

Delivering More Sustainable Food and Farming

LEAF's Global Impacts Report 2017



LINKING ENVIRONMENT AND FARMING



WHO WE ARE

LEAF (Linking Environment And Farming) – a leading organisation delivering more sustainable food and 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

Work with us to deliver healthy food and farming fit for the future

LEAF (Linking Environment And Farming)

Stoneleigh Park, Warwickshire


CV8 2LG United Kingdom

t: +44 (0)2476 413 911

e: enquiries@leafuk.org

w: www.leafuk.org

 [@LEAF_Farming](https://twitter.com/LEAF_Farming)

 facebook.com/LinkingEnvironmentAndFarming

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Disclaimer statement: The monitoring data in this report is based on data collected by LEAF and reported by LEAF members through the LEAF Audit, LEAF Membership data, the LEAF Warranty Chain, the LEAF Sustainability Survey and LEAF Sustainable Farming Review self-assessment process. LEAF is not responsible for the accuracy of the data. The report has been compiled to the best of our knowledge and is provided for information purposes only. LEAF reserves the right to update the monitoring data as new information becomes available. The data is provided "as is" and no warranty of any kind is given for the accuracy and reliability of the data. LEAF will not be liable for any claims or damages related to the quality and completeness of the data, as far as it is permitted under English law.

FARMING FOR THE FUTURE

M&S

EST. 1884

*At M&S we are committed
to securing our
future supply of raw
materials from the most
sustainable sources.*

*Our Farming for the
Future programme sees
us working with our
supply chain partners,
farmers and growers to
help them address the
sustainability challenges
they face.*

*We are proud to support
the principles of LEAF.*



Foreword



It is a privilege to introduce LEAF's fifth Global Impacts Report 'Delivering More Sustainable Food and Farming' which celebrates the achievements of LEAF Marque certified businesses in delivering more sustainable food and farming. Inspiring and enabling everyone we do business with about sustainability is one thing, but this needs to be demonstrated through monitoring and evaluation.

It is relevant to us all; allowing us to constantly assess and adapt our practices to ensure we are making the biggest and best difference we can to the lives of farmers, the environment and wider society.

Agriculture worldwide is facing one of its greatest challenges: to produce enough nutritional food to fulfil the needs of our current and future population, while at the same time, protecting the environment and human health. Finding and implementing innovative solutions to sustainability challenges cannot be addressed in isolation. It requires the involvement of a wide range of actors from across the food chain – farmers, retailers, researchers and NGO's.

That is why we are so proud of our long-standing relationship with LEAF. Their vision of a world that is farming, eating and living sustainably is wholly aligned to our own goals. LEAF works across a broad range of the things we care about. We are hugely supportive of LEAF's Integrated Farm Management approach and the achievement of LEAF Marque certification is firmly embedded into our Plan A objectives.

LEAF is brilliantly placed to inspire and empower farmers on their journey to more sustainable farming. We look forward to continuing to help them do it.

Andy Mitchell
Senior Agronomist, Marks and Spencer, plc



Welcome to LEAF's fifth Global Impacts Report



We are delighted to be publishing LEAF's fifth Global Impacts Report, reflecting on our collective achievements in 2016. Over the last five years we have strengthened our reporting significantly and are immensely proud of the progress we are making in monitoring, measuring and communicating the impacts our members are making to the environment, economy and society.

As LEAF looks ahead to its next 25 years, we are continually looking to refine how we meet the challenge of keeping true to our core values, while navigating the rapid and constant changes in the food chain. This involves working closely with our producers, providing them with the right tools and services to make meaningful changes on the ground and inspiring retailers and consumers in pursuit of the ultimate goal - a more sustainable and resilient food and farming chain.

Over the last five years, we have seen steady improvements in how our producers are managing their soil and water, conserving energy, protecting their crops, enhancing wildlife habitats and reaching out to their local communities. All delivered through our growers' commitment to Integrated Farm Management (IFM) and their drive and determination to improve their farming practices.

The results highlighted in this report show the progress made by LEAF Marque certified businesses is indisputable and should be celebrated. LEAF Marque producers are making a real difference to producing food in ways that have the long-term health of our planet and its people at its heart. I am continually inspired by their willingness to embrace change and adapt to challenges. They can be proud of their achievements. This is a joint effort involving our producers, as well as those businesses we work with along the supply chain. We are particularly grateful to the long standing relationships we have with Waitrose, committed to LEAF Marque certification on all their UK sourced fresh produce, as well as Farrington Oils, Carroll's Heritage Potatoes, Unilever, Marks and Spencer and Florette; all significant players in leading this quiet revolution.

These are exciting times. Together we continue to make positive change in our food and farming systems and make our vision of a world that is farming, eating and living sustainably, a reality.

Caroline Drummond MBE
LEAF Chief Executive

Executive Summary: celebrating success

This 2017 edition of our Global Impacts Report, showcases the ongoing achievements of LEAF members and LEAF Marque certified businesses in delivering more sustainable food and farming. We are seeing real commitment amongst our producers in safeguarding our precious natural resources, reaching out to their customers and continually assessing and adapting their farming practices. We are hugely proud of what they have achieved. Together with the determination of the supply chain to support forward thinking farmers and raise consumer awareness of sustainable issues, we are making real and lasting differences to the sustainability of the world's food and farming systems.

In 2012, when LEAF established its monitoring and evaluation programme, we started providing information about our impacts, growth and the economic, environmental and social benefits of achieving and maintaining LEAF Marque certification. We continue to build on that work which helps provide the scientific foundation for the transparent and impartial evaluation of LEAF's effectiveness in delivering our mission and vision.



1,013

LEAF Marque
certified businesses

Over the last five years, we have seen a steady growth in our global reach. This year is no exception with 1,013 LEAF Marque certified businesses operating in 36 countries across the globe, representing a total of 367,395 hectares of crop on LEAF Marque certified businesses worldwide. Cereals remain the largest LEAF Marque crop area worldwide at 53%, followed by horticulture at 41%. The UK represents the largest crop area at 301,493 hectares of crop, followed by Spain and France at 18,337 hectares and 12,954 hectares respectively. It is clear that farmers across the world are making important sustainability commitments and are choosing to realise them through LEAF Marque certification; in so doing they represent a powerful force for change.

In the UK, we continue to see growth in the uptake of LEAF Marque certification, particularly within the horticultural sector. An impressive 34% of all UK fruit and vegetables are being grown by LEAF Marque certified businesses, this includes 90% of leeks and 88% of beetroot. Interestingly, we have seen a significant increase in the percentage of watercress (83%) and asparagus (82%) being grown by LEAF Marque certified businesses. Whilst we are immensely proud of the impact we are making, there is much scope for expansion within cereals, oilseeds, meat and dairy sectors.

367,395

Hectares of crop on LEAF
Marque certified businesses
around the globe



This year's report clearly shows that our farmer members and LEAF Marque certified businesses are making significant progress in their overall farm sustainability performance, across the nine sections of Integrated Farm Management. Adoption of best practice continues to grow in soil and water management, energy efficiency, enhancement of on-farm biodiversity and in the way our farmers are communicating their sustainability commitments both within their own businesses and also to their customers. Specifically, all LEAF Marque certified businesses have a Farm Environmental Policy, 33% are recording Soil Organic Matter, 44% have one or more types of renewable energy generation on-farm and on average, 13% of the farm area is habitat.



