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Editor Mona B. Wolf













Mona B. Wolf, Editor

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### Foreword

THIS PUBLICATION, Sensory Testing Methods: Third Edition, was sponsored by ASTM Committee E18 on Sensory Evaluation. The editor is Mona B. Wolf, President/CEO of The Wolf Group, Cincinnati, OH. This is the third edition of Manual 26 in the ASTM International manual series. I would like to thank all of the ASTM collaborators who have helped with editing and updating Manual 26 with special thanks to the chapter authors.

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## Introduction

Sensory evaluation, or "sensory analysis" as it often is called, is the study of human (and sometimes other animal) responses to products or services. It usually is used to answer one of three broad categories of questions related to products: "What is the product in terms of its perceived characteristics;" "Is the product different from another product;" and "How acceptable is the product (or is it preferred to some other product)." Those three broad questions are critical to the development, maintenance, and performance of most products.

Although much of the early science on which sensory evaluation is based was developed by psychologists using simple taste solutions, and much of the development of sensory methods has taken place by sensory scientists working in the food industry, the methods have been adapted to a number of other categories of products and services. Industries producing products and services as varied as personal care, paint, household cleaners, hospitality management, paper and fabrics, and air quality use sensory methods to provide information about their goods or services. In fact, any product or service that can be looked at, felt, smelled, tasted, heard, or any combination of those sensory modalities (that is, almost all products and services) can be analyzed using sensory methods.

The science of sensory evaluation consists of a broad spectrum of methods and techniques that encompass psychology; statistics; product sciences, such as food science or cosmetic chemistry; other biological sciences; physics and engineering; ergonomics; sociology; and other mathematics, sciences, and humanities. Some of its most powerful methods require an understanding of how people use language and other communication.

This manual assumes the reader is interested in obtaining a general knowledge of sensory evaluation methods. It provides a base of practical techniques and the controls that are necessary to conduct simple sensory studies. For more advanced knowledge, other resources will be necessary.

For those interested in more knowledge than can be provided in this manual, please refer to ASTM's website at www.astm.org



Mona Baker Wolf is president of The Wolf Group and founder of WolfSensory, a private Sensory Research consulting firm with clients from all over North America. Ms. Wolf has over 30 years of knowledge, experience, and practice in the field of Sensory Evaluation, and is active in the education and expansion of Sensory Studies.

Prior to becoming a consultant, Ms. Wolf honed her skills with two nationally known companies where she specialized in product development from initial prototypes to plant start-up. She also initiated and directed a full service sensory evaluation department, managing over 600 consumer and flavor profile panels annually. Under Ms. Wolf's supervision, product quality was monitored through product audits, sensory panels, and plant inspections. Additionally, Ms. Wolf has assisted in the design of sensory facilities for several major food companies, and serves as an expert witness in claims substantiation litigation.

Ms. Wolf holds a B.S. in Food Science from Purdue University and an M.B.A from Rochester Institute of Technology. Ms. Wolf is a trained flavor profilist and focus group moderator and has been a member of the Sensory Evaluation Division of the Institute of Food Technology since 1972. She is currently chair-elect for ASTM E18 main committee on Sensory Evaluation.

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