



AGRIDEMO

Case study reports: United Kingdom CS₁



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1. Background

Programme

The Innovative Farmers (IF) programme is a multi-partner project coordinated by a team at the Soil Association in UK. It aims to facilitate groups of farmers to work with researchers to design and run 'field labs': on farm trials (and a series of meetings) on topics identified as important by farmers. Currently there are some 30 active field labs on topics including herbal leys, potato blight and mineral deficiencies in calves with trials hosted by farmers. Farmer groups meet at Field labs events 2-3 times a year to observe/review the trials. Although not demonstration farms in the conventional sense, these events are where farmers hosting trials show them to other farmers. (NB Field labs are not permanent demonstration farms).

Funding and Governance

The programme partners currently include: the Soil Association (SA), LEAF (Linking Environment and Farming), Innovation for Agriculture (IFA), the Organic Research Centre (ORC), Waitrose Duchy Organic and The Prince's Charities

The Soil Association coordinates and administers the funding for the programme overall with the support of these partners. Other organisations provide some administrative and scientific support and expertise, and facilitators for field lab events.

Funding is from The Duchy Future Farming Programme (DOFF) (funded by the Prince of Wales's Charitable Foundation through the sales of Waitrose Duchy Organic products). DOFF have been funding the programme since 2014. More recently some sponsors fund individual field labs : Agricultural Horticultural Development Board (AHDB), (the Biological and Biotechnological Sciences Research Council (BBSRC), Produce World Group, Buccleuch. Riverford.

The programme is advised by a steering group of independent scientists and representatives from agricultural organisations. Its members also help review applications to the research fund. Together with the SA they agree the Key Performance Indicators (KPIs). Sponsors make independent funding decisions for the field labs they sponsor and set their KPIs. Two independent programme evaluations have been completed to date and steered the programme activities and plans.

SA staff (3) coordinate and administer the IF programme on a day to day basis, communicating with farmers, and facilitators, running the website/portal, matching researchers, and making decisions about which field labs to support. Farmer groups submit a proposal to IF through the SA's team who help the group to find a researcher and facilitator.

Farmers can join IF for free. This gives access to information about field lab reports and the online portal. When farmers join a group and start trialling, there may be a charge. Some field labs are funded by a sponsor, others will split the cost between group members. Researchers are given a small amount of money to support field labs.

Actors and networks

The SAIF coordinator and team (3 people) coordinate and administer the IF programme. They deal with IF groups will collect together around a common interest (for example cover crop management) and then propose specific field labs on that topic (e.g. termination of cover crops)

Each field lab will have a group of farmers (6-20), a group coordinator, and a researcher (from a university, research institute, ORC, ADAS (a private research and advisory consultancy). The group coordinator can be a farmer, a researcher (a number of coordinators work for ORC and have been facilitators of field labs in a previous programme), or from a partner organisation or sponsor. The coordinator arranges and administers the field lab activities such as communicating with field lab participants, arranging field lab meetings, writing reports and keeping the website page active, and liaising with the programme through the SA team when

necessary. As there is no typical field lab in terms of roles, the arrangements for each field lab will be internally agreed with the group. The coordinator will usually facilitate the field lab events (demos), this was the case in the event observed, where the farmer just acted as a host.

IF is open to organic and conventional farmers although mainly organic farmers attend field labs. The size of the field lab group will depend on the topic, level of engagement/involvement. Field labs are advertised on the IF website and through email alerts. As trials are often on more than one farm, farmers in IF take turns to host field Labs events. Once field labs are formed the coordinator will communicate with all farmers who have joined the group. These farmers are free to attend any field lab events; not all farmers in the group attend all their field lab meetings (typically 2-3 a year over 2-3 years). Normally farmers are geographically close, although if the topic is unusual farmers come from a long distance.

