

LEAF - inspiring and enabling sustainable farming

A review of our global impacts 2014



LINKING ENVIRONMENT AND FARMING
Integrated Farm Management

LEAF (Linking Environment And Farming) is the leading organisation delivering more sustainable food and farming. LEAF works with farmers, the food industry, scientists, environmentalists and consumers to inspire and enable sustainable farming that is prosperous, enriches the environment and engages local communities. LEAF promotes Integrated Farm Management (IFM), a whole farm business approach that delivers sustainable farming.

Our vision ... a world that is farming, eating and living sustainably

Our mission... to inspire and enable sustainable farming that is prosperous, enriches the environment and engages local communities.

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Foreword	4
Executive Summary	5
Measuring LEAF's Impact	6-8
Market Development	9-10
IFM Farm Sustainability	11-20
LEAF Audit Performance Scores	21-22
Theory of Change	23-25
Moving Forward	26
LEAF: Who we are, what we do	27

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Foreword

Welcome to LEAF's second impact report 'LEAF – inspiring and enabling sustainable farming - A review of our global impacts 2014'.

Last year was the first time we had published a formal, quantitative evaluation of our performance and the impact of our work. It was very much a starting point, but it has served to set an important 'marker in the sand', pointing out how LEAF is delivering its mission to 'inspire and enable sustainable farming that is prosperous, enriches the environment and engages local communities'.

We believe it is absolutely critical to carry out data-driven monitoring and evaluation to ensure we, as an organisation, remain robust and accountable and to demonstrate the impact our members are having on the delivery of sustainable agriculture, through their adoption of Integrated Farm Management. Our members and stakeholders, rightly want to know that their support is contributing to improving the status of the farmed environment and bottom line productivity. This report aims to inform them about the efforts that producers involved in LEAF, through their adoption of Integrated Farm Management, are making towards a more sustainable global agriculture.

Our membership of the ISEAL Alliance underpins our credentials around our monitoring and evaluation processes, helping us to develop robust systems to measure our impact and demonstrate our performance. We aim to continually improve our impacts and demonstrate our commitment to good practice. Our journey to this end has only just started.

In developing this year's report, we have acted upon feedback in four key areas: we have developed a smaller set of key indicators; presented comparisons with wider industry performance; included independent verification and finally, demonstrated the impact of these measures. We have also developed a new approach to communicating our impact – including new headline indicators based on the key attributes identified from the LEAF Audit.

There is a great deal to be encouraged by. It is clear that LEAF Marque producers and our members across the globe are making great strides in farming sustainably and reaching out to consumers. But there is much more still to be done. There is no doubt that the future will present its challenges, but there are significant opportunities as well.

We will continue to develop better ways to monitor and measure the impact of what we do in our pursuit of our vision of 'a world that is farming, eating and living sustainably'.



A handwritten signature in black ink, appearing to read 'Caroline Drummond'.

Caroline Drummond MBE
Chief Executive

The aim of this, our second global impact report, is to show the difference LEAF and our members are making to the delivery and uptake of sustainable farming across the world. Our monitoring and evaluation programme aims to provide a robust and transparent foundation for evaluating LEAF's effectiveness in delivering its mission.

This year's report clearly shows that LEAF's farmer members and LEAF Marque certified producers are making significant progress in their overall farm sustainability performance. Adoption of best practice continues to grow in soil and water management, energy efficiency, enhancement of biodiversity and community engagement. We also see a huge commitment to improving skills and on-going training in Integrated Farm Management.

In addition, results show our growing global and crop reach. In the UK, more than 22% of horticultural crops by area grown are produced to LEAF Marque standards. Globally, LEAF Marque coverage increased by 31% in 2013, with some 90% of this cropped area being in the UK, France, Spain, Egypt and South Africa. Furthermore, recognition of the LEAF Marque logo amongst UK consumers now stands at 9%.

Whilst we have seen an overall increase in total area of land growing LEAF Marque crops, our focus is still concentrated in cereals, fruit and fresh produce. Clearly, there is a lot more we can be doing in other sectors. Similarly, we report an impressive growth in the number of recorded livestock covered by LEAF Marque during 2013 across the globe. In the UK however, only 0.03% of the livestock total is LEAF Marque certified. There is much potential here for growth and we will look to working more closely with our members and other farmers in this area.

LEAF members and LEAF Marque certified producers are making steady progress towards more sustainable farming practices, by embracing Integrated Farm Management practices. Our focus now is to help maximise the economic benefits of the huge variety of public goods they deliver – in the form of water, landscape, biodiversity, access and mental health benefits. LEAF is extremely well placed to support farmers to do just this.

KEY FINDINGS

The area of land around the world, growing LEAF Marque crops increased by 31% overall in 2013 to 247,053 hectares.

The number of countries where we have LEAF Marque certified members increased by 14% in 2013 up from 29 to 33.

During 2013, the number of LEAF Marque certified producers grew by 6.6%, from 896 to 955

Significant increase in the percentage of UK fruit and vegetable crop area under LEAF Marque – up by 22%.

A huge increase in the number of staff participating in regular IFM training sessions – up by 110%.

Globally, there was impressive growth in the number of recorded livestock covered by LEAF Marque during 2013 with numbers increasing by 136% to 117,159 head of livestock.

A 46% increase in LEAF Marque crop area where beneficial wildlife is protected and supported and a 36% growth in the hectares of LEAF Marque crop area under a Whole Farm Conservation Plan.

Increases in hectares of LEAF Marque crop area being 'carbon footprinted' (up by 97%), where energy consumption is being monitored (up by 41%) and where water efficiency is being measured (up by 41%).

Steady improvement in the overall 'sustainability score' of LEAF farmers completing the LEAF Audit.

56.3% of those completing the LEAF members' questionnaire (2014) stated their businesses were more economically sustainable than five years ago.

