

Safe Food Fair Food – Kampala 2013 May 8

Short Comments on Undergraduate Veterinary Education in VPH (the „Berlin Solution“)

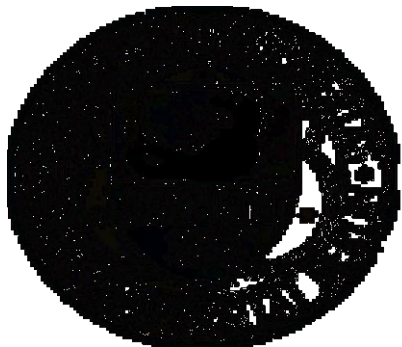
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*FAO
Reference
Centre for*



*Veterinary
Public
Health*



Don't worry, it won't hurt

- The Institute
- Training and Education
- Science
- Communication

Panel Veterinary Public Health FAO Reference Centre for VPH

- Institute of Meat Hygiene and Technology
Department International Animal Health
(Institute of Food Chains & VPH)
- Institute of Animal Welfare, Animal
Behaviour and Laboratory Animal Sciences
- Institute of Food Hygiene
- In progress: Institute of Epidemiology



2. Training & Education

- Local vets
- Local postgraduates
- Local paravets

- Global postgraduates (SE Asia, East Africa)
- Global seminars (Asia, Europe, Africa)

Vet. Undergraduates: The Backbone lecture

- Module A:
 - Hygiene and technology of (several) food chains
 - from primary production up to the product “meat” (“from farm to fork”)
- Module B:
 - Institutions of Veterinary Public Health
 - Control and intervention options
 - Verification techniques
 - Legislation (global, EU and national level)
- Module C (application):
 - Control of food animal categories, based on Risk Analysis
 - Resulting control along the line (chain information, a.m. and p.m. meat inspection)
 - Hygiene control (the non-individual sector), nonetheless needed in primary and secondary production

Module A: The Food Chains

1: Husbandry

Site, circuits and transfer routes for agents and foreign substances

Agents and foreign substances within ecosystems of PP

Food animals and their life cycles

Food animals as carriers of zoonotic agents

Animal welfare and wellbeing in primary production

2: Transport of (Food) Animals

Technology and risks of transport

Stunning and slaughter

3: Processing of Slaughtered Food Animals

The site (abattoir)

Secondary products: Their destination (consumption/ rendering)

Basics of technology & hygiene of slaughter incl. processing

Specific procedures and hygiene of meat processing

Chilling, storage, deboning

The product: Technology and hygiene

4: Tertiary Production Lines: Meat Product Technology

Technical options/ preservation options

Module B: Institutions of VPH, instruments for Control & Verification

1: Political and Institutional Background

European Union

Institutions of VPH in Germany

Aims of VPH and of Meat Inspection

Veterinary Medicine and VPH

2: Assessment of agents

Concept of ADI

Hazard & Risk: Principles of Risk Analysis

3: Hygiene and Dealing with it

Hygiene: The term as such

Best Practices in Primary and Secondary Production incl. C&D

Verification of Hygiene: Direct Techniques

Human Factor

4: Legislation

Accreditation, Certification, Audits

Module C: Consequences: Practical performance of inspection and surveillance

1: Background

History, Basics of Present Meat Inspection

2: Existing Food Chain: Contents and Examples

Inspection Systems": Field Studies on the Issue

From Pork to Fork" and the Principle of Feed back

Case studies (e.g. zoonotic Agents: Salmonella in the Chain)

Health vs. Disease in Food Animals

4: The particular Inspection Procedures

Inspection of Food Animals Categories under the Light of Risks

Surveillance of Hygiene in Practice

5: The Market

Surveillance of Food on the Market

Special Elements of Examination of Foods

Local: Paravets

- EU auxiliaries
- Module anatomy and physiology
- Module diseases and their agents
- Module animal production
- Module Food chains
- Module inspection procedures

Accredited VPH Master Course

- University Chiang Mai, Thailand, Faculty of Veterinary Medicine
- Freie Universität Berlin, Germany
- 2 years, in both countries
- Field studies in the respective home countries
- Participants: from SOA, Subcontinent, China
- 5 Batches, 6th starting in August

Modules for Global Postgraduates (Berlin Part)

- Epidemiology
- Food Chains (Technology and Hygiene)
- VPH
- (Basic) Laboratory Techniques: Running a Lab
- Pathogen analysis (Specific Identification Procedures)

Field Studies

The course

- The global situation of production and trade and their reflection (the risks)
- Case studies based on international failures (BSE in Europe, AI in Asia)
- Ad a consequence: Options for intervention on a reliable base

3. Science

- Application of Science vs. Pure Science
- Projects
 - Dissertations
 - PhD- Thesis
 - Institute projects
- Each project to be used as element to be implemented into the puzzle for development of safer chains

e.g. Case Study „Meat Inspection“

- Separate between detection, intervention prevention
 - Detection e.g. during meat inspection
 - Intervention e.g. culling
 - Prevention, e.g. good practices of biosecurity in the holding
- Develop individual elements for specific cases
- Decide on the appropriateness of them in the specific case
 - For TB: Macroscopic p.m. necropsy vs. Intracutan tests a.m.
 - For trichinosis: Microscopic inspection for cysts vs. digestion of pooled samples for larvae
 - For Cysticercus: Exclusion of closed cycles vs. p.m. inspection for cysts

4. Communication

- Textbooks
 - Basics of Running a Lab
 - Food Chains: Their Technology and Hazards/ Risks
 - VPH and global VPH
 - Inspection of Food Animals along the Line
- Annual congresses on hygiene of food chains
- Papers (German and International market)
- Websites
 - FAO Reference Centre
 - Institute Website
- Annual reports on Institute's activities

Global: Paravets

- To be discussed here
- Whom to address

Methodology of Information Transfer

- Hands-on courses
- Lectures
- Case studies
- IT- communication
- Self studies
- Combinations
- At the place / home based