

The Necessity of Laboratory Analyses to Verify the Authenticity of Halal Products

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ABSTRACT

The concern of food safety, authenticity and adulteration has resulted in increased awareness regarding the composition of food products. The identity and source of the ingredients in processed or composite mixtures is not always readily visible. Most frequently, pork meat and its by-products have been used to substitute other ingredients in food products. Hence, verification that the components are authentic and from sources acceptable to Muslim consumers are indeed essential. Sensitive and reliable methods for detection of halal products adulteration are of paramount importance for implementation of halal food labelling, regulations and products quality control. Various techniques have been proposed for the analysis of pork, lard, khamr and gelatine including DNA-based methods, gas chromatography, liquid chromatography, differential scanning calorimetric and fourier transform infrared spectroscopy. Some of the techniques were validated and accredited with MS 17025 to potentially complement the existing verification and monitoring mechanisms for halal products certification.