

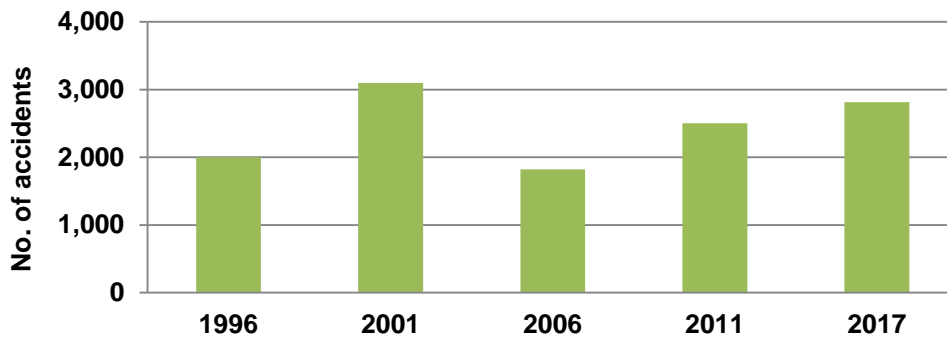
Farm Accident Data from the 2017 Teagasc National Farm Survey

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Data on farm accidents were collected through the Teagasc National Farm Survey (NFS) in 2017, involving recall of accidents over the previous five year period. This was the fifth such study undertaken through since 1991. As well as reporting the overall level of accidents over the period 2012-2017, the aim of the survey was to ascertain further the causes or contributory factors associated with farm accidents as well as identifying those most at risk with a view to assisting with future policy design and farm safety promotion. Data on the prevalence of farm accidents (and specific type) by farm system and age category are reported in addition to information on the category of persons injured, the medical treatment required and the length of work absence as a result.

According to the Teagasc National Farm Survey 11% of respondents experienced an accident causing injury on their farm over the five-year period 2012-2017. The data indicates that there were 2,814 farm accidents in 2017, a 13% increase on the 2011 figure. Figure 1 illustrates the steady rise in farm accidents since 2006 in particular, and reflects a 41% increase in the number of farm accidents in 2017 compared to two decades previous.

Fig. 1: Farm accidents 1996-2017

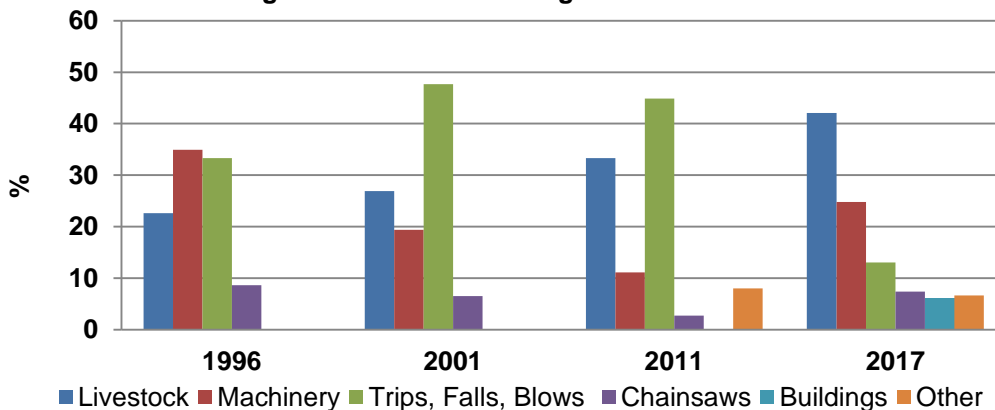


Source: Teagasc National Farm Survey

Farm accident categorisation

Figure 2 reflects the types of farm accidents occurring over the period 1996 to 2017. Each survey point relates to the occurrence of accidents in the five years previous, i.e. the 2017 figures relate to the period 2012-2017. Over this period the data indicates that 42% of accidents involved livestock with farm vehicles or machinery cited in a further 25% of accidents.

Fig.2: Farm accident categories 1996-2017



Source: Teagasc National Farm Survey

Trips or falls resulted in a further 13% of farm accidents over the period with chainsaws accounting for 7% and a further 6% involving farm buildings. The increasing proportion of accidents involving livestock over time is evident with a 20 percentage point increase from 1996 to 2017. Similarly, the proportion of accidents involving machinery more than doubled from 2011 to 2017. On the other hand, a marked decline in the proportion of accidents due to trips and falls is evident over the same period, however it should be noted that some accidents previously categorised as such were attributed to buildings in the 2017 survey.

