

Environmental Pesticide Management (Amenity) Objective Syllabus

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Environmental Pesticide Management (Amenity)

Background

Over recent years the management of pesticide use in amenity horticulture has undergone a number of changes. Society is becoming even more aware of environmental issues with particular regard to the impact of pesticides on public spaces, water and wildlife.

To improve the quality of these 3 important components of life needs action if the targeted outcomes are to be achieved. Some of these actions have been coordinated through the Voluntary Initiative (VI) and the Amenity Forum.

The responsible and safe use of pesticides in amenity horticulture, ground care and sports turf situations is an essential part of achieving the desired quality improvements.

At the same time as the focus on water and environmental quality is increasing, there is a progressive reduction in the manpower involved in pesticide application and contract management. Managers and operators are being asked to do more which is increasing time pressure and personal responsibility.

It is, therefore, very important that those responsibilities are performed to a high standard of competence. Good progress has been made with the National Register of Sprayer Operators, (NRoSO) which is run by City & Guilds Land Based Services to improve operator efficiency.

For advisers / consultants / agronomists who make pesticide recommendations, the BASIS Certificate in Amenity (Horticulture), the BASIS Professional Register and the recently established BASIS Amenity Register are all well established.

Target candidate

This course and certificate of competence is suitable for groundsmen, greenkeepers, contract specifiers, managers, foremen and supervisors of amenity situations where pesticides are used. It is not designed for those specifying which products are to be used, but is for those who have responsibility for pesticide application whilst not actually applying the products used themselves.

The Qualification

The Environmental Pesticide Management (Amenity) Certificate has been put together by BASIS (Registration) Ltd. with help from City & Guilds Land Based Services for the benefit of industry managers and supervisors.

The syllabus of the course comprises five modules:

1. Integrated Pest Management.
2. Interpretation of Legislation.
3. Managing the Application of Pesticides.
4. Protection of Water
5. Environmental Protection

The course framework and syllabus are designed to prepare contract specifiers, managers and supervisors of sprayer operators and to give an understanding of what is involved in pesticide use and the environmental control issues involved in safe application.

The two and a half day course does not cover the depth of knowledge required to enable the candidate to make pesticide recommendations but it will prepare those responsible with the capability to implement safely, recommendations made by an individual holding the BASIS Certificate in Amenity (Horticulture) or equivalent. Those persons should also be a member of the BASIS Professional Register or the BASIS Amenity Register

Equally, the certificate, once attained, will not qualify the holder to be a certificated sprayer operator. Those applying pesticides must be City & Guilds Land Based Services qualified (PA1, PA2 etc), (or exempt by age if born before 31 December 1964, unless providing a commercial service) and should be a member of NRoSO or the soon to be launched National Amenity Spray Operator Register.

The Environmental Pesticide Management (Amenity) course and qualification covers the knowledge required to properly supervise and understand pesticide use and application. It is recognised that some candidates will ideally be PA certificated by City & Guilds Land Based Services prior to attending this course.

The Environmental Pesticide Management (Amenity) qualification and certificate is conducted by BASIS with accreditation at Level 3 and with BASIS setting the standards for assessment.

Aims and Objectives

The course will help contract specifiers, managers and supervisors involved in the use of pesticides to:-

- Understand the options for weed and pest control with a focus on Integrated Pest Management
- Understand the environmental aspects of weed & pest control techniques
- Attain a knowledge of the realistic control levels achievable
- Understand the controls that are necessary to ensure water and environmental safety
- Understand how pesticides are regulated and how they work
- Understand the requirements for different application techniques and where to use them
- Demonstrate a capability to assess risks when pesticides are being used
- Show a basic understanding of economic and environmental thresholds and other criteria
- Demonstrate an ability to identify further training needs
- Understand where to obtain more information about pesticides

Whistle Blowing 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 whistle Blowing 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 Whistle Blowing Policy go to:

<http://www.basis-reg.co.uk/media/documents/430/index.html>

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:

<http://www.basis-reg.co.uk/media/documents/TM%2015%20BASIS%20Dyslexia%20Policy%20-%20Sept%202011.pdf>

THE EXAMINATION

The examination will be conducted at the end of a period of training. Candidates can choose to receive tuition either as a two and a half day full time course or 5 evening sessions (1 per module) plus a final afternoon or evening for the examination. For the full time course the examination will be on the afternoon of the third day. The timing of the examination will depend on the tuition provided by each training organisation. The examination will take 1½ hours and each candidate will be asked to undertake:-

- 30 multiple choice questions
- 3 short answer questions (out of 6)
- 2 scenario questions

The short answer questions will allow candidates to demonstrate their knowledge and experience in their own field of work.