Measuring LEAF's Impact

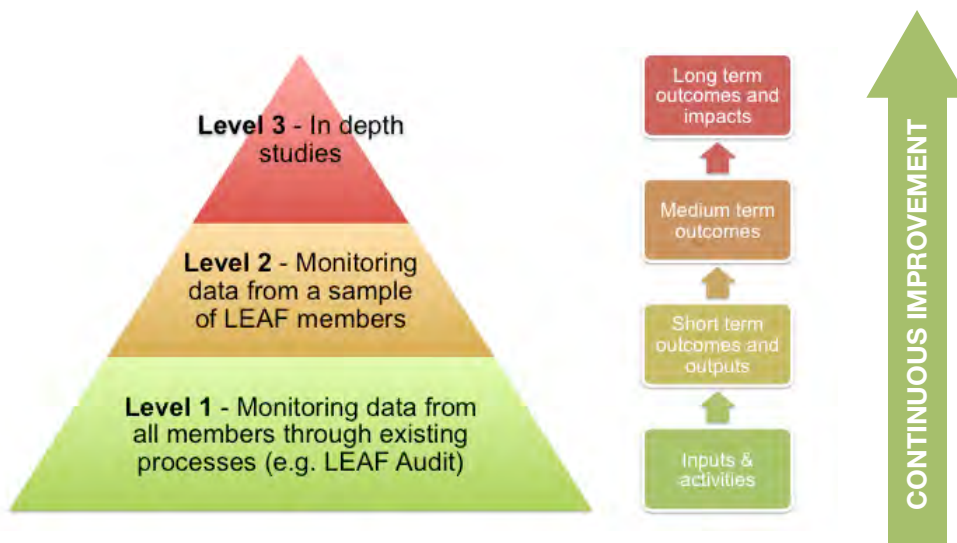
We have come a long way in a short time from our first impact report in 2013, 'LEAF: Driving Sustainability'. Most significantly, in our methods and reporting style. For this year's report we have built upon the feedback received from many food and farming experts across our advisory and technical committees and focused on:

- Fewer, more specific indicators
- Meaningful and measured impacts
- Independent review

The changes in these areas have led to a more concise, accurate and robust report. As an associate member of the ISEAL Alliance¹, we have adopted a best practice approach to monitoring and evaluation. For the purposes of this research we have used a number of key resources from ISEAL, including the ISEAL Core Indicators and ISEAL Impact Code to develop our own set of sustainability indicators (see Table 1). The use of these resources and LEAF's membership of ISEAL has helped our reporting to achieve new levels of credibility.



Figure 1: ISEAL data collection pyramid



This report is structured around two main areas of LEAF activity, market development and farm sustainability, and presents results of LEAF's impacts in these areas.

Our approach for this report draws upon LEAF's self-assessment Audit, completed by LEAF members, and LEAF Marque certification data. This data has been supplemented with a further questionnaire to ascertain LEAF members' views of their farms' sustainability (see Table 2). This method is represented in the data collection pyramid, a visual representation of the three levels of data collection that has helped ensure that monitoring occurs across all three levels from inputs to impacts (see Figure 1).

Table 1: LEAF Sustainability Indicators (based on ISEAL recommendations)

Activity area	Indicator name
Market development	Area of crop under LEAF Marque (Hectares)
	Percentage of UK fruit & vegetable crop area under LEAF Marque (including potatoes)
	Number of crops available from LEAF Marque sources
	Number of livestock under LEAF Marque
	Percentage of UK livestock population under LEAF Marque
	Number of countries with LEAF Marque producers ²
	Number of LEAF Marque producers
Farm sustainability performance³	Hectares of crop with Farm Environmental Policy
	Number of staff participating in regular training on Integrated Farm Management
	Hectares of crop under Soil Management Plan ⁴
	Hectares of crop where nitrogen efficiency per tonne product is measured
	Hectares of crop under Crop Protection Policy
	Hectares of crop where beneficial wildlife is protected and supported
	Hectares of crop carbon footprinted
	Hectares of crop with Pollution Risk Assessment action plan
	Number of head of livestock under a livestock health plan
	Number of producers complying with organic & animal waste storage best practice
	Hectares of crop managed by producer who is monitoring farm energy use
	Number of producers who have had had energy efficiency audit carried out
	Hectares of irrigated crop where water efficiency is measured
	Hectares of crop benefiting from increasing stored water from periods of rainfall abundance
	Hectares of crop under Whole Farm Conservation Plan
	Number of producers with minimum 5% of land for non-crop wildlife habitats
	Number of visitors on farms participating in Open Farm Sunday ⁵
Number of school children visiting Open Farm School Days ⁶	

¹ ISEAL is a non-governmental organisation whose mission is to strengthen sustainability standards systems for the benefit of people and the environment.

² Corporate, individual producer & producer groups

³ Currently covers LEAF Marque producers only, unless stated. This is due to lower data coverage and availability for all LEAF members. Indicators based on the nine elements of the IFM Wheel.

⁴ This LEAF Audit requirement was not similar enough in 2012 to enable fair comparison

⁵ Includes LEAF and non-LEAF members (i.e. anyone can participate in Open Farm Sunday)

⁶ New initiative in 2013. As above, this includes LEAF and non-LEAF member farms

Measuring LEAF's Impact

Table 2: Key data used in the LEAF Monitoring and Evaluation Report

Production data	Hectares of production by crop type
Member information	Information on member businesses e.g. size, staffing, joining and leaving dates
LEAF Audit data	Member-level data on audit responses to key audit questions
Questionnaire to LEAF Members	LEAF's Sustainability Survey 2014 to ascertain LEAF members' perception of their farms' sustainability.

This report is an important step in the right direction for LEAF and provides a significant development in robust performance indicators for monitoring the practical application of sustainable farming, but we have much to do over the next few years to further improve the quality of our reporting, through for example in-depth studies. We aim to be a leader in effective communication of standard system performance and measuring sustainability, and believe that there is much to gain from improved understanding of LEAF's impact in delivering improved farm sustainability through Integrated Farm Management.



The LEAF Marque is an assurance system recognising more sustainably farmed products. It is based on LEAF's Integrated Farm Management (IFM) principles. All LEAF Marque certified farms are independently inspected.

