



OIE Collaborating Centre for Training in Integrated Livestock and Wildlife Health and Management

## OIE Collaborating Centre for Training in Integrated Livestock and Wildlife Health and Management, Onderstepoort



# VETERINARY BACKGROUND

# SADC



# TECHNOLOGY

### Development of the Centre

• Proposal - OIE Collaboration Centre	29 January 2009
• African Commission	24 February 2009
• International Commission of the OIE	26 May 2009
• Arusha: Veterinary Deans and Registrars of the SADC region	2 – 4 September 2009
• Regional OIE office, Gaborone, Botswana	11 – 14 September 2009
• SADC Foot-and-mouth disease project and OIE regional office, Gaborone, Botswana	2 – 3 November 2009
• Workshop: Clarify issues of development and implementation of OIE Collaborating Centre	11 November 2009



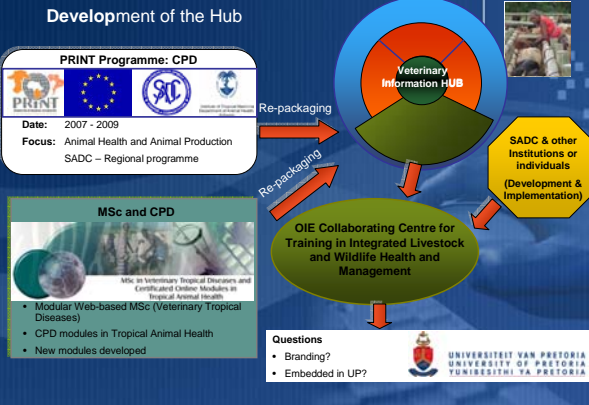
### Consortium Partner Institutions

The activities of the proposed collaborating Centre will be supported by the following institutions:

- Lead Institution: Department of Veterinary Tropical Diseases, Faculty of Veterinary Science, UP, SA (Contact person: Prof JAW Coetzer)
- University of Pretoria (Centre for Veterinary Wildlife Studies, Department of Animal and Wildlife Sciences, Department of Agricultural Economics, Extension and Rural Development)
- Onderstepoort Veterinary Institute (OVI), SA
- Institute of Tropical Medicine (ITM), Antwerp
- National Institute for Communicable Diseases, SA
- Department of Agriculture, Forestry and Fisheries, SA
- Others in SADC?




### Development of the Hub



**PRINT Programme: CPD**  
 Date: 2007 - 2009  
 Focus: Animal Health and Animal Production  
 SADC – Regional programme

**MSc and CPD**  
 MSc in Veterinary Tropical Diseases and Certified Course Modules in Tropical Animal Health  
 • Modular Web-based MSc (Veterinary Tropical Diseases)  
 • CPD modules in Tropical Animal Health  
 • New modules developed

**Questions**  
 • Branding?  
 • Embedded in UP?



### OIE Collaborating Centre for Training in Integrated Livestock and Wildlife Health and Management

**Focus:**  
 Integrated disease management at the wildlife / livestock / human interface  
 • One Health (Background, Introduction and Concepts)

**Objectives / Outcomes:**

- Quality livelihoods • Optimal animal health and production • Rural development
- Ecosystem health • Biodiversity • Food security • Sustainability





**OIE Collaborating Centre for Training in Integrated Livestock and Wildlife Health and Management**

**CPD Programmes / Packages:**

Livestock health, management and production	Wildlife health, management and production
Emerging and re-emerging diseases	Zoonoses
Environmental health	Arthropod vectors
Veterinary public health / Food safety	Trade and marketing of animal commodities and products
Welfare	Health management tools



**Livestock health, management and production**

- Introduction: background, concepts, context
- Livestock production
- High impact diseases
- Selected helminths
- Animal health management




**Livestock production**

- Livestock production systems
- Production environment and animal production functions
- Product quality and quality assurance
- Application of quality assurance to production systems
- An overview of animal-derived commodities
- Meat, milk and egg production in SADC
- Quality and nutrient composition of meat, milk, eggs
- Meat: issues that affect quality and marketability
- Value adding along production and processing chain