The pass mark is 70%

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

There will be a minimum charge for 10 candidates regardless of the number entered for each exam.

Maximum numbers will be dependent on the suitability of the examination venue.

It is strongly recommended that ALL candidates should obtain a copy of the 'Environmental Pesticide Management Handbook for Candidates' (via their training provider / trainer) prior to the course commencing. There will be a charge of £20 + VAT.

Within the handbook the knowledge required is highlighted according to its importance, some information is an absolute requirement and candidates will be expected to know about it and understand the practical application of that knowledge.

There are also some topics in the handbook which are interesting and may be covered when / if there is time. It may be suitable background knowledge and enable candidates to understand "the wider picture".

OBJECTIVE SYLLABUS

The outline of the syllabus content is as below.

MODULE 1 –INTEGRATED PEST MANAGEMENT

1.1 Important – knowledge which candidates ‘need to know’

- Integrated Control and its importance.
 - It is important that candidates understand the concept of integrated pest control and its importance for overall cost effective control (of weeds, diseases and insect pests), environmental protection, biodiversity and anti-resistance strategies.
- Components of Integrated Pest Control
- Why is Weed, Pest and Disease Control needed?
- Methods of Integrated Control (**chemical, physical, biological, rotational and cultural should all be stressed**).
 - Ability to specify key components of the integrated control of weeds, pests and diseases, including specific examples is required.
- Design
 - prevention is better than control.
- Threshold levels requiring control.
 - Awareness of the importance and use of thresholds is required. Candidates should be able to give key examples of published pest treatment thresholds.
- The options and their economics.
 - An awareness of the relative (rather than specific) costs of different control methods is appropriate.
- Environmental considerations.
 - It is vital that candidates are aware that different control measures have different environmental effects and hazards and that these should always be assessed.
- Communications.
 - Candidates should be aware if they have obligations to notify when spraying takes place in close proximity to members of the public. This is under consideration in the new Sustainable Use Regulations.
- Diagnostic & recognition features.
 - Candidates should have a basic knowledge of key features and attributes used in the recognition and diagnosis of specific weed, pest and disease problems.

MODULE 2 – INTERPRETATION of LEGISLATION

2.1 Important – knowledge which candidates ‘need to know’

- The practical implications of Key Legislation
 - Water Framework Directive
 - FEPA/COPR/PPPR/HSW Act/COSHH
 - Sustainable Use of Pesticides (in particular Article 12)
 - REACH
 - Codes of Practice
- Legislative framework
 - What is a pesticide?

Other legislation

- LERAP, Buffer Zones, Footpaths
- ISO 14001

Candidates will need to know what to do and what they need to know to comply with legislation and codes of practice. Also the reasonable obligations of the work force and the organization, needed to ensure compliance.

- Pesticide Safety - *The Approval Process – required knowledge should be:*
 - Pesticides must be approved
 - Outline criteria for approval
 - Independent expert assessment
 - How to check product approval
- Label & Advice - *required knowledge should be:*
 - How to interpret and use label information
 - Approval (MAPP/ HSE No.)
 - Hazard signs (Risk Classification symbols)
 - Product label (statutory conditions of use and HSW Act etc)
 - Precautionary phrases
 - Environmental Information Sheets (EIS)
- Formulation – *emphasis on the practical implications for Operators/Managers:*
 - Types of formulation
 - Ingredients and their hazards
 - Safety effects
 - Active ingredients & product names
 - Strength of product
 - Compatibility of products
 - Legal aspects of tank mixing

- Understanding how Pesticides work– *emphasis on the practical implications for Operators/Managers:*
 - Pesticide types – e.g. Herbicides
 - Chemical mobility in soil
 - Water buffering of Glyphosate
 - Adjuvants – what they do, and what types are available
 - Modes of Action – Soil acting, contact, residual, systemic, translocated
 - Persistent / non persistent
 - Protectant / eradicant
 - Selective /non-selective
 - Control of aquatic weeds

