

# Syllabus

## CRRU-IASIS “Wildlife Aware” Course

for

## Professional Pest Control Technicians / Operatives

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Irish Agricultural Supply Industry Standards

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## **“WILDLIFE AWARE” COURSE AND ACCREDITATION**

### **Background Information**

“Wildlife Aware” training courses are provided by the Campaign for Responsible Rodenticide Use Ireland (CRRU Ireland) in collaboration with IASIS. The course is NOT a course on basic rodent control. Those who attend the course are expected to already possess proficiency through prior training and practical experience in rodent pest management, and to have obtained relevant qualifications such as those offered by LANTRA, the Irish Pest Control Association (IPCA), the National Pest Technicians Association (NPTA) Irish branch, City & Guilds, or equivalents.

The use of rodenticides is essential for many urban, semi-urban rural enterprises. Rodenticide use is important in: -

- maintaining good manufacturing practice,
- maintaining hygienic conditions, in manufacturing and other business premises, in hospitals, in offices, in public areas and on farms,
- protecting human and animal health,
- maintaining good husbandry on farms,
- prevention of the spoilage of foodstuffs due to contamination by rodent pests.

The use of rodenticides is increasing, both because rodent populations are themselves increasing and because many audit schemes now require a structured rodent pest management procedures in all facilities audited.

However, there is growing evidence of widespread contamination of wildlife with anticoagulant rodenticides. Many of the species involved are of high conservation status, such as the Barn Owl, Red Kite and Kestrel. The effects on raptor species populations of the low-level residues commonly found are not fully understood – further research is required. Nevertheless, low-level residues are worrying, are unwanted and can be reduced significantly if fundamental guidelines are followed during the application of rodenticides.

The “Wildlife Aware” course will explore these apparently conflicting requirements. The course will increase understanding of current levels of contamination of wildlife to rodenticides, explain the main primary and secondary routes of exposure of wildlife to rodenticides and alert competent professionals to the techniques that should be adopted to minimise wildlife exposure during rodent pest management in semi-urban, urban and rural settings. This advice is based on the code of practice for the responsible use of rodenticides known as the CRRU Code (<http://www.crru.ie/crru-code/>).

### **Who should attend the course?**

The course is primarily aimed at those who offer a service of rodent pest management to: -

- manufacturing and other business sites in semi-urban and urban areas,
- hospitals, office premises and sports facilities,
- local authorities and other public bodies, and
- farming enterprises and other businesses in rural areas.

In particular, professional pest controllers and the employees of Local Authorities involved in pest control will find the course, and the accompanying accreditation scheme, advantageous in their activities.

All workers that conduct rodent pest management as a routine part of their duties including Local Authority employees, farm contractors, and farm workers will also benefit from the course. The course is also relevant to those involved in game-rearing and who carry out rodent pest control as a part of such activities. Those who attend the course should have already attended training courses in rodent pest management and be fully competent in the use of anti-coagulant rodenticides.

While not the main target audience for the course,

- those involved in wildlife conservation,
- those involved in the distribution and sale of rodenticides,

will also find the course useful through familiarisation with rodent pest management techniques and best practice in avoiding unwanted wildlife impacts.

### **Accreditation**

“Wildlife Aware” accreditation is offered to all those who complete the course and pass the examination. This accreditation is designed for professional pest controllers, Local Authorities and others offering or providing a rodent pest management service. Accreditation is intended to signal to prospective customers that those who hold the accreditation will work to the highest standards to achieve effective pest control with minimum adverse effects on wildlife and the wider environment. Accredited technicians will be able to use the licensed “Wildlife Aware” logo as a visual representation of their skill and increased competence.

“Wildlife Aware” accreditation is given to the individual who satisfactorily completes the course and passes the examination and will follow the individual wherever he/she works. It does not provide accreditation for the company or organisation which employs him/her. However, attendance at the course by company employees, and the subsequent accreditation of those trained, will provide evidence that the organisations involved wish to operate to the highest practical standards so as to avoid wildlife exposure to rodenticides during rodent pest management operations.