Field labs do not develop in a “network mode”, ie cross-fertilising/cross-pollinating, or for organisational purposes etc. However, actors who attend field labs may attend other field labs if topics are similar or of interest. Each of these (farmers, facilitators, researchers, suppliers) will have their own individual networks outside of field labs which they connect to. There is a formal IF annual meeting, run by the SA, open to all participants which allows field labs to meet and hear about each other. There is little formal or informal meeting of similar field labs although individuals might meet. Field lab participants can tap into other initiatives, for example those attending the AHDB field labs can benefit from their monitoring networks like ADAS’s ‘yield enhancing network’.

At the programme level, IF are well networked through its support organisations and sponsors, as well as with the agricultural ministry Defra.

How it works

- A group of farmers or growers come together around an idea. Sometimes they're an existing discussion or buying group. IF (the SA team) facilitate a meeting to discuss what topic to trial.
- IF match farmers with a researcher. The researcher will work with farmers to plan the trial and decide together what data to record. As the trial develops the farmers meet up, see how things are progressing and adapt if it's necessary.
- Each field lab will have 2-3 meetings (a year) on farm to plan/review trials ('the demonstration') or discuss the topic.
- At the end of the trial, the researcher will help analyse findings. They'll be published online and in the press.

Event Farm and location

The Farm is an arable farm in Oxfordshire, UK. The farm is run by father and son, who also run a contracting business. It has been in the 'Innovative Farmers' (IF) programme since August 2016. The Farm is part of the 'Cover Crop Management Group' who investigate alternatives to ploughing or glyphosate for terminating cover crops. The group are trialling a range of techniques including roller crimpers.

Event Field Lab group

Over 20 farmers met in Nov 2016 to discuss ideas for alternatives to glyphosate for terminating cover crops, enabling successful establishment of a subsequent cash crop. Six attendees said that they would like trials to take place on their farm, these are located in Warwickshire, Oxfordshire, Norfolk, Suffolk and Essex on a mixture of conventional and organic farms. The coordinator (interviewee 2) made plans for the field lab to last three years. In Jan 2017 two researchers from ADAS were invited to join the group (one of these is interviewee 1). As plans progressed 4 farmers agreed to setup trials in 8 different farm locations. These are being reviewed in field lab events. The event described below was one of these events.

Event

The topic of the demo was to visit the trial strips of the crops drilled after cover crops terminated with different techniques.

2. Method

In line with the Methodological Guidelines, three main data sources are used: a background document and interviews at Programme and Farm level to analyse structural and functional characteristics, and event tools and surveys to analyse event level participation and learning, as follows:

1. A background document for every case study was completed by the AgriDemo-F2F partner who carried out the case study.
2. Interviews with representatives of Programme (Level 1) and Farm level interviews with demonstrators/hosts (Level 2) to reveal how the functional and structural characteristics enable learning. Analysis is reported in Sections 3 and 4. Data is sourced from interviews with 2 Programme members, who were interviewed in May 2018 (not on the same date as the event). These Programme members are familiar with the IF programme active as coordinators/researchers. For the event, whilst there was a host farmer, his role was simply providing the farm for the event; therefore it was chosen to interview the 2 Programme members who were far more involved in the day. The analysis followed 5 themes: (1) Coordinating effective recruitment of host farmers and participants, (2) Developing and coordinating appropriate interaction approaches, (3) Planning, designing and conducting appropriate demonstration processes, (4) Enabling learning appropriate to purpose, audience, context, (5) Follow up activities .
3. Event tools and surveys (level 3) to reveal peer to peer learning processes. Event details and analysis is reported in Section 5. This data is sourced from 6 pre-demonstration participant surveys, 1 pre-demonstration facilitator survey and an event observation tool completed by an observing researcher. This data is mainly used for the analysis of learning processes and learning outcomes related to the specific event and overall comments on the effectiveness of the event.

Finally, partners reviewed the case study reports to prepare their workshops with different stakeholders related to the case studies. These workshops aimed at validating the data presented in the case study reports and to discuss on key characteristics related to effectiveness of demonstrations. The workshop for the UK case studies was held on the 19th of October, 2018.

