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RETAIL MARKET TESTS OF MINCED SEAFOOD CHOWDERS



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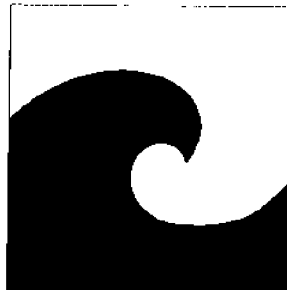


TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
OBJECTIVES	1
PROCEDURES	2
The Product and Package	2
The Stores	2
Advertising and Publicity	3
In-Store Product Demonstrations and Promotion	3
Consumer Surveys	3
Price of the Product	4
RESULTS	4
Sales	4
Consumer Surveys	8
SUMMARY AND CONCLUSIONS	10
APPENDIX	11

RETAIL MARKET TESTS OF MINCED SEAFOOD CHOWDERS

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Introduction

The world's water resources are a reservoir of food protein which has yet to be fully exploited. Billions of pounds of fish and seafood are landed each year by U.S. fishermen, but much of this catch never reaches the human food market. Edible and nutritious portions either are diverted from human use or discarded completely. Unfavored species are purposely avoided in the harvesting process since they are considered too large, too small, too bony, or too "something" for use in present handling and processing methods or to meet currently identified market needs.

The challenge for the food industry complex is to utilize these lost resources. One way to meet the challenge is through the use of mechanical deboners, which can alter the physical forms of these underutilized resources to render them more acceptable to final users. An example of one such successful effort was reported recently for Frozen Minced Fish.^{1/}

The project which is the subject of this report focuses on the use of minced seafood in canned chowders.

Objectives

Two chowders specially formulated to make use of significant quantities of minced fish and shellfish were prepared by food scientists at Cornell University.^{2/} The objectives of the project reported here were:

- (1) To develop an attractive and informative package for the product and,
- (2) To determine customer acceptance of the product as indicated primarily by sales performance in retail food stores.

¹ Goodrich, Dana C., Jr. and Daniel B. Whitaker, Retail Market Tests of Frozen Minced Fish, A. E. Res. 77-6, June 1977, Cornell University.

² Baker, R. C., J. M. Regenstein and J. M. Darfler, Development of Products from Minced Fish: 1. Seafood Chowders, New York Sea Grant Institute, September 1976.

Procedures

The Product and Package

Baker, et al (1976) described the ingredients and characteristics of New England style and Manhattan style condensed chowders made from minced fish and seafood which were used for test marketing. A New York State food processor was retained to manufacture Cayuga Brand Seafood Chowders according to these specifications. Both styles contained minced cod collars and chopped scallops.^{3/} The Manhattan style differed significantly in its use of tomatoes and tomato paste. Furthermore, it contained certain other vegetable products not found in the New England style.

Both styles were packed in 16-ounce cans, whereas most commercially available chowders for the retail trade were in either 10 3/4- or 15-ounce cans.

Labels were prepared to meet two needs: to inform and to attract retail shoppers. (See Appendix.) Full declaration of ingredients was made. Instructions for preparation indicated water dilution for the Manhattan style and milk dilution for the New England style. In addition, a recipe suggesting a variation in the usual preparation was included. The principal display panel consisted mainly of a four-color stylized depiction of principal ingredients superimposed by a black-and-white message proclaiming unusually large amounts of seafood. The intention was to distinguish Cayuga Brand Chowders from others normally stocked in the test stores. In fact, both Cayuga Brand Chowders contained approximately 40 percent fish/seafood by weight (28 percent minced fish and 12 percent chopped scallop mantels).

The Stores

Cayuga Brand Seafood Chowders were tested in two chain supermarkets in a small upstate New York city. One store was located in a suburban 12-unit shopping center and the other was free-standing within an urban residential neighborhood. The suburban store contained approximately 20,000 square feet of selling space and the urban market about 30,000 square feet. Annual sales were estimated to be about \$8.2 million and \$6.5 million, respectively.

