LEAF MARQUE STANDARD

VERSION 16.1

LEAF MARQUE IS AN ENVIRONMENTAL ASSURANCE SYSTEM
RECOGNISING MORE SUSTAINABLY FARMED PRODUCTS

PUBLISHED 1ST SEPTEMBER 2023 | EFFECTIVE FROM 1ST SEPTEMBER 2023

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VERSION NUMBER:

16.1

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CHANGES MADE:

11 new, 13 deleted, 7 upgraded to Essential
Minor typographical changes and content development

Approved by the LEAF Marque Board, on the recommendation of the LEAF Marque Technical Advisory Committee (TAC), prior to being issued.

Changes since LEAF Marque Standard v15.0 and v16.0 have been made to the Control Points listed in the table to the right.

SECTION	CONTROL POINTS
Organisation and Planning	1.1, 1.2, 1.3, 1.6, 1.12, 1.22, 1.23, 1.24
Soil Management and Fertility	2.1, 2.2, 2.3, 2.6, 2.7, 2.8, 2.10, 2.11, 2.12, 2.14
Crop Health and Protection	3.1, 3.2, 3.3, 3.4, 3.5, 3.7, 3.9, 3.13, 3.14, 3.15, 3.20, 3.21
Pollution Control and By-Product Management	4.1, 4.2, 4.3, 4.5, 4.7, 4.8, 4.9, 4.10, 4.11
Animal Husbandry	5.1, 5.6, 5.7, 5.10, 5.12, 5.13
Energy Efficiency	6.3, 6.4, 6.5
Water Management	7.1, 7.4, 7.5, 7.6, 7.7
Landscape and Nature Conservation	8.1, 8.2, 8.3, 8.6, 8.7, 8.8, 8.14, 8.15, 8.19, 8.20, 8.21, 8.22, 8.23, 8.24, 8.26, 8.27, 8.28, 8.29
Community Engagement	Changed title to Engaging Society

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INTRODUCTION:

LEAF MARQUE

LEAF Marque is an environmental assurance system recognising more sustainably farmed products. It is based on LEAF's nine Integrated Farm Management (IFM) principles.

The LEAF Marque Standard sets out the requirements for LEAF Marque certification.

When you see produce and products with the LEAF Marque logo, you can be sure it comes from a farm practising sustainable agriculture and meeting our Standard.

BASIS points are available for undergoing a LEAF Marque audit. For more information, please see the LEAF Marque website.

LEAF Marque certified businesses can use the guidance provided within the LEAF Sustainable Farming Review to support their implementation of IFM and their preparation for LEAF Marque certification.

Any business engaged with the LEAF Marque System must comply with all applicable regional and national laws and regulations, following relevant international treaties, conducting business lawfully and with integrity.

LEAF Marque's Intended Outcomes are aligned with LEAF's beyond certification work which helps farmers and growers across the globe to deliver more sustainable farming. LEAF aims to inspire and enable more circular approaches to farming through integrated, regenerative, and vibrant nature- based solutions, that deliver productivity and prosperity among farmers, enriches the environment, and positively engages young people and wider society. Within the context of IFM, the LEAF Marque system aims to deliver positive action for climate, nature, economy, and society transforming farming and food at an increasingly global level through:

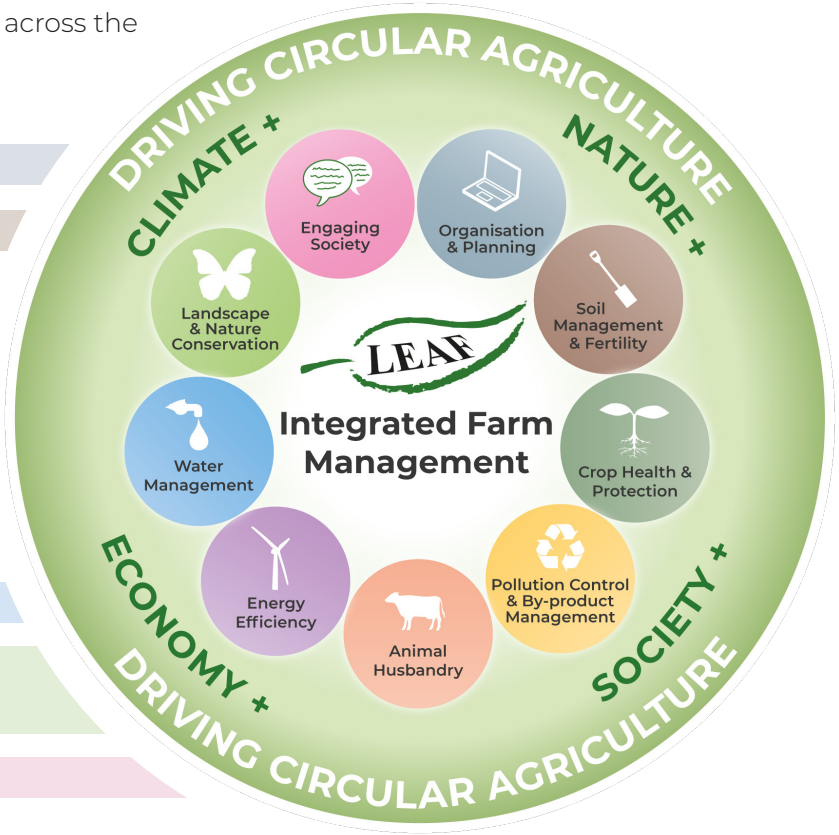
1. Building resilience
2. Implementation of regenerative practices
3. Implementation of strategies to reduce GHG emissions and sequester carbon
4. Improved soil management to enhance soil quality and soil health
5. Improved implementation of effective IPM solutions for crop health and protection
6. Improved implementation of waste management best practice
7. Improved strategies for livestock health, performance, and environmental impact
8. Improved energy use and efficiency
9. Improved management of water use and water quality
10. Enhanced habitats and biodiversity
11. Engagement with local or wider communities

LEAF'S INTEGRATED FARM MANAGEMENT

LEAF's Integrated Farm Management (IFM) is a whole farm business approach that delivers more sustainable food and farming. It uses the best of modern technology and traditional methods to deliver prosperous farming that enriches the environment and engages local communities.

A farm business managed to IFM principles will demonstrate site-specific and continuous improvement across the whole farm including:

- ORGANISATION & PLANNING
- SOIL MANAGEMENT & FERTILITY
- CROP HEALTH & PROTECTION
- POLLUTION CONTROL & BY-PRODUCR MANAGEMENT
- ANIMAL HUSBANDRY
- ENERGY EFFICIENCY
- WATER MANAGEMENT
- LANDSCAPE & NATURE CONSERVATION
- ENGAGING SOCIETY



LEAF SUSTAINABLE FARMING REVIEW

The LEAF Sustainable Farming Review is a self-assessment online management tool for LEAF members to support business implementation of IFM. It enables businesses to monitor their performance, identify strengths and weaknesses as well as set targets for improvement across the business.

LEAF RESOURCES

LEAF also provides a range of additional technical tools and resources. They are available on our website:

www.leaf.eco

Visit our Help Centre for guidance on the LEAF Marque process.

www.leaf.eco/leafmarque/helpcentre

LEAF MARQUE SCOPE

LEAF Marque certification covers the whole farm business, including sites and fields managed centrally. LEAF Marque certification applies to products from the whole farm business and is NOT limited to defined crops or enterprises within the business.

The LEAF Marque Standard, Integrated Farm Management, and the LEAF Marque audit applies the whole farm (all products, land, and farming activities within the control of the farming business). This LEAF Marque Standard is applied to all LEAF Marque audits regardless of country and enterprise.

LEAF Marque certified businesses are expected to comply with all relevant regulatory requirements, existing national and/or international laws and regulations.

LEAF Marque certification is third party verified by LEAF Marque approved and accredited Certification Bodies (CBs). The current CBs and the countries where they operate can be found on the LEAF website.

All LEAF Marque audits are carried out independently, on-farm on an annual basis, either at the same time as the baseline certification system(s), or as a stand-alone audit.

LEAF Marque certification requires the business to fully comply with all the **Essential (E)** Control Points within the Standard. Compliance with the **Recommended (R)** Control Points is preferable, and they may become Essential Control Points in the future. Some Control Points may be **Not-Applicable (N/A)** as determined within the Standard.

The LEAF Marque Standard is available in several languages which can be found on the LEAF website. The English version of the Standard is the definitive version and therefore any issues of interpretation from other translations need to be referred to the English version.

Consistent interpretation of the LEAF Marque Standard is sought by setting criteria that are clear, objective, and verifiable. There is no binding additional guidance. However, there is further support for LEAF members in the LEAF Sustainable Farming Review and LEAF Information Centre.

It should be noted that the LEAF Marque Standard is additional and complementary to approved baseline systems; the list of approved baseline systems is included within the LEAF Product List, which is available on the LEAF website.

REVISING THE STANDARD

Revising the LEAF Marque Standard provides the opportunity to continually improve the Standard based on experience gained, lessons learned, and input provided during the implementation of the previous Standards (v15 and earlier).

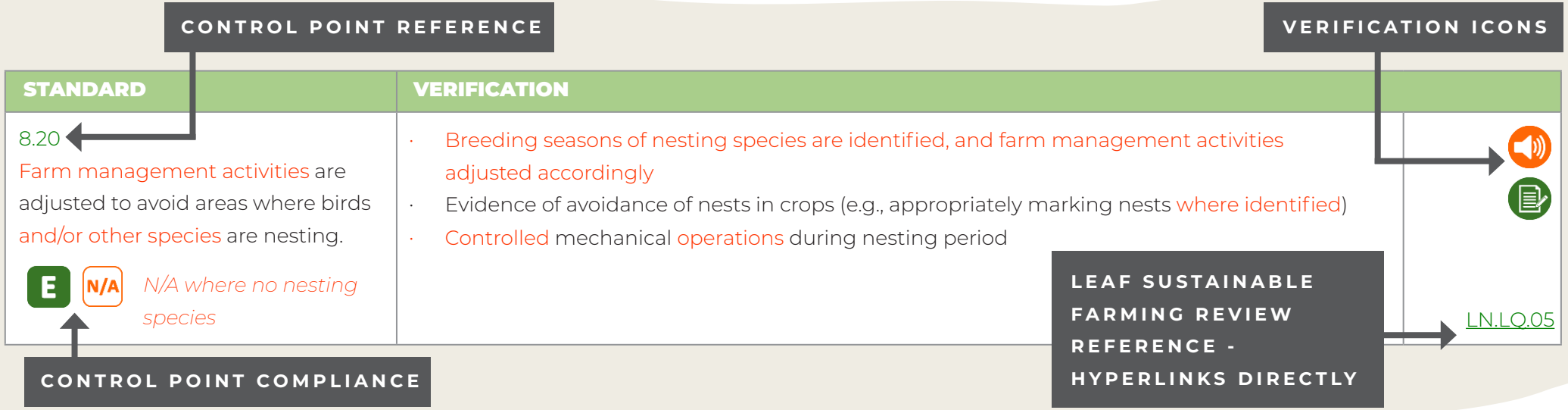
The public consultation for the LEAF Marque Standard v16.0 Draft was held between the 17th November 2021 to 24th January 2022.

LEAF Marque is very grateful to all those involved in the continual development of the LEAF Marque Standard. In particular, we would like to thank the LEAF Marque Technical Advisory Committee (TAC).