LEAF Marque was introduced in 2003 to provide the food chain with a standard system that would prove that farmers are producing in a more sustainable way. It gives farmers recognition for their environmental commitment and offers consumers the opportunity to buy affordable, responsibly produced food. Since then it has been adopted by a range of major supermarkets, food companies and individual suppliers adding a significant value to their businesses while protecting and enhancing the environment. LEAF Marque farmers are certified by established and accredited third party certification bodies experienced in food and environmental assurance.

LEAF Marque originated in the UK, but now operates across the world in over 30 countries. In 2013, more than three quarters of the area grown under LEAF Marque protocols was in the British Isles, with Southern Europe the second largest region (see Table 1). Within that region, Spain had 13,958 hectares of LEAF Marque certified land during 2013, with France at 11,282 hectares (see Table 2). This increase is in part due to the sourcing requirement of Florette across its European operations.

Table 1: Areas of LEAF Marque cropping in different regions of the world

Growing region	Area under crop (Ha)	Percentage of total
British Isles	188,996	76.5
Southern Europe	17,820	7.2
Northern Europe	12,397	5.0
North Africa	8,034	3.3
South America	4,912	2.0
Southern Africa	5,111	2.1
Eastern Africa	3,184	1.3
Middle East	1,295	0.5
West Africa	1,423	0.6
Other	3,833	1.6
Total	247,053	

Table 2: LEAF Marque by country 2013 largest (by ha cropped) LEAF Marque countries

Country	Area under crop (Ha)
United Kingdom	186,989
Spain	13,958
France	11,282
Egypt	6,336
South Africa	5,111
Peru	3,804
New Zealand	3,274
Italy	2,670
Channel Islands	1,934
Mozambique	1,725
Kenya	1,409
Morocco	1,135
Portugal	1,124
Senegal	1,054
Chile	743



Area of land growing LEAF Marque crops up 31%

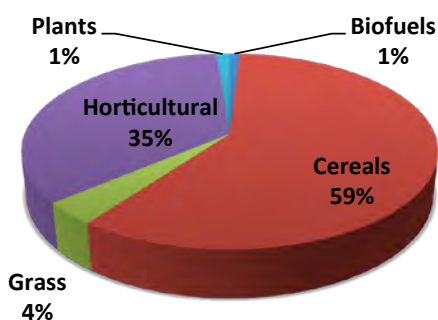
The area of land growing a LEAF Marque crop increased by 31% overall in 2013 to 247,053 hectares (see Table 3). This increase is due to better and more accurate data collection and also the impact on our partnership with ADM and Unilever where we have had an increase in UK farms certified growing combinable crops that are, on average, the larger farms that grow oil seed rape under contract. The number of countries where we have LEAF Marque certified members increased by 14% in 2013 up from 29 to 33. The total number of LEAF Marque producers increased by 7% from 896 to 955. The percentage of UK fruit and vegetable crops grown under LEAF Marque broke through the 20% mark for the first time during the year with the jump from 18% of the total to 22% of the total representing a 22% increase. Despite the increase, there is still massive potential for an increase in the area farmed to the LEAF Marque standard.

For some crops the proportion is much higher including 94% of British grown leeks and 73% of British grown lettuce. However, there was a 5% drop in the number of the total number of crops available under the LEAF Marque, but this still shows a large and diverse range.

LEAF Marque is concentrated in cereal and horticultural crops with five crops accounting for 58% of the UK total – wheat, potatoes, oilseed rape, lettuce and barley. Globally, there was impressive growth in the number of recorded livestock covered by LEAF Marque during 2013 with numbers increasing by 136% to 117,159 head of livestock – from ducks to dairy. But that needs to be put in context as it still only represents 0.03% of the UK livestock total meaning that there is still massive room for growth in the livestock sector. There was also a growth in the hectareage of land under biofuel production.

Table 3: LEAF Marque Development 2012 to 2013			
	2012	2013	Change
Global area of crop under LEAF Marque (Hectares)	187,883	247,053	+31%
% of UK fruit & vegetable crop area under LEAF Marque (including potatoes)	18%	22%	+22%
Number of crops available from LEAF Marque certified farms	137	130	-5%
Number of recorded livestock under LEAF Marque	49,577	117,159	+136%
% of UK livestock population under LEAF Marque	0.03%	0.03%	No change
Number of countries with LEAF Marque producers	29	33	+14%
Number of LEAF Marque certified producers	896	955	+6.6%

Figure 1: Share of cropped areas grown by LEAF Marque members across the globe



LEAF's approach to delivering a world that is farming eating and living sustainably

LEAF's approach to driving more resilient and sustainable farming systems, is based on the Integrated Farm Management (IFM) wheel of nine inter-related elements that together deliver **improved economic performance that protects and enhances the landscape, biodiversity and environmental resources**. Because farmers are producing goods and services that are consumed by millions of members of the public, a key element of the LEAF approach is **developing community engagement** either through direct relationships between farmers and the public or through the assurance that food produced to the LEAF Marque standard gives.

LEAF farmers aim to combine the best of modern farming technology with traditional methods of husbandry to improve their businesses. The LEAF Audit and LEAF Marque use assessment systems that allow the farmer to track their farm management decisions, giving credit for what they are doing and identifying areas for improvement.

This year has seen continued improvement by farmers despite challenging climatic and market conditions. More farmers appear to be realising that if they are to thrive in a business environment of increased price and weather volatility, then they need to have a coordinated approach to how they manage their business and improve their performance over the long term.

The nine sections of the LEAF IFM wheel are:

- Organisation and Planning
- Soil Management and Fertility
- Crop Health and Protection
- Pollution Control and By-Product Management
- Animal Husbandry
- Energy Efficiency
- Water Management
- Landscape and Nature Conservation
- Community Engagement

Within each of the nine sections we have drawn from, and built on, the LEAF Audit data to track the **qualitative** performance of our members. We have also looked in more detail at the overall farm performance of LEAF Marque growers, a significant sub-group of our membership, that have independent, external verification on an annual basis. In addition we have carried out a members' survey to identify their degree of confidence relating to their business and sustainability.



LEAF's Integrated Farm Management Wheel

Together all these figures build up a picture of LEAF's overall impact and in the nine key areas covered by the IFM wheel. During 2013 we have seen the number of LEAF Marque certified producers grow by 6.6%, from 896 to 955, with all but one area (number of animal in a livestock health plan) showing a significant increase.



