

Full disclosure of data collection

The FDA shall receive detailed information on how the sample is selected, how data are obtained and cleaned/edited for analysis, how the data was built how variables are defined, and the relationship between variables within the data structure.

FoodEssentials Data Methodology

The Labelbase system aggregates data from two independent sources, normalizes and optimizes the data and then presents it through the online LabelBase system. The following details the data processing process.

Data Processing:

Aggregated Data:

FoodEssentials aggregates the raw product data from Gladson and Mintel. Both of which have independent data collection methodologies and data structures. FoodEssentials receives updates of the data every month.

Data Normalization:

When the raw data arrives from two separate sources the data must be normalized in to one data structure. Once this is completed the data can be entered in to the FoodEssentials system.

Ingredient & Claims Extraction:

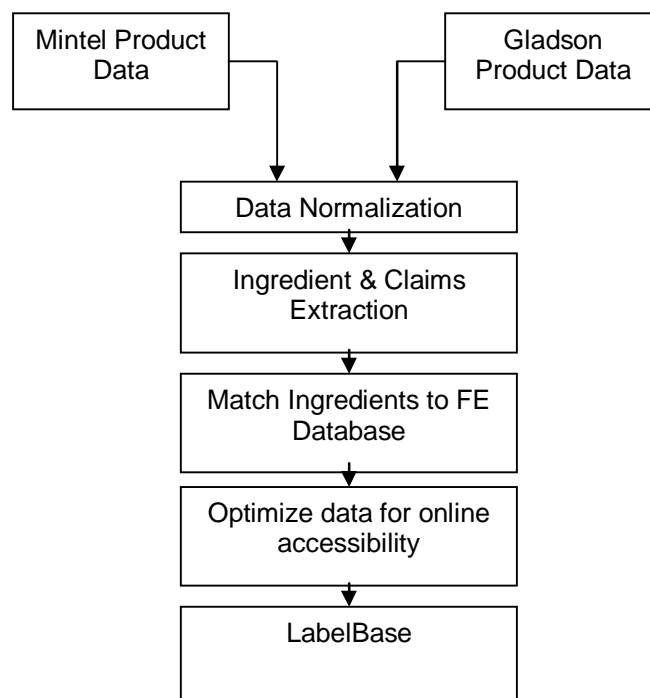
Once data arrives in to the system, the ingredients are parsed and separated so that they can be matched to the proprietary ingredient database. Claims are also extracted from a variety of text fields.

Ingredient Match:

Ingredients are then matched to the FE ingredient database and the relevant ingredient properties are linked to the products

Optimize data:

As the data is highly relational it must be optimized to ensure that it is highly accessible online.



Mintel GNPD Data:

Mintel GNPD relies on our network of over 3,000 global shoppers to identify new products in the market place. The field associates are looking for new products, new variety/range extensions, new formulations, new packaging and re-launches.

All key retail distribution channels are monitored, including grocery supermarkets, mass market, drug stores/chemists, natural food stores/health shops, gas stations/petrol forecourts, convenience stores, club stores, other independent outlets and some mail order/internet products.

Field associates ship products into the Mintel offices bi-weekly, allowing products to appear on GNPD within approximately 1 month of launch or as close to launch as possible. It's important to note that a considerable number of product launches are published on the GNPD prior to their official launch date.

Mintel also monitors all secondary sources reporting on new product information including; trade publications, trade shows, company websites, on-line/e-newsletters etc.

