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SEED SALES CERTIFICATE

BACKGROUND

The BASIS® Crop Protection Certificate for Field Sales, Technical and Agronomy Staff has been in place for many years as a statutory qualification for those selling and giving advice on crop protection issues on farm. Statute also covers the qualification of those who sell seed treatment products.

In addition to those two statutory qualifications, government ministers consider it desirable that those who sell treated seed and who thereby offer seed treatment advice to end users, should also be suitably qualified. The BASIS Seed Sellers Certificate is approved by Ministers as meeting the requirements for a suitable qualification for this purpose.

With the very significant and agronomically important developments that have taken place in recent times in seed treatment products, such a qualification is even more relevant.

Until the early 1990's mercury based seed treatment was the main stay of treated cereal seed. That is no more, but in its place are new, safer, more eco-friendly and wider spectrum products. The control of some insect pests, take-all, aphids and the ability to influence T1 fungicide choice or delay it, are all now real choices facing the farmer and sellers of treated cereal seed.

Appropriate training and certification for those involved in seed advice and sales is therefore important to ensure that the correct decisions are made.

TO WHOM DOES THIS COURSE APPLY?

The BASIS Seed Sellers Certificate is designed for those who sell treated seed but who do not require either the full BASIS Crop Protection Certificate or the Seed Treatment Certificate. The course covers the knowledge required for those who interface with farmers and / or seed buying contracts, to be competent and confident in advising which seed treatment should be applied to which seed variety.

The course will suit those already selling seed and those who intend to sell seed providing they have prior knowledge of farming practices.

THE QUALIFICATION

The course, and the ensuing certificate, do not qualify the candidate to give the full in-field crop protection advice needed once treated seed is sown. The syllabus does however cover knowledge of the principles of other parts of a full crop protection programme.

Staff who already hold a BASIS Certificate of Competence in Crop Protection are not required to hold the seed sellers' certification separately as they are automatically exempt. Those who do not hold either the normal BASIS Certificate or exemption should be certificated to meet the requirement of the initiative within three years of entering the industry.

The syllabus set out in this booklet has been devised to provide a practical approach to training and to ensure that the individuals undergoing such training are competent to give sound technical advice in the field. Of necessity, some of the training is of a theoretical nature but it cannot be over-emphasised that the syllabus and training should both be interpreted in such a way as to provide practical instruction where possible.

The syllabus comprises 6 modules all put together by BASIS (Registration) Ltd, in conjunction with others who have expertise in the commercial and educational aspects of seed sales and advice. (see footnote at the end of this syllabus re: The BASIS Diploma in Agronomy).

The 6 modules are

- Module 1 - Seed & Seed Quality
- Module 2 - Major Weeds, Pests and Diseases affecting Seed / Young Plants
- Module 3 - Options for Control
- Module 4 - Safety & Legislation
- Module 5 - Agronomic Aspects
- Module 6 - Environmental & Biodiversity considerations

The course is a full three days, including the examination.

The increasing focus on the environment and closer attention to the biodiversity of species on farm, is adding impetus to the importance of seed treatment. The ability to provide a targeted and measured dose of a pesticide via seed treatment is often considered desirable as one of the safest ways to provide crop protection.

AIMS AND OBJECTIVES

The course will provide a practical base for those selling seed to:

- be aware of the importance of seed quality
- understand and identify the different weeds, pests and diseases affecting crops and the need for their control
- know the options for control including rotation, cultivation, variety and pesticides
- be conversant with the appropriate safety and legislation issues affecting treated seed
- have awareness of the place for treated seed and the related aspects of full crop protection programmes
- understand the importance of environmental care and the role that treated seed can play in protecting farm biodiversity

THE EXAMINATION

The examination will be conducted at the end of the training period. Candidates will normally attend a full three day programme including course tuition and concluding with the examination which allows 1 ½ hours to answer:

- 45 multi-choice questions
- 10 “true” or “false” questions

In addition, a viva will be conducted with an independent BASIS appointed chairman and an expert practitioner from within the seed industry. The viva will usually last for between 15 - 20 minutes per person.

The dual approach of a written examination plus a viva discussion ensures that both the theory and practice of selling and advising on treated seed sales will be conducted safely, if the candidate is successful and achieves the qualification.