3. Structural characteristics

T1: Programme and farm level

1. Actors involved

As mentioned above, Innovative Farmers invested on the field labs concept to motivate farmers to engage into trials that could have a tangible and practical impact on sustainable farming practices. Farmers are encouraged to take the lead in the organisation of the group and topic/objective of their trials, whereas a mesh of organisations, ranging from NGO's to advisory and research ones, are placed at their disposal to facilitate and support labs' and events' organisation.

"...it's all about getting the good ideas that farmers have all the time and helping them to test them on farms in a more robust way than they might otherwise do on their own..." (Programme interviewee 2)

Funding from Prince of Wales's Charitable Foundation has permitted IFs to support interested farmers with a start-up grant to set-up and run their trials, whereas additional funding may come up from additional sources, if farmers are interested and committed to enlarge the scope and objectives of their field labs.

As noted above each group will have a coordinator (a researcher, a farmer, an expert from a partner organisation) and a researcher (from the Organic Research Centre, ADAS, research institutes and universities). Coordinators organise, implement, and usually facilitate the events. Although they each have their style or format the general ethos is to leave sufficient room for farmers to engage and shape the event and discussions to meet their interests.

"...it works very well from my perspective because, we'll have a coordinator for the day, who will facilitate and obviously move it through the agenda of the day and all I have to do is concentrate on... what the science is ... and just what results, or whatever stage we're at, what we need to do with the data or data collection or planning for future data collection, and I can concentrate on that and think about getting that at the best possible standard..." (Programme Interviewee 1).

While field labs are largely farm and group specific, they have extended to cover a range of topics, practices and products. In that sense, while their main audience are farmers and growers, efforts are made to engage participants from the broader agricultural sector.

These efforts, according to interviewees, have a double objective: a) to increase awareness and gain visibility on this strand of work and b) to attract potential donors/sponsors to support ventures/events and eventually develop additional ones. It should be noted that there are not any specific monetary incentives for host farmers (i.e. remuneration for their time) nor for participants to attend the events. Thus, additional funding could enlarge the scope and increase interest on and impact of field labs.

2. Governance

With respect to the governance of the programme, the overall ethos of IF is foster farmer driven research, as noted here:

"So the overarching goal is to put farmers in the driving seat of research and enable them to test their ideas in a way that allows them to ... allows their results to be as robust as possible ..." (Programme Interviewee 2).

However this bottom up approach operates more at the field lab level than the higher governance levels. Individual farmers are not on the steering committee, although they are represented by the NFU, and the partner organisations which themselves have farmers on their boards and steering committees.

The programme is advised by a steering group of independent scientists and representatives from agricultural organisations. Finally, working with partners has facilitated networking at the UK level and linking the programme with parallel/additional initiatives active in the same or similar directions, for example 'yield enhancing networks'.

T2: Farm (event) level

This was a one day event which built on previous meetings (as described above) and focused specifically on the trial progress. Farmers' travel time to reach the demo farm ranged from 20 minutes to almost four hours. This reflect the geographical spread of the group (as described above) and highlights the importance of the topic to those farmers who travelled a long distance, but also suggests that the location of the farm and the timing of the event (held pre harvest) might have been a barrier to other farmers.

4. Functional characteristics

T1: Coordinating effective recruitment of host farmers and participants

1. Incentives

Although there is currently funding in place to cover the demonstration activities, host farmers only receive money to cover the activities and are not paid for their time. It was noted that the funding received from the Prince's Countryside Trust was supplemented by external sponsors (e.g. AHDB).

