

11th Global Summit on

Food & Beverages

September 22-24, 2016 Las Vegas, USA



Mervat I Foda

National Research Centre, Egypt

Chemical and nutritional evaluation of novel white soft cheese prepared by nano-fortified interesterified olein: Stearin vegetable butter

The aim of this research work was using nanotechnology to prepare and fortify vegetable butter to improve the absorption and bioavailability of added different micronutrients and to increase the nutritional value of dairy products. Zero trans fatty acids vegetable butter fortified by omega fatty acids, natural minerals, natural vitamins and natural antioxidants from plant extracts was prepared based on the interesterified olein: Stearin fat blend (70: 30 w/w) at 80°C for 45 minutes using 0.4 ml% of NaOH: glycerol: H₂O (1:2:3 w/w) as catalyst followed by using high pressure and high speed homogenizers. The interesterified blends were subjected to FTIR analysis to ensure the absence of trans-acids and the triglyceride structure and solid fat content were evaluated. Both vegetable butter samples and market margarine (25% and 50%) were applied to prepare soft white cheese which was evaluated for its quality, nano-fortification effect by chemical analysis, sensory evaluation and nutrition experiments. Our results showed that speed only vegetable butter substituted by cream (50%) significantly ($P < 0.05$) improved the appearance, body & texture and total acceptability of produced white soft cheese, while both concentrations of substituted cream obtained the highest color scores. Nutrition experiments results showed that both vegetable butter samples have beneficial effects on lipid profile levels.

Biography

Mervat I Foda got the Professor Position at Dairy Science and Technology Dept., National Research Center, Cairo, Egypt in 2010 and has received a PhD degree from Ain Shams University Cairo, Egypt and Swedish Licentiate from Food Engineering Dept., Lund University, Lund, Sweden in December, 1997. She has awarded Scholarship and Post-doc Fellowships from Institute of Industrial Fermentation, Madrid, Spain; Seibold University of Nagasaki, Japan (2001-2002), TWAS-CAS Fellowship from Chinese Academy of Sciences, Beijing, China, (2009). She has two patents entitled: "Production of Herby Soft Cheese", 2008 and "Formation of Dairy Beverage for Autistic Children", 2015. She has published a book chapter (2014) and more than 40 research papers in international journals. She was awarded a Bronze Medal in the First International Invention Fair of the Middle East, Kuwait in 2007; Distinguished Scientist Certificate, Minister of Higher Education and Scientific Research in 2007 and Distinguished Scientist Certificate, National Research Centre in 2010, 2012 and 2014.

mervat1m@yahoo.com