

## LCQ9: Safety issues relating to leanness-enhancing agents

Following is a question by the Hon Starry Lee and a written reply by the Secretary for Food and Health, Professor Sophia Chan, in the Legislative Council today (November 11):

Question:

Beta-adrenergic agonists (commonly known as "leanness-enhancing agents") may promote growth and muscle leanness in certain food animal species. Some experts have pointed out that leanness-enhancing agents cannot be reduced through rinsing or cooking, and human consumption of meat containing an excessive quantity of leanness-enhancing agents will cause rapid heart beats, hand tremors, etc. Patients suffering from heart problems or thyrotoxicosis may develop serious complications, including dizziness and heart failure. Due to food safety considerations, the Mainland and the European Union (EU) have all along banned the use of leanness-enhancing agents as feed additives for pigs. It has been reported that the Taiwan authorities have decided to allow the import of pork and beef containing ractopamine (a kind of leanness-enhancing agent) from the United States starting from January 1 next year, which has aroused concerns among the local community. In this connection, will the Government inform this Council:

(1) of (i) the respective numbers of samples of imported pork and beef, offal and processed meat products (collectively referred to as "meat and meat products") taken for testing the concentration of leanness-enhancing agents therein, and (ii) the number of samples found to have a concentration exceeding the limits, the types of food involved and the situation of exceedance, in each of the past three years;

(2) whether it will, in the light of the aforesaid decision of the Taiwan authorities, step up the sampling tests on the meat and meat products from Taiwan starting from January 1 next year; if so, of the details; if not, the reasons for that; and

(3) whether it will, by following the practice of the Mainland and EU, amend the food safety legislation to impose a total ban on the import of meat and meat products containing leanness-enhancing agents; if so, of the details; if not, the reasons for that?

Reply:

President,

Beta-agonists ( $\beta$ -agonists) (commonly known as "leanness-enhancing agents") can promote growth and increase muscle leanness by inducing a redistribution of fat to muscle tissues in certain food animals such as pigs

and cattle. In the 1990s, a  $\beta$ -agonist, Clenbuterol, was used in animal husbandry in various regions, and its residue in food animal tissues led to acute food poisoning outbreaks. Having made reference to the standards of the Codex Alimentarius Commission (Codex) and most other regions, Hong Kong amended the legislation in 2001 to prohibit the use of Clenbuterol and a similar  $\beta$ -agonist, Salbutamol, in food animals, as well as the import and sale of any meat containing these two  $\beta$ -agonists for human consumption.

Another  $\beta$ -agonist, Ractopamine, was later introduced for use in animal husbandry in various places. Compared with Clenbuterol and Salbutamol, Ractopamine has a much shorter half-life in animal blood. An oral dose of Ractopamine can be rapidly absorbed, circulated in blood and quickly excreted in urine with a very low level of tissue residue in the animal. If Ractopamine is used properly in food animals, the meat derived is safe for human consumption.

The Codex has set standards on the safe intake of Ractopamine from food for international reference. For cattle and pigs, the maximum residue limits (MRLs) for Ractopamine in the muscle, liver and kidney are 10, 40 and 90  $\mu\text{g}/\text{kg}$  respectively, while that in the fat of cattle and fat with skin of pigs is 10 $\mu\text{g}/\text{kg}$ . The Centre for Food Safety (CFS) of the Food and Environmental Hygiene Department also made reference to the Codex standards and established the same action levels for Ractopamine residue in the tissues of food animals in 2016.

At present, while Ractopamine is not permitted for use in food animals in certain regions such as the Mainland, Taiwan and the European Union, it is approved to be added to animal feeds at the recommended concentrations in over 20 countries such as the United States, Brazil, Canada, Australia, New Zealand, South Korea, etc. for increasing lean meat in food animals, same as the arrangement in Hong Kong.

My reply to the various parts of the question is as follows:

(1) The CFS has all along been taking samples at the import, wholesale and retail levels for chemical and microbiological testing on a risk-based principle under its routine Food Surveillance Programme to ensure that food products comply with local regulations and are fit for human consumption. In 2017, 2018 and 2019, the CFS collected respectively 190, 202 and 194 samples of pork, beef and related products (including offal) for testing of  $\beta$ -agonists (including Clenbuterol, Salbutamol and Ractopamine). The testing results of all 586 samples were satisfactory. During the same period, the CFS did not receive any report of food poisoning cases involving  $\beta$ -agonists.

(2) According to reports, the Taiwan authorities plan to permit imports of pork containing Ractopamine with MRLs on par with the Codex standards. The CFS's relevant action levels for Ractopamine in pork are also based on the Codex standards. Hong Kong has not imported fresh, chilled or frozen meat from Taiwan. As for meat products from Taiwan, the CFS will continue to adopt a risk-based approach to take samples for testing under its routine Food Surveillance Programme.

(3) Under the Public Health (Animals and Birds) (Chemical Residues) Regulation (Cap. 139N) and the Harmful Substances in Food Regulations (Cap. 132AF), Clenbuterol and Salbutamol are prohibited substances in food animals and meat respectively. For Ractopamine, as mentioned above, the Codex has set standards on its safe intake from food for international reference, and the CFS has made reference to the Codex standards and established the same action levels for Ractopamine residue in the tissues of food animals. Ractopamine contained in all locally produced or imported pork, beef and related products should not exceed the action levels, and the CFS would take appropriate follow-up actions against any irregularities found. The CFS and the Agriculture, Fisheries and Conservation Department will continue to monitor the latest international risk assessment statistics on the use of  $\beta$ -agonists for promoting muscle growth in food animals, and review the situation in Hong Kong in a timely manner.