### **Continuing Professional Education**

The course, consisting of directed reading followed by a one day of course work will carry 35 IASIS Continuing Professional Education (CPE) Credits.

## Course Outline

### Part 1 Prescribed Reading Programme

The prescribed reading programme is necessary to refresh course participants' knowledge of aspects of rodent control techniques, to emphasise Integrated Pest Management (IPM) approaches to rodent control and to introduce course participants to research and monitoring findings concerning rodenticide impacts on wildlife.

### Part 2 One Day Course of Lectures

Five core modules will be presented during the one-day course:

#### *Introduction*

- Provides an introduction to the course and to the objectives that the course is intended to achieve.
- Key concepts and definitions are highlighted and explained.

#### *Module 1 Rodent Damage, Rodent Identification, Rodent Biology, Accreditation Schemes*

- Provides a review of the problems caused by rodents to the economy. Particular emphasis is given to diseases carried by rodents and to the quest for quality within accreditation schemes driving an increased requirement for rodenticide use.
- Describes important rodent pest recognition characteristics and behaviour relevant to implementing effective control.

#### *Module 2 Environmental Impacts of Rodenticides – Introduction*

- Draws attention to the types of rodenticides available for use.
- Highlights the range of wildlife, pets and farm stock that may be affected by rodenticides.
- Provides an understanding of the statutory incident investigation arrangements in place to track the impact of poisons on raptor species.
- Provides an insight to the range of rodenticides involved in non-lethal wildlife poisoning incidents.

#### *Module 3 Environmental Impacts of Rodenticides on Wildlife*

- Draws attention to and describes the many non-target rodent and other mammalian species at risk from exposure to rodenticides.
- Provides an insight to the diet of raptor species and to the distribution of their populations.
- Describes primary and secondary routes of wildlife exposure to rodenticides, highlights the adverse effects of rodenticides and the distribution of rodenticide residues among key wildlife species.
- Highlights the extent of exposure of raptor species to low levels of residual traces of rodenticides.

#### *Module 4 Rodent Control – An IPM Approach*

- Explains the fundamentals of rodent control using an Integrated Pest Management (IPM) approach and the effective and safe use of rodenticides.
- Provides an outline of the processes involved, explains the principles of Integrated Pest Management (IPM) in rodent pest management.
- Describes site survey requirements and their importance for Service Level Agreements (SLAs), explains the individual steps involved in conducting site surveys and the role of site maps and check lists.
- Explains the central role of a risk hierarchy approach and the importance of programme reviews.
- Explains the need for different approaches during the monitoring and elimination phases of rodent pest management programmes.
- Highlights the legal obligation to abide by product label instructions and with Best Practice Requirements.
- Highlights the importance of conducting Risk Assessments (operator, client, public) and Environmental Risk Assessments prior to commencement of elimination programmes.
- Draws attention to the implications of rodent resistance to anticoagulant rodenticides and Provides guidance for use of rodenticides away from buildings.
- Outlines the restricted circumstances in which continuous toxic baiting programmes are permitted and the conditions that must be respected where a pulsed baiting technique is used.
- Describes the steps to be taken once infestations are eliminated, including the collection and disposal of dead rodents, the removal of uneaten bait as well as required proofing, sanitation and hygiene measures.

#### *Module 5 The Campaign for Responsible Rodenticide Use*

- Explains the objectives of the CRRU initiative, the important risk mitigation measures required to reduce wildlife contamination (CRRU Code) and the potential benefits of each of the measures recommended.

#### *Final Presentation*

- Explains the feed-back procedure for course participants.
- Provides details of the examination system and of the ‘Wildlife Aware’ accreditation arrangements.

### Part 3 Examination

Course participants will be examined to assess their knowledge and appreciation of the concepts and procedures addressed. Examination will involve provision of written answers to questions provided.

