

CONSERVATION MANAGEMENT SYLLABUS

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CONSERVATION MANAGEMENT SYLLABUS AND INFORMATION

INTRODUCTION

Farming in the UK is familiar with change - new crop varieties, new techniques, machinery innovation and many other aspects are taken on board as part of every day agricultural business life. Occasionally the degree of change is on a larger scale and of wider scope, so that all farmers are affected. The magnitude of the changes happening on British farms now is on a scale not seen in recent times.

The move away from production subsidy to countryside management reward is having great effect on all involved and the way that farming is practised. The Single Payment Scheme has initiated an enormous volume of booklets, papers, predictions, pamphlets and guidance literature covering all that is required of farmers to comply with Cross Compliance, Statutory Management Requirements, Good Agricultural and Environmental Condition, as well as for the Entry Level and Higher Level Stewardship Schemes.

It is of no surprise that many farmers are finding it difficult to comprehend the scale of what is required and the depth of knowledge needed to achieve rewards for the Environmental Stewardship Schemes. Most farmers are excellent production managers but their expected role is now demanding a change of emphasis to build up the countryside management element of their job.

THE CONSERVATION MANAGEMENT COURSE

In recognition of these changes BASIS (Registration) Ltd has consulted with experts in the industry (whose assistance is appreciated) to introduce the Conservation Management qualification.

WHAT IS IT AND WHO IS IT FOR?

This short duration course is designed for those who have agricultural knowledge but may not be fully familiar with all that is required and covered by the Single Payment Scheme (SPS), relative to Conservation issues. Conservation Management needs care and attention on farm, to soil, air, water, wildlife, the environment and biodiversity of species. The course is ideally suited to those managing farms, both directly and indirectly as land agents or management consultants. Any one involved in Estate Management on a broader scale would also benefit from this course.

Farming policy has been under scrutiny in recent times and in the spotlight like never before. Strategic decisions have critical impact on farm income and profitability. The way that farms are managed and how future plans will improve income, are vital to the combined benefit of both the British countryside and the farmer. The focus of the Single Farm Payment Scheme (SFPS) is such that if the countryside benefits, then so can the farmer.

Public scrutiny of farming is also in greater focus. Food miles, food quality, enjoyment of the countryside, water quality, energy consumption and Britain's wildlife all have relevance to modern farming. The BASIS Conservation Management course clearly cannot cover all of those issues in absolute depth, in the time available, but the four modules of the course will increase the knowledge of managers attending and contribute to farm improvement through implementation of the knowledge gained.

THE COURSE ITSELF AND THE QUALIFICATION

- There are no pre-course entry requirements, although the greatest benefit will be gained by those who understand farming and who have some experience of how farms are managed. Ideally a year working on a farm or with farmers, possibly also with an agriculturally based qualification, would be the minimum pre-course background for attendees.
- It is possible to sit the Conservation Management examination without any formal training. However, this is not advised because of the wide scope of the course.
- Successful candidates will achieve the BASIS Certificate in Conservation Management.
- The course comprises four modules:
 - Soil and Air Protection
 - Protection of Surface and Ground Water
 - Biodiversity - Conservation and Improvement
 - Care of the Environment
- All modules will relate to the SFPS and to on-farm requirements for the management of the content of each of the four modules.
- Tuition for the course will usually be 2½ days, with the examination being on the afternoon of the third day, making 3 days duration in total. However, for more experienced practitioners it may be possible to reduce the total time involved and to recognise greater knowledge and experience prior to the course tuition.

EXAMINATION PROCEDURE

The Conservation Management examination can be held at any suitable location, with prior agreement, after discussion with BASIS, and making an advanced booking. An independent examiner appointed by BASIS will adjudicate at the venue.

It is preferable that there are no more than a maximum of 20 candidates for any Conservation Management examination. Smaller numbers can be examined but BASIS will charge for at least the minimum number for any particular examination (minimum 10 candidates per exam).

Examinations must be booked in advance, preferably with at least 6 weeks notice, to ensure availability of an independent BASIS examiner. Cancellation of a booked examination within one to four working weeks will incur a £50 fee. This will be increased to £250 if an exam is cancelled in the week before an exam. Exams cancelled within 24 hours of the exam time will be subject to the full exam fee for all candidates.

The Conservation Management examination will be 2 $\frac{1}{2}$ hours duration and usually held during the afternoon of the third day. Examination papers will be marked as soon as possible and results made available usually within 4 weeks of the exam.

