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**Practice case study**

# In the shoes of a farmer: (re)connecting the public with animal health and welfare in livestock production

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Submission date: 31 March 2022; Acceptance date: 9 March 2023; Publication date: 20 July 2023

**How to cite**

Clark, B. and Mahon, N. (2023) 'In the shoes of a farmer: (re)connecting the public with animal health and welfare in livestock production'. *Research for All*, 7 (1), 9. DOI: <https://doi.org/10.14324/RFA.07.1.09>.

**Peer review**

This article has been peer-reviewed through the journal's standard double-anonymous peer-review process, where both the reviewers and authors are anonymised during review.

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*Research for All* is a peer-reviewed open-access journal.

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## Abstract

The UK public is becoming increasingly disconnected from farming, yet shows an interest in how food is produced and how farm animals are raised. This article reflects upon a novel engagement activity aimed at facilitating conversations about farm animal health and welfare in the UK. We focus upon how: (1) the interactive design encouraged participation, and made the activity enjoyable; (2) the content and presentation facilitated non-judgemental conversations; (3) the activity was an opportunity to discuss an important topic; (4) the location and timing allowed the researchers to reach different publics; and (5) the activity enhanced the subsequent research and engagement programme. We conclude by highlighting the value of creative engagement methods for engaging members of the public with food and farming issues.

**Keywords** animal health and welfare; farming; food choice; public engagement

### Key messages

- Innovative approaches to public engagement used outside of academic spaces provide different publics with an inclusive and enjoyable space to reconnect with food and farming.
- Creative methods are valuable for eliciting thoughts on complex and ethically difficult issues such as animal welfare, providing an opportunity for conversations without an agenda.
- These activities provide a model for how researchers and policymakers could more fully engage the public in conversations around food and farming.

## Introduction

As part of post-Brexit reforms, the National Food Strategy for England (2020) and the Agriculture Act ([legislation.gov.uk](https://legislation.gov.uk), 2020) are changing the way in which food and farming systems are governed in the UK. This new system aims to pay farmers to produce outcomes that benefit society, for example, clean water, increased biodiversity, and improved farm animal welfare, via a 'public money for public goods' approach (DEFRA, 2021). While the Agriculture Act has had input from government, farmers, retailers and certain non-governmental organisations (DEFRA, 2020), there has been less engagement with the general public, that is, those people who may be consumers of animal-based products, and/or have an interest in issues about farm animals, but who do not necessarily have a direct connection with food production (DEFRA, 2018). This is in part due to the Covid-19 pandemic and restrictions on movement and group events.

A need for engagement aligns with the principles of food democracy, which argue that all members of society should be engaged in shaping food systems so that food is produced in a socially acceptable manner, and is safe, affordable and accessible to all (Baldy and Kruse, 2019; Hassanein, 2003; Lang, 1999). Fundamental to this is active participation by all citizens (Hassanein, 2003; Petetin, 2020). The Animal Health and Welfare Pathway (DEFRA, 2020) – part of post-Brexit agricultural reforms – has refocused attention on farm animal health and welfare (FAHW). Nevertheless, FAHW is an emotive and potentially contentious topic of conversation. Previous research has demonstrated public concern about the processes involved in the manufacture of foods of animal origin, including how concerns about FAHW affect public perceptions of food and farming (Frewer and Salter, 2002; Miele and Evans; 2010 Rowe et al., 2008).

For people to take part in shaping more socially acceptable food systems, they need to have an awareness of the issues, as a lack of knowledge can hamper participation in such conversations (Baldy and Kruse, 2019). However, there is a noted disconnect between how farm animals are reared and what members of the wider public know about this (Clark et al., 2016; Harper and Henson, 2001; Hartmann and Siegrist, 2019; Spooner et al., 2014). This raises questions: How might members of the public be encouraged to actively engage with these issues? Which engagement methods facilitate in-depth conversations and opportunities to learn?

The meaning of engagement and participation has been variously interpreted. Many typologies have been developed, from those in which participants are almost passive, to those in which the participants are extremely active (Reed, 2008). Arnstein's (1969) influential 'ladder of participation' model is a hierarchical typology, ranging from manipulation, the lowest rung of the ladder, to full citizen control, the highest rung. This model stresses the importance of participation and the ability to affect change, with greater value placed upon the higher rungs. Davidson (1998) describes a 'wheel of participation'; in contrast to Arnstein's (1969) model, the wheel is used to identify an appropriate level of participation and suitable tools for the question at hand, rather than suggesting that more participation is always better. Using Davidson's (1998) model, we aimed to develop a creative and engaging activity that included

elements of consultation and participation – providing both information and a space for the participants to respond to and discuss it, and allowing participants to take part in problem solving, to make their own decisions and to discuss their thoughts about FAHW.