## THE COURSE SYLLABUS

### Aims and Objectives

The syllabus has been designed to allow participants that have completed a prescribed reading programme to complete their training in a single day. The structure of the day does not permit practical sessions to be held but the training is intended to provide useful practical advice. Where theoretical material is presented, a clear linkage to practical outcomes is provided throughout.

All course participants will be expected to possess clear and current practical competence in rodent pest management derived formally from prior attendance at appropriate training courses, such as those offered by the NAFTA, in association with the Irish Pest Control Association (IPCA), the National Pest Technicians Association (NPTA) Irish branch, or those offered by City & Guilds, or equivalents. They will also be able to demonstrate competence by being engaged in rodent pest management on a regular basis and having experience in a range of practical situations.

The course will provide relevant practical information on: -

- the importance of rodents and the damage that they cause,
- the biology of rodent pests as it is relevant to effective management and to environmental concerns,
- non-target rodents which are the principle route of exposure to rodenticides for many wildlife species,
- the fundamentals of rodent control based upon an Integrated Pest Management (IPM) approach, with particular regard to the risks that can arise for wildlife,
- how wildlife is exposed to rodenticides, the species concerned and the extent of contamination, and
- details of best practice which, when adopted as a part of practical rodent pest management processes, will result in minimised exposure of wildlife and reduced adverse environmental effects.

## THE COURSE SYLLABUS

### Part 1 Prescribed Reading Programme

#### 1.1 Competence

To refresh the knowledge of course participants regarding best practice in rodent pest management using an Integrated Pest Management (IPM) approach.

#### 1.2 Performance Criteria

Candidates must have the ability to: -

- explain the basis for choices made in relation to method of rodent control deployed in particular situations,
- describe the elements to be considered in conducting a site survey,
- understand the techniques to be used in assessing risks for operators and bystanders and in risk mitigation
- understand the techniques to be considered in assessing risk for the environment and in risk mitigation, and
- know how to prepare a rodent control programme

#### 1.3 Essential Knowledge and Skills

Candidates must have the ability to: -

- list the various techniques and methods available to control rodent pests,
- explain the advantages and disadvantages of each approach to rodent control,
- describe the steps involved in developing a rodent control programme, and
- describe the elements required to successfully implement rodent control programmes.



## THE COURSE SYLLABUS

### Part 2 One Day Course

#### *Introduction*

##### 2.1.1 Competence

To develop an appreciation of the objectives of the course, and an understanding of important concepts and definitions involved.

##### 2.1.2 Performance Criteria

Candidates must have to ability to: -

- describe the concerns created by use of rodenticides
- explain the concept of Integrated Pest Management (IPM) in relation to rodent pest management
- understand relevant definitions

##### 2.1.3 Essential Knowledge and Skills

Candidates must have the ability to: -

- describe the application of IPM in development of rodent control programmes,
- explain the meaning of terms used.

## THE COURSE SYLLABUS

### Part 2 One Day Course

#### ***Module 1 Rodent Damage, Rodent Identification, Rodent Biology, Accreditation Schemes***

##### **2.2.1 Competence**

To develop knowledge of the scope of the impacts that rodent infestations have on rural, semi-urban and urban enterprises. Develop an ability to distinguish between the different rodent pest species, understand key differences in their biology and behaviour that are important for their control.

##### **2.2.2 Performance Criteria**

Candidates must have the ability to: -

- describe all important target species,
- explain the relative importance of the main impacts of rodent pest populations on different types of enterprise,
- understand the potential impacts of rodents as carriers of human and animal diseases, and
- understand aspects of pest biology and behaviour that are important in the management of rodent pests.

