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 Tissue	MRL (µg/kg)	Pig Tissue	MRL (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





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