If you would like to make a proposal for revisions of the LEAF Marque Standard, please contact info@leafmarque.com. The next review of the LEAF Marque Standard will take place no later than 1st October 2027.

HOW TO USE THIS STANDARD

The style and layout of the LEAF Marque Standard is detailed below. Where there is a change for v16.0 and 16.1, this is indicated in orange.



The LEAF Marque Standard is based on principles of Integrated Farm Management and includes plan-based requirements that enable a site specific and whole-farm approach. For all sections of the Standard excluding Organisation and Planning and Engaging Society, there is a corresponding Management Plan(s). These Plans should be informed by any relevant monitoring activities within or beyond the section of the Standard the Plan refers to. This enables contextually relevant strategies and targets to be identified and recorded. The Plan can also include any activities associated with other Control Points; the requirements of what to include in the Plan are a minimum and can be supplemented by other LEAF Marque Standard requirements or additional management activities. If an existing protocol or plan exists that meets the requirements of the Standard, this can also be used – the name of the plan doesn't have to correspond with the Control Point, but compliance with the Control Point must be met.

Due to the degree of interaction between each aspect of Integrated Farm Management, it may be beneficial or necessary to have integration between Management Plans (e.g. Nutrient Management Plan integrated with Manure Management Plan). There are different strategies that can be used to integrate Management Plans, such as combining several plans into one, highlighting which actions have relevance to actions or targets of other Plans, or using a Plan to inform and be informed by other Plans. Regardless of how Plans are integrated, the aim is that Plans benefit you/your business and help support the implementation of Integrated Farm Management Principles. The integration of Plans helps to recognise which activities impact other aspects of Integrated Farm Management, which enables identification of management strategies that deliver positive outcomes across multiple attributes.

KEY

All Control Points are either Essential (E) or Recommended (R). Compliance can be recorded as Not Applicable (N/A) where determined within the Standard if the business meets the situation(s) stated.

Verification icons are listed for each Control Point; these highlight the means of verification needed to evidence the Control Point and are described in the table below. Unless specified in the verification text, the verification icon(s) are optional and suggestions only.

CONTROL POINT COMPLIANCE		
E E	**Essential** Control Point	All certified businesses must comply with these Control Points. *Where the icon is orange, the Control Point was not Essential in the previous version of the Standard*
R R	**Recommended** Control Point	Compliance with these Control Points is not compulsory. The Control Points indicate best practice and may either become Essential in the future or remain Recommended if contextual factors prevent relevance to all enterprises and countries. *Where this icon is orange, the Control Point was not Recommended in the previous version of the Standard*
N/A N/A	**Not-Applicable** Control Point	Applies to situations as determined within the Standard. *Where this icon is orange, the situations for Not-Applicable have been changed from the previous version of the Standard*
CONTROL POINT INFORMATION		
NEW	**New** Control Point	Control Points which are new to the Standard.
VERIFICATION ICON		
	Verbal	e.g. interview with business staff and/or management and/or contractors. *Where this icon is orange, it is a new means of verification from the previous version of the Standard*
	Observe	e.g. observation of activities, practices, and environment. *Where this icon is orange, it is a new means of verification from the previous version of the Standard*
	Record	e.g. a printed or electronic copy of a record or document. *Where this icon is orange, it is a new means of verification from the previous version of the Standard*

ORGANISATION & PLANNING

Effective organisation and planning are the foundations to a successful Integrated Farm Management (IFM) approach. Setting objectives and monitoring the results provide the means by which benefits of IFM can be quantified, demonstrated and continuously improved.

Management plans and reviews play an important part in the finance and profitability on the farm. Your family and staff's motivation and involvement, crop performance, livestock performance and welfare. Environmental commitment and engagement with local community are also important considerations.

Informed organisation and planning mean that record-keeping, staff training and engagement, market development and communication are considered and implemented to ensure the smooth and efficient running of the farm business. In addition, good organisation and planning will reduce business risk, whilst making it more resilient to change. While many of these considerations are obvious, having clear and documented procedures helps avoid mistakes as well as develop contingency plans which are the building blocks of IFM.

- More information on the LEAF Sustainable Farming Review can be found on the LEAF website or myLEAF
- More information on the LEAF Charity Membership Certificate can be found on the LEAF website or downloaded from myLEAF
- More information on the LEAF Product List can be found on the LEAF website. The list of LEAF Marque approved baseline certification systems is also included in the LEAF Product List
- Previously called the Farm Environmental Policy, LEAF's Integrated Farm Management Policy provides more information on what to include
- LEAF's Health and Safety Risk Assessment provides more information on what to include
- LEAF's IFM PowerPoint can be used to inform staff about LEAF and IFM

STANDARD	VERIFICATION	
1.1 **The LEAF Sustainable Farming Review has been completed.** E	• Record of Completion of the LEAF Sustainable Farming Review within the last 9 months • If part of a Producer Group, the LEAF Sustainable Farming Review is completed by the operator of the Quality Management System on behalf of all members in the LEAF Producer Group	myLEAF
1.2 **The business is a fully certified member of a LEAF Marque-approved baseline certification system for each product requiring LEAF Marque certification.** E	• The LEAF Marque Standard, Integrated Farm Management, and scope of the audit applies to the whole farm (all products, land and farming activities within the control of the farming business). • Products which are to be LEAF Marque certified and eligible to use the LEAF Marque logo must be certified to a LEAF Marque approved-baseline certification. • Where products do not have a baseline certification, activities are not detrimental to the intended impacts of LEAF Marque, the farm and its surrounding environment. • Independently verified baseline certification systems must be approved by LEAF Marque. • Contact LEAF Marque if unsure.	OP.OQ.03 LEAF Website
1.3 **The 'Farm Details' and 'Production Information' section of the 'LSFR' has been completed and is accurate.** E	• Accurate and up to date 'Farm Details' and 'Production Information' in the business' LEAF Sustainable Farming Review report • 'Production Information' includes all the business' products	LEAF Website OP.BI.01 OP.BI.02
1.4	[Deleted since v13.0]	
1.5	[Deleted since v13.0]	

STANDARD	VERIFICATION	
1.6 **There is an Integrated Farm Management Policy.** E	• The Integrated Farm Management Policy states the business' commitments and aims relating to Integrated Farm Management (IFM) • Policy references: - IFM - efficient and justified resource use and waste management - eliminating or minimising all types of pollution - optimising energy and water efficiency - improving and enhancing the environment - reducing GHG emissions and implementing climate positive action • Policy is reviewed at least annually and, where appropriate, updated • Policy is communicated to all staff • Policy sets out the business' short-term (present to five years) and long-term (more than five years) objectives • Policy meets all regulatory and legislative requirements • Policy shows commitment to continuous improvement • Policy is relevant to the business' activities, including non-food enterprises that impact on the business	OP.OQ.07
1.7	[Deleted since v15.0]	
1.8	[Deleted since v15.0]	
1.9	[Deleted since v15.0]	
1.10 **The Integrated Farm Management Policy is signed and understood by permanent members of staff.** E	• Records show signatures from permanent staff (including departmental management staff where appropriate) to confirm that the Policy has been understood • Policy is displayed for all staff	OP.OQ.07

STANDARD	VERIFICATION	
1.11 **Relevant elements of the Integrated Farm Management Policy have been communicated to suppliers and contractors.** E	• Evidence that relevant elements of the Policy have been communicated to relevant suppliers and contractors (e.g., via copy letters, meeting minutes, or emails) • This includes graziers or any other person(s) with a short-term rental licence who have access to land	OP.OQ.07
1.12 **Resource use and waste management are considered when purchasing, designing, or refurbishing buildings and/or equipment.** E N/A *N/A where no buildings and equipment purchased, designed, or refurbished in the past 12 months and/or future plans*	• The Integrated Farm Management Policy includes a commitment to improving resource use efficiency (including energy, water, and waste management) through justified purchase and design decisions • During purchase, design, or refurbishment of building(s) and/or equipment in the past 12 months or future plans, consideration has been given to - renewable energy generation - ways to recover or recycle water - reducing potential GHG emissions - opportunities to enhance utilisation of available CO_2 and water, and natural sources of light and heat	OP.OQ.07 EE.EQ.03 WM.WQ.01
1.13	[Deleted since v15.0]	
1.14 **There is a record of all received complaints and evidence of appropriate actions.** E	• Records show complaints and actions taken • LEAF Sustainable Farming Review Question Farm Practice Complaints (OP.OD.02) has been completed with appropriate figures	OP.OQ.10 OP.OD.02
1.15 **Relevant staff attend regular training or awareness events on the principles and practices of Integrated Farm Management (IFM).** E	• Record of staff training and attendance • Record of discussion or improvements that have arisen from the training • Training is attended regularly (at least annually) • Staff have an appropriate awareness of IFM • Contractors have an appropriate awareness of IFM • LEAF Sustainable Farming Review Question Staff IFM Awareness (OP.OD.01) has been completed with appropriate figures	OP.OQ.09 OP.OD.01

STANDARD	VERIFICATION	
1.16	[Deleted since v14.1]	
1.17 **There is a Health and Safety Risk Assessment.** E	• Health and Safety Risk Assessment has been completed in the past 12 months • Assessment identifies health and safety risks and indicates the probability and severity of each risk • Assessment covers the whole business and includes all farm operations and interactions with the general public • Risks are communicated to all staff and contractors • Staff understand the importance of reducing risk in day-to-day operations	OP.OQ.12
1.18	[Deleted since v15.0]	
1.19	[Deleted since v15.0]	
1.20	[Deleted since v15.0]	
1.21	[Deleted since v15.0]	
1.22 **(New v16.0) The business collaborates with others.** NEW R	• Collaboration could be with other growers/farmers, researchers, organisations, authorities, etc. • Most commonly, collaboration is local, however it can also include engagement with businesses and organisations further away with a common purpose • Collaboration can support monitoring, interpretation of data and knowledge exchange • Can include landscape level working for biodiversity and/or catchment level working for water and/or across labour and training	CE.MQ.02
1.23 **(New v16.0) The business is part of collective action(s).** NEW R	• Collective action is the intentional delivery of actions which support a common goal across the collaborating group • Can include landscape level working for biodiversity and/or catchment level working for water and/or across labour and training	CE.MQ.02
1.24 **(New v16.0) Measures are taken to enhance climate resilience.** NEW E	• Risk assessment identifies the potential occurrence and impact from locally relevant extreme weather events (e.g., flooding, drought, resource availability) • Strategies for responding to high-risk impacts are defined • Risks and strategies are used to inform development of targets to enhance climate resilience	

SOIL MANAGEMENT & FERTILITY

Soil is the basis of agricultural production. The conservation and improvement of this valuable resource must be a high priority in the adoption of Integrated Farm Management.

The availability of land and fertile soil is essential for healthy productive crops and livestock. Good quality soil also supports water management, reduces risk of nutrient run-off, acts as a carbon sink, and promotes biodiversity.

Good soil husbandry includes routine analysis and the maintenance and improvement of physical, chemical, and biological soil properties. This helps ensure soils' long-term fertility and builds organic matter, while reducing the risk of erosion, structural degradation, compaction and associated environmental concerns such as flooding and drought. Good soil husbandry contributes to attaining healthy soils and can increase yields and profitability.

