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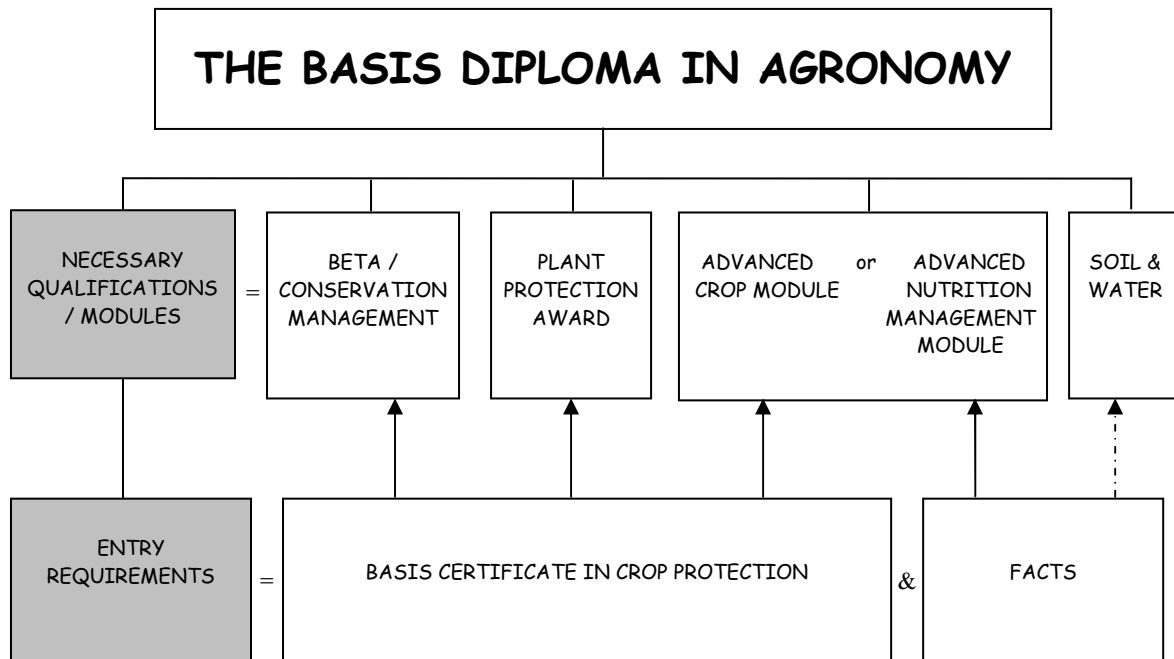
BASIS ADVANCED CROP MODULES SYLLABUS & INFORMATION

The Advanced Crop Modules are awarded after the successful completion of an examination, following a short training module, to holders of the BASIS Crop Protection Certificate. All candidates can either use these modules for updating or as part of the BASIS Diploma in Agronomy. Individual modules attract 30 CPD points for the training content, for members of the BASIS Professional Register.

The certificate is aimed at those candidates who have several years of practical experience and who have the necessary skills and the wish to progress within the industry.

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.

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

YOUR QUESTIONS ANSWERED

- **BEFORE TAKING A BASIS ADVANCED CROP MODULE, DO I NEED TO HAVE ANY OTHER QUALIFICATIONS?**

Yes, either the BASIS Certificate in Crop Protection or exemption from it.

- **WHY HAS BASIS DECIDED TO CONTINUE WITH ADVANCED CROP MODULES?**

In excess of 8000 people have taken the BASIS Certificate in Crop Protection since 1981. BASIS has been asked, over the years, for more advanced training and updating courses for those staff who already hold the BASIS Certificate in Crop Protection, and it is an integral part of the BASIS Diploma in Agronomy.

- **WHAT ARE THE AIMS OF THE CERTIFICATE?**

To identify candidates who have sound practical experience in crop protection and who are sufficiently skilled and have a desire to progress within the industry. The individual modules may be used for updating purposes or for staff moving into a new area who are faced with crops not previously experienced.

- **IS IT A REQUIREMENT OF BASIS FOR ALL AGRONOMISTS / SALESMEN / ADVISERS TO HOLD SUCH A CERTIFICATE?**

No, it is entirely voluntary at the present time, but it is part of the BASIS Diploma in Agronomy.