Test chowders were made available for a total of 21 weeks, September 1977 to February 1978. During the initial five weeks, the product was arranged in an end aisle display maintained at approximately 75 cans of each style. Thereafter, the product was placed on store display shelves adjacent to the other "specialty" chowders.^{4/} In one store (A) this

³ Minced mullet was substituted for minced cod during the final two weeks of the market test as cod supplies became exhausted.

⁴ "Specialty" chowders were those which were packed by manufacturers specializing in fish and seafood preparations, as distinguished from chowders packed by full-line soup manufacturers.

location was the top shelf but in the other (B) it was the bottom shelf. In both cases, Cayuga Seafood Chowder was allocated two facings for each style, the same as the commercial brands. Product in Store A was stacked three cans high. Shelves in Store B permitted cans stacked only two high.

Every effort was made to keep shelf displays fully stocked. While the total number of units naturally declined over time, no "stock out" situations occurred.

Advertising and Publicity

No paid advertising was employed. However, publicity was obtained from two sources. The official weekly newspaper of the community's principal employer published an article during the first week of the test which explained the project and identified the cooperating stores. At the same time a local radio station announced the test as a news story. During the ninth week of the experiment, two research personnel were interviewed for 15 minutes on a morning community interest news program of the same station.

These exposures contributed to the test's "visibility" but no effort was made to measure their effect on sales.

In-Store Product Demonstrations and Promotion

Two women were engaged to prepare and dispense samples of the chowders in each store during the initial phase of the test. Samples were available from about 11:00 a.m. through 5:30 p.m. each Thursday and Friday for the first three weeks of the test at a location adjacent to an end aisle display of Cayuga Chowders.

The demonstrators opened cans of the chowder, diluted the contents with milk or water and heated the mixture in an electric crock pot. Each shopper passing the area was offered a sample of either or both styles and given an explanation of the product. About 2,000 samples were distributed during this introductory three-week period.

Each store was supplied with two 2' x 3' four-color posters promoting the chowders. Each poster contained a large facsimile of the product label as well as the block letters, "TRY ME." Smaller "shelf talkers" made from actual labels were affixed to the display shelves to help attract purchasers to the product.

Consumer Surveys

During the final two days of product sampling, the demonstrators administered a short questionnaire to shoppers who passed the Cayuga Brand Chowder display. Questions were designed to identify opinions about the test chowders by those who had previously purchased and served them.

In addition, brief mail questionnaires in the form of self-addressed postal cards attached to approximately 400 cans of Cayuga Brand Chowders were used to make similar inquiries of purchasers during the final seven weeks of the market test.

Price of the Product

Prices of Cayuga Brand Chowders were chosen to be competitive with commercial specialty chowders available in the test stores. Cayuga Manhattan Style Seafood Chowder was priced at 69 cents per 16-ounce can. This is the same price as the only other comparable size Manhattan style chowder in the test stores. However, this commercial brand was uncondensed, ready-to-serve. No effort was made to promote the fact that Cayuga Brand was condensed and, thus, a better value.

The Cayuga New England style chowder priced at 79 cents competed with three other condensed New England chowders. It was priced nine cents lower than one New England style clam chowder, one cent higher than one seafood chowder, and 46 cents higher than another seafood chowder. The price of this last commercial chowder was reduced from the original 33 cents to 29 cents during the 16th week of the test and was sold out by the 18th week.

Results

Sales

Nearly 3,000 cans of Cayuga Brand Seafood Chowder were sold in the test stores during the 21-week experiment. New England style outsold Manhattan style by a margin of 8:5. The higher volume store (A) recorded sales nearer 2:1, while the smaller volume store (B) recorded sales in a ratio of about 4:3.

