

## Nabisco Inc. and Wegmans Food Markets

### Introduction

Nabisco is a major international manufacturer of biscuits, snacks, and premium grocery products, including such well-known U.S. brands as Oreo, SnackWell's, and Chips Ahoy!; Ritz crackers; A.1. steak sauces; Grey Poupon mustards; LifeSavers confections; and Planters nuts and snacks. International products include Christie, Peek Freans, Terrabusi cookies and crackers; Yemina pastas; Royal dessert mixes; Fleischmann's yeast; and several Nabisco global brands—Oreo, Ritz and Chips Ahoy!. Nabisco markets products in the United States, Canada and more than 85 other countries around the world.

Wegmans Food Markets, Inc. is a 58-store supermarket chain in New York and Pennsylvania, with its first store in New Jersey in 1999. The family-owned company, founded in 1916, is recognized as an industry leader and innovator.

### Executive Summary

Category management and supply chain management have been proven to provide a competitive advantage to firms that can successfully implement them. Trading partners can gain an even greater advantage by linking these activities through the CPFR process. CPFR provides the opportunity to link the output of business plans that were jointly developed between trading partners into the supply-chain process. The business plans and forecasts are monitored and kept current by both trading partners. This is accomplished by the creation of a two-way interactive communication process that enables the transfer of promotional plans and forecasts among manufacturers and distributors. These activities can help grow sales and profits between participating partners.

Nabisco and Wegmans engaged in a CPFR pilot to validate the VICS business model. The pilot was limited to 22 Planters nut items. The pilot was conducted without increasing resources in the area of headcount or technology. For the first six months, transfer of information was accomplished using spreadsheets and e-mail.



#### 4.1 Nabisco and Wegmans Pilot Overview

Actual results from the CPFR pilot from July 1998 through January 1999 include an increase in category sales by 13% vs. 8% decline for other retailers in the market (dollars, units and pounds all showed similar results). Sales increases for the Planters brand was especially dramatic at 53%, as measured by IRI for 30 weeks ending January 17, 1999. The majority of the increases in retail sales can be attributed to jointly developed business plans that leveraged enhanced category management strategy and increased category focus.

These results were achieved with minimal stress on the supply chain due to CPFR. On the operations side, service level to stores increased from 93% to 97%, and days of inventory declined 2.5 days (18%). These positive results have led both Nabisco and Wegmans to decide to extend the timeline for this pilot and to expand its scope to include Milk-Bone pet snack products. In addition, commercially available collaboration software will be tested as potential technology solutions. Both companies are also establishing pilots with other trading partners.

#### **CPFR Processes Addressed**

Front-End Agreement, Joint Business Planning, Sales Forecasting, Order Forecasting, Order Generation, Delivery Execution, and Technology.

#### **Pilot Objectives**

The primary goal of the pilot was to test the CPFR concept and related processes. Both Nabisco and Wegmans wanted to validate the model as prescribed by VICS to see if CPFR was a proposition that could be expanded to other businesses and trading partners.

Once it was decided to move forward with the pilot, other more quantifiable objectives were developed and agreed upon. They included sales growth, reduced inventory levels, improved forecast accuracy, reduction in spoilage,

and reduction or elimination of other supply chain inefficiencies. We expected to meet these objectives by using existing resources; neither company would add headcount or systems.

### Scope

In retrospect, the pilot can be viewed as being split into two phases. This was not actually planned; it just evolved that way.

The first phase was limited to 22 Planters nut items, representing all can and jar items stocked by Wegmans; bag and canister snack items were excluded. All 58 Wegmans retail outlets participated from the pilot's inception. Nabisco shipped all the items from one Nabisco distribution center (DC) to one Wegmans DC. All planning and forecasting activities were for shipments in the second half, July 6 through December 31, 1998; however, the planning period was quarterly. This meant the joint business planning process had to be done twice during the initial phase of the pilot. The sales forecast was developed simultaneously with the business plan. The forecasts and the business plan were constructed at the item level for 13 weeks.