2. Motivations

Motivations for **host farmers** in Innovation Farmers were varied. Programme Interviewee 2 stated how they became involved because he/she asked them. Programme Interviewee 1 believed host farmers were the types of farmers that were inherently interested in innovation and driven by the opportunities offered by IF to advance their thinking and their farming futures:

I think they're just really passionate about getting new knowledge really and adapting new methods that have come from different countries or different varieties of things they've seen on the internet or they want to change their practice on their farm and have a trial there which will give them the best possible information to move on to try and change their practice in the future and have those conversations with like-minded growers that are innovative (Programme Interviewee 1)

Both Programme Interviewees agreed on the central importance of the opportunity to interact with and receive support from like-minded farming peers:

Having that group of people that are very supportive and aren't afraid to try something that would be perceived as quite whacky now but is probably going to be the norm in a few years time, I think that's quite good to have that support network around you (Programme Interviewee 1)

Motivations for **participants** overlapped with many of the motivations for hosts. A desire to see what farming peers were doing was a central for those attending Innovative Farmers events. With reference to Innovative Farmers' participants, Interviewee 1 suggested ...

I think they're always interested to see what someone else, who's like-minded, is doing on their own farm and to try and get inspired [...] it's always good to be nosy and that's very useful ... to share best practice and all move forward (Programme Interviewee 1)

Interestingly, both Programme representatives referenced the importance of the demonstration activity being able to solve a specific problem as a key motivation for participant farmers to attend demonstrations.

A really good topic being the most important thing. We once had somebody come down from Scotland ... to a composting field lab in the Midlands ... drove down all the way ... because there was nowhere else ...[to].. go to learn about using compost in cover crops (Programme Interviewee 2)

In the pre survey answer participants themselves stated that learning more about the topic, learning from others and learning about how the specific area deals with this topic as their main motivations for attending.

3. Target audience

The Innovative Farmers activities are largely aimed at farmers and growers Programme Interviewee 2 noted how they were happy to accommodate those associated with the industry more broadly, too, in order to gain wider industry support and understanding.

The primary target are farmers because obviously they are kind of the target for doing things differently, but I guess there's also a target which is the agricultural sector more broadly, in order to gain support for this way of working (Programme Interviewee 2)

The interviewees associated with the Innovative Farmers programme talked extensively about the role of Twitter and other social media platforms as a way of advertising and promoting events to the target audience. However, they also warned against using social media as the sole platform for advertising events and recruiting participants as to encourage a good mixture of participants.

People use different social media and print media to different levels, so I guess to get the most diverse people you shouldn't use just one outlet ... I know it has been in the farming press - not just an article saying do you want to join this group but an article about what the group is doing, saying if you want more information then contact ... and I know they've been in the Soil Association magazine (Programme Interviewee 1)

As emerged during the discussion of participant motivations, Programme Interviewees reiterated the importance of a good/relevant event with a clear aim or objective; that way farmers are able to know whether it is something that will benefit them.

T2: Appropriate demonstration and interaction approaches

1. The nature of interaction

Both Interviewees stressed how the Innovative Farmers programme was very much guided by its farmer members, i.e. bottom up. However, because of the nature of the activity and the desire for reliable data to emerge from the activities, there was a degree of compromise involved to ensure activities were scientifically valid. Ultimately however, the topic or objective is suggested by farmers and participants, and the programme team (including scientific advisors such as Interviewee 1) shape how this is carried out.

It's farmer-driven ... bottom up, definitely. They'll say 'I want to try this mix and I want to try these destruction methods' but [...]you've got to have ... certain sets of rules which we have written down in a protocol and send round to everybody, that means you can get good data. Then basically what the treatments are is up to the individual growers to decide. It's been very much a .. a balance between what the growers want to test and what we can reliably get out of one season and one field and the best way to design that to get reliable data (Programme Interviewee 2)

Programme Interviewees also noted how they adapted the interaction approach according to their audience. This was done *after* initially meeting the group of hosts and participants. This practice is likely to more associated with and applicable for a programme like the Innovative Farmers who – following the start of each project cycle – are a fairly closed or set group of farmers and industry members.

2. Involving farmers in the learning process and the demonstration programme

Farmer involvement in designing the learning process associated with individual demonstration activities is limited to host farmers (as opposed to participants/attendees), but where hosts are involved, they are a key partner in the design, as explained:

Intimately - we spend about 3 hours discussing at the first meeting about what we will be monitoring, what we are going to do and how we are going to do it ... (Programme Interviewee 2)

Host farmers were less involved in the design of the overarching programme, with their involvement concentrated at the individual farm level. However, farmers were represented on the programme steering committee.