##### **2.2.3 Essential Knowledge and Skills**

Candidates must have the ability to: -

- identify target rodents, using both common names and scientific names,
- list the main adverse impacts of rodents and discuss their importance,
- list some of the important diseases transmitted by rodents to humans and livestock and name the organisms that cause them,
- explain the drivers for improved hygiene in animal rearing and arable farming, in industry, in hospitals and in offices,
- describe some of the important accreditation schemes and summarise the positions they adopt with regard to management of rodent infestations, and
- describe those aspects of rodent behaviour that may influence the effectiveness of rodent pest management.

## THE COURSE SYLLABUS

### Part 2 One Day Course

#### *Module 2 Environmental Impacts of Rodenticides – Introduction*

##### 2.3.1 Competence

Develop thorough understanding of the potential impacts of rodenticides on wildlife and the wider environment.

##### 2.3.2 Performance Criteria

Candidates must be able to: -

- describe the types of rodenticides available for use,
- demonstrate a knowledge of the types of incidents involving wildlife poisoning with rodenticides that occur, as well as the identity of the compounds involved, and
- demonstrate knowledge of wildlife monitoring schemes (NPWS/DAFM/State Laboratory, Birdwatch Ireland, Golden Eagle Trust).

##### 2.3.3 Essential Knowledge and Skill

Candidates must have the ability to: -

- understand the types of rodenticides available for use,
- appreciate the types of incidents that occur involving exposure of wildlife to rodenticides,
- understand how the incident investigation arrangements in place operate, the species involved and rodenticides detected.

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### Part 2 One Day Course

#### *Module 3 Environmental Impacts of Rodenticides on Wildlife*

##### 2.4.1 Competence

Know the important non-target rodent species and aspects of their biology and behaviour that predisposes them to accidental exposure to rodenticides and then become instrumental in the contamination of predators and scavengers.

##### 2.4.2 Performance Criteria

Candidates must be able to: -

- describe non-target rodent and other mammalian species at risk of poisoning with rodenticides,
- demonstrate an understanding of the effects of vertebrate pest control agents on wildlife, and
- demonstrate an understanding of exposure / contamination pathways.

##### 2.4.3 Essential Knowledge and Skills

Candidates must have the ability to: -

- understand the reasons why the outdoor use of rodenticides is important in terms of contamination of wildlife and the main species involved,
- understand the unwanted impacts of exposure of wildlife to vertebrate control agents and the mechanisms involved (routes of exposure),
- understand the different causes and consequences of wildlife poisoning incidents,
- understand the extent of low-level residues of anti-coagulants in wildlife,
- understand the pathways by which different wildlife species are exposed to rodenticides, and
- interpret the findings of relevant studies in terms of impacts on wildlife populations.

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### Part 2 One Day Course

#### *Module 4 Rodent Control – An IPM Approach*

##### 2.5.1 Competence

Develop knowledge of all aspects of the control of rodents using an Integrated Pest Management (IPM) approach, with special emphasis on safe and effective use of rodenticides both in and around buildings and away from buildings.

##### 2.5.2 Performance Criteria

Candidate must be able to: -

- describe the control options available and the role each plays in rodent pest management,
- understand the principles of Integrated Pest Management (IPM) as it applies to rodent pest management,
- describe the importance of site surveys and their importance for Service Level Agreements (SLAs),
- understand the step-wise implementation of a rodent management plan, and
- know the different methods used for rodent control away from buildings.

##### 2.5.3 Essential Knowledge and Skills

Candidates must have the ability to: -

- describe the elements of an integrated rodent pest management programme and discuss strengths and weaknesses of each element,
- understand the concept of risk hierarchy and its relevance for rodent pest management,
- list the 5 steps to an effective rodent management programme,
- understand the importance of operator, bystander and environmental risk assessment,
- understand the different approaches required during the monitoring and eradication phases of pest management programmes,
- understand the legal obligation to abide by rodenticide product label instructions and the CRRU Ireland *Best Practice Requirements for Rodent Control and Safe Use of Rodenticides*,
- understand the restricted circumstances in which continuous use of toxic baits is permitted,

## THE COURSE SYLLABUS

### Part 2 One Day Course

- understand the conditions that must be respected where a pulsed baiting technique is to be used,
- know the key risks encountered during rodenticide applications,
- discuss important measures to mitigate risks,
- understand the requirement to keep accurate and complete written records of all activities undertaken,
- discuss the possible influence of rodenticide resistance on rodent control operations, and
- describe the different requirements of a rodent management plan when this is to be implemented away from buildings.

