AACCI Introduces a New Guideline for Food Shelf-Life Studies (AACCI Method 35-01.01)

AACC International Chemical Leavening Committee

How does a scientist explain something that is not clearly defined? "Shelf life" has been used as an undefined vocabulary term since the beginning of food production. In the 1970s, it was first discussed as a possible required label. In the 1990s, legislation was introduced to clarify the term, but was never passed. Today the food industry still struggles with the terminology and whether it is a quality attribute or a food safety attribute that plays into the label and guidelines.



Even Wikipedia struggles with defining "shelf life" as a term that refers to a product that is "unfit for sale, but not yet unfit for use" or to a product that is "unfit for use." While the term shelf life has a broad overarching definition, it is typically thought of as a process used to determine a code date value that will be used in a product specification.

AACCI has decided to utilize this moment to help define and establish guidelines for shelf-life studies. It is a broad topic without any structured guidelines, and AACCI is working to establish a series of guidelines for cereal-based products and their ingredients. The shelf-life studies guidelines will not focus on the food safety aspect of shelf life. They will focus instead on the quality attributes of shelf life and act as a starting place from which to build a common basis for the generation of shelf-life data.

The guidelines have been established through the AACCI Chemical Leavening Technical Committee. The intent of the

Guidelines for Shelf-Life Testing of Food and Ingredients for Key Quality Attributes (AACCI Method 35-01.01) is to establish a guide that can be used to determine shelf life for grain-based foods with water activity lower than 0.65. The guidelines discuss storage conditions for suggested shelf-life studies, with an emphasis on using WHO-suggested or average environmental conditions.

The guidelines suggest the use of evaluations, including sensory evaluation. A large section of the

guidelines addresses the evaluation of trends versus time.

The shelf-life studies guidelines has been established as a working document to be utilized as a framework for other AACCI Technical Committees focused on different matrices and products. Each committee is invited and encouraged to utilize the information and build on it for products that are the subject of their expert focus. The guidelines utilize the real-world conditions available. They assume attributes have an influence on quality over time. They acknowledge critical levels in the product associated with the end of shelf life. Finally, they acknowledge the rate of change associated with product variability through average and product variability.

AACCI is providing this first guideline to help construct a framework for other guidelines associated with shelf life and establish how-to's for testing shelf life in other products. For more information, visit http://methods.aaccnet.org.



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Chemical Leavening Basics

Edited by EB Russell

Chemical Leavening Basics is a concise, easy to use reference to help readers understand chemical leavening, its components and uses in commercial food processing today, assessments in products, and methods for testing.

Produced by the AACC International Chemical Leavening Agents Technical Committee, this technical guidebook helps food professionals understand each of the individual components used in baking powder, why to use them, where to use them, when to use them, and their importance.

Chemical Leavening Basics will become the go-to reference for product developers, bakers, ingredient suppliers, technical service production personnel, quality assurance staff, mix manufacturers, or anyone else using baking powders or chemical leaveners.