Here, we reflect upon how the creative methods we employed can be used to actively engage members of the public in conversations around food and farming. We focus on FAHW, which has recently received increased attention in the policymaking sphere (DEFRA, 2020). We suggest that these methods could be applied by researchers and policymakers to more fully engage members of the public in research and policymaking.

## Approach

The activity was conducted as part of the public engagement programme of the Farm-Level Interdisciplinary Approaches to Endemic Livestock Disease (FIELD) project (<https://field-wt.co.uk/>), and focused upon bovine viral diarrhoea (BVD), a viral disease of cattle (Bitsch et al., 2000). BVD acted as a lens through which to explore how members of the public think about FAHW. Given the complexities around farm animal disease management (Mahon et al., 2021), and the potential for conversations about animal agriculture to become emotive, the activity was built around an interactive, walk-through decision-making game (Figures 1 and 2), in which participants took on the role of a farmer managing BVD on their farm. This allowed the participants to put themselves in someone else's shoes, and to think both about the farmers and about their own perspective on the issue. Participants 'spent' tokens (in place of money) on particular courses of actions, made trade-offs between disease management and farm profitability and saw the outcomes of these decisions. Gamification aimed to make the activity more engaging and enjoyable for participants, while promoting post-game in-depth and reflective conversations. Participants recorded their choices on postcards, giving the researchers an indication of how they prioritised FAHW, and their rationales. Participants could also provide written responses to questions about farming and the consumption of animal products, and post these on a noticeboard. Ethical approval was obtained from the University of Hull Faculty of Science and Engineering Research Ethics Committee (reference FEC\_2019\_47). Figure 1 outlines the three stages of the activity, from the start of the game and its four endpoints (3A–3D), and the sticky note activity on Martha the Cow, to the area for in-depth interviews.

Figure 1. Overview of the activities in the public engagement decision-making game

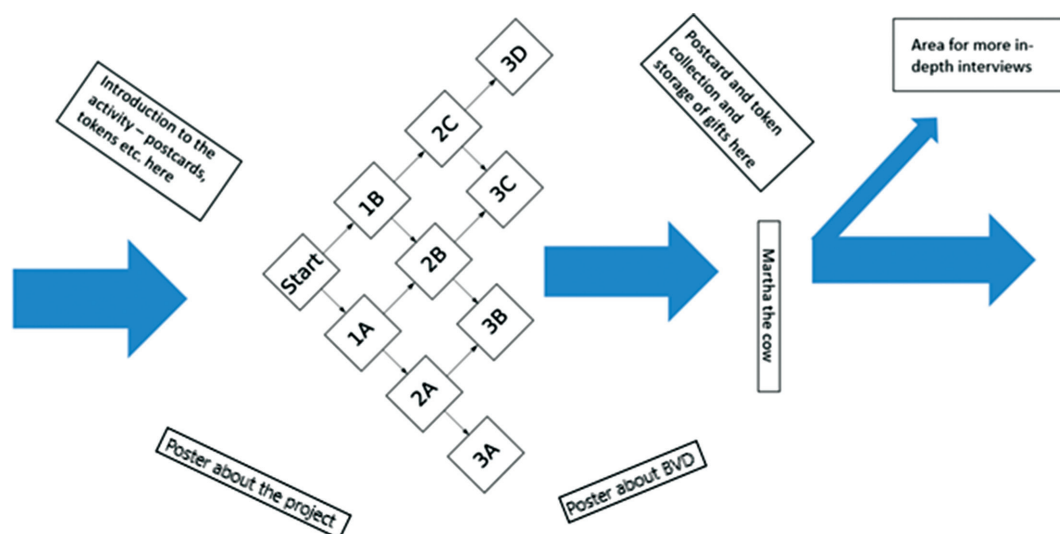


Figure 2. The decision-making game set-up (Photograph: Beth Clark)



A pilot was run at the Museum of English Rural Life at the University of Reading, UK. The design was subsequently refined: post-game interviews with a subset of opportunistically sampled participants were added, and the number of tokens provided was reduced to incentivise participants to take riskier options. The pilot also provided valuable experience for members of the team with little or no familiarity with public engagement events.

The engagement activity took place over two days in May 2019 at the Grainger Market in Newcastle upon Tyne, a well-used city-centre market including numerous food stalls (González et al., 2021). The venue was chosen because of its central location within the city, and its broad range of users (González et al., 2021), so as to provide a different audience from that of the pilot event and to ensure a broad range of participants. This included people interested in food in general, but less likely to have a strong connection to farming, given the urban setting. All members of the research team attended a briefing beforehand to run through the plans and address any questions.

