

Standards on Animal Materials Detection in Feedstuffs in China and Present Testing Situation in the Laboratory of CIQ Shanghai

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- **Administration of Quality Supervision, Inspection and Quarantine** (AQSIQ).
- China Inspection and Quarantine (CIQ)
- CIQ Shanghai= Shanghai Entry-Exit Inspection & Quarantine Bureau



- Feedstuff safety is an issue of great concern all over of the world. Many countries have undertaken measures to ensure the safety of feedstuffs because of the threat of BSE and scrapie.



- To date, BSE and scrapie have not been reported in China; therefore, China enhanced management of the imported feedstuffs derived from bovine and ovine products.



1. Law and Rules in China



Law of people's Republic of China on the Entry and Exit Animal and Plant Quarantine	Measures for the Administration of the Safety and Health of the Feed Products from Animal Sources	Administrative Rule of the Inspection, Quarantine and Supervision for Entry-exit Feedstuffs and Feedstuffs Additives
Effective date: 04-01-1992 Published by State Council of people's Republic of China.	Effective date: 10-01-2004 Department: Ministry of Agriculture of China	The rule is in the stage of asking for advice publically. Effective date: about 2009. Department: AQSIQ



- The import of feedstuffs in China is regulated by ***Law of people's Republic of China on the Entry and Exit Animal and Plant Quarantine.***



- The AQSIQ stipulates that the feedstuffs imported from the listed countries where BSE or scrapie has been reported must not contain bovine- or ovine-derived materials. Further, bovine meat and bone meal (MBM) must not be detected in whey powder.



- Before importing feedstuffs, it is necessary that the importer obtains the **Permit of the Quarantine of Entry Animals and Plants** from AQSIQ.



- After the imported feedstuffs arrive at the Chinese port, the AQSIQ inspects the cargo as per the requirements the Permit.



- If the bovine- and ovine-derived materials were detected in the feedstuffs, the cargo is denied entry into the Chinese market.

Two choices:

- Be transported back to the country of import .
- Destroyed: burned or buried.



- For the feedstuffs exported from China to other countries,
- If the foreign consignee asks for an inspection certificate stating that the feedstuffs do not contain bovine- and ovine-materials, AQSIQ analyzes it.
- If bovine- and ovine materials are detected, the cargo is not permitted to export.



- In 2008, AQSIQ drafted a rule stating in details the requirements regarding the inspection, quarantine, and supervision of entry and exit feedstuffs and feedstuff additives.
- It is required that the imported feedstuffs and feedstuff additives should be inspected according to the stipulations regarding the acquisition of the Permit.



- Public opinion and comments regarding this administrative rule has been sought. Hopefully, the rule will be implemented in 2009.



- For the domestic production and management of feedstuffs, the Ministry of Agriculture of China published the **Measures for the Administration of the Safety and Health of the Feed Products from Animal Sources** in October, 2004. The rules stipulated that the feed products from animal sources are forbidden to be used in ruminant feedstuffs, except for the milk and milk-derived products.



2. Testing Standards

- National Standards (GB/T)
- Inspection and Quarantine standards (SN/T)
- All based on PCR
- The pertinent methods are GB/T 20190-2006, GB/T 21101-2007, and SN/T 1119-2002.



The detection standards for animal-derived products in China

No.	Standard No.	Standard Name
1	GB/T 20190-2006	Detection of bovine, sheep and goat- derived material in feeds — Qualitative polymerase chain reaction (PCR) method
2	GB/T 21101-2007	Identification of porcine derived materials in animal-originated feedstuffs—PCR method
3	SN/T 1119-2002	Identification of bovine, sheep and goat derived materials in import animal derived feedstuff—PCR method
4	GB/T 21100-2007	Identification of Camelidae derived materials in animal-originated feedstuffs—PCR method
5	GB/T 21102-2007	Identification of rabbit derived materials in animal-originated feedstuffs—Real time PCR method
6	GB/T 21103-2007	Identification of mammal derived materials in animal-originated feedstuffs—PCR method

The detection standards for animal-derived products in China

7	GB/T 21104-2007	Identification of Ruminantia derived materials in animal-originated feedstuffs—PCR method
8	GB/T 21105-2007	Identification of Canis derived materials in animal-originated feedstuffs—PCR method
9	GB/T 21106-2007	Identification of Cervus derived materials in animal-originated feedstuffs—PCR method
10	GB/T 21107-2007	Identification of horse and donkey derived materials in animal-originated feedstuffs—PCR method
11	SN/T 2051-2008	Determination of bovine, ovine, porcine-derived materials in food, cosmetic and feed—Real-time PCR method

- These standards are applicable not only for the inspection and quarantine of entry and exit feedstuffs but also for animal variety identification and false appraisal.



3 . Animal Materials Detection Review in CIQ Shanghai Between 2005-2008



2005

- The total samples are 53, including 42 imported samples and 11 domestic samples.
- 13 samples were found to contain bovine/ovine/chicken materials.



2006

- The total samples are 130,
- including 106 imported samples and 24 domestic samples.
- 23 samples were found bovine/ovine/chicken materials.



2007

- The total numbers are 110,
- including 91 imported samples and 19 domestic samples.
- 8 samples were found to contain bovine/ovine/porcine/chicken products.



2008

- The total numbers are 223,
- including 176 imported samples and 47 domestic samples.
- 17 samples were found to contain bovine/ovine/porcine/chicken products.



4 Some Typical Examples



4.1 Variety Identification for the meat smuggled from Japan

4.2 Detection of bovine products in porcine cartilage imported from USA

4.3 Ovine material detection of bovine MBM imported from USA

