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Development of food fraud media monitoring system based on text mining.

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Abstract

Food fraud is receiving considerable attention with the growing body of literature that recognises its importance. No system exists that collects media reports on food fraud. In this study, we used the infrastructure provided by the European Media Monitor (EMM), in particular it's MedISys portal for this purpose. We developed a food fraud tool (MedISys-FF) that collects, processes and presents food fraud reports published world-wide in the media. MedISys-FF is updated every 10 minutes 24/7. Food fraud reports were collected with MedISys-FF for 16 months (September 2014 to December 2015) and benchmarked against food fraud reports published in Rapid Alert for Food and feed (RASFF), Economically Motivated Adulteration Database (EMA) and HorizonScan. The results showed that MedISys-FF collects food fraud publications with high relevance > 75% and the top 4 most reported fraudulent commodities in the media were i) meat, ii) seafood, iii) milk and iv) alcohol. These top stories align with those found in RASFF and EMA but differences in frequency are apparent. Analysis of the collected articles can help understanding food fraud issues in the origin countries and can facilitate the development of control measures and to detect food fraud in the food supply chain.

Keywords: RASFF, EMA, MedISys, HorizonScan, Food adulteration.

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