OIE Regional Workshop on Animal Feed Safety
15 – 16 January 2019, Tokyo, Japan

OIE International Standards on Animal Feed

Dr Jeremy Ho
Secondment Officer
OIE Regional Representation for Asia and the Pacific
Outline

- Background

- OIE Texts on Animal Feed Safety
  - OIE Terrestrial Code
  - OIE Terrestrial Manual
  - OIE Aquatic Code
  - OIE-FAO Guide to Good Farming Practice

- Performance of Veterinary Services (PVS)
  - PVS Tool for Evaluation on Animal Feed Safety
  - Regional PVS Evaluation Overview on Animal Feed Safety

- Actions Needed for Member Countries on Animal Feed Safety

- Conclusion
Background

Why should we be concerned about animal feed?

- **Critical component of the food chain** that has a direct impact on animal health and welfare and also on food safety and public health
- Animal feed and feed ingredients are **widely traded internationally**
- Important pathway for the **entry and spread** of contagious epidemic diseases, e.g. *Salmonella*, FMD, CSF, ASF etc.
- Can act as a **vector for pathogenic agents** e.g. BSE and scrapie
- Important to consider in **disease prevention and control programmes**
Background

Animal Feed

Hazards

Colonization Bioaccumulation

Biomagnification Biotransfer

Meat Egg Milk Cheese

Unsafe food

Human Consumption
Background

- Since 2002, the OIE has expanded to encompass animal production food safety, **working in collaboration with the Codex Alimentarius Commission (CAC)** and other international organisations.

- In 2006, the International Committee resolved that the OIE should **develop guidance on food-borne zoonoses and animal feeding**, complementing relevant CAC texts.
OIE Texts

- Terrestrial Animal Health Code
- Manual of Diagnostic Tests and Vaccines for Terrestrial Animals
- Aquatic Animal Health Code
- OIE-FAO Guide to Good Farming Practices
Chapter 6.4 – The Control of Hazards of Animal Health and Public Health Importance in Animal Feed

- **Objectives**
  - provide guidance on animal feeding in relation to animal health
  - complement the guidance provided by the Codex texts
  - ensuring the control of animal and public health hazards through adherence to recommended practices during the production and use of animal feed and feed ingredients for terrestrial animals

- **Scope**
  - production and use of all products destined for animal feed and feed ingredients at all levels whether produced commercially or on farm
  - includes grazing or free-range feeding, forage crop production and water for drinking
  - Swill feeding is a particular aspect of on-farm practice that is specifically addressed because of its recognised role in disease transmission
Terrestrial Animal Health Code

Chapter 6.4 – The Control of Hazards of Animal Health and Public Health Importance in Animal Feed

- Article 6.4.4: General Principles
  1. Role and Responsibilities
  2. Regulatory safety standards
  3. Risk analysis
  4. Good Practices
  5. Geographic and environmental considerations
  6. Zoning and Compartmentalisation
  7. Sampling and Analysis
  8. Labeling
  9. Design and Management of Inspection Programme
  10. Assurance and Certification
  11. Hazards associated with Animal Feed
  12. Contamination
  13. Antimicrobial Resistance
  14. Management of Information
Chapter 6.4 – The Control of Hazards of Animal Health and Public Health Importance in Animal Feed

11. Hazards associated with Animal Feed
   - Biological hazards
   - Chemical hazards
   - Physical hazards

13. Antimicrobial Resistance
   - Animal feed is one of the critical pathways for the administration of antimicrobials to livestock
   - Medication may conveniently and efficiently be delivered in feed
   - More details regarding standards and recommendations on the use of antimicrobial agents will be addressed in the presentation tomorrow morning
Antimicrobial Resistance

- Relevant chapters in the Terrestrial Animal Health Code:
  - Chapter 6.7 – Introduction to the recommendations for controlling antimicrobial resistance
  - Chapter 6.8 – Harmonisation of national antimicrobial resistance surveillance and monitoring programmes
  - Chapter 6.9 – Monitoring of the quantities and usage patterns of antimicrobial agents used in food-producing animals
  - Chapter 6.10 – Responsible and prudent use of antimicrobial agents in veterinary medicine
  - Chapter 6.11 – Risk analysis for antimicrobial resistance arising from the use of antimicrobials in animals
Chapter 6.4 – The Control of Hazards of Animal Health and Public Health Importance in Animal Feed