At each examination session a BASIS nominated person will adjudicate and mark the exam papers.

The pass mark is 70%

OBJECTIVE SYLLABUS

The 6 modules of the course will be covered during the course tuition in the way which best suits the knowledge and experience of the candidates.

All crops are covered by this syllabus but training and viva examination will be geared to those sectors in which candidates work and have their expertise. It is essential that trainers / candidates specify which sector they intend to cover at the same time as the examination date is booked with BASIS. Changes cannot be made after that time because examiners and other arrangements are organised as a result of those choices being nominated to BASIS.

The choices for training and examination for Seed Sellers are:

- Arable crops viva (Cereals, Grass, Oilseed Rape, Sugar Beet & Legumes)
- or
- Potatoes
- or
- Vegetable crops viva (Carrots, Leeks, Parsnips, Onions & Brassicas)

MODULE 1 - SEED AND SEED QUALITY

1.1 Competence

To develop knowledge and an understanding of seed certification standards for seed in terms of quality and purity, and the ways in which seed purity is assured in practice.

1.2 Performance Criteria

Candidates must be able to:

- explain the advantages of using certified seed and to recognise the quality features of each seed.

1.3 Essential Knowledge and Skills

Candidates must have the ability to:

- understand the seed certification scheme and why is it important.
- understand the importance of germination and vigour.
- describe standards of quality and purity.
- discuss the plant variety rights and the royalty payment system.
- describe the varieties of major crops and their main identifying features.
- interpret variety lists such as HGCA, NIAB, etc.

- describe how seed is produced:
 - ◆ What is the National Listing System?
 - ◆ How are varieties tested?

- describe the features of farm saved seed:
 - ◆ What are its restrictions?
 - ◆ How do its Royalty Payments work?
 - ◆ What are the penalties for payment evasion?

MODULE 2 - MAJOR WEEDS, PESTS AND DISEASES AFFECTING SEED / YOUNG PLANTS

2.1 Competence

Develop an ability for accurate weed seed, seed, seedling pest and seedling disease identification and evaluation of safe and appropriate control measures.

2.2 Performance Criteria

Candidates must be able to:

- advise the customer on the need for seed treatments.
- provide a basis for accurate weed seed / seedling identification.
- develop a knowledge of feeding behaviour and provide a basis for the diagnosis of the causes of pest damage symptoms.
- provide an understanding of the biology of major causal agents of disease.

2.3 Essential Knowledge and Skills

Candidates must have the ability to:

- identify problem weeds in seed production.
- identify seed borne pests and diseases.
- identify air borne pests and diseases.
- identify soil borne pests & diseases.
- identify other seed contaminants.
- discuss identification features of each.
- describe damage symptoms and their economic impact.
- describe the means of spread / multiplication of weed seeds, diseases and pests.

MODULE 3 – OPTIONS FOR CONTROL

3.1 Competence

Develop an understanding of crop rotation, varietal choice and the role of seed treatment in pesticide programmes for pest and disease control.

3.2 Performance Criteria

Candidates must be able to:

- explain the control options available and the role each option plays in weed, pest or disease control.
- understand the cost implications of the various control options considered.

3.3 Essential Knowledge and Skills

Candidates must have the ability to:

- identify and recognise threshold levels requiring control.
- discuss cultural techniques for control.
- discuss the value of crop rotation.
- discuss varietal choice.
- discuss the role of IFM.
- discuss the techniques for seed processing / cleaning.
- discuss seed disease testing.
- discuss seed treatment with pesticides.
 - ◆ Modes of action
 - ◆ Products and choices
 - ◆ Methods of treatment
 - ◆ Key benefits
 - ◆ Labelling requirements
- describe the cost benefits of each control option.
- understand the risks of not treating seed.

MODULE 4 - SAFETY AND LEGISLATION

4.1 Competence

Develop a knowledge of legislation and Codes of Practice which impact on the handling and application of treated seed.

4.2 Performance Criteria

Candidates must be able to:

- demonstrate a knowledge of the safe handling of pesticide treated seed.
- demonstrate knowledge and awareness of relevant legislation.
- demonstrate knowledge and awareness of associated Codes of Practice.
- develop knowledge and awareness of associated environmental considerations.

