

Level 3 Certificate in Mosquito Management

March 2007

20 Guided Learning Hours

Description:

This Level 3 qualification is designed to provide a greater understanding of mosquitoes and their control for established pest control technicians. It is intended principally for individuals already within the industry who wish to develop specialist expertise in order to be able to respond to the emerging threat posed by mosquitoes. The syllabus covers the biology and identification of mosquitoes, site surveys, chemical and non-chemical control methods and health and safety requirements.

Summary of Outcomes:

To achieve this unit a candidate must:

1. **Explain the biology and behaviour of mosquitoes relevant to their pest status, *by being able to:***
 - Explain the need to control mosquitoes
 - Identify a range of mosquitoes and their larvae
 - Evaluate aspects of mosquito biology and behaviour with regard to their importance as a pest.

2. **Review methods for the surveying and monitoring of mosquitoes, *by being able to:***
 - State health and safety and legal requirements
 - Describe survey and sampling techniques
 - Explain post-survey requirements

3. **Detail methods for the control of mosquitoes, *by being able to:***
 - Discuss non-chemical methods for mosquito control
 - Discuss chemical methods for mosquito control
 - Outline the organisation of mosquito control.

Content:

1. Biology and behaviour of mosquitoes

Need to control mosquitoes: role of mosquitoes as vectors of disease and biting nuisances; diseases carried and transmitted by mosquitoes.

Identification: importance of correct identification of mosquitoes and their larvae; features of mosquitoes and their larvae which distinguish them from other insects in the UK; features of mosquitoes and their larvae which distinguish the different genera; how to obtain identification of mosquitoes and their larvae at the species level.

Biology and behaviour: biology and behaviour of the main genera of mosquitoes; interaction of mosquitoes with other wildlife and the environment; mosquito habitats, to include salt-marsh, urban and woodland; mosquito species associated with these different habitats; particular problems caused by mosquitoes in these habitats; importance of mosquitoes at airports, nurseries and used–tyre facilities.

2. Surveying and monitoring

Health and safety and legal requirements: legal requirements relating to site surveys; powers and procedures for accessing and surveying sites; risk assessments; health and safety considerations during site surveys; use of personal protective equipment.

Survey and sampling techniques: use of GPS systems for plotting locations of potential mosquito sites and obtaining environmental information; techniques for sampling immature and mature mosquitoes; survey techniques for locating potential breeding sites; survey techniques for locating immature and mature mosquitoes.

Post-survey requirements: storage of specimens for later identification and processing; methods for recording and storing information.

3. Control of mosquitoes

Non-chemical control methods: Health and safety and use of personal protective equipment when carrying out non-chemical control procedures; methods for, and effectiveness of, proofing buildings; methods for, and effectiveness of, influencing public behaviour; biological control methods; methods for elimination of breeding sites and the limitations of these methods.

Chemical control methods: Health and safety and use of personal protective equipment when carrying out chemical control procedures; uses and application of larvicides; calculation of larvicide dosage; uses and application of pesticides for the control of adult mosquitoes; calculation of pesticide dosage; regulations for the use of larvicides and pesticides; methods for assessing effectiveness of chemical control.

Organisation of mosquito control: organisations that may be involved in mosquito control; relationships between organisations; legal requirements for mosquito management; graded responses to mosquito infestations; differences in response required for local nuisance problems compared to regional disease outbreaks.

Assessment and Grading

Attainment of the Learning Outcomes will be assessed by an examination and a practical assessment. A candidate who is able to satisfy the learning outcomes for the unit will be awarded a score of at least 65% in both the examination and the practical assessment.

In order to be awarded a *Distinction*, candidates must be able to demonstrate a satisfactory level of knowledge and understanding across all areas of the unit, and a very good level of knowledge and understanding for most areas of the unit. Such a level of understanding and knowledge will be awarded a mark of at least 80% in both the examination and the practical assessment.

The examination comprises an identification practical of 30 minutes (40% of the marks) and a written examination of 45 minutes (60% of the marks) consisting of twelve short answer questions.

Candidates who fail to reach the minimum standard for the *Pass* grade will be recorded as having failed the unit.

Recommended prior learning:

It is expected that candidates will already hold the RSPH Level 2 Certificate in Pest Control or an equivalent qualification.

Special Needs:

Centres that have candidates with special needs should consult the RSPH's *Regulations and Guidance for Candidates with Special Assessment Needs*, this is available from the RSPH and the RSPH's website www.rsph.org.uk

Recommended Qualifications and Experience of Tutors:

The RSPH would expect that tutors have teaching experience and a qualification in a relevant subject area, but recognises that experienced teachers can often compensate for a lack of initial subject knowledge, or experienced practitioners for a lack of teaching experience. The RSPH recommends that centres employ a team of tutors with a range of expertise to deliver this qualification.

Suitable qualifications for the Level 3 Certificate in Mosquito Management include:

- a) Degree or Dip. HE in: Agronomy, Biology, Zoology or related subjects
Environmental Health
Construction

or a related discipline that contains modules in pest control
or a degree that contains elements of these specialisms.

- b) HNC/D in one of the above.

- c) RSPH Level 3 Certificate in Pest Control*
Advanced Certificate in Pest Control awarded by EMFEC and NPTA*
Advanced Diploma in Pest Control awarded by NPTA*
BPC Diploma Part II awarded by BPCA*

- d) NVQ Level 3 in Pest Control.*

* Tutors would be expected to have a number of years experience in the pest control industry in addition to these qualifications.

Centres should be registered with the RSPH.

Any enquiries about this qualification should be made to:

The Qualifications Department,
Royal Society for Public Health
3rd Floor
Market Towers
1 Nine Elms Lane
SW8 5NQ