- LEAF's Simply Sustainable Soils provides Six Simple Steps for your soil to help improve the performance, health and long-term sustainability of your land.
- There are also a number of Simple Sustainable Soils Case Studies available.
- LEAF's Soil Management Plan provides more information on what to consider in your soil management planning.
- LEAF's Nutrient Management Plan provides more information on what to include and how to integrate it with your Manure Management Plan.

STANDARD	VERIFICATION	
2.1 **There is an implemented Soil Management Plan (including a descriptive map).** E	• Soil Management Plan includes: - map - different soil types and their condition - areas prone to compaction, slumping, erosion, runoff, and leaching - explanatory notes - control strategies to reduce possible risks to soil health - strategies to improve carbon capture and carbon sequestration - targets to improve and maintain biological, physical, and chemical attributes of soil health - measures to build up soil organic matter, where climatic and soil characteristics allow • Plan is available and communicated to relevant staff and contractors • Plan is reviewed at least annually and, where appropriate, updated • The implementation of the Plan is reviewed at least annually, recording achievements and progress towards all targets, and used to inform updates to the Plan • If growing in substrate, reference your choice, utilisation, management, and disposal of substrate • If growing in neither soil nor substrate, reference measures taken to optimise management of the root-zone environment	SM.SQ.01
2.2 **Measures are taken to conserve and build up soil organic matter.** E N/A *N/A in some circumstances where growing media other than soil is used*	• Soil Management Plan (see 2.1) states measures to conserve and build up soil organic matter • Measures include incorporation of crop residues and efficient use of other organic materials where available and appropriate • Measures are taken to capture and retain soil organic carbon • If soil organic matter is being measured, LEAF Sustainable Farming Review Question Soil Organic Matter % (SM.SD.01) has been completed with appropriate figures	SM.SQ.02 SM.SD.01

STANDARD	VERIFICATION	
2.3 **There is an implemented Integrated Nutrient Management Plan.** E	• An Integrated Nutrient Management Plan includes: - calculation of likely crop requirements based on regular soil testing including pH testing - calculation of nutrient content in animal returns and manure or slurry applications - reference to nitrogen (N), phosphorus (P) and potassium (K) applications as well as other nutrients - taking into account available nutrients in soil, manures, composts and crop residues • Plan shows an emphasis on effective use of nutrients and enhancing overall efficiency (e.g., optimal use of inputs) • Plan references the sustainability of nutrient inputs, and strategies to source from more sustainable alternatives or reducing use where possible (i.e., inorganic inputs and using other substitutes) • Plan is reviewed at least annually and, where appropriate, updated • The implementation of the Plan is reviewed at least annually, recording achievements and progress towards all targets, and used to inform updates to the Plan • Plan is integrated with the Soil Management Plan, Crop Health and Protection Plan, Manure Management Plan, Pollution Risk Assessment, and where relevant, the Animal Feed Audit and Action Plan (see 2.1, 3.1, 4.2, 4.5, 5.12 and 5.13)	SM.SQ.02 SM.SQ.06 SM.SQ.07
2.4 **The business is aware of soils, livestock and crops that are prone to trace element deficiencies.** E	• Appropriate leaf/soil/livestock analysis records • Written records of visible crop or livestock symptoms (e.g. in a diary)	SM.SQ.06
2.5	[Deleted since v11.0]	

STANDARD	VERIFICATION	
2.6 **There is a long-term cropping plan.** E N/A *N/A in some circumstances where there are perennial crops such as orchard, long-term protected crops, and permanent pasture*	• The plan identifies cropping cycles, including intentions for the future (over at least three years) • The rotation/cycle is sustainable and appropriate to the farm business, including the soil, livestock (where applicable) and climate • The cropping plan references nutrient availability and effective use of nutrients in cropping choice and rotation decisions • Cropping plan is reviewed annually and, where appropriate, updated	CP.CQ.02
2.7 **The risk of soil degradation is assessed prior to operations being carried out to ensure the timing, field conditions, equipment and soil management techniques are appropriate.** E N/A *N/A in some circumstances where growing in substrate*	• The business is able to explain how soil management operations are planned and carried out • The producer is able to justify and demonstrate that field operations and/or grazing have minimum environmental impact • Records of cultivations and field operations are used to inform assessment of risk • No significant visual evidence of soil damage such as compaction or soil erosion	SM.SQ.01 SM.SQ.03 SM.SQ.04
2.8	[Deleted since v16.0]	
2.9 **Recommendations for application of fertilisers (organic or inorganic) are given by competent, qualified persons.** E N/A *N/A where business does not apply fertilisers*	• Evidence of qualifications for competent, qualified person(s) • Evidence to show professional development of competent, qualified person(s) (i.e., training records of adviser or staff) • The recommended minimum amount of training or professional development is four hours per year	OP.OQ.09 SM.SQ.06 SM.SQ.09
2.10 **Organic and inorganic fertiliser applications are recorded.** E N/A *N/A where business does not apply fertilisers*	• Field records and fertigation records that show evidence that all nutrient applications have been applied at the correct rate and time, and placed accurately • Records align with the strategies within the Nutrient Management Plan (see 2.3), and if applicable, the Manure Management Plan (see 4.2) • Operator records referring to field applications	SM.SQ.07

STANDARD	VERIFICATION	
2.11 **Operators/contractors are trained in accurate techniques of nutrient application.** E N/A *N/A where business does not apply nutrients or manure*	• Operator/contractor training records including reference to the appropriate understanding and awareness of protected and/or high conservation value areas on the farm and risks associated with nutrient losses through runoff • Operator/contractor training records include any internal training and experience • Operator/contractor training records include nutrient mixing for fertigation systems	 SM.SQ.09
2.12	[Deleted since v16.0]	
2.13 **Control measures are implemented to minimise the loss of nutrients when applying organic matter.** E N/A *N/A if manure or organic matter not applied*	• Records of storage, nutrient application dates and cultivation practices appropriate to cropping plan	 SM.SQ.09
2.14 **(Upgraded v16.0)** **Soil health is measured.** E N/A *N/A in some circumstances where growing media other than soil is used*	• Soil health is measured using one or more of the following: - Visual Soil Assessment - earthworm counts - a measure justified by the business • Measurements are taken and recorded at least annually or at a frequency justified by the business • Business identifies and implements an appropriate sampling strategy	 SM.SQ.01

CROP HEALTH & PROTECTION

Protecting crops from weeds, pests and disease is an essential part of Integrated Farm Management (IFM) in order to maintain yields and reduce avoidable losses.

Safe and effective control will also help reduce the risk of water pollution and help preserve the abundance and diversity of native species.

Within an IFM system, Integrated Pest Management (IPM) takes a holistic approach to crop health and protection combining different strategies (cultural, biological, mechanical and/or chemical) to protect crops and ensure that chemical control is only used when necessary. It is essential to consider a range of approaches to ensure that the balance between optimising yield and quality, crop health, cost efficiency and environmental protection are maintained.

Grassland and forage crops should be managed as a crop in terms of Crop Health and Protection in order to optimise yield and grass quality for livestock and therefore should also align with the principle of IFM and IPM.

- LEAF's Crop Health and Protection Plan provides more information on what to include
- Sprayer operator's continuous professional development can be provided by schemes such as the National Register of Spray Operators website in the UK
- More information on storing plant protection products is in the GLOBALG.A.P Guidelines, or in the UK, HSE's Guidance on storing pesticides for farmers and other professional users (AIS No. 16)

STANDARD	VERIFICATION	
3.1 **There is an implemented Crop Health and Protection Plan.** E	• Crop Health and Protection Plan includes Integrated Pest Management principles (IPM), with reference to the following: - crop rotation, including grassland and forage crops, where applicable - Selection of varieties relevant to production systems and long-term sustainability - adoption of non-chemical methods to control pests, where appropriate - cultivations - selection and justification of PPPs to reduce any effects on beneficial species - appropriate dose rates and timings - resistance management strategies (see 3.2) • Plan is reviewed at least annually and, where appropriate, updated • The implementation of the Plan is reviewed at least annually, recording achievements and progress towards all targets, and used to inform updates to the Plan	CP.CQ.01
3.2 **There are strategies to avoid weed, disease and pest resistance to herbicides, fungicides, and insecticides.** E N/A *N/A where PPP's are not applied*	• Resistance strategies exist for each respective Plant Protection Product (PPP) used against weeds and/or diseases and/or pests (see 3.1) (e.g. timing and dose rate, use of thresholds, utilising different modes of action, not using herbicides/fungicides/insecticides). • Crop protection records show that strategies have been used	CP.CQ.01
3.3 **There is a system in place for monitoring and recording pests (including vertebrate), disease, weed levels and beneficial predatory species. The system is used to decide when to apply plant protection products (PPPs).** E	• Recorded system for regular monitoring • Monitoring completed by an agronomist or trained and/or experienced member of staff • Records reference the use of pest, disease and weed thresholds, threshold warnings and local weather conditions	CP.CQ.06

STANDARD	VERIFICATION	
3.4 **There is a record to justify the use of all crop protection practices.** E	• Crop protection operation records include justification of products and practices used • Decision support systems, advice tools and/or other precision farming techniques are used • Records state any deviations from the justified practice and the reason for the deviation	CP.CQ.06 CP.CQ.09
3.5 **The business considers the environmental impact of all crop protection practices, including plant protection product(s) (PPP), mechanical and cultural practices.** E	• The environmental impact of crop protection practices are considered • Identified impacts are used to inform and provide justification for management decisions (e.g. informs strategies in the Crop Health and Protection Plan, justification recorded at the planning stage prior to the growing season)	CP.CQ.01 CP.CQ.06
3.6 **Growth stages, infestation levels and plant protection product (PPP) type are considered before deciding on the appropriate rate of plant protection product used.** E N/A *N/A where PPPs are not applied*	• Monitoring, recommendation, and spray records show evidence of appropriate dose rates • The use of adjuvants (modifying agents) enabling the use of reduced rates and low volume spraying on crops is only done within the statutory regulations • PPP label instructions are adhered to	CP.CQ.06 CP.CQ.09
3.7 **Steps are taken to minimise damage to beneficial and non-target species.** E	• Records state steps taken to minimise damage to beneficial and non-target species including pollinators • Evidence could include use of selective plant protection products (PPPs), evidence of predators, buffer zones, and minimal cultivation	CP.CQ.01 CP.CQ.11
3.8 **There is a documented procedure to ensure harvest intervals are applied.** E N/A *N/A where PPPs are not applied*	• Procedures identify first permissible harvest time and/or date after plant protection product (PPP) application • Procedures are adhered to	OP.OQ.19

STANDARD	VERIFICATION	
3.9 **Precautions are taken to ensure plant protection product (PPP) use is limited to the area in which it is required.** E N/A *N/A where PPPs are not applied*	• Precautions are taken by staff/contractors to limit PPP application to the area in which it is required may include methods such as: - planning - precision farming techniques - accurate applications - correct spraying conditions - low drift techniques - choice of sprayer - choice of spray nozzle - buffer strips or unsprayed strips • Size of buffer zones are justified though local best practice guidance, legislation, and product label requirements	CP.CQ.10 CP.CQ.11
3.10 **There is a documented and displayed procedure and notification process to alert relevant staff and/or authorities for dealing with spillages damaging to the environment, people, and animals.** E	• Pollution Emergency Procedure includes information on what immediate action should be taken • Procedure is easily understood and follows a logical sequence based on the nature of the spillage • Procedure includes contact details for all staff and/or authorities • Staff are aware of the existence of the procedure and can easily understand it • Equipment referred to is appropriate, available, and easy to find • Procedure is reviewed at least annually and contact details updated where appropriate	CP.CQ.08
3.11 **Plant protection product (PPP) applications are recorded.** E N/A *N/A where PPPs are not applied*	• Records meet appropriate baseline certification system requirements • Records include soil conditions (where practical and appropriate) • All operators (including contractors) within the spray team are recorded either on the spray record or as a separate record	OP.OQ.18 CP.CQ.09 CP.CQ.10

