



Countryside and Community Research Institute

The Benefits of LEAF Membership: a qualitative study to understand the added value that LEAF brings to its farmer members

Final Report

Prepared for LEAF

by

**Jane Mills, Nick Lewis and Janet Dwyer
Countryside and Community Research Institute**

Project manager: Jane Mills
Email: jmills@glos.ac.uk

November 2010

Executive Summary

Background

Since its formation in 1991, LEAF (Linking Environment And Farming) has grown into a large organisation with 1,600 farmer members across the whole of the UK, as well as a growing overseas membership.

There is much evidence, both anecdotal and from recent membership surveys, which suggests that farmer members derive both financial and non-financial benefits from belonging to LEAF, in direct and indirect ways. In September 2010, LEAF commissioned the Countryside and Community Research Institute (CCRI) to obtain some more detailed, independent evidence to show the nature and scale of the benefits of LEAF membership to UK farmers.

Methodology

A sample of LEAF farmer members was interviewed either by telephone or face-to-face, representing around 2% of LEAF's total UK farmer members, but covering all the main UK farm types, most UK regions, and a good range of farm sizes. These members used a variety of the services which LEAF provides, including the LEAF Audit and LEAF Marque accreditation. The interviews were in-depth and based around a semi-structured questionnaire, to ensure that all covered a similar range of topics. All the interviews took place in September and October 2010, and their findings were subsequently analysed and compared to the findings of much larger LEAF membership surveys in 2008 and 2010.

Key Findings

Financial Benefits

LEAF farmer membership had resulted in significant financial benefits to farmers in relation to on-farm cost savings, additional income, market benefits and adherence with regulatory requirements.

- On-farm cost savings arose through the implementation of IFM principles and the use of the LEAF Audit, for example:
 - Reductions in fertiliser and chemical inputs had saved costs in the range of £2,500 - £10,000 per year, per farm;
 - Energy efficiency: through completing the LEAF Audit, reduced fuel costs for field operations had had a large financial impact on members' farms;
 - Several farms reported that LEAF membership "drove them faster" to look at more efficient water use, leading to significant cost savings, up to £14,000 a year on one farm;
 - Livestock farmers had noticed improvements in animal health in some cases resulting in up to 10% cost savings for disease treatments.

- Significant additional income can be derived from LEAF farmer membership, for example:
 - Hosting LEAF Demonstration Farm Events and visits or hosting Open Farm Sunday resulted in increased revenue of £2,000-7,000 per year, per farm;
 - Increased direct sales of farm produce to the public resulted from members hosting both Open Farm Sunday and Demonstration Farm events;
 - Agri-environment scheme income: For 35% of the members surveyed, LEAF farmer membership was felt to be a contributory factor in gaining entry into a Higher-Level agri-environment scheme, which often brought significant additional income to the farm;
 - Other on-farm activities: LEAF farmer membership had improved the environmental credentials of some members which had positively contributed to their income from diversification into on-farm tourism and training provision.

- LEAF Marque accreditation can be essential for members in securing valued supermarket contracts, retaining existing customers or commanding a premium price for products.
 - Maintaining Contracts: For some members, becoming LEAF Marque-accredited had ensured the continuation of valuable supply contracts;
 - Retention of Business: 50% of those LEAF Marque-accredited members interviewed reported that even where accreditation was not a requirement for their customers, they felt it had helped them to retain their business contracts.

- A reduced regulatory cost: 54% of the members surveyed considered LEAF farmer membership to contribute to easier compliance with regulatory requirements.
 - Many felt that LEAF membership offered ‘peace of mind’, in that by meeting LEAF standards there was increased their confidence that they were doing what the regulations required, and more;
 - Others thought that it helped them to keep ahead of the regulatory requirements;
 - Inspections: several members believed that they may have been subjected to fewer inspections by regulators as a result of LEAF farmer membership.

Environmental Benefits

LEAF farmer membership has developed farmer’s knowledge of the environment as well as enhancing biodiversity, soil and water.

- For 86% of those interviewed, LEAF farmer membership had increased their awareness and understanding of the farm environment. For some, the

change was noted as ‘transformational’, affecting their whole attitude to farming.

- Although it was generally a difficult task to link biodiversity directly to certain farming activities, 49% of those surveyed could link biodiversity benefits directly with their LEAF farmer membership, for example:
 - Increased bird populations on some farms were considered to be due to farm management and field operations following IFM principles, as opposed to any specific conservation activities carried out under agri-environment schemes.
 - Visible benefits to soil structure, water quality and water quantity were identified as direct benefits from LEAF farmer membership.

Social Benefits

LEAF farmer membership had significantly enhanced the social aspects of farming, for farmer members, including increased skills and better relations with other farmers and the local community, as well as the chance to improve the image and understanding of farming among the wider public.

- Skills, training and communication: 86% percent of members surveyed reported that LEAF farmer membership had improved their, or their employees’, skills and knowledge base
- The greatest personal impact was on members’ communication skills, particularly as a result of ‘Speak Out’ training. LEAF had significantly improved members’ confidence in explaining their farm businesses to the general public.
- Increased social interaction: LEAF farmer membership was reported to increase farmers’ interaction with neighbours (49%) and other farmers more generally (71%). This arose from hosting events on the farm and attending LEAF events. Members noted that increased networking and contacts may bring benefits to the business, in due course.
- Better community relations: 77% of those interviewed felt they had more contact with the general public as a result of LEAF farmer membership, primarily from hosting Open Farm Sunday events or school visits. Most reported that hosting public events on their farm, conducting local talks and opening the farm to the public improved relations with the local community.
- Better understanding: 91% of members interviewed agreed or strongly agreed with the statement that LEAF farmer membership had “improved understanding among the local community”.
 - Members felt they were seen as more ‘approachable’, this increased people’s appreciation and tolerance of farming practices and improved

public understanding, for example, of the importance of keeping to footpaths.

Relating the findings of this survey with those of previous LEAF member surveys

In 2008 and Spring 2010, LEAF conducted online membership surveys which drew on much larger, and therefore more statistically representative, numbers of responses to a range of more general questions about the benefits of LEAF farmer membership. The general findings in the previous LEAF surveys were largely supported by the findings of this study, with a high degree of consistency, suggesting that the benefits identified in this more focused study group are generally shared across the membership.

- Financial benefits: more than half of farmer members in the earlier surveys agreed that LEAF had brought them direct financial benefits.
- Environmental: Over three-quarters of respondents considered LEAF farmer membership and IFM principles to have improved their environmental performance in the 2008 and 2010 member surveys. Similarly, 77% of respondents in this study agreed that LEAF farmer membership and IFM practices brought improved biodiversity and landscape.
- Social: This study showed a much higher proportion of members agreeing that LEAF farmer membership and IFM practices improve understanding among the local community, over 91%, compared to around half registered by the previous surveys. The main reason for the difference may be the way in which questions were asked: this more detailed survey allowed farmers to think about all the different aspects of this question before they answered, which led them to realise how significant LEAF membership has been in this respect.

Members were asked to make suggestions as to how LEAF could improve its services. These included further development of the LEAF Audit for longstanding users; adapting the Audit to increase its relevance to livestock and nursery producers; increased emphasis on practical solutions to the problems faced by commercially-driven farmers, recruitment of a LEAF “on the ground” technical adviser; and raising awareness of the LEAF Marque among the general public.

‘Case studies’ illustrating LEAF farmer membership benefits on individual farms

The study developed 10 ‘case studies’ showing how different LEAF farmer members have benefited from their membership in different ways, and how these benefits have developed over time. These ‘case studies’ cover a wide range of farm types and are presented in an appendix to the report.

Acknowledgements

We would like to thank all the LEAF farmer members who were involved in this study, for making time and contributing their insights and ideas to the analysis.

Contents

1. INTRODUCTION	1
1.1 BACKGROUND AND CONTEXT FOR THE STUDY	1
1.2 AIMS AND OBJECTIVES.....	2
1.3 REPORT STRUCTURE	3
2. METHODOLOGY.....	4
2.1 OVERVIEW OF THE APPROACH	4
2.2 SCOPING EXERCISE.....	4
2.3 DATA COLLECTION	5
2.4 SAMPLE SELECTION.....	6
3. RESEARCH FINDINGS.....	7
3.1 CHARACTERISING THE SAMPLE OF FARMERS INTERVIEWED.....	7
3.2. FINANCIAL BENEFITS OF LEAF MEMBERSHIP AND IFM PRACTICES.....	10
3.3. ENVIRONMENTAL BENEFITS OF LEAF MEMBERSHIP AND IFM PRACTICES.....	14
3.4. SOCIAL BENEFITS OF LEAF MEMBERSHIP AND IFM PRACTICES.....	17
3.5. FURTHER COMMENTS	20
4. HOW DO OUR FINDINGS COMPARE TO THOSE OF PREVIOUS MEMBER SURVEYS BY LEAF?.....	22
4.1 OVERALL BENEFITS FROM LEAF MEMBERSHIP	22
4.2 SPECIFIC BENEFITS DUE TO LEAF MEMBERSHIP.....	23
4.3 HOW CAN LEAF BETTER MEET ITS MEMBERS NEEDS?	26
5. SUMMARY CONCLUSIONS.....	27
APPENDIX 1: TELEPHONE QUESTIONNAIRE	29
APPENDIX 2: CASE STUDIES	45

Tables

TABLE 2.1 SAMPLE ALLOCATION	6
TABLE 3.1 REGIONAL DISTRIBUTION OF SAMPLE	7
TABLE 3.2 FARM TYPE	7
TABLE 3.3 FULL RANGE OF SERVICES USED BY SAMPLE OF MEMBERS	8
TABLE 4.1 COMPARING SCORES FOR FINANCIAL BENEFITS OF LEAF MEMBERSHIP	24
TABLE 4.2 COMPARING SCORES FOR ENVIRONMENTAL BENEFITS OF LEAF MEMBERSHIP	25
TABLE 4.3 COMPARING SCORES FOR SOCIAL BENEFITS OF LEAF MEMBERSHIP.....	26

1. INTRODUCTION

1.1 Background and context for the study

LEAF (Linking Environment And Farming) was established in 1991 to promote environmentally responsible farming across the UK. LEAF's approach is built around promoting the whole-farm approach of Integrated Farm Management (IFM), which seeks to achieve a balance between adopting the best of modern technology and maintaining sound traditional methods, in order to enhance the environment through responsible farming. Since its foundation, LEAF has grown into a large organisation with 1,600 members spread across the whole of the UK, as well as a growing overseas membership.

Following two recent surveys of the membership (in 2008 and 2010), LEAF decided that it would be valuable to understand more about the tangible benefits that LEAF membership has brought to its farmers, over the years. The surveys suggested that members identified both financial and non-financial benefits from belonging to LEAF, in both direct and indirect ways. It seemed that there were important 'good news stories' to be told about how LEAF membership had given a boost to farmers' businesses and to their confidence for the future. As a result, LEAF commissioned the Countryside and Community Research Institute (CCRI) to undertake a focused study to investigate the nature and magnitude of LEAF membership benefits, on a broad range of farm types, sizes and locations around the UK.

In overview, LEAF offers members and non-members a number of services and tools to assist with farm management and also to help deliver marketing and communication opportunities.

- *The LEAF Audit* - this self-completion audit offers a framework for implementing Integrated Farm Management on the farm. It is a tool for appraising and improving farming practices to maintain a profitable business while taking care of the environment.
- *The LEAF Marque* – this is an assurance scheme developed by LEAF with its partners and stakeholders, which is based on environmentally responsible IFM principles and demonstrates a commitment to high standard of food production.
- *Demonstration Farm Network* – The network consists of Demonstration Farms which are working farms committed to sustainable farming practices; and 'Innovation Centres' that include sites in both England and Scotland.
- *The Green Box* – This 'toolkit' of information and ideas provides guidance and advice on how to record and monitor environmental assets on the farm.

- *Open Farm Sunday* – Every year, LEAF organises this major event – the farming industry’s annual open day. LEAF provides support, promotion and co-ordination to the hundreds of farmers up and down the country who welcome thousands of visitors onto their farms to learn about how their food is produced and what farmers do to care for the environment.
- *Speak Out Initiative* - This toolkit and training programme help farmers to improve their skills in communicating with other farmers, the industry, the media and the general public.
- *Let Nature Feed Your Senses* – This project encourages disabled and disengaged groups to develop a life long love of nature through food and farming. It is funded to 70% through Natural England’s Access to Nature programme, is run by LEAF and the Sensory Trust and involves organising sensory rich visits to farms and nature reserves across England.
- *Notice Boards* – LEAF offers a collection of weatherproof boards for use in a farm setting, that explain farming practices and illustrate how farmers take care of the countryside.

Thus it is evident that LEAF offers a range of benefits to both members and non-members, through this mix of services. However, by joining LEAF, members are signalling their commitment to use and to promote these services in line with LEAF’s wider environmental and industry goals. It is therefore important to understand what members perceive as their ‘return’, for investing in the LEAF approach in this way.

1.2 Aims and objectives

LEAF is keen to identify the range of benefits stemming from LEAF farmer membership, as a means to ensure that these are recognised and promoted more widely in future. To achieve this aim, the Research Project had the following objectives:

- to identify any financial benefits that can be attributed to LEAF membership and IFM farm practices;
- to identify any environmental benefits due to LEAF membership and IFM farm practices;
- to identify any social benefits arising from LEAF membership;
- to develop specific 'case studies' that can be used to illustrate these benefits in a meaningful way, within LEAF’s wider promotional and campaigning work.

It should be noted that the impetus for the study was primarily to add to the organisation’s *understanding* of membership benefits, and not to estimate the

likely scale of benefit accruing to the LEAF membership as a whole. Thus the approach has been a largely qualitative and in-depth one, without large-scale surveys. Nevertheless, the study has drawn upon the findings of LEAF's own prior member surveys and other commissioned research in order to set its results in context, as far as possible.

1.3 Report Structure

Section 2 of the report outlines the methodological approach used in the research, and the criteria used in selecting a sample of LEAF members to interview. Section 3 of the report provides details of the interview findings focusing on the financial, environmental and social benefits of LEAF membership and IFM practices. Section 4 compares our findings to those of previous LEAF member surveys, in as far as this is possible and useful. Summary conclusions are presented in Section 5. Appendix 1 provides a copy of the interview survey that was used in this study, while Appendix 2 presents all the ten case studies from the study.

