OzScientific

Knowledge-driven Solutions for Dairy & Food Industries

Food Analysis Explained

# Shelf Life Analysis


The shelf life of food products is an important characteristic that can determine its commercial viability and competitiveness. In Australia, it is communicated to consumers as a "Best before date". Any new food, beverage or nutritional product will require a shelf life analysis before launch.

**OzScientific offers shelf life determination for all different types of foods and beverages**

This is part of our integrated service offering in product development. We conduct shelf life trials under many different conditions:

- Shelf life of fresh and pasteurised products under refrigeration
- Long life products, such as UHT milk at ambient temperature
- Accelerated shelf life trials
- Shelf life trials with humidity control
- Shelf life under different light conditions

***Humidity controlled shelf life trials of powdered samples using a desiccator***

## How we work

- Commercial
- Confidential
- Agreed project scope
- Client oriented
- Understand timelines

## Our facilities

- Pilot plant for small scale concept products
- Product development lab
- Food analysis lab
- Meeting room
- Cold rooms and incubators

## Our clients

- Dairy companies
- Artisan food manufacturers and start ups
- Beverage companies with novel product or technology ideas
- Nutraceutical manufacturers
- Manufacturers of baked goods and breads
- Processors of proteins from dairy and plants

## Contact Us

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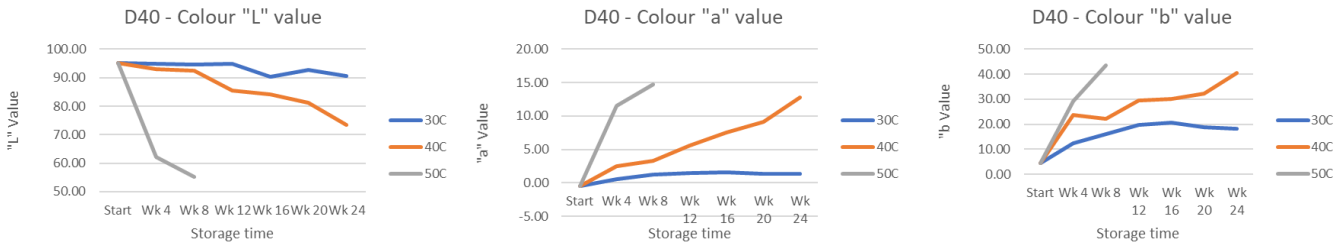
Over the course of the shelf life trial, we determine key characteristics of your product, for example

- Microbiological **safety**
- Changes in **color**: LAB color values
- Change in **water activity** and moisture – a good predictor for the microbiological safety of the product
- The presence of **oxygen** in your packaging
- Prediction of "caking" in powdered products
- **Sensory** assessment (smell, taste, mouthfeel), if the product is still microbiologically safe.

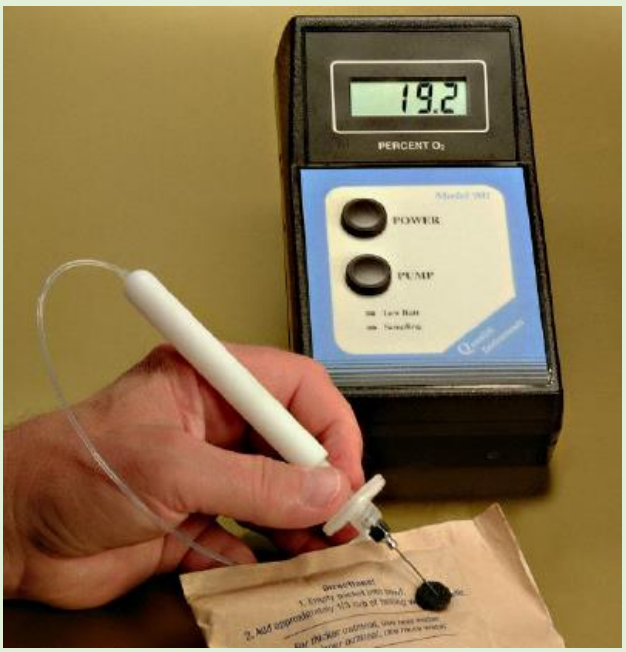
We will work closely with your requirements to determine the details of a shelf life trial, such as duration, temperature, and humidity. We will also help you to adjust your manufacturing conditions to achieve longer shelf life.

***Incubators at OzScientific can be adjusted to desired temperatures for refrigerated, ambient or accelerated shelf life trials***

## Case Study – Color changes in a whey powder




## Measuring oxygen content in packaging




***The presence of oxygen often shortens shelf life. Removing oxygen from packaging can make some foods more shelf stable.***

## Water activity is a good indicator


***Spoilage bacteria love water. The water activity meter measures "active", unbound water in a sample.***

OzScientific

Experts in Food Innovation and Food Technology