STANDARD	VERIFICATION	
3.12 **Protection measures are in place where plant protection products (PPPs) are mixed/handled to ensure potential spillage or resulting pollution is prevented from entering water and the local environment.** E N/A *N/A where business does not handle or mix PPPs*	• PPP mixing area takes account of yard drains, slope and proximity to watercourses, very permeable ground in groundwater protected zones/areas and/or highly trafficked areas • PPP mixing areas in the field avoid gateways, locations near ditches, locations in close proximity to underground field drains, very permeable ground in groundwater protected zones/areas and highly trafficked areas • Portable drip trays used	CP.CQ.08
3.13 **Plant protection product (PPP) recommendations are made by competent, qualified persons.** E N/A *N/A where no PPPs are used*	• Evidence of qualifications for competent, qualified person(s) • Evidence to show professional development of competent, qualified person(s) (i.e. training records of adviser or staff) • Records of attendance at conferences, training days, manufacturers' technical training and other events aimed at updates on crop protection • The recommended minimum amount of training or professional development is eight • hours per year	OP.OQ.09 CP.CQ.10
3.14 **Operators/contractors are trained in the use of plant protection products (PPPs) and participate in continuous professional development.** E N/A *N/A where PPPs are not applied*	• Evidence of qualifications for competent, qualified person(s) • Evidence to show professional development of competent, qualified person(s) (i.e. training records of adviser or staff) • The recommended minimum amount of training or professional development is three or more hours per year - NOTE: this is a guide and should be proportionate depending on farm size and PPP usage)	OP.OQ.09 CP.CQ.10
3.15	[Deleted since v16.0]	

STANDARD	VERIFICATION	
3.16 **Plant protection products (PPPs) application equipment have test certificates from a nationally-recognised scheme or are appropriately maintained and calibrated to ensure safe and reliable operation.** E N/A *N/A where PPPs are not applied*	• PPPs application equipment have test certificates from a nationally-recognised scheme where a national scheme is available • Where there is no national scheme, there are records of routine maintenance and calibration • Monthly calibration for sprayers/granular applicators that are used weekly is appropriate	CP.CQ.10
3.17 **Plant protection products (PPPs) are stored securely to give protection to the environment and people.** E N/A *N/A where business does not store PPPs*	• PPPs are stored in accordance with the UK HSE's Guidance on storing pesticides for farmers and other professional users (AIS No. 16) or GLOBALG.A.P. Guidelines	CP.CQ.07
3.18 **Only plant protection products (PPPs) with approval are used and stored.** E N/A *N/A where business does not store PPPs*	• Stores, stock rotation and records show that all PPPs that are used have been approved • In certain countries it may be necessary for the business to use extrapolated usage from another country. The PPP itself must already have another legal use in the country in which it is used. Full justification for any extrapolation is present, in line with GLOBALG.A.P. requirements	CP.CQ.07
3.19 **Plant protection products (PPPs) are used at the appropriate rate and timing for safe and effective use.** E N/A *N/A where PPPs are not applied*	• PPP applications comply with the statutory conditions regarding the specific crop, maximum permitted total dose, maximum number of treatments and latest time of application as indicated on the PPP label or by authorised extension of use	CP.CQ.09

STANDARD	VERIFICATION	
3.20 **(Upgraded v16.0) Adequate precautions are taken to protect neighbouring businesses and the public from agrochemical application activities.**   *N/A where agrochemicals are not applied*	• Bystander exposure to agrochemicals is reduced by ensuring the set-up and operation of application equipment is accurate and there is a no-spray buffer strip when spraying next to neighbouring properties (see 3.9)	 CP.CQ.11
3.21 **(New v16.0) Actions are taken to inform neighbouring businesses and the public of agrochemical application activities.**   *N/A where agrochemicals are not applied*	• When areas are sprayed adjacent to business and residential properties or public rights of ways, appropriate methods are taken to inform these properties and the public of when agrochemical application will take place	 CP.CQ.11

POLLUTION CONTROL & BY-PRODUCT MANAGEMENT

Nearly every process and practice results in the generation of 'by-products' or 'wastes' and therefore poses a potential risk of pollution and a threat to the environment. Wherever possible you should reduce, reuse and recycle any wastes.

Well managed pollution control and by-product management is an important part of Integrated Farm Management and will help make best use of resources, avoid pollution and save money as well as playing an important part in protecting water, energy, biodiversity and soil.

In many cases farm 'wastes' are a valuable resource, and this section focuses on their optimum use in order to make cost savings and decrease pollution risk. 'Wastes' can result from any process or activity on-farm.

- LEAF's Manure Management Plan provides more information on what to include and how to integrate it with your Nutrient Management Plan
- LEAF's Pollution Risk Assessment provides more information on what to include
- Food Waste Matters guidance for fresh producer growers produced by WRAP in conjunction with LEAF

STANDARD	VERIFICATION	
4.1	[Deleted since v16.0]	
4.2 **There is an implemented Manure Management Plan.** E N/A *N/A if organic material is not produced or used*	• Manure Management Plan includes slurry, manure, compost, anaerobic digestate and industrial waste and other organic materials • The implementation of the Plan is reviewed at least annually, recording achievements and progress towards all targets, and used to inform updates to the Plan • Field applications are in line with the Plan • Field records include the application date and application rate • Where relevant, Plan includes strategies to minimise emissions when applying slurry • Land spreading of industrial waste (other than sewage sludge) is registered with the relevant environmental agency or authority if appropriate • Manure Management Plan is integrated with the Nutrient Management Plan (see 2.3)	SM.SQ.06 PC.PQ.04
4.3 **Fixed fuel tanks are bunded and potential spillages are prevented from entering watercourses.** E N/A *N/A where a business does not store fuel*	• Fuel tanks that store more than 200 litres are bunded • Underground tanks are pressure tested every five years • Fuel oils stored in either a fuel storage tank or within a bunded storage area • Bunded storage areas are impermeable and more than 10-metres away from areas of high-risk contamination, such as open drains and ditches • Consideration has been given to bunding of mobile fuel tanks	PC.PQ.02
4.4 **Equipment and machinery is regularly maintained and calibrated to ensure accurate and efficient application and operation.** E N/A *N/A where business does not use sprayers, fertiliser and muck/ manure spreaders, tractors and equipment used for treating and handling livestock*	• Records show regular maintenance and procedures for plant protection products (PPPs) and fertiliser application equipment, muck/manure spreaders and tractors (including tyres), and equipment used for treating and handling livestock	OP.OQ.16 SM.SQ.09 CP.CQ.10 AH.AQ.09

STANDARD	VERIFICATION	
4.5 **There is a Pollution Risk Assessment that identifies, documents, and records all potential pollutants.** E	• Pollution Risk Assessment has been completed in the past 12 months • All types of pollution are referenced, including air (to include GHG emissions), light, noise, soil, surface and/or ground water, and diffuse and point source pollution • Assessment includes variation in pollution risk over time (e.g. from unloading to disposal of potential pollutants, seasonal variation) • Assessment identifies pollution risks and indicates the probability and severity of each risk • Assessment identifies steps to reduce or avoid the impact of all pollution risks to the environment • Risks are communicated to relevant staff and contractors • Steps and their impact are reviewed at least annually	 PC.PQ.01 OP.OQ.13
4.6	[Deleted since v15.0]	
4.7	[Deleted since v16.0]	
4.8 **(Upgraded v16.0) There are maps of all drainage for general farm building areas and land.** E	• Good farm plans or contractors' maps of drainage with outfalls for general farm buildings areas • Maps of drainage in and around general farm building(s) are available in the event of a pollution incident to provide guidance in controlling water run-off including risk from fire water run-off • Recent land drainage is recorded with outlets identified • For older land drainage, records of all known field outfalls and presence/absence of land drainage as a minimum	 WM.WQ.05 WM.WQ.06
4.9	[Deleted since v16.0]	
4.10 **(New v16.0) There is an annual Waste Audit.** R NEW	• Audit records all source(s) of waste • Audit records all types of waste (e.g. plastic, crop waste, chemical, animal waste, cardboard) • Audit records how waste is either reused, reduced, recycled, or disposed of • Audit is completed annually	 PC.PQ.08

STANDARD	VERIFICATION	
4.11 **(New v16.0) There is an implemented Waste Audit Action Plan.** R NEW	• The Waste Audit Action Plan is based on the annual Waste Audit (4.1) • Waste Audit Action Plan includes reference to and targets around: - reducing production of waste - reuse waste produced - recycling waste - safe and effective disposal of waste where it cannot be utilised - reducing dependency on non-recyclable materials - the use of alternative materials such as biodegradable or compostable plastics - closed loop, circular approaches (e.g. send packaging back to manufacturer/supplier for reuse) • If waste cannot be reused, reduced, or recycled it must be justified by the business • Action Plan is reviewed at least annually and, where appropriate, updated • The implementation of the Action Plan is reviewed at least annually, recording achievements and progress towards all targets, and used to inform updates to the Plan.	 PC.PQ.09

ANIMAL HUSBANDRY

Optimising animal health and welfare, feeding and resource use are essential to implementing Integrated Farm Management (IFM) in any livestock business.

Good animal welfare is paramount not only for maintaining healthy animals but is also essential for maintaining productivity and reducing environmental impact.

With appropriate planning and management, manures and slurries represent a valuable resource and can form a key fertiliser input, significantly reducing production costs. Feeding decisions should be linked to many aspects of the business, ensuring livestock are fed to maintain their health and welfare, generate a profit and, where possible, reduce environmental impacts. Appropriate management of outdoor-reared livestock can also contribute to improved grass production and reduced sward restoration costs. Suitable management can help reduce topsoil and nutrient losses, improve the quality of watercourses, and enhance biodiversity.

Poor animal husbandry is not only detrimental to animal welfare but can also be at the root of a variety of production, environmental and food safety issues.