- **WHERE ARE THE COURSES HELD?**

At specialist Agricultural/Horticultural colleges and through other quality trainers at other venues throughout the UK. The number of centres will depend on the demand for courses.

- **WHAT IS THE FORMAT OF THE CERTIFICATE?**

The training is based on a series of crop-based modules in agriculture, commercial and amenity horticulture followed by an examination. Candidates not wishing to acquire the BASIS Diploma in Agronomy can of course take any of the modules for updating purposes and CPD.

- **HOW LONG ARE THE COURSE MODULES?**

Normally five or six days, including the examination, spread over the crop year.

- **HOW MUCH WILL IT COST?**

Costs for individual modules are available from the course provider on request.

- **DO I HAVE TO ATTEND A TRAINING COURSE BEFORE SITTING THE EXAMINATION?**

No. However, external candidates will sit exactly the same examination as those who have taken the training course and will be subject to examination on all aspects of the training syllabus. It would be difficult for someone who has had no training to pass the examination.

- **WHAT IS THE FORM OF ASSESSMENT?**

Candidates will be required to sit a written examination, obtaining a minimum pass mark of 70%, and meet a panel of at least two examiners drawn from the agricultural industry, e.g. crop protection specialists, specialist trainers, educationists, advisers, farmers etc. The written examination consists entirely of short answer questions, candidates will choose 8 questions from a selection of 12.

- **HOW DO I APPLY TO TAKE THE TRAINING MODULES?**

Contact the BASIS office for application forms, or contact a trainer of your choice from the list on page 14.

- **WHAT MODULES ARE AVAILABLE?**

- Amenity Horticulture
- Cereals
- Field Vegetable Crops
- Grassland
- Legumes and Oilseeds
- Nursery Stock
- Potatoes
- Protected Crops
- Seed Production and Seed Technology
- Sugar Beet
- Soft Fruit
- Top Fruit and Hops

- **ARE THERE ANY EXEMPTIONS?**

No - Module certificates may be awarded only to candidates who pass the examination.

- **WHEN WILL I RECEIVE MY EXAMINATION RESULTS?**

We aim to issue results and feedback within 4 weeks from the date of examination. **Please note results will not be given over the telephone.**

BRIEF SYNOPSES OF ADVANCED MODULES AVAILABLE

AMENITY HORTICULTURE

This module is aimed to add to knowledge of the amenity horticulture area, covering the topics of turf production, maintenance and management, maintenance of road and motorway verges, gardens and parks (but not amateur properties), forest areas, dry and aquatic areas and the maintenance of industrial sites.

The growth, establishment, crop protection, fertiliser requirements, maintenance and management procedures of turf / sports areas plus hard and permeable surface areas will be discussed and reviewed in depth.

The module will be of particular benefit for those advisers and representatives who wish to improve their in-depth knowledge of amenity horticulture; it will prove particularly valuable to staff who are already experienced in other areas and wish to add to their specialisms of advice.

CEREALS

Optimising cereal yields and achieving market requirements for grain quality increasingly demands close attention to the detail of crop management.

The agronomists role is increasingly complex with insect weed and fungal resistance as major issues whilst producing cereals in the context of environmental stewardship and crop assurance schemes.

The Cereals module will develop a detailed understanding of the requirements for improving crop management and profitable grain production. Decision-making will be stressed in the participative training for improving, in particular, cereal crop protection. To allow crop study at different times during the growing season the module will be split into three 2-day sessions taking place in autumn, spring and summer.

Participants will study:

Planning and crop preparation

- Establishment / methods / timing and targets
- Key varieties and their effects on marketing and crop protection
- Rotations
 - Reasons for effects and risks of non-rotation

The role of nutrition

- Trace element problems, identification and solutions

Field trials and agronomy advice

- Chemical groups - their plus and minus's
- PGR's - wheat, barley and oats
 - Reasons for them / effects and risks

Weed, Pest and Disease Control options

- Seed dressings
 - Options and effects on subsequent treatments

1. Weeds - damage / identification / effects / control programmes
2. Diseases - damage / identification / effects / control programmes
3. Pests - damage / identification / effects / control programmes

Spraying

- Regulation and control
- Water protection, best practice

Marketing and grain quality

- Crop marketing / Target markets / crop implications and growing issues

Overall and Environmental Crop Management

- Harvest and storage
- Environmental stewardship measures - impact on growing crops, eg. headlands
- Pesticide effects and risks relating to humans
- Cultural controls and assisting measures
- Beneficial insects and their related insecticide issues

Control strategies to manage resistance

- Resistance to crop protection products for herbicides , fungicides and insecticides

FIELD VEGETABLE CROPS

The module deals with the production of what are potentially high output crops, often grown in rotation with the more widespread arable crops of Britain. Demand for the produce is volatile and the quality standards imposed by the market, and by statutory bodies, are very stringent.