The Conservation Management examination format will be:

- 30 multiple choice questions
- 1 compulsory and 5 from 9 short answer questions (answers to be between 100 and 200 words each - answers can be as bullet points or sentences, whichever candidates prefer)

MARKS ALLOCATION

100 possible marks - based on the following allocation:

1 $\frac{1}{3}$ mark for each correct multi-choice answer	40 marks
10 marks for a correct answer to the compulsory short answer question (No. 1)	10 marks
10 marks each for correct answers to the five (out of 9) short answer questions required to complete the exam paper	50 marks
Max. possible total	100 marks

OBJECTIVE SYLLABUS

Candidates wishing to attain the Conservation Management Certificate should be aware of, and conversant with, the following four modules and the detail of their content.

MODULE 1 - SOIL AND AIR PROTECTION

1.1 Competence

Candidates will know the principles governing the maintenance of soil organic matter content, the maintenance of good soil structure and methods for the prevention of erosion by water and wind. They must have knowledge of the legal and good agricultural practice requirements for the protection of soil and air and the maintenance of soil health and clean air.

1.2 Performance Criteria

Candidates must be able to:

- demonstrate an understanding of the Soil Code (Code of Good Agricultural Practice for the Protection of Soil)*.
- demonstrate an understanding of the Air Code (Code of Good Agricultural Practice for the Protection of Air).
- understand the soil related aspects of 'cross compliance' within the framework of the Single Payment Scheme.
- prepare a soil protection review to include an assessment of erosion and run off risk.
- demonstrate a good knowledge of methods used to reduce the risk of soil erosion by water and wind.
- understand the principles, and effects on the soil, of different cultivation strategies.
- demonstrate awareness of good livestock husbandry practice and it's importance in Soil and Water Management.
- identify the main emissions to air that can cause environmental problems.

1.3 Essential Knowledge and Skills

Candidates must have the ability to:

- explain how erosion control methods work and the importance of field history.
- understand the reasoning behind soil related 'cross compliance' requirements appropriate to the UK region they work in.
- understand the agricultural/horticultural aspects of the England Soil Protection Review or equivalent in devolved areas.
- explain Good Agricultural and Environmental Condition (GAEC).
- understand how to prepare a 'soil management plan' as needed by the Entry Level Scheme (ELS), or equivalent in devolved areas.
- understand the effect soil material has on the aquatic environment.
- understand the reasons why topsoil should not be removed.
- understand how to increase soil organic matter levels to improve soil structural stability using cropping and organic manures.
- explain various cultivation techniques and the impact of each on the soil.
- understand the importance of crop rotations and crop selection linked to erosion and run off risk.
- understand how to manage livestock grazing / feeding / density / timing to result in the best practice of Soil and Water Management.
- identify the methods which can be used to protect river banks from erosion.
- understand how water can be conserved and utilised (eg. irrigation).
- understand the pathways by which soil can reach watercourses (eg. roads / ditches etc.).
- show understanding of the SOWAP (SOil & WATER Protection) project.
- understand the ways in which harmful emissions to air can be minimised.

* Applies to England. For Scotland the SEPA Code of Good Agricultural Practice and the Farm Soils Plan. For Wales the Cross Compliance Soil Assessment Record.

MODULE 2 - PROTECTION OF SURFACE AND GROUND WATER

2.1 Competence

Candidates must understand the relationships between Soil & Water Management to enable best use of land and the minimisation of diffuse pollution.

2.2 Performance Criteria

Candidates must be able to:

- recognise the basic relationships between Soil & Water and describe the management practices to conserve both in good condition.
- demonstrate an understanding of the Water Code (Code of Good Agricultural Practice for the Protection of Water)*.
- understand the basic principles of field drainage and an outline of the methods of drainage used.
- understand the implications of Groundwater, Nitrates and Water Framework Directives.
- understand the controls for diffuse and point source pollution of water, meeting the current and potential legislation and advisory requirements, especially with regards to pesticides.

2.3 Essential Knowledge and Skills

Candidates must have the ability to:

- understand the objectives for water quality.
- understand how to reduce diffuse pollution of water by cultural methods appropriate to varied soil types and cropping systems.
- understand the fertiliser control requirements:
 - NVZ's.
 - SSSI's.
 - ESA's.
 - application rates and timing.
 - risks of pollution.
 - benefits of use.

- understand the manure control requirements:
 - quantity per animal.
 - quantity per hectare.
 - application rates and timing.
 - storage of animal waste
 - risks of pollution.

- understand the pesticides control requirements:
 - outline approvals process.
 - advice / recommendations.
 - correct filling and application.
 - sprayer cleaning, washdown and biobeds
 - risks of pollution.
 - benefits of use.

