



North Cliff Consultants, Inc.

Who We Are



- Private, family owned independent contract laboratory
- Founded in 1986
- Expertise and experience with Clinical and Sensory consumer evaluations
- Two locations in Cincinnati
- Total of 25,000 square feet

What We Do



- Taste tests of all product types
- Fragrance tests (home, laundry, etc.)
- Home performance tests
- Visual & functional evaluations (package, concept, etc.)
- North Cliff primarily conducts Central Location Testing although alternative methods can and have been used.



Benefits of Consumer Testing

Many manufacturers and retailers depend on product testing for a variety of reasons.

- To determine how store brands compare to national/competitive brands for an unlimited variety of attributes
- To guide reformulation/product improvement
- Internal benchmarking providing records of success, failure, and improvement in the life of a product
- Ultimately, to more quickly move products from concept to shelf

Our testing approach has been, and continues to be, an industry standard for these goals.

Typical Taste Test Process

- **Determine the objectives of the test**

- **Test Methodology**

Product presentation/evaluation options (paired, simultaneous, sequential, etc.)

- **Panel Criteria**

Number of panelists, age and gender requirements

Screening criteria

Questionnaire design

Analytical and reporting requirements

Summary Report (9-Points & Preference) indicates "LOSS"

Cream of Chicken Soup	492 PROPOSED PRODUCT	857 NATIONAL BRAND	
Attribute Title	Means	Means	p value
SEPARATE APPEARANCE	7.03 a	6.85 a	0.2587
OVERALL LIKING	6.74 b	7.41 a	0.0111
COLOR	7.39 a	7.50 a	0.3539
FLAVOR	6.56 b	7.22 a	0.0397
CONSISTENCY	6.95 a	7.30 a	0.1795
OVERALL PREFERENCE	Number of Panelists 30 a	Number of Panelists 41 a	No. of Panelists NP=9

Review Study Data

- Hedonic scores indicate a “Loss” – products not equivalent
- Test design does not offer further information about attributes that are different

Revised Study Design

- Diagnostic questions provide additional information for reformulation
- Diagnostic questions provide opportunity for statistical penalty analysis

Summary Report (9-Points & Preference) indicates "LOSS"

Vegetable Beef Soup	283 PROPOSED PRODUCT	947 NATIONAL BRAND	
Attribute Title	Means	Means	p value
SEPARATE APPEARANCE	6.73 b	7.42 a	0.0012
OVERALL LIKING	6.60 b	7.47 a	0.0013
FLAVOR	6.68 b	7.35 a	0.0141
TEXTURE	6.65 b	7.42 a	0.0034
OVERALL PREFERENCE	Number of Panelists 27 b	Number of Panelists 45 a	No. of Panelists NP=6

Diagnostic Questions (JARS) help us understand opportunities for reformulation

Attribute Title		283 PROPOSED PRODUCT Distribution Percents	947 NATIONAL BRAND Distribution Percents
THE SIZE OF THE VEGETABLES	Too large/JR/Too small	5/54/41	5/85/10
THE AMOUNT OF VEGETABLES	Too many/JR/Not enough	3/36/61	6/82/12
THE OVERALL FLAVOR	Too strong/JR/Too weak	5/71/24	5/73/22
THE FLAVOR OF THE BROTH	Too strong/JR/Too weak	5/71/24	6/72/22
THE FLAVOR OF THE VEGETABLES	Too strong/JR/Too weak	0/64/36	3/83/14
SEASONINGS/SPICES	Too much/JR/Not enough	4/45/51	4/55/41
SALTINESS	Too much/JR/Not enough	5/65/30	5/67/28
THE TEXTURE OF THE VEGETABLES	Too firm/JR/Too soft	3/69/28	3/86/11

Penalty Analysis

Penalty is the maximum potential increase in overall liking that could result from all of the NON-JAR respondents moving into the JAR category

Penalty Analysis – Overall Liking

Component	Penalty Rating	Overall Liking Mean -JAR	Overall Liking Mean-Outliers	Percent Outliers	Change
The Size of the Vegetables	0.62	7.36	5.84	41% too small	Increase size of vegetables
The Overall Flavor	0.58	7.29	4.89	24% too weak	Increase strength of overall flavor
The Flavor of the Vegetables	0.58	7.18	5.57	36% too weak	Increase strength of vegetable flavor
The Texture of the Vegetables	0.53	7.15	5.27	28% too soft	Increase firmness of vegetables
Seasonings/Spices	0.53	7.14	6.10	51% not enough	Increase seasonings/spices
The Amount of Vegetables	0.50	7.14	6.33	62% not enough	Increase amount of vegetables
Saltiness	0.44	7.16	5.65	30% not enough	Increase saltiness
The Flavor of the Broth	0.42	7.15	5.42	24% too weak	Increase strength of broth flavor

Reformulation

After the penalty analysis was conducted,
a new product was provided and
retested.

And the result.....

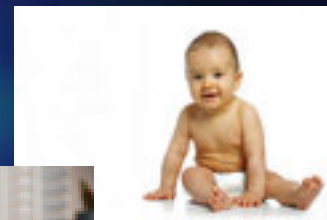
The Results Of The Retest: Summary Report indicates "PARITY"

Vegetable Beef Soup	247 Proposed Product	619 National Brand	
Attribute Title	Means	Means	p value
SEPARATE APPEARANCE	7.93 a	7.68 a	0.3718
OVERALL LIKING	7.24 a	7.35 a	0.6675
FLAVOR	7.19 a	7.13 a	0.8164
TEXTURE	7.22 a	7.30 a	0.6941
OVERALL PREFERENCE	Number of Panelists 30 a	Number of Panelists 37 a	No. of Panelists NP=11

Success!

- As a result of the process of testing, data analysis, reformulation and retesting, this product was accepted by the retailer.
- This illustrates a positive outcome for our customer and the power of consumer product testing.

QUESTIONS?





Thank You!