

Risk Taking and Accidents on Irish Farms: An Analysis of the 2013 Health and Safety Authority Survey

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This document is a
summary of the ESRI
report. The full report is
available to download at
www.hsa.ie





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About this report

This report builds on an earlier study carried out for the HSA in 2013 where self-employed farmers from all over the country were surveyed about farm safety issues. We have taken the results of that survey and carried out in-depth analysis to see how problems are caused and how they might be fixed. In particular, we wanted to examine the factors associated with risk taking on farms and with the occurrence of accidents or ‘near misses’. (A ‘near miss’ is described as a very lucky escape – something that happened which may have resulted in an accident, but by pure luck did not.)

The report is published as part of the Economic and Social Research Institute’s (ESRI) and the Health and Safety Authority’s (HSA) Research Programme on Health, Safety and Wellbeing at Work.

Why is this report necessary?

The agricultural, fishing and forestry sector in Ireland has the highest rate of both fatal and non-fatal work related injuries compared to other sectors for quite a few years (Health and Safety Authority, HSA, 2016). The rate for fatal injuries is 10 times higher than average since 2009.

In 2015, there were 2.5 deaths as a result of an accident at work for every 100,000 workers across all sectors and industries. However, the figure for the agricultural, fishing and forestry sector on its own is much higher, 19 deaths for every 100,000 workers. It is important, therefore, to examine the problems and issues in this sector with a view to improving work practices and reducing the rate of work-related injuries and deaths.

What research information does this report cover?

The main information we examined for this report relates to three particular areas:

- Risk taking
- Work stress
- Accidents and ‘near misses’

Each of these is explained in more detail below.

Risk taking

We wanted to find out if risk taking behaviour changed according to the farmer’s individual circumstances – for example, their age, marital status, full-time or part-time work status, size of farm, and so on.

We measured risk taking by examining farmers’ responses to questions about six routine safety precautions:

- using safety gear (such as goggles, ear defenders);
- using restraining or handling facilities when treating animals;
- checking that machinery is in good working order;
- using Power Take-Off (PTO) or machinery guards;
- keeping chemicals stored away from access by children; and
- getting help with difficult jobs.

Stress

We wanted to see if work stress and general distress are related to risk taking.

We measured stress levels using the World Health Organisation's five-item wellbeing measure (WHO-5). This scale measures things like cheerfulness, feeling calm and relaxed, and so on.

We also devised a scale to measure farmer stress in relation to four specific areas of concern for farmers:

- government regulation,
- farm paperwork,
- financial matters, and
- workload.

Accidents and 'near misses'

We looked at the figures from the HSA study to see if there were patterns or common factors in accidents and near misses, and to see how they were related to risk taking. In examining this information, we paid particular attention to the different sizes and types of farms and the individual characteristics of the farmers – age, marital status and so on.

How was the report completed?

The HSA study in 2013 interviewed a total of 836 farmers. Of these interviews, 787 were conducted by questionnaires in the post. The sample was drawn at random from the HSA database of all farms (7,750 in total) that had been inspected by HSA inspectors between January 2009 and June 2013. A further 49 were face-to-face interviews conducted at two large marts – one in Thurles, County Tipperary, and the other in Bandon, County Cork.

We used the findings of this survey as a base for this report, but we cross-referenced the information with 2010 Census of Agriculture (CSO, 2012) and the 2013 Farm Structure Survey (CSO, 2014) to make the information as accurate as possible. We also used different methods of analysis and we 'weighted' the information to make sure it was representative of all farms.

What were the main findings?

The main findings for each category are set out here under their category heading.

Risk taking

- The most common risks taken were:
 - o not getting help with difficult jobs (27%), and
 - o not wearing safety gear (26%).
- About 12% of farmers took risks in not checking machinery before use.
- Each of the other risk types were taken by less than 1 in 10 farmers.
- There was a higher incidence of risk taking on dairy farms.
- Younger farmers tend to be the risk takers.

Stress

- The average score measuring psychological well-being was 1.55, which is at the high end of the WHO-5 scale where 1 is high well-being and 5 is low well-being.
- The average score on our five-point scale measuring stress was 3.35, with 1 being low stress and 5 being high stress.