It's generally field lab to field lab level, but we do have farmers on our steering group so they get input that way (Programme Interviewee 2)

T3: Enabling learning appropriate to purpose, audience, context

1. Planning, designing and conducting appropriate demonstration processes

Field Labs (i.e. where the demos occur) in the Innovative Farmers programme are largely 'single focused' in that they covers specific topics of interest to farmers and are largely 'experimental' in nature, however some field labs might be described as whole farm in that they also look at the farming system context. Although the Programme Interviewee suggested 'experimental' was most empowering for farmers, because of their automatic inclusion in knowledge creation, he/she appreciated that it depends on the objective of the programme. In the case of demonstrating a specific practice, he/she instead recognised a trial may not be the most suitable means.

It depends what you are trying to do. If you're trying to empower farmers then experimental is by far the best ... because actually they're involved in that co-creation of knowledge. If you're trying to pass over best practice then I wouldn't think that a trial is the best way of doing it [so it depends on the objective?] yes it does (Programme Interviewee 2)

2. Group size

The Field Lab event attended was a small group (with just 6 participants and 3 programme members, including one researcher). The first meeting of this group had 20 participants. Programme Interviewees concurred that having a smaller group allowed for discussion which might be harder to manage on a bigger scale. Programme Interviewee 1 suggested a smaller group size supported more 'challenging' stuff to be discussed. Where bigger groups are anticipated, she/he suggested *planning* to divide the group into smaller discussion groups.

If you had a bigger group then you'd probably want to split them off into discussion groups of no more than 10 really. I think 10 is good for if you want to discuss challenging stuff or weird stuff like cover crops and direct drilling then 10 is a good number to have, either as a breakout group or as a total number of people in the group (Programme Interviewee 1)

We could have coped with a few more but it was fine as it was (Programme Interviewee 2)

3. Learning from experience and by doing

Interviewees suggested having a balance of activities was key to the learning, and breaking up with active elements such as walking, seeing and doing were very important.

Break up the presentation - you don't want to be sat in a room all day. Definitely having some live demonstrations or field walking of the trials is very important. The demonstrator will get bored, let alone the participants! (Programme Interviewee 2)

Even amongst less active elements of the day, Programme Interviewee 1 suggested how participants' active involvement in discussion was also a key element of learning. The Innovative Farmers session was very participant led, with the Programme leaders only prompting and guiding the discussion.

You need to have a balance ... I think the nice thing about that session was that it wasn't us doing to the talking. Well to be honest, we did very little talking. Mostly, it was just facilitating them to discuss what was going on for themselves and then going out and having a look. And that's affectively what we are doing at those sessions, so we are not leaving it up to the experts [so it's very much participant led in that respect?] very much so (Programme Interviewee 1)

Although there was a large proportion of the day (1/2 the day) allocated to seeing (and more multi-sensorial experiences, e.g. touching, smelling, feeling), participants were not actually carrying out or undertaking a

specific task, nor learning a specific skill. They were able to see (touch, smell, feel) the outcomes, and structure discussions and questioning around this.

4. Taking into account variation in learning

At present, the Innovative Farmers programme did not take into account variation in learning styles and capacities. Interestingly, Programme Interviewee 2 identified it as something that should be a priority for IF. She/he suggested that there was an underlying assumption that all participants were the same whereas they should take account of everyone's learning behaviours.

5. Facilitating interaction and learning

Using the event as a specific example in the interview, the following observations were made. The Innovative Farmers event was facilitated by 2 Programme members. Interviewee 1 facilitated and hosted the event while Interviewee 2 provided the scientific support, the farm provided the farm venue. As described above, their role was facilitation in terms of prompting and guiding the discussion, and keeping the session to time/schedule.