2. METHODOLOGY

This section identifies the methods employed to identify and understand the benefits of LEAF membership.

2.1 Overview of the approach

The study was designed by drawing upon previous membership surveys in order to consider the likely scope and nature of benefits which might be experienced by LEAF farmer members. Its main aim was to 'drill down' into these in more detail, in order to understand how benefits arise, and to assess their significance for individual members.

From the LEAF surveys it was apparent that members could identify economic, environmental and social benefits arising from their membership of LEAF. However, the surveys lacked detail on how these benefits arose and how they related to different farmers' experience of membership – for example, whether the benefits were a key driver for joining, or whether they only became apparent some years after becoming a member. In addition, it was not always clear to what extent some benefits arose due to broader decisions to farm using IFM or environmentally-sensitive methods, irrespective of LEAF's influence, and to what extent LEAF itself served as the catalyst to transform farm management or business operations in these ways. These were some of the key issues that the study sought to address.

From the outset, therefore, the chosen approach to the study was qualitative and detailed – seeking to 'humanise' the experience of LEAF membership and its advantages, drawing upon the accumulated insights of a range of different farmers around the UK. It was not intended to use the study as a method to estimate the 'gross' scale or economic value of LEAF membership, which would of course have necessitated a larger-scale and more statistically-grounded approach. As a result, the focus of investigation was upon a 'broadly representative' group of farmers, and farm types around the UK, designed to be sufficiently large to have a good chance of capturing all the most important kinds of membership benefit, but also sufficiently small to enable more detailed investigation of how multiple benefits arose and were inter-related for the farm, in each case.

2.2 Scoping exercise

The research team undertook an initial scoping exercise to identify the main types of benefit that were likely to be relevant to LEAF members. This included a review of LEAF documentation and past LEAF surveys, as well as a meeting with LEAF staff to brainstorm the benefits of LEAF membership. The exercise helped to inform the questions to be included in the questionnaires, ensuring that all anticipated benefits would be captured and described in more detail than had yet been achieved through previous studies and surveys.

2.3 Data collection

It was decided to gather information through a mix of face-to-face interviews and telephone survey, involving 35 LEAF members, representing around 2% of the total UK LEAF membership. This number was felt to offer sufficient scope to cover most of the main farm types, locations and size classes affected by LEAF membership, across the UK. However it should be noted that this number remains too small for the information gathered to be taken as a *statistically robust* sample of the full population of members. Rather, the results should be *indicative* of the kinds of benefit experienced by the membership as a whole.

Case studies

Ten face-to-face, largely qualitative, semi-structured interviews with scope for largely 'open' (non-prior coded) responses were conducted with LEAF members in order to provide detailed insight into the environmental, economic and social benefits of LEAF membership; how they inter-relate and how they vary with the nature of the farm business concerned. This information was used as the basis of individual 'case studies' which provide tangible evidence of how and why member benefits arise.

Telephone survey

To complement the case studies, a telephone survey of an additional 25 members was conducted using a slightly more structured and simplified version of the face-to-face questionnaire, in order to enable the study to look for 'common themes' in the scale, nature and clustering of benefits by different farm(er) characteristics (for example, to see if certain kinds of benefit appeared to be closely related to any of the key sampling criteria – see table 2.1).

The interviews followed a semi-structured format (see Appendix 1). The main focus of the interviews was to determine in some detail:

- farm and farmer characteristics
- reasons for becoming a LEAF member
- financial benefits of LEAF membership and IFM practices
- environmental benefits of LEAF membership and IFM practices
- social benefits of LEAF membership and IFM practices
- views on how LEAF could service the members' needs more effectively.

All interviews were conducted by two of the study team members. Each face-to-face interview took place at the farm at a time convenient to the farmer and each lasted between 1 to 2 hours. These interviews were tape-recorded to enable in-depth analysis. The telephone interviews lasted between 20 minutes and 1 hour and were not tape recorded, but standard response sheets were completed during the conversation.

Data from all 35 interviews was analysed together using a basic statistical package, SPSS software. This enabled the identification of common themes across the different types of farms and/or membership. These themes have been used to frame our reporting.

2.4 Sample selection

A purposive, stratified sample¹ was used to select just 35 LEAF members for interview. This sample was predominantly selected from a survey of members that was conducted by LEAF in Spring 2010. The two variables used for selection were based around identifying:

- a broad range of farm types, including dairy, upland livestock, lowland livestock mixed, arable and horticultural/fresh produce; and
- a mix of LEAF services used, so as to capture the broadest possible range of benefits.

The resulting allocation is set out in Table 2.1.

Table 2.1 Sample allocation

	Member only	+ LEAF Audit	+ LEAF Marque	Total
Telephone				
Arable	2	2	1	5
Dairy	2	1	1	4
Fresh produce	0	1	2	3
Upland	0	2	0	2
Lowland	2	1	1	4
Mixed (Other)	3	3	1	7
Total	9	10	6	25
Face-to-face				
Arable	1	1	0	2
Dairy	0	1	1	2
Fresh Produce	0	0	2	2
Upland	1	0	0	1
Lowland	0	1	0	1
Mixed (Other)	1	0	1	2
Total	3	3	4	10

Prior to interview, LEAF staff made contact with each LEAF member to provide information about the research and to seek their agreement to be interviewed.

¹ Selection based on particular characteristics which were known to be relevant to the types of benefit arising, based upon the findings of previous member surveys and other studies. Purposive denotes choosing 'key criteria' which are likely to differentiate types of benefit; stratification denotes the use of more standard sampling criteria (type, size, location) in order to attempt to capture the main axes of variation in LEAF farms across the UK.

3. RESEARCH FINDINGS

This section draws together the information from the telephone and face-to-face interviews and identifies the financial, environmental and social benefits of LEAF membership and IFM practices.

3.1 Characterising the sample of farmers interviewed

3.1.1. Basic data on location, type and size, use of LEAF services

Some contextual information regarding the LEAF members sample is presented below, for reference. As Table 3.1 shows all regions were represented in the sample with the exception of Wales and Northern Ireland.

Table 3.1 Regional distribution of sample

Region	Frequency	Percent
South West	2	5.7
South East	7	20.0
West Midlands	5	14.3
East of England	7	20.0
East Midlands	9	25.7
Yorkshire	1	2.9
North East	1	2.9
North West	2	5.7
Scotland	1	2.9
Total	35	100.0

Nearly 50% of those spoken to were the principal grower for the respective enterprise. There were only two instances of individuals working on a part-time basis.

Table 3.2 Farm type

Farm type	Frequency	Percent
Arable	9	25.7
Dairy	5	14.3
Horticulture/Fresh produce	4	11.4
Lowland grazing	3	8.6
Upland grazing	3	8.6
Mixed	11	31.4
Total	35	100.0

Comparing these self-determined farm types against those used in the Defra UK June Survey data for 2008, but excluding those categorised as ‘other’ in the latter source, would suggest that our member sample had higher proportions of arable, dairy, horticultural and mixed farms, and lower shares of grazing livestock farms, than would be typical for UK farms as a whole. This probably reflects the characteristics of the LEAF membership more broadly in that, typically, IFM has proven particularly popular among arable and horticultural sectors.

Farm business sizes ranged from 5 hectares (nursery) to 5,500 ha (arable contracting service); with a mean value of 682 hectares. There were a significant number of larger sized farms, highlighted by the median size of 310 hectares, which is much larger than the average UK farm size recorded by Defra, of 54 hectares (Defra, 2009), although the Defra figure undoubtedly includes a significant proportion of part-time and hobby farms which will skew the mean value calculated.

Table 3.3 Full range of services used by sample of members

LEAF Service	Frequency	Percent
LEAF Audit	25	71.4
LEAF Marque	10	31.4
Open Farm Sunday	21	60.0
IFM Tools/Handbook	13	37.1
Speak Out training	22	62.9
Green box	8	22.9
Notice boards	8	22.9
Attendance at LEAF Demonstration farms/events	18	51.4
Let Nature Feed Your Senses	12	32.3

As Table 3.3 shows, the most common service used by those interviewed was the LEAF Audit, with Open Farm Sunday support being the second most common. LEAF Marque was associated with almost one third of interviewees. The Green Box and Notice Boards were the least commonly used services.

3.1.2. Anticipated benefits: reasons for joining LEAF

Most important: Shared beliefs – interest in the environment and IFM

In the survey of LEAF members in 2010, in which 103 usable responses were returned, the largest share (34%) of these respondents cited customer requirements as the main for joining LEAF, followed by a belief in what LEAF does

(22%) and to support LEAF and IFM (14%). These findings would suggest that new members are primarily motivated by a desire to fulfil the needs of their customers' contracts. In our survey, a rather different picture emerged from the interviews, in which only 9% of members joined because it was a requirement of their customer. [For these respondents, LEAF Marque accreditation was necessary for them to continue supplying produce to Waitrose.] The prime motivation given for joining was empathy with LEAF goals and interest in its approach. The majority (60%) of interviewees stated that they were already farming in a manner that matched LEAF's environmental principles, and they were particularly drawn by the concept of IFM. The following responses highlight this:

"Sounded like my beliefs and the way I was farming." (Upland grassland farmer)

"Interested in IFM – we were going into stewardship, which stimulated conservation matters, and LEAF linked in." (Mixed farmer)

Second most important: to promote an environmentally-responsible image to the wider public

Other reasons that were given for joining LEAF included 'mere curiosity' as well as 'wanting to support the organisation itself'. However, as with the 20% recorded from the wider LEAF survey, 17% of our interviewees said they had joined in order to improve communication with a wider audience, to promote British farming and, in particular, the environmentally-responsible practices in place on their respective farms. Interviewees said that this was mainly achieved through their participation in 'Open Farm Sunday', but several had also visited, and been visited by, groups and organisations such as schools, at other times during the year. It seems clear, therefore, that LEAF members feel they have a positive message about good farming practice which they want the public to hear.

In this sense, therefore, joining LEAF is about countering what many farmers perceive as misunderstanding and misinformation among the general public, about the sector's attitudes and awareness of the environment.

"Joined because I wanted to be able to make a link and be better able to communicate with the general public." (Lowland grassland farmer)

"To improve public relations. I wanted support and to gain confidence with regard to speaking etc regarding the farm." (Dairy farmer)

3.2. Financial benefits of LEAF membership and IFM practices

Interviewees were asked to identify the specific LEAF services utilised and to identify any financial benefits arising from each of these services. Wherever possible they were asked to provide figures to indicate the significance of these benefits to the farm business. The interviews also sought to identify and record financial benefits which were more subtle, arising as an indirect result of LEAF membership, as far as possible.

3.2.1. Cost savings arising from the LEAF audit and IFM approach

Seventy-one percent of those interviewed had undertaken a LEAF Audit on the farm and of these, 56% had done so annually.

Past research, such as the work undertaken by TSB Agriculture and Andersons (1997)², has identified a decrease in variable input costs, particularly chemicals and fertilisers, as a result of adopting Integrated Crop Management practices. This research identified some significant on-farm cost savings, most of which arose as a direct consequence of members conducting a LEAF Audit.

Soil management and fertility - One of the most significant cost savings reported by members as a result of adopting IFM principles through the LEAF audit was the rationalising of their fertiliser usage. On mixed farms in particular, IFM led to greater awareness of the value of manures and slurry. As one member put it

“The LEAF Audit encourages you not to view manure as a waste product but as a valuable nutrient bank”. (Tim Lewis, mixed farmer)

This could have significant economic benefits.

- One member formerly applied 19 kilos/ha of bought-in fertiliser to maize, but has now replaced this with slurry, resulting in significant cost savings.
- One member replaced chemical fertilisers with green compost and sewage cake, saving around £3,000 a year. This switch also brought the additional benefit of improved soil structure and plant (fodder) quality, thereby improving livestock condition.

The LEAF Audit also prompted arable farmers to make significant cost savings by adopting Global Positioning System (GPS) soil technology to accurately map soil nutrient variation across their fields, enabling more targeted fertiliser inputs.

² TSB Agriculture Services, LEAF and Andersons (1997) Integrated Crop Management “Towards a Sustainable Farming Systems” LEAF Case Study Farm.

- More precise planning of fertiliser applications reduced one member's usage by 10t/year, with an estimated cost saving of £2,500/yr.
- Another reported GPS-linked savings of around £8,000 a year
- Targeting of fertiliser using GPS for the wheat crops saved a third farm around £10,000 per year.
- A large arable farm had saved £25,000 from soil mapping the farm, reducing fertiliser applications by 30%. The mapping machinery had paid for itself within 2 years of purchase.

Energy efficiency – This is another area where the LEAF Audit has had a large financial impact on members' farms, particularly in relation to reduced fuel costs for field operations.

- For one, the LEAF Audit prompted them to put meters on fuel bowsers, enabling them to identify the costs of specific field operations and to rationalise their field operations. This saved about £5,000 a year on fuel.
- For another, the LEAF Audit led to a reduction in tractor usage, resulting in general savings of about 200 litres of fuel per year.
- For many arable members, the LEAF Audit prompted them to adopt minimum tillage for autumn crops, leading to significant savings on fuel costs. For one member, this amounted to a 10% reduction in total fuel costs for the farm.

LEAF membership has also fostered awareness of other ways of increasing energy efficiency on the farm: cited examples included the use of energy-efficient light bulbs, as well as the installation of heat recovery systems and Pv solar panels.

Water use - LEAF membership and the use of the Audit prompted several members to consider water harvesting on their farm.

- For one LEAF Marque-accredited nursery, membership 'drove them faster' towards installing a water reservoir which cost £70,000 to install but will save them around £14,000 a year.
- One member had installed tanks to recycle water for washing and stock drinking, with a cost saving of around £700 per year.
- LEAF also prompted some members to switch from mains to spring water supply, thereby reducing their water bill.

- For those few interviewees that irrigate crops, LEAF had led to the installation of more efficient irrigation systems, leading to savings from reduced water consumption.

Waste recycling - the LEAF audit highlights various opportunities for recycling waste and several interviewees said that this had brought benefits.

- One farmer significantly changed policy on recycling waste, once LEAF Marque-accredited. They now recycle around 80% of waste, which has reduced their disposal costs from around £1,400 a year to £400 a year.