Person Injured

Data from the survey indicates that the vast majority of on-farm accidents (92%) involved family members. According to respondents 80% of the accidents occurring over the period 2012-2017 involved the farmer with 12% involving the spouse or other family member. The remaining proportion of accidents over the period involved workers (5%) and others (3%).

Location of Injury

According to the survey almost two-thirds of farm accidents occurred in the farmyard (64%) and a further 15% in farm buildings. Almost one-fifth of accidents (19%) were in fields with only 2% on farm roadways or lanes.

Medical treatment required

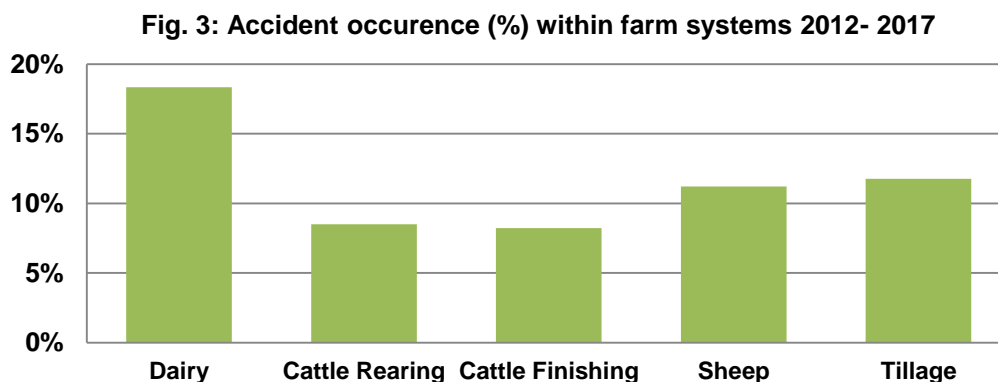
Almost all of the reported farm accidents (97%) required medical treatment according to the survey with 73% of victims attending hospital, a further 19% a doctor and 4% requiring first aid. Tragically 1% of such accidents resulted in a fatality.

Recovery time

In terms of the impact of such accidents, almost one-third (30%) resulted in the victim being out of work for more than a month with 21% reporting an absence of more than two months. On the other hand, almost one-fifth (17%) reported that the accident did not result in them taking time off (perhaps out of necessity?). A similar proportion (18%) reported a work absence of 1-3 days with 22% reporting a slightly longer recovery period of 4-10 days and 13% of those involved in farm accidents out of work for between 11 and 30 days.

Accident occurrence by farm system

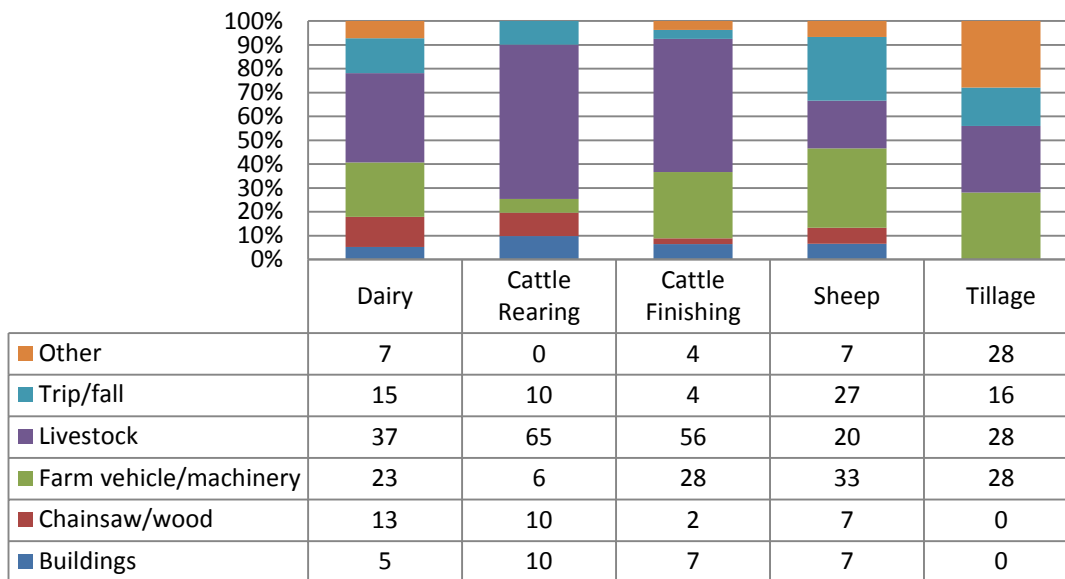
Figure 3 indicates that accidents are most prevalent on dairy farms with 18% of them reporting an accident over the period 2012-2017. However, taken together the cattle systems reported a figure close to this (17%). Accidents occurred on 12% of tillage farms over the period with the figure marginally lower on sheep farms at 11%.



