



# Promoting farm health and safety through discussion groups

A research initiative from **TEAGASC**, supported by the HSA, is looking at how discussion groups can improve farmer health and safety.

*Discussion groups use a social learning approach.*

Seeking effective knowledge transfer (KT) strategies to assist farmers to strengthen management of occupational health and safety (OHS) is the focus of the Teagasc/Health and Safety Authority (HSA) Joint Prevention Initiative. This Initiative commenced in 2005 following enactment of the Safety, Health and Welfare at Work Act (the Act).

## Risk assessment

A cornerstone of the Initiative has been the development and rollout of the Farm Safety and Health Code of Practice and an accompanying Risk Assessment Document (RAD).

The RAD provides farmers, who are mainly self-employed, with a straightforward template to conduct a comprehensive risk assessment as required by the Act.

Research on the RAD has shown that farmers who implemented controls they specified had higher standards of OHS management. Where implementation did not take place, knowledge of hazards alone was not sufficient to gain implementation. This led to consideration of social learning through discussion groups as a stronger approach to promote farm OHS.

## Discussion groups

Farmer discussion groups meet regularly (c. monthly) to exchange information and ideas on current farm management issues. They may also conduct other events, such as visits to other farms or away trips, projects or indoor meetings in winter. Discussion groups operate a democratic organisational structure, with a chairperson, and where tasks are delegated to various members. Groups are guided by a facilitator – either an advisor or consultant. Group members can also keep in contact and exchange information between meetings.

## Social learning

Discussion groups practise social learning based on farmer-to-farmer interchange in a practical farm setting. Following a discussion group

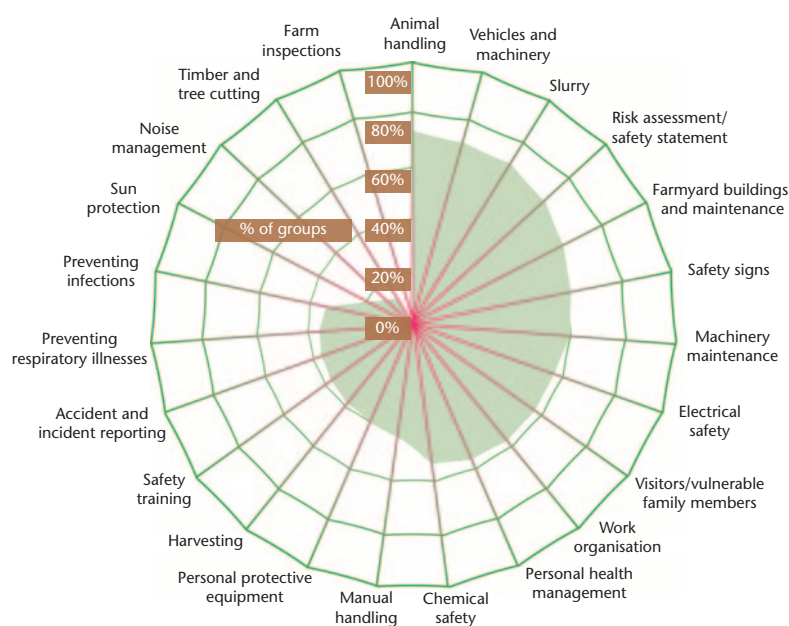
meeting, individual farmers consider farm management issues discussed and then follow up with implementing measures suitable for their individual farms. Discussion groups, as practised in Ireland, have been shown to increase both farm technology and practice adoption for improving farm management.

A theory of planned behaviour study among Irish farmers found that they are strongly influenced by peers in their intentions to adopt OHS (see *TResearch*, 10, 3:2015). Based on this background, it was decided to conduct a research study on the utility of discussion groups in promoting OHS adoption.

Teagasc facilitates about 800 discussion groups across all farm enterprises. It was decided to conduct this research with dairy discussion groups due to their long-established history, wide range of hazards and risks, and the relatively high accident rate among dairy farmers.

## Study findings

A key positive finding in phase one of the study shows that 96 % of the 96 discussion groups participating in an initial survey (phase 1) discussed OHS at least once in 2016. Additionally, the majority of discussion groups focused on prevention strategies that are closely aligned with causes of fatal farm injuries. However, a number of important issues, including those related to chronic illness, such as sun and ear protection and timber work, received limited attention (**Figure 1**). In phase two, two discussion approaches were used to address four separate OHS topics: cows at calving; slurry; tractors; and, machinery. In one approach, groups discussed all the topics in a single group meeting, and in a second approach, groups covered one topic per meeting, for about 20 minutes, over four meetings. A control treatment was also implemented where no OHS topics were discussed. A collaborative design approach was used to design the intervention. Teagasc advisors and specialists from several disciplines were engaged in this process to ensure that the interventions devised would be engaging and feasible, and previously used approaches were considered.



### Interpreting a spider diagram

The spider diagram is constructed so that zero is at the centre and 100% is at the outer edge. The % of groups discussing each aspect of farm OHS management is shown in the diagram.

FIGURE 1: Percentage of dairy discussion groups discussing each OHS topic in 2016 (n = 96).

The research findings in phase two indicate that both the single discussion approach and series of short discussions were useful for strengthening both farmers' intentions to work in a safe and healthy way, and to succeed in their efforts to act on those intentions. Comparing the two approaches, the "often, short and focused" shorter discussions approach was most strongly associated with an increase in action taken to increase safety.

Farmers' safety behaviours before and after the intervention pilot were also examined in phase two. Before the intervention, most farmers considered themselves safe (96 %), but 82 % intended to increase their safety practices, indicating self-awareness about safety shortcomings. In the short OHS-focused discussions, a statistically significant increase ( $p < 0.05$ ) occurred in the average implementation of two practices, suggesting that OHS engagement frequency influences safe practice implementation.

### Discussion enjoyable

A number of advisors reported that groups enjoyed the "often, short and focused" approach in particular and were enthusiastic about the discussions. Furthermore, the discussions were appealing to farmers in different life stages, and with different farming strategies and performance goals. This reflects the universal nature of many farm OHS issues for farmers, as regardless of their number of years of farming experience, farm performance and farm size, many of the risks they face within a particular enterprise are similar.

### Study implications

The findings of this study have implications for future OHS promotion research and the design of effective OHS promotion initiatives. While advisors considered the designs feasible during the design phase, advisors and farmers in a number of groups experienced challenges during their implementation. This indicates that the OHS promotion strategies should be optimised to meet the needs of different group contexts, including adaptation of the strategies to each individual group by the farmers and advisor. The critical difference between life and death is how farm risks are managed, and strong support networks that promote effective risk management, such as discussion groups, can help farmers to invest effort and resources in preserving life and health.

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### References

- O'Connor, T. (2020). 'Evaluating the influence of dairy discussion groups on farmer behaviour: an assessment of group engagement with occupational safety and health'. Unpublished PhD Thesis, NUI, Dublin.
- O'Connor, T., Meredith, D., McNamara, J., O'Hora, D. and Kinsella, J. (2020). 'Farmer discussion groups create space for peer learning about safety and health'. *Journal of Agromedicine*. Available from: <https://doi.org/10.1080/1059924X.2020.1720882>.
- O'Connor, T., Kinsella, J., McNamara, J., O'Hora, D. and Meredith, D. (2020). 'Learning through design using collaborative Intervention Mapping with acceptability evaluation: the case of a group-based farm safety intervention'. *Journal of Agricultural Education and Extension*. Available from: <https://doi.org/10.1080/1389224X.2020.1858889>.

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