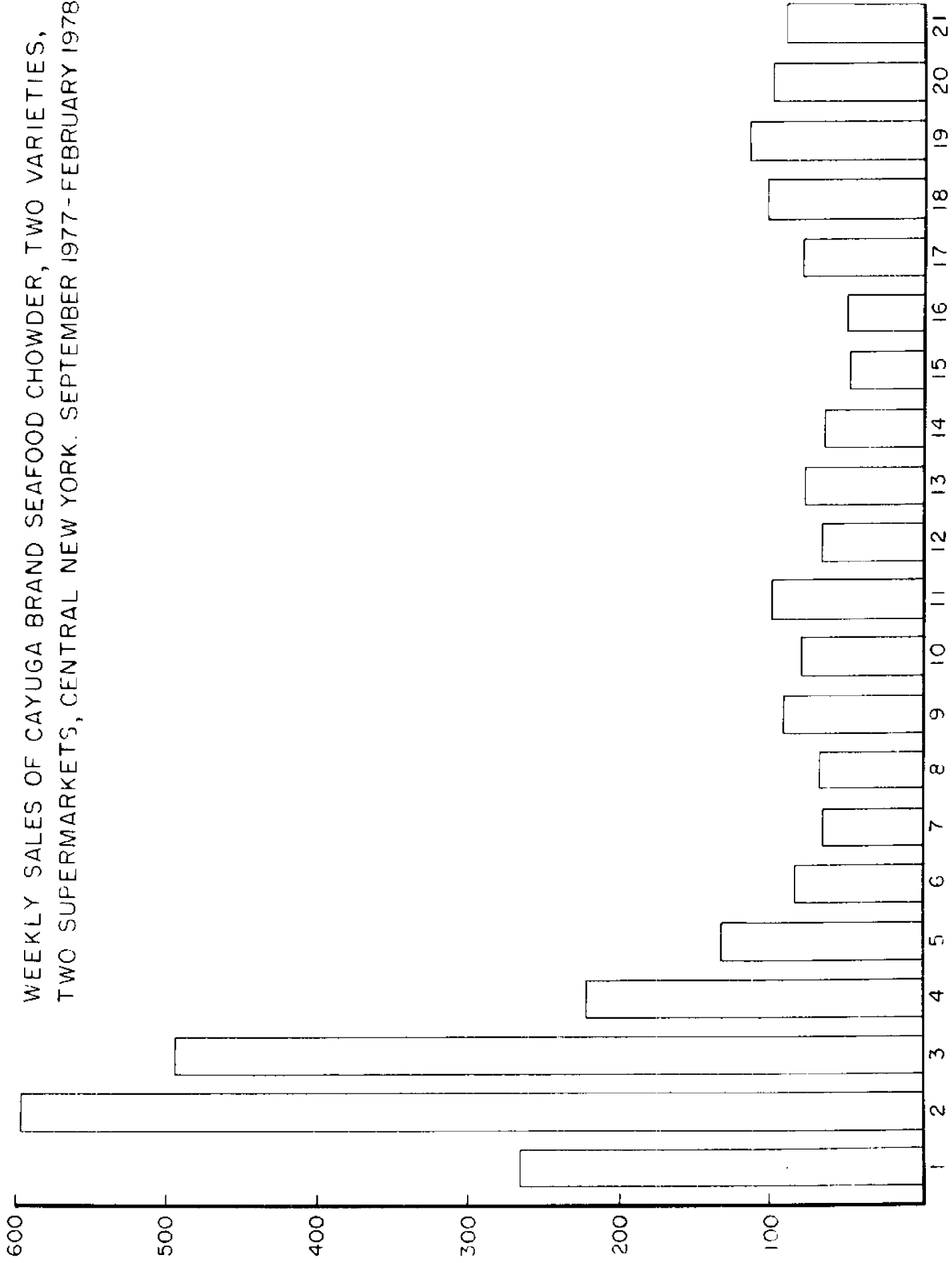
Average weekly sales of combined Cayuga Chowders reached 142 cans. Nearly two-thirds of this volume was sold in Store A (Table 1).

Sizable differences in weekly sales were registered, depending on the stage of the test. (See Exhibit 1.) During the introductory three weeks when in-store demonstrations were conducted, sales averaged 448 cans per week. Over the following 15 weeks when no promotional effort was underway, sales dropped substantially to an average of 89 cans per week for the two-store total. During the final three weeks, however, sales of both chowder styles strengthened to a rate of more than 100 cans per week.

This recovery of Cayuga sales from initial levels paralleled the results of earlier market tests of Frozen Minced Fish.^{5/} After unusually high volumes in the introductory period, sales dropped as the promotional

⁵ Goodrich, op.cit.