Animal husbandry – A number of livestock-farming members had noticed improvements in animal health as result of adopting IFM principles. Two members had made changes in housing and handling, and two others reported increased disease resistance in their livestock, one as a result of increased trace elements in the grass, resulting in a 10% cost saving in disease treatment.

3.2.2. LEAF Marque – a valuable tool for marketing

Of the 10 members interviewed who were LEAF Marque-accredited, 3 were required to do so to secure their supermarket contract with Waitrose. However, additional benefits could also be identified arising from this decision.

- For one nursery, 90% of the business was with Waitrose and without LEAF Marque they would have lost this contract. Whilst they could obtain similar prices for their product from other supermarkets, they particularly valued the Waitrose contract. Also for them the LEAF Marque gave them the supply confidence to enable further investment in their business.
- Of those interviewees that were LEAF Marque-accredited, four said it was not a requirement of their customers, but they felt that it helped to retain this business.
- One member who supplies Waitrose with cheese was LEAF Marque-accredited although this was not a requirement. However it was felt that accreditation may help to secure their contract in the future.
- Two members were able to command a premium price for their LEAF Marque-accredited product, and one other felt that the LEAF Marque gave them a competitive edge and increased their sales.
- Two members were convinced that there is a customer demand for an accreditation, such as the LEAF Marque, which is distinct from the 'organic' label.

- Seven members felt that there was a lack of awareness of the LEAF Marque amongst the general public and four called for the LEAF Marque's profile to be raised amongst consumers, in order to increase demand for the products and to create a higher premium.

3.2.3. Revenue from hosting events

Another financial benefit to LEAF members came from hosting events on their farms: this was noted by both LEAF Demonstration Farms and by farms who participate in 'Open Farm Sunday'. The four LEAF demonstration farmers interviewed were able to capitalise on their raised profile, as a result of LEAF, to host paid events or give talks to a wide range of organisations, including Government agencies, industry companies, City and Guilds trainees, farmer study groups and school groups. Reported revenue from these activities ranged from between £2,000 to £7,000 a year, per farm.

Whilst none of the members charged for Open Farm Sunday events, those interviewees that sell direct to the public noticed an increase in sales from hosting Open Farm Sunday and other demonstration events. For example, one member felt that he was selling 15 to 16 carcasses a year direct from the farm with a profit of £500/carcass, which was linked to his hosting these farm visits.

3.2.4. Supporting HLS application

For 34% of the members interviewed, LEAF membership was considered a contributing factor to gaining entry into an agri-environment scheme, which often brings a significant additional income to the farm.

Some members were invited to join HLS because of the educational provision they were already providing, as a result of LEAF membership. Others felt that LEAF had focused the environmental management practices on their farm and demonstrated their commitment to the environment, as they were already implementing some of the HLS options. As the following quote explains:

"I'm hoping to get into HLS when our ESA finishes. Being a LEAF member certainly wouldn't do any harm, and some of the work we have done over and above purely what the ELS requires, will help." (Mixed farmer)

3.2.5. Raising environmental profile for off-farm activities

For two of those interviewed, an indirect benefit of LEAF membership was to raise their environmental profile, which had knock-on financial benefits for their off-farm activities.

- For one LEAF demonstration farmer, membership had helped give him a credible platform to sell the other services he offers, such as agronomy services and operator training.

- For another member, LEAF membership was used to provide reassurance to their 'green tourism' holiday let customers that they were farming in an environmentally responsible manner, despite recently withdrawing from having organic status.

3.3. Environmental Benefits of LEAF membership and IFM practices

The interviewees were asked to identify any environmental benefits on their farms which could be attributed to being a LEAF member. The responses distinguished benefits to biodiversity, soil, water quality and energy reduction, separately.

3.3.1. Membership supports the development of positive environmental attitudes

Members were asked whether LEAF membership had developed their attitude to the environment. A very high proportion, eighty-six percent of members, responded positively in this respect. Whilst some members felt that they already had a good attitude towards the environment; for the majority, LEAF membership had increased their awareness and understanding of the environment on their farm. For some, particularly as a result of undertaking the LEAF Audit, membership had transformed their knowledge about the environmental impact of their farming practices. For others, it had led to more questioning of their farming practices and therefore a greater awareness of environmental impacts. The following quotations encapsulate these views.

*“Doing the LEAF Audit changed my whole attitude and mindset towards the environment. It makes you question everything.”
(Arable farmer)*

“I’m sure it has helped change my attitude and helped cement some of those ideas in my head. It has progressed my attitude to the environment, rather than let it get stale”. (David Clarke, dairy farmer)

There was a sense that the LEAF Audit had encouraged interviewees to consider their farm as a whole, rather than looking at individual tasks/elements within the business. This 'whole farm' approach is one of the fundamental principles of IFM. It shows members that in order to reap the maximum benefits from the Audit they need to examine every aspect of the business, which leads to a greater understanding of the wide range of, and often seemingly unrelated, environmental impacts of their actions.

3.3.2. Biodiversity benefits

It was often difficult for the interviewee to attribute the biodiversity benefits that they had observed on their farm directly to LEAF membership. Often these benefits

were also tied up with agri-environmental schemes operating on the farm. Nevertheless, 49% felt that membership had brought biodiversity benefits.

- One member said that an increased bird population recorded on his farm was due to farm management and field operations following IFM principles, as opposed to the specific conservation activities carried out under agri-environment schemes.

“The way the commercial farming activities have been honed alongside the LEAF brief has certainly helped the harmony between the farming and conservation activities”. (Jon Hammond, fresh produce grower)

- A nursery, not participating in any agri-environment scheme, had undertaken tree and hedge planting as a result of LEAF membership, thereby providing increased habitat for wildlife.
- Other members had established field margins, beetle banks and wildflower areas, and erected bird boxes, as a direct result of LEAF membership.

3.3.3. Benefits to the soil

Twenty percent of the interviewees were able to identify specific benefits to the soil from LEAF membership.

- One member, who farms along a valley, started putting tramlines across the slope after undertaking the LEAF Audit, which had helped reduce soil erosion.
- Several other members felt that the soil structure had improved from the use of minimum tillage and incorporation of organic manure.

3.3.4. Benefits to water quality and quantity

Forty percent of interviewees were able to attribute benefits to water quality and quantity specifically to LEAF membership.

- For one member producing fresh produce, the LEAF Audit prompted them to look critically at their use of water for irrigation and resulted in the introduction of more efficient irrigation systems, which greatly reduced the volume of water used.
- Two others had installed rainwater harvesting structures to save water.
- One member had switched to using header tanks, rather than direct mains, so that should a leak occur he will only lose a limited amount of water.

LEAF membership had also resulted in improvements in water quality, partly from increased awareness of the potential impacts of certain farm practices.

- For one, LEAF membership had made them much more aware of when and how changes in water quality occur and so enabled adjustments to farming practices to reduce any negative impacts on water quality.

3.3.5. Regulatory requirements

Fifty-four percent of the interviewees felt that LEAF membership helped them in dealing with environmental regulations. The main benefit came from completing the LEAF Audit which helped ensure compliance with regulatory requirements. As these members put it:

“It provides a checklist for your regulatory requirements and gives you peace of mind” (Mixed farmer)

“It’s a good vehicle to make sure that you are up to scratch with all the legislation”. (Carolyn Charrington, Upland livestock farmer)

“The audit pricks your conscience where you are not doing something right. If you tick all the boxes it gives you peace of mind and you know you don't have to worry”. (Arable farmer)

Undertaking the LEAF audit can also ensure a ‘head start’ when new regulations are introduced. As several members commented, LEAF tends to be ‘ahead of the game’ in respect of setting standards of responsible behaviour, so when new regulations are introduced, members are likely to have had more time to acclimatise to these requirements, or indeed they may already meet the new requirements, saving a great deal of time and stress.

“When it comes to conforming to regulations...it means we are ahead of it...we’ve certainly addressed the issues even if we haven’t solved them before any regulations become statutory...certainly with pesticide... we were already going through the processes, so we didn’t have to make a massive change”. (Nick Rowsell, arable farmer)

Although they had no explicit evidence to cite, some members believe that they may be subject to fewer inspections by regulators, as a result of LEAF membership. As one member put it:

“They inspect by risk and if you are LEAF-accredited you are probably going to drop down the list”. (David Felce, arable farmer)

In fact, LEAF is in negotiation with the Environment Agency to agree the principle of applying ‘a lighter touch’ when it comes to inspecting LEAF members, in recognition of their commitment to achieving high environmental standards.

3.4. Social Benefits of LEAF membership and IFM practices

The interviews asked members to identify any social benefits of LEAF membership. This included any impact on skills, training and communication and any increased social interaction with other farmers, the general public and/or the local community brought about by LEAF membership. Almost universally, members recognised important benefits of these kinds stemming from LEAF membership.

3.4.1. Skills, training and communication

Eighty-six percent of members reported that LEAF membership had had a positive impact on their and their employees’ skills and knowledge base. The greatest impact had been on members’ communication skills, as a result of ‘Speak Out’ training which had improved their ability to explain their farm business to the general public.

“LEAF has had a big impact on my communication skills. I am often asked to talk to groups and feel confident in doing this now”. (Jon Parker, mixed farmer)

Four members mentioned that LEAF had helped increase the knowledge and understanding of their staff. One member had taken two staff members to a demonstration farm event which he found useful in helping his staff to understand the direction in which he wanted to take his farm.

3.4.2. Increased social interaction

Other farmers

Forty-nine percent felt that as a result of LEAF membership they had more contact with neighbouring farmers. In particular, this came about as a result of neighbouring farmers offering to help with LEAF events, such as Open Farm Sunday and school visits, or from meeting neighbours at local LEAF events. In some cases increased interaction had led to exchange of ideas with neighbours, and in one case a discussion about possible machinery sharing.

When asked about increased social contact with farmers in general, greater numbers of members identified a positive impact. Seventy-one percent said they had more contact with farmers in general as a result of LEAF membership. This came about for a number of reasons:

- hosting events on the farm as a result of demonstration farm status
- attendance at demonstration farm and LEAF events
- hosting visiting groups and farm walks.

For some, attending LEAF events had increased their social network within the farming industry. This was particularly the case for the demonstration farmers. LEAF events clearly provide an opportunity to meet like-minded farmers and often inspirational and influential people from whom members can learn. Although none were able to say that this had directly benefited the farm business in a commercial sense, there was a general feeling that the potential was always there. In the words of one member describing a LEAF event:

“I met the Head of Sustainability at M&S and that is a good contact to have in your address book!” (Fresh produce grower)

General Public

LEAF membership has been particularly influential in increasing members’ contact with the general public. Seventy-seven percent of the members interviewed felt they had more contact with the general public as a result of LEAF membership. This increased contact had primarily arisen from hosting Open Farm Sunday events or school visits.

Some members reported an unexpected level of personal satisfaction from dealing with the general public as the following quotes illustrate.

“The group that has been particularly rewarding was a group of inner city children. I shall never forget I took them into an open field and they were absolutely over awed with the sense of space, the thing we take for granted. They were hopping and skipping”. (Tim Lewis, mixed farmer)

“Although the Open Day is absolutely exhausting and you are drained by the end of it, it is really satisfying to see the level of enjoyment”. (Mixed farmer)

“I have regular visits from the local primary school. I tie in hydroponics with their science lessons and it has been very rewarding” (Nursery grower)

“Passing an audit [LEAF Marque] is great, but when you have 30 school kids who can’t focus on a three-quarter hour maths lesson and come here for 3 hours and are absolutely enthralled and enthused by everything.... We are quite passionate about what we do and somehow we are able pass on that passion to the kids. What we do for a living is interesting and exciting to other people and we get an opportunity to share that”. (Jon Hammond, fresh produce grower)

3.4.3. Better community relations

A large proportion of interviewees, 71%, found that hosting school visits and Open Farm Sunday, conducting local talks and opening up public access on their farm had resulted in better relations with the local community. These activities had raised their profile in the local community and two members felt they were now viewed as “good”, environmentally-responsible farmers. This had resulted in a number of social benefits. For example,

- For one member who was a relative newcomer to the area, hosting Open Farm Sunday had helped him integrate more into the local community.
- Another had been asked to give a sermon at the local church harvest festival.
- One member felt that having increased public access across his farm might indirectly help with planning permission for a wind turbine, as it had raised his profile as a “good” farmer in the local community, and the Parish Council were more likely to look favourably on his planning application.

3.4.4. Better Understanding

Ninety-one percent of members interviewed either agreed or strongly agreed with the statement that LEAF membership had “improved understanding among the local community”. Of the remaining members, 6% ‘neither agreed or disagreed’ and 3% disagreed with the statement.

By opening their farms to the general public, four interviewees specifically commented that this increased engagement with local people and the public “broke down barriers” and meant they were seen as more ‘approachable’, bringing a variety of positive impacts.

“People have found us more approachable, people will stop and talk and have a look over the fence at the cows”. (Tim Lewis, mixed farmer)

“We have had groups around and talk to people that we wouldn’t have normally expected to talk to and it gives people a face and someone to talk to if they see something that they are not sure about. They feel more comfortable about coming to you to ask about it rather than going away and grumbling about it”. (Jon Parker, mixed farmer)

LEAF, either through support for Open Farm Sunday events or the provision of notice boards, had also helped explain their farming operations to the local community.

- Eight of the members used the notice boards and 3 of these found them particularly useful in explaining the function of field margins.
- For one member, an unexpected benefit of hosting Open Farm Sunday had been a reduction in trespassing on the farm, as the local community had more appreciation of their farming practices and were mindful of the correct route of footpaths, bridleways and other rights of way.

The following quote demonstrates another benefit of increasing the local community’s understanding of the farm business.

“Our interest for doing it [Open Farm Sunday] is to try and make sure people know what is going on over the hedge next to their garden to reduce the amount of complaints from dust blowing into their house etc. So that people can understand a bit more about what we do, because we do disrupt people in the village because we stop the traffic to move the cattle or there are tractors going around at harvest. People are a bit more patient if they know what you are doing”. (Alice Townsend, mixed farmer)

For some members increasing the public’s wider understanding of the farming industry was considered an important benefit of LEAF membership. Through support for OFS and farm visits they felt they were doing their bit to promote the industry to the general public. As one member put it:

“The more the general public we can get out on the farm and reconnect them with where their food comes from, the better. Over the last 20 years people have forgotten”. (Fresh produce grower)

3.5. Further comments

At the end of the interview, members were given the opportunity to comment on how LEAF could serve their needs more effectively.

