Support Provided to Food Entrepreneurs and Processors in 2007 by the Northeast Center for Food Entrepreneurship at the New York State Food Venture Center (FVC)

By Olga I. Padilla-Zakour and Cheryl A. Leach, Cornell University

In 2007, the Center was able to continue to provide comprehensive assistance to clients developing new food products for the marketplace with the support from the NYS Agricultural Experiment Station (NYSAES), Cornell University and from a grant from the New York Farm Viability Institute under the Agriculture Innovation Center program. The grant focuses on NY farm producers and aims to enhance the sustainability of farmers by adding value to crops.

Between January 1, 2007 and December 31, 2007, the Center has been in contact with 1071 clients from 33 states and 2 additional countries. 789 inquiries were product-related and 282 were general inquiries. The Food Venture Center had 193 clients from 14 states filed for 513 scheduled process approvals. The center’s laboratory analyzed 418 samples for product safety and technical feasibility. Most food product prototypes were analyzed for pH and water activity to determine critical control points and food classification for federal and state compliance issues.

Throughout 2007, most of the requests for assistance came from New York totaling 144 clients that filed for 373 scheduled process approvals. In New York, the state regulations govern the production and sale of foods and therefore a large number of entrepreneurs need specialized assistance from food process authorities. The Center also issued many scheduled processes to clients in neighboring states.

We offered/supported 8 training programs/workshops attended by 872 participants, set-up demonstrations of food processing at the 125th Anniversary of the NYSAES with 4,000 attendees and contributed as speakers/instructors in 25 additional technical programs/events reaching 1,500 individuals.

The center provided direct assistance or training to more than 7,000 people in food safety and food processing, and business development and marketing, complemented by appropriate referrals to existing local service providers.

Products Evaluated and Approved for Safety per State in 2007

<table>
<thead>
<tr>
<th>State</th>
<th>Number of Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>373</td>
</tr>
<tr>
<td>Michigan</td>
<td>40</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>30</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>28</td>
</tr>
<tr>
<td>Connecticut</td>
<td>11</td>
</tr>
<tr>
<td>Colorado</td>
<td>9</td>
</tr>
<tr>
<td>New Jersey</td>
<td>7</td>
</tr>
<tr>
<td>Arizona</td>
<td>3</td>
</tr>
<tr>
<td>Vermont</td>
<td>3</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>3</td>
</tr>
<tr>
<td>Illinois</td>
<td>2</td>
</tr>
<tr>
<td>Ohio</td>
<td>2</td>
</tr>
<tr>
<td>South Carolina</td>
<td>1</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>1</td>
</tr>
</tbody>
</table>
Type of Products Evaluated and Approved for Safety in 2007

<table>
<thead>
<tr>
<th>Product Category</th>
<th>Number of Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acid</td>
<td>243</td>
</tr>
<tr>
<td>Acidified</td>
<td>180</td>
</tr>
<tr>
<td>Refrigerated/Frozen</td>
<td>22</td>
</tr>
<tr>
<td>Beverages</td>
<td>15</td>
</tr>
<tr>
<td>Dressings/Flavorings</td>
<td>11</td>
</tr>
<tr>
<td>Meats</td>
<td>10</td>
</tr>
<tr>
<td>Confections/Syrups</td>
<td>10</td>
</tr>
<tr>
<td>Acidified/Refrigerated</td>
<td>8</td>
</tr>
<tr>
<td>Fish/Seafood</td>
<td>4</td>
</tr>
<tr>
<td>Low Acid</td>
<td>2</td>
</tr>
<tr>
<td>Baked Goods</td>
<td>2</td>
</tr>
<tr>
<td>Dairy</td>
<td>2</td>
</tr>
<tr>
<td>Fats/Oils</td>
<td>2</td>
</tr>
<tr>
<td>Grains, Flour, Mixes</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
</tr>
</tbody>
</table>

The list of workshops, presentations, educational activities and tours is presented below. Similar programs will be offered in 2008 based on training needs.