301,493

Hectares of crop on
LEAF Marque certified
businesses in the UK

34%

of UK fruit and vegetables
grown by LEAF Marque
certified businesses



We are delighted to fanfare the achievements of our members and LEAF Marque certified businesses. We are now building our capacity to go further and achieve more, extending the reach of LEAF Marque certification to more countries, into more sectors and helping to create more positive outcomes for farmers, their communities and the environment. To achieve this, LEAF will continue to work with other organisations across the globe to ensure we are making the biggest and best difference we can to farmers, the environment and to wider society.



36

Countries with
LEAF Marque certified
businesses



UNIVEG becomes Greenyard's Fresh Division

Greenyard's Fresh division is a worldwide leader in fresh fruits & vegetables, flowers & plants and fresh produce logistics. Our extensive global partnerships with growers enable us to offer an exceptionally wide range of high quality fresh produce and value added services to our customers, which include the majority of the key retailers in Europe. We work side-by-side with our customers to continually meet and exceed their requirements and our industry leadership in packaging, promotion and product innovation helps us delight their customers too. We are driven by the desire to grow together with all of our partners in a mutually sustainable way. We are proud to serve as our customer's direct connection to the field.



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Lincolnshire / PE11 3SW
www.greenyardfresh.co.uk

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For more information:
www.wearegreenyard.com

for a healthier future

About LEAF (Linking Environment And Farming)

LEAF (Linking Environment And Farming) is the leading organisation delivering more sustainable food and farming. We work with farmers, the food industry, scientists and consumers to inspire and enable sustainable farming that is prosperous, enriches the environment and engages local communities. We do this through developing and promoting **Integrated Farm Management (IFM)** in three core pillars:

Facilitating knowledge generation and exchange amongst farmers and researchers through our LEAF Network of Demonstration Farms and Innovation Centres; farm business management tools and events.

Developing Market Opportunities through the LEAF Marque Standard – an environmental assurance system recognising more sustainably farmed products, based on the sustainable farming principles of IFM.

Engaging the public in sustainable food and farming through LEAF Open Farm Sunday, LEAF Open Farm School Days, resources and training.

Our members

LEAF members are a vibrant and diverse worldwide community committed to delivering more sustainable food and farming. They represent a dynamic force for change and are the people who make it happen. They are the ones on the ground delivering IFM and supporting others in adopting IFM. We could not achieve what we do without them. Our members include farmers, advisers and consultants, corporate organisations and education establishments. It is their passion and commitment which makes LEAF the organisation it is.



Our strategy

2016 was LEAF's 25th anniversary. It was a year of reflection on where we have been, and where we are going next. Over the last 25 years, LEAF has led the way in driving forward the sustainability agenda, through its innovative management tools, development of the LEAF Marque assurance system and our ground breaking public engagement and demonstration activities, all underpinned by the principles of Integrated Farm Management.



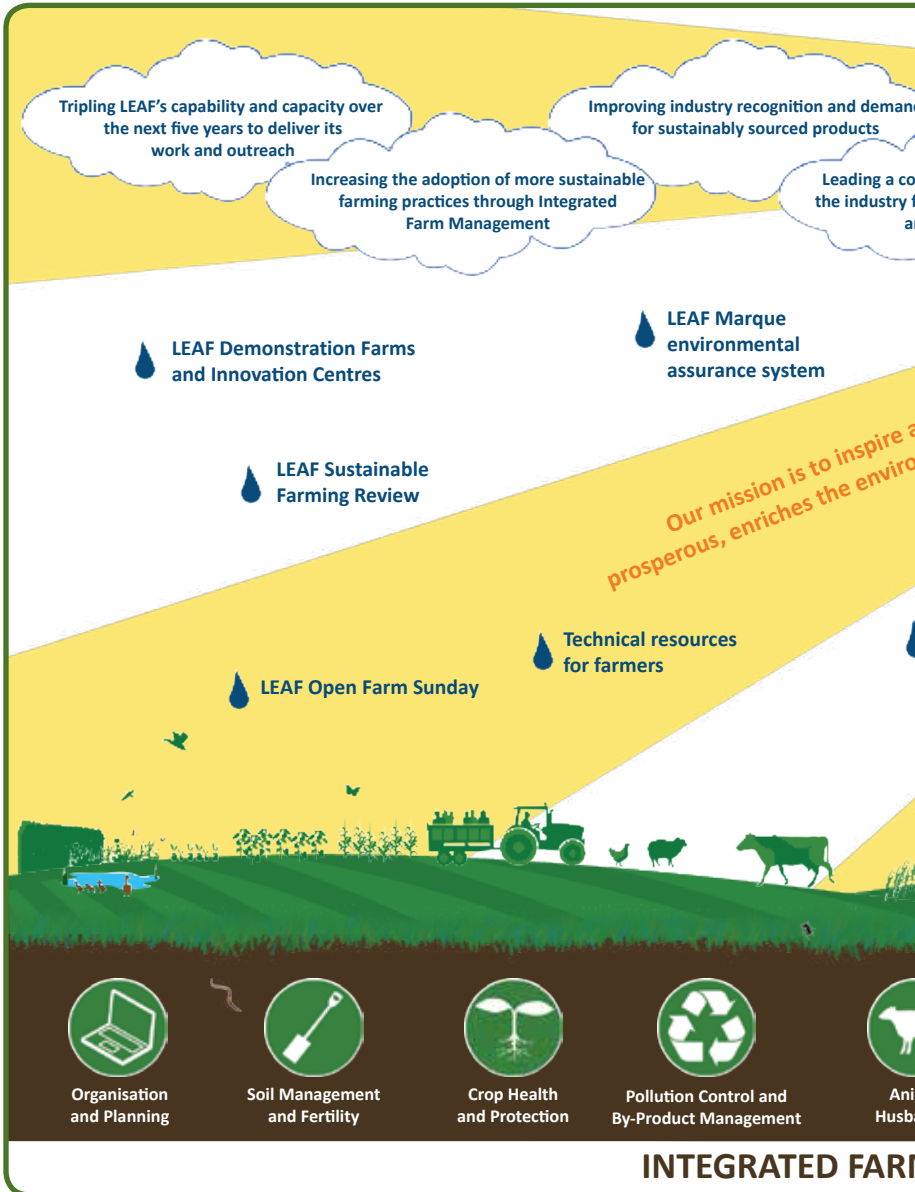
We have five key strategic priorities:

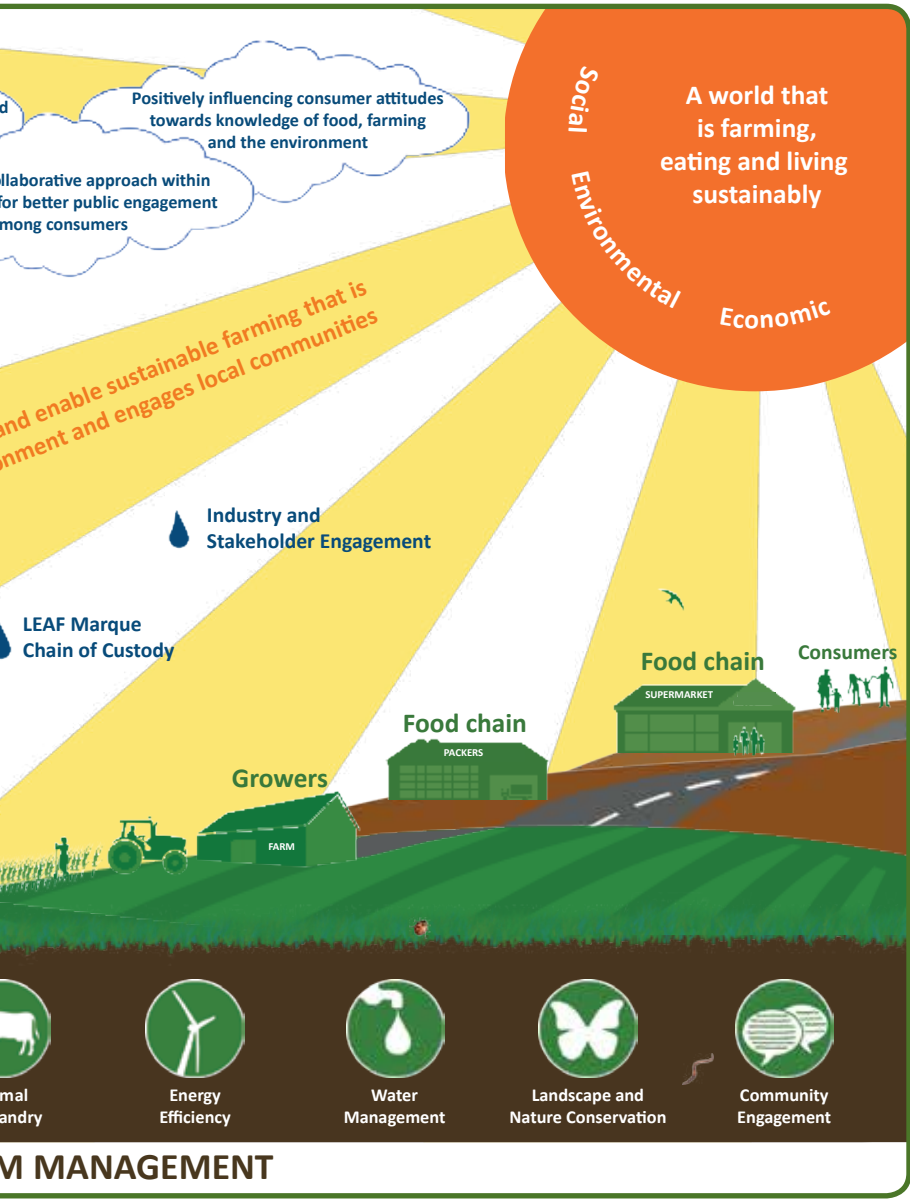
- **Tripling** LEAF's capability and capacity to deliver its work and outreach
- **Increasing** the adoption of more sustainable farming practices through Integrated Farm Management
- **Improving** industry recognition and demand for sustainably sourced products
- **Leading** a collaborative approach within the industry for better public engagement among consumers
- **Positively** influencing consumer attitudes towards and knowledge of food, farming and the environment

We are at an exciting and important juncture. There is a powerful and growing wave of momentum behind sustainable food and this provides a unique opportunity to strengthen LEAF Marque as **the leading environmental assurance system recognising sustainably farmed products.**

Inspiring and Enabling Sustainable Farming

Integrated Farm Management (IFM) is the basis of all of LEAF's activities which, together with the work of our farmers, supply chain and stakeholders, help in the delivery of a world that is farming, eating and living sustainably.





Delivering Sustainable Farming through Integrated Farm Management

LEAF delivers sustainable food and farming by developing and promoting Integrated Farm Management (IFM). IFM is a whole farm business approach that uses the best of modern technology and traditional methods. Attention to detail is key; appropriate and efficient use of inputs, smarter approaches to business planning and the adoption of innovations and new technologies, all contribute to increasing productivity whilst protecting valuable resources.

A whole farm approach

Sustainable farming delivers a site-specific farming system supporting the integration of farm economic viability, the environment and society, over the long-term. IFM delivers more sustainable farming by contributing to economic performance, environmental quality and social health. It is also relevant to the fast emerging Natural Capital agenda, which looks to put a monetary value on the goods and services farmers deliver.

IFM is made up of nine sections, which together address the entire farm business. Each of the nine sections are interrelated and an understanding of how they work together is essential for the effective implementation of IFM.

Supporting farmers to farm more sustainably

Developing the right tools to enable farmers to adopt IFM is a core part of what LEAF does. Our on-line management tool, the LEAF Sustainable Farming Review, forms the basis for implementing IFM. It provides our members with a complete health check of their farms and offers benchmarks and action plans



to deliver continuous improvement. Completion of the LEAF Sustainable Farming Review is also a core requirement of LEAF Marque certification. In addition, we offer our members a wide range of resources looking at specific aspects of IFM, these include the LEAF IFM Guide, the LEAF Information Centre and our Simply Sustainable series of technical handbooks on soil, water and biodiversity.

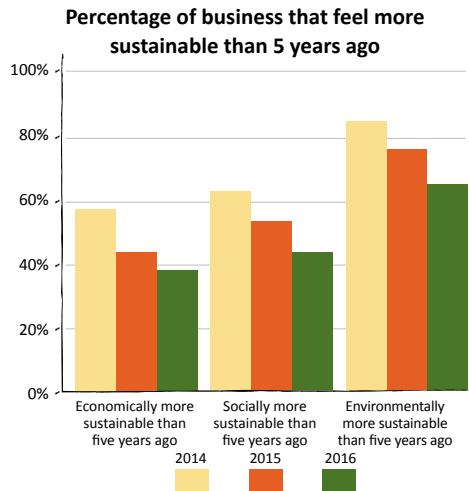
Developing Integrated Farm Management

Facilitating knowledge generation and exchange around IFM is critical to its ongoing development and uptake. We access the latest research into IFM through our LEAF Innovation Centres and disseminate the findings to our Demonstration Farmers, who in turn, communicate it to the wider farming community through visits and talks both on and off the farm.

Furthermore, we are involved in a number of industry groups and initiatives where we share knowledge and expertise and pool resources. Most notably, our involvement in the Sustainable Intensification Research Platform (SIP), which brings together farmers, researchers, practitioners and industry experts, enables us to explore the opportunities and risks associated with sustainable intensification across a wide range of farming situations.

IFM in a global context

The site specific framework of IFM allows us to take into account different farm types, geographical locations, typology and cropping. We consult with our members regularly in order to understand their current views on the overall sustainability of their businesses so we can respond effectively to their needs. A survey carried out at the end of 2016, shows an overall decline in how our members regard the economic, social and environmental sustainability of their businesses. This is perhaps an indication of the current political climate but also a very clear reminder that the principles of IFM offer farmers across the globe, a realistic way to address the challenges of economic uncertainty, climatic fragility and public health.