- LEAF's Simply Sustainable Biosecurity
- LEAF's Livestock Health Plan provides more information on what to include
- LEAF's Manure Management Plan provides more information on what to include
- LEAF's Landscape and Nature Conservation and Enhancement Plan provides more information on what to include
- LEAF's Animal Feed Audit and Animal Feed Action Plan

STANDARD	VERIFICATION	
5.1 **Measures are taken to avoid damage to grassland by livestock and to optimise biodiversity.** E N/A *N/A if no outdoor livestock production*	• Records state livestock management approaches that protect and enhance biodiversity and the environment • Measures taken to optimise biodiversity and reduce soil erosion and run-off may include: - adjusting stocking rates - adjusting animal movements and/or using rotation - consideration of permanent tracks - positioning of gateways and fencing - positioning of supplementary feeders and drinkers	 SM.SQ.03 AH.AQ.12 LN.LQ.02
5.2 **Nesting birds and wildlife are protected when cutting forage.** E N/A *N/A if forage is not cut*	• Evidence of protection by staff and contractors through the direction and timing of cutting	 LN.LQ.07
5.3 **Organic material, digestate, compost, silage, silage effluent, slurry and solid organic matter are stored according to best practice.** E N/A *N/A in circumstances where organic material, digestate, compost, silage, silage effluent or solid organic matter is not used or stored*	• An active programme of inspection, maintenance and repair is in place for all organic material stores • Stores have sufficient capacity for organic material being stored and expected rainfall as appropriate • All stores are at least 10 metres away from water bodies and further away where necessary (e.g. near a water supply intake) • Field stores are at least 50 metres away from water bodies where potable water is abstracted • Above ground stores have an expected lifespan of at least 20 years from construction with maintenance • Below ground stores have an expected lifespan of at least 20 years from construction without maintenance • Run-off, drainage, and effluent from stores is appropriately managed • Construction materials are appropriate considering permeability and corrosion • Construction of a new store, or alteration to an existing store, has been notified to relevant authorities where required and appropriate (e.g. environmental and planning)	 SM.SQ.08 AH.AQ.10

STANDARD	VERIFICATION	
5.4 **There is adequate safeholding capacity for animal manure and slurry for the requirements of the business.** E N/A *N/A in circumstances where animal manure and slurry is not stored*	• Animal manure or slurry stores have no potential overspill and/or pollution risk • Where there is no minimum capacity stated in law, animal manure or slurry stores have capacity for at least 4 months storage, or as justified in the Manure Management Plan (see 4.2) • Records show regular inspection and maintenance	SM.SQ.08 AH.AQ.10
5.5 **Dirty water and silage effluent are collected and safely recycled.** E N/A *N/A if no dirty water or silage effluent*	• Production of dirty water is minimised, and sufficient storage is provided to allow for its effective use • Silage effluent is applied in accordance with • crop requirements and in suitable conditions • Run-off from animal manure on hard surface areas or yards is contained and treated as dirty water	PC.PQ.04 AH.AQ.10
5.6	[Deleted since v16.0]	
5.7 **There is an implemented Livestock Health Plan.** E N/A *N/A if business has no livestock*	• Livestock Health Plan is appropriate for all livestock within the business • Plan includes reference to the following: - targets to prevent resistance build-up to veterinary medicines - adoption of non-chemical methods to optimise fertility, production, health, and welfare, where relevant - biosecurity • Plan has been produced in consultation with and agreed with vet(s) • Plan is reviewed at least annually and, where appropriate, updated • The implementation of the Plan is reviewed at least annually, recording achievements and progress towards all targets, and used to inform updates to the Plan • Livestock Health Plan can include the Action Plan based on the Animal Feed Audit (see 5.13)	AH.AQ.01

STANDARD	VERIFICATION	
5.8 **There is an annual visit from your vet(s) to discuss animal health strategy and welfare issues.** E N/A *N/A if business has no livestock*	• Report(s) signed by vet(s) from annual visit(s), at minimum, that includes strategy and welfare issues • Vet(s) report(s) incorporates all animals within the business, including those not covered by • the business' baseline certification system(s)	AH.AQ.01 AH.AQ.03
5.9 **Animal health and welfare indicators are monitored and used to assess performance on a production cycle basis.** E N/A *N/A if business has no livestock*	• Records and analysis of appropriate indicators for all livestock within the business (these could include: feed intake, water intake, body condition scoring, lameness, diarrhoea, mastitis, flystrike, hock burn, %mortality) • Records reference that remedial action has been taken where necessary • Records reference strategies taken to optimise animal health and welfare • Sufficient time is allowed for thorough observations to take place • Records reference observations made at an appropriate frequency	AH.AQ.01 AH.AQ.03 AH.AQ.11
5.10 **Key staff/contractors are trained in monitoring of animal health and welfare indicators.** N/A R *N/A if business has no livestock*	• Training records for key staff/contractors (a competent, and where possible qualified, person may train staff, such as a vet or livestock manager)	OP.OQ.09 AH.AQ.09
5.11 **Animal performance indicators are monitored on a production cycle basis.** N/A R *N/A if business has no livestock*	• Records and analysis of appropriate indicators for all livestock within the business (these could include: daily live weight gain, feed conversion ratio, body condition scoring, fertility) • Records reference how this is integrated with health and welfare strategies	AH.AQ.11

STANDARD	VERIFICATION	
5.12 **(Upgraded v16.0) There is an Animal Feed Audit.** E N/A *N/A if business has no livestock*	• Audit of animal feed includes reference to: - sources (e.g. supplier(s) where applicable, country of origin etc) - composition - nutritional requirements of all livestock within the business - feed assurance schemes, where applicable • Audit is reviewed annually • Audit includes home-grown and brought-in feed	 AH.AQ.07 AH.AQ.12
5.13 **(Upgraded v16.0) There is an implemented Animal Feed Action Plan.** E N/A *N/A if business has no livestock*	• Action Plan is based on the Animal Feed Audit (5.12) • Action Plan considers ways for business to minimise waste of feed and/or nutrients • In grazing systems, Action Plan identifies ways of reducing dependency on bought-in feed • Action Plan includes any opportunities to consider sustainability of feed sources including reference to and targets around: - long-term continuity of supply - sourcing from assured suppliers, where applicable - reducing GHG emissions - environmental impact of protein sources • Action Plan is reviewed at least annually and, where appropriate, updated • The implementation of the Action Plan is reviewed at least annually, recording achievements and progress towards all targets, and used to inform updates to the Plan • Action Plan includes home-grown and bought-in feed • Action Plan can form part of your Livestock Health Plan (see 5.7)	 AH.AQ.07 AH.AQ.12

ENERGY EFFICIENCY

Awareness of sustainability issues and responsible management of natural resources are important within Integrated Farm Management.

Efficient use of energy on farm will help save costs, use resources more efficiently and reduce waste, as well as contributing to an overall reduction in greenhouse gas emissions from agriculture.

Careful use of inputs, appropriate tillage, reduced reliance on fossil fuels, and striving for optimum instead of maximum yields will all help improve energy efficiency and contribute towards maximum returns in the long run.

- LEAF's Energy Audit and Energy Action Plan provides more information on what to include
- LEAF's Energy Monitoring Spreadsheets provide more information on monitoring energyand are suitable for businesses of different sizes – Year on Year, Compare Across Sites, and Compare Across Sites and Combined Heat and Power (CHP)

STANDARD	VERIFICATION	
6.1 **There is an annual Energy Audit.** E	• Audit records all source(s) of energy used (e.g. electricity, fuel) • Audit records a measurement for each major energy use (e.g. drying, heating, livestock housing, field operations) • Audit identifies the most significant use(s) of energy in the business • Audit references renewable and non- renewable energy • Audit is completed annually	EE.EQ.01
6.2 **Energy consumption is monitored.** E	• Energy consumption is recorded at least quarterly • The most significant use(s) of energy identified in the Energy Audit (see 6.1) are measured • Energy use is measured per unit of output or other relevant metric (kWh per tonne/head/hectare) • Measurement is in energy units	EE.EQ.01
6.3 **On farm Greenhouse Gas (GHG) emissions are recorded.** E	• There is an annual record of GHG emissions: - based on energy consumption records (see 6.1 and 6.2) as a minimum - reference to emissions from livestock and their feed, where applicable • GHG emission records are used to inform strategies for improvement • The LEAF Sustainable Farming Review Question Carbon Footprints (PC.PD.01) has been completed with appropriate figures	EE.EQ.01
6.4 **There is an implemented Energy Action Plan.** E	• Energy Action Plan is based on the annual Energy Audit (see 6.1), monitoring of energy consumption (see 6.2) and GHG emission records (see 6.3) • Energy Action Plan includes reference to and targets around: - enhancing energy use efficiency - minimising energy consumption - reducing dependency on non-renewable energy sources - reducing GHG emissions • Action Plan is reviewed at least annually and, where appropriate, updated • The implementation of the Action Plan is reviewed at least annually, recording achievements and progress towards all targets, and used to inform updates to the Plan	PC.PQ.07 PC.PD.01 EE.EQ.01

STANDARD	VERIFICATION	
6.5 **(New v16.0) A carbon footprinting tool is used.** R NEW	• Carbon footprinting calculations are made on an annual basis • Results from carbon footprinting are used to establish a baseline to identify opportunities for improvement • Footprinting may include direct emissions controlled by the farm (Scope 1): - tractors - farm machinery - change of land use - methane emissions from livestock, where applicable - leaks from refrigeration - sequestration off-setting potential from environmental features (e.g. waterbodies, peat, trees, etc.)	 PC.PQ.07 PC.PD.01 EE.EQ.01

WATER MANAGEMENT

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

Good water management practices help protect water sources and improve water quality. In particular, good water management contributes toward reducing run-off and pollution, improvedfield access, soil workability and restoration of wetland areas. Improved water retention can be achieved by enhancing soil health, potentially reducing irrigation demands and enabling energy savings.

Sustainable water management in agriculture is critical to increase agricultural production and maintain the environmental benefits and social requirements of water systems.

- LEAF's Simply Sustainable Water provides Six Simple Steps for managing water quality and use on your land.
- LEAF's Water Management Plan provides more information on what to include
- LEAF's Water Monitoring Guidance provides suggestions on how to monitor water quality

STANDARD	VERIFICATION	
7.1 **There is an implemented Water Management Plan.** E	• Water Management Plan is proportionate to water use and includes, where appropriate: - water catchment context including water flows into, through and from the site in relationship to the catchment(s) and water catchment issues - where water is used and justification for use - a water distribution map - environmental impact of water used - leakage - irrigation scheduling - water discharges to the environment - approaches to water quality monitoring - water use, water use efficiency, and water quality targets - actions to optimise water use and water use efficiency, and improve water quality - consideration of water use related to local availability and future demand • Plan is reviewed at least annually and, where appropriate, updated • The implementation of the Plan is reviewed at least annually, recording achievements and progress towards all targets, and used to inform updates to the Plan	 WM.WQ.01
7.2	[Deleted since v15.0]	
7.3 **Applied water use efficiency is measured.** E N/A *N/A when no irrigation is carried out or in some circumstances when measurement is not practical and justified by the business*	• Water use efficiency of all irrigated water is measured in litres (or m3) of water per tonne of output • LEAF Sustainable Farming Review Question Applied Water Use Efficiency (WM.WD.01) has been completed with appropriate figures • Irrigated water is water that is either taken from the mains or from the environment and directly irrigated or stored for use	 WM.WQ.04 WM.WD.01

STANDARD	VERIFICATION	
7.4 **(Upgraded v16.0) Applied water use efficiency measurements are analysed, any changes justified, and measurements are used to plan improvements.** E N/A *N/A when no irrigation is carried out or in some circumstances when measurement is not practical and justified by the business*	• Water use efficiency analysis completed and documented at least annually • Analysis identifies and records actions to improve water use efficiency (e.g. enhanced agronomic or technological practices)	 WM.WQ.02 WM.WQ.04
7.5	[Deleted since v16.0]	
7.6 **(New v16.0) The sources of water used are justified.** R NEW	• The current sources of water used are detailed and explained (see 7.1) • Consideration has been given to progression and plans towards increasing the proportion of water used which is re-used and/or collected from periods of natural abundance • Justification includes environmental impacts • To include mains supply, ground water, surface water, harvested water, stored surface water, recycled process/wastewater, desalinised water, precipitation, non-renewable resources (fossil water), and unusual sources (e.g. snow, ice)	 WM.WQ.01 WM.WQ.07
7.7 **(New v16.0) Water quality is monitored.** R NEW N/A *N/A where there is no surface water*	• Water quality is monitored using one or more of the following: - biological health (e.g. freshwater invertebrates, microbiological testing) - physical health (e.g. turbidity) - chemical health (e.g. ammonia, nitrate, phosphorus, pH) - visual monitoring of quality and condition of drainage ditches and/or water courses • Business identifies and implements a sampling strategy • Measurements are taken and recorded at least quarterly or at a frequency justified by the business • Any changes in water quality measurements are considered, and used to plan actions to improve water quality • NOTE: Focus is on monitoring of natural surface water and water ways with a consideration of potential adverse impacts. This is different from food safety and irrigation water which is covered under baseline systems where appropriate	 WM.WQ.01

LANDSCAPE & NATURE CONSERVATION

Care for the environment is at the core of Integrated Farm Management. For many farmers the demonstration of this care is a living farm landscape which will enhance the public's experience of the countryside.