A number of comments were raised in relation to the LEAF Audit. For some who had undertaken the LEAF Audit for 8 or more years, there was a feeling that the process was getting too repetitive and that there might be some benefit from making it more challenging. One member suggested that the Audit and technical days could operate at different levels and a member could progress to becoming a fully qualified LEAF farmer, rather like the BASIS qualification.

One nursery member felt that the Audit was most suitable for 400 hectare arable farms and was not always relevant to the nursery business. There was a suggestion that the Audit could be adapted to specifically suit their business type. Similarly, a number of livestock LEAF members felt that LEAF could do more for their sector as it was currently perceived as being arable-focused, restricting the appeal to livestock farms.

One member was concerned that LEAF was in danger of lacking appeal for those commercially-driven farmers who were the ones who were going to make the most difference to the environment if they could be persuaded to change their ways. *“There is a danger of LEAF becoming cute and cuddly and FWAG-like”*. For example, it was suggested that the ‘Let Nature Feed Your Senses’ initiative and therapeutic agriculture did not ring true with some commercial farmers. In the opinion of one member, LEAF needs to find more ‘products that farmers can buy into’, that will assist with problems they are facing and identify practical solutions. More technical days devoted to specific issues, such as water harvesting or energy efficiency was suggested.

Whilst noting that LEAF “punch well above their weight” given their limited resources, it was suggested that more could be done to communicate the LEAF message to the general public. Several interviewees said that the LEAF Marque was not well recognised by the general public and could be promoted far more widely. Suggestions to aid promotion included in-store leaflets in supermarkets and more support from celebrity champions, such as Jimmy Doherty who helped to launch Open Farm Sunday in 2010.

A number of members suggested that having a LEAF member of staff ‘on the ground’ would be beneficial: a kind of technical advisory officer. This person would be able to give one-to-one advice, particularly in relation to the Audit, or could act as a mentor for the Marque, by guiding members through the process. As one member put it *“everyone knows what my ‘FWAG man’ does, but my ‘LEAF man’, no one knows what they do”*.

4. HOW DO OUR FINDINGS COMPARE TO THOSE OF PREVIOUS MEMBER SURVEYS BY LEAF?

This section of the report briefly relates the findings of this survey to those of previous LEAF member surveys, as far as is possible and useful, and insofar as it has not already been covered in section 3 of this report.

In 2008 and in early 2010, member surveys were conducted by LEAF. These were both self-selecting and completed online. A number of the questions asked in these surveys were replicated within this study, while others are very similar. Therefore a degree of comparison can, with caution, be made, to serve as further validation of our findings, given the much larger size of the respondent base for the earlier surveys. Where our study sought responses that could be analysed quantitatively (e.g. Likert scale scoring of statements), some of these can be compared directly with the results from the 2008 and 2010 surveys. However, the small sample size means that our findings are illustrative rather than statistically representative, and therefore all these results should be interpreted with caution.

4.1 Overall benefits from LEAF Membership

Within the previous 2010 survey, respondents were asked “what do you feel is the most important benefit you receive from being a member of LEAF?” The main benefit according to the 2010 survey was ‘information’ – given by 36% of responses. ‘Communication’ was the second most common – equal with ‘market access’, both cited by 20% of respondents. ‘Environmentally responsible’ was the fourth most common, with 18% of responses.

In our survey, interviewees were asked what they felt were the general benefits they had received by being a member of LEAF. Respondents were able to give as many examples as they felt, however the majority cited one or two. Some (seven) cited three examples, and three respondents cited four examples. Responses were ‘open’ rather than selected from a list of options, but they could be analysed and categorised after interviews, using similar categories to those used for the ‘closed’ responses in the member surveys. There were themes with an almost equal number of responses (please note, respondents were able to offer more than one example, hence the sum of responses is greater than total interviewees, and percentages would be misrepresentative). These were:

- Awareness/Information – 12 responses
- Support & training received – 12 responses
- Communications – 11 responses
- Environmental benefits – 10 responses

Further to these themes, access to networks and associated support was the next most common response (five citations). A wide variety of ‘other’ responses were given, although there was only one of a ‘customer’ related nature.

At the end of the interview, our respondents were also asked what they felt the *main* benefit of their LEAF membership was. During the course of the interview, economic, social and environmental issues were discussed in turn, and this gave the opportunity for the respondent to consider and reflect upon all aspects of their membership and respond accordingly. This led to a marked difference in the response themes, the most common now relating to communication benefits. This was cited by 15 people (47%)³, the next most common responses were customer related, awareness/information and audit/IFM benefits, each with three responses. One comment related to the quality of the people within LEAF itself, another being a general “feel good factor” which for this individual was a particularly highly valued benefit.

Improved communication would therefore appear to be a critically important benefit of LEAF membership whose importance is likely to have been under-reported in the previous online member surveys.

4.2 Specific Benefits due to LEAF Membership

A series of scaled response questions were asked to all interviewees, regarding the extent to which they agreed with a series of statements relating to their LEAF membership. Members were asked to respond to the statement “LEAF membership and IFM practices have...” with regard to the following areas:

- i. Increased my income
- ii. Improved biodiversity
- iii. Increased efficiency
- iv. Increased capital values
- v. Improved landscape
- vi. Improved stock quality
- vii. Improved cereal quality
- viii. Improved energy efficiency
- ix. Improved soil condition
- x. Improved understanding among the local community
- xi. Improved my business performance – e.g. changed the way I communicate with staff and others
- xii. Increased my involvement with others on a political front

Responses were scaled from one (strongly agree) to five (strongly disagree). The lower the mean value therefore, the greater the extent respondents agreed with

³ Three non-responses.

the statement. Conversely a high mean score would indicate that respondents disagreed. The closer the mean value is to three would indicate people ‘neither agreed nor disagreed’.

4.2.1 Financial benefits

An equal number of respondents ‘agreed’ and ‘neither agreed nor disagreed’ with the statement that membership had increased their income. The mean response value was 2.57.

The previous surveys in 2008 and 2010, asked a similar question. Respondents were asked the extent to which they agreed with the statement, “by adopting LEAF and IFM principles we have benefited financially.” The mean response values for the 2008 and 2010 surveys are 2.46 and 2.45 respectively, which are very similar to that found in our survey. The distribution of responses in all three cases is similar, as shown in Table 4.1.

Table 4.1 Comparing scores for financial benefits of LEAF membership

Response	Survey Year (% Responses)		
	2008	2010	CCRI 2010
Agree strongly / Strongly agree	21.5	15.1	11.4
Agree partly / Agree	39.2	38.6	37.1
Neutral / Neither agree nor disagree	20.7	35.2	37.1
Disagree partly / Disagree	8.4	7.5	11.4
Disagree strongly / Strongly disagree	10	3.3	2.9
Total	100	100	100.0

In our study, we also asked specific questions about improved business performance, increased efficiency, increased capital values, improved stock quality and improved cereal quality, resulting from LEAF membership. The mean response value for improved business performance was 2.29 suggesting a good degree of agreement overall. However in response to the statements on efficiency, etc, mean responses were 2.43, 2.94, 2.96 and 2.71 respectively, suggesting that respondents only weakly agreed with these statements (the closer to 3, the more neutral the response).

4.2.2 Environmental benefits

In the 2008 and 2010 surveys respondents were asked the extent to which they agreed with the following statement: “by adopting LEAF and IFM principles we have improved our environmental performance”. This statement cannot be directly compared with any of those within this survey, as our statements related to specific elements of the environment: Biodiversity; Landscape; Energy efficiency and Soil condition. Nevertheless, a comparative table can be compiled, as shown in Table 4.2.

Table 4.2 Comparing scores for environmental benefits of LEAF membership

Response	Survey Details & Percentage Responses					
	2008	2010	CCRI – Biodiversity	CCRI – Landscape	CCRI – Energy Efficiency	CCRI – Soil Condition
Agree strongly / Strongly agree	48.8	34.1	25.7	25.7	11.4	28.6
Agree partly / Agree	32.8	45.3	51.4	54.3	60	37.1
Neutral / Neither agree nor disagree	12.8	17.9	17.1	14.3	22.9	20
Disagree partly / Disagree	0.8	0.8	5.7	5.7	5.7	14.3
Disagree strongly / Strongly disagree	4.8	1.7	0	0	0	0
CCRI survey mean values	-	-	2.03	2.00	2.23	2.20
Total	100	100	100	100	100	100

From the above figures there appears to be a general acceptance that LEAF membership and IFM principles have had a positive effect on the environment as a whole, within all three surveys. In our study it would appear that the most widely recognised benefits are for landscape and biodiversity.

4.2.3 Improved Understanding among the Local Community

In the 2010 survey, respondents were asked the extent to which they agreed with the following statement: “by adopting LEAF and IFM principles we have improved our relationship with our community and business contacts”. With this survey, we asked the extent to which respondents agreed with the statement: “LEAF membership and IFM practices had improved understanding among the local community” and “increased my involvement with others on a political front”. The former of these, at least, can be partially compared with the statement in the 2010 survey. As can be seen in Table 4.3, responses to these statements were some of the most positive of all, in the CCRI survey, emphasising members’ perception of how LEAF has significantly enhanced their reputation or understanding among the local community.

Table 4.3 Comparing scores for social benefits of LEAF membership

Response	Survey Details & Percentage Responses		
	2010	CCRI – Local Community	CCRI – Involvement with others
Agree strongly / Strongly agree	0	62.9	28.6
Agree partly / Agree	51.3	28.6	37.1
Neutral / Neither agree nor disagree	46.1	5.7	20
Disagree partly / Disagree	2.6	2.9	11.4
Disagree strongly / Strongly disagree	0	0	2.9
CCRI study – mean response value	-	1.49	2.23
Total	100	100	100

4.3 How can LEAF better meet its Members Needs?

The previous 2010 survey asked respondents to offer suggestions as to how the organisation might better meet members’ needs – these were then classified accordingly. This was an area that this survey also sought comments. Common themes within the 2010 survey were:

- ‘Communication’ – Promotion of LEAF and the LEAF Marque to the end consumer.
- ‘Relevant’ – Making membership more relevant for non-arable areas.
- ‘Rationalisation’ – There were a range of comments within this theme. Some referred to the audit, others to the wide range of other accreditation schemes in operation.

Within this survey, concerns over communication were particularly common. The awareness of LEAF and the LEAF Marque within society was seen as an area that should be improved.

5. SUMMARY CONCLUSIONS

Following detailed interviews with a small but broadly representative sample of 35 members, this research has identified a wide range of benefits stemming from LEAF membership.

- Significant on-farm cost savings have resulted from implementation of IFM principles and conducting the LEAF Audit. In particular, reductions in fertiliser and chemical inputs have saved costs in the range of £2,500 - £10,000 per year, per farm, and further costs were saved from implementing energy efficiency and water conserving measures.
- LEAF Marque accreditation can be essential for members in securing valued supermarket contracts, retaining existing customers or commanding a premium price for products.
- Significant additional income (in a reported range of £2,000-7,000 per year) can be derived from hosting events, for LEAF demonstration farms. Increased sales directly to the public have resulted from members hosting both Open Farm Sunday and Demonstration Farm events.
- For 35% of members surveyed, LEAF membership was felt to be a contributory factor in gaining entry into a higher-level agri-environment scheme, which often brings significant additional income to the farm.
- LEAF membership has improved the environmental credentials of some members which has positively contributed to their income from diversification into on-farm tourism and training provision.
- LEAF membership has increased awareness and understanding of the farm environment, for 86% of those whom we interviewed. For some, the change is noted as 'transformational', affecting their whole attitude to farming.
- Forty-nine percent of those surveyed were able to attribute biodiversity benefits on the farm directly to LEAF membership. Examples included increased bird populations and improved wildlife habitat such as trees, hedges, wildflower areas, field margins and beetle banks. Also, visible benefits to soil structure and water quality and quantity were identified.
- LEAF membership was considered to contribute to easier compliance with regulatory requirements, by 54% of members surveyed. In particular, it offers 'peace of mind' in that if you are meeting LEAF standards then you can be confident that you are doing what the regulations require, and more.

- Eighty-six percent of members surveyed reported that LEAF membership had improved their, or their employees' skills and knowledge base, in a number of respects. The greatest personal impact is on members' communication skills, particularly as a result of 'Speak Out' training. LEAF has significantly improved members' confidence in explaining their farm businesses to the general public.
- LEAF membership also increases farmers' interaction with neighbours (49%) and other farmers more generally (71%). This arises from hosting events on the farm and attending LEAF events. Members note that increased networking and contacts may bring benefits to the business, in due course.
- A high proportion of members interviewed, 77%, felt they had more contact with the general public as a result of LEAF membership, primarily from hosting Open Farm Sunday events or school visits. Most reported that hosting public events on their farm, conducting local talks and opening the farm to the public improved relations with the local community.
- Over ninety percent of members interviewed agreed or strongly agreed with the statement that LEAF membership had "improved understanding among the local community". Members feel they are seen as more 'approachable', this increases people's appreciation and tolerance of farming practices and improves understanding e.g. of the importance of keeping to footpaths.
- Notwithstanding these very positive reports, members made a number of suggestions as to how LEAF could improve its services. These included further development of the LEAF Audit for longstanding users; adapting the Audit to increase its relevance to livestock and nursery producers; increased emphasis on practical solutions to the problems faced by commercially-driven farmers, recruitment of a LEAF "on the ground" technical adviser; and raising awareness of the LEAF Marque among the general public.

APPENDIX 1: TELEPHONE QUESTIONNAIRE

Assessing the Benefits of LEAF Membership Member Telephone Interview

Questionnaire No:	
Name of Member:	
Region:	
Telephone No:	
Date and time of interview:	
Name of interviewer:	
Farm type:	

Tick which LEAF services member uses

LEAF Service	Tick	
Membership only		
LEAF Audit		
LEAF Marque		
Open Farm Sunday support		
IFM management tools/handbook		
Speak Out		
Green Box		
Notice Boards		
Demonstration Farms / Events		
Let Nature Feed Your Senses Project		

Introduction

Thank you very much for agreeing to be interviewed. As LEAF has explained, we have been asked to carry out a survey to assess the benefits of LEAF membership and Integrated Farm Management. The results of the survey will help LEAF to promote the organisation more widely, encourage the further uptake of IFM and sustainable farming practices and build LEAF's support and membership base.