Facilitating Knowledge Generation and Exchange

Growing knowledge around Integrated Farm Management (IFM) and ensuring it reaches farmers on the ground is one of LEAF's core objectives. The LEAF Network of thirty-eight Demonstration Farms and nine Innovation Centres is instrumental in making this happen. It is critical to driving forward the uptake of IFM and ensuring it is backed up by sound science.

The cutting-edge research being carried out at our Innovation Centres, focusing on specific areas of IFM, is fed back to our Demonstration Farmers, who then put the science into practice. This, in turn, is disseminated out to LEAF members and the wider farming community through farm visits, talks and technical information. This science into practice approach is key to delivering IFM on the ground.

Partnerships are an important part of our knowledge generation and exchange activities. As well as working closely with the LEAF Network, we collaborate with a wide range of industry groups and initiatives – both in the UK and Europe, to pool resources and expertise to ensure wider impact.

15,109

Visitors to LEAF
Demonstration Farms



1,163

Users of the LEAF
Sustainable Farming Review



LEAF Demonstration Farms

LEAF Demonstration Farmers are commercial working farmers practicing Integrated Farm Management (IFM) who are keen to share their experiences with others. In 2016, the LEAF Demonstration Farm Network hosted over 236 visits to a total of 15,109 people ranging from politicians to chefs, industry, schools and local interest groups.

One of the LEAF Demonstration Farm's target audience are other farmers. Demonstration is a very powerful tool when producers are analysing and developing sustainable farming practices. To this end, LEAF Demonstration Farmers hosted visits for 3,041 farmers to discuss practices around IFM.

In addition to hosting visits, LEAF Demonstration Farmers play an active role in contributing to LEAF resources, publications and events as well as getting involved in a wide range of projects and placement schemes. The first IFM Conference was held in May 2016 followed by a LEAF Network Event at the end of year; both featured a range of speakers from our LEAF Network and enabled participants to share ideas, practices and communication skills.

Developing Market Opportunities

LEAF Marque is an environmental assurance system recognising more sustainably farmed products. LEAF Marque is a Full Member of the ISEAL Alliance¹. Through LEAF Marque certification, farmers can open up better business opportunities, demonstrate their environmental credentials and help drive forward more sustainable food supply chains. It is increasingly being seen in UK supermarkets and other retail outlets on a wide range of fresh produce as well as non-food items such as flowers and Christmas trees. Worldwide, cereals and horticulture continue to be the two largest LEAF Marque sectors with 194,441 and 152,033 hectares respectively being grown on LEAF Marque certified businesses.

We continue to develop close partnerships with growers, processors and retailers. One of the UK's leading retailers, Waitrose, who were the first supermarket in the UK to display the LEAF Marque on produce, continue to lead the way, with all their UK grown fresh produce being grown to the LEAF Marque Standard. Our partnership with Unilever and ADM strengthens as they look to source LEAF Marque certified oilseed rape for their spreads and dressings as part of their Sustainable Living Plan. Furthermore, during 2016, LEAF Marque was confirmed as a Marks and Spencer Plan A attribute for fresh produce and Europe's largest salad producer, Florette, continue to display the LEAF Marque logo on a range of their salad products. We were also pleased to work with Jordans, the UK's fourth largest cereals manufacturer, on a new partnership built around the LEAF Marque Standard.

There is a powerful and growing momentum behind sustainable food which represents a global opportunity for farmers. LEAF Marque certification is key to driving this forward.



¹ ISEAL is a non-governmental organisation whose mission is to strengthen sustainability standards systems for the benefit of people and the environment. Members are multi-stakeholder sustainability standards and accreditation bodies that demonstrate their ability to meet the ISEAL Codes of Practice and accompanying requirements, and commit to learning and improving.



Case Study: Jordans Farm Partnership

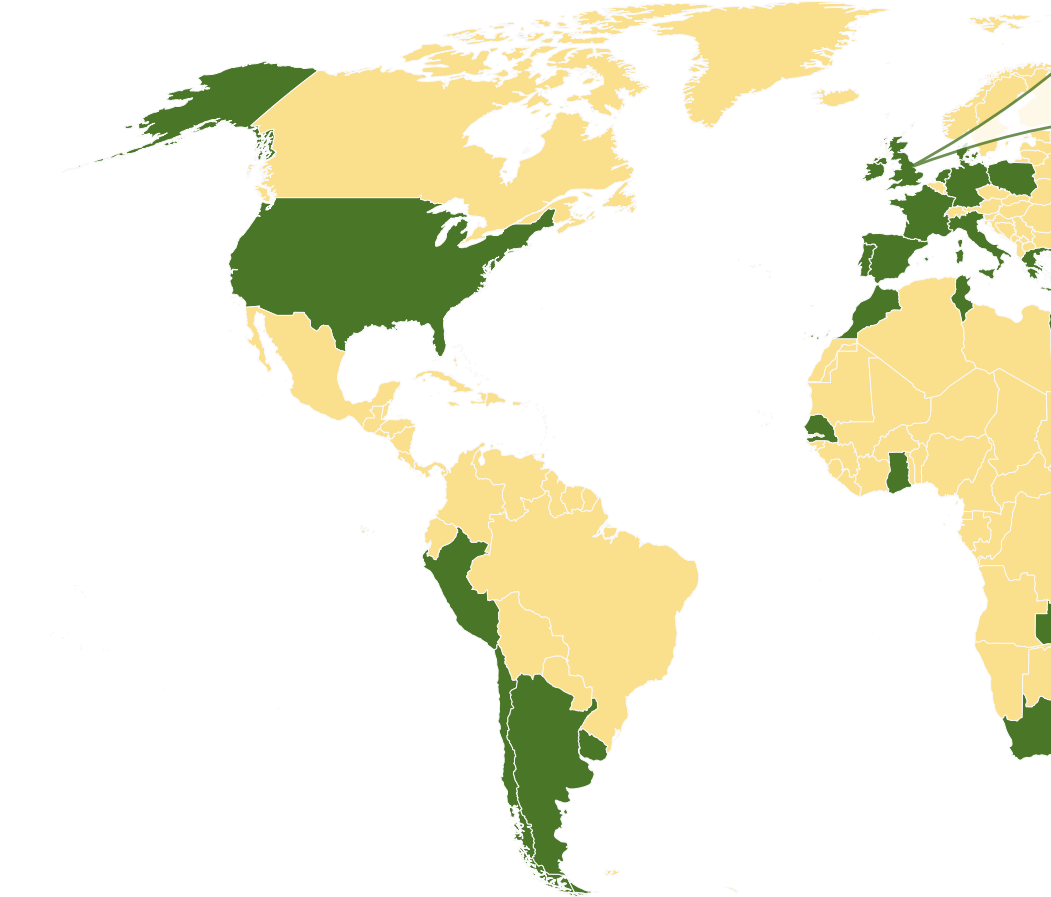
Working together. More sustainable food and farming through LEAF Marque

There is increasing appreciation amongst leading food brands of the role of the LEAF Marque assurance system in helping address their own sustainability targets. LEAF has been working with Jordans, the UK's fourth largest cereals manufacturer, for the past two years on a progressive new initiative to create a unique model to deliver more sustainable farming, built around the LEAF Marque Standard.