Responsible management of the landscape leads to enhancedbiodiversity. It can also help protect soil and water and improve land value, farm image and market opportunities. In addition, environmental land management will support a range of ecosystem services that benefit both the farm and the surrounding area.

It is important to remember that landscape and wildlife are like any other aspects of the farm; what is achieved depends on the starting conditions, the capability of the land and the effort invested. Consideration should be given to all areas and actions which could improve habitats. This will include existing habitats, field boundaries and margins, in-field features, watercourses and wetlands, flower- rich and seed-rich habitats.

- LEAF's Simply Sustainable Biodiversity provides Six Simple Steps to help improve biodiversity on your land
- LEAF's Landscape and Nature Conservation and Enhancement Plan provides more information on what to include
- Further information on biodiversity in the UK can be found on the Convention on Biological Diversity and the Joint Nature Conservation Committee websites, and globally in The International Union for Conservation of Nature Red List of Threatened Species website
- LEAF's Great habitats, more flowers, better protection – Pollinator Guidance provides more information on pollinating insects

STANDARD	VERIFICATION	
8.1 **There is a documented Landscape and Nature Conservation Audit (including map).** E	• Landscape and Nature Conservation Audit includes map(s) with reference to the following key environmental features: - protected and/orhigh conservation value areas - lakes, ponds, and watercourses - semi-natural habitats (e.g. moorland, wetlands, lowland heath, species-rich grassland, carbon sinks etc.) - linear features (e.g. boundaries, hedges, fence lines, verges, field margins, walls, ditches) - lists of any important species recorded in the area including rare, threatened, and endangered species and invasive species - other land on which important species are found - areas that are grazed - other uncropped land managed for the benefit of flora and fauna - public rights of way - archaeological or historical sites - traditional buildings - fire breaks that help protect crops and habitats • Audit includes notes on how the farming operations could damage, or have detrimental effects, on these features • Audit completed by the business or specialist adviser • Audit regularly reviewed (at least every five years) by a specialist adviser and annually by the business	LN.LQ.01

STANDARD	VERIFICATION	
8.2 **There is an implemented Landscape and Nature Conservation and Enhancement Plan.** E	• Landscape and Nature Conservation and Enhancement Plan - covers the whole farm including any land rented for more than three years - is based on the map-based Audit (see 8.1) and includes all key features - aims to enhance the farm and encourage greater biodiversity - references opportunities to create or enhance temporal changes in habitat provision (e.g. through rotation and/or grazing) - identifies the necessary action(s) required to conserve and enhance biodiversity and landscapes on the farm, and the protection and maintenance of archaeological or historical sites - includes strategies to provide habitat and food for native fauna (see 8.24) - is linked to Biodiversity Action Plan (BAPs) that exist in the local area or country - has short term (18 months) and long term (at least 5 years) targets - lists key species (or collection of species) on farm and identifies 4 as a focus • Plan is reviewed at least annually and, where appropriate, updated. At least every five years, the Plan is reviewed by a specialist adviser. • The implementation of the Plan is reviewed at least annually, recording achievements and progress towards all targets, and used to inform updates to the Plan	 LN.LQ.02 LN.LQ.03
8.3 **The Landscape and Nature Conservation and Enhancement Plan is an integral part of the farming system.** E	• Agronomic, crop protection and animal husbandry production practices take account of the Landscape and Nature Conservation and Enhancement Plan (see 8.2) • Plan is communicated to all relevant staff	 LN.LQ.02
8.4 **Information is sought about landlord's conservation management practices where land is rented for less than 3 years.** E N/A *N/A where there is no rented land*	• Documentation from the landlord regarding engagement with LEAF (e.g. LEAF Sustainable Farming Review Record of Completion or LEAF Marque certificate) • OR Environmental assessments of the land that is rented (e.g. Conservation Plan, Landscape and Nature Conservation Audit) • OR Correspondence with landlord showing requests for information	 LN.LQ.02

STANDARD	VERIFICATION	
8.5 **Contractors, or tenants who rent land from the certified business, manage the land in a way that protects and enhances the environment.** R N/A *N/A where no contractors used, or land rented out*	• Contractors and/or tenants are LEAF Marque certified • OR Correspondence that indicates the business has encouraged the contractors and/or tenants to join LEAF • OR Correspondence that indicates the business has investigated the environmental credentials of prospective contractors and/or tenants to ensure they will protect and enhance the environmental features of the land • NOTE: Tenants who farm land approved under LEAF Marque where the certificate is held by the landlord cannot sell their produce as LEAF Marque, without being approved themselves	OP.OQ.06 OP.OQ.09
8.6	[Deleted since v16.0]	
8.7 **Measures are taken to protect and enhance habitats in field and/or site boundaries and other landscape features.** E	• Field and/or site boundaries and other landscape features are managed to protect and enhance habitats • Measures align with habitats, field and/or site boundaries, and landscape features identified in the Landscape and Nature Conservation and Enhancement Audit (see 8.1)	LN.LQ.03 LN.LQ.08
8.8	[Deleted since v16.0]	
8.9 **Timing and frequency of watercourse management is restricted.** E N/A *N/A for businesses where there are no watercourses*	• Sympathetic management includes not clearing ditches during bird nesting period, only re-profiling or clearing vegetation from one side of a ditch in any one year • Record justification of when drainage clearance is by necessity more frequent	WM.WQ.05
8.10 **There is a license for any removal of trees (where required and appropriate).** E N/A *N/A for businesses where no trees have been removed*	• Approval documents (where required and appropriate) are present where recent tree felling is apparent • Recent tree felling is referred to in the Landscape and Nature Conservation and Enhancement Plan and is in accordance with local regulations	LN.LQ.06 LN.LQ.07

STANDARD	VERIFICATION	
8.11 **In-field trees and trees in boundaries and hedgerows are retained.** E N/A *N/A where there are no trees in-field, within hedges or within boundaries*	• Hedgerows and trees are present as recorded in the Landscape and Nature Conservation Audit (see 8.1) • Records to show if trees causing a hazard have been removed	LN.LQ.06 LN.LQ.07 LN.LQ.08
8.12 **Deep cultivation under the canopy of trees is avoided.** E N/A *N/A for businesses where there are no in-field trees or hedgerows*	• Deep cultivations are not used under field trees and hedgerows except where trees have been deliberately grown or retained as shade trees • Trees in a boundary or wood edge are bordered by a two-metre margin (see 8.14)	LN.LQ.06
8.13	[Deleted since v15.0]	
8.14 **Field margins and/or site boundaries are under sympathetic management.** E	• Management practices reference species and/or habitats stated in Landscape and Nature Conservation and Enhancement Audit (see 8.1) • Where management occurs through cutting, environmental impact informs decisions: - timing occurs during the least destructive period for flora and fauna identified - frequency and extent minimised - grass cuttings removed where possible - unless required for access and/or health and safety (e.g. highway safety, pedestrian routes), in which case, environmental impact is identified, and mitigation strategies developed • Where management occurs through application of fertiliser or plant protection products (PPPs), use is minimised and targeted • Where management occurs through grazing, timing, frequency, and extent is informed by measures taken to avoid damage to soil and grassland (see 5.1 and 8.29) • Travel on field margins and/or near site boundaries is minimised • Field margins maintained to be at least two- metres wide, measured from the middle of the permanent boundary feature (e.g. hedge, fence, stone wall, or watercourse), unless: - fields are less than two hectares with permanent boundary features - fields have no boundary feature, and the natural habitat extends from the crop or crop headland	LN.LQ.08

STANDARD	VERIFICATION	
8.15	[Deleted since v16.0]	
8.16 **Native and/or appropriate species are used in field margins and other habitats.** E	• Seeding of field margins uses local provenance of seed and native species where possible • Seeding records including seed label • Hedgerow and trees comprised of native and/or appropriate species	 LN.LQ.05
8.17	[Deleted since v14.1]	
8.18 **Care is taken to avoid damage or destruction of national/local important ancient monuments and areas of archaeological or historical interest.** E N/A *N/A where there are no ancient monuments and areas of archaeological or historical interest*	• There is no damage to national/local important ancient monuments and areas of archaeological or historical interest caused by sub-soiling, unauthorised excavation, land reclamation, levelling, tipping/in-filling, woodland clearance, tree-planting, excessive damage by livestock etc.	 LN.LQ.05
8.19	[Deleted since v16.0]	
8.20 **Farm management activities are adjusted to avoid areas where birds and/or other species are nesting.** E N/A *N/A where no nesting species*	• Breeding seasons of nesting species are identified, and farm management activities adjusted accordingly • Evidence of avoidance of nests in crops (e.g. appropriately marking nests where identified) • Controlled mechanical operations during nesting period	 LN.LQ.05
8.21 **Staff are involved in planning and implementing improvement to habitats and landscape features.** R	• Records to show staff engagement with planning and/or improvements to habitat and landscape (e.g. meeting notes, attendance register, photographs) • Improvements align to strategies stated in the Landscape and Nature Conservation and Enhancement Plan (see 8.2)	 LN.LQ.04

STANDARD	VERIFICATION	
8.22	[Deleted since v16.0]	
8.23 **10% or more of the farm/site land is managed as a habitat area.** R	• Maps and/ or cropping plans show 10% or more of total farm area is managed as a habitat • Habitat type and habitat management is justified and informed by the Landscape and Nature Conservation and Enhancement Plan (see 8.2) • Habitat type can include ditches, waterbodies, • hedges, margins, woodland, desert, forest, scrub, grazed areas, savanna, shrubland, wildflower meadows and habitats within cropped areas (i.e. habitat banks and groups of trees)	 LN.LQ.03
8.24 **Nesting habitat(s) and food are provided to enhance the habitat for native fauna.** E	• Strategies are in place to provide habitat and food to support native fauna • Where farmland birds are present, strategies are in place to provide: - nesting habitat - food year-round • Measures are recorded in the Landscape and Nature Conservation and Enhancement Plan (see 8.2)	 LN.LQ.03
8.25 **Bees and pollinators are included as key species in the Landscape and Nature Conservation and Enhancement Plan.** E	• Landscape and Nature Conservation and Enhancement Plan includes reference to seasonal food (nectar and pollen), shelter and foraging sites for bees and pollinators (see 8.2) • Bee and pollinator habitats are present	 LN.LQ.02 LN.LQ.05
8.26 **The LEAF Sustainable Farming Review question On-Farm Habitats has been completed.** E	• LEAF Sustainable Farming Review question On- Farm Habitats (LN.MD.01) has been completed with appropriate figures • Total Farm Area is the total area of the business • Total Farmed Area is the actual cropped area • Habitat Area is the area that is being actively managed for the benefit of biodiversity	 LN.MD.01