Workshops - 2007


“Demonstration of Food Processing Operations: Grape seed oil pressing; UV demo and cider tasting; Apple peeling/slicing demo and tasting; Jam making video and tasting; FVC display and Food Science video; Food canning, pureeing, apple sauce, concentrator, cooking and juice making equipment demo”, Open House at the125th Anniversary of NYSAES, September 15, 2007, Geneva, NY. 4000 attendees – general public.

“Farmers Market”, Producers (10) display and food sale during the Open House at the125th Anniversary of NYSAES, September 15, 2007, Geneva, NY. 4000 attendees – general public.


Presentations and Tours


_Process Room Equipment, Instrumentation and Operation_, lecture at Cornell’s BPCS, November 1, 2007, Yonkers, NY. 8 attendees.

_Registration and Filing with FDA_, lecture at Cornell’s BPCS, November 2, 2007, Yonkers, NY. 8 attendees.

_Food Container Handling_, lecture at Cornell’s BPCS, November 2, 2007, Yonkers, NY. 8 attendees.


_Food Venture Center Display_. Ontario County's Fun on the Farm, September 29, 2007. Seneca Castle, NY. 10 a.m. – 4 p.m. 5000 visitors.


Tour of Food Venture Center and Fruit and Vegetable Processing Pilot Plant. NYS Ag Society Board of Directors, July 6, 2007. Geneva, NY, 35 attendees.


Selection and Manufacture of Food Products in an Incubator Based on Food Safety Risk. Food BIN Conference, April 25, 2007. Ames, Iowa. 20 attendees.


Tour of Food Venture Center and Fruit and Vegetable Processing Pilot Plant. Sarah Lawrence College Farm and Ag. students, March 13, 2007. Geneva, NY. 6 attendees.


MAPLE SYRUP PRODUCTS: NEW DEVELOPMENTS

By Olga Padilla-Zakour, Cheryl Leach, Herb Cooley, Belen Baviera,
NYS Food Venture Center, Cornell University

As a coordinated effort of the NYS Food Venture Center and the Cornell Maple Program, several value-added maple products were developed or optimized to offer marketing alternatives to maple producers. This project is funded by the New York Farm Viability Institute.

1. MAPLE MERINGUES

This is the traditional egg white and sugar cookie that people recognize and enjoy. We worked with different formulations and baking procedures to develop a simple method to obtain consistent results.

Equipment needed: scale to weight ingredients, mixer and oven.
Supplies needed: maple syrup, powdered egg whites, parchment paper, baking sheet, water proof packaging such as heat sealable bags.

Formulation by weight and preparation procedure – 500 g batch
98% maple syrup 490 g maple syrup
2% powdered egg whites 10 g powdered egg whites

Weigh the ingredients.
Dissolve powdered egg white in maple syrup by hand first and then whip in mixer at highest speed for 7 minutes.
Drop the whipped syrup in small portions (depending on size desired, 1 teaspoon to 1 tablespoon) on parchment paper over a baking sheet.
Bake in pre-heated oven at 200°F for 1.5 to 2 hr (depending on cookie size and type of oven).
Turn off the heat and leave the cookies in oven overnight. This is necessary to “dry” the cookies and to obtain the crunchy texture.
Package the meringues in air-tight bags. The cookies need to be protected from moisture as they will absorb the moisture from the environment and become sticky. They are dried with a very low moisture content (water activity of 0.2); therefore they can last for many months if packaged properly.

Serving size of finished meringues is 30 g.
Suggested packing is 8-10 cookies/bag or 1 serving of 30 g.
Ingredient declaration: maple syrup, dried egg white.

2. MAPLE SLUSHIES

This product will be prepared on site for immediate consumption in festivals and stores. It has a nice maple flavor and a refreshing taste that will delight kids and adults of all ages.
We tested different formulations with Medium Amber and Dark Syrup, from 15 to 30% syrup content in the slushies, and also the addition of milk in the form of non-fat dry milk from 2 to 4%.
The best results were obtained with Medium Amber Syrup, which is recommended for these type of products. Maple syrup content of 20 to 30%, which corresponds to 17 to 27°Brix in the slushies, were considered the best formulations. For the slushies with milk, 2 to 3% non-fat dry milk with 25% maple syrup resulted in the preferred samples.