The second phase of the pilot was expanded to include the shipping period for the first half of 1999. The same 22 Planters nut items from phase one were included, as well as 20 Milk-Bone pet snack items. The development of the joint business plans for Planters and Milk-Bone was completed by the first week in November. All other preparation and planning was completed so the second phase of the pilot was considered "live" for the first shipping day of 1999. The formal end date to this stage of the pilot is the end of the second half of 1999.

It is very likely that CPFR will become the standard business process for Wegmans and Nabisco.



#### 4.1 Nabisco and Wegmans Pilot Overview

##### Technology Used

Phase one of the pilot used limited technology. The pilot was managed with the 852 EDI transaction set, Excel spreadsheets, and e-mail. Because Wegmans was an established VMI account with Nabisco, the 852 EDI transaction set was already in place. The Nabisco customer service agent manually performed the exception process and developed many of the scorecard metrics. (The exception process is detailed in step three of the Methodology section.) Excel spreadsheets were developed and exchanged via e-mail to communicate forecasts, to plan changes and exception items, and to measure actual results.

Manugistics of Rockville, Maryland, provided their Networks collaboration software for the pilot; its use began in January during phase two. This type of product will be necessary to help manage the CPFR process when moved into a production mode with multiple trading partners and a broad base of products. Also, collaboration software will allow users to import and export data into their supply chain systems.

The application, which works with Microsoft IE 4.0 or Netscape Navigator, consists of a Java client residing on the local workstation and an Oracle database and the Java application residing on a remote server. Access to the application is made through the local Java client which then connects through the Internet to the remote server, now located at Manugistics in Maryland. The data entered into the client is then transmitted to the server where both partners are able to view, compare and manipulate the data. Nabisco, Wegmans and Manugistics have worked together to identify functional enhancements that are expected to be included in later releases.

##### Metrics and Results

Much time and energy was expended to determine the performance metrics, method for calculation, data sources, and the person responsible for reporting the results. The following are the key measures being reviewed:

- Case-fill to Wegmans DC
- Case-fill from Wegmans DC to retail
- Inventory turns at Wegmans DC
- Forecast accuracy
- Number of forecast changes inside and outside the freeze period
- Sales growth for the category, Planters Brand, and private label
- Category and Planters Brand profits

The data sources for the metrics came mainly from internal supply-chain and POS systems within Wegmans and Nabisco, except for the sales data, which was measured from both POS and IRI.

There has been dramatic improvement in results against the key metrics. Retail sales as measured by Wegmans POS data and IRI have shown clear increases on a dollar and unit sales basis. The increases can be attributed to improved category plans and improved execution of those plans. The sales increases were supported with less inventory and an improvement in forecasting. This resulted in a 15% increase in overall profit dollars; however, their profit margin declined by one percentage point. Also, days of supply and forecast error have been reduced. The key results are as follows:

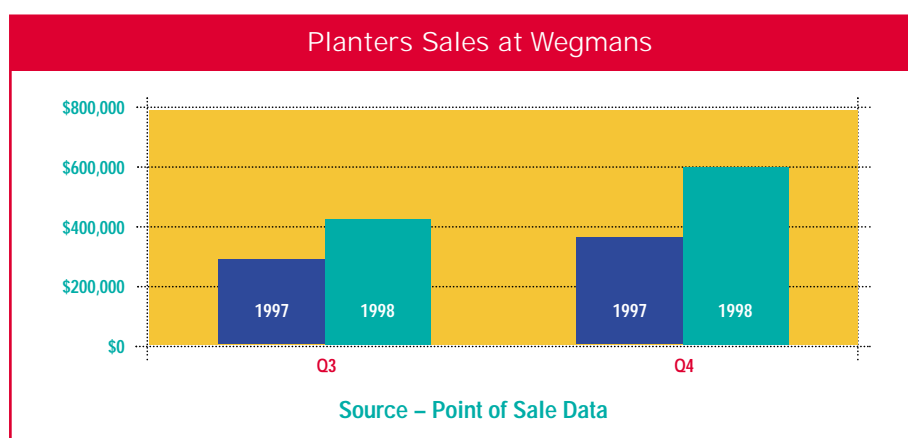


Figure 2



#### 4.1 Nabisco and Wegmans Pilot Overview

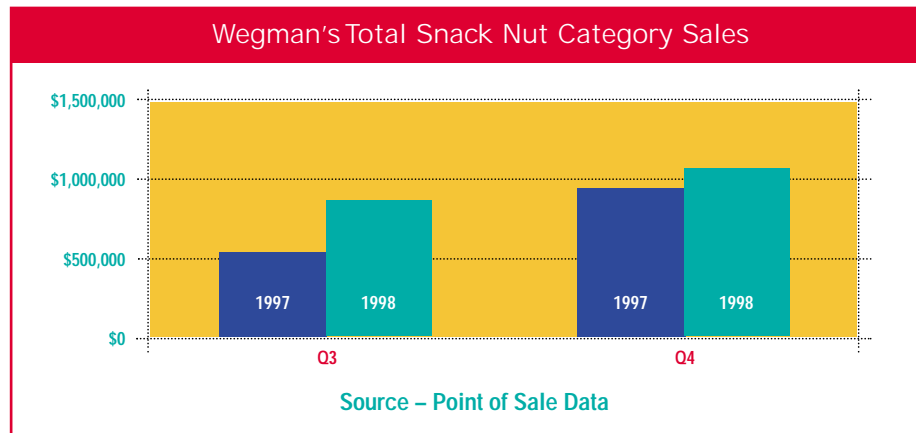


Figure 3

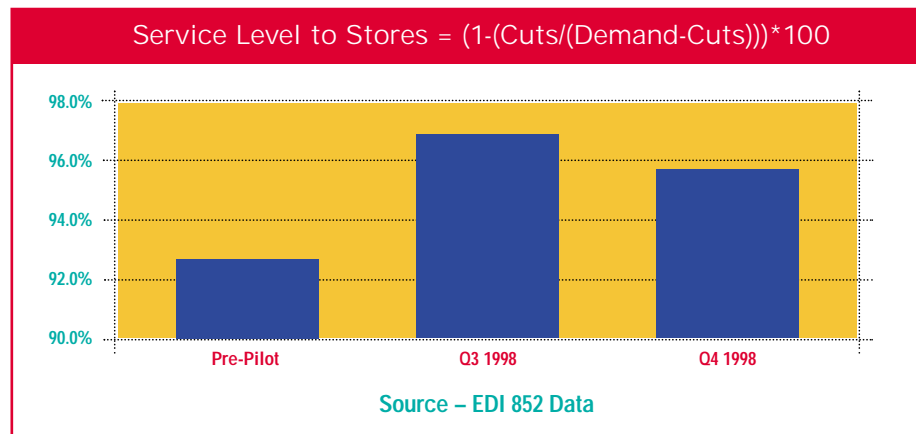


Figure 4

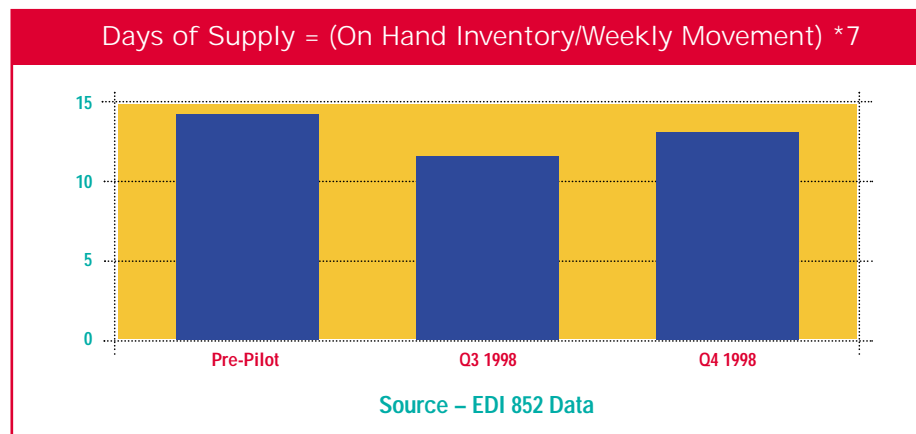


Figure 5

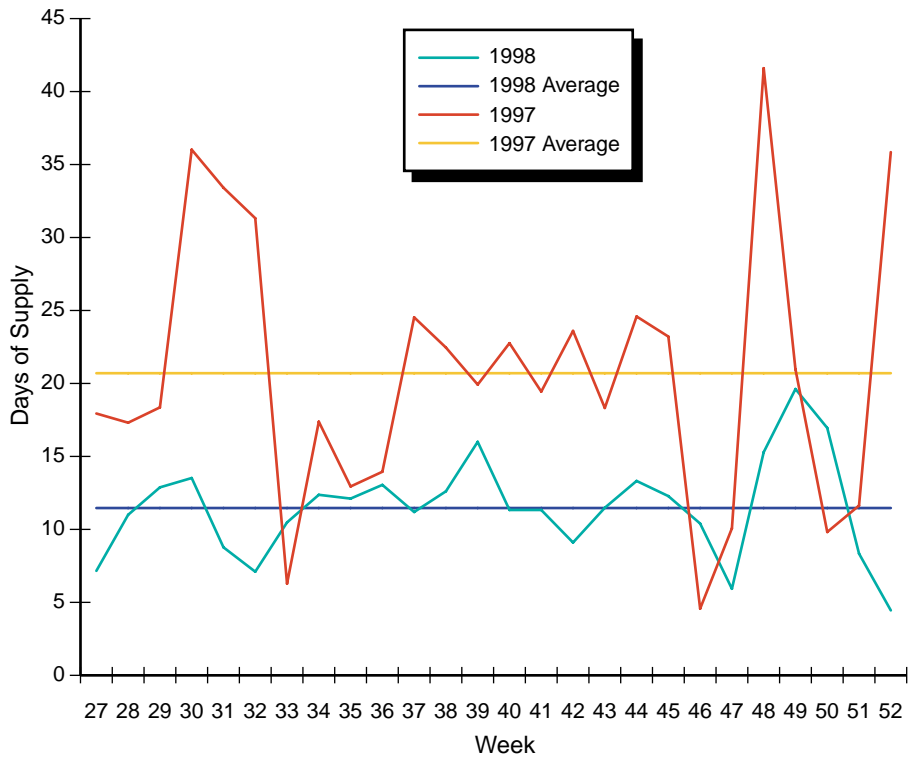


Figure 6

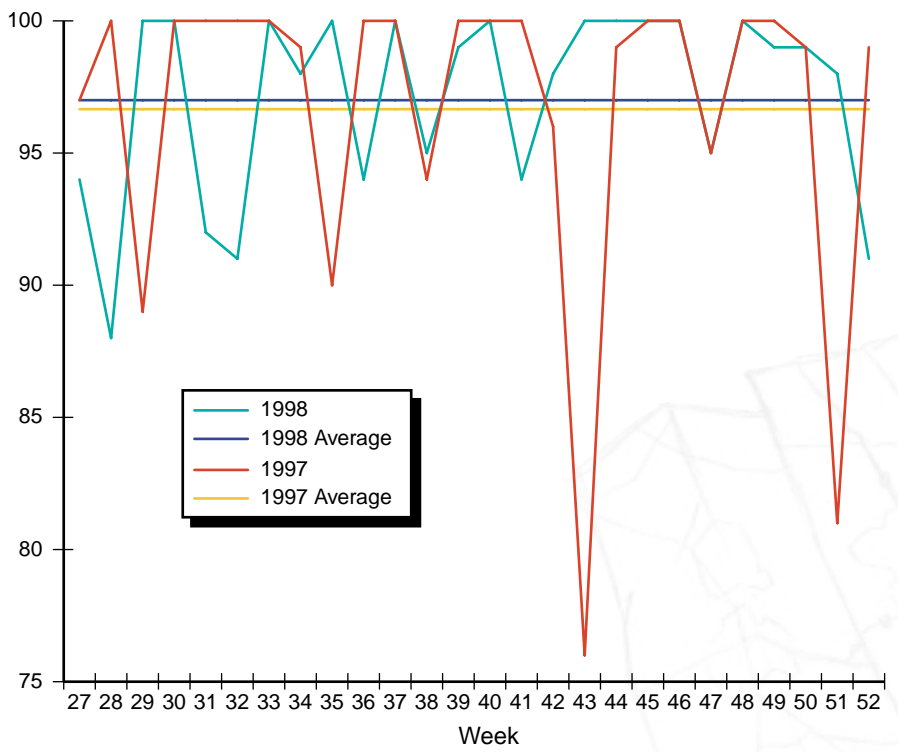


Figure 7



## 4.1 Nabisco and Wegmans Pilot Overview

### Resources Involved

This pilot was conducted without any additional staffing at either Nabisco or Wegmans; however, like any new initiative, it required a reallocation of priorities and time for the people involved. Both companies assembled a cross-functional team that included members from Sales, Category Management, Supply Chain Management, IS, and Customer Service. In addition, both companies had executive sponsorship that ensured proper attention and commitment.

### Project Challenges

There were several challenges to initiating this pilot effectively:

- Participants had to gain a basic understanding of CPFR.
- Process maps developed by VICS had to be translated into the current workflow, or new ones had to be created at each company.
- Major obstacles due to systems limitations had to be overcome.
- Item-level forecast had to be manually developed, since neither Wegmans nor Nabisco forecasting systems could adequately perform this task.
