



LINKING ENVIRONMENT AND FARMING



Delivering More Sustainable Food and Farming

LEAF's Global Impacts Report 2018



WHO WE ARE

LEAF (Linking Environment And Farming) – a 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

OUR VISION

A world that is farming, eating and living sustainably

OUR WORK

We work to develop and promote Integrated Farm Management (IFM) in three core pillars:

- Facilitating knowledge generation and exchange
- Developing market opportunities through LEAF Marque
- Educating and engaging the public in sustainable food and farming

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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 LEAF Membership data, the LEAF Annual Survey, LEAF Sustainable Farming Review self-assessment process and Independent Evaluations as well as from LEAF Open Farm Sunday and FACE. 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.

Cherry Orchard, Hereford.

We are the only supermarket to guarantee that all our UK fresh fruit and vegetable growers are LEAF Marque certified to ensure strong environmental standards.

Waitrose

Proud to support LEAF





In Waitrose we care very deeply about the food we sell. We work closely with our farmers to ensure the food on our shelves is produced to the high environmental and ethical standards that both our customers and our Partners – as everyone who works in the John Lewis Partnership is known – expect.

For this reason I am delighted to be writing the foreword for the LEAF Global Impacts Report. Through the simple requirement that all our conventional UK fresh fruit and vegetables are grown to the LEAF Marque Standard, we have driven forward sustainability in UK supermarket sourcing. Indeed, we have many touch points with LEAF and are delighted that the Waitrose Farm at Leckford Estate is a LEAF Demonstration Farm.

Benchmarking is key for us. It drives forward continuous improvement and empowers farmers to embrace innovation and new technology. It also shines a spotlight on real achievement across the industry as this report highlights. In here we see LEAF Marque businesses committed to a philosophy of resilient, competitive and yet responsible business practice.

By working together with businesses and individuals at all points in the supply chain, Waitrose will continue to play its part in delivering more sustainable food production alongside LEAF and its farmers. This is an exciting time for all of us.

Rob Collins
Managing Director, Waitrose

Backing British Farming through the Generations

Supporting Generations of Sugar Beet Growers for over 50 Years

Germain's is passionate about backing British farming with its continuing commitment to deliver industry-leading seed technology to current and future UK Sugar Beet growers!

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- ✓ Faster emergence in UK field conditions
- ✓ Increased yield potential
- ✓ Increased tolerance of stressful conditions
- ✓ Improved uniformity

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LINKING ENVIRONMENT AND FARMING

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Welcome to our sixth Global Impacts Report, focusing on the collective performance and impact of our farmers and growers across the world in their delivery of more sustainable food and farming. LEAF is committed to monitoring and assessing the impact of our work to drive forward continual improvement and effectiveness.

We are delighted with the progress we have made and are seeing some real and lasting change in the resilience, productivity and health of farmland across the globe delivering public goods. A huge thank you to all those we work with; it is this combined commitment to LEAF's Integrated Farm Management (IFM) that is helping to make our shared vision of a world that is farming, eating and living more sustainably, a reality.

This report demonstrates how a credible, market-based, independent, science and evidence-based assurance system can help drive forward strong connections between farmers, consumers and the wider supply chain. Each year, we aim to ensure that we add value to our farmers, offering them ways to demonstrate their environmental commitments and showcase the range of public goods and services they deliver. This year, we have carried out further independent research to strengthen the case for our farmers and build stronger claims around their performance.

With the United Nations Sustainable Development Goals providing an important focus for delivering a better world, the work of LEAF and our members plays a key part in translating them into meaningful change on the ground. This report demonstrates our fundamental belief in the long-term positive impact in all that we do. We look forward to your feedback and again, a huge thank you to all those farmers, growers and supply chains who are so committed to taking strong leadership in this critical area.

Caroline Drummond MBE
LEAF Chief Executive

Executive Summary

Our sixth Global Impacts Report reflects on the progress LEAF members and LEAF Marque certified businesses are making to implementing more environmentally sustainable farming practices through Integrated Farm Management. It fanfares their achievements, highlights our impacts and sets out our priorities for the future. The report demonstrates that LEAF Marque certification is helping farming businesses achieve their sustainability goals. It is their drive, determination and commitment that is delivering meaningful change on the ground.

1,032

LEAF Marque certified businesses



Growing global reach

The global reach of LEAF Marque in the arable and horticulture sectors continues to grow. We work with 1,032 businesses in 34 countries, representing a total of 386,583 hectares and encompassing 162 different crop types and livestock classes. Cereals remain the largest LEAF Marque crop area worldwide at 51% followed by horticulture at 43%. The UK represents the largest crop area at 314,491 hectares, followed by Spain (23,278 hectares), France (13,758 hectares) and Egypt (4,489 hectares). This continued increase in reach, combined with growing market uptake is a strong indication that LEAF Marque certification is attractive to farming businesses as well as the wider industry.



