

TIGHTER CONTROLS ON RACTOPAMINE IN PORK AND BEEF PRODUCTS

Russia announced in December 2012, that beef, pork and turkey imports would be halted, unless the meat is certified to be free of ractopamine. Since then, the European Union and China have imposed import restrictions on certain meat products.

WHAT IS RACTOPAMINE?

Food additive ractopamine, is a beta-agonist that increases protein synthesis in mature animals, to increase muscle growth and improve feed efficiency, thereby reducing the number of days animals spend on feed.

WHY THE CONCERN?

High levels of ractopamine consumption have been linked to cardiovascular effects and behavioural changes in both humans and pigs. Ractopamine is not for use in humans for any medical purposes.

Ractopamine is the active ingredient in products marketed as Paylean™ for swine and Optaflexx™ for cattle, by Elanco Animal Health, a division of Eli Lilly. Its use as a growth promoter is currently allowed in 25 countries worldwide.

Following imports of meat products with unacceptable levels of ractopamine in 2012, from several countries the use of ractopamine is now restricted in the Russian Federation. Its presence in meat products, in any quantity above 0.1-1mg/kg, is not acceptable and any such products will be destroyed, recycled or, where possible, re-exported.

MARKET IMPACTS

The USA exports about \$500 million worth of beef and pork to Russia each year. For producers, processors, importers and exporters of animal-based food products and feed, the risk of failing to comply with legally permitted maximum limits can affect not only a brand but profits in the USA and internationally.

The Codex Alimentarius Commission has set new maximum residue limits (MRLs)



for ractopamine in pig and cattle tissue, in an effort to improve the trade of meat containing the growth substance. Codex regulation allows no more than 10 parts per billion (ppb) for muscle cuts of beef and pork. The USA's Food and Drug Administration's limit is 30 ppb for beef and 50 ppb for pork.

China has imposed import restrictions on meats containing ractopamine. There is currently no applicable legislation on ractopamine, but in 2011, six government departments issued a joint announcement banning its production and sales of ractopamine. Consequently, meat producers and consumers are increasingly paying attention as to whether their products contain this illegal animal feed additive.

In Brazil, the use of ractopamine is prohibited in cattle. It can be used in pork, unless it is destined for countries like Russia, which have banned this additive.

TESTING DEVELOPMENTS

To meet the needs of meat producers, importers and exporters, SGS has developed ractopamine level testing for meat tissue and feed products. Ractopamine testing uses High Performance Liquid Chromatography (HPLC), with fluorescence, based on Elanco methodology, for both medicated levels and residues in feed, with a limit of quantification of 2.5g/ton for feed.

Using in house validation, and the USDA Food Safety and Inspection Service CLG-AGON1.03 method, HPLC-MS/MS (tandem mass spectrometry) is used to achieve even greater sensitivity in determining ractopamine levels in both meat tissue and liver with a level of detection of 0.5 ppb.

In the USA, SGS Brookings also has extensive knowledge and understanding of matters relating to drug residue issues in feed, and can provide testing to ensure the safety of livestock products. Besides Ractopamine, this laboratory has the ability to detect other residue levels of antibiotics and contaminants.

Other SGS laboratories in our global network, including Shanghai, have ractopamine testing capabilities.

FOOD SAFETY EXPERTISE

As a world-leader in food safety, we have an international, multi-lingual network of specialists ready to share their expertise and help you raise standards. We can ensure that your meat products meet local and international regulations.

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