

WHAT DRIVES CORNISH DAIRY FARMERS' MANAGEMENT DECISIONS?

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Abstract

Moving to a new area can involve a great deal of learning for an extension officer. It is important to develop an understanding of the factors affecting farmer decisions quickly so that extension support can be tailored to local farmer needs. Training, mentoring, colleagues' perceptions of farm business drivers and formal needs analysis are all potential ways of developing an understanding of the context of local farming. However, none of these methods per se offer the extension officer a robust, focused, cheap and reasonably quick way of building local knowledge. We used qualitative interviews with farmers coupled with a mentor group to provide regular feed back in the knowledge building process. The method worked well and revealed that the main drivers in decision making for Cornish dairy farmers were, time and focus, financial overheads, access to land, milk processors requirements and the farming families involvement in the farm. Two key points were evident; first, that extension officers should be trained in using qualitative interviewing and in facilitation procedures to allow them to build an understanding of local farmers support needs, and second, to provide a quick, robust screening process for issues that warrant funding for a formal needs analysis and extension program.

Introduction and Purpose

Moving to a new area requires a great deal of learning on the part of the extension officer. There are different farming systems and contexts to understand and a need to meet and involve as many farmers as possible in the extension programme. The aim of this study was to provide a robust, focused and reasonably quick method of understanding the major factors affecting farm management decisions on Cornish dairy farms in South West England.

Many important issues are currently facing dairy farmers in Britain. The milk price has declined from 25pence (p)/litre (l) in 1996 to under 19p/l in 2004, and is predicted to fall as low as 15p/l by 2007 (Colman & Harvey, 2004), which would have a major impact on farm profitability. Market subsidies have been de-coupled from production and instead farmers are being rewarded for 'environmentally friendly' farming practices in new government agricultural policies (Defra, 2002). Many farmers are diversifying into non-farming enterprises or moving away from agriculture altogether to boost their farms' profitability. Agricultural holdings in Cornwall are relatively small (averaging 40 ha compared to the national average of 57 ha), and dairy farms in the South West of England have shown a decline in net farm income in real terms. (One, 2000).

Extension officers need to gain an understanding of these issues and the factors that are influencing farmers' decisions as quickly as possible. Training programmes aimed to provide technical knowledge and mentoring support (Sanders, Monks, Bilderback, & Boyette, 2002) may be on offer, but these often fall short of providing the detailed local knowledge of the fundamental issues driving farmers' decisions. Fellow extension officers and consultants working within the industry can explain what they believe are the issues driving farmers' decisions, although their perception of the issues can be different to farmers (Botha & Verkerk, 2002).

Listening to farmers and understanding their needs are important first steps in developing extension support (Tarbotton, Bramley, & Andersen, 2003). This can be done with a formal needs analysis, often led by a social researcher and involving extension staff, farmers and rural professionals, such as vets. This type of analysis combines focus groups, questionnaires and individual farmer interviews, all of which have an associated cost and time commitment. Due to the cost of formal needs analysis, they are usually funded for a specific issue, rather than for an individual extension officer to build their own understanding. Tools used in formal needs analysis, such as questionnaires, require knowledge of the wider farming context to ensure that the right questions are asked. There is a need for a robust, cost effective method that an individual extension officer can use to build an understanding of the issues driving farmers' decisions. This could be the first step identifying potential areas for a formal needs analysis, in turn leading to the development of an extension programme.

Robert Battel, (Battel, 2005) developed his local knowledge by talking to farmers in their combine harvesters during harvesting. We proposed to build on this informal approach by combining a series of structured farmer interviews with a mentor group to review and provide feedback on the results. The aim was to provide a robust, focused and reasonably quick method of understanding the major factors affecting dairy farmers' management decisions in Cornwall.

Methods

Qualitative interviews with farmers in conjunction with a mentor group were the research methods used to develop an understanding of the local context for Cornish dairy farmers.

The mentor group was formed at the beginning of project and comprised of two agricultural researchers, an extension programme manager, an extension officer (who had also been a farm manager) and the interviewer. The group met three times. On each occasion group members, analysed and discussed the findings of the farmer interviews and provided feedback on areas to explore in more detail in future interviews.

Care was taken to interview farmers from a wide range of farming systems and geographic locations within the county. In total twenty farmers were interviewed. Farmers were contacted through the Grassland Challenge extension programme (Barriball, Byles, & Biddick, 2005), a local feed company representative and the Cornish Grassland Society. Farmers were asked to describe the drivers of their farm business. The interviewer then used a laddering technique (Grunert & Grunert, 1995) to explore the issues influencing the farmers management decisions in more detail. Farmers responses were then clustered into similar influences on farm management decisions.