WEEKLY SALES OF CAYUGA BRAND SEAFOOD CHOWDER, TWO VARIETIES,
TWO SUPERMARKETS, CENTRAL NEW YORK. SEPTEMBER 1977-FEBRUARY 1978



support from in-store demonstrations was withdrawn, only to strengthen again near the end of the test. Such results which consider sales of test product after removal of promotional support strongly suggest that Cayuga Brand Chowders would be successful commercial items over longer periods of time.

An essential perspective to the commercial feasibility of Cayuga Brand, however, can be added by viewing test product sales in relation to sales of other specialty chowders. During the four weeks prior to the introduction of Cayuga Seafood Chowders, the two test stores sold a weekly average of 153 cans of 16-ounce specialty chowders (Table 2). This included two New England style seafood chowders, one New England style clam chowder and one Manhattan style clam chowder.

Table 2. AVERAGE WEEKLY SALES CAYUGA BRAND AND
COMMERCIAL SPECIALTY CHOWDERS
Two Upstate New York Supermarkets, 1977-78

Time period	Cayuga Brand Chowders	Commercial specialty chowders	All specialty chowders	Cayuga as percent of all specialty chowders
(Average number of cans per week)				
Four-week pre-test	--	153	153	--
Test:				
Introductory 3 weeks	448	141	589	76
Middle 15 weeks	89	148	237	38
Last 3 weeks*	103	105	208	50
Four-week post-test*	--	95	95	--

* One of four commercial specialty chowders was discontinued.

During the introductory three-week demonstration of Cayuga Chowders, total sales of all specialty chowders for both supermarkets increased to 589 units per week. About three-fourths of this total was represented by the two Cayuga varieties, and showed the marked effect of in-store product demonstration and sampling. The volume of commercial chowders declined slightly in this period as a result of the Cayuga promotion.

During the next 15 weeks Cayuga Brand sales dropped sharply as promotional support was withdrawn. Sales of the commercial variety recovered somewhat. Cayuga Brand accounted for an average of about 38 percent of all specialty chowder sales.

In the final three weeks of the test, Cayuga Brand's share increased to about 50 percent of total specialty chowder sales. This significant increase in market share was due in part to the discontinuation of one

ERRATA SHEET

The following information replaces Paragraph 2 and Table 3 on Page 8.

Total specialty chowder sales per 1,000 customers patronizing the test supermarkets varied over the course of the market test. Specialty chowder pre-test sales were approximately 8 units per 1,000 customers (Table 3). With the three-week introduction and demonstration of Cayuga Brand Seafood Chowders, this figure rose to nearly 30 cans per 1,000 customers, with sales of the test product accounting for the greatest volume. Cayuga sales fell to 4.5 units per 1,000 customers during the next 15 weeks. However, during the final three weeks of the test, sales of Cayuga Chowders increased to about 5 units while sales of the remaining commercial varieties declined to the same level. Finally, during the four weeks following the conclusion of the test, sales of the remaining three commercial varieties per 1,000 customer transactions remained at 5 units.

Table 3. TOTAL CHOWDER SALES, PER 1,000 CUSTOMER TRANSACTIONS
Two Upstate New York Supermarkets, 1977-78

Time period	Cayuga Brand Chowders	Commercial specialty chowders	All specialty chowders
Four-week pre-test	-	7.6	7.6
Test:			
Introductory 3 weeks	22.4	7.0	29.4
Middle 15 weeks	4.5	7.4	11.9
Last 3 weeks	5.3	5.4	10.7
Four-week post-test	-	4.9	4.9

commercial New England style seafood chowder. Moreover, a news item about the test's upcoming conclusion appeared in the local newspaper at about this time and may have encouraged buyers to "stock up" before the chowders became unavailable.

Overall, Cayuga Brands accounted for 50 percent of the volume of specialty chowders sold in the test stores for the 21-week test.

Total specialty chowder sales per 1,000 customers patronizing the test supermarkets varied over the course of the market test. Specialty chowder pre-test sales were approximately 0.8 units per 1,000 customers (Table 3). With the three-week introduction and demonstration of Cayuga Brand Seafood Chowders, this figure rose to nearly 3 cans per 1,000 customers, with sales of the test product accounting for the greatest volume. Cayuga sales fell to 0.4 units per 1,000 customers during the next 15 weeks. However, during the final three weeks of the test, sales of Cayuga Chowders increased to about 0.5 units while sales of the remaining commercial varieties declined to the same level. Finally, during the four weeks following the conclusion of the test, sales of the remaining three commercial varieties per 1,000 customer transactions remained at 0.5 units.