Crop protection of vegetable crops is beset by many problems. Complicated cropping patterns require close integration of crop protection measures with all other agronomic production techniques. The total area of each crop is small, relative to other arable crops, so that there are comparatively few agrochemicals registered solely for each one. Residue levels have to conform to very tight limits and the need to store a high proportion of output adds another dimension to producers' problems.

The module deals with the problems and possibilities of adopting a range of vegetable crops and integrating them into the management of a number of different farming systems. It will give participants a good grounding in the growing, harvesting and storing programmes involved in this complicated, continually changing business.

GRASSLAND

Crop protection measures in arable crops need to be judged against many aspects of crop growth before financial efficiency can be ensured. In grassland the situation is also complex. This crop is harvested several times a year and the level of production aimed at may, for valid reasons, be high, medium or low; the crop itself is usually valueless until it has been processed by the animal.

This module covers all aspects of producing and conserving grassland crops for animal feed and shows how to measure its success in terms of what use the animal makes of it. The place of crop protection is described, not only in controlling weeds, pests and diseases, but in ensuring that silage is of good quality.

There are still many farms where grass is a pivotal crop in ensuring the success of subsequent arable cropping. It is important to understand how the soil structure changes under grass and to appreciate the effects produced.

General agronomists will gain from this module a deeper understanding of grassland to allow them to discuss confidently with any farmer, the production, conservation and feed value of one of Britain's most important crops.

LEGUMES & OILSEEDS

This module is aimed to give a detailed insight into the husbandry, harvesting and marketing of legume and oilseed crops grown in the UK, EU and world context. The growth, crop protection, fertiliser requirements, selection of seed, establishment, harvest and storage methods will be discussed and reviewed in depth.

The module will be of particular benefit to those advisers and representatives who wish to improve their in-depth knowledge of these crops.

NURSERY STOCK

Quality plant material is the hallmark of a successful nursery stock industry. The recognition of factors affecting quality in both containerised and field grown nursery stock is essential in this rapidly expanding industry. Knowledge of production cycles, cost profiles, domestic and European trends in the industry and marketing strategies are key areas of knowledge needed by advisers to be effective in this specialised crop production system.

Comprehensive, up-to-date information on all aspects of nursery stock production will ensure the industry continues to develop, expand and compete successfully with our European competitors.

POTATOES

This module is aimed to give a detailed insight into the husbandry and marketing of potato crops grown in the UK. The potato crop market will be discussed in the context of seed, ware, earlies and processing, within a UK, EU and world context.

The growth, crop protection, fertiliser requirements, selection of seed, establishment, harvest and storage methods will be discussed and reviewed in depth.

The high unit cost to grow the crop means that production costs and targeted marketing are critical success issues at the forefront of profitable potato production.

The module will be of particular benefit to those advisers and representatives who wish to improve their in-depth knowledge of the potato crop.

This module can be taken as an individual Advanced Module for the BASIS Diploma or for updating and CPD, or as Part II of the BASIS Certificate in Crop Protection - Potatoes.

PROTECTED CROPS

Participants will be updated in modern Protected Crop production techniques, with particular emphasis on crop nutrition, environmental control and integrated pest management.

Through specifically selected visits and varied teaching techniques, the successful participants will be better equipped to effectively advise growers on appropriate and cost effective control measures for protected crop problems.

SEED PRODUCTION & SEED TECHNOLOGY

The quality and health of seed is critical to crop production and modern seed treatment technology can protect both seed and seedlings from many serious pest and disease problems. The genetic potential of new crop varieties can only be fully exploited by farmers if seed crops have previously been produced under stringent conditions and if the seed is subsequently harvested, stored and treated in an appropriate manner.

The primary aim of the Seed Production and Seed Technology module is to provide updating and to develop an improved understanding of both seed production systems and seed treatments. The programme will focus on advances in the growing of cereal, herbage, brassica, pulse and sugar beet seed crops and seed treatments. Seed Treatments now cover fungal and insect issues from soil and invasive routes. They can also contribute to nutrient

balance.

