



BASIS PRINCIPLES OF SUSTAINABLE LAND MANAGEMENT SYLLABUS

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BASIS PRINCIPLES OF SUSTAINABLE LAND MANAGEMENT	
There are five modules in the Principles of Sustainable Land Management syllabus:	
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PRINCIPLES OF SUSTAINABLE LAND MANAGEMENT SYLLABUS

INTRODUCTION

Sustainable, productive farming systems that are resilient to climate change and protect biodiversity and the environment, are essential for providing food, clean air and water to the public, into the future. Sustainable land management of the farmed landscape is currently, and will be increasingly, an important part of the farm business. The use of an integrated approach to farm and environmental land management realises benefits for productivity, the farm business, biodiversity, resources and the environment.

This short course provides an opportunity to learn about the principles of sustainable land management, for those who might already be doing work on-farm but would like to develop this area further, those that are new to the approach and those that are interested in participating in agricultural transition schemes to achieve the outcomes set out by future farming policies.

The course is split into five modules and will look at the key background to sustainable land management, the economics of options, managing farmland wildlife and habitats, soil, water and air quality, nutrients and grassland and historic features. Completion of this course will provide an appreciation of the key elements of the Sustainable Farming Incentive standards and support the delivery of the outcomes.

The Principles of Sustainable Land Management syllabus has been designed for farmers, land managers, advisers, agronomists and those working within the farmed landscape. It is well suited to those that are looking for an introduction to sustainable land management and to further their technical, practical and business knowledge to maximise the on-farm environmental potential and sustainability.

The course provides a useful introduction to the key concepts, which can be supported by more in-depth knowledge gained by progressing with more advanced courses, such as BETA Conservation Management, Soil & Water Management Certificate or FACTS.

COURSE DELIVERY

This course is designed to be delivered either as a minimum one day, in-person course, provided by BASIS approved trainers or online with a series of interactive training modules. Both options include a range of teaching materials, learning activities and resources.

EXAMINATION GUIDELINES

The examination for this course is an online assessment consisting of 25 multiple choice questions which must be completed within a time limit of 30 minutes. The pass mark for this assessment is 70%. On successful completion of the assessment, candidates will be presented with a BASIS Certificate of Achievement.

WHISTLEBLOWING POLICY

BASIS Registration Ltd is committed to the highest standards of openness and accountability. Therefore, we expect employees, candidates and others who work with BASIS who have serious concerns about any aspect of our work voice those concerns.

To this effect BASIS has a whistleblowing policy. This procedure is designed to allow concerns of a public interest kind within BASIS to be raised, investigated and where appropriate, acted upon. Complaints may be any member of staff, candidates or those contracted to provide services to BASIS.

To view the full Whistleblowing Policy go to:

<http://www.basis-reg.co.uk/documents/BASIS-whistle-blowing-policy.pdf>

DYSLEXIA POLICY

BASIS Registration Ltd allows students diagnosed with Dyslexia to request special examination arrangements. Proof of dyslexia is required a **minimum of 4 weeks** before the exam date so that BASIS can provide special examination arrangements if required.

For a full copy of our Dyslexia Policy please go to:

<https://basis-reg.co.uk/documents/Dyslexia-Policy.pdf>

COMPLAINTS POLICY

For a full copy of our Complaints Policy please go to:

<https://www.basis-reg.co.uk/documents/Complaints-Procedures.pdf>

MODULE 1 – INTRODUCTION TO SUSTAINABLE FARM AND ENVIRONMENTAL LAND MANAGEMENT

Aims: To understand the role and importance of sustainable land management across the farmed landscape. To recognise the background to current agricultural and environmental policies and the context of the environmental land management schemes. To understand the main features and sustainable farm management actions of schemes and the business considerations for different farming systems.

Essential Knowledge and Skills:

All candidates should be able to:

- Understand the importance of sustainable farm and environmental land management in the farmed landscape and the current agri-environmental challenges in the UK
- Understand the key objectives and environmental goals of new policies and how they fit into the wider policy framework, for example the 25 Year Environment Plan, Environment Act, Agriculture Act and net zero strategies
- Describe agri-environment scheme history and the development of environmental stewardship schemes, including Entry and Higher Level Stewardship and Countryside Stewardship schemes
- Outline the details of Countryside Stewardship and the new environmental land management schemes, including the key features of the Sustainable Farming Incentive, Local Nature Recovery and Landscape Recovery schemes
- Identify the opportunities for private funding and investment in environmental features and options
- Explain the relationship between environmental land management schemes and cross compliance, legislation and regulations, for example, Nitrate Vulnerable Zone (NVZ) rules, Farming Rules for Water and farm assurance requirements
- Understand the business opportunities and impacts of agri-environment schemes and options, including income vs management cost
- Recognise integration of farm management options into different farming systems, for example organic, intensive, extensive, regenerative agriculture and on owned and tenanted land

MODULE 2 – FARMLAND WILDLIFE AND HABITAT MANAGEMENT

Aims: To be familiar with key species and habitats found across the farmed landscape and understand their key requirements. To be familiar with the management options that can be used and targeted to deliver the maximum environmental potential from these habitats to support these key species and complement the farm business.

