

Shelf-Life Testing

Shelf-Life Testing and Analysis of Food Products

A shelf-life analysis evaluates the safety and hygiene of a food product by doing a detailed chemical, physical, and microbiological analysis. It provides food manufacturers and suppliers with trust in the product's shelf life and maintains the safety of their brand. The shelf life of food is the time over which it retains adequate protection and organoleptic consistency. It is determined by four major factors: materials, manufacturing method, packaging, and storage conditions. It's a crucial aspect for both suppliers and customers. Experts at Food Research Lab are concerned about the sustainability and consistency of the food that is produced.

How can we support you?

Our shelf life testing includes a detailed assessment of:

- ✔ Food-borne microorganisms such as
 - Aerobic Plate Count
 - Clostridium perfringens
 - Total Coliforms and E. coli

- Mesophilic and Thermophilic Sporeformers
- Salmonella
- Lactic Acid Bacteria
- Alicyclobacillus
- Staphylococcus aureus
- ✔ Total viable count of microorganisms
- ✔ Challenge testing
- ✔ Water activity testing
- ✔ Acidity levels
- ✔ Food pH
- ✔ Rancidity
- ✔ Texture changes
- ✔ Microbial spoilage
- ✔ Light-induced changes
- ✔ Chemical browning
- ✔ Enzymatic browning
- ✔ Food nutritional analyses
- ✔ Allergen testing
- ✔ Food contamination testing and residues determination

Our experience in ingredient and finished food product stability and shelf-life monitoring includes:

Organoleptic Testing

Investigation throughout a products shelf life on:

- Colour
- Texture
- Aroma
- Taste

Our taste optimisation service includes sensory features like mouthfeel and texture optimisation, ensuring that any part of the product meets your needs and ,intense customer acceptance levels.

Structural Investigation

The physical properties of foods are critical not just in predicting and optimising the consistency of a product or raw material.

Our specialists have a wide variety of analytical methods, and skills to characterise the structural and functional characteristics of food items and materials, including predicting how substances will behave during manufacturing and storage.

Chemical Analysis

Accurate quantification of nutrients such as vitamins and fatty acids using a variety of extraction methods and techniques.

Ingredient Stability

Products must be specifically engineered to maintain the necessary properties under the conditions they will encounter during manufacturing, shelf life, packaging, and use.

We measure fluctuations over shelf-life for ingredients such as preservatives, oils, sweeteners, colours, vitamins and fats.

Method Development and Validation

It is essential to make sure that analytical methods are appropriate for the proposed work. And authenticated methods can provide this confirmation and guarantee.

We can measure novel ingredients' shelf-life and execute method development and validation to measure novel ingredients.

Accelerated Shelf Life Study

In an Accelerated Shelf Life Study, the food product is conditioned and stored at elevated temperature and humidity. Quality changes in the product are evaluated at a specific sampling rate. The accelerated shelf-life study can be two to four times faster than the standard shelf life study.

About Us

Food Research Lab R&D, food innovation company, is the unit of Guires. With years of experience in research especially in medical device and pharmaceutical regulations, food product development, scientific publications and clinical trials, the company has now ventured into food research and formed a separate unit, under the brand name of 'Food Research Lab' that will drive food forward. Food Research Lab brings together the latest in food processing equipment, expert food scientists, chefs, nutritionists and partners from across the globe to help food companies and entrepreneurs get their products to market quickly and effectively.

Food Research Lab makes your dream concept into a commercial product as we have strong knowledge of ingredients, processing techniques, and we can bring them all together to help you make the right decisions.

Contact Us

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