

L.20.- Requirements of markers in the frame of the EU animal by-product regulation

G. López-Gálvez¹, S. Strathmann², M. Magumu³, C. von Holst⁴, E. Anklam⁵

¹ IRMM DG JRC European Commission, B-2440 Geel, Gloria.Lopez-Galvez@cec.eu.int

² *idem*, Stefan.Strathmann@henkel.com

³ DG SANCO, European Commission, Rue de la loi 200, B-1049 Bruxelles, Moustapha.Magumu@cec.eu.int

⁴ IRMM DG JRC European Commission, B-2440 Geel, Christoph.von-Holst@cec.eu.int

⁵ *idem*, Elke.Anklam@cec.eu.int

Within the European Union the safe use of animal by-products that are not intended for human consumption is laid down in the Regulation (EC) No 1774/2002. The main aim of the Regulation is to prevent animal by-products (ABP) from presenting a risk to animal or public health through the transmission of diseases. This aim is achieved by rules for the collection, transport, storage, handling, processing and use or disposal of animal by-products and the placing on the market, export and transit of animal by-products and certain products derived from them.

The Regulation divides animal by-products into three categories, with risk decreasing from category 1 to category 3. The Regulation stipulates that each category of ABP must be identified and kept separate during collection and transportation. Also it specifies that the processed products derived from category 1 and category 2 (with some exceptions) must be permanently marked, where technically possible with smell, using a system approved by the competent authority.

As a request of DG SANCO, the Joint Research Centre is searching for a valid marker for the mentioned ABP items. The marker has to comply with certain technical requirements such as being visible and olfactory detectable, non toxic, safe for handlers, commercially available, inexpensive, stable, recoverable and easy to analyse, etc. A survey was done throughout the EU Member States to assess the state-of-the-art of the use of markers for the different ABP categories. It was concluded that both colours and odours are used for marking ABPs in the slaughterhouses. But none of the presently used markers would survive to the required legal processing conditions in a rendering plant.

In 2001 the JRC proposed the artificial marker Glyceroltriheptonate (GTH), which is a triglyceride containing three heptanoic acids. This marker would allow for traceability of the ABPs from the slaughterhouse to the processed products such as meat and bone meal because this substance withstands severe sterilisation conditions as required in European legislation. Furthermore, the GTH has been used for several years as anhydrous butter marker, and therefore it meets safety and toxicity requirements. Both JRC and industry have already conducted some experiments using the GTH as ABP marker and found that:

- it mixes well with lipophilic dyes and can be added to raw material,
- it proves to be stable under sterilisation conditions in an autoclave,
- it can be recovered from both rendered fat and meat and bone meal (MBM).

Experimentation is still being carried out to test water soluble dyes to mix with the GTH, to validate the analytical method for the GTH, the dye and the smell, and to test the practical application in slaughterhouses and rendering plants, taking into account current marking practices in Member States. The GTH marker used as complement of a colour/odour system, in both ABPs in the slaughterhouse and those processed products derived from them, would ensure identification and traceability of products intended for disposal, avoiding possible risk of fraud and reassuring consumers of the safety of the food/feed chain. The principle is that any material (MBM or fat) containing GTH will not be considered suitable for use in food or feedingstuffs. Currently the JRC is working together with DG SANCO, Member States' representatives and the industry on the implementation of the proposed marker system

Key words

Regulation (EC) No 1774/2002, Animal By-Products, Marker, GTH, Dye