High pressure thermal sterilization (HPTS) to overcome an old challenge: shelf-stable egg-based products

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Abstract

Producing a thermally sterilized egg-based product with increased shelf life without losing the sensory and nutritional properties of the freshly prepared product is challenging. Until recently all commercial refrigerated egg-based products were sterilized using thermal processing, but this heat treatment was a problem because it destroyed the quality of the product. Combining high pressure with moderate temperature for the production of shelf-stable egg-based products is a potential alternative to retorting. This review discusses the challenges of high pressure thermal sterilization as a sound food processing method. Attention is given to product improvement in overall quality through modification of ingredients, formulation, the process and packages, offering the industry a practical way to produce egg-based products with increased shelf life and appealing quality to the consumer.

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