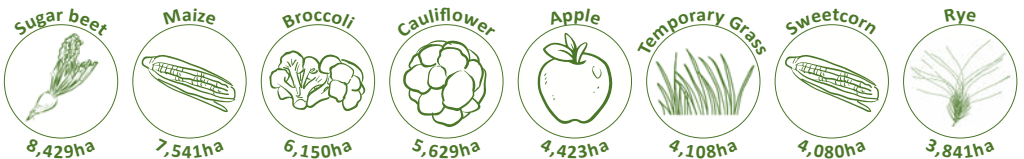
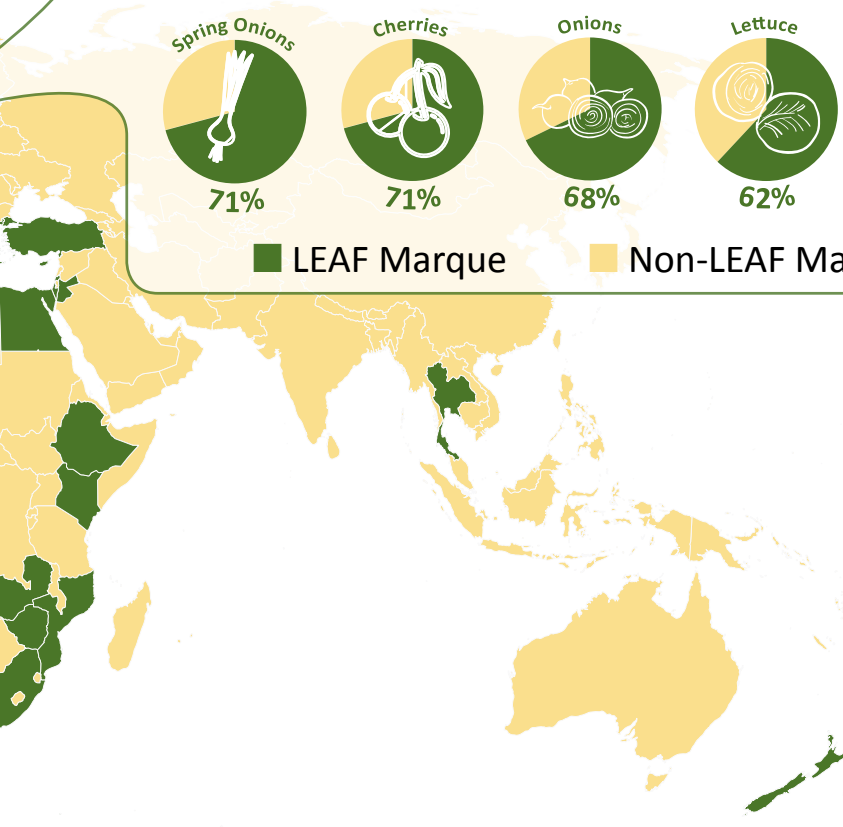
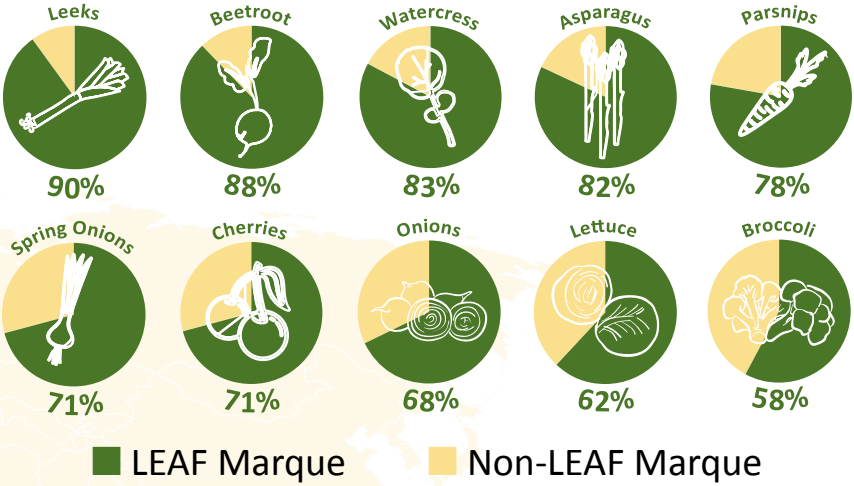
Known as the Jordans Farm Partnership, and also involving The Wildlife Trusts and The Prince's Countryside Fund, it is working to address key issues facing rural communities. All farmers supplying oats to Jordans are required to farm to LEAF's high environmental standards and be LEAF Marque certified. This builds on the huge amount of work they have already put into creating and managing habitats for wildlife.

The Jordans Farm Partnership is an excellent example of how LEAF Marque is providing opportunities for food brands to build on and demonstrate their own sustainability commitments and to strive to do even more to deliver more sustainable food and farming.

LEAF Marque Certified Businesses in 36 Countries Worldwide



Percentage of UK fruit and vegetable cropped area grown on LEAF Marque Certified businesses

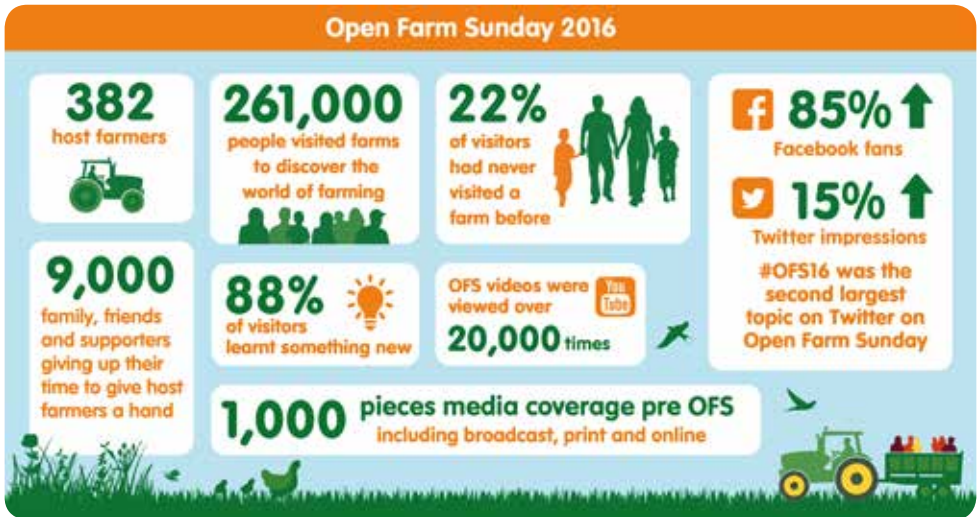


Engaging the Public in Sustainable Food and Farming

Creating connections and building awareness and understanding for people about how their food is produced, where it comes from and the huge range of goods and services farming delivers, is a key part of delivering more sustainable farming.

