

INNOVATIVE eLEARNING SYSTEM FOR THE AGRICULTURAL SECTOR IN THE MEDITERRANEAN COUNTRIES:

Recognition, Diagnosis, Control and Prevention of Arthropod-borne diseases



May - July 2009



BACKGROUND

In recent years there has been an increased international focus on the importance of arthropod-borne diseases in both human and veterinary medicine. Increasingly, these diseases are being diagnosed and treated in veterinary practice.

In many countries agriculture is still one of the most relevant economic activities, being recognised under this profile also by the European Union policies. One of its fundamental principles being indeed the improvement of the financial conditions of people working in the farming sector, especially increasing the number of livestock farmed in the area.

Even if urbanisation is an on going and constantly increasing process, and scientific and technical progress has considerably affected farming practices, man-animal relationship is still very close. These aspects imply a high risk of spread of epidemic infectious diseases and zoonoses, and health authorities efforts focus on the prevention of zoonoses and also of those diseases not being a public health risk, in the same time able to severely affect farming, and thus causing economical losses of large sectors of the population. For this reason, health actions must be addressed not only to the preservation of livestock, but also to assure the safety and health of human and animal populations living on the same territory.

The climate changes, presently occurring, increase the risk of spread of diseases previously affecting only limited geographical and environmental niches.

As a consequence of the climate and trade changes, many ecosystems are possibly becoming able to host and/or to amplify a number of pathogens posing a severe threat to public health.

A final consideration is the significant increase of animal and human populations and commodities exchanges, making easier vectors passive transportation or animal/human reservoirs movements from the areas where such diseases are endemic.

The scientific knowledge necessary to recognise, diagnose, prevent and control Arthropod-borne diseases is thus a common goal the international community has to urgently pursue in order to guarantee human and animal protection.

PROJECT

Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale", together with the following organisations in the role of partners:

- School of Veterinary Medicine of the University of Teramo
- Giunti Interactive Srl
- Scierter Scarl

is managing the project "**Innovative eLearning System for the Agricultural Sector in the Mediterranean Countries**" (eMed), financed by the Italian Ministry of Education, University and Research (FIRB 2003 D.D. 2186-Ric of December 12, 2003).

The World Organisation for Animal Health (OIE) endorsed this project by sensitising the Veterinary Services of the OIE Members, in the framework of its strategy. This training course, the OIE stated, by strengthening the technical capabilities of Veterinary Services, can also enhance the quality of reporting in these countries thus improving transparency.

OBJECTIVE TREE

Creation of an International Scientific Community within the Veterinary Public Health and Animal Health Sectors

The possibility to share, just in time, at international level, knowledge and information on evolving animal diseases and zoonoses

Few time and resources to disseminate innovation within the VPH and AH sectors

The low costs of international training initiatives having a system impact on VPH and AH

TRAINING STRATEGY

The course, designed in accordance with the "Open and Distance Learning (ODL)" methodology, puts the student at the centre of the system.

Thanks to independence, responsibilities and role that each participant will play, the course introduces elements of flexibility as concerns place and time to dedicate to the self-learning session.

The design of the eLearning contents is inspired by the self-learning model, supported and integrated with collaborative learning activities such as: intermediate tests, chats with experts, resumes and literature concerning the main topics.

SUPPORTING SYSTEM

The supporting system will be based on the following key-elements:

- | | |
|-----------------------|--------------------|
| 1. eLearning tutor | 5. Technical guide |
| 2. Experts | 6. Students Guide |
| 3. Peer - community | 7. Forum |
| 4. Training materials | 8. Chat. |

BENEFICIARIES

- Public Veterinary Officers belonging to central or regional Competent Authorities
- Practitioners in the field of VPH and AH.

During this pilot phase, **10** participants per each country were eligible for attending free of charge. Since several applications were received, IZS A&M decided to extend the number of trainees.

LEARNING OBJECTIVES

At the end of the eMed training course, participants will acquire knowledge and skills such as:

- history, aetiology, pathogenesis and epidemiology;
 - clinical signs and pathology;
 - diagnostic methods to recognise the aetiological agent;
- on the following Arthropod-borne diseases:

- **African Horse Sickness**
- **Bluetongue**
- **Crimean-Congo Haemorrhagic Fever**
- **Eastern Equine Encephalomyelitis, Western Equine Encephalomyelitis and Venezuelan Equine Encephalomyelitis**
- **Rift Valley Fever**
- **West Nile Disease.**

They will also be able to act measures to control and prevent their diffusion.

PREREQUISITES

There are no specific prerequisites, except belonging to the target group. Before starting the training phase, participants are requested to complete an initial questionnaire to access her/his interests, motivations, requirements and constraints to be taken into consideration in order to enable her/his effective participation.

Beneficiaries will need only few key tools to enter and navigate within the engineered educational environment and also to communicate with the eLearning tutor:

Hardware

- Personal computer
- Audio speakers
- Screen 800 x 600 pixel resolution

Software

- Java Virtual Machine
- Flash Macromedia Player
- Acrobat Reader

Resources WEB

- Large band Internet connection
- e-mail account

TRAINING SCHEDULE

The training course is based on the eLearning methodology and is structured in 6 modules:

- 1. African Horse Sickness**
- 2. Bluetongue**
- 3. Crimean-Congo Haemorrhagic Fever**
- 4. Eastern Equine Encephalomyelitis, Western Equine Encephalomyelitis and Venezuelan Equine Encephalomyelitis**
- 5. Rift Valley Fever**
- 6. West Nile Disease.**

Each module is composed of n. 6 arguments:

- **Presentation & history**
- **aetiology and pathogenesis**
- **epidemiology**
- **clinical signs and pathology**
- **diagnosi**
- **prevention and control.**

Participants are free to choose the module/s they want to study, according to their specific individual learning needs. The estimated time for the fruition of the 6 online training modules, - including exercises, collaborative learning, in-depth documents and final evaluation tests -, is **60** hours totally (about 10 hours per disease).

Students are expected to complete one module per week, after receiving instructions on how to access the **eLearning platform** available at the following Web site: <http://www.emed.izs.it/>.

STARTING DATE

May 27, 2009

CONTACTS

TRAINING UNIT

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