- understand the value of manures:
 - measuring (or estimating) nutrient content.
 - estimating nutrient value after application.
 - methods for reducing nutrient losses.

* Applies to England. For Scotland the Farming and Watercourse Management - A Good Practice Handbook (SEPA and Scottish Natural Heritage)

MODULE 3 – BIODIVERSITY – CONSERVATION AND IMPROVEMENT

3.1 Competence

To be able to demonstrate an understanding of the requirement to, and the reasons for, maintaining biodiversity and the methods of retaining farmland wildlife.

3.2 Performance Criteria

Candidates must be able to:

- define the term 'biodiversity' and understand its history in terms of both international conventions and national agreements.
- recognise why conservation of biodiversity is of concern to society.
- explain what a Biodiversity Action Plan (BAP) is and how this relates to specific species (Species Action Plan - SAP) and Habitat Action Plans (HAP).
- provide examples of BAP species associated with arable farming ecosystems.
- specify which species have declined and describe the likely causes, including habitat loss, changes to agricultural practices and use of crop protection.
- specify what conservation measures can be introduced to help arable farmland biodiversity such as: field margins, beetle banks, conservation headlands, hedgerow and waterway management.
- explain how the Entry Level and Higher Level Stewardship Schemes operate as part of the Defra Environmental Stewardship Programme under Natural England.
- describe the interim outcomes of the SAFFIE Project.
- show understanding of Cross Compliance Guidelines and Good Agricultural and Environmental Condition as they relate to maintenance of habitats and landscape features.
- explain how ensuring best practice will help to prevent pesticide / fertiliser contamination (eg. drift) from entering non-crop conservation habitat areas.

3.3 Essential Knowledge and Skills

Candidates must have the ability to:

- understand what is meant by the term "Conservation Agriculture".
- understand the requirements to encourage and maintain biodiversity.
- identify the species for which declines in numbers are of major concern.
- discuss the contribution Integrated Crop Management makes to biodiversity.
- discuss the different types of agri-environment schemes, across the UK including the Single Farm Payment Scheme and Environmental Stewardship Programmes.
- identify the conservation measures which can be funded as part of the schemes.
- discuss the interactions between factors, eg soil, water, air, in managing a whole farm.
- interpret information relating to biodiversity protection.
- evaluate the costs and potential benefits of biodiversity protection and enhancement, in the context of overall business management.
- explain the indirect risks to farmland wildlife from farming methods and how promoting best practice can help to prevent this.
- explain simple, practical measures that can be adopted to protect and enhance farmland biodiversity to ensure balance for all species.
- explain the basic procedures and requirements of the Natural England, ELS and HLS schemes on farm.
- retain knowledge of the previous ESA, CCS and OFS Schemes
- understand how the various environmental Stewardship Schemes relate to the SPS
- understand the background to the Campaign for the Farmed Environment and the targets set there-in

MODULE 4 - CARE OF THE ENVIRONMENT

4.1 Competence

For farmers and managers to be able to demonstrate their care of the countryside and their farm(s). To ensure understanding of the extent of environmental care on farm, the impact of actions taken and how improvements can be made.

4.2 Performance Criteria

Candidates must be able to:

- visit individual farms and estates and for each one, understand the relevance of the environmental legislation, options for development of environmental care and general countryside stewardship.
- recognise why environmental care is important.
- understand how public perception and actual involvement with the public can impact on farming activity, eg bystander exposure.
- understand how waste management on farm is now a vital issue in the overall care for the farm environment.
- recognise the position of organic farming relative to the environment and conventional farming.
- position farms and estates within the overall environmental stewardship framework, and particularly determine actions and requirements to maximise environmental stewardship options and rewards.
- demonstrate competent knowledge of the procedures required to implement conservation management in a farm situation.

4.3 Essential Knowledge and Skills

Candidates must have the ability to:

- understand the opportunity for sporting and / or leisure activity on the farm including:
 - the wild life and aquatic profile of the holding
 - codes of good practice for sporting activity (eg. shooting and fishing)
 - necessary control of vermin / predators
 - the environmental context of sporting / leisure activity

- identify and discuss the efficient use of energy:
 - discuss minimising energy consumption.
 - discuss options for energy sources.
 - discuss renewable energy possibilities.
 - discuss biofuels and future opportunities.

- compare the relative merits of organic and conventional farming practices with understanding of the economic and environmental aspects of each.

- discuss public access and its implications:
 - discuss the mapping and control of public access areas.
 - discuss safety issues and options to develop.

- discuss farm waste and the actions required.
 - to minimise its creation
 - to deal with non-beneficial livestock waste (eg. sheep dip).

- understand the implications of the 1975 European Waste Directive.