Equipment needed: Blender or similar equipment to crush ice or to make slushies.
Supplies needed: maple syrup, ice, serving cups/glasses.

**Formulation by weight and preparation procedure – 500 g batch**

<table>
<thead>
<tr>
<th>Maple Syrup</th>
<th>Ice</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 to 30%</td>
<td>100 to 150 g maple</td>
</tr>
<tr>
<td>80 to 70%</td>
<td>400 to 350 g ice</td>
</tr>
</tbody>
</table>

For slushies with non-fat dry milk – for a creamier taste and added nutritional value:

<table>
<thead>
<tr>
<th>Maple Syrup</th>
<th>Ice</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 %</td>
<td>125 g maple syrup</td>
</tr>
<tr>
<td>2-3% non-fat dry milk</td>
<td>10 to 15 g non-fat dry milk</td>
</tr>
<tr>
<td>73 to 72%</td>
<td>365 to 360 g ice</td>
</tr>
</tbody>
</table>

Weigh the ingredients.
Prepare the slushies by crushing ice and syrup in the blender until smooth consistency.

Serving size of slushies is 8 ounces.

In addition, these formulations can be used to prepare popsicles – just substitute ice for water, mix well and pour into molds and freeze.

3. **MAPLE SUGAR PACKETS**

As an alternative to traditional sugar packets served in restaurants and coffee/tea concessions, maple sugar packets will offer costumers conveniently packaged maple sugar for tea and cereal.

The individual servings of 4 grams can be packaged in plastic bags of different shapes to highlight the rich color of the maple sugar. A rectangular shaped bag might be better to differentiate this product. It is important that the package is air-tight as the maple sugar is hygroscopic and will absorb the moisture from the environment.

4. **MAPLE BEVERAGE – SHELF-STABLE**

This product offers the possibility of making a shelf-stable beverage that can be sold already bottled in 8 ounce or bigger size containers.

As maple syrup is low in acid, the only way to make a bottled product without following a sterilization procedure that requires high pressure and temperature, is to add acid to the formulation.
We evaluated different acids to target a final acidity level or pH of 4.0 or below, and a Brix content of 12-13, typical for these type of beverages. Two acids were found acceptable: malic acid (normally present in apples, available in powder form) and lactic acid (present in dairy products, available in concentrated liquid form).

Equipment needed: scale, pH meter, a controlled way to heat liquid or filled bottles, commercial kitchen, FDA certification for acidified foods. Supplies needed: Spring water, maple syrup (medium amber), malic or lactic acid, glass bottles with metal closures appropriate for hot-packing acid beverages.

Formulation by weight and preparation procedure – 10 kg batch

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 % maple syrup</td>
<td>1.8 kg maple syrup</td>
</tr>
<tr>
<td>0.15-0.20% malic/lactic acid</td>
<td>15 - 20 g acid</td>
</tr>
<tr>
<td>~82% water</td>
<td>8.2 kg or liters of water</td>
</tr>
</tbody>
</table>

Weigh the ingredients.
Mix well to dissolve. Check the pH to be sure is 4.0 or below.
Heat to 190°F and hot pack into clean preheated bottles.
Fill temperature in the bottle must be at least 185°F.
Immediately cap with appropriate lids.
Invert or lay on the side for 3 minutes to pasteurize the lids.
Let cool at room temperature.

Alternately, the bottles can be filled at room temperature and capped. The bottles will then be processed in a boiling water bath.
Carbonated water can be used instead to add a little bit of carbonation. In this case, all the ingredients must be as cold as possible to maintain carbonation, and proper bottles with crown caps must be used. Carbonated bottles must be pasteurized in a water bath.

Serving size is 8 ounces.