386,583

Hectares of crop on LEAF
Marque certified businesses
around the globe

Our impact in the UK

Growth in the UK horticulture sector remains strong. For the sixth year running, the percentage of UK produced fruit and vegetables grown on LEAF Marque certified businesses has increased, which now totals 36%, including 95% of leeks and 91% of asparagus.



Learning for the future

The results highlighted in this report show significant improvements being made by LEAF Marque certified businesses around the world. They are addressing sustainability challenges through better soil and water management, improving energy conservation, optimising inputs, enhancing biodiversity and engaging with their local communities. In addition, our increasing outreach and education activities are helping to drive awareness and understanding of sustainable farming. The impacts of our work in all these areas are highlighted throughout this report.



36%
of UK fruit and vegetables
grown by LEAF Marque
certified businesses

Underpinning LEAF Marque certification is the framework of Integrated Farm Management which advocates best agricultural practice through monitoring, reviewing and continual improvement. It requires farmers to be innovative, to embrace new technologies, to adopt smarter approaches to business planning in order to drive forward increased productivity and business resilience whilst protecting valuable resources. Our knowledge generation and exchange priorities delivered through the LEAF Network of Demonstration Farms and Innovation Centres is key.

It is clear that LEAF Marque certification is empowering and enabling farmers to make positive changes towards more sustainable farming. Our job is to reach out to more farmers, extend our links with retailers and the wider supply chain and carry out more research to support and fanfare our work.

34

Countries with LEAF Marque
certified businesses



Inspiring and Enabling Sustainable Farming

LEAF Theory of Change

Vision

Mission

Core Activities

Direct Outputs

Desired Impact

Inputs from stakeholders



A world that is eating sustainably

Our mission is to inspire farming that is profitable, environmentally and economically sustainable

Integrated Farm Management (IFM) is a whole farm business approach that delivers sustainable farming:

- Delivering prosperous farming
- Enriching the environment
- Engaging local communities
- Demonstrating site specific and continuous improvement across the whole farm



LEAF Marque: increasing the impact of environmentally sustainable farming

LEAF Marque intended impacts are:

- Soil management to enhance soil health
- The resilience of cropping systems
- Management of water use and water quality
- Energy efficiency and energy use
- Waste management
- Management of livestock to enhance animal welfare
- And enhance the management of farm resources

LEAF Network

Technical Resources

Practical Events

Training

LEAF Marque System

LEAF Innovation Centres

LEAF Demonstration Farms

LEAF Sustainable Farming Review

Membership Support Services

Standard

Facilitating knowledge generation and exchange

Developing Opportunities

Increasing the adoption of more sustainable farming practices through Integrated Farm Management

Improving industry recognition and demand for sustainably sourced products

What is farming,
and living
sustainably

Support and enable sustainable
rural communities, enriches the
rural landscape and engages local communities



(Linking
Environment
And Farming)

Implementation of more
sustainable practices through IFM.

Areas to improve:

Water quality and soil health

Water quality

Water quality

Water quality

Protect the environment

Protect native habitats and biodiversity



We work with the public and school communities to help children, young adults and adults understand the connection between farming and their daily lives.



Extensive IFM
research and
case study
support
materials

Supporting
behaviour
change

Stakeholder
and industry
engagement

Monitoring
and
evaluation

Robust
Governance

Political
Engagement

Tripling LEAF's
capacity by
2021 to
deliver its
work and
outreach

Market
engagement

Assurance

Engaging Market
Communities

Engaging the Public in Sustainable
Food and Farming

Farming and
Countryside
Education

LEAF Open
Farm Sunday

LEAF Open
Farm School
Days

Leading a collaborative
approach within the
industry for better public
engagement and education
among consumers, children
and young people

Positively influencing
people's attitudes towards,
and knowledge of food,
farming and the
environment

Effects and Impact of LEAF Marque

The provision of robust, transparent and independent evaluation allows us to assess the impact of LEAF Marque certification in order to support the claims we are making. We commission, conduct and undergo a range of evaluations, the findings of which provide vital insights which we use to revise and adapt the LEAF Marque assurance system. This is vital to our continual growth and improvement for the benefit of all LEAF Marque certified businesses.

Our most recent study¹ looked at the impact and added value to farmers of LEAF Marque certification. The study was commissioned by LEAF in 2017 and carried out by the Countryside and Community Research Institute (CCRI). It built on previous work the CCRI carried out in 2010 which focused more broadly on the benefits to farmers of LEAF membership.

Independent evaluation



Examining the financial, environmental and social benefits of LEAF Marque certification were key aims of this study. We also heard from farmers, who explained in their own words, how LEAF Marque certification is making a difference to their lives and their businesses.

37 farmers from the UK, Spain and Senegal took part representing a broad range of farm types including arable, horticultural, livestock and mixed farms; these included family farms, estates, partnerships and limited companies.