Results

'Farm management influencers' – the mentor group

Mentor group members suggested that farm profitability and finance were the primary influences on farm management. Market trends, tradition, peer pressure, farmer attitude and farm subsidies were considered by two of the mentor group members to affect how farmers managed their farms. Weather, farm size, time issues (wanting an easier life), stock needs, maintaining production, farm succession and their particular interest in farming were mentioned by one mentor group member.

'Farm management influencers' – farmers' responses

Interviews with farmers revealed that overhead costs, time management and focus on farm, access to land, the requirements of milk processors and the structure of the farm business influenced their management decisions. Overheads and time management were considered to be the major factors, mentioned by most farmers. Each of these influencers is explored in depth.

Overheads

Overhead costs were mainly debt servicing from land, quota, buildings or machinery purchases, or debt to family members. Interviewees with high overhead costs explained that these costs were difficult to reduce as they involved long to medium term financial commitments. A certain level of milk production was then needed to generate enough income to pay for the high overheads. For example:

Bill has high overheads, which are difficult to reduce. So he can't afford to drop production much. Bill is planning to shift to autumn calving so they can achieve high yields but at the end of season the cows will be on grass when it doesn't matter as much. Everything comes back to trying to cover overheads.'

If new investment was needed on farm and overheads were high then major investment was unlikely to be carried out. Farmers with high overheads tended to have to manage a farm with milking parlours that were too small or slow, or make do with insufficient cow housing. If a cheaper alternative was available, such as building a wood chip corral instead of a barn, then farmers would consider investing in this option providing it still met their needs and suited their situation.

In contrast farmers experiencing low financial overheads could afford new investment if they felt it was economic in the long term and met their needs. For example:

Jason returned to the home farm which was milking 150 cows. He changed to a pasture based system. Under this system good tracks are essential and he is prepared to invest in them.

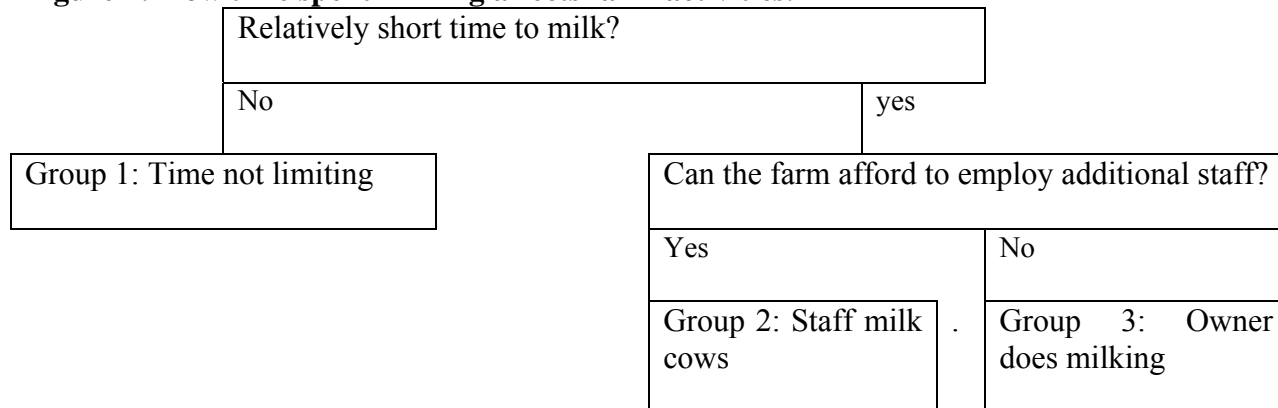
Time management

Most of the farmers interviewed indicated one of their aims was to increase the time available for non-physical farm management, family and leisure. Farmers also talked about being able to increase their focus on specific farm enterprises and management tasks. This led some farmers to move from year round calving to block calving and others to reduce the number of enterprises on their farm. For example:

Peter has 300 acres of farmland in Cornwall. Three years ago the farm had a number of enterprises. Over the last year Peter has reduced the number of enterprises and focussed on dairying.

One of the key issues discussed by farmers was the amount of time they spent milking. Based on the information gathered in the interviews, farmers were classified into three groups, depending on how they dealt with the length of milking. Farmers in the first group had installed new parlours or upgraded their existing parlours and so spent relatively little time milking.

Figure 1: How time spent milking affects farm activities.



Farmers in the second group had decided to employ staff in order to reduce their time milking. For example:

Phil milks 180 cows with the help of a herdsman. It takes an average of 3 hours to milk the herd per milking and half an hour to get the cows. Due to business constraints they are unlikely to build a parlour. He employs a herdsman so that he can have a lifestyle. This means some time to go to off farm events and do things like farm walks and have weekends away from the farm. If they didn't have a herdsman Phil would just milk, muck out and go to bed tired. There just don't have time to think or do anything else.