5. MAPLE SUCKERS/LOLLIPOPS AND HARD CANDY
Our goal was to develop hard candy with 100% maple or with as much maple syrup as possible. Typically lollipops formulation include the use of corn syrup or invert sugar in order to obtain the right combination of sugars to produce hard candy. We evaluated the use of corn syrup, honey and inverted maple syrup to determine the appropriate proportions and cooking temperatures. Results with honey in concentrations as low as 10% honey were not as good due to the strong honey flavor and loss of brittleness over time, thus we are not recommending the use of honey at this time. For candy making though, careful preparation and experience is necessary, as environmental conditions (temperature and humidity) can make a difference.

Equipment needed: Stove top, pots, scale, candy thermometer or other appropriate food thermometer.
Supplies needed: maple syrup, corn syrup, candy or lollipop molds, sticks.

Formulation and preparation with Corn Syrup – 500 g batch
75% Medium Amber Maple syrup 375 g maple syrup
25% Corn Syrup (from supermarket) 125 g corn syrup

Weight the syrups and blend in saucepan.
Heat over low flame, stirring until mixture boils. Add a drop or two of anti-foam to prevent foaming.
Monitor the boiling temperature with the thermometer and let the syrup boil undisturbed until the temperature reaches 280°F, lower heat for the final stage.
When the temperature reaches 300°F, remove from heat and allow to stand until all the bubbles have disappeared.
Pour into molds, insert sticks after initial cooling (for proper placing)
Once cooled, package in air-tight bags to avoid moisture absorption from the environment.

Formulation and preparation of 100% Maple with Inverted Maple Syrup – 500 g batch
90% Medium Amber Maple syrup 450 g maple syrup
10% inverted maple syrup 50 g inverted maple syrup

To prepare inverted maple syrup add 0.2% of Invertase enzyme to the syrup (available from baking suppliers, keep refrigerated), mix well and keep at 122°F for 24 hours.

Weight the syrups and blend in saucepan.
Heat over low flame, stirring until mixture boils. Add a drop or two of anti-foam to prevent foaming.
Monitor the boiling temperature with the thermometer and let the syrup boil undisturbed until the temperature reaches 305°F, lower heat for the final stage.
When the temperature reaches 305 to 315°F (depending on syrup type and local conditions), remove from heat and allow to stand until all the bubbles have disappeared.
Pour into molds, insert sticks after initial cooling (for proper placing)
Once cooled, package in air-tight bags to avoid moisture absorption from the environment.

Final candy should be clear and brittle, not sticky – If the color is too dark, try boiling rapidly to the final temperature and add the inverted syrup at the end of the boil instead of at the beginning.

Serving size is one lollipop of approximately 15 g or several hard candies to match 15 g.

6. MAPLE JELLY
Maple jelly is made by boiling syrup and a specific gum called carrageenan (instead of pectin) to form a gel. Carrageenan is sold under the name ‘Genugel’ by maple equipment suppliers. We tested the traditional recipe that has been used by many producers but
found out that the final sugar concentration, measured in Brix, was below 65°Brix, which is the standard of identity to call a product jelly. We rework the recipe to comply with the standard of identity and therefore to have the product under the non-hazardous food category.

Equipment needed: stove top, scale, thermometer, refractometer for jelly range (optional). Supplies needed: maple syrup, genugel, glass jars and lids appropriate for hot-packing.

Formulation by weight and preparation procedure – 1 kg batch

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>83.3 % maple syrup</td>
<td>833 g maple syrup</td>
</tr>
<tr>
<td>16.5% water</td>
<td>165 g water</td>
</tr>
<tr>
<td>0.2% Genugel</td>
<td>2 g of Genugel</td>
</tr>
</tbody>
</table>

Weigh the ingredients.
Dissolve the Genugel in the water, this might take a few minutes with brisk agitation.
Place the syrup into a large pot (mixture will foam), add the solution of Genugel.
Add a few drops of anti foam to minimize foaming.
Boil quickly until the boiling temperature reaches 219-220°F and the Brix is 65-66°.
Hot pack into clean preheated glass jars.
Fill temperature in the jar must be at least 185°F.
Immediately cap with appropriate lids.
Invert or lay on the side for 3 minutes to pasteurize the lids.
Return jars to upright position for proper gelling.
Let cool at room temperature.

