



Canadian Food  
Inspection Agency

Agence canadienne  
d'inspection des aliments

## Canadian Food Inspection Agency



### **Our vision:**

To excel as a science-based regulator, trusted and respected by Canadians and the international community.

### **Our mission:**

Dedicated to safeguarding food, animals and plants, which enhances the health and well-being of Canada's people, environment and economy.

## ***Joint FAO/WHO Expert Meeting on Hazards Associated with Animal Feed***

***Rome, 12-15 May 2015***

Canada

# Objective and Scope

- ✓ Jointly organized by FAO and WHO
- ✓ In line with overall aims of securing feed and food safety and ensuring fair practices in the trade of feed and food
- ✓ To provide update on current state of knowledge on hazards associated with feed (including feed and feed production technologies)
  - ✓ Focus on newer feed sources, or those of increasing relevance, such as insects, former food and food processing by-products and biofuel by-products
- ✓ To provide guidance on use for risk analyses purposes
- ✓ To identify knowledge gaps
- ✓ To prioritize future work on the identification of potential hazards of global concern from the perspective of human and animal health

# Prioritization of Hazards

- ✓ Did not prioritize hazards
- ✓ Rather emphasized this should be undertaken on a **country by country basis taking into consideration the specific situation**, including feed sources and production systems and the guidance on prioritization of hazards in feed developed by *Codex Alimentarius*
- ✓ Highlighted the changing environment in which feed is now being produced and used, changes in climate, farming practices or the increasing use of different feed sources and feed production technologies
- ✓ Need to regularly review the potential hazards from these feed sources, to be aware of the potential for new hazards to emerge and be ready to take the necessary steps to manage these

# Analytical Methods

- ✓ Recognized the breadth of information on analytical methods for detection of hazards and challenges it presents for countries access and understand knowledge relevant for animal feed
- ✓ Many existing methods for hazard detection have not been validated for all relevant feed and feed ingredients
- ✓ No reliable methods are available for many identified hazards
- ✓ Meeting developed a table of information as a unique reference on the methods available specifically for hazards in feed and the scope of their application

# Hazards Considered

## ✓ Chemical Hazards

- Persistent organic pollutants such as Dioxins, PCBs
- Veterinary Drug residues – cross-contamination
- Organochlorine and other Pesticides
- Metals and potentially toxic elements
- Mycotoxins
- Plant Toxins
- Other potential and emerging chemical hazards including brominated flame retardants and perfluorinated compounds

## ✓ Biological Hazards

- *Salmonella*
- *E. coli*
- *Listeria*
- *Brucella*
- *Clostridium spp*
- *Mycobacterium*

# Hazards Considered cont.

## ✓ Physical Hazards

- Nanomaterials
- Radionuclides
- Packaging Materials
- Micro- and nano- plastics

## ✓ Hazards of feed and products of feed production technologies of increasing relevance

- Insects as Feed
- Food Waste and Former Food-Products
- Biofuel Wastes
- Aquatic Plants
- Marine Resources

# Recommendations

Recommendations are grouped into like categories:

- ✓ Needs for International Standards
  - Targeted to various Codex Committees for setting MRLs for contaminants of concern in feed as they pertain to food safety
- ✓ With regard to feed sources and technologies of increasing relevance to the feed sector
  - Targeted to FAO, WHO and Member Countries:
    - To develop guidelines for the safe production and use of new feeds, products of new technologies/processes, and waste products,
    - To establish quality control measures in processing plants when by-products move into the feed chain

# Recommendations cont.

- ✓ To support risk assessment of hazards in animal feed
  - Targeted to FAO, WHO, Codex, OECD and Member Countries:
    - to improve sampling approaches and data collection
    - to improve risk assessment techniques and practices
    - to encourage regulators to require feed safety considerations as part of data packages for products such as pesticides and veterinary drug approvals
    - committees for setting MRLs for contaminants of concern in feed

# Recommendations cont.

- ✓ Research Needs
  - Targeted to scientific community and Member Countries for research on identifying, characterizing, determining occurrence and prioritizing potential hazards where there are gaps
    - Environmental pollutants
    - Plant toxins
    - Byproducts from biofuels and other raw materials
    - Nanomaterials in feed and nanoparticles from the environment

# Next Steps

- ✓ Future Work Needed
  - Hazards in feed of particular concern for animal health and productivity, taking into consideration the need to ensure food security
  - Other risks to human health, such as occupational health issues, and when feasible their inclusion in feed risk assessment
  
- ✓ Document being finalized and will be available for circulation soon

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