- understand the control and use of exempt wastes:
 - Waste Management Licensing Regulations.
 - Environment Agency and approval process.

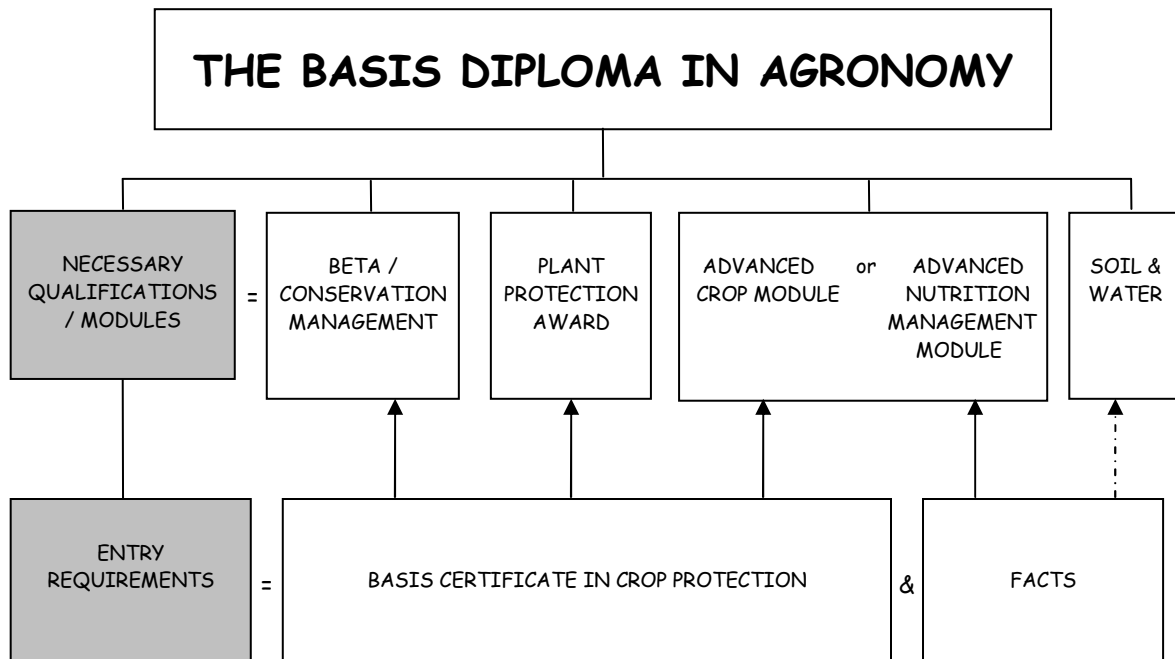
- understand the control and disposal of:
 - containers.
 - plastics.
 - effluent.
 - excesses of applied products (eg pesticides, treated seed, sheep dip).

- discuss quality and safety in the food chain:
 - identify and discuss assurance schemes.
 - demonstrate awareness of LEAF Marque / Conservation Grades / Red Tractor.
 - understand cross compliance requirements.
 - understand food safety withdrawal and recall.

- understand the importance of:
 - landscape features on the managed holding
 - how the care of them fits with overall environmental responsibility

THE BASIS DIPLOMA IN AGRONOMY

The breadth and scope of knowledge needed for crop protection sales and advice grows every year. New products, new techniques and the way that crop protection fits with other farm and crop management activities all add to the skills needed by those involved in sales and advice for Crop Protection. To cover the range of factors involved, the new BASIS Diploma in Agronomy, as set out below, gives a comprehensive training and qualification framework for those involved in on-farm advice and sales.



TOPICS COVERED

ADVANCED CROP MODULE / ADVANCED NUTRITION MANAGEMENT MODULE Weed, Pest & Disease Control, Crop Protection Programmes, Marketing, Food Industries, Crop Assurance, Nutrient Management

BETA / CONSERVATION MANAGEMENT Environment, Biodiversity, EIS's, CPMP's, ICM, Climate Change

PLANT PROTECTION AWARD (PPA) Systems & Society, Formulation, Mode of Action, Application, Health & Safety

SOIL & WATER Cultivation Types and Properties, Cropping Systems, Water Quality, Drainage, Pollution/Waste, Plant Nutrition

For the PPA and the Advanced Crop Module the prior achievement (by examination, exemption or validated certificate) of the BASIS Certificate in Crop Protection is an entry requirement. For the Advanced Nutrient Management Module the prior achievement of the FACTS qualification is required.

The FACTS qualification is a requirement for successful completion of the BASIS Diploma and strongly recommended for those wishing to train for the Soil and Water Management certificate.

