

P08

The issue of packaging material in former food products

L.W.D. van Raamsdonk, V. Pinckaers, J. Vliege, H.J. van Egmond

RIKILT-Institute of Food Safety
Wageningen UR (University & Research centre)
P.O. Box 230, 6700 AE Wageningen, The Netherlands

E-mail:Leo.vanraamsdonk@wur.nl

Abstract Remnants of packaging materials in former food products (FFP) are prohibited in the European Union according to Regulation (EC) 767/2009. In the Netherlands a major category of former food products consists of 300 000 Metric Ton of bakery products, and minor shares of cocoa products and sweets (as syrups). The bakery products are predominantly intended as feed material for pig feeds. These FFPs are being used for reasons of sustainability.

A method has been developed and validated at RIKILT for bakery products, including sweet bread and raisin bread. The method of analysis for remnants of packaging materials in bakery products, developed and validated at RIKILT, can briefly be summarised as: 1) visual selection of undesired ingredients which can be identified as remnants of packaging materials, 2) weighing of the selected materials, 3) defatting, 4) dehydration, 5) final weighing, 6) reporting of weight and percentage. In all cases the total amount of the sample material was investigated, which is usually 500 grams. This procedure prevents inhomogeneity of the sample to be a problem.

The quantification limit of the method is established at 0.01% w/w with an average recovery of 95.5 % at a contamination level of 0.15 % w/w. The standard deviation of the intra-laboratory reproducibility was SW, $0.15 = 0.012$ % w/w.

A total of 160 samples of bakery products were investigated in the Dutch monitoring program for feed materials (2005-2010). An annual average between 0.03 % w/w and 0.06 % w/w was found. More than 95 % of the samples remained under the level of 0.15 % w/w.

Risks for animals, humans and for the environment are evaluated. The highest relative risk resulting from the analysis is 6 (for printing inks) on a scale between zero and 27. It was concluded that paper and board as matrix show a reasonable good digestibility, which results in the absence of risk at the contamination levels found. The situation for plastic is more complex.

On the basis of the evaluation in this study of packaging materials in FFP intended for animal feed, the following aspects can be pointed out:

The evaluated risks are limited; further attention is required for some specific risks.

Unpacking procedures for former food products are well established and maintained in the Netherlands.

A tolerance limit higher than zero can sufficiently be monitored by means of the existing control method for the category of former food products with the largest annually produced amount (i.e. bakery products).

L.W.D. van Raamsdonk, R. Rijk, G.P.J. Schouten, W. Mennes, G.A.L. Meijer, A.F.B. van der Poel, and J. de Jong, 2011. A risk evaluation of traces of packaging materials in former food products intended as feed materials. Report 2011.002, RIKILT, Wageningen, pp.

L.W.D. van Raamsdonk, V. Pinckaers, J. Vliege, H. van Egmond, 2012. A validated method for screening on packaging materials in bakery products. Report 2012.###, RIKILT, Wageningen, pp.