Organisation and planning

LEAF member advice: “Regularly review all aspects of your farming and processing operations.”

The financial, legislative and staff demands on farm businesses continue to intensify as farming businesses become larger and are required to deliver more environmental and social goods and services alongside healthy crops and livestock. Under the next phase of the Common Agricultural Policy for European Union farmers, to be introduced at the start of 2015, farmers will have to carry out new environmental measures to receive 30% of their payment including the growing of three crops for arable farmers. This will require extra organisation and planning and will have an impact on rotations, choice of crops and the resulting economic viability of farm businesses due to the addition of marginal crops.

Across the world, farmers need to structure their businesses to ensure they are resilient against a backdrop of changing climate, increasing populations and more global competition. This year they will face the additional challenge of the El Nino weather pattern.

Good organisation and planning is at the heart of any successful business. It allows resources to be deployed as effectively as possible and a long-term vision of how the business is to be developed.

Organisation and planning LEAF Marque indicators					
	2012 Result	2013 Result	Change	2012 member average	2013 member average
Hectares of crop with Farm Environmental Policy	140,550	200,311	+43%	157ha/member	210ha/member
Number of staff training sessions on Integrated Farm Management	26,969	56,573	+110%	30/member	59/member

Two key LEAF Marque indicators in the organisation and planning section are: area grown under a Farm Environmental Policy (FEP) and the number of staff participating in regular IFM training sessions. There were significant improvements in each of these sections in 2013 with the area grown under a FEP up 43% over the year, representing an average increase of a third per LEAF Marque member to 210 hectares per member. There was also more than a doubling in IFM staff training sessions in the year to 59 per LEAF Marque farm.

The LEAF members’ sustainability questionnaire in early 2014 found that 56.3% of respondents said their businesses were more economically sustainable than five years ago, with 19.3% saying they were less sustainable. However, respondents who classed themselves as advisors, agronomists or consultants were less confident about business performance. Of them only 28.6% said businesses were more sustainable and 42.9% said they were less sustainable.

In the survey, respondents focused on financial measurements, such as: net worth; profitability and return on capital, as key financial sustainability measurements, although a few mentioned indicators, such as staff retention and profit per hectare.

Soil management and fertility

LEAF member advice: “You can have the best cows in the world, but if the soil structure is not right, you won’t give them the grass they need.”

Soil is the essential medium that allows the production of crops. Skill is needed to enhance the natural fertility of soil to allow it to produce high yielding and quality crops while improving soil structure. The International Plant Nutrition Institute says a long-term US study estimates that wheat yields would decline by 40% without regular nitrogen and phosphorous applications, but to maximise yields and minimise greenhouse gas emissions farmers have to use fertiliser wisely as well as enhance the physical and biological quality of their soil. This is a key aim for LEAF farmers who are often using the latest technology and techniques developed by the fertiliser industry. There are two elements to LEAF’s approach to soil fertility and management – improving soil health and enhancing nutrient management efficiency.

Soil management & fertility LEAF Marque indicators					
	2012 Result	2013 Result	Change	2012 ha/member	2013 ha/member
Hectares of crop under Soil Management Plan	N/A	193,933	N/A	N/A	203
Hectares of crop where nitrogen efficiency per tonne product is measured	72,186	107,361	+49%	81	112

Soil Management Plans (SMP) is now an important element of the LEAF Marque. Last year was the first time that number of hectares under SMPs was collected. During the year nearly 194,000 hectares were under such a plan with the average area per member at 203 hectares. Measuring the nitrogen efficiency of every tonne produced is a useful indicator of true fertiliser costs and potential greenhouse emissions. The information allows farmers to develop strategies to maximise production from fertiliser inputs and reduce emissions. During 2013 the area where nitrogen efficiency was measured increased by nearly 50% to 107,000 hectares. The average area per member increased by 38% to 112ha/member which means that not only are more members measuring nitrogen efficiency, but those who have already been doing so are increasing the area they monitor.

LEAF advice on more sustainable soils can be found at: www.leafuk.org/leaf/farmers/simplysustainablesoils.eb



Crop health and protection

LEAF member experience: "We are reducing the use of pesticides on our farm."

Climate change, international trade and pressure on production increase the risk of pests, diseases and weeds that threaten crop yields and output. More than US\$50 billion is spent on crop protection products every year across the world and their use is essential for producing crops. Targeted application of agrochemicals allows crops wildlife, soil and water resources to be protected.

LEAF uses the Integrated Pest Management approach to crop health and protection and members are required to devise a Crop Protection Policy. IPM promotes the effective and environmentally sensitive control of weeds, pests and diseases and is a key indicator for LEAF Marque growers, alongside the area of crop where beneficial wildlife is protected and supported.

Crop health and protection LEAF Marque indicators					
	2012 Result	2013 Result	Change	2012 ha/member	2013 ha/member
Hectares of crop under Crop Protection Policy	154,070	211,420	+37%	172	221
Hectares of crop where beneficial wildlife is protected and supported	141,020	206,470	+46%	157	216

LEAF Marque farmers have always taken good pesticide stewardship very seriously and although the improvement in 2013 was less significant than in other areas, the 211,420 hectares under a Crop Protection Policy (CPP) is the largest area of any of the LEAF Marque indicators. There was a 37% increase in the area in CPPs with the area involved per member averaging 221 hectares, an increase of 28.5%. The area where beneficial wildlife is protected and supported was up 46% to 206,470 with the average area per member up 38%.

LEAF has published a guide to protecting pollinators – Great habitats, more flowers, better protection. See <http://www.leafuk.org/> for more information.



Pollution control and by-product management

LEAF member advice: "Establish and improve silt traps, bio-beds and washdown areas."

The farming industry produces by products from livestock and crop production and uses inputs that if leaked, can become pollutants. However, it also has a significant role in reducing carbon emissions and using waste to generate energy. Defra figures show that farming and fishing emits 55 million tonnes of carbon dioxide equivalent a year. UK Government agency WRAP estimates that 15 million tonnes of food and drink is wasted through the food chain every year with 4.4 million tonnes of that avoidable. However, there are concerns about the methods of these calculations and much of the real change in waste is around the attention to detail delivered on farm.