STANDARD	VERIFICATION	
8.27 **(Upgraded v16.0) At least one representative species or habitat, that can be justified in environmental terms, is monitored on the farm.** E	• Species/habitat or collections of species/habitat chosen are justified by a person with relevant local environmental knowledge • Monitoring records show the presence of the chosen species/habitat or collection of species/habitat (these could include: visual inspection, electronic records (e.g. apps, photos, satellite images), and/or written records)	LN.MD.01 LN.LQ.09
8.28 **(New v16.0) Conversion of natural ecosystems for agricultural use only occurs where there is compliance with national and/or global commitments and minimal negative environmental impact.** E NEW N/A *N/A if no history of or current natural forests/ protected areas, or if natural ecosystems not converted for sole agricultural use since current ownership or in future plans*	• Natural forests have not been converted into agricultural use since 1st January 2020, nor does the business have any plans to do so • Protected areas have not been brought into solely agricultural use by the business since their designation as a protected area, nor does the business have any plans to do so • Compliance with criteria that permits conversion of other natural ecosystems into agricultural use since the business' ownership of the land is achieved prior to conversion and/or during development stages of existing conversion plans: - conformity with all relevant legislative requirements - where appropriate, notification given to, and approval gained from relevant authorities - conversion strategy is of least harm, as identified by an impact assessment • Records state measures taken to minimise negative environmental impacts of any conversion activity	OP.OQ.03 LN.LQ.02 LN.LQ.03
8.29 **(New v16.0) Protected and/or high conservation value areas, are protected and managed appropriately.** E NEW	• Protected and/or high conservation value areas (e.g. hedges, ponds, ditches, streams, rivers, margins) are managed to protect wildlife and water quality • Management practices are targeted to benefit species and habitats identified in the Landscape and Nature Conservation and Enhancement Audit (see 8.1) • Management strategies align with animal husbandry practices, if relevant to a business' enterprises	LN.LQ.01 LN.LQ.07

ENGAGING SOCIETY

There are so many good reasons for building strong community connections. Through these networks farmers can explain how they farm and use Integrated Farm Management (IFM).

A good relationship with the local community forms a shop front for the business. All other aspe cts of IFM should feed into what is shown and shared. In this way, trust is built in businesses and farming as a whole.

Enjoying explaining farming to the public, suppliers and influencers will help others better understand agriculture and the rural environment. Being connected to your local community and a wide range of people will help address their concerns about the countryside and enable them to become more connected with their food.

- LEAF's guidance on Ways to Engage with the Local Community
- More information about LEAF's Open Farm Sunday can be found on the website
- LEAF's Farm Walks and Talks provides further information on hosting farm visits
- LEAF Farm Notice Boards are a great way to communicate positive messages about food, farming, and the countryside
- LEAF's Speak Out programme provides advice on improving communication skills

STANDARD	VERIFICATION	
9.1	[Deleted since v15.0]	
9.2	[Deleted since v15.0]	
9.3	[Deleted since v15.0]	
9.4 **At least one activity is carried out annually with the intention of engaging local or wider community(ies).** E	• Includes a description of the activity; objective(s) of the activity; date(s) of delivery; personnel responsible for delivery; evaluates whether the objective(s) was met. Less detail may be appropriate where a significant number of activities are carried out • Where activities relate to food, farming, and nature, they include reference to Integrated Farm Management (IFM) and sustainable farming as appropriate • In the first year, the activity can be related to improving skills to support delivery in future years • For whichever group(s) of people which are selected, their needs and preferences are considered where appropriate • Activities may be repeated or extended over more than one year • For LEAF Producer Groups, activity(ies) may be undertaken by the Producer Group on behalf of the farms	 CE.MQ.01 CE.MQ.02 CE.MQ.03 CE.MQ.04 CE.MQ.05 CE.MQ.06 CE.MQ.07 CE.MQ.08 CE.MQ.09
9.5 **The LEAF Sustainable Farming Review data questions on Community Engagement have been completed.** E	• LEAF Sustainable Farming Review questions Open Farm Sunday (CE.MD.01), Visits and Talks (CE.MD.02), Media Engagement (CE.MD.03) and Wider Engagement (CE.MD.04) have been completed with appropriate figures	 CE.MD.01 CE.MD.02 CE.MD.03 CE.MD.04

LEAF MARQUE GLOSSARY

ORANGE TEXT INDICATES NEW ADDITIONS FOR THE LEAF MARQUE GLOSSARY V2.0.

ACTION PLAN:

Where actions and improvement targets are documented to meet the requirements of the control point.

ADJUVANT:

Products or product mixes used to enhance the effectiveness of Plant Protection Products (PPPs) such as herbicides, fungicides, and insecticides.

AGROCHEMICAL:

A synthetic chemical compound (e.g., fertilisers, pesticides, etc.) used in agriculture as part of management practices. This differs from Plant Protection Products (PPPs) which specifically refer to pesticides of both chemical and biological compounds.

AUDIT:

A systematic and documented process for obtaining evidence and evaluating it objectively to determine the extent to which specified requirements are fulfilled (Source: ISEAL Alliance). In the LEAF Marque Standard, this applies to both the Certification Bodies audit of the business, and the business's own audit of their Animal Feed, Energy, and Landscape & Nature Conservation.

BASELINE CERTIFICATION SYSTEM:

The business' underlying agricultural certification system(s), required as the LEAF Marque Standard is a supplementary system. A list of LEAF Marque Approved Baseline Certification Systems can be found within the LEAF Product List.

BENEFICIAL SPECIES:

Any species that provides additional benefit to the farming system, such as predation of pests, pollination of plants, and contribution towards healthy soils.

Biodiversity: The variety of plant and/or animal life.

BUFFER STRIP:

An allocated section of land between the farmed area and targeted conservation area that reduces the risk of impact from Plant Protection Products (PPPs). See also, Buffer Zone.

BUFFER ZONE:

An allocated section of land between the farmed area and targeted conservation area that reduces the risk of impact from Plant Protection Products (PPPs). See also, Buffer Strip.

BUSINESS:

Refers to the legal entity in which LEAF Marque certification is applicable, including Producer Groups. "Business" refers to the farming business in which the LEAF Marque Standard is relevant, and not separate or conjoined packing or distribution business(es).

CARBON FOOTPRINTING:

Carbon footprints are measures of the total amount of carbon dioxide equivalent emissions that are directly and indirectly caused by an activity (or is accumulated over the life stages of a product). Results are reported as units of CO_2 equivalent (CO_2e), to represent all greenhouse gases (GHGs), including methane (CH_4) and nitrous oxide (N_2O), and not just CO_2.

CARBON SINK:

Natural Systems that absorb and store more carbon than carbon dioxide is emitted.

CERTIFICATION BODY:

The organisation responsible for auditing and certification decisions.

CLIMATE POSITIVE (ACTION):

Climate positive means that activity goes beyond achieving net-zero carbon emissions to create an environmental benefit by removing additional carbon dioxide from the atmosphere.

CLIMATE RESILIENCE:

The ability to anticipate, prepare for, and respond to hazardous and extreme events, trends, or disturbances related to climate.

COLLABORATION:

The sharing of knowledge and resources between individuals/groups to achieve common goals and solve problems. Collaboration can also support monitoring and interpretation of data.

COLLECTIVE ACTION:

The intentional delivery of actions which support a common goal across the collaborating group.

CONTINUAL IMPROVEMENT:

Recurring activity that has the effect of increasing the ability of a group to fulfil specified requirements. The process of establishing objectives and finding opportunities for improvement is a continual process, based on risk assessment, audit findings, management reviews and other means (Source: ISEAL Alliance).

CROP ROTATION:

The practice of planting a sequence of different crops and cover crops on a specific field. Crop rotations can be used to help build soil fertility, reduce insect pest pressure, and suppress weeds.

"DETRIMENTAL TO THE FARM AS A WHOLE":

Any activity or impact that goes against LEAF's principles, Integrated Farm Management, or the intended impacts of LEAF Marque. This also includes any activity that would bring the LEAF Marque System or farming industry into disrepute. For example, management of livestock that results in poor animal health or welfare, the use of Plant Protection Products (PPPs) in a way which negatively impacts the environment, employees or the general public, or an approach to staff welfare that does not meet international labour standards.

DIFFUSE SOURCE POLLUTION:

Loss of potential pollutants such as nutrients, chemicals, bacteria, and soil into the local water environment.

DIRTY WATER:

Dirty water is an effluent consisting of water contaminated by manure, urine, cleaning material, crop seepage, and other waste products.

DRIFT:

The deviation of particles from their intended direction during Plant Protection Product (PPP) application due to air currents.

ECOSYSTEM SERVICES:

The naturally occurring benefits from functioning ecosystems that have societal value. These include provisioning, regulating, cultural, and supporting services.

ENVIRONMENTALLY-SENSITIVE AREAS:

The designated areas which will safeguard and enhance areas of land that have particularly high landscape, wildlife, or historic value and where possible improve public access. The Environmentally Sensitive Areas Scheme was initially established in the UK; for international businesses, other designated areas for environmental protection are relevant if they have the same purpose as outlined above.

EXTREME WEATHER EVENTS:

The occurrence of unexpected, intense, and increasingly persistent weather events (e.g., flooding, drought, etc.) as a result of climate change.

FARM/SITE:

Terms used interchangeably, but all refer to the certified entity.

FERTIGATION:

The incorporation of fertilisers into an irrigation system.

FIELD BOUNDARY:

A boundary that marks the edge of a field. Boundaries includes but are not limited to hedges, dry stone walls, ditches, grass margins, non-temporary fences, and watercourses. In addition to agricultural functions of providing shelter for livestock and crops, field boundaries can also deliver ecological functions such as habitat creation, landscape diversity, and providing a wildlife refuge/ corridor.

FORAGE:

Leafy crops fresh or preserved, utilised as feed for animals.

FOSSIL WATER:

Ground water that infiltrated an aquifer thousands of years ago and which has been stored underground since that time and is subject to very low or zero rates of modern recharge. Fossil water is a non-renewable source of water.

GRASS:

In the context of Integrated Farm Management, grass is managed as a crop. This means that a business' agricultural practices maximise the multiple benefits and roles grass can deliver when managed effectively (e.g., enhancing soil health, benefits of integrating livestock in grazing systems, biodiversity). Whilst grass can also be a source of income for some businesses, it does not meet the definition of a Product (see LEAF Product List) and is therefore not listed on a business' LEAF Marque certificate. Whilst grass can provide habitat area in all contexts, in the context of Control Point 8.23 and recording of habitat area on the LEAF Sustainable Farming Review, only grass that is specifically managed as a habitat should be recorded.

GREENHOUSE GAS:

A greenhouse gas is a gas that contributes to the natural greenhouse effect. Greenhouse gases (GHGs) produced by human activity include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulphur hexafluoride.

