

Means for Prolonging the Stability of Frying Fats and Oils

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Considerable interest has been developed over the years in optimizing the frying process. This approach has yielded a better understanding of the process as a system: oil, food, fryer and the operation in general.

At the bottom line the only important thing is to produce a food with the desired sensory qualities and the right shelf life. Therefore, the medium oil is the most essential part of the food prepared. A fried product may absorb 5-40 % of its weight in fat. To ensure a constant quality of the fried food from batch to batch the heat and oxidative stability of the frying oil are important.

Beside this, we see new trends in consumer awareness and product development setting new standards for the requirements of frying oils. To meet these requirements of healthier food more and more trans free frying fats and oils or blends low in saturated fatty acids are emerging the market. Some are stabilized with natural or synthetic antioxidants. Filtering or the treatment with minerals are also proposed to extend frying oil life.

A study was conducted to evaluate the relationship between frying behavior and the fry oil composition. The effectiveness of some measures like filtering, replenishing with fresh oil or the stabilizing effects of additives were investigated. A laboratory test is proposed to predict the oxidative and heat stability of the oil.