Previous research suggested a link between stress or low well-being and risk taking. Our study, however, did not identify any pattern to support this suggestion.

Accidents and near misses

- An accident or near miss is more likely to occur on a larger farm – the odds of an accident or near miss were over three times higher on a farm of more than 100 hectares than on a farm of less than 20 hectares.
- In terms of risk taking, the odds of having an accident or near miss were over twice as high for those who do not get help with difficult tasks than for those who do.
- In terms of safety practices, not getting help is more strongly associated with an accident involving the farmer than accidents involving others.
- Not checking machinery is significantly associated with accidents involving others and with near misses.

Please note that more detailed information on the analysis and findings is contained in the full report, which is available to download from www.hsa.ie

What are the recommendations?

Help with difficult tasks

The results indicated that over one quarter of farmers (27%) do not routinely get help with difficult tasks. In turn, this might increase the risk of having an accident. Given the solitary nature of much farm work, there is clearly a need for a system for calling on additional help where there is a difficult job to be done. More information would be needed on the type of job and how often it needs to be done in order to develop more specific recommendations. However, the results here pointed to it as a potentially important factor in farm safety.

Checking machinery

About 1 in 8 farmers do not routinely check machinery before they use it. This practice is associated with an increased risk of accidents involving others and near-misses involving the farmer. This finding could continue to be emphasised in safety messages directed towards farmers.

Young farmers

The findings showed that younger farmers were more likely to take risks. Single farmers, who tend to be young, were also more likely to take risks in not checking machinery. This points to the need to have safety messages directed towards young farmers about the use of safety gear, using animal restraints, storing chemicals properly, and so on. Since young farmers are more likely to have taken formal agricultural training courses, these aspects of health and safety could receive even stronger emphasis as part of their training.

Dairy farmers

Dairy farmers were more likely to take risks, particularly when it comes to storing chemicals out of reach of children. It is worth continuing to emphasise safety in this respect among dairy farmers.

Larger farms

The only form of risk taking that increased according to the size of the farm was not using safety gear. A possible explanation for this is that the safety gear is not near to hand because of the size of the farm. In this case, it may be worth promoting ways to ensure that safety gear is available wherever it is needed.

Even with risk-taking behaviour controlled, the incidence of accidents or near misses was greater on large farms. This is an area worthy of further research. In particular, is the work pressure on larger farms leading to a faster pace of work that is contributing to accidents, even where safety precautions are taken?

Spreading the word

It is worth exploring new ways of getting the safety message across to farmers. One way might be to make use of the discounts offered by many insurance companies to farmers who adopt certain safety practices, including having a farm safety statement. Having a farm safety statement or risk assessment document is required by law (The Safety, Health and Welfare at Work Act, 2005), but linking it to applying for farm insurance renewal is a possible way to strengthen the safety message. Also, completing a checklist when taking out or renewing an insurance policy is a useful way to raise farmers' awareness of the safety issues identified in this report.

Other strategies to improve communicating farm safety information might include linking insurance discounts to taking part in farm safety 'refresher' courses, and producing summaries of research findings in a reader-friendly format.



Where can I get further information?

You can download the full report Risk taking and Accidents on Irish Farms: An Analysis of the 2013 Health and Safety Authority Survey from the HSA website www.hsa.ie

Visit the farm safety sections of the following websites for more info:

Health and Safety Authority

http://www.hsa.ie/eng/Your_Industry/Agriculture_Forestry/

The Irish Farmers' Association

<https://www.ifa.ie/cross-sectors/farm-family/farm-safety/>

Irish Water Safety

<http://www.iws.ie/advice/farm-safety.324.html>

Health Services Executive

http://www.hse.ie/eng/health/child/childsafety/farm_safety.html

Department of Agriculture, Food and the Marine

<https://www.agriculture.gov.ie/farmsafety/>

Teagasc

<https://www.teagasc.ie/rural-economy/farm-management/health--safety/>

FBD Insurance

<https://www.fbd.ie/farm/farm-safety/>

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