Positive impacts

The study showed that **all businesses participating in LEAF Marque certification found value from it.** In many cases, it reached **beyond their initial motivations for joining** and helped them develop their businesses in ways they would not previously have considered.

“The nice thing about LEAF [Marque] compared to the other [assurance schemes] is that it is a practical audit and it is very, very environmentally focused.”

Anthony Snell, A J and C I Snell



Participants were united in their commitment to producing high quality, affordable food through more sustainable farming methods. They were choosing LEAF Marque certification to realise these commitments and it was leading to significant financial, environmental and social benefits. Key benefits included: on-farm cost savings, additional income, new market opportunities, enhanced biodiversity, soil improvements, better community engagement and adherence with regulatory requirements. In addition, many businesses were actively engaged in various forms of innovation in order to develop more resilient business models to meet the demands of the present and anticipate future opportunities.



of farmers reported LEAF Marque certification had helped secure access to new market opportunities



66%
of farmers reported increased biodiversity



36%
reported extra income as a result of LEAF Marque certification



64%
reported LEAF Marque certification had helped improve soil condition

A catalyst for change

The results of this study demonstrate that LEAF Marque certification is empowering farmers to make positive changes towards more sustainable farming. What is clear is that the effectiveness of LEAF Marque certification and the principles of Integrated Farm Management upon which it is based, are dependent on active, skilled and knowledgeable intervention from individual businesses. We look forward to building on this work and to continuing to support farmers in their journey to more sustainable farming.

'For more information about this independent evaluation, including details of evaluators, methodology, key findings, conclusions and recommendations, please see M. Reed, N. Lewis and J. Dwyer (2017) The effects and impacts of LEAF Marque in the delivery of more sustainable farming: a study to understand the added value to farmers - available on the LEAF website: leafuk.org/farming/leaf-marque/leaf-marque-independent-evaluation.



Sustainable Farming Through IFM

LEAF's Integrated Farm Management (IFM), which underpins the LEAF Marque assurance system, helps farmers implement more environmentally sustainable farming practices. IFM is a site-specific farming system balancing farm economic viability, the environment and society, over the long term. It uses the best of modern technology with some basic principles of good farming practice and includes measures to retain and enhance Natural Capital through improving soil and water quality, avoiding waste, enhancing energy efficiency, minimising pollution and developing landscape features and wildlife habitats.



Site specific

IFM considers the whole farm situation and looks to deliver a range of public goods and services as well as safeguarding the farm's natural assets and surrounding community, now and in the future. It is a dynamic system that adapts to changing conditions by combining local knowledge with new research and technologies. Farming businesses practicing IFM deliver a more sustainable and safe approach providing long-term benefits. This means carefully considering aspects such as site selection, soil and water management, seed and planting material, crop rotation, crop nutrition, pest control and landscape enhancement that fit the local conditions and climate.

IFM in action

We support farmers to implement IFM through the provision of training, technical tools, resources, and on-farm visits. The LEAF Sustainable Farming Review is one of our key on-line tools which allows farmers to 'step back' from everyday farming practices to monitor their performance, identify strengths and weaknesses and set targets for improvement across the nine sections of IFM. It also enables farmers to benchmark their performance with other farmers which is key to continual improvement. All LEAF Marque certified businesses are required to complete the LEAF Sustainable Farming Review.



IFM research and development

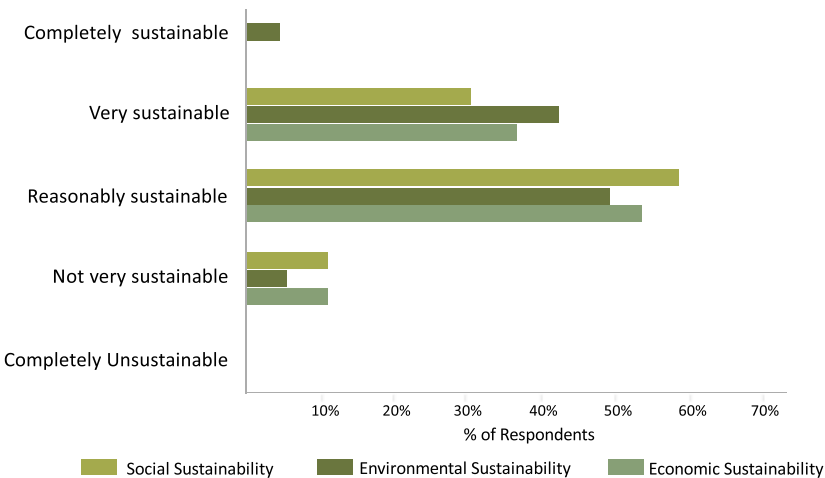
IFM is a dynamic farming system. Ensuring its ongoing development is backed up by robust science which is translated to farm level, is one of the key roles of the LEAF Network of Innovation Centres and Demonstration Farms. Cutting edge IFM research generated from our Innovation Centres is tested in a practical farm setting on our Demonstration Farms and then promoted to the wider farming community through farm visits, talks and training events. It is this ‘science into practice’ approach which ensures IFM continues to develop to meet current and future sustainability challenges.