Participants will consider:

Seed biology	Seed storage and treatment equipment
Seed production	Seed treatments
Seed crop mechanisation	Environmental issues

The integration of seed treatment with overall crop agronomy.

SUGAR BEET

Over the past few years there have been major advances in sugar beet production and yields continue to increase. Not only are there changes in the chemicals available to assist in crop protection but also new techniques for growing the crop.

This module aims not only to offer crop protection and nutrient depth for those giving advice and making recommendations for sugar beet growers but it also aims to give a clear picture of the techniques involved in the production of current sugar beet crops.

Through the module it is intended that the participant will develop a detailed understanding of all aspects of the sugar beet crop including financial details and their interactions.

SOFT-FRUIT

Participants will be updated in modern production techniques for soft fruit with particular emphasis on soft fruit culture, effects of the environment on growth and development, the causal agents of crop damage and crop protection.

Through specifically selected visits and varied teaching techniques, the successful participants will be better equipped to effectively advise growers on appropriate and cost effective control measures in soft fruit.

TOP FRUIT AND HOPS

Participants will be updated in modern production techniques for top fruit and hops, with particular emphasis on tree culture, effects of the environment on growth and development and the control of weeds, pests and diseases.

Through specifically selected visits and varied teaching techniques, the successful participants will be better equipped to effectively advise growers on appropriate and cost effective control measures for problems in top fruit and hops.

TRAINING PROVIDERS OFFERING BASIS ADVANCED CROP MODULES

The modules offered can be run at any of the following Agencies provided there are viable numbers. Please contact the Agency of your choice for further details.

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

DJL Agronomics
Highgrove House
Cassbrook Drive
Fulstow
LOUTH
LN11 0XR

Contact / Trainer: Dr Jim Lewis
Tel: 01507 363698
email: jim.lewis@fsmail.net
Web: www.djlag.co.uk

Harper Adams University College
Edmond
NEWPORT
Shropshire
TF10 8NB

Contact: Lisa Chapman
Tel. 01952 815300
email: lchapman@harper-adams.ac.uk
Web: www.harper-adams.ac.uk/shortcourses/

James Christian-Ilett
8 Painshall Close
Welton
LINCOLN
LN2 3NU

Contact: James Christian-Ilett
Tel. 01673 860925
Fax: 01673 860925
email: christian.ilett@btinternet.com

Landbased Training
c/o Garth Training
Garth Cottage
Wintringham
MALTON
North Yorkshire
YO17 8HX

Contact: Linda Bower
Tel: 01944 758379
email: linda@landbased-training.com
Web: www.landbased-training.com

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

East Riding Training Group
Furrows Farm
York Road
Cherry Burton, BEVERLEY
East Yorkshire. HU17 7RU

Contact: Michelle Brumfield
Tel: 01964 550080
email: brumfield@furrowsfarm.fsnet.co.uk

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

Contact: Jenny Lewis
Tel: 01635 268086
email: jenny@hampshire-training.co.uk

Scottish Agricultural College
Kings Buildings
West Mains Road
EDINBURGH
EH9 3JG

Contact: Moyra Farquhar
Tel: 0131 5354090
email: moyra.farquhar@sac.ac.uk
Web: www.sac.ac.uk
Trainers: Rob Fuchs & Martin Richards

The Training Association (East)
57 Low Road
Grimston
KINGS LYNN
Norfolk, PE32 1AF

Contact: Jayne Parsey
Tel: 01485 600225
email: jayne@traineast.co.uk
Web: www.traineast.co.uk
Trainer: John Purslow

The Training Association (pdfw)
Grays Farm
Peterborough Road
Crowland
PETERBOROUGH, PE6 0AD

Contact: Stella Parker
Tel: 01733 210346
Email: stella.parker@graysfarm.org.uk
Web: www.traineast.co.uk

University of Lincoln
Short Courses Unit
Riseholme Park
LINCOLN
Lincolnshire, LN2 2LG

Contact: Dr Simon Goodger
Tel. 01522 895295
Fax: 01522 895457
email: sgoodger@lincoln.ac.uk

Web: <http://www.lincoln.ac.uk/lisa/shortcourses.htm>