Two key pollution control indicators in the LEAF Marque system are the area that has been 'carbon foot printed' and the area within a Pollution Risk Assessment Action Plan. 'Carbon foot printing' is widely regarded as a useful guide to environmental impact. The increase in the amount of LEAF Marque land that is covered by a 'carbon footprint' has been dramatic almost doubling between 2012 and 2013 and an 85% increase in the average area 'carbon foot printed' by each LEAF Marque member has been measured. A total of 174,353 hectares of LEAF Marque land is now also farmed under a Risk Assessment Action Plan which guides a farmer in how to reduce pollution. The figure is up 40% over the year with the average area up 32% over the year.

Pollution control LEAF Marque indicators					
	2012 Result	2013 Result	Change	2012 ha/member	2013 ha/member
Hectares of crop carbon footprinted	47,602	93,767	+97%	53	98
Hectares of crop with Pollution Risk Assessment Action Plan	124,867	174,353	+40%	139	183



Animal husbandry

LEAF member advice: “Changing the cow’s diet can improve production and reduce waste.”

The care of animals is a business issue as well as an ethical and moral one. Healthy and well-cared for livestock, yield better, use feed more efficiently and produce better quality meat, milk or eggs. The public concern over horsemeat in the food chain and the control of bovine TB demonstrate that animal husbandry and integrity are still very emotive issues.

There are two LEAF Marque indicators for animal husbandry – the number of livestock under a Livestock Health Plan and the number of producers complying with organic manures and animal waste storage best practice. Despite an increase of 136% in the number of livestock under LEAF Marque, there has been a 21% decrease in the number produced under a Livestock Health Plan. There has been an increase of a third in animal waste storage best practice.

Animal husbandry LEAF Marque indicators					
	2012 Result	2013 Result	Change	2012 hd/member	2013 hd/member
Number of head of livestock under a livestock health plan	28,996	22,896	-21%	32	24
Number of producers complying with organic & animal waste storage best practice	178	235	+32%		

Energy efficiency

LEAF member experience: “We have installed solar panels on two packhouse roofs, reducing our overall energy costs with no detrimental impact on the running of the core business”

The UN Food and Agriculture Organisation estimate that the food chain consumes 30% of the world’s generated energy. It has set targets to increase the efficiency of direct and indirect energy use without reducing productivity and for the use of more renewable energy sources.

There was a solid increase in the amount of LEAF Marque land where energy consumption is monitored with a 41% increase to 161,788 hectares. An additional 85 LEAF Marque members had an energy audit carried out, an increase of 20%.

Energy efficiency LEAF Marque indicators					
	2012 Result	2013 Result	Change	2012 ha/member	2013 ha/member
Hectares of crop where energy consumption is monitored	114,764	161,788	+41%	128	169
Number of producers who have had had energy efficiency audit carried out	420	505	+20%		

Water management

LEAF member experience: "We did a chemical and microbiological test on irrigation drain water to study the possibility of water recycling."

The UK had one of its wettest winters ever in 2013/14 with England experiencing double its normal rainfall in January and February 2014. Across the world, climatic conditions appear to be getting more variable with severe droughts experienced in the USA and Australia within the last two years. The EU is introducing new water catchment restrictions, while UK farmers will have to adapt to new water abstraction rules within the next five years.

The issues surrounding water use helped prompt LEAF Marque growers to measure their use and also increase storage provision. During 2013 water efficiency was measured on 114,786 hectares of LEAF Marque land, an increase of 41% on the previous year with the average area per member up 32% to 120 hectares. There was a near doubling of the amount of land where there an increased ability to store water.

Water management LEAF Marque indicators					
	2012 Result	2013 Result	Change	2012 ha/member	2013 ha/member
Hectares of irrigated crop where water efficiency is measured	81,240	114,786	+41%	91	120
Hectares of crop benefiting from increasing stored water	23,436	45,764	+95%	26	48

LEAF, advice on improving water sustainability can be found at www.leafuk.org/leaf/farmers/ssw.eb

Landscape and nature conservation

LEAF member experience: "We have become more wildlife conscious and have put measures in place to encourage wildlife at various sites."

Direct public payments in the form of EU Common Agricultural Policy support continues to shift towards payment for the delivery of landscape and nature protection. Concern about the loss of pollinator habitats and a decline in farmland birds also continues to drive policy and public opinion. Worldwide, the UN estimates that the survival of a fifth of all species of mammals, birds and fish are threatened.





The amount of LEAF Marque land cropped under a Whole Farm Conservation Plan, which takes into account the wildlife and landscape needs on the farm, rose by 36% to 124,973 hectares during 2013 with a 24% increase in the number of LEAF Marque members allocating at least 5% of their land for non-crop habitats.

Landscape and nature conservation LEAF Marque indicators					
	2012 Result	2013 Result	Change	2012 ha/member	2013 ha/member
Hectares of crop under Whole Farm Conservation Plan	124,973	170,412	+36%	139	178
Number of producers with minimum 5% of land for non-crop habitats	509	632	+24%		

The vast majority of respondents to the 2014 LEAF Sustainability Survey say their businesses are more environmentally sustainable than they were five years ago. Just 1.7% said their businesses were less environmentally sustainable compared with 84.6% who say their businesses are more environmentally sustainable. The remaining 13.7% said their environmental sustainability is similar to five years ago.

Measuring the number of habitats and the number of bird and wildlife species were the main methods of measuring environmental sustainability. Other methods include monitoring soil and water quality and involvement in agri-environment schemes.

Community engagement

African LEAF member experience: "The farm organises a practical training programme for local agricultural school students to increase their awareness of farming and our own business."

Farmers rely on the wider community to buy the food they grow and the services they provide. Local public support is also needed if farmers are to develop their businesses. Interest in the origin of food has led to more engagement between farmers and consumers, but the rise in food prices and the economic downturn since 2008 have raised concerns over the affordability of food even leading to riots and contributing to the toppling of Governments.

Washington State University estimates that people in countries such as Nigeria, Indonesia, Pakistan, Morocco and the Ukraine still spend at least 40% of their annual income on food, while food price inflation was double that of average inflation in the UK in 2013.