- Collaboration software was not available until phase two of the pilot.

### Methodology

The pilot can be defined in four phases.

- 1. Training and Education*
- 2. Preparing the Joint Business Plan*
- 3. Sales and Order Forecast Generation*
- 4. Execution of Shipments*

## Step 1 Training and Education

Participants needed training and education to understand CPFR. The Wegmans/Nabisco pilot was one of the first in the industry, and the concept was new to both companies. Syncra Software sponsored Benchmarking Partners, a supply-chain

consulting company from Cambridge, Massachusetts, to help facilitate education. They also assisted in defining the overall scope of the pilot and to ensure that the process maps published by VICS were understood and used. This step was extremely important to maintain the integrity of the process. The front-end agreement helped establish the benchmarks that defined the roles, responsibilities, and timelines.

## Step 2 Preparing the Joint Business Plan

This phase included all the preparation and planning that took place prior to shipping the first order. The first need was to select the categories and products to participate in the pilot. These criteria helped lead to the decision to select Planters and subsequently Milk-Bone:

- Identify categories susceptible to major competitive erosion.
- Select strategic categories to defend.
- Understand competitive trade marketing strategies.
- Review viability of current category trade marketing plans.
- Consider alternative trade marketing category solutions.

The 22 Planters nut items were selected. Both companies assembled their internal marketing plans for the period, reviewed historical shipments, IRI data, the revised category management strategy and anything else the team thought could help in the planning process. An aggressive merchandising plan was put together and agreed upon for the third quarter. Subsequent quarterly plans were developed 13 to 15 weeks in advance of each shipping period.

## Step 3 Sales and Order Forecast Generation

The next step was to develop an item level-forecast—the most difficult step, since neither company’s forecasting systems were designed to do this. The rolling 13-week sales forecasts were developed manually by the Nabisco Sales Manager and the Wegmans Category Manager. The sales forecast was based on estimates of the aggregated quantity the retail stores were going to order from their



#### 4.1 Nabisco and Wegmans Pilot Overview

supplying Wegmans DC. The sales forecast had two components, the base forecast and the promotional forecast. The base forecast was primarily generated from the historical 852 movement data captured in the Nabisco CRP system. In addition, any additional volume that could be attributed to historical and projected growth of Wegmans was added.