6. Mediation techniques and communication tools

The event was well supported by data on the progress of the field labs, pictures and maps brought along by one of the facilitators. This structured the day and gave a focal point for the discussion. These materials were available online for those attending the demonstration.

What happens at the moment is the materials will go up online from this field lab and obviously when there's any results to share ... we share them both as email versions and online (Programme Interviewee 1)

T4: Effective follow-up activities

There is a reliance on the web platform run by IF to provide follow up results, and it's up to the coordinator to follow up with the individual growers. The researcher coordinator remarked on the difficulty of keeping farmers engaged post-event. S/he remarked that the updates have to be easy to access.

"Some farmers go to the website but an awful lot don't, but it is the 'go to place' for other people to find out, for other farmers, so it's important that it's up to date ... and it's got all the relevant information regarding the field labs on it (Programme Interviewee 1)

The difficulty for farmers is following up with action afterwards, so it has to be of interest and easy to access information about:

So I guess it's got to be something they really care about and it's got to be as easy as possible for them to access trial plans and other information that they need[... there's an innovative farmers' website but to be honest I've just been emailing to the individual growers for their individual farm trials" (Programme Interviewee 1)

With respect to evaluation the researcher said:

"we ask them whether or not they've changed their practices as a result of being involved in field labs" (Programme Interviewee 2)

The interviewee (2) went on to explain that there are two tiers of involvement, those that attend the meetings and those that follow results online or in the press.

"we had something like 25 farmers came to the first session and from that we've ended up with 5 actually testing it ... but there's probably hundreds following it ... you know, when we put articles into the press, you get hundreds ringing up asking questions about it ... (Programme Interviewee 2)

"we work very hard to work the findings out into the broader press arena so for instance, we are going to see Farmers' Weekly because they are quite interested in helping us to disseminate the findings more widely but also the evaluation will track some of those other people ... obviously .. you'll get the people that are involved in the trials and you'll get the next tier which is the people that read about it [OK and do you track that at all ... or?] only as ... it's hard to, so unless they've made themselves known, we don't know [so it's a case of them coming forward and identifying themselves] yes"
(Programme Interviewee 2)

5. Event analysis: effective peer learning characteristics

Event details

	Farmer	Farmer and Company Director	Farmer and seed manager commercially	PhD student	Seed merchant and advisor
Participants age - work in local area					
25 no				1	
30 yes					1
34 yes		1			
44 no	1				
60 no	1				
65 yes				1	

T1: Learning processes

1. Communication initiation by participants

All of the group participated in sharing knowledge and discussing their experiences. Participants talked openly and freely. It was a very informal meeting. There was a huge scope for questions and allocated to open discussion. This was prompted initially by the demonstrator but then flowed freely into the afternoon. The structure of the day meant that there was significant time dedicated to participants reflecting on their own experiences and giving their points of view. I'd say at least half of the day was a kind of 'free space' for participants to formulate their own points of view and speak about these. This was led by the demonstrator who initially encouraged participants to share their point of view, but as the group 'warmed up', participants began sharing their comments freely.

	participant answers		demonstrator answers
I had the feeling that I could share my own knowledge as relevant information .	100% strongly agreed	I asked participants to share some of their own background knowledge during the demo.	strongly agreed
I asked at least one question during the demonstration .	100% yes		
I shared my own point of view at least once during the demonstration.	100% yes	I encouraged the participants to formulate their own point of view during the demonstration.	strongly agreed
I felt encouraged to ask questions during the demonstration.	5/6 strongly agreed. 1 agreed.	I encouraged the participants to formulate questions during the demonstration.	agreed
When there were any discussions, I felt comfortable sharing my opinion .	100% strongly agreed		

2. Interactive knowledge creation

Hands-on opportunities

There were several hands-on activities but the demonstration was really about demonstrating the impacts/outcomes of cover crop techniques so there wasn't actually a demonstration of the techniques in practice. The emphasis was really on the outcome of the activities but the demonstrator and expert were clear in their explanations of observations and enough time was taken so that everyone could see and have a go themselves.

