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Nutritious butter like products

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Statement of the problem: Nutraceuticals are biologically active phytochemicals that provide medicinal benefits. Essential fatty acids such as linoleic, linolenic acid are considered as nutraceuticals, as they are involved in number of crucial functions in human body. However, they cannot be synthesized in the body. Hence, needs to be provided through certain diet products such as butter like products, fish oil, linseed oil etc. These essential fatty acids are highly unstable and undergo oxidation due to their chemical structure. Hence antioxidants needs to be used to prevent the oxidation. Natural antioxidants are preferred over synthetic antioxidants because of their medicinal benefits. Moreover, natural antioxidants are safe and does not have limit for its use unlike synthetic antioxidants. So far no work has been reported to use essential fatty acids and natural antioxidants in formulating butter like products, hence a detailed investigation was done in formulation such products, which can provide supplements and micronutrients to the consumers.

Methodology & Theoretical Orientation: In our study, butter like products were formulated using hydrogenated fat, water and vegetable oil containing essential fatty acids. Sunflower oil was used as a source of essential fatty acids. Natural antioxidants were added to restore the nutritive value of essential fatty acids. Glycerol monostearate was used as an emulsifier. The effect of variation of sunflower oil and hydrogenated fat as well as the added natural antioxidants was studied. The products were analysed for the rheological properties such as slipping point, dropping point, spreadability along with their oxidative stability.

Conclusion & Significance: The study indicates that butter like products containing essential fatty acids and natural antioxidant showed remarkable oxidative stability. Moreover, the products displayed acceptable rheological properties. Thus, consumers can gain advantage of essential fatty acids and the therapeutic benefits of the added natural antioxidants by consuming such product.

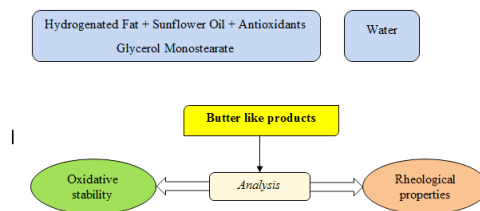


Figure 1: Formulation and analysis of Butter like products