Everything you tell me will be treated confidentially and the results of the survey will be aggregated. We would under no circumstances release any individual information about your farm or your business to anyone else other than LEAF. We will anonymise any comments you make.

More about this telephone interview

We have designed this interview to be as brief as possible, it should take no more than 20 minutes. The interview is divided into 4 sections:

1. Clarification of the LEAF services you use.
2. Identifying any economic benefits of LEAF membership
3. Identifying any environmental benefits of LEAF membership
4. Identifying any social benefits of LEAF membership

1. General Information about the farm business

Please could you give me some general information about your business.

- 1 May I first just check on your own status - are you the principal farmer/grower, partner, or a farm manager and is your job full-time? (tick one box only)

	Full-time	Part-time
Principal farmer/grower		
Partner		
Farm Manager		
Other (specify)		

- 2 What is the total area of land you farm as a single business?

Hectares

- 3 How much of the holding is owner-occupied and how much rented?

Tenure	Hectares
Owner-occupied	
Rented in	
Rented out	
Total area farmed in hand	

- 4 Which best describes your farm? (Tick one)

Mainly arable		Grazing livestock (LFA)	
Mainly dairy		Other livestock	
Horticulture/Fresh produce		Mixed	
Grazing livestock (lowland)			

- 5 How long have you been a member of LEAF?.....

- 6 Why did you decide to join LEAF?.....

(Ask as open question, but try to categorise)

2. Impact of the individual services on farm businesses

I would now like to ask you about the LEAF services you use and to identify if there are any economic benefits to you or your farm business which can be attributed to you being a member of LEAF, using the IFM management tools and using their other services.

7 Firstly, please can you confirm which Leaf Services you use:

LEAF Service	Tick	Comments
LEAF Audit		
LEAF Marque		
Open Farm Sunday support		
IFM management tools/handbook		
Speak Out		
Green Box		
Notice Boards		
Demonstration Farms / Events		
Let Nature Feed Your Senses Project		

Membership Benefits

8 Please can you identify any specific benefits/impacts that LEAF Membership has had for your farm business.

[Or - Other than the LEAF Audit and/or LEAF Marque, have there been any other benefits of LEAF membership]

(prompts: Up-to date technical information, awareness raising, public assurance of environmentally responsible farming, communication with farmers and public, public relations, reduced rates to LEAF events/services, Open Farm Sunday support, training)

9 For each impact identified, has it resulted in any changes in annual net costs or in sales for the farm business up until now? and if positive or negative, please explain why this has occurred.

[Please try and ascertain actual figures, if this is not possible then a % increase or decrease will suffice]

Benefit	Changes in annual costs /annual sales (£ or %)	Explanation of why this has occurred

10 I would be interested to know why you are not using the LEAF Audit or Leaf Marque at the moment. Would you consider using these in the future?

Go to Q16...

The LEAF Audit

11 When did you first carry out a Leaf audit on your farm (which year)? How often have you carried out the Leaf audit since then?

12 Why did you decide to carry out the Leaf audit?

13 Please rate the ease with which you found the audit to complete from a scale of 1 (very easy) to 5 (very difficult) Please explain your response.

14 Has carrying out the LEAF Audit had any positive impact on your farm business?

Yes

No if no, go to Q17a

If yes, go to Q15

15 Please can you describe what the main impact has been?

16 I would like to just run through LEAF's whole farm-principles of IFM / various elements of your farm's LEAF Audit to identify any specific benefits you have experienced and what effect has each benefit had on the annual costs or sales of the farm business up until now? and if positive or negative to identify why this has occurred.

[Please try and ascertain actual figures, if this is not possible then a % increase or decrease will suffice. For each one, identify the extent to which LEAF contributed towards this change]

Benefits	Estimated changes in annual costs or sales (£ / %)	Explanation of why this has occurred and how LEAF contributed to this change
Organising and Planning e.g. understanding of legislative requirements, better planning, developing business statement, better farm accounts/budgets.		
Soil Management and Fertility eg reduced fertiliser use, targeted fertiliser use, non-inversion tillage, reduced soil erosion		
Crop Health and Protection e.g. reduced agrochemical use, increase in natural predators, improved crop rotations		
Pollution Control and By-Product Management e.g. spraying to threshold levels, reduced waste, more recycling		

<p>Animal husbandry e.g improved animal welfare or health, improved slurry/silage storage</p>		
<p>Energy efficiency eg. reduced energy costs</p>		
<p>Water Management e.g reduced irrigation, reduced water leaks,</p>		
<p>Landscape and Nature Conservation e.g. improved habitat management, better understanding of farm environment</p>		
<p>Community Relations e.g. good PR, school visits, notice boards, involvement in Open Farm Sunday, involvement in the Let Nature Feed Your Senses project, good will from the community</p>		



LEAF Marque

17a When did you gain LEAF Marque accreditation?

17 Since gaining LEAF Marque accreditation, has this had any positive impact on your farm business?

- Yes
- No if no, go to Q22

If yes, go to Q18

18 Please can you describe what this positive impact has been?

19 Please can you identify any specific benefits/impacts of LEAF Marque accreditation for your farm business. What effect has each benefit had on the annual net costs or sales of the farm business up until now? and if positive or negative please explain why this has occurred.

[prompts: Supermarket contract, increased sales due to environmental credentials, opening up of new market opportunities]

Benefits	Effect on annual costs of sales	Explanation of why this has occurred

20 If you didn't have the LEAF Marque where would you have sold your produce?

21 Are there likely to be benefits of LEAF membership that will only appear in the long term (10 years +).....

3. Environmental benefits

22 Have you noticed any of the following environmental benefits on your farm which could be attributed to being a LEAF member?

23 If Yes - please can you provide details

Environmental benefits with regard to	Yes/No	Details
Biodiversity e.g increase in birds, butterflies		
Soil eg improved soil structure, reduced soil erosion/compaction		
Waste management		
Water pollution		
Energy Efficiency		

24 Has being a LEAF member helped you get into an agri-environment scheme?

Yes

No if no, go to Q26

If yes,

25 How did it help you get into agri-environment schemes?

[prompts: already doing some of the options, already had knowledge of options]

26 Has being a LEAF member developed your attitude to environment?

Explain your answer

(Prompts: better understanding of the impact farming has on the environment, information you receive from LEAF).

27 Does being a member of LEAF result in any benefit in relation to your regulatory/legal requirements? Explain your answer

Eg cross-compliance, NVZs. Leraps

(prompt: peace of mind, fewer inspections)

28 Do you believe that you have had fewer inspections by regulators as a result of LEAF membership? Please explain your answer and provide examples

29 Is there any financial benefit of having fewer inspections, and if so, roughly how much would you save?

4, Social benefits

Impact of LEAF on skills, training and communication

30 In your view, or to the best of your knowledge, has LEAF membership had an impact on you or your employees skills and knowledge base:

Yes

No if no, go to Q

If yes

31 What has this impact been?

32 Have there been any financial benefits are a result of this impact on your skills and knowledge base. If yes, what has been the impact on annual farm turnover (£ or %)?

Social impact of LEAF membership

33 As a result of LEAF membership, have you had more contact with neighbouring farmers?

Yes

No if no, go to Q

If yes,

34 How did this increased contact come about?

35 Has this increased contact resulted in any economic benefits (e.g. collaborative ventures)? If yes, what has been the impact on annual farm turnover (£ or %)?

36 Has it resulted in any social benefits? If yes, please provide details (prompt: communication with your customers, non-farming neighbours, social networks, friendships, more support)

37 As a result of LEAF membership, have you had more contact with farmers in general.

Yes
No **if no, go to Q41**

If yes,

38 How did this increased contact come about?

39 Has this increased contact resulted in any economic benefits? If yes, what has been the impact on annual farm turnover (£ or %)?

40 Has it resulted in any social benefits? If yes, please provide details (prompt social networks, friendships, more support)

41 As a result of LEAF membership have you have had more contact with the general public?

Yes
No **if no, go to Q45**

If yes,

42 How did this increased contact come about?

43 Has it resulted in any economic benefits? If yes, what has been the impact on annual farm turnover (£ or %)?

44 Has it resulted in any social benefits?
(prompt communication with your customers, non-farming neighbours, social networks, friendships, more support)

45 As a result of LEAF membership have you developed more 'good will'/better relations with the local community?

Yes No Don't know

If yes,

46 How did this increased good will come about?

47 Has it resulted in any economic benefits? If yes, what has been the impact on annual farm turnover (£ or %)?

48 Has it resulted in any social benefits? Please provide details.
(prompt social networks, friendships, more support)

49 As a result of LEAF membership, do you think that your local community has a better understanding of your farm business?

Yes
No **Go to Q51**
Don't know **Go to Q51**

If yes,

50 Has this or might it lead to improving your financial position and if so in what way and by how much?

General Questions

51 On a scale of 1-5 have there been any benefits of LEAF to yourself or the farm in the following ways? How much do you agree with these statements (Read out scale)

1 Strongly agree	2 Agree	3 Neither agree or disagree	4 Disagree	5 Strongly disagree
---------------------	------------	-----------------------------------	---------------	---------------------------

Leaf membership and IFM practices have.....

	1	2	3	4	5
Increased my income					
Improved biodiversity					
Increased efficiency					
Increased capital values					
Improved landscape					
Improved stock quality					
Improved cereal quality					
Improved Energy Efficiency					
Improved soil condition					
Improved understanding among the local community					
Improved my business performance – e.g. changed the way I communicate with staff and others					
Increased my involvement with others on a political front					

52 Are there any other benefits of LEAF membership that we have not yet discussed?

53 Of all the benefits that we have discussed, what would you say was the main benefit of LEAF membership to you and your farm business?

54 Are there any further comments or observations that you would like to make about LEAF membership? / How could LEAF serve your needs more effectively?

APPENDIX 2: CASE STUDIES

Tim Lewis, Lewis Partners, Norfolk

Tim Lewis moved to Norfolk in 1994 where he worked as the foreman on a dairy farm situated along the Waveney Valley near Harleston. In 2000, he took on the tenancy of the farm with his father and wanting a mixed farming business expanded into arable. He now divides his time between the 90 hectare farm, contract farming on 445 hectares, partner cultivating on another 160 hectares and lifting 180 hectares of sugar beet. He has a full-time herdsman who manages the dairy farm and a general farm worker/technical operator who helps on the arable side.

They have 150 cows in the dairy herd and also run a beef herd. Males are run off a bull beef system and the Angus heifers are run on an extensive system and sold to a local beef farmer at 14 to 15 months. The cows are crossed with Limousins and Belgian Blue and sold to another local beef farmer who uses the females for breeding replacements and the bulls for fattening. The crops grown on the farm are wheat, barley sugar beet, vining peas, oil seed rape, rotational grass and maize. The sugar beet drives the rotation, although as they are located in a valley some of the poorer land is not always suitable for sugar beet and might be put to a break crop or grass.

Tim first came into contact with LEAF through his employer's contract for Birds Eye Peas which required a LEAF Audit. He then became a LEAF member in his own right in 2002, soon after he took on the tenancy of the farm. The principles of Integrated Farm Management resonated with his vision for the farm as it allowed him to farm commercially, whilst also benefiting the environment. "With IFM you farmed the centre of your field to full production and round the outside or in those corners that are less productive you swing your management in favour of the environment".

Benefits of LEAF membership

LEAF Audit

Tim views the LEAF Audit as one of the biggest benefits of LEAF membership. Undertaking the LEAF Audit annually has changed his mindset towards his farming practices. "It kicks you into thinking and considering the wider issues". As Tim is involved practically on the farm, he does not always have the time to pick up on the latest innovations or to consider the future environmental issues looming on the horizon and the LEAF Audit helps him to keep up to date. Undertaking the LEAF Audit has resulted in a number of changes on the farm over the last 10 years:

- They have moved from a wholly plough based system to the introduction of non-inversion tillage, cultivating only the top 9 to 10 inches. This has the benefit of aerating the soil and has improved the soil structure "because on some of the land

we can get it cultivated up early and let nature do its work rather than have to beat the soil to bits”.

- The LEAF Audit prompted them to think about nutrient use on the farm and whether they were doing the right nutrient calculations. “The LEAF Audit encouraged you not to view manure as a waste product but as a valuable nutrient bank”. They have now started applying slurry followed by non-inversion tillage just before their maize cultivation which has worked well. They also put considerable time into targeting applications to where it is needed. This efficient use of slurry and farmyard manure has resulted in substantial savings in fertiliser costs. Previously, they were applying 300 kg of fertiliser over 40 acres of land.
- They were one of the earliest entrants into ELS. They focused on targeting ELS options, such as wildflower areas and field corners, to the least productive areas of the farm thereby increasing the benefit to themselves. This thought process was stimulated by questioning in the LEAF Audit and was not an approach they would have considered taking themselves. They are now hoping to enter marsh land on the farm which is currently in the Broads ESA into HLS and feel that the work they have done over and above the ELS option requirements will improve their chances of success.
- By undertaking practices prompted by the audit they feel that they have always had a head start with new environmental regulations. “It takes everyone time to adjust to new regulations, but I’ve always had more time to acclimatise”.
- Soil erosion is a particular issue for them as they farm through a valley. Prompted by questions in the audit they have started to put tramlines across the field which has helped to reduce soil erosion and rather than sowing headland tramlines they are left fully cropped to prevent gulleys forming.
- The LEAF Audit has changed their application of agrochemicals, adopting a more targeted use of sprays. They now think more about pest threshold levels and only spray if there are very good reasons to do so. Reductions in the use of sprays has not only benefitted the environment but have also led to some cost savings.

Open Farm Sunday

Tim views the support provided by LEAF for Open Farm Sunday as another major benefit of LEAF membership. He has opened his farm up for Open Farm Sunday four times. The first event was for a local church group and since then numbers have grown each year to 1,500 visitors in 2010. Around 70 people were involved in the organisation of this last event. Tim tries to involve many local farmers and suppliers of farm products in running and helping with a wide range of interactive displays and events on the day. Tim identified a number of benefits from holding these events:

- His motivation for participating in OFS was to talk to and educate the people who are making purchasing decisions in supermarkets. His hope is that if they start to make the link between the food they are buying and how it is produced they may

be prepared to pay more for the product. When they hear of the small proportion of the cost of milk that farmers receive “everyone to a person would rather pay more”. He hopes that his actions will help contribute to a more secure future in farming for his children.