In total, 186 attendees recorded their choices on postcards during the decision-making game; 295 written responses were received based upon the questions about farming and animal-product consumption, and 52 interviews were completed. Notes were taken during interviews, but they were not audio recorded, given the informal nature of the activity. Choices made during the game were analysed with descriptive statistics. The written responses and interview notes were analysed using thematic analysis (Braun and Clarke, 2006). Researchers facilitating the activity wrote reflections upon their experiences. These were written both on the day and in the week following the activity.

## Reflections

In this section, we focus upon the five main areas of how:

- the interactive design encouraged participation and made the engagement activity enjoyable
- the content and presentation gave participants a space for non-judgemental conversations
- the activity was a rare opportunity to discuss an important topic
- the location and timing allowed the researchers to reach different publics
- the activity enhanced the subsequent research and engagement programme.

The creative and interactive design, in particular the decision-making game, provided an effective and enjoyable platform for discussions around food and farming. Participants valued the opportunity to think more about food production, for example, from the perspective of a farmer trying to make a living from agriculture. Some participants said that the activity was easy to take part in, with one noting on a postcard filled in during the decision-making game that, it was 'easy, accessible, informative'. Another participant noted on a postcard that the game was a 'fun way to consider some huge and difficult questions'. Over one-quarter of all participants in the game engaged in the follow-up interviews, demonstrating a willingness to engage, with many participants noting that there are limited opportunities to discuss FAHW in their day-to-day lives, and therefore they valued this opportunity. Only a single participant did not enjoy the activity, seemingly because they did not understand the mechanics of the game.

The activity gave participants a space to learn. Approximately one-third of those who played the game mentioned its educational value, including learning about farm animal disease in general and BVD specifically, as well as about the role of farmers and the challenges in farming through taking part in the game. It also provided them with an opportunity to articulate their own thoughts and feelings about the topic. This suggests that these methods could be applied to make public involvement in policymaking less tokenistic and more democratic, embracing the idea of food democracy. Precedents exist, for example, the GM Nation? debates held in 2002/03 about the application of genetically modified (GM) organisms in agriculture (Gaskell, 2004; Horlick-Jones et al., 2006). However, the GM Nation debates took a less creative approach to public engagement than the activities described here. More recent studies highlight the value in using a creative approach (Waller and Gugganig, 2021).

Participants appreciated that the activity was set up to provide a non-judgemental space (that is, information was presented neutrally and factually), and did not have a particular agenda behind it, and that there were clear instructions introducing how to play the game, and clear phrasing of questions for the three activities. One participant, a vegan, noted that they 'liked (the) open forum' to talk and discuss the topic of animal agriculture. Another enjoyed the activity because it took an interest in what members of the public had to say, stating 'I like to express my opinion to people who are happy to engage with complex questions'. The importance of listening by researchers should not be underestimated (Stofer et al., 2022). The behaviour of the research team was central to this, through a continued emphasis on the fact that there were no right or wrong answers and showing an interest in participants' responses.

Participants articulated their thoughts about trade-offs in farmer and consumer decision making, noting that there were constraints on farmers, and that their decisions needed to be considered in relation to the low prices paid by supermarkets, the cost of agricultural inputs and the rise of alternative diets. Some acknowledged the challenging nature of the issues, stating that they did not know enough, when asked if there were any definitive right or wrong decisions farmers could make, with one participant writing 'I don't know enough about farming – I think it is very complex.' The activity made participants think about farmers' welfare. Several mentioned gaining a greater empathy for farmers, and others stated that the game made them rethink their consumption habits, stating that they did not want to take farming for granted, and that the milk sold by supermarkets was too cheap. For example, written responses to

the decision-making game included: 'It gives me a new view of assessing products in supermarkets', and 'Makes me think about costs of farms and fair price of milk.'

The activity was noted as a rare opportunity to discuss an important topic. While previous research has demonstrated concern about animal disease (Zingg and Siegrist, 2012), the opportunity to discuss FAHW was especially valuable, given the limited opportunities to do so, something that several participants highlighted. The researchers reflected upon their surprise at how many people were willing and enthusiastic to participate. This suggests that, prior to the activity, they felt that it would be difficult to recruit people to talk about an emotive and potentially contentious topic. However, in this case, their worries proved to be incorrect. One researcher noted that 'Many more people than expected were prepared to do the interviews, recruiting them was easier than I'd thought it would be.' Another thought that participants 'embraced the activity and seemed to enjoy the opportunity to reflect, opine, and be heard'.

Other researchers reflected upon how enjoyable the activity had been for them, both in terms of sharing their research with other interested people, and in terms of the opportunity to leave the office for a time and take part in a creative, group activity, with one researcher noting: '[It] was nice to be working away from the computer and on my feet for a change. [I] enjoyed talking to people and telling them about the issues we are trying to address in our research.'