LEAF Open Farm Sunday is one of our primary public engagement activities. It is the farming industry's open day, held annually every June and offers opportunities for thousands of people to visit a farm and learn more about sustainable farming and food production. We continue to see a growing number of LEAF Marque certified businesses and LEAF Demonstration Farms getting involved with Open Farm Sunday and regularly hosting visits, giving talks and supporting community initiatives. The reach of Open Farm Sunday is greatly extended through the media and communications campaign.

Equipping farmers with the right skills and tools is essential for effective consumer outreach. In 2016, we held two communication training courses for farmers and our collection of farm information boards are regularly used by farmers to inform their visitors about IFM and how it delivers more sustainable farming.





Case Study: Jake Freestone

Public Engagement at Overbury Enterprises

Jake Freestone, Farm Manager at LEAF Demonstration Farm, Overbury Enterprises, takes an active role in public engagement reaching a wide range of audiences.

One of the primary ways Jake engages with the community is through farm visits. Since 2007, Wychall Primary school in Birmingham has visited three times a year. The Overbury Grasshoppers Nursery also regularly visit and Jake hosts an annual visit for Hartpury College students. Larger scale events such as Open Farm Sunday and a lambing day in April attracts between 600 and 800 people to the farm.

Farmer groups are hosted at Overbury throughout the year which allows Jake to share his sustainable farming practices and learn from others. Jake regularly speaks at industry conferences and farmer groups which enables deeper discussion with peers. He also appears on radio and television and Jake's social media expertise means that he can reach out to farming and non-farming audiences further afield.

For Overbury, public engagement is essential to educate the public about food and farming as well as to learn from peers and enable the business to continue to move forward.



Organisation and Planning

Informed organisation and planning is the basic building block of Integrated Farm Management. Planning helps to chart progress and the achievement of goals as well as drive forward continuous improvement throughout the farm business. The starting point for effective planning is reviewing current operations, identifying what needs to be improved and setting out clear business objectives, priorities and actions.

IFM encourages farmers to have clear and documented management plans for all aspects of the business including health and safety, staff development, financial planning and environmental policies. These are vital in order to quantify and demonstrate the economic, environmental and social impact IFM is making to the overall business.

70%
Staff on LEAF Marque certified businesses have appropriate awareness of IFM



All 1,013
LEAF Marque certified businesses have a Farm Environmental Policy



Case Study: Oserian Development Company

Environmental Planning in cut flower production, Kenya

Developing and implementing a Farm Environmental Policy is an explicit and integral part of Oserian Development Company's business objective and operating philosophy.

This concise document plays an essential role in setting out the company's commitment to benefiting biodiversity and optimising resource management. It summarises Oserian's approach to water management, energy efficiency, environmental impact, conservation, waste minimisation, education, research and technology, accountability and evaluation. Within the businesses, it is shared widely with all staff through notice-boards and regular familiarisation meetings. It is the responsibility of Stephen Musyoka, Farm Comptroller and Head of R&D, to ensure this Policy is implemented and reviewed annually to ensure that the highest standards are observed in all operations and the environmental impacts of the businesses activities are minimised or eliminated altogether.

Recent environmental outcomes based on their Farm Environmental Policy include the planting of a tree nursery and an active tree-planting programme to improve the diversity of indigenous trees and plants on the farm, which now provide valuable food sources for birds and small mammals.

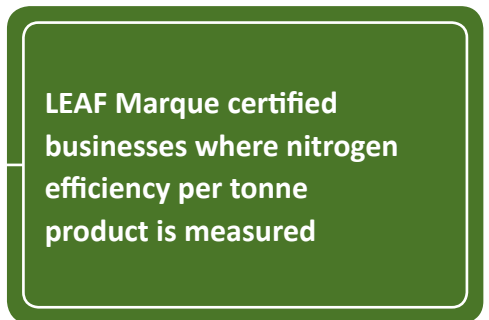
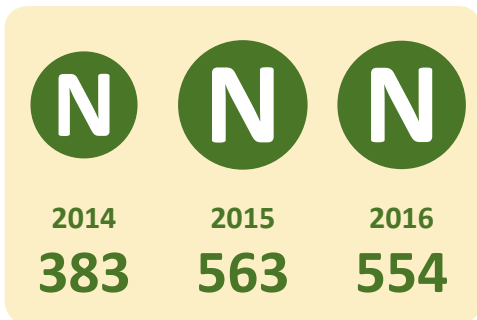
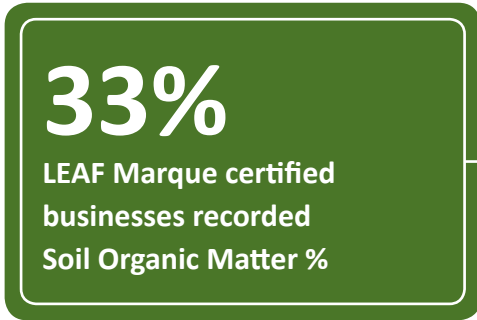


Soil Management and Fertility

Good soil management is key to sustainable farming. The goal of sustainable soil management, whether this is out in the field or using substrates, is to protect and enhance the soil's performance to enable farmers to farm profitably as well as preserve and enhance environmental quality. Integrated Farm Management

takes into account the farm and location, topography, choice of crop, cultivation methods and, where relevant, stocking levels. The aim is always to produce the optimal economic levels of production, maintain and improve the biodiversity value of the farm and minimise pollution.

Soil Organic Matter plays a critical role in many ecosystem functions and is vital to soil productivity, helping to improve water infiltration, reduce run-off, enhance soil resilience and provide food for living organisms. Measuring and recording Soil Organic Matter helps producers understand and evaluate the impact they are having on the soil and identify areas for improvement.



Case Study: Chris Baylis

Soil Organic Matter at Sir Richard Sutton Ltd.

Chris Baylis is a LEAF Demonstration Farmer at Hall Farm, the Lincolnshire Sir Richard Sutton Ltd. site.

The arable enterprise spans across a 30 mile radius and soils range from free draining medium chalk loams to low lying, heavy clay soils.

In 2011 the Estate started trialling the use of direct drilling; driven by the determination to increase the estate's soil organic matter and improve soil health. The aim is to reduce their reliance upon chemical inputs through a more targeted use of cultural control and nutrition.

Current soil cultivation practices include direct drilling, combined with strip tillage, minimal cultivations and rotational ploughing. Cover crops are also used to avoid long periods of bare land and retain soil structure. Soil organic matter is monitored visually and by soil analysis tests.

Whilst results have been mixed to date, many lessons have been learnt and the system is now showing real signs of improving the soil structure and enhancing soil organic matter.





Crop Health and Protection

Crop protection is a very important part of modern farming. Pests and diseases can have a devastating effect on crop yield and quality and so farmers need to balance their use of plant protection products and techniques with wider environmental considerations. Within an Integrated Farm Management system, farmers will consider a broad range of strategies including mechanical, cultural, biological and chemical methods of control as part of an IPM (Integrated Pest Management) approach.

