# Ractopamine in food

#### Centre for Food Safety 17 June 2016





## Ractopamine and its usage

- A veterinary drug (a beta-adrenergic agonist)
- Used as a feed additive to promote growth and increase muscle leanness
- JECFA has evaluated the safety of ractopamine
  - Not direct carcinogen nor intrinsically genotoxic
  - ADI: 0-1 mcg/kg bw/day
- Food safety concern is low compared to other beta agonists (e.g. clenbuterol and salbutamol – prohibited substances)
  - Shorter half-life in blood
  - 🔰 Eliminate faster from the body





# Food Safety standards for Ractopamine - Codex

Codex has established MRLs for Ractopamine hydrochloride in various tissues of cattle and pig

| Cattle<br>Tissue | MRL<br>(µg/kg) | Pig Tissue                  | MRL<br>(µg/kg) |
|------------------|----------------|-----------------------------|----------------|
| Muscle           | 10             | Muscle                      | 10             |
| Liver            | 40             | Liver                       | 40             |
| Kidney           | 90             | Kidney                      | 90             |
| Fat              | 10             | Fat (include fat plus skin) | 10             |





#### **International situation**

- Ractopamine is permitted for use in food producing animals in over 20 countries or jurisdictions (e.g. Australia, US, Canada, Japan)
- However, its use in food producing animals is not yet permitted in some other countries or jurisdictions (e.g. Mainland China and EU countries)





## Local situation (1)

- Ractopamine hydrochloride has been registered as a pharmaceutical product in Hong Kong since 2007 for use in pigs as a growth promoter under a prescription given by a registered veterinary surgeon
- The Harmful Substances in Food Regulations (Cap. 132AF) governs the import and sale of food containing harmful substances (most are veterinary drugs):
  - Schedule 1: 41 substances MRLs in food (38 are VDs)
  - Schedule 2: 7 prohibited substances (All 7 are VDs)
- Ractopamine is not listed in either schedules of the Harmful Substances in Food Regulations (Cap. 132AF)





## Local situation (2)

- For veterinary drugs that are not listed in the schedules, a risk assessment will be conducted if detected in food of animal origin
- Section 54 of the Public Health and Municipal Services Ordinance (Cap 132) applies:
  - All food intended for human consumption for sale in Hong Kong, whether imported or locally produced, must be fit for human consumption
- CFS has established action levels for ractopamine in various animal products making reference to Codex standards





### Key points to note (1)

- Ractopamine as a feed additive aids in the efficient production of lean meat in some food animals
- Inappropriate use of ractopamine may leave residues in edible tissues that are of health concern for consumers
- Trade should source meat and meat products from reliable suppliers
- Trade should ensure that imported meat is accompanied by a valid health certificate from an approved source





### Key points to note (2)

CFS has established action levels for ractopamine in various animal products, making reference to Codex standards:

| Cattle Tissue | MRL (µg/kg) | Pig Tissue                  | MRL (µg/kg) |
|---------------|-------------|-----------------------------|-------------|
| Muscle/meat   | 10          | Muscle/meat                 | 10          |
| Liver         | 40          | Liver                       | 40          |
| Kidney        | 90          | Kidney                      | 90          |
| Fat           | 10          | Fat (include fat plus skin) | 10          |

Overseas suppliers and trading partners are reminded of the need to comply with Hong Kong legislation and make reference to CFS action levels when supplying food to the local market