14. Management of Information

- Establish clear requirements for provision of information
- Records should be maintained in a readily accessible form – enhance traceability

✓ Important to address animal health and welfare, and food safety issues
✓ Terrestrial Animal Health Code includes chapters that address live animal identification and traceability (Chapters 4.1 and 4.2.)
✓ Same principles apply to traceability of animal feed
Disease Specific Chapters

Examples

Chapter 11.4 – Bovine Spongiform Encephalopathy (BSE)
- Article 11.4.1. lists ‘safe’ commodities, i.e. importation or transit should not require any BSE related conditions, regardless of the BSE risk status of the cattle population

Chapter 14.8 – Scrapie
- Article 14.8.1. lists ‘safe’ commodities, i.e. importation or transit should not require any scrapie-related conditions, regardless of the scrapie risk status of the sheep and goat populations
Animal feed has been mentioned in the following chapters:

- Chapter 2.1.17 – Rabies
- Chapter 2.3.14 – Newcastle disease
- Chapter 2.4.5 – Bovine spongiform encephalopathy
- Chapter 2.8.3 – Classical swine fever
- Chapter 2.9.3 – Infection with *Campylobacter jejuni* and *Campylobacter coli*
- Chapter 2.9.6 – *Listeria monocytogenes*
- Chapter 2.9.8 – Salmonellosis
Aquatic Animal Feed

- Aquaculture industry is **fast growing** and is important as a key source of **high quality animal protein** for the growing global populations.
- Aquatic animals – often a **principle ingredient in feed** for other aquatic animals.
- Common practice to use **semi-processed, raw and live feed** – carries considerable risks of disease introduction and spread.

Chapter 4.8 – Control of Pathogenic Agents in Aquatic Animal Feed

- **Objectives**
  - Address transmission of infectious diseases of aquatic animals via feed to prevent entry and spread.

- **Scope**
  - Applies to the production and use of all products destined for feed and feed ingredients.
Aquatic Animal Health Code

Chapter 4.8 – Control of Pathogenic Agents in Aquatic Animal Feed

Article 4.8.3 Responsibilities
➢ Similar to Terrestrial Code

Article 4.8.4 Hazards associated with aquatic animal feed
➢ Only biological hazards are addressed in this Chapter

Article 4.8.5 Risk pathway and exposure
➢ Contamination may occur in various stages
➢ Direct or indirect exposure
Aquatic Animal Health Code

Chapter 4.8 – Control of Pathogenic Agents in Aquatic Animal Feed

Article 4.8.6  Risk Management

a. Use of safe feed and feed ingredients
   ➢ Safe commodities
   ➢ Source from pathogenic agent-free country/zone/compartment

b. Use of feed and feed ingredients from sources that may not be free from pathogenic agents of concern
   ➢ Treatment of the commodity to inactivate pathogenic agents
   ➢ Confirmation of absent of pathogenic agents in the commodity
   ➢ Use of feed only in non-susceptible population

c. Feed production
   ➢ Recommendations to prevent contamination
Aquatic Animal Health Code

Antimicrobial Resistance

- Relevant chapters in the Aquatic Animal Health Code:
  - Chapter 6.1 – Introduction to the recommendations for controlling antimicrobial resistance
  - Chapter 6.2 – Principles for responsible and prudent use of antimicrobial agents in aquatic animals
  - Chapter 6.3 – Monitoring of the quantities and usage patterns of antimicrobial agents used in aquatic animals
  - Chapter 6.4 – Development and harmonisation of national antimicrobial resistance surveillance and monitoring programmes for aquatic animals
  - Chapter 6.5 – Risk analysis for antimicrobial resistance arising from the use of antimicrobial agents in aquatic animals
Disease Specific Chapters

- Article X.X.10
  - Recommendations for importation of aquatic animals or aquatic animal products intended for uses other than human consumption, including animal feed and agricultural, industrial, research or pharmaceutical use, from a country, zone or compartment not declared free from infection
FAO-OIE Guide to Good Farming Practices

