seasons and are further exacerbated by climate change. Farmers must possess a wide range of skills and abilities, including operating various types of machinery, managing large farm animals, and addressing numerous challenges.

Since its establishment, KRUS's preventive activities have focused on eliminating the most common risks in farm work and reducing the number of accidents and

4. P. Lundqvist, *Możliwości zmniejszenia liczby śmiertelnych obrażeń w szwedzkim rolnictwie dzięki programowi prewencyjnemu*, “Ubezpieczenia w Rolnictwie – Materiały i Studia” 2021, nr 2(76).

occupational diseases among farmers. As highlighted in this publication, agricultural accidents are decreasing year by year, partly due to the preventive efforts of KRUS employees. Numerous training courses and workshops for farmers, covering safe use of agricultural machinery and equipment, first aid, health protection, workplace hygiene and safety knowledge competitions significantly enhance work safety in agricultural holdings. For many years, KRUS's information booths at mass events, such as festivals and harvest celebrations, have attracted numerous visitors and are highly popular among rural residents, with farmers often preferring in-person interaction despite other available methods of contacting prevention workers. They can apply for subsidies to purchase protective equipment, such as helmets, gloves and safety glasses, as well as financial support for farm modernisation to improve workplace safety. KRUS publishes various informational materials, brochures and educational resources that are available to farmers, providing practical advice on safe farming practices, identifying hazards, and outlining ways to mitigate them. KRUS also collaborates with various institutions and organisations to implement preventive programmes, allowing it to reach a broad audience of farmers and increase the effectiveness of its preventive measures. A Swedish national intervention programme, implemented between 2009 and 2013 to prevent injuries, demonstrates that preventive efforts can significantly reduce the number of accidents. The programme's impact was assessed by analysing fatal agricultural accidents over 15 years (five years before, during, and five years after the programme). "The analysis results showed a reduction of approximately 45% in fatal accidents during the five-year programme period. However, this effect almost disappeared in the five years following the programme's conclusion"⁵.

The aim of this study was to analyse agricultural accidents. The findings reveal that the most common incidents in farms include falls, entanglements or being struck by moving machine parts, and crush injuries or animal bites. In summary, most of these accidents could have been avoided by exercising due caution, adhering to basic safety measures, and minimising situations that pose a risk to health or life during farm work.

5. P. Lundqvist, *Możliwości zmniejszenia liczby śmiertelnych obrażeń w szwedzkim rolnictwie dzięki programowi prewencyjnemu*, "Ubezpieczenia w Rolnictwie – Materiały i Studia" 2021, nr 2(76), p. 77–90.

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