Source: Teagasc National Farm Survey

In attempting to assess the causal factors, it is striking to note that almost two-thirds (65%) of accidents on cattle rearing farms involved livestock with the proportionate figure on cattle finishing farms also very high at 56%. Livestock related accidents still accounted for the largest proportion of accidents on dairy farms over the period 2012-2017, although the figure was substantially lower at 37%. Almost a quarter of all accidents on dairy farms involved farm vehicles or machinery with the corresponding figure on sheep farms one-third. 28% of accidents on both cattle finishing and tillage farms were accounted for by machinery. More than one-quarter of accidents on sheep farms were due to trips/falls, a figure not generally reported across the other systems.

Fig. 4: Accident type (%) by farm system

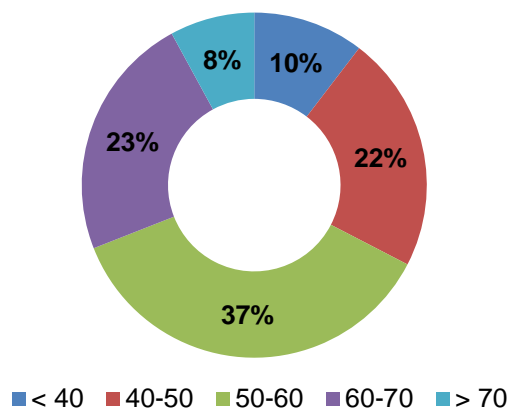


Source: Teagasc National Farm Survey

Farm accident by age category

Figure 5 illustrates the age profile of farmers within the 2017 Teagasc NFS and reflects the fact that almost one-third (31%) are aged over 60. The largest proportion of farmers (37%) are aged between 50 and 60 with 22% in the 40 to 50 age category and only 10% of farmers aged 40 or less.

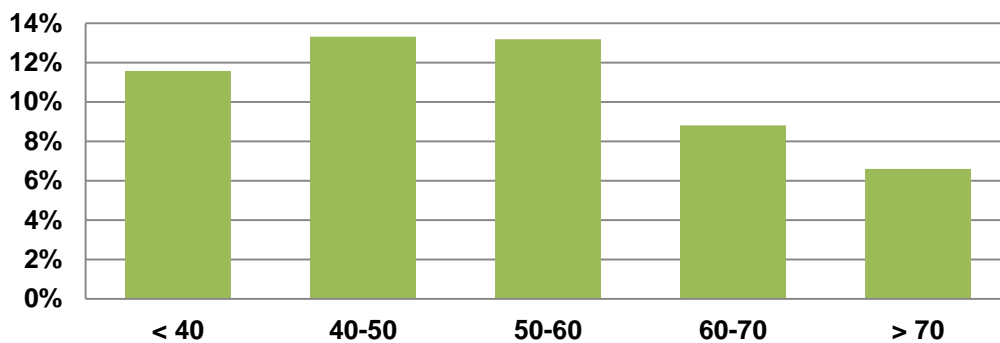
Fig. 5: Farmer age profile Teagasc NFS 2017



Source: Teagasc National Farm Survey

The 2017 data indicates that younger farmers are more likely to have farm accidents, whereas data from the Health and Safety Authority (HAS) indicates that fatal accidents are more likely among older farmers. This is in accordance with international literature which indicates that older farmers have the highest proportion of fatal farm accidents while younger farmers had the highest level of non-fatal farm accidents. The 2017 data (Figure 6) which indicates that only 7% of farmers aged over 70 were involved in an accident over the period 2012 to 2017. Similarly, only 9% of farmers aged 60-70 were reportedly involved in an accident over the timeframe. This compares to a relatively higher frequency of accidents within the younger age categories with 13% of farmers in the 40-50 and 50-60 age brackets involved in an accident and 12% of those aged below 40. It would be interesting to examine labour input and intensity on these farms to explore this issue further.

