

Analytical approaches of meat authentication in food

ABSTRACT

Meat industry sector is likely exposed to illegal practices which involve replacement of meat ingredients with other animal species. Meat products are commonly modified during processing, and the cases have been rampant in certain part of the world. Meanwhile, individual consumption patterns are affected by religious belief and health reason. For instance, Muslims and Jews are prohibited from consuming pork and allergic reaction to certain meat species affects choices of meat products. Thus, food authentication is vital as it offers protection to consumers from fraudulent act. Numerous authentication techniques have been developed to tackle food fraud issues. Authentication methods are categorised mainly as targeted analysis which provides quantitative outcome and non-targeted analysis which offers qualitative result. In the present review, both targeted and non-targeted analyses for meat species authentication are discussed based on previous research conducted using these methods and how they serve the purpose for authentication.