If the hot-fill temperature drops below 185°F (a problem with very small jars) then the capped jars should be processed in a boiling water bath for 5 minutes.

If the consistency is still too soft, increase the amount of Genugel to 0.25%. We have observed some surface darkening over time in the jellies, so cool temperature is recommended for prolonged storage.

Serving size is 1 tablespoon.

7. MAPLE SYRUP STICKS/STRAWS
One product that is used as a snack is the honey stick/straw. As maple syrup sticks can be also prepared, we evaluated how to stabilize the product to make it shelf-stable, because if the maple syrup is filled cold into the sticks or straws it will mold over time.

The maple syrup was filled at room temperature into the plastic sticks and heat sealed. We placed them into boiling water to establish the time needed to pasteurize the sealed sticks. Five minutes in the boiling water bath is sufficient to stabilize the syrup.
ENTREPREUNERS’ HIGHLIGHTS: PAT LAPOINT AND RICK FIELD

Resources Add to Value-Filled On-Farm Retirement

Pat LaPoint retired from Cornell Cooperative Extension in the Fall of 2005 with plans to start a value-added business. Her resume includes a lifetime of farm living and family cooking, and sales experience with her unofficially organic u-pick fruit and vegetable operation, CSA, and roadside stand at Hill’n Hollow Farm in Pavilion, NY, 35 miles southwest of Rochester.

“I know how to grow and cook good food, but I had no idea about commercial-scale food processing. Grant funding from the New York Farm Viability Institute provided access to the New York State Food Venture Center of Cornell University. The Center’s food safety and processing specialists came to my rescue,” LaPoint says. “Using their expertise, I do not make as many mistakes as I would trying this alone.”

Since 2004, the non-profit New York Farm Viability Institute has provided more than $500,000 to the Food Venture Center to assist growers in developing value-added processed foods (maple cream, pickles, tomato sauce, onion jelly, etc.). The Institute encourages producers to develop business plans before making farm changes. LaPoint had completed the “Tilling the Soil” business planning course offered by the NYS Food Venture Center.

“I needed the Center specialists’ skill with vinegar’s pH levels and shelf life. Without the Food Venture Center, I would not have tackled value-added processing on my own,” LaPoint says.

She says the professional and positive evaluation of her products by Food Venture Center Director Dr. Olga Padilla-Zakour was “the seal of approval and the reassurance I needed to know I could make this new enterprise work.”

The Center, located at the New York State Agricultural Experiment Station in Geneva, helped LaPoint convert recipes into gramweights and develop nutritional assessment labeling for her product line that now includes three vinegars and three chutneys. The blueberry, rhubarb and tomato chutneys sell for $4.95-$5.50. The blueberry, elderberry with pear, and gooseberry with nasturtium blossoms vinegars sell for $5 to $9. LaPoint harvests two of her 88 acres (a neighbor rents the rest). Twenty-five percent of her u-pick blueberry patch is reserved for processing. A sweet and spicy blueberry vinegar made without additives was LaPoint’s first product.
LaPoint kept start-up costs low by making test batches at the Food Venture Center and using the business incubator kitchens at Morrisville State College’s Nelson Farms to make her 50-case commercial product batches.

She estimates her starting investment was approximately $1,500 to form a limited liability corporation, purchase umbrella liability insurance, and cover fees for the use of Nelson Farms. About every six months, she makes new supply at Nelson Farms through a co-packing arrangement.

Walk-in coolers at nearby farmstands keep her supply until she harvests enough berries for processing.

LaPoint’s six children and a friend have placed her products in 24 specialty and natural food shops across New York and in Eastern U.S. states. LaPoint sells and distributes to Western NY retailers. She sells at food festivals statewide, and belongs to the state-run Pride of NY and the regional Finger Lakes Culinary Bounty promotional programs. One son is her website and product label designer. LaPoint has a daughter who lives in Austria, but says she is not quite ready to ship overseas.