LEAF has led the way in Community Engagement by giving farmers the resources to communicate more effectively through its Speak Out campaign. In 2005 LEAF held the first Open Farm Sunday which invited the public onto farms free of charge to see farming in action. Since then more than one million people have visited hundreds of farms across the UK.

In 2013 there were 201,000 visits to 365 farms on Open Farm Sunday with sponsorship support for 2014 at its highest level ever. Last year also saw the first Open Farm School Days which allowed 3,000 children to experience farming in the classroom.

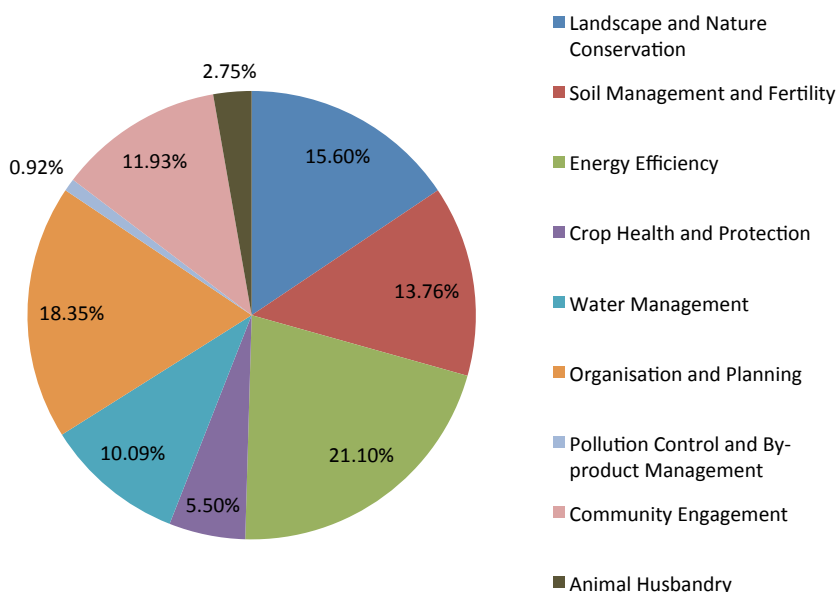
Community engagement			
	2012 Result	2013 Result	Change
Number of visitors on farms participating in Open Farm Sunday	150,000	201,000	34%
Number of school children visiting Open Farm School Days	N/A	3,000	N/A

The hosting of farm visits and walks is the main method of communicating a farm's sustainability according to the LEAF Sustainability Survey with 43.3% of respondents saying it is their main method of communication. Providing information on pack is the second most popular option at 37.3%. Only 11% of respondents do not communicate their sustainability in any way, while 4.6% take part in Open Farm Sunday and 3.7% provide on-farm noticeboards.

Nearly two thirds of respondents to the LEAF Sustainability Survey say they are more socially sustainable than five years ago, stating they have improved communication with the public and better employee relations. A number of LEAF farmers measure their social sustainability in terms of the number of visits to their farm and the happiness and wellbeing of staff.

More details on Open Farm Sunday can be found at www.farmsunday.org

Figure 1: Which action has led to the greatest increases in business sustainability?



Improving sustainability

The 2014 LEAF Sustainability Survey asked respondents to name a single action that has made their business more sustainable. The results were then collated and placed in one of the nine principles of IFM. Although it must be noted that the data is based on a relatively small and non-representative sample, it does provide a useful insight into the actions some LEAF farmers are taking – see figure 1.

Addressing energy efficiency issues led to the greatest sustainability gains in percentage terms at 21.1% as many farmers had noted the introduction of renewable energy infrastructure on farm. It was followed by organisation and planning at 18.3% and landscape and nature conservation at 15.6%. More than 10% of responses related to both community engagement and water management. The improvement in animal husbandry was mentioned by only 2.7%, which is perhaps not surprising due to the lower proportion of LEAF Marque livestock businesses. Less than 1% said pollution control led to the greatest sustainable gains and interestingly, only 5.5% mentioned crop health and protection as the main action. This might reflect the fact that farmers are already experienced in the stewardship of pesticides and that greater gains can be made in areas where their approaches might not have been so developed.



LEAF Audit performance scores: a steady improvement

The LEAF Audit was developed in 1993 and has allowed us to monitoring continual improvement in farm performance. Since 2010 we have looked at this in more detail and LEAF has measured the performance of its members who carry out the LEAF Audit ranking performance in a range of 1 to 3 in each of the nine key sections of Integrated Farm Management. In 2013 the overall 'sustainability' score was 2.53, which represented a solid 1.31% improvement over the year and a 2.03% increase over the four year period.

LEAF Audit scores						
	2010	2011	2012	2013	% Change 2010 to 2013	% Change 2012 to 2013
Environment	2.60	2.61	2.57	2.60	+0.09	+1.31
Crop Health and Protection	2.81	2.85	2.83	2.85	+1.27	+0.62
Energy Efficiency	2.45	2.55	2.50	2.55	+3.70	+1.85
Landscape and Nature Conservation	2.54	2.55	2.55	2.58	+1.86	+1.31
Pollution Control and By-Product Management	2.64	2.68	2.65	2.67	+1.13	+0.66
Soil Management and Fertility	2.69	2.73	2.72	2.75	+2.16	+0.85
Water Management	2.56	2.38	2.25	2.32	-9.53	+2.86
Financial	2.49	2.55	2.53	2.56	+3.05	+1.21
Animal Husbandry	2.62	2.75	2.75	2.77	+5.84	+0.69
Organisation and Planning	2.47	2.53	2.51	2.54	+2.69	+1.28
Social	2.00	2.11	2.13	2.17	+8.28	+1.71
Community Engagement	2.00	2.11	2.13	2.17	+8.28	+1.71
Overall Total	2.48	2.52	2.50	2.53	+2.03	+1.31

There was an improvement in water management in 2013 as farmers recovered from the very wet conditions in 2012, which created the imbalance, but water performance still lags behind the 2010 score by nearly 10%, reflected by the concerns our farmers and members have around building more resilient approaches to managing water amid extreme weather events. The highest individual score was crop health and protection; an area that LEAF farmers have concentrated on for a number of years, and thus reflected in their good performance.