Moving towards more sustainable farming

We consult with our members regularly to determine their views on the economic, environmental and social sustainability of their businesses. The majority of respondents to a survey we conducted in 2017, said they felt their businesses were either ‘reasonably’ or ‘very’ sustainable, compared to the previous five years. Reasons cited included improved efficiency of inputs such as energy and water; diversification at both a crop and business level; increased collaboration with peers and external companies through farm visits and involvement with initiatives such as LEAF Open Farm Sunday.

We were also interested to find out how members felt their farming practices were meeting the environmental sustainability standards expected by suppliers and end users. The vast majority of respondents (93%) said they did meet these expectations and cited the LEAF Marque assurance system as a key driver in this.

How sustainable do LEAF members currently feel their farm business is?



Knowledge Generation and Exchange

Equipping farmers with the latest skills and know-how to address sustainability challenges through Integrated Farm Management (IFM) is at the core of LEAF.

Pushing forward the science and technology behind sustainable farming and ensuring it translates to farmers on the ground is a key function of the LEAF Network of Innovation Centres and Demonstration Farmers. Our eleven Innovation Centres, made up of leading research organisations, support the research, evidence, development and promotion of IFM and help drive forward its continual development. In turn, they work alongside over forty Demonstration Farms who put the science into practice and disseminate it to the wider farming community through on-farm visits, talks and training. Last year, for example, 11,895 people visited LEAF Demonstration Farms to learn about IFM best practice.

We are currently a partner in four European research projects looking into crop diversification, farm resilience and intercropping as well as methods to best demonstrate these in practice. Our involvement with cutting edge research ensures we can continue to develop the IFM framework and practices within it.

We continue to be an active partner in a number of industry groups and initiatives, both in the UK and globally, and believe that collaboration across the industry is absolutely key to supporting the development, demonstration and uptake of more sustainable farming. Partnerships help us pool ideas, resources and expertise to drive forward real change.

11,895

Visitors to LEAF Demonstration Farms



1,182

Users completed the LEAF Sustainable Farming Review





LEAF Demonstration Farmer, Jeremy Padfield speaking at Overbury Enterprises



Developing Market Opportunities

LEAF Marque certification offers a coherent framework for helping to translate many of the ambitions of the Sustainable Development Goals (SDGs), particularly in relation to SDG 12 (Responsible Consumption and Production), into reality at farm level. It offers a pathway to more sustainable farming, enabling farming businesses to profile their environmental commitments and achievements and gain recognition in the market place; this may be in the form of a premium or access to higher value supply chains. It also helps farms access other income streams such as through agri-environmental schemes and can often lead to significant cost savings through greater efficiency. Furthermore, it can also help to reduce regulatory burdens on farmers, such as the Environment Agency's use of Earned Recognition for LEAF Marque certified businesses, giving a reduced risk of inspection due to their strong track record.

We work in partnership with leading brands and supermarkets including Waitrose, M&S, Jordans and Florette. Increasingly, the LEAF Marque logo is being seen on a wide range of fresh produce and non-food crops. In Waitrose, for example, all their UK grown fresh produce is LEAF Marque certified and LEAF Marque certification is a key part of M&S Plan A objectives. Florette



display the logo on a number of their bagged salads and the Jordans oat supply chain is LEAF Marque certified. Furthermore, our partnership with the Jersey Government, who are requiring all their dairy and arable farmers to become LEAF Marque certified, as part of the Island's new rural support scheme, is further strengthening our reach in the livestock sector.

We are committed to openness, credibility and rigour and are proud to be a full member of the ISEAL Alliance, the global membership association for sustainability standards. LEAF Marque is underpinned by ISEAL's Codes of Good Practice which ensure transparency in the way our standards are set, their impact and help shape the way we are improving over time.



Case Study:

States of Jersey Government

Market Opportunities: Towards Sustainable Farming

Driving forward continual improvement and innovation, promotion of environmental best practice and identifying new market opportunities, is at the heart of the States of Jersey's new Rural Economy Strategy (RES), introduced last year. As part of the strategy, farmers will receive payments for the environmental and social benefits (or 'public goods') they deliver through an integrated approach to farming.

LEAF Marque is part of the delivery mechanism through which the Government of Jersey is driving forward its sustainability objectives. In order to receive support payments, all the islands farmers are required to be LEAF Marque certified by 2019. LEAF Marque's focus on soil and water management, energy efficiency and enhancement of landscape and wildlife features, resonates well with the overarching purpose of the new strategy – to grow the rural economy whilst safeguarding Jersey's countryside and environment.