GROUND WATER:

Water that collects or flows underground in the small spaces in soil, sand, and rock (includes aquifers).

HABITAT:

The area of an environment where an organism lives, feeds, and breeds. On farm, a habitat is an area that hosts wildlife in the farm environment.

HABITAT AREA:

An area that is being actively managed for the benefit of biodiversity, such that action is taken to preserve and enhance habitat area(s). Habitat type can include ditches, waterbodies, hedges, margins, woodland, desert, forest, scrub, grazed areas, savanna, shrubland, wildflower meadows, and habitats within cropped areas (i.e., habitat banks and groups of trees).

HABITAT BANKS:

These provide mid-field refuges for predatory insects and spiders during cooler periods, which then invade the crop in warmer weather to eat pest species such as aphids.

HAY:

Grass or other plants, such as clover or alfalfa, cut and dried for fodder.

HECTARE, (HA):

A unit of area measurement. One hectare is 10,000 square metres or 2.47 acres.

HIGH CONSERVATION VALUE AREA:

An area designated on the basis of High Conservation Values (HCVs) which are biological, ecological, social or cultural values considered outstandingly significant at the national, regional or global level (Source: UN Environment Programme).

IMPACT:

Disturbance, consequence, repercussion, or similar permanent effect of a human or natural cause. Impacts may be positive or negative. They may affect a natural system, the environment, an animal or plant population or individuals (environmental impacts), or human individuals or populations (social impacts).

IMPLEMENTED:

A process, procedure, or plan is carried out in order to achieve the intended result.

INTEGRATED FARM MANAGEMENT (IFM):

LEAF's IFM is a is a site-specific farm business approach that enables the delivery of prosperous farming that enriches the environment and engages local communities. It combines the best of modern technology and traditional methods and is split into nine sections which together addresses the entire farm business.

INTEGRATED PEST MANAGEMENT (IPM):

A strategy of pest management that focuses on long-term prevention of pests and/or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of resistant varieties. Plant Protection Products (PPPs) are used only after monitoring indicates they are needed according to established guidelines, and treatments are made with the goal of removing only the target organism. Pest control materials are selected and applied in a manner that minimises risks to human health, beneficial and non-target organisms, and the environment. IPM aims to make conditions less favourable for pest development and is included within Integrated Farm Management.

LANDSCAPE:

The visible features of an area of land, including physical elements such as landforms, living elements such as flora and fauna, abstract elements such as lighting and weather conditions, and human elements, for instance human activity or the constructed environment.

LEAF SUSTAINABLE FARMING REVIEW:

An online self-assessment management tool designed to aid the implementation of Integrated Farm Management (IFM). It is applicable to the whole farm business and has questions and targets that cover 9 sections of IFM, addressing economic performance, environmental quality, and social health. On completion, management reports are available to document results and benchmarking tools are incorporated into the self-assessment.

LEGAL ENTITY:

A legal entity refers to a business, partnership, organisation, or individual that has legal responsibility for the production processes and has the capacity to enter into contracts and be held responsible for its actions. In instances where a business works in partnership with another business, the legal entity can refer to the combination of these if stated in the legal entity name, for example, 'Farm A incorporating Farm B'. For LEAF Producer Groups, the legal entity signifies the operator of the Quality Management System.

LONG TERM SUSTAINABILITY, VARIETIES RELEVANT TO:

Selection of varieties to consider factors such as (but not limited to); resistance to pests, weeds, and disease; present and future climatic variability; competition with weeds.

MANAGEMENT PLAN:

A documented strategy that identifies the approach to meeting the requirements of the LEAF Marque Standard.

MEADOW:

A grass field for mowing for hay or silage.

MEASURE:

A specific strategy to assess the size, amount, or degree of a factor, or a single assessment of a factor.

MINOR PRODUCT:

Products that do not contribute a significant commercial value to the business, do not take up a significant part of the business's time or land, and are not in any way detrimental to the farm or environment as a whole. For example, a single dairy cow used to support the business's family, or a small trial experimental garden for research, not consumption purposes.

MITIGATION:

Projects or programs intended to offset known impacts to an existing natural resource, human being, or community.

MONITOR:

Ongoing investigation in which a set of numerical (or otherwise) measurements and considered together.

MONITORING:

The systematic observation of changes or impacts to the environment and production system.

MULCHING:

The practice of spreading organic materials—such as straw, compost, or wood chips—over otherwise bare soil between and among crop plants. It can enable moisture conservation, weed suppression and increased soil organic matter.

NATIVE SPECIES:

Those species that occur naturally in the place where they are found. For the purpose of the LEAF Marque Standard, naturalised species – exotic species that have adapted and grow and multiply as if they are native – are also considered as native if it is proven that they do not cause negative economic or environmental impacts.

NATURAL ECOSYSTEMS:

An ecosystem that substantially resembles – in terms of species composition, structure, and ecological function – one that is or would be found in a given area in the absence of major human impacts. This includes human-managed ecosystems where much of the natural species' composition, structure, and ecological function are present. See Accountability Framework.

NATURAL FORESTS:

A forest that is a natural ecosystem. Natural forests possess many or most of the characteristics of a forest native to the given site, including species composition, structure, and ecological function. Natural forests include: Primary Forests, Regenerated (second-growth) Forests, Managed Natural Forests, and Partially Degraded Forests. It also includes Tree Plantations: A forest predominantly composed of trees established through planting and/or deliberate seeding that lacks key elements of a natural forest native to the area, such as species composition and structural diversity. See Accountability Framework.

NATURAL RESOURCES:

A feature or component of the natural environment that is of value in serving human needs (e.g., soil, water, plant life, wildlife, etc). Some natural resources have an economic value (e.g., timber) while others have a "non-economic" value (e.g., scenic beauty). (Source: UNUN http://www.eionet.europa.eu).

PASTURE:

Grassland harvested by the grazing of livestock.

PERMANENT PASTURE:

Any land dominated by grasses or herbaceous forage that can be grazed and has not been included in the crop rotation of a holding for five years or more.

POINT SOURCE POLLUTION:

Pollution arising from an identifiable and localised source.

POLLUTION:

The introduction of substances or energy into the environment, resulting in deleterious effects of such a nature as to endanger human health, harm living resources and ecosystems, and impair or interfere with amenities and other legitimate uses of the environment (Source: European Environment Agency).

POTABLE WATER:

Water that is safe to drink or to use for food preparation, without risk of health problems.

PROCEDURE:

Specified way to carry out an activity or a process (Source: ISEAL Alliance).

PROGRAMME:

A planned course of action with a detailed and explicit set of directions for accomplishing a purpose.

PROTECTED AREA:

A clearly defined geographical space, recognized, dedicated, and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values (Source: IUCN)

PROTECTED CROPPING:

LEAF Marque Protected Cropping refers to structures covered in either glass or plastic in which crop growing conditions are manipulated to enhance production capabilities. Mushroom production or vertical farming systems are also defined as Protected Cropping, even if the structure is not made from glass or plastic. Protected Cropping in the LEAF Marque System does not include shade-houses or other temporary covers such as fleece or netting.

RENEWABLE ENERGY:

Energy sources that do not rely on fuels of which there are only finite stocks. The most widely used renewable source is hydroelectric power; other renewable sources are biomass energy, solar energy, tidal energy, wave energy, and wind energy (Source: EEA multilingual environmental glossary).

RESISTANCE:

Fundamental ability of an organism to avert the attack of a potential pathogen up to a certain degree or to resist the effect of a harmful agent.

SILAGE:

Preservation method of grass or other green fodder for use as cattle and sheep winter feed.

SITE-SPECIFIC:

The implementation of Integrated Farm Management depends on the context of a business (i.e., geographical, environmental, economic, cultural factors), such that businesses implement approaches appropriate to their context, enabling the relevance of LEAF Marque to all enterprises and countries. The LEAF Marque Standard facilitates a site-specific approach by being plan- based, wherein businesses define the relevant practices they will implement to meet the requirements of the Standard.

SLUMPING:

Movement of soil and rock downslope as a single mass.

SLURRY:

A semi-liquid mixture where water is mixed with small solid particles, typically manure.

SOIL EROSION:

The removal or displacement of soil caused by the movement of water or wind. Severe erosion implies the removal of the entire plough layer or "A" horizon (topsoil) of the soil.

SOIL FERTILITY:

The capacity of the soil to provide plants with all essential nutrients required to support plant growth.

SOIL HEALTH:

The capacity of soil to function as a living system, with ecosystem and land use boundaries, to sustain plant and animal productivity, maintain or enhance water and air quality, and promote plant and animal health. Healthy soils maintain a diverse community of soil organisms that help to control plant disease, insect and weed pests, form beneficial symbiotic associations with plant roots; recycle essential plant nutrients; improve soil structure with positive repercussions for soil water and nutrient holding capacity, and ultimately improve crop production (FAO, 2008). Soil Health is inclusive of Soil Quality.

SOIL HUSBANDRY:

Management of soil to maintain and preserve it as an agricultural resource.

SOIL ORGANIC MATTER (SOM):

Soil organic matter has three parts: living organisms, fresh residues, and well-decomposed residues. Fresh residues are a primary source of food for living organisms. Decomposition of fresh residues releases nutrients needed by plants. Well-decomposed matter, also called “humus,” holds on to some nutrients, storing them for slow release to plants.

SPECIALIST ADVISOR:

an individual with expertise or training in a topic that is relevant to the business context, as determined by the business, who is able to advise on a business’ habitats, species and environmental management. See Guidance Document for more information.

STAFF:

All individuals employed by the business/ organisation, including but not limited to: managers, contractors, administrators, and assistants.

STATUTORY LANDSCAPE DESIGNATION:

Protected areas of land, allocated by government, that aim to conserve and enhance the natural landscape and ecosystem.

SUBSTRATE:

Growing media, either solid or liquid, for crops. Predominantly used in covered cropping systems.

SURFACE WATER:

Water that is on the Earth's surface, such as in a stream, ditch, river, lake, reservoir, or ocean.

SUSTAINABLE AGRICULTURE:

A method of agriculture that is economically viable, socially responsible, and ecologically sound. The economic, social, and ecological aspects are all interrelated and essential to sustainability - a system capable of maintaining productivity indefinitely.

THIRD PARTY VERIFIED:

Process by which a producer's compliance with the Certification System Standard (LEAF Marque Standard) is confirmed by a LEAF Marque approved Certification Body following an independent audit.

THRESHOLDS IN INTEGRATED PEST MANAGEMENT:

The level of infestation or pest attack at which the benefits received (for example, in terms of yield or crops saved) cover the cost of the treatment or application.

TRACE ELEMENT:

A chemical element that is required in very small amounts to support normal growth and development.

VISUAL SOIL ASSESSMENT:

A method of measuring soil health that involves measuring soil structure and porosity.

WASTE:

Waste is an unwanted or undesired material or substance. It is also referred to as rubbish, trash, garbage, or junk depending upon the type of material and the regional terminology. Most waste is comprised of paper, plastic, metals, glass, food waste, organic material, faeces, and wood.

WHOLE-FARM:

A comprehensive approach to farm decision-making that considers the entire farm and all its resources. It recognises that nothing in farming acts in isolation. A whole-farm approach enables businesses to achieve their goals, whilst enhancing natural resources, enriching the environment and engaging communities (Source: Washington State University). Integrated Farm Management applies a whole-farm approach to deliver more sustainable farming.

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