A planned and documented Crop Health and Protection Policy is an essential requirement of LEAF Marque certification. The process of formulating such a policy, helps farmers reflect on management practices, identify areas for improvement as well demonstrate and communicate a clear crop protection strategy for their business.

190,809

Hectares of crop on LEAF Marque certified businesses with a Crop Health and Protection Policy



2014	2015	2016
205,699	295,607	300,012

Hectares of crop on LEAF Marque certified businesses where steps are taken to minimise the damage to beneficial species and non-target organisms





Pollution Control and By-Product Management

All farm operations generate 'by products' or 'wastes' which have the potential to cause pollution and harm the environment. Integrated Farm Management advocates a 'reduce, reuse and recycle' approach

to waste management and views waste as a valuable resource which, when correctly managed can bring environmental benefits as well as help save costs.

We are seeing an increasing number of LEAF Marque certified businesses taking steps to understand the environmental impact of their operations, specifically by using a Carbon Footprint Tool to sequester carbon and generate renewable energy.

35%

LEAF Marque certified businesses used a Carbon Footprint Tool



49%

LEAF Marque certified businesses were carrying out waste management best practice

For more than a century, the people of
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have transformed crops into products that serve the
vital needs of a growing world. Today, we're one of the
world's largest agricultural processors and food ingredient
providers, with more than 32,300 employees serving
customers in more than 160 countries. With a global value
chain that includes 428 crop procurement locations, 280
ingredient manufacturing facilities, 39 innovation centers
and the world's premier crop transportation network, we
connect the harvest to the home, making products for food,
animal feed, industrial and energy uses.



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Animal Husbandry

Livestock farmers are required to utilise and protect natural resources in order to deliver more sustainable farming. LEAF's Integrated Farm Management advocates practices which optimise animal welfare, herd or flock health, contribute to improved grass production and protect soil, water and other natural resources.

All LEAF Marque certified businesses with livestock carry out a Livestock Health Plan, which documents how farmers are managing their animals health. It requires farmers to consider all aspects of livestock management and includes areas such as biosecurity, disease incidence, stocking densities, antibiotic resistance strategies and nutrition management. The development of a Livestock Health Plan is essential to the ongoing improvement of animal performance and to monitor progress accurately.


596,620

Animals reared to the
LEAF Marque Standard



All

LEAF Marque certified
businesses with livestock
have a Livestock Health Plan



**Making the most
of a precious
resource.**

**Farming, the
biggest job
on earth.**

In future, the world's going to need more crops, higher quality ones too. Thus, few things are more precious than the soil where those crops begin. To ensure the soil remains healthy tomorrow, it has to be treated with care and respect today.

BASF is working with farmers to create chemistry that can keep the soil fertile and fruitful with the right amounts of water and nutrients. Stewarding the land and planning for the future. With help from BASF, it's in the farmers' hands.

For more information
Visit www.agriculture.basf.com

**BASF**
We create chemistry



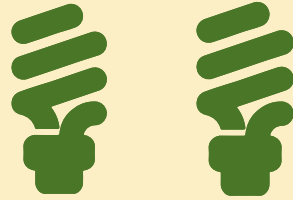
Energy Efficiency

LEAF's Integrated Farm Management encourages farmers to take a holistic view of energy use, through for example, careful use of inputs, striving for optimisation of yields, rather than maximum yields, reducing reliance on fossil fuels and appropriate cultivations. Efficient use of energy on farm helps to save costs, ensure resources

are used more efficiently, reduces waste and contributes to an overall reduction in greenhouse gas emissions from agriculture.

Assessing how energy is currently being used and allocating energy usage to different enterprises is a vital first step to improving energy efficiency. In 2016, we continued to see growth in the number of LEAF Marque certified businesses regularly monitoring their energy use as well as generating renewable energy on-farm.

LEAF Marque certified
businesses monitored
energy consumption



2015
385

2016
390



44%

LEAF Marque certified
businesses have one or
more types of renewable
energy generation on-farm

Backing British Farming For Over 50 Years

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Supporting UK Growers

Tessa Seymour

Commercial Development Manager

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Contact Tessa for more information
about our current and future products:


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Water Management

Efficient water management is a core component of LEAF's Integrated Farm Management. Managing water wisely as well as assessing and enhancing the efficiency of on farm water, saves money and helps provide for future needs.

Good water management practices help protect water sources and improve water quality. IFM encourages farmers to monitor and map water use, assess risks, improve efficiency and find innovative ways to protect water quality through for example, recycling and reuse, better distribution and monitoring, improved irrigation and drainage, soil management and more efficient washing systems.

What is critical for IFM is that our growers are measuring, evaluating and making improvements in all areas of water management. Measuring water use efficiency of irrigated crops is an important way to improve irrigation efficiency for crop production.

419

LEAF Marque certified businesses measured the water efficiency of irrigated crops



Efficient water management is a core component of LEAF's IFM



Case study: Anthony & Lucy Carroll

Attention to detail in irrigation at Carroll's Heritage Potatoes Ltd

Anthony and Lucy Carroll grow top quality Carroll's Heritage Potatoes at Tiptoe Farm in Northumberland. Irrigation is used to help protect against common scab as well as help improve yields. Heritage varieties need careful management, so attention to detail is crucial.

Tiptoe Farm combines Integrated Farm Management with the complete understanding of soil-water interactions which allows for effective irrigation. Soil moisture probes help establish how and where the water is being used in the soil profile and, using this information combined with the weather forecast, decisions are made to tailor irrigation to a crop's needs.

Understanding the individual farm conditions, combined with technology, provides a greater insight into the systems at work. Tiptoe Farm uses water responsibly which allows for continual potato supply while protecting the resource for the environment.



Landscape and Nature Conservation

Care for the environment is at the core of LEAF's Integrated Farm Management. Responsible management of the landscape leads to enhanced biodiversity and can also help protect soil and water as well as support a range of ecosystem services that benefit both the farm and the surrounding area.

A crucial first step in increasing farm biodiversity is identifying and documenting the current habitats on the farm and what action is required to enhance them. All LEAF Marque certified businesses have a Landscape and Nature Conservation and Enhancement Plan, which plays an essential part in helping manage ecosystems, habitats and biodiversity across the whole farm.

In 2016, LEAF Marque certified businesses were carrying out a range of measures to improve on-farm biodiversity. For example, they are planting trees and hedges, managing habitat banks and ponds for the benefit of wildlife and installing habitat boxes to increase the number of birds and mammals on their farms.

13%

Average habitat area on LEAF Marque certified businesses



LEAF Marque certified businesses improving on-farm biodiversity

6 million metres of hedges (that would stretch further than from Paris to Moscow and back)  **1,311 ponds** 

136,044 metres of habitat banks 

565 reservoirs that benefited biodiversity 

342,738 in-field trees 

1 million metres of non-hedge boundaries



Case Study: Patrick & Brian Barker Habitat Management at EJ Barker and Son Ltd

Consistent wildlife monitoring and management through appropriate auditing and planning has reaped great rewards at EJ Barker & Sons.

