

From Solid to Liquid Deep Frying: The Technical Impact

A.J. van den Briel MSc, Food4U, Vlaardingen, The Netherlands.

Reduction of trans fatty acids (TFA) and saturated fatty acids (SAFA) on a broad scale in the food industry in the Netherlands resulted in many technical changes.

In the end of the nineties the first major changes happened in the retail products, especially the margarines, low fat spreads and other fat containing products. Especially the reduction of TFA was in fact a major landslide.

Changing the products for the professional markets, like food service, industry and the artisanal bakery was an other piece of cake. Some products for the food service were easy to adjust to a lower level of TFA and, to a lesser content, also a lower level of SAFA. Reducing TFA and SAFA in the products for the (industrial) bakery was (and is) facing far more problems. Due to the technicality of these products a change needed far more research, testing and changing the attitude.

In the Netherlands deep frying is very popular. In the food service (hotels, restaurants, snackbars, etc.) many different products like potatoes, snacks etc. are deep fried prior to consumption. In the past solid fats, generally hydrogenated or partly hydrogenated, were used as a deep frying medium. These fats had many positive qualities, apart from the TFA and SAFA content however. Changing the type of frying medium in order to reduce TFA and SAFA intake became essential. An other landslide had to take place, a move from solid to a more liquid frying medium. And it happened!

Obviously, not only the self-regulation initiatives of the Dutch food industry let the change happen, but also a Task Force with governmental and non-governmental organisations. This Task Force stimulated campaigns to create consumer knowledge and demand.

This presentation will give an overview of the technical implications, changes and results within the oils and fats industry in order to reduce TFA and SAFA intake within the food service with a special focus on the move from solid to liquid deep frying.