The new RES is designed to work hand-in-hand with other Government of Jersey strategies to safeguard Jersey's environment, including initiatives such as the Action for Cleaner Water Group. This well thought out and linked up government approach, underpinned by LEAF Marque certification, is providing individual farming businesses with valuable market opportunities which could be further considered for individual products and potentially supporting exports from Jersey's agriculture sector.



LEAF Marque Globally

34 Countries Worldwide have
LEAF Marque Certified Businesses



Wheat

98,177ha



Barley

34,516ha



Potato

32,618ha



Oilseed Rape

27,329ha



Lettuce

11,208ha



Sugar beet

10,840ha



Onion

10,546ha



Permanent Grass

10,307ha

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



Leeks
95%



Asparagus
91%



Beetroot
88%



Lettuce
87%



Watercress
82%



Cherries
81%



Spring Onions
76%



Parsnips
75%



Onion
75%



Broccoli
74%



Carrot
8,319ha



Maize
8,149ha



Broccoli
7,562ha



Cauliflower
6,119ha



Temporary Grass
5,014ha



Sweetcorn
4,675ha



Apple
4,567ha



Spinach
4,154ha

Education and Public Engagement

We all have a stake in our environment. Everyone can play a part. Farmers have a key role in building awareness, understanding and appreciation of what they are doing to farm more sustainably and, critically, what actions can be taken on an individual level. Through our education and public engagement activities, resources and training, we help people make the connection between farming and their daily lives.



Since 2006, we have run LEAF Open Farm Sunday (OFS) – the farming industry’s annual open day, which has seen over two million people visit a farm and learn more about sustainable farming, how farmers are managing the countryside and protecting our natural resources. The number of LEAF members taking part in Open

Farm Sunday continues to increase and they also develop strong community networks by hosting visits, giving talks and contributing to local projects. Our second Education and Public Engagement conference brought together farmers, educationalists, researchers and marketing experts to raise awareness of the importance of reaching out to teenagers and explore practical and effective cross-industry solutions to bring them closer to farming, food production and the natural environment.



Food and Farming Education

Strengthening the connections between the public and agriculture has been key to LEAF's work for more than 25 years. Our merger with FACE (Farming and Countryside Education) in July 2017, has allowed us to further our education activities and scale up our work, both regionally and nationally, as the interface between agriculture and schools.



173

Schools engaged with FACE



5,436

children involved with FACE



During 2017, FACE's work has helped thousands of children, teachers and food, farming and countryside professionals to learn more about farming and understanding its connection with their daily lives. FACE's team of Regional Education Consultants work closely with schools providing advice, resources, links to farmers, support with farm visits and enrichment opportunities both in and outside the classroom.

Equipping teachers with engaging classroom resources, mobilising farmers to deliver inspiring on-farm and in-classroom education, partnering with businesses and building on our accredited teacher training courses with universities, our partnership with FACE represents a powerful force for change.



7,950

learning hours on food and farming in classroom



55

disadvantaged schools experienced farming



Organisation and Planning

The documentation of procedures and policies, creation of management plans covering staff development, health and safety and financial planning are all best practice examples of a well-managed and efficient business.

We advocate a culture of continual improvement involving ongoing assessment, review and enhancement across the whole business, encouraging farmers to consider the economic, environmental and social impact of all their management decisions. This process needs to involve the wider team and it is therefore important that all staff have an awareness and understanding of IFM relevant to their job role.



67%

Staff on LEAF Marque certified businesses have appropriate awareness of IFM



Specifically, all LEAF Marque certified businesses are required to produce a Farm Environmental Policy and a Farm Environmental Plan. These set out plans and targets on reducing environmental impact and the farm's overall environmental commitment to optimising usage of power, water and other consumables, reducing waste, preventing pollution and enhancing biodiversity. They are important management resources to assess and monitor the farm's overall economic and environmental performance as well as communicating the business' intentions both internally and externally.

Case Study: Leckford Estate

Organisation and Planning: Driving business efficiency through effective communication

Successful implementation of Integrated Farm Management (IFM) requires effective organisation and planning. Setting objectives and monitoring the results allow the benefits of IFM to be quantified, demonstrated and continuously improved.

LEAF Marque certified business Leckford Estate, part of the John Lewis Partnership, is a large and complex business model. It occupies some 4,000 acres and incorporates a commercial farm, supplying food for 300 Waitrose stores across the UK, as well as food processing units, a farm shop and café, a specialist plant nursery, water gardens and a range of other leisure facilities including fishing lakes, golf course and residential properties.

Managing these diverse enterprises is delivered through effective communication across all levels of the business. An internal website provides staff with access to business operating procedures, policies, emergency and security procedures as well as regular updates from the senior management team. A weekly newsletter 'The Grapevine' also provides updates from the estates numerous enterprises and a place for staff and management to share news. Such communication channels encourage a widespread appreciation of the role that everyone in the businesses has to play in delivering the business goals through IFM.