Participants visited 3 different fields where they were shown different approaches to cover crops; they had the opportunity to see and feel (through digging up and touching the soil and crops) the different outcomes of the various cover crop management approaches. Because of the emphasis on the outcome and not on the practice, feedback was not given on participants' technique.

Other multisensorial experiences

The demonstration included being outside in the field. Pictures of before and after with obvious differences between crops or soil were shown. Participants could take spades out and dug up soil in different fields (felt the soil, held crops and examined roots). They also looked at (up close) the machinery including a crimper and saw machinery in action in the field (up close) and they were able to see the impact of the machinery on the crops (flattening crops).

All participants acknowledged they could take part in interactive experiences. The demonstrator stated that he included these experiences consciously.

Discussion opportunities and negotiating conflicting points of view

More than 50% of the day was allocated to open discussion. There was an external actor who was fully responsible for giving structure to the day and guided the discussion by organising the group and asking questions. She/he also kept the discussions on track and participants on topic. She/he asked useful follow up questions and rebutted questions to others in the group which ensured everyone was involved and everyone was able to bring their own experiences into the discussion.

	participant answers		demonstrator answers
In my opinion, there were interesting discussions during the demonstration.	100% strongly agreed	In my opinion, there were interesting discussions during the demonstration.	strongly agreed
If participants didn't agree with each other during discussions, somebody (demonstrator/other participant) tried to reach a consensus between them.	1/3 agreed; 1/3 strongly agreed; 1/3 answered 'not applicable'	If participants didn't agree with each other during discussions , somebody (me or somebody else) tried to reach consensus between them.	agreed

3. Engagement during the event

The participants seem to know each other's farms and the type of crops and farming methods used. The majority of the group met regularly as part of the Innovative Farmers programme previously (although they came from different parts of the country). They are clearly active in the same networks including social media networks e.g. farmers on Twitter. For example: Farmers were asking 'How did that technique work on your farm where you are ...?', clearly knowing enough about other participants' farms.

The demonstrator was very friendly and there was no obvious hierarchy in the group. He/she drew openly on her own experiences and compared and contrasted this to that of the group's own experiences. The demonstrator was a farmer herself which came through strongly in the discussions.

	participant answers		demonstrator answers
I felt actively involved during the whole demonstration process.	1/3 agreed; 2/3 strongly agreed	Were participants (farmers, advisers, researchers etc.) involved in the overall development of this demonstration? If yes, how?	Yes, by sharing what they are doing and finding out their views on the trial.
I felt like the demonstration increased my ability to rely on myself as a farmer.	3/6 agreed; 2/6 strongly agreed; 1/6 not applicable		
I could relate well to other participants (because they have an agricultural background similar to mine).	1/6 agreed; 5/6 strongly agreed	Most of the participants were well known to me.	agreed
A lot of the other participants are part of the same farmer network as me.	1/6 disagreed ; 4/6 agreed ;1/6 strongly agreed	A lot of the participants are part of the same network as me.	strongly agreed
I felt like I could trust the knowledge of (most of) the other participants.	1/6 agreed; 5/6 strongly agreed		
The demonstration felt like an informal activity to me.	2/6 agreed; 4/6 strongly agreed	The demonstration felt like an informal activity to me.	not applicable
I thought the host farm was comparable enough to my own farm.	1/6 disagreed; 2/6 agreed; 2/6 strongly agreed; 1/6 not applicable	I think the host farm was well suited for this demo.	strongly agreed
I had the feeling the demonstrator was like one of us.	1/6 agreed; 5/6 strongly agreed		
I had the feeling I could trust the demonstrators knowledge.	1/6 agreed; 5/6 strongly agreed		
I got along very well with the demonstrator.	6/6 strongly agreed	I got along well with the participants.	strongly agreed

T2: Learning outcomes

The question if the explained knowledge was understandable is difficult to comment on as participants were longstanding members of the group and were very knowledgeable on the trials (which were happening on their own farm). With reference to yield mapping, the demonstrator and expert explained combine instructions including retrieving data file types e.g. AFT. These descriptions were quick as it didn't apply to all participants but was sufficient.