Environment

- A further steady improvement in pesticide stewardship occurred in 2013 with the LEAF Audit score up 0.62% and a 1.27% improvement between 2010 and 2013.
- There are two energy efficiency elements to the LEAF Audit – to effectively deploy greenhouse gas emission mitigation measures and improve energy efficiency. The average overall energy efficiency score in 2013 was 2.55 in the 0 to 3 range. The increase over the year was 1.85% and from 2010 to 2013 it was 3.70%.
- There are two landscape and nature conservation elements to the LEAF Audit – to actively increase biodiversity and to enhance management at a landscape level. Both elements have made gains over the four year period, with the largest gains made in enhancing landscape management. The average score in 2013 was 2.58 up 1.31% on 2012 and by 1.86% since 2010.

LEAF Audit performance scores: a steady improvement

- The three main areas of pollution control under the LEAF Audit include improving water quality, implementing responsible waste management and improving air quality. The average score for 2013 was 2.67 in a range of 0 to 30. There was a 0.66% improvement between 2012 and 2013 resulting in a 1.13% improvement between 2010 and 2013. The 2013 scores ranged from 0.44% for improving water quality and 0.80% for improving air quality.
- There was a 0.85% improvement in overall soil management and fertility performance in the 2013 LEAF audit. That could largely be because of the improved growing conditions during the year following the very wet summer and autumn in 2012. The improvement between 2010 and 2013 was at 2.16%. Soil health improved by 0.69% in 2013, up 1.99% over the four year period, while nutrient management efficiency was up 1.01% in 2013 and by 2.33% over the four years.
- Only one element of water management applies to the LEAF audit – improving water use efficiency. There was a 2.86% increase between 2012 to 2013, but that represented a 9.53% decline since 2010 due to challenging years in 2011 and 2012.

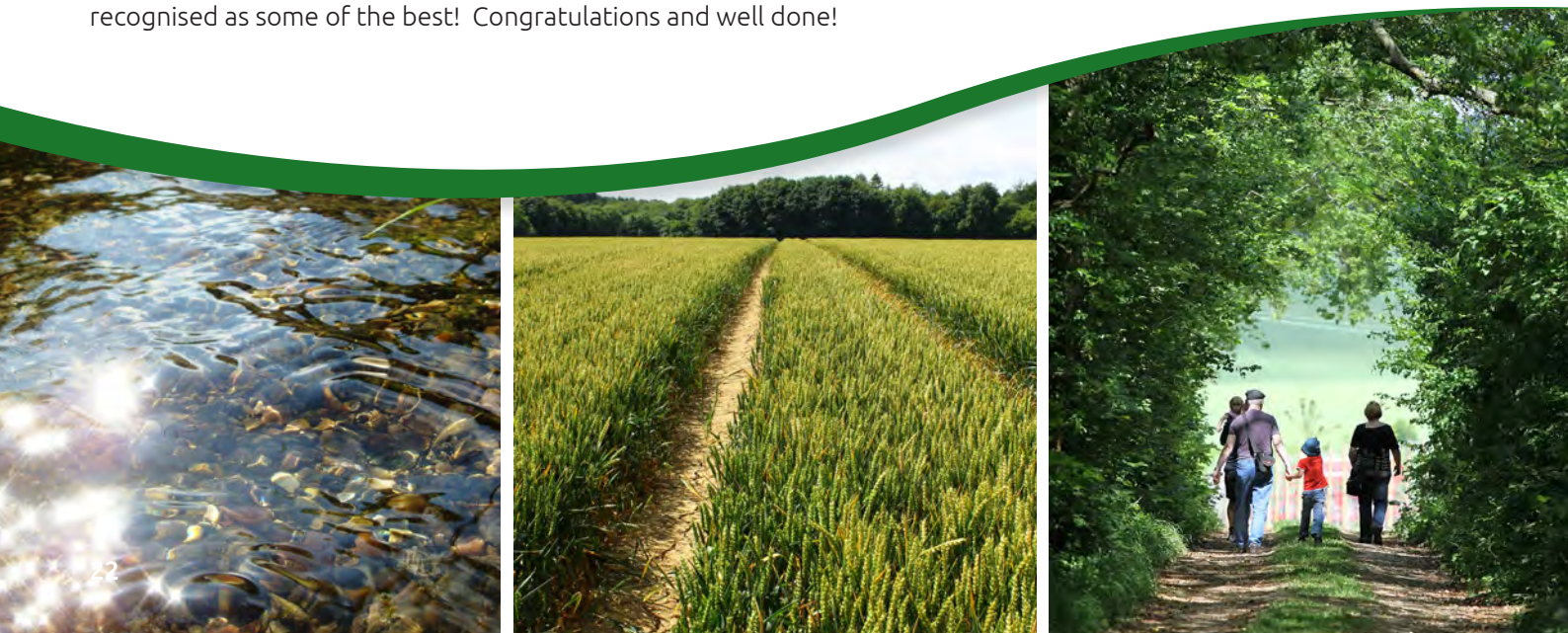
Financial

- Over the 2010 to 2013 period there was a 5.84% increase in the LEAF Audit animal husbandry score to 2.77, but there was only a 0.69% increase between 2012 and 2013.
- Analysis of LEAF Audit results for 2013 show that there was 1.28% improvement in Organisation & planning performance in 2013 and a 2.69% improvement since 2010. Standout results included a 14.5% improvement in grassland efficiency in 2013 compared to 2012 and a 8.6% improvement in staff performance over the year. But this was countered by a 2.5% drop in improving business financial status and a 3.9% drop in enhancing yield and biodiversity productivity and efficiency.

Social

- There are three community engagement elements to the LEAF Audit – building of social capital, demonstration of effective business marketing and communication and improving the well-being of staff and contractors. The average community engagement score in 2013 was 2.17, an 8.28% improvement since 2010. That was the largest increase of any of the nine elements of the LEAF Audit.

The trends in this qualitative analysis of the LEAF Audit reflects the improving performance of our farmers – recognised as some of the best! Congratulations and well done!