Table 3. TOTAL CHOWDER SALES, PER 1,000 CUSTOMER TRANSACTIONS
Two Upstate New York Supermarkets, 1977-78

Time period	Cayuga Brand Chowders	Commercial specialty chowders	All specialty chowders
Four-week pre-test	-	.8	.8
Test:			
Introductory 3 weeks	2.2	.7	2.9
Middle 15 weeks	.4	.7	1.1
Last 3 weeks	.5	.5	1.0
Four-week post-test	-	.5	.5

It is important to note that during the test period of 21 weeks, total sales of specialty chowders were 85 percent higher than the four-week pre-test average. Perhaps more significant, the total sales of specialty chowders during the 18 weeks without Cayuga promotion were 52 percent higher than the pre-test rate.

Consumer Surveys

During the final two days of in-store demonstrations, a questionnaire was administered to shoppers passing the display to ascertain opinions of previous chowder purchasers. Over 500 shoppers were questioned. Twenty-two percent of these people were aware of Cayuga Seafood Chowders and 66

individuals already had purchased and served the product (Table 4). About a third of these "previous purchasers" had bought the chowder two or more times during the previous two weeks.

Table 4. IN-STORE SURVEY RESPONSES OF RETAIL SHOPPERS
Two Upstate New York Supermarkets, 1977-78

Factor	Results
Number of shoppers surveyed	502
Number of shoppers aware of Cayuga Chowders	109
Percent of 502 shoppers	22
Number of shoppers purchasing and using Cayuga Chowders	66
Percent of 502 shoppers	13
Number of shoppers purchasing Cayuga Chowders two or more times	21
Percent of 66 purchasers	32
Number of purchasers/users expecting to repurchase Cayuga Chowders	63
Percent of purchasers/users	95
Intended frequency of repurchase (percent of intended repurchasers):	
Once per week	17
Twice per month	29
Once per month	42
Non-specific frequency	12

Fully 95 percent of those who already had purchased and served the product indicated they would continue to purchase it in the future. About 40 percent said they would purchase about once a month while 45 percent said they would purchase more often. The rest could not be specific about their intentions.

In another survey, self-addressed stamped postal cards were affixed to every unit of chowder sold during the final seven weeks of the market test. Usable responses were received from 149 purchasers (Table 5). Over 40 percent of those returning a questionnaire had purchased the product two or more times.

Table 5. MAIL SURVEY RESPONSES OF RETAIL SHOPPERS
Two Upstate New York Supermarkets, 1977-78

Factor	Results
Number of responses (purchasers)	149
Number of respondents purchasing Cayuga Chowders two or more times	62
Percent of 149 responses	42
Percent expecting to repurchase	86
Intended frequency of repurchase (percent of intended repurchasers):	
Once per week	25
Twice per month	19
Once per month	18
Non-specific frequency	38

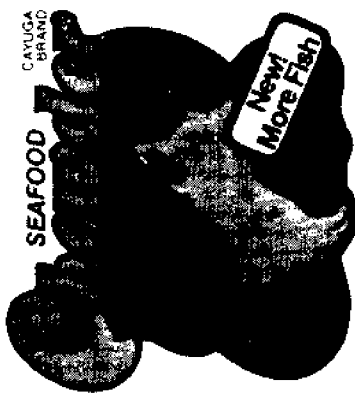
Summary and Conclusions

Two styles of Minced Seafood Chowder were market tested for 21 weeks in two upstate New York supermarkets. Initial sales accompanied by in-store demonstrations were very high, with the Cayuga Brand Chowder test products accounting for three-fourths of total specialty chowder sales. This volume subsequently decreased during the following 15 weeks as promotional support was withdrawn. However, relative volume increased again to about 50 percent of total specialty chowder sales during the final three weeks of the test.

