The role of the IZS A&M as OIE Collaborating Centre on veterinary training, epidemiology, food safety and animal welfare

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From traditional training to eLearning

- **Residentials**
  - training courses
  - workshops
  - seminars ....

- **eLearning**
  - self learning
  - tutor-supported learning
  - blended methodology
IZS A&M, who we are

Istituto Zooprofilattico Sperimentale dell’Abruzzo e del Molise “G. Caporale” is a public health institution engaged in research.

Our mission is to provide high added value, knowledge-based and innovative services in Veterinary Public Health and Environmental Protection, thus protecting animal as well as human health and welfare.
About us

- Founded in 1941
- About 450 human resources
- Public Health Institution in support of the Regional and National Veterinary Service
- Headquarters: Teramo
- Five diagnostic centres: Avezzano, Campobasso, Isernia, Lanciano, Pescara
- Three laboratories for fresh and salt water biology: Cerrano, Termoli, Giulianova
The OIE acknowledged us

- Collaborating Centre for veterinary training, epidemiology, food safety and animal welfare
- Reference laboratory for contagious Bovine Pleuropneumonia, Bluetongue and Brucellosis
- Co-ordinator of the OIE Bluetongue Reference Laboratories Network
Some numbers......

- Over 70 international meetings were organised since 1993
- More than 60 countries were visited since 1990
IZS A&M and Animal Welfare

- **2003:** IZSA&M sets up a Centre for Animal Welfare

- **2004:** IZSA&M becomes OIE Collaborating Centre for veterinary training, epidemiology, food safety and animal welfare
IZS A&M, training and animal welfare

- Learning need assessment and planning of eLearning course on AW, in the framework of EU/Chile bilateral agreement, 2004/05
- Organisation on the Fourth Meeting of the OIE Permanent Working Group on Animal Welfare, 2005
- International seminar on “Animal welfare in Chile and the EU: shared experiences and future objectives”. 2005
- Placement of experts in OIE ad hoc group on “stray dog population control guidelines”, 2006
IZS A&M, training and animal welfare

- Participation as experts on stray dog population control programs at PANVET, Chile 2006
- Participation as experts, to “EU training workshop on welfare standards concerning the stunning and killing of animals in slaughterhouses and for disease control situations”, UK 2006
- Participation as experts, to Joint CoE/EU/OIE workshop “Animal welfare in Europe: achievements and future prospects”, Luxembourg 2006
- Organisation of DG SANCO “UE training workshop on animal welfare concerning the stunning and killing of animals at slaughterhouses and in disease control situation”, 2007 (www.sancotraining.izs.it)
Training workshop on animal welfare concerning the stunning and killing of animals at slaughterhouses and in disease control situation
UE training workshop on animal welfare concerning the stunning and killing of animals at slaughterhouses and in disease control situation”, 2007

- Zagreb, Croatia. October 15 – 19, 2007
- 80 participants from 48 countries
- 18 tutors (OIE, European Parliament, Universities and research institutions, NCAs, NGOs, International Organisations,
- 4 EC officers
Training strategy

- Lectures and discussions
- Panel discussion
- Two in field simulation exercises
- One simulation exercise in plenary session
- Group activities in informal sessions
Training 2009 on Aw
“Better training for safer food”
initiative of the European Commission

Animal welfare during the transport and related operations
Teramo (I)
January 26 - 30, 2009

Animal welfare concerning the stunning and killing of animals at slaughterhouses and in the disease control situation
Budapest (H)
March 2 - 5, 2009

www.sancotraining.izs.it
Our network of experts
But we have a challenge: to increase the effectiveness of training on AW

- To enhance motivation to learn
- To increase learning results
- To fasten application on the job
- .... To spread knowledge and expertise worldwide
Needs

• Urgency to strengthen the dissemination of innovation at international level through training actions whose beneficiaries are public services

• Necessity to use the opportunities offered by eLearning systems to respond to complex training demands on AW

• The need to increase the value of knowledge management in the international AW scientific community
• Evaluation system for cost effectiveness assessment of the eLearning models

• Implementation of a system including parameters and indicators allowing the selection of the most social effective and economic profitable options
eLearning model definition

- Methodological and pedagogical specifications of the training model, implementation of a best practice community, collaborative learning and specifications of the training provision and support services
- Technical and structural specifications on the characteristics of the learning environment
- Criteria for the selection, design, implementation and adaptation of the training and information resources of learning materials
Characteristics

- Learning environment, for collaborative and individual learning

- Repository of training resources (e.g. disease description, teaching modules, the European legislation, international standards, specific scientific links, etc.)
A standard model

- Study of training materials
- Case study
  - Based on an extremely probable situation
  - Which requires a literature review
- Which can be solved only referring to legislation in force
- Individual exercise
- Group “discussion”
Look at this example: “Ineffective stunning of cattle”

During an FVO inspection to evaluate the checks on animal welfare at time of slaughtering in a cattle abattoir, veterinary inspectors reported that some animals were not effectively stunned. Inspectors concludes that, although bleeding is rapidly performed, signs of recovery are seen thus stunning procedures should be considered not satisfactory.

