

Extended Abstract
Please do not add your name or affiliation

Paper/Poster Title	Farm safety: A study of young farmers' awareness, attitudes and behaviours.
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**Abstract prepared for presentation at the 96th Annual Conference of the
Agricultural Economics Society, K U Leuven, Belgium**

4th – 6th April 2022

Abstract	200 words max
<p>Agriculture in the United Kingdom (UK) continues to be one of the most dangerous occupations, accounting for around a fifth of fatal workplace injuries and many other injuries, both major and minor. This study examines young farmers' awareness of, attitude to and behaviours around safety practices on-farm. A survey was undertaken amongst a group of young farmers aged sixteen and over who were actively engaged in farming in Northern Ireland, focusing on attitudes and behaviours towards safety on-farm. Drawing on previous literature, this study examined whether younger farmers demonstrate a higher degree of risk tolerance and are more likely to engage in risk taking behaviour when undertaking routine farming practices leading to potential injuries and lost working days. The young farmers surveyed were classified into three groups and differences in risk perception examined. The results indicate that statistically farmer age, intensity of farming alongside the level of farming experience contribute to accident occurrence. Our results indicate a need for attitudinal and behavioural change particularly around risk-taking behaviours which ultimately result in farm accidents; impacting on both the performance of the farm business and individual farmer well-being. Policies aimed at addressing perception and acceptance of risks among farmers are recommended.</p>	
Keywords	Farm safety, young farmers, risk awareness, attitudes, behaviours and practices
JEL Code	Agriculture (Q1) see: www.aeaweb.org/jel/guide/jel.php?class=Q)
Introduction	100 – 250 words
<p>The UK Health and Safety Executive (HSE) identifies agriculture as one of the most dangerous industries to work in with a worker fatality rate (per 100,000) twenty times higher when compared to all other main sectors (HSE 2021). In Northern Ireland, agriculture has accounted for the majority of workplace injuries and fatalities in each of the past 5 years (Health and Safety Executive for Northern Ireland (HSENI), 2017). This highlights the need from both a policy and industry perspective to identify ways of reducing accidents and resulting fatalities and injuries on farms. Previous studies have focused on identifying the main causes, types and frequency of accidents as well as the behaviours and actions of those individuals involved in accident. Specifically, studies investigate what factors contribute to accidents and the impact this has in terms of working days lost and how this impact on the farm business. Gaining deeper understanding of the main causes and impacts of farming-related accidents as well as the factors contributing to them makes an important contribution to addressing</p>	

accident-related behaviour. The aim of this study was to explore the behavioural attitudes related to risk tolerance of a specific demographic group, namely young farmers focused on identifying the frequency of accident and near miss occurrences, and causes and factors which contributed to them for those individuals within this sample group.

Methodology

100 – 250 words

An online survey was designed and targeted towards member of Northern Ireland’s main young farmers’ organisation, namely, the Young Farmers Club of Ulster. It was aimed at those members who were over the age of 16 and who were actively farming. The survey was undertaken in the first two months of 2021 and 219 responses were received which represented a response rate of 27 percent. On the basis of participants’ responses to specific questions relating to recent farming accidents over the previous year, participants were then divided into three categories namely, those who had experienced a major injury in the past 12 months of the survey, respondents who had a minor injury and a group for which no accident had occurred. The aim was to assess whether in situations where accidents had occurred individuals displayed a higher tolerance to risk. Qualitative methods were used to analyse individual attitudes based on their responses to a number of questions focused around behaviours in relation to undertaking everyday farming activities to assess the risk tolerance. The main aim was to evaluate the behaviours associated with greater tolerance for risk and to establish how these behaviours can be addressed in order to avoid the higher accident rate associated with younger farmers.

Results

100 – 250 words

In terms of survey responses, 10% of respondents had been involved in a major accident, 47% minor accident and for 37% respondents there had been no accidents on the farm over the previous year. The results indicated that accident occurrence is higher among younger farmers who farm full-time compared to those who farm on a part-time. Results show that animal handling and handling large equipment such as tractors and machinery coupled with general age-related inexperience are the main causes of accidents. In terms of livestock enterprises, dairy farmers were more likely to be involved in an accident compared to those with beef and sheep enterprises. For those in the major accident group, the results indicate that they tended to show less awareness of risks associated with certain routine farming activities. They also displayed a higher degree of risk taking behaviours in their work that increased their risk of an accident compared to those in the other groups; many indicating that accidents were just part and parcel of the job. Those who had experienced a major injury were more likely, compared to the other groups, to engage more frequently in activities and practices that increased their risk of an accident occurring. In addition, our analysis also showed, that for those in the ‘major injury’ group they reported working longer hours on average and indicated that they often worked when they were feeling sick or over tired and regularly took short cuts to save time.

Discussion and Conclusion

100 – 250 words

In relation to good safety practices on farm this study has identified that, amongst young farmers, there is a need for attitudinal and behavioural change particularly around risk-taking behaviours which ultimately result in farm accidents; impacting on both the performance of the farm business and individual farmer well-being. The findings highlighted that there is a perception amongst young farmers that accidents



were 'part and parcel' of the job and at farm level, this is often viewed as the 'social norm' amongst farm family members. The study highlighted that younger farmers tended to look to other family members for advice on farm safety and the attitude and influence of other family members does impact on whether or not the good farm safety practices are adopted. A collective approach is required when implementing improved farm safety practices on farm, that is, everyone involved in and working on the farm needs to be involved; for example encouraging the establishment of a farm safety plan/checklists and maintaining a record of minor injuries and near misses which can be reviewed and from which lessons can be learned. On-the-job training and demonstration farm visits incorporating farm safety best practice were valued in terms of training and there was an expressed preference for the use of digital communication .i.e. Twitter, Facebook. YouTube for delivering health and safety advice.