Leckford Estate, Hampshire



Soil Management and Fertility

Soil is the basis of farming as well as a crucial pool of Natural Capital. Increasingly the spotlight is on improved soil management, protecting and enhancing its performance, in order to increase farm profitably and preserve environmental quality for decades to come. Much has been done, but more work is needed to preserve and increase soil fertility, improve organic content, understand more about soil biodiversity and improve water retaining capacity as well as improve soils role in climate change mitigation.



Integrated Farm Management encourages farmers to carry out a range of practices to improve the quality, performance and resilience of the soil. These include enhancing organic matter, avoiding excessive tillage and soil compaction, managing nutrients efficiently, employing Integrated Pest Management techniques, maximising ground cover, increasing diversity and continually monitoring soil performance.

Improving soil organic matter is one of the most important ways to enhance soil quality and we are encouraged to see an increase in the number of LEAF Marque certified businesses regularly recording the organic matter in their soils – a vital first step in understanding and enhancing soil performance.

40%

LEAF Marque certified businesses recorded Soil Organic Matter %



LEAF Marque certified businesses where nitrogen efficiency per tonne product is measured



2015
563



2016
554



2017
595





Compost sieving, Blue Skies, Ghana



Crop Health and Protection

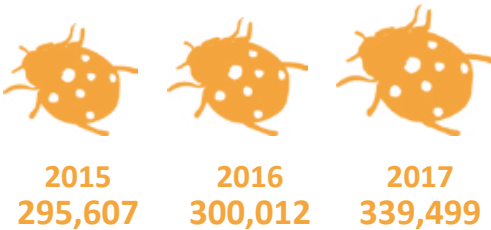
At a time of rising food prices, population growth and concerns over global food security, farmers need to use every available technology to meet future food needs and to tackle the emerging challenges of climate change and resource protection. Identifying the environmental risks to water, soil and biodiversity on the farm, and relating them to crop protection practices, in order to minimise these risks, is key to Integrated Farm Management.



LEAF Marque certified businesses adopt an ecosystem based approach to pest control by implementing eight aspects of best practice in Integrated Pest Management (IPM). IPM combines different management strategies to grow healthy crops such as biological control, rotations, modification of cultural practices, using pest resistant crop varieties and, if used, optimising the use of plant protection products.

52%

LEAF Marque certified businesses carried out all 8 aspects of best practice in Integrated Pest Management



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



Case Study: Royalcress SA

Crop Health and Protection: a shared responsibility

Royalcress SA, part of The Watercress Company, are specialist growers of watercress and baby leaf salad, based in Jerez de la Frontera, Spain. Recognised for their pioneering work in bio-controls, LEAF Marque is firmly embedded in the business' ongoing commitment to environmentally sensitive pest and disease control delivered through Integrated Pest Management (IPM).

IPM offers a toolbox of techniques that can be tailored to different cropping systems, climatic conditions, pest pressure and availability of solutions. These include using natural predators, selecting pest resistant varieties and careful monitoring of harmful organisms. The diversity of solutions available in IPM allows producers to make informed decisions on how to manage their crops and minimise reliance on pesticides.

The use of IPM strategies at Royalcress SA has helped to build up the economic, environmental and social sustainability of the business. Increases in yields have been recorded as well as cost savings due to a reduction in plant protection products. Biodiversity across the farm has also increased and pest populations have been lowered.

In addition, the use of IPM techniques, which require high levels of staff engagement and training, has facilitated fresh interaction and dialogue with staff. This has built up a greater sense of ownership and shared responsibility for the businesses crop protection strategies.



Pollution Control and By-Product Management

Farming operations produce a range of wastes or by-products. Integrated Farm Management (IFM) advocates a 'good housekeeping approach' to waste management focusing on reducing, reusing and recycling plastics and other wastes wherever possible. Awareness of the resource value of wastes and their economic and environmental benefits is key to the successful implementation of IFM.



We continue to see LEAF Marque certified businesses actively taking steps to assess the impact of their farming operations, through, for example, the use of a Carbon Footprint Tool. This data is providing farmers with a useful starting point to enable them to identify potential areas of improvement and set targets for action.



Waste Recycling Centre, The Allerton Project


51%

LEAF Marque certified businesses carried out waste management best practice

34%

LEAF Marque certified businesses used a Carbon Footprint Tool





**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

Animal Husbandry

For businesses with livestock, the health and welfare of their animals is closely linked to the performance, yield and economic viability of the whole farming enterprise. High standards of animal welfare are crucial not only for healthy livestock but also for ensuring high standards of food safety and food security and reducing environmental impacts.



Implementing a Livestock Health Plan on-farm, and integrating this with an overall IFM approach, enables LEAF Marque certified businesses to prioritise preventing, managing and controlling illnesses and existing conditions to reduce disease risk and resistance and to keep livestock healthy.

Regular review of the Livestock Health Plan and monitoring of welfare and performance indicators helps LEAF Marque certified businesses to monitor progress and ensure herd and flock health and performance is improving.