In-store, as well as mail surveys of chowder consumers indicate a willingness to purchase these products again. More than 85 percent of purchasers and users responding to surveys reported they would continue to purchase Cayuga Brand Chowders if available.

The high proportion of total specialty chowder sales achieved and maintained by the test product, as well as the strong endorsement of purchasers/users, indicate that the concept of minced seafood chowders is successful and that such a product likely would be commercially viable.

APPENDIX



SEAFOOD
CAYUGA
BRAND

CONDENSED
NEW ENGLAND STYLE

NET WT. 16 OZS. (1 LB.)

DIRECTIONS
Dilute with an equal quantity of milk and heat to boiling, stirring occasionally. For a thicker, creamier soup, use less milk.

RECIPE SUGGESTION
Chester's Seafood Chowder
Cook about 1/2 pound of scallops in 1/2 cup of water until done. Drain. Combine with 1 can Seafood Chowder, 1/2 cup milk, 1/2 cup cream and 1/2 cup shredded cheese. Pop into greased casserole, stir with soup, cheese and milk. Bake at 350° F. for about 20 minutes. Or use hot sauce.



SEAFOOD
CAYUGA
BRAND

CONDENSED
MANHATTAN STYLE

NET WT. 16 OZS. (1 LB.)

DIRECTIONS
Dilute with an equal quantity of milk and heat to boiling, stirring occasionally. For a thicker, creamier soup, use less milk.

RECIPE SUGGESTION
Manhattan Style Chowder
Cook about 1/2 pound of scallops in 1/2 cup of water until done. Drain. Combine with 1 can Seafood Chowder, 1/2 cup milk, 1/2 cup cream and 1/2 cup shredded cheese. Pop into greased casserole, stir with soup, cheese and milk. Bake at 350° F. for about 20 minutes. Or use hot sauce.



SEAFOOD
CAYUGA
BRAND

CONDENSED
MANHATTAN STYLE

NET WT. 16 OZS. (1 LB.)

DIRECTIONS
Dilute with an equal quantity of water or milk and heat to boiling, stirring occasionally. For a thicker chowder, use less water.

RECIPE SUGGESTION
Manhattan Style Chowder
Cook about 1/2 pound of scallops in 1/2 cup of water until done. Drain. Combine with 1 can Seafood Chowder, 1/2 cup milk, 1/2 cup cream and 1/2 cup shredded cheese. Pop into greased casserole, stir with soup, cheese and milk. Bake at 350° F. for about 20 minutes. Or use hot sauce.



SEAFOOD
CAYUGA
BRAND

CONDENSED
NEW ENGLAND STYLE

NET WT. 16 OZS. (1 LB.)

DIRECTIONS
Dilute with an equal quantity of milk and heat to boiling, stirring occasionally. For a thicker, creamier soup, use less milk.

RECIPE SUGGESTION
New England Style Chowder
Cook about 1/2 pound of scallops in 1/2 cup of water until done. Drain. Combine with 1 can Seafood Chowder, 1/2 cup milk, 1/2 cup cream and 1/2 cup shredded cheese. Pop into greased casserole, stir with soup, cheese and milk. Bake at 350° F. for about 20 minutes. Or use hot sauce.

INGREDIENTS
Mince Cod, Clam, Broth, Water, Chopped Scallops, Onions, Potatoes, Modified Food Starch, Vegetable Oil, Salt, Dehydrated Onions, Natural Flavors, Lactate, Sodium Caseinate, Spices, Disodium Inosinate, Disodium Guanylate, BHA (an antioxidant).

This product is distributed in the United States by the Cayuga Food Products Company, 1000 State Street, New York, New York 10011. See label for a complete list of ingredients.

The Department of Agricultural Economics and Food Science, Cornell University, Ithaca, New York 14853.

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INGREDIENTS
Mince Cod, Tomatoes, Cream, Broth, Chopped Scallops, Water, Tomato Paste, Carrots, Celery, Modified Food Starch, Dehydrated Potatoes, Green Peppers, Vegetable Oil, Salt, Dehydrated Onions, Sugar, Dehydrated Parsley, Natural Flavors, Disodium Inosinate, Disodium Guanylate.

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