There was an extensive discussion of approaches to cover crop management including the successes and alternatives and critically what they had learnt from it, what went well and what hadn't. Pictures were shown of different approaches and their outcomes. The discussion of best drilling dates was a good example of fostering double loop learning – some evidence of reflection in this discussion and critical engagement with the source of the 'accepted' knowledge. There was real emphasis on making mistakes and learning from them ("I've learnt most from what went wrong").

	participant answers		demonstrator answers
What would you ideally like to learn today?	3 types of answers: How to manage cover crops better; How the trials went and what trials are running this autumn; Experiments of different farmers	what do you intend for the participants to learn today?	To find out how the trials are going and share learning
The demonstration met my expectations regarding what I wanted to learn.	2/6 agreed; 4/6 strongly agreed	I think participants have learnt what I intended them to learn.	agreed
The demonstration exceeded my expectations.	3/6 agreed; 3/6 strongly agreed	I tried to surprise participants with uncommon/new knowledge/new skill.	strongly disagreed
I felt surprised at some point(s) during the demonstration.	1/6 disagreed; 3/6 agreed; 2/6 strongly agreed	I felt surprised at some point(s) myself during the demonstration (e.g. by a question or discussion).	agreed
I obtained a clearer understanding of the topic(s) demonstrated.	3/6 agreed; 3/6 strongly agreed	I obtained a clearer understanding of the topic(s) myself.	strongly agreed
I have the feeling I learned something new (knowledge, skill, practice, etc.).	1/6 agreed; 5/6 strongly agreed	I have the feeling I learned something new during this demo (from participants, discussion...).	strongly agreed
I thought about how I could implement some of the ideas and practices on my own farm.	1/6 agreed; 5/6 strongly agreed	I reflected on my own point of view myself at some point during the demo.	strongly agreed
I reflected on my own point of view at some point during the demonstration.	3/6 agreed; 3/6 strongly agreed	I encouraged participants to reflect on their own point of view during this demo.	strongly agreed
I learnt about the principles underlying a practice.	2/6 agreed; 4/6 strongly agreed	I encouraged participants to reflect on their own situation sometime during this demo.	agreed
I thought about how we learn something new on demonstrations (e.g.: teaching methods).	1/6 disagreed; 1/6 agreed; 2/6 strongly agreed; 2/6 not applicable	I encouraged participants to reflect on how we learn something new on demonstrations.	disagreed
I thought about why I want to learn about the topic(s) of this demonstration.	1/6 disagreed; 4/6 agreed; 1/6 strongly agreed	I encouraged participants to think about why we are trying to learn about the topic of this demonstration	strongly agreed

T3: Overall comments on the effectiveness of the event

Participants

With an average of 4,7 on 5, participants rated the event overall as very effective. They stated as most effective characteristics of the event: the action in the field; seeing machines working and see the demo practically; a good mix of crops growing in the ground and machinery on site; demonstrators with good knowledge and good explanations.

Most had no suggestions for improvement. Only one reported that at the start of the meeting, they could pull out the audiences and demonstrators main aims for the project.

Demonstrator

The demonstrator reported the willingness of farmers to talk about their farms and their willingness to share what they are finding out alongside having a group researcher and coordinator as most effective characteristics of the event.

As a point of improvement, the demonstrator stated: 'getting more of the trialists to attend as much as possible.'

Observed main strong points of the event

All participants could be involved in the discussion. Getting out in the field was definitely a strong point and gave participants opportunity to see what they discussed. The fact the group had met before meant participants and demonstrator could build on previous discussions and had prior knowledge. The demonstrator kept the day to schedule and guided the discussion well.

Observed main improvements

The workshop came to a protracted end, i.e. there was no definitive end.