4.3 Essential Knowledge and Skills

Candidates must have the ability to:

- describe how to handle pesticide treated seed safely re:
 - ◆ Storage
 - ◆ Tractor driver / drill operatives
 - ◆ Wildlife
 - ◆ Farm animals / pets
 - ◆ Disposal of surplus seed
 - ◆ Disposal of packaging
- understand the Food & Environment Protection Act 1985, Control of Pesticides Regulations 1986.
- understand the Plant Protection Products Directive 1993, Plant Protection Products Regulations.
- describe the sources of information on approved products
 - ◆ PSD website
 - ◆ UK Pesticide Guide
- understand the Codes of Practice for Water and Pesticides.
- understand the Ground Water Regulations and Directive.

- understand and discuss the COSHH , Regulations and Safety Data Sheets.
- discuss the Health & Safety at Work Act.
 - ◆ The role of HSE
- understand Product Approval and Label Requirements.
- understand Environmental Information Sheets.
- understand the regulations and procedures for imported treated seed.
 - ◆ Know what information is needed
 - ◆ Understand label and data requirements
- be aware of the sources / organisations providing specialist advice

MODULE 5 - AGRONOMIC ASPECTS

5.1 Competence

Develop a knowledge of the agronomic factors influencing the use of treated seed.

5.2 Performance Criteria

Candidates must be able to:

- demonstrate understanding of the factors involved in crop establishment.
- demonstrate an understanding of the influence of variety choice, seed rates and establishment on suitable seed treatments.
- demonstrate an understanding of the limitations of seed treatment use.

5.3 Essential Knowledge and Skills

Candidates must have the ability to:

- understand the importance of crop establishment.
 - ◆ Previous cropping
 - ◆ Seedbed preparation
 - ◆ Drilling equipment
 - ◆ Hazards to avoid
 - ◆ Timing
- describe typical outline agronomy programmes for major crops and reasons for them.
- understand the place for treated seed in a full agronomy programme.
- understand the influence of treated seed on variety choice and initial impact on agronomy programmes.
- describe sowing rates, establishment targets, seed weight (TGW) and drill calibration.
- understand major crop problems not influenced by seed treatment.
- describe the factors influencing the build up of Pest and Disease resistance.

MODULE 6 - ENVIRONMENTAL & BIODIVERSITY CONSIDERATIONS

6.1 Competence

Develop a knowledge of the ways that treating seed can contribute to environmental and biodiversity improvements on farm.

6.2 Performance Criteria

Candidates must be able to:

- demonstrate an understanding of ICM and IFM and the place for seed treatments.
- demonstrate an understanding of new environmental schemes and how that might impact on seed treatment use.

6.3 Essential Knowledge and Skills

Candidates must have the ability to:

- describe ways that seed treatment can assist the Environment & Biodiversity on farm.
- describe how IFM can improve environmental conditions on farms.
- understand the influence of cross compliance and entry level schemes on cropping / farming practice.
- describe the influence on target conservation species of changes to cropping practices (eg. SAFFIE)

BASIS APPROVED TRAINERS

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

Harper Adams University College

Edgmond
NEWPORT
Shropshire
TF10 8NB

Contact: Lisa Chapman / Emma Welch
Tel. 01952 815300
email: lchapman@harper-adams.ac.uk
e.welch@harper-adams.ac.uk
Web: www.harper-adams.ac.uk/shortcourses/
Trainer: Keith Chaney / Paul Lewis