MODULE 3 – MANAGING THE APPLICATION of PESTICIDES

3.1 Important – knowledge which candidates ‘need to know’

- Staff training, certification, National Register of Sprayer Operators (NRoSO) and National Amenity Spray Operator Register (NASOR)
- Recommendations – *to understand Recommendations from a BASIS qualified adviser the required knowledge should be:*
 - Interpretation and understanding of recommendations and label instructions including LERAP
 - Adviser’s responsibilities
 - Contractor’s responsibilities
 - Product Label
 - Environmental Information Sheets
 - Product Choice
 - Identification of Target
 - Identification of suitable control methods
 - Communication
 - Recording
- Safety and Equipment
 - COSHH and Risk Assessments
 - *Personal Protective Equipment*
 - Poisons Requirements
 - Engineering Controls
 - Staff Health
- Storage and Transport of Products
 - Safety and Security
 - Codes of Practice
 - Records and Stock Control
- Types of Equipment
 - Application equipment – hand held – conventional – controlled droplet application (cda) – granular applicators
 - Mounted / self propelled applicators
 - Trailed applicators
 - National Sprayer Testing Scheme (NSTS)
- Nozzles – types and actions of each and selection
- Mixing and Filling
 - Correct procedure
 - Water source
 - Cleaning down
 - Dilution / rate of use
 - Spillages

- When to apply
 - Weather
 - wind
 - rain
 - temperature
 - Soil conditions / target surface
 - Growth stage of target weed
 - Thresholds
 - importance of spray thresholds
 - key examples of spray thresholds
 - LERAP

- *Notification*
 - *Public*
 - *Neighbours*
 - *Bystanders*

- *Management of surplus dilute pesticide waste, including disposal*

- *Management of empty pesticide containers, including disposal*

- *Records of activity /application*

MODULE 4 – PROTECTION of WATER

4.1 Important – knowledge which candidates ‘need to know’

- *How pesticides get into water*
- Types of water pollution and their effects
- Identifying risk activities regarding pesticides:
 - i) *Environmental Risk Assessment* prior to application of pesticides;
 - Recommendation (BASIS qualified person)
 - Weather forecast
 - Timing
 - LERAP
 - Form WQM1. Application to use herbicides in or near water
 - PA6 A and/or AW
 - Location and area relative to water/ water bodies
 - Product choice and dose
 - Site for product storage
 - Site for applicator filling
 - Water source and storage
 - Location of drains, water courses and vulnerable groundwater
 - Topography
 - Equipment calibration and correct set up
 - Communication and notification e.g. Bees
 - ii) during application
 - Weather
 - wind
 - rain
 - temperature
 - Mixing and filling procedure
 - Drift risks
 - Buffer zones, LERAP, Conservation areas
 - Hard surface run-off risk
 - Avoiding water drainage areas
 - Accuracy of coverage
 - Appreciation of ‘drain flow’ (direction/speed/etc)
 - iii) following application
 - Monitoring weather
 - Recording activity
 - Safe practice of
 - surplus dilute pesticide disposal
 - empty container disposal
 - cleaning of equipment
 - security of products and equipment

MODULE 5 – ENVIRONMENTAL PROTECTION

5.1 Important – knowledge which candidates ‘need to know’

Identification of the habitats which should be protected and/or enhanced on a site map

- Assessment of existing flora/fauna
 - The Conservation (Natural Habitats &c.) Regulations 1994
 - Wildlife and Countryside Act 1981
 - EU Habitats Directive

- Forming a plan for wildlife habitats and safety

- Setting realistic objectives relative to
 - Weed / pest / disease problems
 - Options for control
 - Ways to integrate control options
 - Thresholds and decision criteria
 - Impact of decision
 - Ways to remove or minimise environmental impact
 - Preserving biodiversity and balance
 - Safety of non-target species
 - Awareness of domestic animals
 - Improving biodiversity

- Risk assessment and forming a plan of action for
 - Location
 - Products to be used
 - Timeliness
 - Staff
 - Contractor
 - Local authority contacts
 - Other work on-site
 - Passers-by / public access
 - Other resources
 - *Biodiversity and water risk management*
 - Benefits
 - Cost effectiveness

- Best Practice Targets
 - Relevant Codes of Practice
 - Risk avoidance
 - Proper planning
 - Efficient recording
 - Monitoring performance
 - staff
 - contractor
 - site manager
 - location / situation
 - financial implications
 - Communication + notification, e.g. Bee Keeper