- Developed in collaboration with FAO
- Intended to help Competent Authorities to assist stakeholders to fully assume their responsibilities at the animal production stage of the food chain to produce safe food
- Recommends good practices to address hazards associated with animal feed
Section 4 – Animal Feeding and Watering

- 4.1 Common measures
- 4.2 Addressing biohazards
- 4.3 Addressing chemical hazards
- 4.4 Addressing physical hazards
Performance of Veterinary Services (PVS)

PVS Pathway Cycle for the Strengthening of Veterinary Services

**ORIENTATION**
- A: Sub-Regional Orientation Training Workshop
- B: Sub-Regional Lessons Learnt Workshop

**EVALUATION**
- A: PVS Evaluation
- B: PVS Evaluation Follow Up
- C: PVS Self-Evaluation
- D: PVS Evaluation (Aquatic)
- E: Specific Content (pvp)

**PLANNING**
- A: PVS Gap Analysis
- B: PVS Strategic Planning Support

**TARGETED SUPPORT**
- A: One Health Integration (PVS/IHR)
- B: Veterinary Legislation Support
- C: Sustainable Laboratories
- D: Veterinary and Paraprofessional Education
- E: OIE National Focal Points Training
PVS Principles

- The OIE PVS Pathway is a **continuous process** to sustainably improve national Veterinary Services

- Missions are **voluntary** (Official request from OIE National Delegate)

- Purpose:
  - Assess compliance with OIE standards
  - Identify strengths / weaknesses and areas for improvements

- Report is country property (can be kept confidential)

- PVS Evaluation Tool: Four fundamental components (6–13 critical competencies for each component):
  - Human, physical and financial resources
  - Technical authority and capability
  - Interaction with stakeholders
  - Access to markets
PVS Tool for Evaluation


II-11 Animal feed safety

The authority and capability of the VS to regulate animal feed safety e.g. processing, handling, storage, distribution and use of both commercial and on-farm produced animal feed and feed ingredients.

This includes feed safety risks such as swill feeding, feeding by-products, ruminant feed bans, the use of antimicrobials in feed, as well as managing risks of microbial, physical and toxin contamination of feed.

Levels of advancement

1. The VS cannot regulate animal feed safety.
2. The VS have some capability to exercise regulatory and administrative control over animal feed safety.
3. The VS exercise regulatory and administrative control for most aspects of animal feed safety.
4. The VS exercise comprehensive and effective regulatory and administrative control of animal feed safety.
5. The control systems are regularly audited, tested and updated when necessary.
PVS Tool for Evaluation

- Section II – 11 Animal Feed Safety

Animal Feed Safety Critical Competencies in Asia-Pacific Region (n=12)
PVS Tool for Evaluation

- Section II – 11 Animal Feed Safety

- General Findings Noted
  - The issue of animal feed safety is not adequately addressed
    - Incomplete / lack of feed safety legislations and regulations
    - Incomplete / lack of national standards
    - Lack of systemic programme for inspection and testing
    - Incomplete / lack of infrastructure and technical capacities to undertake regulatory control
  - Incomplete / lack of record and update for traceability
  - Reports on animal feed safety control and reviews are not available

*Recommendations had been given based on different countries situation*
Actions Needed for Member Countries on Animal Feed Safety

- Ensuring implementation of relevant recommendations in the standards regarding control of hazards in animal feed
- Ensuring national guidelines on good agricultural practices and good manufacturing practices are followed
- Countries without such guidelines are encouraged to develop or adopt suitable international standards or recommendations
- Enhancing traceability of animal feed
Conclusion

- Animal feed is a critical component of the food chain that has a direct impact on animal health and welfare and also on food safety and public health.

- The OIE will –
  - Consider to organise further workshop on animal feed safety
  - Continue to cooperate with partners such as FAO in development and promotion of international standards and guidelines.
Further Information

- OIE Terrestrial Animal Health Code

- OIE Aquatic Animal Health Code

- OIE-FAO Guide to Good Farming Practices
  [http://www.oie.int/fileadmin/Home/eng/Food_Safety/docs/pdf/GGFP.pdf](http://www.oie.int/fileadmin/Home/eng/Food_Safety/docs/pdf/GGFP.pdf)

- PVS Evaluation
Thank you for your attention

Dr Jeremy Ho
Secondment Officer
OIE Regional Representation for Asia and the Pacific