- Tim also feels that the events have helped to improve the general public’s perception of the farming community and reduced the negative stigma surrounding the farming industry. As two older generation farmers recently told him “if we had done this years ago we wouldn’t be in the muddle we are in now”. The events have increased the local communities understanding of their farming activities and have made him more approachable, with local people now stopping to talk to him and to look at the cows over the hedge.
- Although it is an exhausting day to organise, Tim derives much personal satisfaction from witnessing the level of enjoyment and positive feedback from the event. Also as a result of the Open Days, Tim has given talks at local primary schools and found it particularly rewarding taking a group of children from the inner city out into an open field and witnessing the level of enjoyment they experienced from the feeling of a sense of space that he just takes for granted.
- The OFS training and involvement in the OFS events has greatly increased his confidence in communicating with the general public.
- Organising the OFS events has greatly increased his social network. He has contacted many neighbours who he would not have spoken to. As a relative newcomer to the area, the OFS events have helped in establishing himself within the local community. It has given him “a reason to branch out and speak to people”.

David Felce, Midloe Grange Farm, Cambridgeshire

David Felce runs the family owned arable farm of 96 hectares on the Cambridgeshire/Bedfordshire border with his wife. The farm is managed in a contract farming arrangement with a neighbouring farmer. The neighbours do the cultivation and drilling on both farms and he undertakes the spraying. This arrangement was established in 2002 primarily due to the difficulties of financing machinery for such a small farm and to free up his time to concentrate on his off-farm activities. As well as working full-time on his farm, David provides the agronomy service and nutritional advice to a number of local farms. In 2009, he also set up a discussion group with local farmers involving monthly meetings on the farm in a dedicated meeting room.

The farm is all arable with the exception of a 6 hectares traditional species - rich ridge and furrow pasture field, a legacy from the days when they used to have a beef herd. The crops grown are mainly wheat, oil seed rape and usually winter beans. The crop rotation is usually 2 wheats followed by either oil seed rape or beans. They operate variable applications of P and K and undertake minimum tillage to establish first wheats. Ploughing is preferred to prepare fields for second wheats and beans and also to help reduce blackgrass populations. Rape is established with a subsoiler seeder to give good rooting whilst retaining moisture. The whole farm has been in a Countryside Stewardship Scheme (CSS) since 1992.

David first became a member of LEAF in 1998 and became a LEAF Demonstration Farm in 2000. He has always had a sympathetic approach to the environment in his farming practices and many of the principles of LEAF matched what they were trying to follow on the farm. LEAF membership has helped put more of a framework on what they were trying to do. As he sees it "LEAF promoteswhat used to be called just "good" farming. I think it doesn't mean anything is mutually exclusive to anything else. You can have a part of your business that is organic and a part that is conventional and it all fits together. It doesn't mean that you can't use technology. Sometimes the safest thing to do is to use the most advanced technology that is available. It leaves the options open and it is how you use them that you are asked to question".

Benefit of LEAF membership

Financial benefits

For David, many of the benefits of LEAF membership stem from being a LEAF Demonstration Farm. "My involvement with LEAF was the catalyst to getting a profile which could be used to open doors for other things". His exposure to other farmers through the LEAF demonstration farm and providing comments to the press on behalf of LEAF, combined with winning the Farm Sprayer of the Year competition, gave him a credible platform to sell the other services he offers, such as agronomy services and operator training. Having achieved this profile it was then up to him to use it and maintain it.

In the early years a large number of demonstration events were held on the farm. More recently he tends to receive more in-depth repeat visits. The profile he has established as a demonstration farm has enabled him to hold events for other companies, such as Environmental Agency, Bayer Crop Science, Syngenta, local distributors and City and Guilds Land Based Services. He has now converted a barn on the farm to a meeting room to host visits

As a LEAF demonstration farm he is also involved in trialling new farming practices, which can benefit his farm business and be promoted to other farmers.

Environmental benefits

David freely admits that he does not undertake the LEAF Audit annually, but he does constantly apply the principles of IFM to his farm management. The main messages he takes from IFM are the importance of advice/knowledge, planning, communication and monitoring. He has come to recognise that if these four elements are incorporated into your management then it will work. He has found that the LEAF approach encourages you to question how you manage all aspects of the farm. It has particularly led to a more optimal and targeted use of agrochemicals and an appreciation of thresholds. "LEAF makes you step back and question what you are doing and how can it be improved."

LEAF membership has certainly improved habitat management on the farm. Through the events they have done with LEAF and the people they are involved with he has gained a greater understanding of the finer workings of the biodiversity. For him, LEAF has created the situation where you can come together with other people who have that specialist knowledge. LEAF technical days provide the opportunity to get more information and adapt it to your farm.

He believes that the LEAF Audit has helped ensure that he is up to date with his regulatory requirements as it is an approach that "helps tick boxes". He may be less likely to be inspected by regulations "because they inspect by risk and if you are LEAF accredited you are probably going to drop down the list".

David hopes to enter HLS once his CSS is finished and he believes that being involved with LEAF and his approach to IFM that LEAF has brought out of him will increase his chances of success, particularly if he is also able to offer educational visits.

Social benefits

For David, being a LEAF demonstration farm has greatly extended his social network. As there is a huge amount of good will attached to LEAF whether it be from a regulatory point of view or research, the contacts he has made are always willing to help. "The people who have come together and met through LEAF have a certain acquaintance that is built on mutual feelings."

Through the use of the LEAF notice boards over the farm David believes that the local community now have a better understanding of his farming practices. The footpaths on the farm are well used as the farm is on a the Three Shires Way, a long distance path and also links into two SSSIs, one located at nearby Grafham Water, one of the largest areas of inland water in England.

CE Holt & Partners, West Sussex

John Holt is a third-generation tenant farmer in East Dean, his daughter Jo North works for him on their 400 hectare Dairy and Arable tenant farm on the Goodwood estate near Chichester in West Sussex. The dairy side of the business currently contributes the bulk of the revenue for the farm, and they have recently invested in a new dairy capable of operating with 200 head of cattle. At present there are 175 and an all-year breeding program is in place – and they are currently able to sell unwanted male calves. The dairy is milking twice daily at the moment but will be moving to a three times-a-day approach soon, which will should result in increased revenue, to an extent that an additional two people will be employed by the end of 2011. The milk is sold to Arla on a Tesco Sustainable Dairy Group (TSDG) high welfare contract, which guarantees them a good price.

The arable side of the business produces a mixture of wheat, maize, barley and rape. An increasing amount of this is kept for animal feed, and the remainder is sold to a buying pool. The dairy employs two full-time staff, with a further two full-time tractor drivers. Jo's time is split equally between the farm and the diversification enterprise and her father also works full-time across the farm. Rotations of crops are market-driven, although due to the recent expansion of the dairy a greater proportion of forage crops is used. A single crop is generally used as the soil quality is variable, and Rape is planted as a break crop. Contractors are used for tasks such as spraying, silage and bailing and a topper is shared with a neighbouring farm.

Around 10 years ago the business was seeking a suitable diversification to generate additional income. As a result of a meeting at the Royal Show, the farm diversified into Mountain Boarding, and created a centre for the sport. The 'Haredown Mountain Boarding Centre' grew to become one of the leading centres in the country for the sport. Recent changes in the economic climate however, have meant that it has not been as productive due to reduced consumer spending. Around 6,500 people visited in 2009 and the business remains profitable. It employs 12 part-time and 1 full-time members of staff. One of the benefits of the diversification is the limited infrastructure required which means that, should the need arise, the land could be returned to productive agriculture almost instantly.

The farm initially joined LEAF 18 months ago due to encouragement from Jo. The principles of Integrated Farm Management and support for Open Farm Sunday particularly appealed, however HLS was seen as a priority from a business perspective which they felt LEAF would integrate well with.

Benefits of LEAF membership

As a relatively new member, Jo has not yet conducted the audit, but believes that it would be of benefit to them. The principle benefits so far have come from various

training and support services, such as Open Farm Sunday, an area that her father was extremely keen to become involved with, and 'Let Nature Feed Your Senses'.

The farm has participated in one Open Farm Sunday and although some preparation was required and involved all staff, they took great pride and pleasure in showing off the farm during the open days to friends, family and visitors. For Droke Farm, Open Farm Sunday and the support they received was a "massive" positive impact – "getting people out on the farm, doing the training and meeting the people" proved to be a "really satisfying day, particularly for dad".

Contractors and other third parties associated with their business (such as nutritionists and agronomists) were also in attendance, which Jo believes added to the day by offering a broader picture of the business, and thus better understanding for those visiting.

They had previously opened the dairy for visitors, and there were a number of local residents who attended this and the Open Farm Sunday. This openness on the farm Jo believes helps the local community to understand the farms behaviour such as "when we combine...why we do that until midnight...3 o'clock in the morning". The local community has changed since Jo's grandfather ran the farm – a time when "many people in the village would have been employed by him", whereas now those that live in the valley are mainly retired and come from more urban areas.

"For me [Jo] probably the best thing [about joining LEAF] has been 'Let Nature Feed Your Senses'". It has enabled her to engage and communicate with a wide range of people with regard to the provenance of food – particularly milk, dispelling myths that some people believe regarding the dairy industry in a friendly and accessible manner. Consequently she has visited and had schools visit the farm, the latter being particularly enjoyable yet challenging due to the fickle nature of the British weather!

Although Droke Farm has yet to take advantage of the wide range of services that LEAF offer, Jo believes that there is "definitely scope for more" within the business particularly with regard to community relations. Jo is very interested in participating in the 'Speak Out' course and feels that the training she has participated in so far has been "very useful". LEAF notice boards will soon be in place at the farm further enhancing community relations.

As the LEAF Audit has not yet been completed – something that Jo believes her father should complete due to his broader involvement and length of experience with the business, there are many operational benefits that have not yet been realised, but eagerly anticipated. Areas that they feel they would particularly benefit are with regard to energy efficiency and water management and they are already looking into with support from LEAF.

Membership is of LEAF “a long term commitment, according to Jo, but so far “it has been brilliant”.

John Rowsell Limited, Hampshire

Situated on the Hampshire Downs, north of Winchester is West Stoke Farm – run by Nick Rowsell and his father Giles. The family had been tenants on the 300 hectare West Stoke Farm for around 70 years, but purchased it in 2006. They also rent an additional 140 hectares. In addition to this the business also contract farms a further 1200 hectares throughout the county, making this a principal component of the business. Nick employs three full-time individuals, and also someone who is approximately equivalent to 0.6 of a full-time employee at varying levels throughout the farming calendar. One further person is casually employed during harvest time. At present the farm is growing Wheat, Rape, Barley, Forage Maize, Linseed, Poppies and conservation grade Oats and Rye. Nick does not follow any set rotation routines, and would rather ensure that the business be agronomically sound, therefore his crop decisions are based on market conditions and he has to be “light on our[his] feet” to respond accordingly. This objective of this approach is to make the business as “robust” as possible to allow them to withstand “shocks” associated with weather, policy changes and prices of inputs and outputs.

John Rowsell Limited is a complex and dispersed enterprise. With land situated in two main blocks, just over half is around West Stoke Farm, the remainder is some 12 miles away, although all machinery is shared between the two sites. With such a large enterprise, there are numerous agri-environment schemes in place. There are five stand-alone Entry Level Schemes, two in the higher level and one Countryside Stewardship agreement that is nearing completion. In total around 140 hectares is in agri-environment schemes. Being a LEAF member Nick feels that such schemes are “presented in a much more practical manner”.

Nick believes that as a farming business they are progressive and at the front of the industry with regard to environmentally responsible farming – which was one of the reasons for him deciding to join LEAF. At an event Nick became aware of the organisation and thought “ah - that’s what we’re doing”, and by joining LEAF in 2002 it gave him an opportunity to implement the principles of IFM, which were of particular interest, in a more formal and less “ad-hoc” manner.

Benefits of LEAF Membership

Having been a member of LEAF for eight years has enabled Nick to implement many changes, and take advantage of the numerous services offered. One of the first things to be done was the LEAF audit, which he considers to be a “good straight forward tool” that allows him to conduct a “formal review” of the business, and is something they conduct biennially. LEAF is the “starting point” for many changes they have implemented on the farm, and has encouraged them to research further with regard to certain technologies and adaptive techniques, particularly with regard to legislation.

- The introduction of GPS soil mapping on the farm has led to targeted use of fertilisers on crops. This more efficient use of inputs has led to an estimated 15% reduction in their annual fertiliser bill despite farm size increasing – particularly beneficial given the continued rising price of such products.
- Through a combination of monitoring diesel use and minimal-tillage, fuel consumption has not increased despite the business acquiring new areas of farming land. This clearly indicates a more efficient use of fuel and as Nick put it “I would dread to think where we would be if we were doing our old style approach”.
- Humidity sensors have also been installed that control when the drying of crops occurs. It means that they are “only drying when they need to” and “not using electricity all the time”.
- Conducting the audit has enabled Nick to make the necessary changes to adapt to forthcoming changes in legislation – “when it comes to conforming to regulations...it means we are ahead of it...we’ve certainly addressed the issues even if we haven’t solved them before any regulations become statutory...certainly with pesticide... we were already going through the processes, so we didn’t have to make a massive change”. This clearly has benefits for the business and the environment.

Social Benefits

Nick has completed the ‘Speak Out’ training, and participated in every Open Farm Sunday since joining LEAF with the exception of this year, much to the disappointment of local people who had previously attended. He will be participating next year as he is keen to engage with the public, particularly with regard to educating children concerning food provenance, as the following quote highlights:

“I really love this industry and that [Speak Out] gave me a way to express it.”