Farmers in the third group spent a long time milking and so were restricted in terms of time for other farm activities. Farmers in this group tended to be tired and had little time for other jobs. They concentrated on getting the basic jobs done. For example:

Dave and his father milk 100 spring calving cows. Their parlour is adequate for milkings, but slow. Usually one person milks, and the other helps around the dairy to speed up milking. If they had a larger faster parlour then it would free up a person on the farm for other opportunities. With their current farm size, they feel it is not really economic to build a new larger parlour. There are other uses for the existing old buildings (e.g. accommodation) and so they do not want to extend the current parlour.

Land access

Access to land often determined how the land was managed. Interviews with farmers revealed that farmers tended to fall into one of two groups. The first group of farmers has one main grazing area, in one block although they may own or rent other smaller blocks. For example:

Shane and Judith purchased their farm several years ago. The farm is in one block for grazing with 2 runoff blocks. There are tracks to all but two of the paddocks. They would not have purchased the farm if it was split into many blocks.

In contrast, farmers in the second group had their main grazing area spread over many blocks. They had to take into account the time needed to walk cows to a block and the number of people needed to get cows safely across roads. Bob explains:

Bob has 450 acres in five blocks. They are split by roads and the village. The farm has no cow tracks and so must move the stock via the roads. This limits what you can do with the land and where they can put the bull.

Milk processors

There are two major milk processors buying milk from Cornish farmers. Both have seasonal payments with the aim of flattening the milk supply curve. Interviews with farmers revealed that while this was a driver of their farming decisions, farmers also have a preference for a particular farming system. Some farmers prefer a low cost, low input system, while others pursue a high cost, high input system in order to obtain higher yields. Jason for example, is pursuing a low cost/input system.

Jason saw that milk could be produced cheaply in New Zealand, so he cut expenses and yield. When he stopped feeding concentrates, the yield dropped, but the cows were healthier and the vet bills decreased.”

Farmers also indicated that their response to pressure meant there could be differences in their calving systems. Some farmers indicated they prefer a smaller workload over many months and so have a longer calving spread. For example:

Peter milks about 150 cows and uses as much grass as possible. He needs a level milk supply for the dairy company that he supplies and so the cows are calved from October through till May. There would be a substantial loss in income if he moved from his autumn/spring calving to block calving.”

Other farmers opted for autumn block calving or a spring and autumn block calving to try to concentrate the workload, and accepting some changes in their milk supply curve.

The farm business

Family involvement also influenced decision making on farm. Where the farm had been passed down from father to son, amongst the farmers interviewed the son was given control of the farm finances. However, the father was often still helping on the farm and the son kept particular jobs or areas within the farm business for the father. These were jobs that they enjoyed. For example:

Aaron and his father run a mixed farm with sheep, arable, 200 dairy cows, and beef enterprises. Aaron’s father likes the beef, but he realises pounds are important and he is prepared to let things change. They have wound down the beef, but Aarons’ father still works on the farm and helps out.

Peter and his father run a sheep and arable enterprise in addition to the dairy cows. Peter does the cows and his father does the crops. They will keep the crops while Peters' father is working on the farm, but things might change when he retires.'

Most of the sons interviewed were aware that their fathers wanted to reduce their input into the farm and they were setting up their farms to run without their fathers help in future. Farmers with younger families said that the level of interest shown by their children, generally their sons, would affect plans for future development and expansion. Interestingly daughters were not mentioned during the interviews and succession planning appeared to be male dominated.

Discussion

Semi structured interviews asking about farm management elicited a list of factors influencing farmers' decisions. With a mentor group providing feedback on the results this was a reasonably quick and robust way of meeting local farmers and building an understanding of what is influencing their farm management decisions.

Initially farmers were reluctant to be interviewed, wanting to know the interviewers' background, the organisation they worked for, what information was being collected and why. The farmers' perception of the study affected how open the farmers were in the interview and whether they were prepared to find time to take part. Finding a convenient time for an interview was also difficult. Often the interview was combined with another reason for a farm visit, such as collecting information for a focus group meeting. This worked well, provided the farmer knew there were two separate parts to the farm visit. It was important to interview a wide range of farmers, especially those outside the extension network's regular participants as they can have different management techniques and attitudes (Trompf & Sale, 2001).

The success of the mentor group depended on obtaining the right mix of people with a diverse range of backgrounds and perspectives relevant to the research, yet keeping the group small enough to facilitate discussion. It took some time to find the right mix of people and a farmer and other agribusiness professionals could have been a valuable addition to the group. The value of the mentor group to the interviewer was dependant on the group being able to question and discuss the results of the interviews from a range of different perspectives. This provided insights into areas to explore in more detail in subsequent interviews. A major benefit of the mentor group was that group members felt encouraged to take a fresh look at what influences Cornish farmers' decisions. (Parminter & Smeaton, 1999) found that involving a mentor group in applied research provided a valuable opportunity for farmers and scientists to learn from each other.

