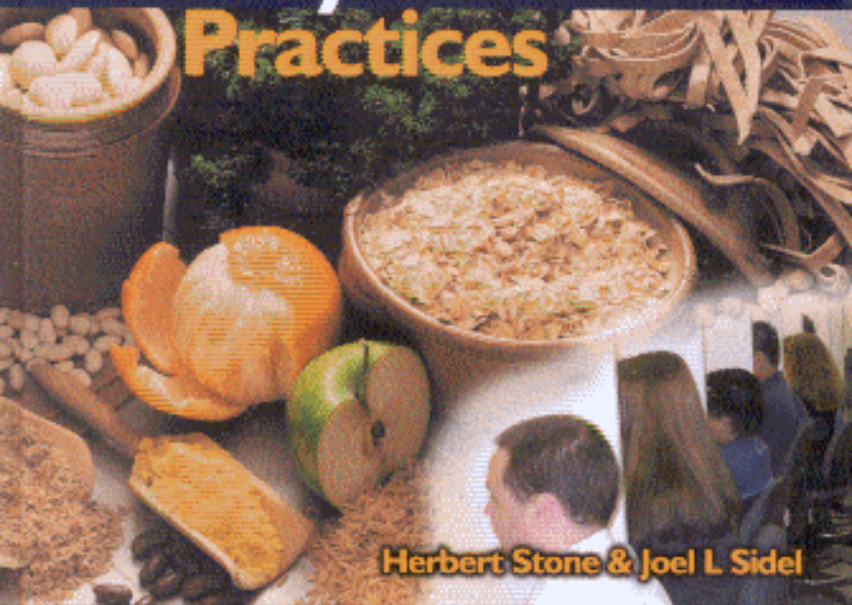




Third Edition

Sensory Evaluation Practices



Herbert Stone & Joel L. Sidel

Food Science and Technology, International Series



Contents

Foreword	vii
Preface, First Edition	ix
Preface, Second Edition	xi
Preface, Third Edition	xiii
About the Authors	xv
1. Introduction to Sensory Evaluation	1
I. Introduction and Objective	1
II. Historical Background	7
III. Development of Sensory Evaluation	11
IV. Defining Sensory Evaluation	13
V. A Physiological and Psychological Perspective	16
2. The Organization and Operation of a Sensory Evaluation Program	21
I. Introduction	21
II. Organizing a Sensory Evaluation Program	24
III. Conclusions	66
3. Measurement	69
I. Introduction	69
II. Components of Measurement: Scales	71
III. Selected Measurement Techniques	87
IV. Conclusions	96
4. Test Strategy and the Design of Experiments	99
I. Introduction	99
II. Test Request and Objective	101
III. Product Criteria	102
IV. Psychological Errors	104
V. Statistical Considerations	111
VI. Experimental Design Considerations	134
VII. Selected Product Designs	137
5. Discrimination Testing	145
I. Introduction	145
II. Methods	149

III. Components of Testing	156
IV. Special Problems	195
V. Summary	199
6. Descriptive Analysis	201
I. Introduction	201
II. Test Methods	211
III. Applications for Descriptive Analysis	242
IV. Conclusions	244
7. Affective Testing	247
I. Introduction	247
II. Methods	251
III. Subjects	259
IV. Types of Acceptance Testing	262
V. Special Problems	272
VI. Conclusions	277
8. Special Problems	279
I. Introduction	279
II. Instrument-Sensory Relationships	281
III. Experts and Expert Panels	287
IV. Perceived Efficacy and Advertising Claims	290
V. Stability Testing	295
VI. Product Development	301
VII. Quality Control	312
VIII. Optimization	325
IX. Conclusions	335
9. Epilogue	337
I. Introduction	337
II. Education and the Sensory Professional	339
III. The Future	343
References	345
Index	365