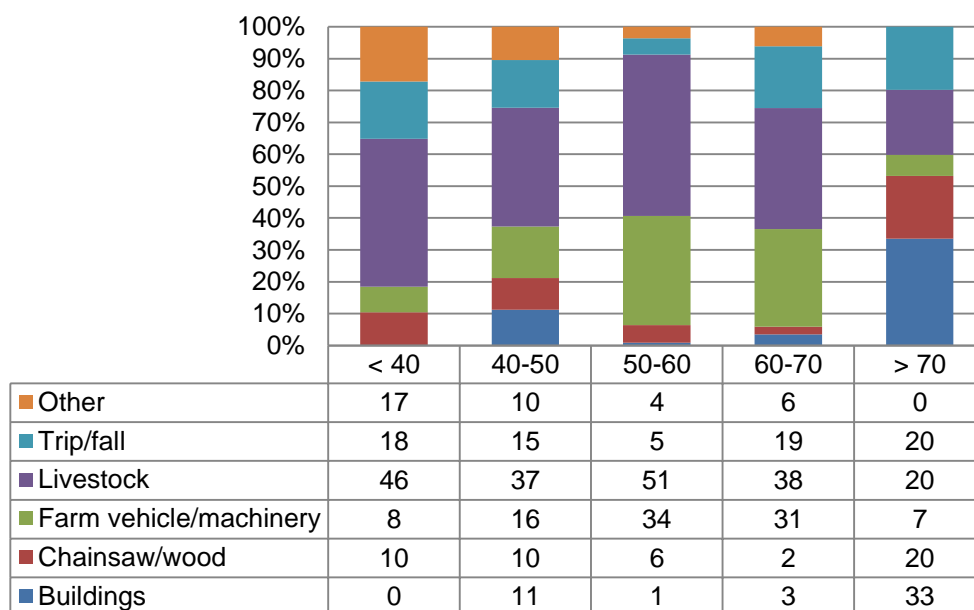
Fig. 6: Accident occurrence (%) within age categories 2012-2017



Source: Teagasc National Farm Survey

Taking account of the types of farm accident by age group Figure 7 indicates that accidents involving livestock was the most common cause across all age categories except where the victim was aged over 70 in which case accidents were more likely to involve farm buildings. Livestock related accidents accounted for over half (51%) of all accidents involving those aged 50-60 and almost half of those (46%) in the less than 40 age category. Accidents involving livestock were also common in the 40-50 and 60-70 age categories accounting for 37% and 38% of all accidents respectively.

Fig. 7: Accident type (%) by Age category



Source: Teagasc National Farm Survey

Accidents involving farm vehicle and machinery were most common for those farmers aged between 50 and 70 years.

Conclusion

Results from the Teagasc National Farm survey indicated that on farm accidents causing injury occurred on 11% of farms in 2017, a 13% increase compared to 2011 when the last survey was undertaken. Accident prevalence was highest on dairy and cattle farms. This is unsurprising given that that 42% of all accidents involved livestock. Accidents involving farm vehicles or machinery accounted for a further 25% of accidents. The vast majority of farm accidents (92%) in 2017 involved family member with 80% of accidents occurring in the farmyard or in farm buildings. Somewhat surprisingly, those farmers aged over 60 years were less likely to have an accident with higher proportions in the middle aged categories likely to have been involved in an accident over the period 2012 to 2017.

Notes

The 2017 Teagasc National Farm Survey (NFS) across a sample of 755 farms nationally representative of over 85,000 farms with a standard output greater than €8,000 (approximately 16 suckler cows). The dataset does not include pigs or poultry systems. The survey was conducted by means of face-to-face interview-on a confidential basis by Teagasc NFS data recorders.

Note: The NFS survey conducted in 2006 is omitted from Figure 2 as it included injury reports for one year rather than five years. However, the trend of relative increase in livestock injuries and reduced vehicle/ machinery injuries was found in this survey also.

Acknowledgements

The voluntary participation of farmers in the Teagasc National Farm Survey is gratefully acknowledged as is the contribution of Teagasc research staff involved in the collection, validation and administration of the survey.