Prior qualification of the BASIS Certificate in Crop Protection (or exemption or validated certificate) or the Crop Protection Management and / or POWER Certificates are required for the BETA examination. In some circumstances, it may be possible for other types of prior qualification to be taken into account for BETA examination eligibility. BASIS Approved Trainers must be assured that in such cases, the prospective candidate is capable of assimilating the knowledge imparted during the BETA course tuition and also capable of passing the BETA examination.

It is **strongly** recommended that candidates should have had at least two years experience of on-farm practical agronomy before attempting any of the modules which contribute towards the BASIS Diploma in Agronomy, but in particular before taking the Plant Protection Award.

BASIS CPD points are available for training and certification in all modules of the BASIS Diploma.

The accreditation process for our qualifications has enabled BASIS to demonstrate a high standard of training and certification for our BASIS courses. The BASIS Diploma comprises a number of modules and 6 are required to complete the qualification.

A further consequence of accreditation by HAUC and the Higher Education qualifications framework has been the development by HAUC of a Graduate Diploma in Agronomy with Environmental Management.

BASIS courses have all been awarded a number of credits based on the time spent on the course (Targeted Learning Hours). This is a recognised formula including face to face tuition time, research, reading and experiential learning. The credits are awarded at a level that reflects the intensity / difficulty of the learning materials, for example A-level equivalent or 1st, 2nd or final year honours degree etc.

The qualifying BASIS courses with credits and levels awarded are shown below:

FACTS	
Credit Value	15
Level	Intermediate

SOIL & WATER	
Credit Value	15
Level	Honours

BASIS CROP PROTECTION	
Credit Value	30
Level	Honours

BASIS PLANT PROTECTION AWARD	
Credit Value	15
Level	Honours

BASIS ADVANCED MODULES / ADVANCED NUTRIENT MANAGEMENT MODULE	
Credit Value	15
Level	Honours

BETA / CONSERVATION MANAGEMENT	
Credit Value	15
Level	Intermediate

Intermediate = 2nd or 3rd year of university degree qualification.

Honours level - final year university degree.

Eg. FACTS 15 credits = 150 hours notional teaching time

The six modules required for the BASIS Diploma add up to 105 credits. In order to qualify for the HAUC Graduate Diploma in Agronomy with Environmental Management, candidates will need to accumulate 120 credits (ie one extra 15 credit module in addition to the BASIS Diploma). This can be any of the Advanced Crop Modules or the new Nutrient Management Planning qualification, available from September 2009.

Further details of the BASIS Diploma in Agronomy can be obtained from the BASIS office or by e-mail to sue@basis-reg.co.uk or steph@basis-reg.co.uk or amanda@basis-reg.co.uk

BASIS APPROVED TRAINERS

The following Colleges, Trainers and Training Providers are successfully running Conservation Management examinations and have been accepted as BASIS Approved Trainers for Conservation Management.

The Game & Wildlife Conservation Trust:

The Allerton Project

Loddington House
Loddington
LEICESTER
LE7 9XE

Contact / Trainer: Dr Alastair Leake

Tel: 01572 717220

Email: info@allertontrust.org.uk

Web: www.allertontrust.org.uk

The following Colleges, Trainers and Training Organisations have expressed an interest in running some, or all, of the training modules and / or the Conservation Management examination.

Duchy College

Stoke Climsland
CALLINGTON
Cornwall
PL17 8PB

Contact: Kath Strang

Tel: 01579 372222

Email: kath.strang@duchy.ac.uk

Web: www.cornwall.ac.uk/duchy

Trainer: Alex Stephens

Hampshire Training Providers Ltd

c/o Hampshire Grain Limited
Overton Road
Micheldever Station
WINCHESTER
Hampshire
SO21 3AN

Contact: Jenny Lewis

Tel: 01420 561103

Email: jenny@hampshire-training.co.uk

Harper Adams University College

Edgmond
NEWPORT
Shropshire TF10 8NB

Contact: Lisa Chapman

Tel: 01952 815300

Email: lchapman@harper-adams.ac.uk

Web: www.harper-

adams.ac.uk/shortcourses/

Royal Agricultural College

Stroud Road
CIRENCESTER
Gloucester
GL7 6JS

Contact: Mr James Foster

Tel: 01285 889873

Email: james.foster@rac.ac.uk

Worcestershire Wildlife Trust

Lower Smite Farm

Smite Hill

Hindlip

WORCESTER

WR3 8SZ

Contact: Caroline Corsie

Tel: 01452 780249

Email: caroline@worcestershirowildlifetrust.org

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