Essential Knowledge and Skills:

All candidates should be able to:

- Identify key farmland habitats and the wildlife that they support, including woodland, grassland, arable land, hedges, ditches, wetland, water bodies and moorland and rough grazing
- Recognise ways of knowing which species and habitats you have on-farm, including the use of surveys, guidance and tools
- Outline the key wildlife needs on-farm, to include:
 - Year-round food supply
 - Breeding and nesting habitat
 - Protection from predators, damage and threats
- Use key examples from the farmed landscape and describe how you can implement the wildlife needs, outlined above, for the benefit of the species or the habitat, for example for lapwing or bumblebees
- Identify key management options, for example pollen and nectar plots, beetle banks, field corners
- Understand hedgerow and ditch management, including cutting regimes and maintenance
- Explain how you would evaluate and target management options to have the greatest benefit for wildlife and wider biodiversity
- Understand woodland management including maintenance, expansion, dead wood, open spaces/rides, assessing woodland condition and threats

MODULE 3 – SOIL AND WATER MANAGEMENT

Aims: To understand the importance of soil health, water quality and reducing flood and drought risk. To identify examples of poor practice and their impact, as well as the methods, tools and measures to use to improve their management.

Essential Knowledge and Skills:

All candidates should be able to:

- Understand the role of soil health and the importance of soils for the farm business, for example nutrient cycling ability and soil carbon storage
- Outline how to conduct a soil health assessment, including carrying out a soil structure and earthworm assessment and a knowledge of testing for key nutrients and pH
- Understand how to test for soil organic matter, why building soil organic matter levels is important and the methods that can be used to achieve this, for example use of reduced tillage, cover crops, compost and organic manures
- Recognise practices and the impact of poor soil and water management, for example erosion, compaction and run-off, and the effects on water quality and climate change
- Identify appropriate mitigation measures to improve soil and water quality, for example use of a soil management plan, slowing the flow, reduced cultivations, installation of hard standing for livestock gateways and buffer strips
- Understand the importance of and methods for maintaining soil cover, particularly over winter, and associated risks for soil loss, water quality and flooding
- Understand how the changing climate has on-farm implications in terms of flood and drought risk, water storage and infiltration
- Describe soil and water management measures that can be implemented to increase on-farm resilience to climate change
- Explain the wider benefits of soil and water management measures for the farmed landscape and water environment

MODULE 4 – NUTRIENT MANAGEMENT

Aims: To be able to define and discuss the need for accurate nutrient planning and management, to reduce nutrient losses to water and air. To understand how to mitigate against impacts on water, air quality and climate change and to ensure optimum and accurate fertiliser and organic matter applications.

Essential Knowledge and Skills:

All candidates should be able to:

- Appreciate the importance of effective nutrient management for the farm business and the environment
- Understand crop and soil requirements and the role of nutrient management planning
- Outline where nutrients can be lost in the system and their impacts on air and water quality, for example nitrate and phosphate effects on water quality and emissions of ammonia and greenhouse gases from organic matter and fertiliser use
- Define and understand the need for whole farm nutrient budgeting, including nitrogen use efficiency, matching crop need to nutrient applications and nutrients in animal feed
- Be familiar with precision application technologies and the costs vs benefits to the business, for example soil mapping and use of low emission technologies to reduce ammonia and greenhouse gas emissions

MODULE 5 – GRASSLAND AND HISTORIC FEATURES MANAGEMENT

Aims: To define grassland management systems and understand how to optimise their management for the farm business and environment, by grazing, weed control, creating diversity and preserving historic features.