- The objective of Open Farm Sunday for Nick was to engage with the local community. He initially targeted the surrounding villages in order to “build(ing) awareness of our industry” and “who we are and what we did when they went past [the farm]”. He feels that this has been particularly successful at increasing awareness of local people regarding the farm and its operations and fewer people have a negative opinion of him if they are stuck behind a tractor.
- Educating the public is also important part of the Open Farm Sunday and an incident that particularly spurred Nick on was a comment from one visitor. After having enjoyed a tractor ride around the farm they commented that they were amazed at what went on, and that “it’s just like a business!”
- There has also been successful involvement with schools. After one of many visits, Nick was asked by the local school if they could visit West Stoke Farm as part of a project the pupils were conducting regarding farming in the area. This project has since won a county prize through visiting numerous farms and “this interest all stemmed from them coming to Open Farm Sunday originally and getting in a tractor cab or stroke a lamb”.

- Open Farm Sunday also resulted in interaction with neighbouring farms. Being an arable farm, Nick invited others from the local farming community to bring livestock such as calves and lambs to add extra dimensions to the day.

LEAF membership has been the “starting point” for many initiatives on West Stoke Farm which have resulted in wide ranging benefits for the business. Nick feels that the approach to farming is critical for success on both economic and environmental fronts and that LEAF have a balanced viewpoint which will facilitate this success. Simply being a member of LEAF he believes has contributed to him obtaining additional contract farming business because of the principles it represents and that having the organisation behind you is like “invisible armour” with regard to your business and its operations. Furthermore he believes that LEAF members are “progressive and at the top of their game. It’s motivating to want to keep pace...and if you don’t grow, you die!”

Golden Plain Limited, West Sussex

Golden Plain is a horticultural business located in West Sussex, close to Chichester. The business produces high quality salad crops and supplies many of the large national retailers. Split over three farms, covering 300 hectares, Golden Plain is run by Mariella and William Fleming and has a core staff of around 25 employees, with additional casual staff of 110-120 employed between May and November. The casual staff are primarily sourced from Eastern Europe and directly employed by Golden Plain for planting and harvesting. The company also provides accommodation in the form of static caravans for the casual staff.

The business initially operated as two separate companies, however around 5 years ago these merged when Mariella's parents retired. Golden Plain became organic around 10 years ago and in 2002 was awarded the Organic Grower of the year – although they have since ceased to be organic. Following on from this, Mariella decided to focus on the various LEAF principles of Integrated Farm Management to improve their environmental performance and to give them an edge in a competitive market. They were one of the first businesses to be awarded the LEAF Marque.

Crop choice is decided by assessing current market conditions, anticipated changes in demand and historical data; rotations are managed via a variety of land swaps with neighbouring land owners who are arable farmers. There are agreements in place between the various parties to ensure that respective commitments under the various agri-environment schemes are adhered to. Seedlings are purchased and then propagated at an external company prior to planting out, as there are no greenhouse facilities on the farm.

Benefits of LEAF Membership

Although they felt that they had “quite an intensive form of farming” Golden Plain do this in an environmentally-conscious manner and are “looking after the countryside around us” to an extent that many visitors “couldn't believe that we were in an HLS scheme”. Joining LEAF and conducting the annual LEAF Audit has “pushed us a little bit further on...and every year we target a little bit more that we could put in place” thus improving environmental performance which, in turn, has benefits for the business. Oscar Wittert joined Golden Plain in 2004 and is primarily responsible for the LEAF Audit and believes it enables them to keep abreast of things, particularly environmental legislation.

- When doing the audit a number of corrective action points tend to come out and this allows them to “move forward as a business” by keeping one step ahead of changes in standards and legislation.
- An important aspect of the LEAF Audit for Golden Plain is the recording of procedures on the farm as it allows them make sure that corrective actions are

carried out and progress from year to year can be monitored and things continuously improved, which “gives you a sense of achievement”.

- As a result of conducting the LEAF Audit, the company invested in a new, more efficient cooling system, that although was a major investment, resulted in a 25% cost saving on a “very big bill”, with a payback time of 4 years.
- Meters have also been installed on the employee caravans to enable them to monitor individual use. This has encouraged a reduction in power consumption by the employees.
- Recycling has been encouraged since completing the audit and the use of packaging and suppliers is an area that “we keep looking at”. They have recently switched to cardboard packaging which is compostable, rather than plastic.
- The LEAF Audit has also encouraged diesel fuel monitoring and selective use of tractors resulting in an approximate annual saving of 10%.
- Although the farm is in a Stewardship agreement, the LEAF Audit has inspired Golden Plain to conduct and create a number of projects – such as pond creation, outside of the requirements of Stewardship.

Social Benefits

Support and training from LEAF in this area is one of the main benefits for Golden Plain. It has enabled them to “overcome that fear of engaging with the public” and media, and Mariella is now a regional coordinator for LEAF as part of the ‘Let Nature Feed Your Senses’ initiative. Over recent years there has been an improvement in ‘community goodwill’ achieved by spreading the word of what they are doing, and greater openness with the public.

- Inspired by LEAF principles, Golden Plain has created cycle paths and, in conjunction with the Parish Council, 48 allotments which have proven very popular with local residents.
- Participation in Open Farm Sunday over the past 4 years has grown from a few hundred initially, to around 700 people last year, and over 1000 this year. Interest within the local community and general public has grown, as has understanding, leading to many people “coming back year after year”.
- Joining LEAF has meant that they are “not scared to open the farm up”, generating a lot of positive feedback from those attending open days who might otherwise have a more negative view of them. Visitors often say “wow – what you are doing is fantastic!”
- Open farm Sunday has given Golden Plain an opportunity to show friends, family and the wider community what goes on here and “showcasing the farm has a very positive effect on the whole team”.

The environment has become a bigger and more important component of Golden Plain since joining LEAF and many benefits have resulted across a range of areas. It has also given Mariella a greater sense of pride that what she is doing is “very positive” and would like to achieve a “more sustainable business” - both from the

environmental and business perspectives. Combining the growing of crops with environmental work is something that she is “very excited about”.

The farm reports no additional positive results from having the Marque, specifically – it was requested by Waitrose, but they don’t feel they have benefited from it other than in retention of the existing business (i.e. no premium or additional business).

Somerset and Carlyne Charrington, Treshnish Farm, Isle of Mull

Somerset and Carlyne Charrington moved from England to their upland livestock farm on the Isle of Mull, Scotland in 1994. The farm is 730 ha with 83 ha classified as in-bye, and the rest hill grass. Somerset works full-time on the farm and Carlyne deals with the paper-work. They also have two part-time employees who deal with the holiday lets which is an important part of their business. Their 8 self-catering holiday cottages contribute to around three-quarters of the total household's income.

When they first arrived on the farm only sheep were grazed, but they re-introduced cattle in 1997. They currently have 20 suckler cows containing a mix of island bred Highland cross Shorthorn, and Aberdeen Angus and a flock of around 350 Blackface ewes on the hill and 60 Cheviot gimmers. From 1999 up until November 2009 the farm was certified organic, but in 2009 they took the difficult decision to withdraw their organic status mainly to help fight the losing battle they were encountering with bracken control across the farm, and partly because having a Whole Farm Review done identified that being organic was losing money. They continue to adopt the same organic system, and do not intend to return to using artificial fertilisers. They currently cut 12 hectares of grass for silage on a 4 year rotational system.

The Charringtons are understandably proud of the substantial improvement in biodiversity they have witnessed on their farm over the last 15 years. They entered ESA in 1995 for 10 years and CSS for 5 years. They are currently applying for to the Scottish Rural Development Programme for funding for the next 5 years. The increased level of biodiversity has mainly been achieved through changes in their grassland management. They switched to the use of non-chemical fertilisers in 1999, and cut silage after 1 August each year to allow ground nesting birds to safely rear their young, and wildflowers to set seed. Also in the winter they bring the hill sheep in to mob graze where necessary to clear up the grass. In 2009, they planted 2500 native broadleaf trees and have fenced off about 10 hectares of the farm to allow natural regeneration. They have recently received high praise from Butterfly Conservation Scotland for the biodiversity on the farm when they came to assess the variety of farm habitats.

The Charringtons were aware of LEAF before moving to Scotland. The farm in England was managed in an environmentally responsible manner and Mr Charrington met Caroline Drummond who suggested they became involved in LEAF perhaps as a Demonstration Farm. However, soon after they moved to Scotland and it was only once they decided to drop their organic status in 2009 and were considering how to reassure their holiday cottage guests that they were still looking after the environment "that LEAF seemed to fit the bill". They were also interested in improving the carbon footprint of the farm and liked the fact that the LEAF Audit took this into account. They take their carbon footprint very seriously and have installed a Biomass District Heating system, solar panels and a 6 kW wind turbine as well as adopting more energy

efficient measures, such as improved insulation, monitoring usage and energy efficient appliances.

Benefits of LEAF membership

Financial benefit

The main financial benefit of LEAF membership relates to the Charrington's self catering holiday business. LEAF membership also helps to substantiate their claim that they are a green tourism business which is also supported by the Green Tourism Business Scheme Gold Award they have received. As Mrs Charrington explains "It cuts out the "green washing" if your business is accredited. It is easy to just say that we farm in an environmentally friendly way, but if you are inspected by LEAF then it substantiates it. It will be a valuable financial benefit as we will be seen as a genuinely environmentally friendly farming and tourism business.....I think it is giving that impression of integrity".

They would like to become a LEAF Marque accredited farm but due to their remoteness are concerned about the practicalities of doing so. The only person who undertakes LEAF inspections in the area is located a whole day away. They will certainly consider it as an option if it will help their holiday lets business. They see less likelihood of any financial benefits to the farm business from LEAF Marque accreditation unless they were selling to another LEAF farmer who was obtaining a premium price for their product.

Environmental benefits

As the Charringtons have only been LEAF members for a year, it is too early to identify any environmental benefits arising from membership. They have started to carry out the LEAF Audit and believe that rather than change their farm practices it will help "tighten up the edges". In particular it will keep them up to date with legislation "It's a good vehicle to make sure that you are up to scratch with all the legislation". For them the LEAF Audit is "about tying up loose ends rather than restructuring and altering much of what we do." It will also help them to monitor their farm strategy, reduce the carbon footprint for the farm and maintain their current biodiversity value.

Social benefits

The Charringtons are not part of a local network of LEAF farmers because of their isolation. They have attended one demonstration event about climate change on the mainland recently which was useful, but attending such events is difficult for them as it generally requires an overnight stay. Also their isolation means that it is difficult to host school visits, although they have had 2 or 3 visits in the last year. There are farms closer to the school which are more suitable for such events.

The Charringtons strongly believe that their self catering business is also helping to promote environmentally friendly farming to the general public because "these people

are coming here and seeing amazing biodiversity, happy animals, tasting delicious meat from the farm out of the freezer and going home with a positive experience.” They have two blogs “Wildlife on Treshnish” and “Life on Treshnish farm” which keep past visitors involved and up to date with the farm activities and wildlife sightings on the farm.

Jon Parker, Farm Manager, Ragley Hall Farm

Ragley Hall Farm is a 1,415 hectare mixed, predominately arable farm which is part of the Ragley Estate located in Warwickshire. They grow wheat, oil seed rape and salad onions and also run their own 200 beef herd and 1,100 flock of breeding ewes where the output goes to their own butchers shop located on a tenant of the estate's farm shop.

Jon Parker was brought in as manager of the farm 8 years ago following a strategic review of the estate farm. He simplified the crop rotation and focused on increasing the efficiency of the farm but with a consideration for the environment. One of the first things he did was put margins around the fields where the productivity was already poor. They have now established around 100 km of field margins. They are also in the Countryside Stewardship Scheme.

They use the latest equipment and techniques to ensure that they can combine the best modern technology with the best traditional techniques. They have introduced GPS on the tractors and GPS soil sampling for fertiliser applications and yield mapping on the combine so that they can try and reduce their inputs.

Lord Hartford first became a LEAF member in 2000. They were approached by LEAF to become a demonstration farm and in 2006 agreed to do so. Initially there was considerable interest in the farm but there has been less activity over the last 18 months.

Benefits of LEAF membership

Financial benefits

Jon identified a number of financial benefits from LEAF membership:

- As they are a LEAF demonstration farm they are looked on favourably for hosting other events. They hold ELS days for Natural England, and host visits for NFU, CLS, farmer-study groups and other businesses who are using the Hall for conferences. These visits bring in around £2000 a year for the farm.
- Because the estate is open to the public and they have a shop, whatever the farm does to get people through the gates and raise their profile has knock-on financial benefits. The meat business, in particular, has benefited in this way and they are doing well from contracts with restaurants.
- Improvements in energy efficiency have been one of the greatest impacts from undertaking the LEAF Audit. It encouraged them to monitor how much fuel they were using and led to the installation of meters on the fuel bowsers to

identify the costs of specific field operations and to rationalise their field operations. This saves around £5,000 a year in fuel.

- Both their beef and lamb are LEAF Marque accredited. By having the LEAF Marque on their products it helps to explain their farming practices to the general public. As Jon explains “A few [clientele of the shop] ask what is this LEAF Marque and the head butcher backs us up on this and says “its farming properly whilst caring for our animals and the environment around”, which is what we do, whether we are LEAF Marque accredited or not. It is something we are doing anyway, but we have a badge that shows we are a member of an organisation that backs that up.

Environmental Benefits

Jon identified a number of environmental benefits from undertaking the LEAF Audit:

- Jon finds the LEAF Audit useful in providing a benchmark so that he can identify areas where he is on the mark and areas where he needs to do more.
- The LEAF Audit has pushed them down the route of GSP soil mapping earlier than he would have done otherwise. This has led to a better targeting of fertiliser which benefits the environment as it reduces applications to areas which already have a high nutrient status.
- In terms of crop protection the LEAF Audit has provided a blueprint for what they should be doing to limit their impact on the environment. They are now looking at using biobeds for where they fill up the sprayer.

Social benefits

Jon identified a number of social benefits as a result of LEAF membership:

- He found the Speak Out training very useful and on the back of this he is asked to give talks to local groups and to speak at conferences. “He feels confident in doing this now.”
- Another important benefit of LEAF membership is an improved relationship with the local community. As Jon explains “We have had groups round and talk to people that we wouldn’t have normally expected to talk to and it gives people a face and someone to talk to if they see something that they are not sure about. They feel more comfortable about coming to you to ask about it rather than going away and grumbling about it”.