**Livestock health, management and production**

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**High impact diseases**

Contagious diseases:	Vector-borne diseases:
• Foot-and-mouth disease	• Bluetongue
• Classical swine fever	• African horse sickness
• African swine fever	• Rift Valley fever
• Tuberculosis	• Lumpy skin disease
• Contagious bovine pleuropneumonia	• Trypanosomoses
• Peste des Petits Ruminants	• East Coast fever
• Brucellosis	• Heartwater
• Bovine dermatophilosis	• <i>Theileriosis</i>



**Livestock health, management and production**

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Livestock health, management and production

### Selected helminths


- Small stock:
  - Roundworms (Nematodes)
  - Flukes (Trematodes)
  - Cestodes
- Cattle:
  - Roundworms (Nematodes)
  - Flukes (Trematodes)
  - Cestodes
- Wildlife



Livestock health, management and production

### Livestock health, management and production

- Introduction: background, concepts, context
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Livestock health, management and production

### Animal health management

- Managing animal health
  - Background, principles, approaches
- Basic control measures & tools
  - Prevention vs control
  - Eradication programmes
  - Disease emergencies
  - Role of different tools
  - Influence on market access
  - Looking at alternative measures
- Influence of production systems on AHM
  - Challenges, approaches, strategies
- Managing animal diseases for trade
  - TADs, SPS, tools
- Producer/community-based control
  - Importance, training, PDS, support
- Managing disease at the interface
  - Disease overview and issues



Livestock health, management and production

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OIE

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Wildlife health, management and production

### Wildlife health, management and production

Introduction:  
Background, concepts, context  
(Including ecosystem health)

Conservation of biodiversity (Transfrontier parks and conservation areas)	Wildlife production systems (Eco-tourism, trophy hunting, intensive breeding, game meat)
Disease management policy: agriculture and conservation	Disease management (Free living, intensive systems)
Regulatory environment	Game capture and immobilisation



Livestock health, management and production

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OIE

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Emerging and re-emerging diseases

**Introduction:**  
Background, concepts, context


**Drivers:**  
(e.g. climate change, wildlife reservoirs, interface issues, environmental changes, agricultural practices, disintegration of veterinary services)



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- Zoonoses
- Environmental health
- Arthropod vectors
- Veterinary public health / Food safety
- Trade and marketing of animal commodities and products
- Welfare
- Health management tools



Zoonoses

**Introduction:**  
Background, concepts, context

Wildlife / livestock / human interaction

Socio-economic drivers

Cultural perceptions & animal husbandry practices

Environment

Intervention tools and strategies

Integrated data collection, management and analysis


Advocacy & policy development



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Environmental health

**Introduction:**  
Background, concepts, context

Land use (Agricultural land, conservation, environmentally sensitive zones)

Ecosystem health and conservation (Habitat, threats, biodiversity, legislation)

Natural resource management (e.g. water, soil, vegetation)

Pollution (Industrial, commercial, rural, risks)

Climate change (Impact and threat, management, monitoring, TPCs)


Evaluation, monitoring and rehabilitation



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### Arthropod vectors

Introduction: Background, concepts, context	Ticks
Culicoides (Midges)	Mosquitoes
Tsetse / biting flies	Other flies




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### Trade and marketing of animal commodities and products

Introduction:  
Background, concepts, context

WTO and standard-setting bodies	Risk management: animal commodities
Challenges for developing countries	Food safety: prerequisites, auditing and certification
Agricultural marketing	Economic principles
Consumer requirements	Livestock product supply chains and marketing channels
Trade in livestock products	Trade in game: commodities and products




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### Health management tools

Introduction: Background, concepts, context	Laboratory diagnostics
Surveillance	Biosecurity
Vaccination	Therapeutics
Traceability	GIS
Basic, applied & analytical epidemiology modules	Risk analysis
Information systems: Data collection and management	Information and communication technologies: application




### Laboratory Diagnostics



Specimen collection	Good laboratory practice
Bacteriology	Serology
Molecular biology	Parasitology
Virology	

## Accreditation

- South African Veterinary Council



## Disease Information Platforms / Bulletins

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## OIE CC Action Plan 2010: Courses: Presentation

**Arusha: 15 - 19 March 2010**

- Training workshop: Surveillance and reporting of animal disease at the wildlife, livestock and human interface with particular reference to the SADC Region

**Italy: April and May 2010**

- Two training courses on Exotic Animal Diseases dealing with ticks and tick-borne diseases, mosquito and Culicoides vectors, and vector-borne and other transboundary diseases