The mentor group felt that factors such as tradition, peer pressure and interest in farming would prove to be important drivers of decision making. In contrast farmers tended to cite contextual factors such as overheads, access to farm land and farm ownership as important drivers of their decision making. This difference between the two groups in their perceived drivers of decisions has been noted by other authors (Tarbotton et al., 2003). Tarbotton & Bramley (2003) noted that change agents and farmers can have differences in how they perceive an issue, which could hinder communication between the two groups. If, when designing an extension or applied research programme, only one group had been consulted, issues may have been overlooked. If only the mentor group had been consulted during the study an extension

programme may have been designed and presented from a different perspective to that of the farmers.

Influences on decision making.

Farmers described how the level of overheads affected their investment decisions. On a farm with high overheads investment was unlikely, unless a lower cost alternative fitted their farm system. As a first screen for farm management techniques, extension officers could check that lower cost alternatives are available in an extension programme for farmers with high overheads. Lower cost alternatives in an extension programme have also been used by farmers experiencing decreases in commodity prices (Trompf & Sale, 1998).

When farmers described how time and focus affect their decisions, they were more specific than the mentor group. Many farmers described how quickly a particular job could be done was important, but they also indicated that being able to concentrate on one or two major issues at a time was critical. Farmers interviewed were considering the number and type of enterprises on the farm and how to simplify those enterprises. In addition many of those interviewed were preparing for a reduction in the time their fathers spent in the business. For those farmers with school aged sons their level of interest in farming would influence the future development of the farm.

Farmers' decisions on when to produce milk are only partly affected by the milk payment schemes. Farmers interviewed had strong beliefs about whether a high or low input system was the most efficient to produce milk, and the effect of the length of the calving period on their workload. Beliefs about the best way of doing something can be held strongly by some people. For extension officers and researchers removing a physical constraint to a new technology may not be enough, the technology may have to be demonstrated in practical on-farm situations taking into account farmers' beliefs about particular farming techniques and how the new technology will affect the farmers' milk income on a seasonal basis.

This research was designed to find general factors affecting farmers' management decisions. Understanding these factors could be useful in forming initial research and extension plans. Once an initial plan has been produced farmers could then provide more specific feedback on how the particular research or extension tool could fit within their farming system.

The factors noted by farmers as affecting their general farm management decisions has already been useful in tailoring extension programmes to meet Cornish Dairy farmers needs. Two examples illustrate this:

1. Understanding access to land was poorly understood prior to these farmer interviews. Interviews revealed that land access affected dairy farm management in Cornwall considerably. Since the interviews took place this has been incorporated into a Cornish dairy discussion group in three ways. Firstly, when grazing land on a farm has been split by a road the group has discussed practical ways of accessing the land with the dairy herd. For example, grazing the cows on the block across the road only during the day. Secondly, there is a greater understanding of some farm practices such as high stocking rates on the home grazing block and the importance of crops on ground not able to be grazed by the herd. Thirdly, the extension officer involved in the group has been able to lead constructive discussions on the economics and practicalities of taking on land which is difficult to access with the grazing herd.

2. The importance of time on dairy farms is widely accepted by extension officers, however the importance of 'focus' on mixed farms was underestimated. Several farmers managing mixed farms in a discussion group were prepared to change the number and type of farming enterprises decrease the yield of their dairy cows and risk a small decrease in profitability to increase their focus on the dairy farm. Prior to the interviews these changes were difficult to understand. Within the group there is now discussion on how to increase focus in the farm business and the extension officer is able to support farmers with their decisions.

Conclusion

Undertaking a structured qualitative interviewing process with farmers in an area new to an extension officer provided a focused and reasonably quick way of understanding the major factors affecting farmers' management decisions. This knowledge can then be used to tailor extension programmes to local issues. Formally interviewing farmers from a range of farming systems and situations has also allowed the results to be used by other extension officers and researchers and provides a guide for considering new management tools and techniques.

Implications

There are two main implications from this work for extension managers. The first is that there is a need for extension officers to be trained in both qualitative interviewing and facilitating mentor groups if this approach is to be used. They would then be able to use the technique to build up the specific local knowledge reasonably quickly. Other experienced extension officers can benefit from being part of the mentor group by being encouraged to take a fresh look at the local farming context. The second point is that the method can provide a robust, inexpensive screen for farming issues that would be worthy of funding for a formal needs analysis and extension programme.

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