David Clarke, Sparkenhoe Farm, Leicestershire

The Clarkes have been farming in the Leicestershire area for generations. David and Jo Clarke split away from the family farming partnership 5 years ago and now run their own 70 hectare dairy farm. They have 150 pedigree Holstein Friesian dairy cows which are producing an average yield of 8,800 litres/cow/year. Due to low milk prices they diversified in cheese making in 2005 and currently half of their milk is used to make 50 tons a year of home-made, raw milk Leicestershire cheese which is produced on the farm.

As David is kept busy making the cheese, he also has help from 3 full-time members of staff who help with the milking and tractor and stock work. They use contractors for any foraging jobs and large tractor work that needs doing.

Nearly all the land is permanent grassland and they significantly changed the way they managed their grass in last 5 years. They have replaced the use of chemical fertiliser on the grazing ground with brown water coming off the farm. They now almost never roll the grassland and the grazing ground is just spiked and chain harrowed in the autumn. On the mowing ground they apply farmyard manure in the winter and spike and chain harrow in the spring. The whole farm is in both the Countryside Stewardship Scheme and Entry Level Scheme.

The Clarkes became LEAF members 3 years ago for two reasons. Firstly, they believe in the balanced approach to farm management that LEAF promotes and by becoming LEAF Marque accredited they were getting an endorsement for the IFM practices they were already undertaking. The second reason is that they sell their cheese to Waitrose, although it is not actually a requirement of the contract to be LEAF Marque accredited.

Benefits of LEAF membership

Financial benefits

David identified a number of financial benefits stemming from LEAF membership:

- The Clarkes had the Waitrose contract for their cheese before they became LEAF members. Although LEAF Marque accreditation is not required by Waitrose and they have never asked for it, the Clarke's feel that it may help secure their contract in the future.
- The LEAF Marque is used on their own label cheese which they sell at farmers markets and shows. When promoting the cheese, the LEAF Marque is useful in telling the story of the cheese and is part of their unique selling point.

- The LEAF Audit has made them more aware of energy efficiency on the farm. Following a carbon audit, they have stopped using a hot wash in the parlour in the afternoon, which has resulted in cost savings. They are currently considering several ways of reducing energy use around the farm.

Environmental benefits

- Although they were already environmentally-aware, David believes that being a LEAF member has “helped changed my attitude to the environment and helped cement some of those ideas in my head. It has progressed my attitude to environment, rather than let it get stale”.
- David agrees that being a LEAF accredited member may bring some peace of mind when it comes to regulatory inspections. Although he has yet to be inspected, he feels that “if someone turned up on the farm and lambasted me for being wrong I will say “I’m a LEAF member” and that might make a difference”.

Social benefits

- David has found the LEAF demonstration events useful in developing the knowledge base of his staff. He took two members of staff to a demonstration farm event which helped them to understand the direction in which he wanted to take the farm. For example, “there was talk about bumble bees and if I put a bumble bee plot in now they will understand why I want to do it.”
- The LEAF Audit has reinforced their policy of buying feed locally, and as a result they have met more local neighbours from sourcing field beans locally. Also LEAF membership has increased their network within the farming community nationally. By attending LEAF events, such as the AGM and gala dinner, they have met people who they would not have otherwise met. They have met some great characters and inspirational people, who may be useful to know one day.
- Although the Clarkes are used to dealing with the general public, having conducted school visits on their farm for many years, David found the LEAF Speak Out training CD very useful in learning how best to communicate with the general public and the media. He currently gives one or two talks a month as well as the school visits. As he says “I’m proud I’m a LEAF member and I also tell people. It gives you a positive attitude which I think rubs off on people and indirectly I may get some return from it if people understood about LEAF, and as a member it is my job to make people understand”.

Alice Townsend, Newbottle Estate, Northhamptonshire

The Newbottle Estate is 650 hectares, with 350 hectares in arable and the rest in grass and woodland. The farm's arable enterprise is run as part of a joint venture with three other farmers. They also have a suckler herd comprised of 130 Aberdeen Angus and 20 Longhorn cows and a finishing unit. They own an 80% share in a butchers shop in the local Market town which they purchased in 2006 which is an exclusive outlet for all their beef.

The Estate is run by Mr John and Lady Juliet Townsend and their daughter, Alice, carries out the day to day management. Alice Townsend has been the principal farmer on the estate for 2.5 years and works on the farm full-time. She also has help from a full-time stockman and a placement student. The estate has 6 full and part time gardeners who also help out on the farm at busy times. They use contractors for silage and straw-making and baling and for muck-spreading.

The farm underwent a strategic review in 2005 and has been in a constant state of change ever since. The year Alice started not only was she new, but they also had a new tractor driver and agronomist. At the same time they started the arable joint venture company which now jointly farms about 3500 acres. This joint venture and has produced many benefits including reduced machinery costs, better crop quality as well as ~~and~~ more camaraderie and less stress at harvest-time. They changed rotation from 5 years to 4 dropping the second wheat as it was proving expensive to grow and poor yielding. They have also changed their beef breed, increased the size of the suckler herd and started finishing beef to sell to the butchers shop. These changes mean they are now structurally stronger to respond to any changes in financial support.

Alice's great grandfather started the farm in 1905 and Alice is the first family member to actually farm the estate. The previous generation were not practical farmers, but were very keen on conserving the conservation value of the farm for recreational activities and as a result resisted pressure to intensify production during the 60s and 70s. Consequently the farm now has a high conservation value. Bidwells, who were managing the farm at the time, viewed the Estate as "natural candidates" for LEAF membership as their farming philosophy of ensuring the highest welfare standards for their stock and producing quality crops in a sustainable and environmentally friendly way, matched that of LEAF's.

Benefits of LEAF membership

LEAF Audit

Alice has undertaken around two thirds of the LEAF Audit and although she it is not fully completed she believes "it [the Audit] has done its job, it makes you think about the things that you might not have thought about". It has made her have a more holistic view of the farm and to consider previously overlooked aspects of the farm.

In particular, it has made her think about water usage on the farm. As she explains “As we don’t have irrigation I never even thought about how much water we used, why measure it when you have to use it anyway? The LEAF Audit asks, do you know where your water meters are? do you know if they are leaking? how much do you spend on water? why does that trough cost you £70/month”. As a result she has recently compiled a list of all water meters on the farm and recorded their location. It has made her consider alternative ways of feeding the troughs rather than using mains water. Another area they are starting to look at is improved energy efficiency options for the farm.

Having attended a LEAF technical day they have given more consideration to their waste management. As they operate a deep litter system they produce minimal slurry but it did make them question whether there was a risk of slurry making its way to the stream. They have started to plan the installation of sediment ponds to reduce any risk of increased sediment in the stream.

Open Farm Sunday

The Newbottle Estate has been involved in Open Farm Sunday for the last four year. They view it as an event to increase the understanding of the surrounding villages and therefore restrict advertising to their local village. As Alice explains “Our interest for doing it is to try and make sure people know what is going on over the hedge next to their garden to reduce the amount of complaints from dust blowing into their house etc. So that people can understand a bit more about what we do, because we do disrupt people in the village, because we stop the traffic to move the cattle or there are tractors going around at harvest. People are a bit more patient if they know what you are doing”. Also from a health and safety point of view, they explain to the children some of the dangers on the farm. People always really enjoyed the events and even those in the joint venture company, who are generally reluctant to deal with the general public, enjoyed displaying their farm machinery.

These events have changed her opinion of the general public from being a nuisance (they have many access issues on the farm), to feeling more a part of community. They have the LEAF notice boards, but have yet to put them all up but she believes that they will be useful in encouraging the public to keep to footpaths.

Alice finds that she often uses LEAF when trying to defend the farming industry to her non-farming acquaintances. She is able to explain that their farm is neither an industrial intensive unit or organic, but that they still care about the environment and spend a considerable amount of time looking after it. As she says “it’s quite good to have a name for what you do”.

Alice believes it important that LEAF has a greater appeal to the commercially-driven farmers as these are the ones who will make the biggest difference if they you can be persuaded to change their ways. She feels that LEAF needs a greater focus on more practical, technical solutions for some of the problems these farmers are facing. For

example, she has been thinking about water harvesting but is unsure how to implement it within the limitation on her farm, such as moss growing all over the roofs which could block up tanks and sprayers. She suggests that technical days on Demonstration Farms should focus on one particular aspect that farmers do not often consider, such as water usage, energy efficiency, or soil so that they can obtain real solutions to the real problems they are facing.

Jon Hammond, T Hammond & Sons, New Farm, Nottinghamshire

Jon Hammond is a fourth generation fresh produce grower based in Nottinghamshire. Over the last seventy years their farm on the outskirts of Nottingham has grown from 120 hectares to 690 hectares, of which 400 hectares is owned, around 200 hectares is tenanted and around 90 hectares on annual rental agreements. On this land they produce around 160 hectares of cereals with the rest used to grow fresh produce in a variety of rotations across very different soils. The produce grown includes potatoes, carrots, leeks, parsnips, a range of brassicas, rhubarbs, asparagus, onions, with some organic produce in the mix.

The Hammonds are founder members of Sherwood Produce, an 8-member producer group farming 6,500 hectares across the East Midlands, including a packing house based on their farm. It supplies ASDA, Morrisons, Tesco and other retailers.

The farm has always been managed in an environmentally-responsible manner, mainly driven by Jon's father, Bill Hammond, whose view of the land is one of stewardship "He is quite philanthropic in his attitude towards the environment". They have been involved in a number of hedgerow regeneration, woodland planting and pond regeneration schemes across the farm and are currently in the Entry Level Stewardship scheme. A recent RSPB bird survey found 63 birds species on the farm, 9 of which were on the Red List.

Benefits of LEAF membership

LEAF Marque

LEAF Marque accreditation has a central role across all of their business in an unconventional way. The Sherwood Producer Group has adopted the LEAF Marque as their benchmark across the whole group. LEAF Marque accreditation was made a prerequisite for joining the group in 2005. There is no equivocation from any member as to whether it is fair; it is taken as standard, even though some farms find it easier than others. As Jon explains "Even though the customers are not demanding it, it has given us a standard in terms of environmental quality, Integrated Crop Management and integrated collaboration and co-operation".

Although Jon was unable to identify any tangible financial benefits as a result of LEAF Marque accreditation, he does believe that their involvement with LEAF has strengthened their relationship with Morrisons. Through LEAF they hosted the Morrison Lets Grow initiative and were only one of two involved in the pilot scheme. This involvement with the scheme and the public relations and marketing opportunity it gave Morrisons has helped cement their relationship.

Also the LEAF Marque accreditation helps with the many other audits they have to take. "For our food manufacturing customers as soon as you say you are LEAF

accredited half of their audit is just tick, it's done. It doesn't matter who you are speaking to, whether it is a multiple retailer direct or a major food manufacturer supplying those major multiples, as soon as you say you are LEAF mark accredited everything else goes away".

LEAF Audit

They self-audited for the first 2 years and have been audited for their LEAF Marque accreditation for the last 5 years. The audit has become progressively easier over time. As Jon explains "The first year everyone goes into meltdown, then once you have done it for one or two years you get to understand it and then it becomes policy. By year 3 there is even less to do because you are doing it as a matter of course and then it becomes the norm."

Jon identified a number of changes made on the farm as a result of undertaking the LEAF Audit:

- The LEAF Audit prompted changes to their existing quality and environmental statements. As a result of undertaking customer audits for major supermarkets for many years they already had quality and environmental statements in place before becoming LEAF members. The LEAF Audit made them look more critically at the content of these statements and where they were rather vague, for example "our policy is to farm as sustainable as we can" they provided more specific details.
- The Audit made them examine the sustainability of their water policy and whether they were using their borehole efficiently. This questioning led to the introduction of more efficient irrigation systems, such as trickle irrigation which reduced the volume of water usage by 30% for the same level of irrigation.
- The LEAF Audit prompted them to develop an energy policy as this was one policy that was missing. As Jon explains "LEAF didn't have the answers, but it did pose the questions in a more searching way and we had to go off and look for the answers to the questions". They have now introduced many energy efficiency measures, such as convertors for the boreholes and cold stores, energy efficient light bulbs and light sensors on all outside lights. Five years ago they went a step further and started producing biodiesel as part of the group activity to reduce their carbon footprint. They are now running 5 vehicles and the power for the packing plant off pure plant oil. Their costs have come down as a result of these energy efficiency measures, but they are hard to quantify as over the same period their turnover quadrupled.

Environmental benefits

LEAF membership has made them more sympathetic to the environment at specific times of year. For example previously they would have ploughed up all their winter cabbage at the end of harvest in March/April. Now, they leave the last field of 10 – 12 ha of cabbage stalks to allow them to re-grow and flower into the second year before ploughing which attracts insects and birds. Also they leave some of the heavier land in the middle of the farm in fallow for longer to provide a habitat for lapwings.

Jon believes that a certain amount of the 63 species of birds recently recorded on the farm could be attributed to LEAF and the way they operate the farm. Whilst some of the conservation activities would have happened anyway, he explains “It is what happens around the conservation activity i.e. the commercial farming bit, the way that has been honed alongside the LEAF brief has certainly helped the harmony between the two”.

Social benefits

The Hammonds have hosted many LEAF generated farm visits, including the Morrison Let Grow scheme, a group of Bangladeshi ladies and groups of school children. They have considered Open Farm Sunday but are rather nervous about their close proximity to the town. As Jon explains “There is a bus route at the end of the drive and three quarters of a million people at the end of it!”

The Hammonds derive a great deal of pleasure from hosting farm visits. As he explains “Passing an audit is great, but when you have 30 school kids who can’t focus on a three quarter an hour maths lesson and come here for 3 hours and are absolutely enthralled and enthused by everything. We are quite passionate about what we do and somehow we are able pass on that passion to the kids. What we do for a living is interesting and exciting to other people and we get an opportunity to share that”. From an industry perspective, Jon believes that the more that farmers can encourage the general public out onto the farm and reconnect them with where their food comes from, the better, as over the last 20 years people have forgotten.

Jon believes he now knows more people as a result of attending numerous LEAF Demonstration Farm events and other LEAF events. He enjoys speaking to like-minded people and has learnt much from the LEAF Demonstration farmers. Although they did not join to have a large political and social network this is now becoming an important part of their LEAF membership as they become more involved. “We are not at every event, we do what we can, to be as involved as we can and that gives us access to fairly influential people”.