

FIGHTING FOOD FRAUD – WHEN ALL YOU HAVE IS A HAMMER, EVERYTHING LOOKS LIKE A NAIL

Petter Olsen^{1*}

¹ Nofima, Tromsøe, Norway

*Corresponding author - E-mail: petter.olsen@nofima.no, Phone: +4790698303

A significant challenge related to food misdescription in general, and food fraud in particular, is that many scientists who work in the field have extensive experience with specific methods and approaches, and they are mainly addressing the food fraud aspects that can be detected by the methods they already know. While extended application of existing methods and knowledge is a good thing, it becomes a problem when food fraud is more or less defined as that which can be detected by existing methods. Food fraud is not necessarily a food safety issue, and food fraud cannot necessarily be detected by the methods used in the food safety field. Many common food fraud issues may not have an analytical component at all; for instance when the fraudulent claim is related to original amount, weight or value, exact geographical origin, eco-label status, halal / kosher status, ethical production, or sustainable production. While some of these claims may have an analytical component, it is fairly obvious that other methods and approaches are needed in addition if the entirety of the claim is to be verified. This presentation outlines a more holistic approach to food fraud, where we start with the whole problem, and look at examples of food fraud that cannot be detected analytically, and what methods are needed for detection and prevention in those areas. The captured fish industry is a particularly relevant example here, as illegal, unreported and unregulated (IUU) fishing is a very real and quite extensive problem worldwide, and this necessarily leads to fraud when the fish with IUU origin enters the legal supply chain. This type of fraud is very difficult to detect at later stages in the supply chain (and impossible to detect analytically), but there are paper-trail based methods under development (mass balance accounting, input-output analysis) that can accompany analytical methods, and that can help detect and prevent fraud also in other food chains.

Keywords: *Food fraud, Traceability, Mass balance accounting, Input-output analysis*