She says she wanted to supplement her retirement “by doing something near and dear to my heart. I have met my immediate goal to have three vinegars and three chutneys and to offer sampler packs to introduce the products into new markets, particularly roadside stands.”

LaPoint is expanding her rhubarb, elderberry, currant and gooseberry crops. Mulberries will add value to her next product creation.

For More Info on New York Farm Viability Institute-funded value-added processing assistance:
Dr. Olga Padilla-Zakour
NYS Food Venture Center
315-787-2259

Amanda Hewitt
Nelson Farms Processing Facility
315-655-8331x1

For More Info on Hill’n Hollow Farm products:
Pat LaPoint
www.hillnhollow.com
585-584-3978

*This article first appeared in the July 2007 issue of American Agriculturist.*
Thanks to NY Ag Innovation Center, Processor Buying More New York-Grown Produce

Rick Field, a pickle maker in Brooklyn, says he expects his purchases of New York grown produce to increase five to seven times this year. He will buy from 500 to 2,000 lbs. of fresh cucumbers, onions, garlic, beans and such each week from now until frost from Hudson Valley growers. Why?

Well, not to diminish his own ingenuity in reviving pickling as a noble enterprise, but one of the reasons is Field’s work with the NY Ag Innovation Center (NYAIC), an initiative of the New York Farm Viability Institute, Inc. that is interested in growing New York’s agricultural sector and increasing sales of New York farm products.

“Olga, Don, Herb and Judy (NYAIC consultants) were instrumental in the development, refinement and expansion of our professional line,” says Field. “We could not have accomplished that growth without them. The critical components we learned in the test kitchens were important when we returned to the real world. We returned numerous times to refine our recipes for quality and for formulation acceptable to the food industry regulators,” Field says.

To make his line of gourmet pickle products, Fields purchases fresh produce from Hudson Valley growers. He currently buys from about half-a-dozen growers and is looking to double that number as his production increases. Rick is often found selling his finished products side-by-side at New York City Greenmarkets with the growers who supplied him fresh vegetables for processing at a community kitchen in Poughkeepsie.

“We try to spend every dollar we can on New York grown produce. We feel it is important to stay local not only for freshness and quality, but to be part of the regional economy,” Field says.

Field says the NYAIC team of food processing and packaging specialists helped him address the many issues that come with transitioning a home canning recipe into commercial production, noting, “The consultants were patient and mindful of our number one priority – making a crisp pickle. The Ag Innovation Center team helped us find ways to maintain the integrity of our original ideas so that crispness is first and foremost.”
**Rick’s Picks pickles featured in Bon Appetit**

A half-page article in the February issue of Bob Appetit recommended Rick’s Picks brand of pickles, spicy green beans, curried green tomatoes and other pickled vegetables.

The Brooklyn-based Rick’s Picks is carving out a niche with its artisan concoctions which take homey, old-fashioned foods into the 21st century with new-age flavors like curry and wasabi and creative product names, including Phat Beets, which pay homage to Grandma’s pickled red beets.

Rick’s Picks owner and founder Rick Field received training in processing and links to New York vegetable growers through the Food Venture Center at the NYS Agriculture Experiment Station at Geneva. That effort was funded in part by the federal Agriculture Innovation Center funding in 2003 that resulted in the formation of the New York Farm Viability Institute.

Rick’s Picks pickles and relishes retail for approximately $11 per 15-ounce jar and are available at specialty boutiques and through the website, www.rickspicksnyc.com.