In 2017, we saw an increase in the number of cattle and sheep on LEAF Marque certified businesses as well as more permanent and temporary grassland. These are positive indications of our growing profile within the livestock sector and the market opportunities it offers farmers.



74%

LEAF Marque certified businesses with livestock observe indicators of animal welfare and performance on a production cycle basis

473,884

All animals on LEAF Marque certified businesses have a Livestock Health Plan





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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For more information:
www.wearegreenyard.com

for a healthier future

LEAF's Integrated Farm Management encourages farmers to take an holistic view to how they manage and conserve energy. For example, as well as looking at lighting, heating, ventilation and refrigeration, we encourage farmers to look at their energy use across the whole farm and identify areas where it can be reduced. This is being achieved in a number of ways, including better machinery maintenance, appropriate cultivations and optimal use of crop protection products.

LEAF Marque certified businesses are managed by some of the most innovative and forward-looking farmers. As well as regularly monitoring energy use, we are seeing a real willingness to embrace new ideas in order to minimise environmental risks, save costs and even generate additional revenue. These include sending product off-farm to be used to generate renewable energy, sourcing their energy from renewable sources and utilising 'natural' sources of energy including sunlight and water.



44%

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

368

LEAF Marque certified businesses monitored energy consumption



Case Study: G's Espana S.L.

Energy Efficiency: Driving efficiencies through good business management

Good overall business management is the most effective route to improving energy efficiency. This means being aware of existing energy consumption, the way it is distributed and how effectively it is used.

An early part of G's Espana's commitment to LEAF Marque was revising their use of fossil fuels across the whole business. Investments have been made in solar powered irrigation equipment which has helped reduce fuel consumption. Additionally, new systems for recording vehicles filling up with fuel allows more accurate recording of energy consumption for individual machines, crops, staff and operations. This is leading to direct reductions in fuel consumption and further analysis is planned to understand how developments in approaches can further reduce fuel use.

Most of the farm's tractors are equipped with Global Positioning System (GPS) technology to improve the efficiency of tillage operations, save fuel and maximise field operation effectiveness. In addition, all recent machinery purchases have included AdBlue and Selective Catalytic Reduction (SCR) technology to reduce nitrogen oxide emissions, a particularly potent greenhouse gas. Staff are fully engaged with the businesses overall energy efficiency strategies and receive regular training to ensure they are up-skilled to take full advantage of new technologies.



Water is a vital component of agricultural production. Careful and effective water management is a key element of LEAF's Integrated Farm Management (IFM). It involves understanding, measuring and assessing how water flows around the farm and recognising how farming practices affect the flow, availability and quality of water which can all help support biodiversity.



IFM aims to support farmers in considering the economic, environmental and social impact of their water management practices in order to improve the safety and quality of the water they use. It emphasises careful tracking and monitoring and requires that farmers apply these principles within a context of continuous improvement.

We continue to see a commitment amongst LEAF Marque certified businesses to monitoring water use for irrigated crops in order to drive forward better efficiency of water use.

416

LEAF Marque certified businesses measured the water efficiency of irrigated crops



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

Tailored nutrient management from Yara



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Knowledge grows

Landscape and Nature Conservation

Farmers are the guardians of much of our landscape and its wildlife and therefore responsible for a significant proportion of global Natural Capital. Managing, monitoring, protecting and enhancing the ecosystems within the farmed environment are core elements of LEAF's Integrated Farm Management. A well-managed farmed landscape, rich in biodiversity helps to support a wide range of ecosystem services which, in turn, benefit the farm, the surrounding area and wider society.



LEAF Marque certified businesses develop a Landscape and Nature Conservation Audit and Enhancement Plan which helps them identify and document the habitats on their farm and how they can be improved. These key management tools also help to track progress over time and feed into other core areas of the business such as soil and water management.

In 2017, a wide range of measures were being carried out by LEAF Marque certified businesses to enhance the landscape and wildlife value of their farms. These included hedge and tree planting programmes, creation of ponds and ongoing management of reservoirs, field margins and habitat banks. As well as increasing biodiversity, all these measures can also help to protect soil and water, improve land value, farm image and market opportunities.

13%

Average habitat area on LEAF Marque certified businesses



LEAF Marque certified businesses improving on-farm biodiversity

6.8 million metres of hedges
1,259 ponds

178,439 metres of habitat banks

598 reservoirs that benefited biodiversity

428,290 in-field trees

1.9 million metres of non-hedge boundaries



Case Study: A.J and C.I Snell

Landscape and Nature Conservation: Protecting and enhancing the farmed environment

As one of the UK's leading fresh and frozen fruit growers, combining responsibility and sensitivity to the environment with producing great tasting fruit is at the forefront of Anthony Snell's business.

Protection and enhancement of the farm's wealth of environmental features is a key objective and just a few practical steps have brought immense benefits to the overall biodiversity of the farm. A Landscape and Nature Conservation and Enhancement Plan forms the basis of decisions.