## THE COURSE SYLLABUS

### Part 2 One Day Course

#### *Module 5 The Campaign for Responsible Rodenticide Use*

##### 2.6.1 Competence

Develop knowledge of the purpose of the CRRU initiative and the principle ways in which undesirable impacts of rodenticides on wildlife can be avoided.

##### 2.6.2 Performance Criteria

Candidates must be able to: -

- demonstrate knowledge the CRRU initiative, and
- demonstrate knowledge of why responsible use of rodenticides is important in Ireland.

##### 2.6.3 Essential Knowledge and Skills

Candidates must have the ability to: -

- understand the objectives of the CRRU initiative,
- understand the importance of responsible rodenticide use in terms of the regulation of rodenticide use,
- understand the relationship between the CRRU Code and product labels,
- demonstrate thorough knowledge of the CRRU Code, and
- explain the benefits of the Code's seven points in terms of their individual effects in reducing wildlife exposure to rodenticides.

## THE COURSE SYLLABUS

### Part 2 One Day Course

#### *Final Presentation*

##### 2.7.1 Competence

Develop knowledge of the feed-back procedures in place and an understanding of the examination system and of the purpose of the 'Wildlife Aware' accreditation system.

##### 2.7.2 Performance Criteria

Candidates must be able to: -

- demonstrate knowledge of the feed-back system and of its function,
- explain the nature of examination system used, and
- understand the 'Wildlife Aware' accreditation system and demonstrate knowledge of its function.

##### 2.7.3 Essential Knowledge and Skills

Candidates must have the ability to: -

- understand the objectives of the feed-back system for course participants,
- appreciate the nature of the examination system used,
- understand the options available to course participants that do not pass the examination,
- describe the benefits of 'Wildlife Aware' accreditation,
- explain the procedures to be followed to achieve 'Wildlife Aware accreditation



## THE COURSE SYLLABUS

### Part 3 Examination

Participants will be given an opportunity to provide feedback on the course towards the end of the training day, but prior to taking the examination.

The examination consisting of a written paper (35 minutes) will be undertaken on completion of the course.

The examination will consist of 'true' or 'false' statements and multiple choice questions as well as questions requiring descriptive responses and will be moderated and marked by IASIS officers. The examination will cover material from the prescribed reading programme and each of the six modules shown above: -

- 10 'true' or 'false' questions – each worth 3 points (Total 30%),
- 10 'multiple choice' questions – each worth 4 points (Total 40%), and
- 3 questions requiring brief descriptive responses – each worth 10 points (Total 30%).

The following examination grading system will be used: -

Pass:	50% to 64%
Merit:	65% to 79%
Distinction:	80% to 100%

Those who pass the examination will receive notification and a certificate from IASIS. Those who wish to take advantage of the offer from CRRU and IASIS of "Wildlife Aware" accreditation must apply to IASIS after successfully completing the examination for accreditation.

Those who fail the examination will be given the chance to retake the exam. There will be ONLY one retake allowed. Details of how to retake the exam will be given in the candidate notification letter.

## IASIS ACCREDITATION

Candidates who have completed the course and who have attained a pass mark in the examination should apply to the Irish Agricultural Supply Industry Standards Limited (IASIS) to obtain accreditation. Contact details are provided hereunder. “Wildlife Aware” accredited technicians may use the “Wildlife Aware” logo after signing the license agreement which will be sent to them with the application forms. The annual cost to maintain “Wildlife Aware” accreditation is €60 per annum. The cost of the accreditation to the end of the year in which the examination is passed is included in the course application fee of €210.



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