As Official Veterinarian responsible of the slaughterhouse, you are asked by the owner to verify the findings claimed by the FVO, to take the necessary corrective actions and report it to the management.

Objectives:
✓ To assess the stunning procedures
✓ To identify the major critical control points of stunning
✓ To suggest any possible improvement to protect the welfare of animals

Description:
Species: cattle
Restraining: cattle-stunning box
Stunning system: non-penetrating captive bolt

Problems
1. What is the level of compliance with the ongoing legislation in the slaughterhouse?
2. How can you assess the competence of the stunning operators?
3. What actions would you take immediately?
Background

- **NORMS**
  - EU Directives, Regulations

- **REFERENCES**
  - EFSA scientific opinions
  - Relevant scientific literature
  - Manuals, guidelines, check lists, etc.

- **INTERNATIONAL STANDARDS**
  - OIE Terrestrial Animal Health Code

- **SITOGRAPHY**
  - Links to useful web sites (e.g. OIE, European Commission, business operators, NGOs, etc.)
Protection of animals during transport has always been one of the most controversial areas in animal welfare, for a variety of reasons, the main ones being:

- **High level of stress and pain**: transport is the most stressful and injurious stage in all stages of the production chain (from farm to slaughterhouse);

- **Difficulties to implement official effective inspection procedures** due to the variety of issues to be taken into account (evaluation of road vehicles design/functionality/maintenance & certification characteristics, assessment of stocking densities, evaluation of route and journey plans, behavioural and physiological indicators etc.);

- **Great attention** paid to transport problems by animal protection associations and by the media, where AW groups tend to take the higher moral ground, since scientists are reluctant to take a stand, due to the complexity of the matter that makes difficult issuing nice, definite, evidence-based statements.
A way of objectively measuring transport stress may be based on behavioural, physiological and pathological indicators.

Data on behaviour during transport are actually scarce, but nevertheless they are useful, inasmuch as they provide insights about how the animals adapt and cope, and moreover indicate the areas where improvement is needed.

More data are available as far as physiological responses are concerned (heart rate, cortisol and other hormones levels, blood composition, live weight etc.). Yield at slaughter and carcass composition of the carcase provide evidence about animals’ condition before slaughter.

The greatest cause for concern relating to road transport of slaughter animals is the injury or bruising that may occur on journeys, regardless of the distance traveled.
Effects of stress and injury on meat quality

Good quality beef has a final pH value close to 5.5. At pH values of 5.8 and above both the tenderness and the keeping quality of the fresh chilled meat is adversely affected. High pH meat is unsuitable for the premium trade in vacuum-packed fresh meats, and, dark-cutting meat may be discounted by 10% or more.

The USA National Beef Quality Audit-2000 reported 46.7% of cattle with bruises of varying severity (from a single one bruise to multiple bruising): 1999 audit in market cows and bulls results showed 83% of all carcasses had a bruise.
An official veterinarian working in a slaughterhouse regularly licensed to export bovine meat towards the European Union receives a truckload of cattle to be slaughtered and processed for export towards the EU.
During the pre-slaughter visit, the veterinarian detects trauma signs and a number of animals are visibly injured.

Bovine with bloody head
Routine after-slaughter inspection reveals that about 25% of the carcasses belonging to the same batch are severely bruised.
African Horse Sickness

Presentation and History

The African Horse Sickness (AHS) is an infectious disease of equids, non-contagious, transmitted by hematophagous vectors belonging to the Culicoides genus, whose biological agent is an Orlovirus. The Equine Pox may have an acute or sub-acute course and high mortality and lethality.

The disease is characterized by:
- fever;
- subcutaneous and pulmonary edema;
- hemorrhages in the parenchymal tissues;
- collection of serous fluids in all body cavities.

The dog is the only non-sold domestic animal that manifests clinical signs of the disease, sometimes with fatal outcome.
Il trasferimento di competenze

Introduzione alla formazione

La formazione degli adulti
Continuiamo la discussione dei principi dell'apprendimento degli adulti.

Apprendimento dall'esperienza
Si può apprendere anche solo dall'esperienza, sulla quale si forma e che può venire utilizzata in sede didattica.

Apprendimento dall'esperienza
Il modello di formazione si basa sull'esperienza del professionista che, attraverso la conoscenza e l'esperienza, persegue l'apprendimento di conoscenze e tecniche utili per la pratica professionale.

Necessità di un corretto psicologo

Apprendimento come ricerca

Motivazione istituzionale e intrinseca

Seleziona le parti attive per sapere di più.

07:22
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Conclusions

• Our duty is to produce highly specialised training
• Targeted to the different levels of development
• Able to overcome local cultural, social, and political barriers, where present
• Our duty is to be quick, rapid!
Conclusions

eLearning:

- allows instant updating of contents
- allows ubiquitous delivery
- can be adapted to multi-device and different technological levels
- is repeatable, adaptable, transferrable