- Issues to consider in Amenity Site Management
 - Outcomes from Amenity Horticulture Management Plan (AHMP) for pesticides.
 - Amenity Integrated Pest Management (IPM)
 - Timing of work to be done
 - Exclusion time / re-entry periods
 - Product choice (BASIS qualified person)
 - Public related issues
 - Communication and notification
 - Protection of Sensitive Areas
 - Schools
 - Hospitals
 - Site risk assessments
 - Habitat destruction/disruption (fines up to £600)

- Protected Species List
 - Birds
 - Animals
 - Bats
 - Plants
 - Orchids

- Heather and Grass Burning Code
 - Best practice
 - Licenses

- Chemical Mobility in Soil
 - Sodium Chlorate + footpaths

- Soil Type and Subsoil

- Water Buffering for Glyphosate

- Weather Conditions
 - Topography
 - Heavy rain

BASIS Approved Trainer

The following Colleges, Trainers and Training Providers are successfully running Environmental Pesticide Management (Amenity) examinations and have been accepted as BASIS Approved Trainers for the revised course.

Ian Gower Associates Ltd

7 Blean Square
Vinters Park
MAIDSTONE
Kent, ME14 5QU

Contact: Ian Gower
Tel: 01622 675130
email: ian@pesticides-safety-training.co.uk
Web: www.pesticides-safety-training.co.uk

Parkhill Training

Park Farm
Park Hill Lane
Seagrave
LOUGHBOROUGH
Leicestershire
LE12 7NG

Contact: Mike Wells
Tel: 01509 815534
email: mike@parkhilltraining.co.uk

The Training Association (East)

High Cottage
St Andrews Lane
Congham
KINGS LYNN
Norfolk
PE32 1DS

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

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

CAFRE Greenmount Campus

22 Greenmount Road
ANTRIM
Co Antrim
Northern Ireland
BT41 4PU

Contact: Kevin O'Donnell
Tel: 02894 426631
email: kevin.o'donnell@dardni.gov.uk
Web: www.cafre.ac.uk

Chelmsford & West Essex Training Group

2 Salisbury Cottages
Maldon Road
Hatfield Peverel
CHELMSFORD
Essex
CM3 2HS

Contact: Debbie Wedge
Tel: 01245 381193
email: debbiewedge@aol.com

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

Geoff Wilson Training
Moor Farm
Moor Monkton
YORK
North Yorkshire
YO26 8JA

Contact: Geoff Wilson
Tel: 01904 738981
Fax: 01904 738981
email: geoff@geoffwilsontraining.co.uk
Web: www.geoffwilsontraining.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

Harper Adams University College
Edmond
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Shropshire
TF10 8NB

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

Holbeach Marsh Training Group
Hawthorne Farm
Station Road
Swineshead
BOSTON
Lincolnshire, PE20 3NZ

Contact: Lynne Richardson
Tel: 01205 821628
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Contact / Trainer: James Christian-Ilett
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email: christian.ilett@btinternet.com

Jon Allbutt Associates
Seaton, Goatsfield Road
Tatsfield
WESTERHAM
Kent, TN16 2BU

Contact / Trainer: Jon Allbutt
Tel: 01959 575575
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Web: www.jonallbutt.co.uk

Knight Farm Machinery Limited

Wireless Hill
South Luffenham
OAKHAM
Rutland, LE15 8NF

Contact: Mike Huntington
Tel: 01780 722200
email: mhttc@easynet.co.uk
Web: www.knight-ltd.com

Mid Kent Training

Kempes Corner Farm
Boughton Aluph
ASHFORD
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TN25 4EN

Contact: Dianne Qusted
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KINGS LYNN
Norfolk PE33 9AY

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KINGS LYNN
Norfolk
PE33 9AY

Contact: Jo Bruce
Tel: 01366 500050
email: jo@traineast.co.uk
Web: www.traineast.co.uk

The Vale Training Group

Marsh Hill Farm
Marsh
AYLESBURY
Buckinghamshire
HP17 8ST

Contact: Kate Mason
Tel: 01296 612201
email: kate@valetraining.co.uk
Web: www.valetraining.co.uk

University of Lincoln

Short Course Unit
Riseholme Park
LINCOLN
Lincolnshire, LN2 2LG
Web: <http://www.lincoln.ac.uk/lsa/shortcourses.htm>

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