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Food Degradation in Cheeses: Correlation Between Initial Basic Parameters (Moisture, Fat, Proteins, Salt) and the Observable Shelf-Life

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The problem of food degradation has been recently examined with the problem of food durability in edible products, including the implementation of the Food Safety Modernization Act. A recent U.S. 'FDA's Draft Approach for Designating High-Risk Foods' has highlighted the importance of Growth Potential/Shelf Life evaluation when speaking of 'high-risk' status for foods. There has been remarkable attention to this topic in the literature. However, the general argument of shelf life in foods cannot be evaluated in the same way when speaking of different edible products for human consumption. The definition of food durabilities can be established by means of many approaches. The aim of this work has been to introduce a sort of mathematical correlation between some sensorial properties of the normal Italian mozzarella cheese and basic chemical parameters: moisture, fat content and the most probable amount of proteins. In addition, some correlation between water apparent increases and the added content of salt has been carried out. On the basis of obtained results, it may be concluded that the chemical composition of mozzarella cheeses can influence sensorial data on condition that organoleptic results are considered synergistically; the same condition should be also applied to chemical components. On the contrary, sensorial evaluations such as odour, colour or texture may be correlated with one or more chemical parameters with unsatisfactory correlation coefficients. In addition, the use of salt as ingredient is surely positive for commercial purposes. Regardless, further research is needed in order to support these conclusions.

Biography

Salvatore Parisi, PhD, obtained his PhD in 'Hygiene applied to the Evaluation and Management of Microbiological, Food and Environmental Risks', University of Messina, Italy. With relation to professional responsibilities, he is the Series Editor of the SpringerBriefs in Chemistry of Foods book series and an Editorial Board Member of different scientific Journals. His papers, books and software concern Packaging technology, Polymer Chemistry, Shelf Life Prediction and Food Microbiology (Italian Oxoid Award, 2001). In addition, he has conducted lectures near academic Institutes in Italy. He is a member of many national and international associations and institutions.

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