Polytunnels are managed sensitively and habitats are often placed to shield them from view in order to enhance the natural landscape and provide vital links between habitat areas.

Anthony's commitment to enhancing biodiversity includes an ongoing hedgerow and tree planting programme and management of bird populations. Over 49 species of birds have been recorded - well above the national average and one of the highest in the county. These include three species of Raptor, Skylark, Little Grebe, Great Spotted Woodpecker and both Little and Tawny Owls.

By farming in an integrated way, Anthony is able to balance the needs of the crop with increasing the biodiversity value of the wider farm environment.



Anthony Snell, A.J and C.I Snell



Community Engagement

Food production is arguably the most important endeavour on the planet. Building relationships and encouraging genuine exchange and understanding between farmers and the public is a key driver in the delivery of more sustainable farming. We believe engaging communities in farming is a two-way interaction that encourages critical awareness of the personal, ethical and cultural impacts of food production.



By bringing people onto farms, we want to stimulate an insightful sharing of views that has benefits for all involved. LEAF Marque certified businesses regularly host visits to their farms and use food production as the instrument to bring people together. These visits not only increase awareness and appreciation of sustainable farming, but also allow people to consider and debate key issues surrounding food production and the role it plays in their everyday lives.

LEAF Marque certified businesses are engaged in a range of outreach activities including LEAF Open Farm Sunday, speaking at conferences, giving talks – both on and off farm, developing links with schools, supporting a range of community initiatives and reaching out through social media. These activities are helping to raise awareness of sustainable farming and how it impacts on every day life.

55,827

Visitors to LEAF Marque certified businesses



LEAF Marque certified businesses communicated about more sustainable food and farming through on-farm visits to:

18,402 school children

8,529 farmers

3,840 agricultural college and university students



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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.*





LEAF members continue to make positive changes to their farming operations and natural environment; the progress they have made, and continue to make, is hugely encouraging.

The challenges the sector faces are many, but so is the potential for transformation. Going forward we will be strengthening our relationship with our members, in the UK and overseas. Through sharing information, practices, science, skills and expertise we can ensure the LEAF Marque assurance system continues to be fit for purpose across a range of farm types and geographical locations.

Working in partnership with our members, industry initiatives and the wider food supply chain, we will continue to refine, improve and build on our monitoring and evaluation to ensure transparency and robustness. We will also look to support important international targets such as the United Nations Sustainable Development Goals as well as national objectives as set out in the UK Government's 25 Year Environment Plan.

We know there is great opportunity for the meat and dairy sectors to be recognised for their environmental contribution and the growth of LEAF Marque in these areas provides a unique opening for farmers to develop their markets. We will continue to strengthen our relationships with existing LEAF Marque certified livestock businesses and build on our management tools to ensure they address the issues that matter most to them.

Our commitment to driving forward knowledge generation and exchange around sustainable farming will be focused on expanding the LEAF Network of Demonstration Farms and Innovation Centres, carrying out on-farm trials and developing our education and membership resources.

LEAF Marque certification is a powerful catalyst for change. Together with our members and many valued partners across the food supply chain, we will continue to strive for a more sustainable farming future.

Appendix

The key data used in LEAF's Global Impacts Report 2018 includes information from the LEAF Sustainable Farming Review¹, LEAF's Annual Survey², LEAF Open Farm Sunday³, FACE⁴ and Independent Evaluations⁵. The data is provided to the best of our knowledge.

¹LEAF 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 LEAF Sustainable Farming Review replaced the LEAF Audit in December 2014. 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 Integrated Farm Management 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 includes LEAF members who held a current, full LEAF Marque certificate at 31st December 2015 for 2015 data, at 31st December 2016 for 2016 data and at 31st December 2016 for 2017 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.

²LEAF's Annual Survey Over the last 5 years, LEAF has circulated a repeat questionnaire to its members to ascertain their perception of their farms' sustainability. For 2017, this was titled the LEAF Annual Survey whereas in previous years it was circulated under the name LEAF Sustainability Survey. The questions used for data presented in this report remain unchanged.

³LEAF 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.

⁴FACE FACE has carried out detailed monitoring and analysis of its education activities as recorded by the FACE Regional Education Consultants, since the merger with LEAF in July 2017 to February 2018. Data includes total hours and topic of activity delivered, and total number of people and schools educated.

⁵Independent Evaluations An independent evaluation was undertaken by CCRI (Countryside and Community Research Institute): M. Reed, N. Lewis and J.Dwyer (2017) The effects and impacts LEAF Marque in the delivery of more sustainable farming: a study to understand the added value to farmers. Full details of evaluators, methodology, key findings, conclusions, limitations and recommendation can be found in the Full Report.

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

We would like to thank all members that provided photography for this LEAF Global Impacts Report 2018.

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at www.leafuk.org

Papaya plantation, Blue Skies, Ghana