The location and timing of the activity allowed the research team to reach different publics than they would usually do. The Grainger Market is an important space for older people, women and those from nearby deprived neighbourhoods to shop and socialise (González et al., 2021). These groups are less likely to be reached through more conventional consultation methods (Humm and Schrögel, 2020; Parliamentary Office of Science and Technology, 2001). While participant demographics were not formally captured, researcher observations indicated that primarily older, retired individuals were taking part, with an increase in working age individuals at lunchtime. This reflects the timing of the event (9 a.m. to 5 p.m. on two consecutive weekdays). Holding the event in a space in which the participants were comfortable made the event less intimidating, as the researchers entered a public space, rather than the public entering a research space. One researcher reflected that facilitating the activity was a 'culture shock', as this was a different demographic to those that usually attend science engagement events. This researcher then reflected on the 'ghettoised' lives that academics usually lead, and how this event broke away from the usual sites of action.

Learnings from the activity were shared more widely via two blog posts for academic and lay audiences on the project website (FIELD, 2021), a policy note submitted to the National Food Strategy for England in response to a call for evidence, a research brief and at two academic conferences. The activity also informed subsequent research and engagement activities in the FIELD project. Specifically, the findings from the game, and responses to the questions participants were asked, helped in shaping the language and topics included in two online surveys, and participants' willingness to discuss FAHW provided a foundation for discussing animal disease in more depth in focus groups with the public. The positive feedback, the interest in farming and FAHW, and the willingness of those participating to share their memories and experiences of food and farming formed the rationale for a successful application for public engagement funding from the research funder. Within this, the need for more spaces for inclusive, reflective, non-judgemental exchanges about agriculture was central to the application, as demonstrated by the activity described here. This was highlighted by both participant and researcher feedback upon the nature of the activity and the audiences who were engaged with. This enabled the recruitment of three artists in residence, whose work enabled further creative engagement with the public (<https://stories.field-wt.co.uk/>), which further explored FAHW, and the lives of animals and farmers, with four different audiences via a range of methods (northern farming communities, young adults, retired adults, and families with an interest in rural affairs). This was aimed at promoting interactions and understanding between farming and non-farming audiences. This application would not have been possible without the

insights gained from the activity reflected upon here, which highlights the importance of being able to run smaller, pilot engagement events with interested stakeholders. While existing literature, especially studies of attitudes and perceptions, can provide a foundational knowledge about topics, learning from practical experience, such as through engagement events, provides a less formalised process and space for discussions.

## Conclusions

In conclusion, the engagement activity provided accessible entry points into discussions about farming with members of the public, with the game acting as an enticing hook. The interactivity of the event made it enjoyable for participants, and less of a 'formal', intimidating experience. This contributed to the positive feedback received. Researcher reflections allowed team members to learn from, and build upon, the activity in future research and engagement.

This article highlights the value of public engagement focused upon food and farming, and it suggests a need for more. This has been reaffirmed in subsequent FIELD activities, and highlighted elsewhere (Regan and Kenny, 2022). Given previous criticisms of a lack of communication and transparency surrounding farming issues (Murphy-Lawless, 2004), and the relative lack of public input in the Agriculture Bill (DEFRA, 2018, 2020), our findings show that more engagement would be welcomed.

The event presented here provides an example of how to constructively and creatively engage members of the public in dialogue about food production. Findings demonstrate that the use of creative, interactive engagement activities can provide valuable insights into public perceptions of agriculture, and about the development of future food systems. We recommend that researchers and policymakers take more opportunities to engage the public via inclusive, accessible and non-intimidating formats, and take a non-judgemental stance towards the issues that they hope to explore.

## Acknowledgements

We would like to thank all of the FIELD team for helping run the events. We would also like to thank Professor Lewis Holloway and Dr Amy Proctor for their helpful comments on previous drafts of this article.

## Funding

This research was funded by the Wellcome Trust (209818/Z/17/Z). The event was part of Thinking Forward Through the Past: Linking science, social science and the humanities to inform the sustainable reduction of endemic disease in British livestock farming, also known as Farm-Level Interdisciplinary Approaches to Endemic Livestock Disease (FIELD; <https://field-wt.co.uk>).

## Declarations and conflicts of interest

### Research ethics statement

The authors declare that research ethics approval for this article was provided by the University of Hull Faculty of Science and Engineering Research Ethics Committee (Reference FEC\_2019\_47). The authors conducted the research reported in this article in accordance with both University of Hull and University of Newcastle standards.

### Consent for publication statement

The authors declare that all participants consented to take part in the game and subsequent activities.

## Conflicts of interest statement

The authors declare no conflicts of interest with this work. All efforts to sufficiently anonymise the authors during peer review of this article have been made. The authors declare no further conflicts with this article.

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