The promotion forecast was developed along with the category and merchandising plan. The creation of the promotional forecast proved difficult. The sales forecast converted to the order forecast when it rolled into the freeze period. The freeze period was originally set at five weeks but was later reduced to three weeks. A five-week freeze period would allow Nabisco to incorporate the order forecast into upstream supply chain processes if enough trading partners adapted the CPFR processes. The five-week freeze period was reduced to three weeks because the sales growth was so dramatic it was difficult to keep up with demand. This fact turned the freeze period into more of a slush period because changes were made to actual orders within the freeze period. *Initially the unexpected sales growth was thought to be an anomaly; however, the trend never subsided.*

Spreadsheets were used to manage the forecasting process and the collaboration exceptions. The Nabisco customer service agent was responsible for flagging items that fell outside the agreed-upon exception criteria. The Nabisco sales manager and the Wegmans buyer resolved these exception items by phone or e-mail.

### Step 4 Execution of Shipments

The Nabisco customer service representative (CSR) managed the order process. The CSR played a key role in tactical execution of this pilot. She received and monitored the forecast and the product availability data contained in the 852 EDI transaction. The shipments to Wegmans were based on the order forecasts. Tentative booking orders based on the sales forecast were created by the CSR for weeks one to 10. These booking orders actually turned into firm orders when they rolled into week 11. The booking orders were adjusted along the way as

actual demand fluctuated from the forecast or as the business planned changed; the changes had to be considered significant for the adjustments to occur. Collaboration software will automatically advise the users of significant variations in forecast or demand.

### Summary of Pilot Effectiveness

CPFR is about jointly developing and monitoring business plans and forecasts between trading partners. This has led to a richer planning process and an improved understanding of the participants' marketing plans and category dynamics for Wegmans and Nabisco.

Overall, the pilot was deemed a success by all participants. It validated the business process model that was published by VICS. The major goals and objectives of growing sales while reducing cost were realized. It was a learning experience that enhanced the understanding of each company's business operations and objectives.

The effort proved that collaboratively monitoring and adjusting business plans leads to improved supply chain performance and profitability.

### Trading Partner Relationship Changes

The relationship between Wegmans and Nabisco was already strong at various levels of the organizations; this relationship was one of the reasons that the pilot was undertaken. Both companies have worked closely together and have embraced the entrepreneurial spirit to help grow sales and improve processes over the years. The pilot only strengthened the partnership.

### Model/Guidelines Functional?

The initial sales forecasts were developed jointly between Nabisco and Wegmans when the business plan was developed. This enabled collaboration to take place up front. However, forecast revisions and plan updates may have triggered exceptions as illustrated in the process model. The model shows two independent



#### 4.1 Nabisco and Wegmans Pilot Overview

forecasts being developed and compared. Only items falling outside the exception criteria go through the collaboration process.

#### **Unexpected Benefits and Key Learning**

All new initiatives come with some surprises. The most obvious unexpected benefit was the dramatic retail sales growth of Planters and the category. CPFR did not bring this alone but truly enabled enhanced planning and execution of the merchandising plan. Another benefit—not totally unexpected—was obtaining an improved understanding of the other trading partner’s business processes.

#### **Rollout Plans**

Nabisco and Wegmans are in the process of expanding their pilot programs to learn more. From the Wegmans perspective, they want to test the CPFR process with larger, higher-volume categories. Nabisco wants to test it with other accounts that create their own orders. Also, Nabisco wants to develop an internal process that can easily integrate the collaborated item-level forecast data into its upstream supply-chain processes. Additional pilots will help determine the expandability and scalability of the CPFR process. Both companies are committed to continuous improvement and believe that CPFR will enable that on-going goal.