Essential Knowledge and Skills:

All candidates should be able to:

- Define and differentiate between the main types of grassland, including permanent and temporary grassland, improved grassland, rough grassland, scrub, diverse swards, herbal leys and wildflower meadows
- Outline key considerations of optimum grassland management, including sward height, stocking density, grazing and cutting management, weed management, use of rotational grazing and supplementary feeding and managing rough grassland
- Describe key species used to create diversity, including grasses, legumes and herbs, and how they contribute to different systems, for example grass and herbal leys used for grazing or an arable floristically enhanced margin
- Outline how to establish and maintain grassland areas and use arable/grassland rotations for maximum farm business and environmental benefit
- Recognise and understand the conservation and maintenance requirements of historic features and the practices employed to protect historic features when re-seeding and cultivating land

RESOURCES

There are a wide range of resources available across the agricultural industry, which can support further learning, advice or guidance for implementing actions on the ground, funding or regulations. The links to key pieces of recommended reading and useful websites from the course are outlined at the links below:

RECOMMENDED READING

25 Year Environment Plan –

<https://www.gov.uk/government/publications/25-year-environment-plan>

Agriculture Act –

<https://www.legislation.gov.uk/ukpga/2020/21/contents/enacted>

AHDB Grass Hub –

<https://ahdb.org.uk/knowledge-library/ahdb-grass>

AHDB Principles of Soil Management –

<https://ahdb.org.uk/soil-principles>

AHDB Nutrient Management Guide –

<https://ahdb.org.uk/RB209>

Code of Good Agricultural Practice: Protecting our Water, Soil & Air (DEFRA) -

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/268691/pb13558-cogap-131223.pdf

Defra Funding for Farmers -

<https://www.gov.uk/guidance/funding-for-farmers>

Environment Act –

<https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>

Farming Rules for Water (England) -

[Rules for farmers and land managers to prevent water pollution - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/rules-for-farmers-and-land-managers-to-prevent-water-pollution)

Defra Sustainable Farming Incentive Standards –

<https://www.gov.uk/guidance/sustainable-farming-incentive-pilot#standards>

GREATSOILS –

<https://ahdb.org.uk/greatsoils>

LEAF Simply Sustainable Series –

<https://leaf.eco/farming/simply-sustainable-series>

Nitrate Vulnerable Zones (England) –

<https://www.gov.uk/government/collections/nitrate-vulnerable-zones>

NFU Achieving Net Zero, Farming's 2040 Goal –

<https://www.nfuonline.com/nfu-online/business/regulation/achieving-net-zero-farmings-2040-goal/>

Rural Payments Agency Guide to Cross Compliance (England) -

<https://www.gov.uk/guidance/cross-compliance-2022>

Tried and Tested -

<https://www.nutrientmanagement.org/>

ThinkSoils -

<https://ahdb.org.uk/thinksoils>

USEFUL WEBSITES

AHDB - <https://ahdb.org.uk/knowledge-library>

Agricology - <https://www.agricology.co.uk/>

Amphibian and Reptile Conservation - <http://www.arc-trust.org/>

BASIS - <https://basis-reg.co.uk/>

Bat Conservation Trust - <http://www.bats.org.uk/>

Buglife - <http://www.buglife.org.uk/>

Bumblebee Conservation Trust - <http://bumblebeeconservation.org/>

Butterfly Conservation - <http://www.butterfly-conservation.org/>

Catchment Sensitive Farming - <https://www.gov.uk/guidance/catchment-sensitive-farming-reduce-agricultural-water-pollution>

CFE - <https://www.cfeonline.org.uk/>

Defra Future Farming Blog - <https://defrafarming.blog.gov.uk/>

DAERA - <https://www.daera-ni.gov.uk/>

Farmbench - <https://ahdb.org.uk/farmbench>

FarmWildlife - <https://farmwildlife.info/>

Freshwater Habitats Trust - <https://freshwaterhabitats.org.uk/>

GWCT - <https://www.gwct.org.uk/farming/>

Historic England - <https://historicengland.org.uk/>

HSE - <https://www.hse.gov.uk/pubns/agindex.htm>

LEAF - <https://leaf.eco/>

MAGIC Maps - <https://magic.defra.gov.uk/>

Magnificent Meadows - <http://www.magnificentmeadows.org.uk/>

Nature Friendly Farming - <https://www.nffn.org.uk/>

Plantlife - <https://www.plantlife.org.uk/uk>

RSPB - <http://www.rspb.org.uk/farming>

Scottish Government - <https://www.gov.scot/farming-and-rural/>

The Wildlife Trusts - <http://www.wildlifetrusts.org/>

VI - <https://voluntaryinitiative.org.uk/>

Welsh Assembly - <https://gov.wales/farming-countryside>

SELF-GUIDED ONLINE COURSE

The Principles of Sustainable Land Management course is available as a self-guided course online via the BASIS Classroom. To register for this course, please visit the course page to enter your details and receive a log-in to do the learning and complete the assessment.

BASIS APPROVED TRAINERS

The following Colleges, Trainers and Training Providers are successfully running Principles of Sustainable Land Management courses and have been accepted as BASIS Approved Trainers.

26 April 2022