New York Farm Viability Institute is an independent, farmer-led nonprofit organization that directs and funds farm-level research to increase profits, reduce costs and other barriers, create jobs and encourage practical innovation on the farm. Please visit www.nyfvi.org, or call 315-453-3823. The Institute is located at 159 Dwight Park Circle, Suite 104, Syracuse, NY 13209.
CONSUMER PACKAGED GOODS – A CHANGING ENVIRONMENT

In 2007, total consumer packaged good (CPG) industry sales grew 3.3%, primarily through price increases. Several major categories experienced double-digit price increases, which altered consumer shopping and purchasing patterns. However, categories that focused on innovation, particularly the health and wellness segment, achieved impressive gains, according to INFORMATION RESOURCES INC.’S (IRI)CPG 2007 Year In Review: Emerging Trends Shaping 2008 Opportunity report. Meanwhile, after two years of moderate share gains the supercenter channel experienced substantial growth throughout 2007 as consumers increasingly turned to the channel for low prices. Specifically, within the channel household penetration increase by 3.5 points, and basket size grew by 5.4%. Supercenter growth was sourced from multiple channels, but most heavily from traditional mass retailer, in large part due to store conversions/closings. Yet, the grocery channel continues to lead in CPG dollar share with 55.6%, compared to supermarkets at 14.4%, and mass merchants at 8.5%.

The dairy department led dollar sales growth in 2007, due to exceptionally high price increases in eggs (30%); refrigerated juice (15%) and milk (12%). Real demand growth was evident within the frozen, beverages and healthcare departments. For instance, within the frozen foods department demand grew for frozen pizzas, frozen vegetables and frozen appetizers, while beverages that touted health and wellness benefits helped to grow the overall beverage department. Price increases bolstered sales among nine of the top 10 CPG categories, while several categories experienced real demand growth, including: tea/coffee ready-to- drink, bottled water, and snack bars/ granola bars to name a few.

Demand for private label continues to increase as category prices rise, which was particularly true for the second half of 2007. Although price is the primary driver of private label growth, retailers launch of private label organics and healthy products has helped grow the segment. Private label secured large gains among several categories with exceptionally high price increases, including milk, eggs and refrigerated juices. Yet, private label gains could dissipate in 2008 if inflationary pressures subside. Retailers would be able to combat this potential decline with focused marketing that drove repeat purchases.

The health of the U.S. economy has a direct influence on consumer spending across CPG and healthcare products. Specifically, consumers’ spending on food generally responds to big swings in the Gross Domestic Product (GDP), but is less reactive to minor swings, according to IRI. Meanwhile, spending on non-food CPG products is more sensitive to relatively minor changes in GDP. In 2007, growth slowed similarly in both food and non-foods as GDP growth softened. As a result, manufacturers and retailers will need to identify the relationship between general economic trends and spending within their categories, brands and stores. Furthermore, in 2007, as a result of price increase the U.S. CPI reached 4.1% though December versus 2.5% in 2006. Increased demand for crops used for biofuel and feeding livestock, along with rising energy costs drove up production and distribution costs. IRI found that price increase not only inflated CPG dollar growth but also impacted consumer shopping and purchasing behavior. Specifically, as prices increased consumers followed one or more of the following strategies: purchased less, allocated more spending to WAL-MART and increased private label purchases. The only exception was among frozen poultry products where prices increased as well as...
consumer demand.

However, in 2008 a major slowdown in CPG spending is unlikely, according to IRI. The first and second quarters of the year are expected to deliver slow growth, followed by an acceleration in the second half of the year, which will likely result in increased consumer spending. Although price will continue to be a factor, inflation is expected to subside in 2008. As market conditions improve and retailers focus on growing private label brands, competitive pressures in many categories and markets will rise.

**Consumer trends that will influence demand and shopping behavior over the next few years include:** functional foods and beverages; increased sustainability awareness; unique sensory experiences; fresh foods of all types; cosmetic and skin care products with natural ingredients; informed purchases; products that fill multiple needs; and products that provide an energy boost. Industry trends that will drive growth in 2008 include: retail format innovations, specifically small format stores will increasingly appeal to consumers. Product innovation will also continue to drive growth in 2008, especially if it focuses on influential trends such as health and wellness, convenience and new tastes.

Source: IRI's MarketInsight
Food Institute Report