Squaring up fields, removing awkward corners and taking wet areas and shaded headlands out of production has provided the farm with a plentiful area of habitat. The management of these areas is focused around two target species, the Grey Partridge and Great Crested Newts. Due to the complex variety of needs required by these species, other biodiversity tends to benefit from their successful conservation.

Habitat management is kept simple on farm, but Patrick is keen to optimise all efforts for the benefit of biodiversity. For example, wild bird seed mixes are selected based on soil type and ground conditions to optimise yield. Wild bird seed mixes, nectar flower mixes, grass margins and species rich grassland give birds protection from the weather and predators.

By following these principles within an Integrated Farm Management approach, the same level of care and consideration is given to environmental management as commercial crop production.



Community Engagement

Engaging people with where their food comes from and how it is produced is an important part of delivering more sustainable food and farming. Experiencing the sights, sounds and smells of real working farms encourages people to value and trust the food they eat and take a deeper interest in nurturing the natural world

around them. LEAF members work with their local communities in a number of ways, including hosting visits for schools and community groups, giving talks and often contribute to the sense of 'good will' within the community, through for example, hedge trimming and road clearing.

A growing number of LEAF Marque certified businesses are actively communicating about how they farm sustainably through farm visits and events – both on and off farm. We see them reaching out to a wide range of groups, most notably industry representatives, other farmers and schools. In addition, an increasing number of LEAF Marque certified businesses are taking part in LEAF Open Farm Sunday, the industry's annual open day. These are all very positive indications of growing recognition amongst LEAF Marque certified businesses of the importance of engaging the public in sustainable food and farming.

53,259

Visitors to LEAF Marque certified businesses



LEAF Marque certified businesses communicated about more sustainable food and farming to a total of **163,317** visitors through **7,147** on-farm and **703** off-farm events





Next Steps

The results highlighted in this report clearly demonstrate that LEAF Marque certified businesses are continuing to make significant progress towards delivering more sustainable farming. Ongoing improvements can be seen across all nine sections of Integrated Farm Management.

This progress is hugely encouraging and clearly shows the growing interest and strong commitment from the industry to build a more sustainable and resilient supply chain through the LEAF Marque environmental assurance system.

However, there is still more to be done. Whilst we continue to make significant impact in the arable and horticultural sectors, we are now looking to strengthen our reach to other farming sectors, most notably meat and dairy.



Another key focus is to build our understanding of the impacts that LEAF Marque certification is having and we will be commissioning independent research to look at this. In addition, we will continue to develop the LEAF Marque Chain of Custody in order to ensure transparent and traceable systems throughout

LEAF Marque supply chains. Furthermore, we will be looking at new ways to stimulate awareness and demand for LEAF Marque certified products. This will mean working with key stakeholders throughout the supply chain as well as engaging more with consumers through our growing public outreach activities.

LEAF Marque certification provides a logical and effective pathway to more sustainable farming. It provides the framework and conduit for farmers to demonstrate their commitment. In addition, it is the supply chain and the retailers who have supported LEAF Marque that provide the market driver that encourages growers to seek LEAF Marque certification and allows consumers to make more informed decisions as we all strive to deliver more sustainable food supply chains.

We congratulate and thank them all and look forward to continuing to work together towards a world that is farming, eating and living sustainably.

Communicating sustainability performance and demonstrating those achievements is critical in order for businesses to build trust and loyalty with customers and stakeholders. Be bold and proud about your involvement with LEAF and LEAF Marque; let us fanfare our collective successes and, together, make some noise.

LEAF: the go-to organisation for the delivery of more sustainable food and farming



Join us

LEAF (Linking Environment And Farming) is the leading organisation delivering more sustainable food and farming. We offer membership for farmers, corporate organisations, advisors and consultants, colleges and 'Friends of LEAF' – all tailored to suit your needs.

To find out more about the benefits of being a LEAF member visit:

www.leafuk.org



LINKING ENVIRONMENT AND FARMING



www.farmsunday.org

Appendix

The key data used in LEAF's Global Impacts Report 2017 includes information from the LEAF Audit¹, the LEAF Sustainable Farming Review², LEAF's Sustainability Survey³ and LEAF Open Farm Sunday⁴. The data is provided to the best of our knowledge.

¹LEAF Audit

The LEAF Audit is an online self-assessment resource which was available to LEAF members until December 2014 when it was replaced by the LEAF Sustainable Farming Review. The completion of the LEAF Audit was a requirement of the LEAF Marque Standard (e.g. v11.2) and this completion is independently verified. However, the specific responses with the LEAF Audit are self-assessed and not verified through third party inspection.



The LEAF Audit comprised over 370 statements based around the nine sections of Integrated Farm Management. Each question was required to be answered with one of the following five responses: Fully Achieved; Considerable Progress; Some Progress; Not Started; or Not Applicable.

For the purposes of this report, analysis of this data only includes LEAF members who held a current, full LEAF Marque certificate at 31st December 2014 for 2014 data. The number of businesses reported shows the number of LEAF members that answered "Fully Achieved". It should be noted that LEAF members who responded "Considerable Progress" or "Some Progress" may still meet the criteria required within the LEAF Marque Standard; however, this is not represented within this report.

²LEAF Sustainable Farming Review

The LEAF Sustainable Farming Review is an online self-assessment resource for LEAF members to support their implementation of Integrated Farm Management. The completion of the LEAF Sustainable Farming Review is a requirement of the LEAF Marque Standard (v12.0 onwards) and this completion is independently verified. However, the specific responses within the Review are self-assessed and not verified through third party inspection.

The LEAF Sustainable Farming Review is composed of around 90 principles based around the nine sections of IFM along with further guidance information and links to support the user. Each question must be answered in one of the following five ways: Fully Achieved; Considerable Progress; Some Progress; Not Started; or Not Applicable. Additionally, the user indicates which of the supporting practices, which are associated with the principle, they carry out.

For the purposes of this report, analysis of this data only include LEAF members who held a current, full LEAF Marque certificate at 31st December 2015 for 2015 data and at 31st December 2016 for 2016 data.

Unless otherwise stated, the data shows the total crop area (not farm business area) for LEAF members that answered "Fully Achieved". It should be noted that LEAF members who responded "Considerable Progress" or "Some Progress" may still meet the criteria required within the LEAF Marque Standard; however, this is not represented within this report. The LEAF Sustainable Farming Review can be completed at any point during the year.

³LEAF's Sustainability Survey

Over the last 4 years, LEAF has circulated a repeat questionnaire to its members to ascertain their perception of their farms' sustainability.

⁴LEAF Open Farm Sunday

Every year, LEAF carries out an extensive analysis of farms participating in LEAF Open Farm Sunday events and some surveys of visitors. Farms participating are both LEAF members and non-LEAF members.

For more information, please contact LEAF (see back cover for contact details).





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LINKING ENVIRONMENT AND FARMING

LEAF (Linking Environment And Farming)

Stoneleigh Park, Warwickshire

CV8 2LG United Kingdom

t: +44 (0)2476 413 911

e: enquiries@leafuk.org

w: www.leafuk.org

 [@LEAF_Farming](https://twitter.com/LEAF_Farming)

 facebook.com/LinkingEnvironmentAndFarming

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