LEAF's theory of change¹ describes how our activities contribute to achieving our vision of a world that is farming, eating and living sustainably.

LEAF reviews its strategy on a regular basis with the LEAF Board of Trustees, the LEAF Marque Board and LEAF's other committees. It is currently working through the next three year's goals and objectives to ensure that we meet our charitable objectives and service our members. LEAF has organised them into various work streams based on 'what we do' and 'how we do it' as follows:

What we do

Facilitating sustainable farming knowledge generation & exchange amongst producers and researchers

Developing market opportunities

Engaging the public in sustainable food and farming

How we do it

Demonstration of robust governance

LEAF membership

Sales and marketing

Stakeholder engagement



There are also a number of cross cutting themes, i.e. monitoring and evaluation, political engagement, business coalitions and strengthening our global presence that are complementary to the work streams and have Board level commitment.

The LEAF Marque Global Standard System is one of the methods that LEAF uses to achieve its aims. The standard developed with a Technical Advisory Committee and is reviewed annually. LEAF Marque third party certification results in the verification of LEAF's Integrated Farm Management (IFM) at a farm level. IFM is a cross cutting theme to improve management systems and business practices, leading to improvements in economic, environmental and social performance. It also provides assurance to consumers as stakeholders that responsible business practices are being followed.

The LEAF Marque standard system aims to deliver and recognise businesses that are on the continual improvement journey of sustainable farming. We know that the practices that the LEAF Marque standard covers are known to deliver the desired outcomes and collectively will help farm businesses become more sustainable. However, we still need to work on developing metrics that will help us measure our direct and indirect impacts at the farm level across our membership to show that LEAF farms are meeting the goal of more sustainable farming. In addition to this we need to increase our in-depth approach to monitoring and evaluation.

Our impact as an organisation will grow with increasing numbers and area of land that is certified but also as we develop our approach of intervention and activities with farm businesses we would expect this to improve our impact. Two important developments include the replacement of the LEAF Audit with a new and improved tool in 2015, that will enable better communication of best practice and collection of metrics data. Secondly, the replacement of the Warranty Chain tool with a full Chain of Custody system, will enable us to measure our impact in the food chain more directly with our corporate partners and add to the credibility of the LEAF Marque logo and any claims.

¹ Theory of Change defines all building blocks required to bring about a given long-term goal.

LEAF's Theory of Change



CORPORATES



FARMERS



GOVERNMENTS



NGO's



**ACADEMICS/
SCIENTISTS**



TECHNOLOGY



PUBLIC

**IMPACTS/
INPUTS**

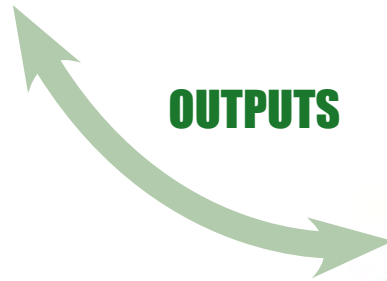


**MONITOR
& EVALUATE**

Knowledge
Exchange &
Political/Public
Engagement



OUTPUTS



**SMART
OUTCOMES**



**VISION
MISSION**

**LEAF
BOARD**

STRATEGY

WORKSTREAMS

GOALS

Moving forward

LEAF began twenty three years ago with an ambitious goal: 'to promote the concept of Integrated Crop Management and to improve the public perception and understanding of modern agriculture.' We are very proud of what we have achieved. Our pioneering work bringing together commercial farming with the highest standards of environmental management is now accepted as standard practice. LEAF is now firmly established as the leading organisation delivering more sustainable food and farming. Our reach extends to many corners of the globe.

The world is a hugely different place than the one into which LEAF was born. We face economic uncertainty, climatic fragility and an ever more inquisitive and demanding public. But humanity needs food that is produced sustainably to meet the growing challenges of food and environmental security in the 21st Century. This report shows clearly that we are making great strides in the pursuit of sustainable farming – both here in the UK and across the globe. We will build on what we have achieved so far. There are some obvious areas where we need to focus, namely:

- Continual refinement of our sustainability indicators to ensure they are measurable, robust and credible;
- Introduce improved management tools for farmers including updating the LEAF Audit and the development of a Chain of Custody to replace the Warranty Chain;
- Improved internal consultation with our Advisory Board, LEAF Marque technical committees and with other stakeholders;
- Increasing focus on quantitative data gained from LEAF Audit responses and LEAF Marque data;
- Supporting quantitative data with independent in-depth research ie. case studies that measure our long term outcomes and impacts;
- Development of more effective partnerships in the monitoring and evaluation of sustainability performance, particularly through our membership of the ISEAL Alliance;
- Look to improve our impact in certain key areas – namely livestock and horticulture.

LEAF is no more than a catalyst of this change. It is our farmers themselves that make change happen. It is the supply chain and retailers who have made commitments to LEAF that encourages farmers to seek LEAF Marque certification. Together with our members and many valued partners, we will continue to strive for a more sustainable future.



LEAF: who we are, what we do

LEAF (Linking Environment And Farming) works to develop and promote Integrated Farm Management (IFM) in three main areas:

- **Facilitating knowledge generation** and exchange amongst farmers and researchers through our network of LEAF Demonstration Farms and Innovation Centres; farm business management tools and events.
- **Developing market opportunities** through the LEAF Marque standard - the leading sustainable food label.
- **Engaging the public in sustainable food and farming** through Open Farm Sunday, our network of Demonstration Farms and educational materials.

By doing this we are working towards our vision of a world that is farming, eating and living sustainably.

Join LEAF

LEAF is a charity and membership organisation. We help our members' farm more sustainably through our membership tools and services which include:

The LEAF Audit

The LEAF Green Box

The LEAF Marque certification scheme

The Integrated Farm management Bulletin

Access to our online information centre

You can support our work and get involved in our activities by joining us at:

www.leafuk.org



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A sensible approach to paper consumption, procurement and recycling is a vital part of LEAF's care for the environment. That is why this report is printed on Forest Stewardship Council (FSC) certified paper with inks made on vegetable base and without any damaging solvent ingredients.