James Christian-Ilett

8 Painshall Close
Welton
LINCOLN, LN2 3NU

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

University of Lincoln

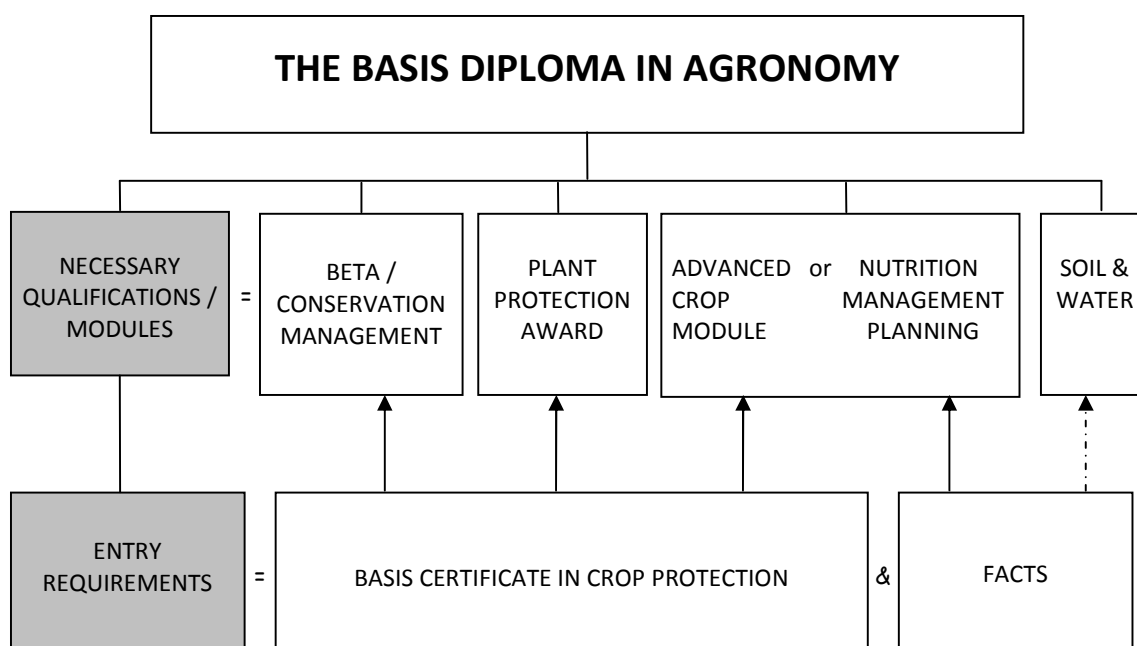
Riseholme Park
LINCOLN
Lincs, LN2 2LG

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

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

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 PLANNING

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 Planning Course 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 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 ensure that in such cases, the prospective candidate is capable of assimilating the knowledge imparted during the BETA course to enable them to pass 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.

This is a 120 credit graduate level qualification.

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 / NUTRIENT MANAGEMENT PLANNING	
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 training.courses@basis-reg.co.uk.

GLOSSARY OF ACRONYMS / TERMS

HGCA	- Home Grown Cereals Authority
NIAB	- National Institute of Agricultural Botany
IFM	- Integrated Farm Management
PSD	- Pesticide Safety Directorate
COSHH	- Control of Substances Hazardous to Health
HSE	- Health & Safety Executive
TGW	- Thousand Grain Weight
SAFFIE	- Sustainable Arable Farming for an Improved Environment
EA	- Environment Agency

BASIS Certificate in Crop Protection (Seed Sellers)

Must read (have):

- Code of practice for using plant protection products, DEFRA
http://www.pesticides.gov.uk/safe_use.asp?id=64_chris.pidgeon@hse.gsi.gov.uk
- The Encyclopaedia of Cereal Diseases, HGCA Contact HGCA at hgca@cambertown.com or free phone 0845 245 0009
- The UK Pesticide Guide (annually), BCPC <http://www.bcpc.org/shop/UK-Pesticide-Guide-2011.html>
01420 593200
- Yellow Code – Code of Practice for suppliers of pesticides to agriculture, horticulture and forestry

Useful to read (have):

- BBRO/NIAB Recommended list of Sugar Beet varieties
- Crops Magazine or Crops Digital
- Farmers Weekly
- HGCA Barley Disease Management Guide 2011
- HGCA Grain Storage Guide, 2nd edition (2003)
- HGCA Recommended Lists (annually)
- HGCA topic sheets – OSR etc.
- HGCA Wheat Disease Management Guide 2011
- PGRO Recommended List (annually)
- Product manuals from manufacturers of crop protection products

Useful websites

- www.basis-reg.com
- www.britishsugar.co.uk
- www.cfeonline.org.uk
- www.defra.gov.uk
- www.hgca.com
- www.niab.co.uk
- www.pelletsarepesticides.co.uk
- www.pesticides.gov.uk
- www.pgro.org
- www.potato.org.uk
- www.rothamsted.bbsrc.ac.uk
- www.voluntaryinitiative.org.uk