The Economics of Fractionation

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Fractionation of oils and fats has got renewed interest in recent years since it offers new opportunities to obtain trans-free fractions that can substitute the classical partial hydrogenated, trans rich fats that were used until now in a lot of food products.

One of the main advantages of fractionation is certainly that it is a 'green' process since it is a purely physical separation of a semi-solid fat into a harder stearin fraction and a more liquid olein fraction. And in contrast to all other modification processes, it is also a reversible process.

Moreover, fractionation can be combined with other modification techniques, like chemical or enzymatic interesterification, to obtain a whole combination of different fat products with well defined melting characteristics and functionality.

In general, fractionation has a rather low process cost. However, what always should be kept in mind is the fact that there needs to be possible uses and market value for both fractions, oleins and stearins.

On the basis of some examples, an idea will be given about the processing and investment costs of the fractionation processes, and a comparison will be made with the costs of other available modification techniques that can be used to produce similar products.