

# Recovery of Used Frying Oils

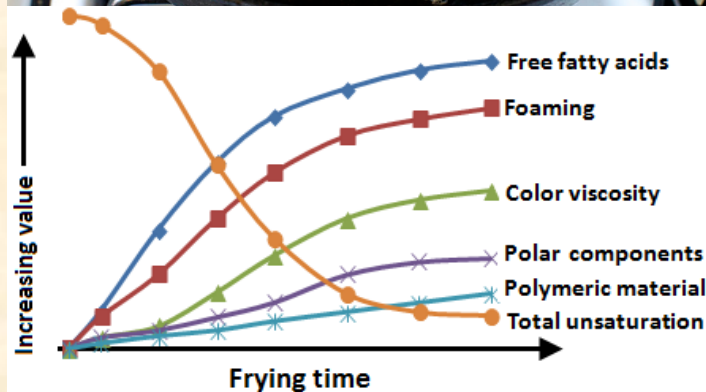


## BACKGROUND

- Fried foods are desired for their distinctive flavor and texture
- During cooking, the frying oil is absorbed by the fried food
- The quality of the frying oil is important because it strongly influences the sensory and nutritional qualities of the fried food

## PROBLEM

- During frying, free fatty acids (FFA) are released in the presence of water at high temperatures leading to hydrolytic rancidity
- Thermal oxidation of FFA and other lipids lead to the formation of a wide variety of compounds that gradually alter the physical and chemical properties of the frying oil
- Hydrolytic and oxidative rancidity contribute to the reduction of overall quality and service life of frying oil



## SOLUTION

- A method was developed and patented for treating used frying oils with specific combinations of adsorbent agents and antioxidants
- This treatment reduces FFA content and improves the total polar components, oil stability, and color of used frying oil
- This treatment effectively increases oil quality and service life such that, used frying oil can now be recycled by the food service industry

