



Case Study: Extending The Shelf-Life On Homemade Sauces (no. 5P89)

Objective:

The customer was developing home-made savoury and fruit sauces and needed to improve their shelf-life. The issue was rapid rancidity and mold growth which made the products unpalatable after a few weeks, even on storage at fridge temperatures.

Conclusion:

The process of manufacture was assessed from raw material supply, storage, through to recipe development and processing in the home kitchen. The HACCP principles were also covered to minimise risks associated with sauce development in the kitchen. One example of a tomato sauce was improved by replacing raw tomato with canned plum types and incorporating the preservative potassium sorbate into the formulation below the legal maximum to extend shelf-life. The customer learnt how to prepare a product specification and documentation was created to enable ingredient labelling to be produced once the customer was ready to launch. Samples were also checked for microbial contamination and the customer learnt how to interpret these results against the recently devised specifications. The customer was also advised on working with third party ingredient suppliers and how to manage these relationships.

The customer was also advised on scaling up the process. Aspects of the EU packaging and labelling regulations were also covered for glass, plastic and paperboard materials. The customer also used knowledge gained from FoodWrite in promoting recycling as well as maintaining product integrity.

Processing and the use of specific functional ingredients such as antioxidants to extend product shelf-life was covered, although rancidity was not an issue once formulation changes had been implemented. Enough samples were generated for on-going stability assessment using organoleptic methods.