Field Associates Shopping Methodology

1. Mintel's field associates are provided with a list of stores they are to target for new products. The list of stores will include grocery supermarkets, mass market, drug stores/chemists, natural food stores/health shops, gas stations/petrol forecourts, convenience stores, club stores, and other independent outlets. The field associates shop on a weekly basis and aim to identify new products, new variety/range extensions, new formulations, new packaging and re-launches.
2. Mintel's secondary coverage team creates a list of launches they find through press, trade publications, trade shows, company websites, on-line/e-newsletters and send those products directly to our field associates. Those products are put on high priority for our field associates to identify.
3. Once a field associate identifies a new product, they cross reference that product with the Mintel Shopper Website. This assists with limiting duplication of products that have already been identified by another field associate and/or are already in the system. After confirming the product is not a duplication, the field associate will purchase the product and send into the Mintel offices bi-weekly.
4. The field associate will enter basic product data into the Mintel Shopper Website. The basic product data includes information such as: company, brand, product, product description, ingredients and nutritional information etc. They are also responsible for translating any product information on the front, back and sides of package.
5. The products are then shipped to Mintel's London office for further processing including additional data entry, photography of the primary and secondary packaging and several levels of quality control.

Mintel Data Entry and Quality Control

1. New products sent from field associates are assigned to Mintel staff based on language proficiency (where possible). Mintel has recruited a diverse team, based on maintaining a level of languages in-house. The current team speaks 12 of the languages that GNPD covers.
2. At this stage, the field associates have already completed translations of all the basic product information and Mintel's data entry team is responsible for recording all pertinent information from the package including; positioning claims, barcodes, ingredients, nutritional data, category etc.

3. The data entry team is responsible for providing feedback to the field associates of any quality control concerns or problems they have identified from the basic product data entered by the field associate.
4. Next the data entry team analyzes all the information on the package and enters the data
5. The products are then sent to be photographed. The photographer will take a minimum of 6 pictures from all angles of the package including; front, back sides, top, bottom and any additional images for the secondary packaging. The photos will then be cropped to be added to GNPD (see photography details below for detailed specifications)
6. Once the product record has all data entered and cropped photos, each product record is quality checked by a team of editors before being published to the website.
7. The editing team's work is assessed by team managers and they are alerted to any data problems/errors that are found.
8. A Senior Editor reviews 1000 records a month to check the health of our general data quality. This is presented on a quarterly basis to the heads of the dept who will assign reworks to the database and retraining of the team to any data field which slips below 98% accuracy.
9. The head of the department regularly reviews any other quality control concerns that are raised by the data entry team, the GNPD consultancy teams and feedback from existing clients. If concerns are validated, reworks and retraining may be actioned where necessary.

Mintel Photography Methodology and Requirements

Photography and Lighting

Pack shots should be taken on a white surface and white background, which must be kept clean to prevent dirt from appearing in images. The optimum lighting requires Daylight bulbs to be used overhead .100 watt

Camera Details

Nikon D3000 / D5000

The two desired settings for optimal picture quality are as follows:

Nikon D3000 – Image settings: Small 1936 x 1296 x 2.5mega pixels

Nikon D5000 – Image settings: Small 2144 x 1424 x 3.1mega pixels

Photography Details

At least six pictures should be taken of all products. A front shot of the brand and product description, a back shot of relevant details, side shots of relevant details and top and bottom shots. Additional shots should be taken for additional primary/secondary packaging. Close-up shots should be taken of special packaging

Pictures should be taken to avoid as much shadow and glare as possible to make the image editing process easier. Place packs away from the backing wall to help prevent heavy shadows in the background. Flatten/unfold flexible packages to prevent reflection or glare (it may help to fold them lightly in the middle to help them stand up and reduce glare).

Images should be taken and saved as 'jpeg' (jpg) files.

The images are then sent to photo editors who are responsible for cropping the images. The images are cropped to a smaller size which varies with each product, but in general, most images on GNPD are between 2.5 and 3.5 megapixels.

Example GNPD Product Record

Supreme Pizza

Record ID: 1295626
Company: Schwan's
 Consumer Brands
Brand: Red Baron By The Slice
Category: Meals & Meal Centers
Sub-Category: Pizzas
Country: USA
Store Type: Mass Merchandise/Hypermarket
Date Published: 07 Apr 2010
Product source: Shopper
Launch Type: New Product
Price in local currency: 3.00
Price in Euros: 2.19
Bar Code: 072180565693



Product Description

Red Baron By The Slice Supreme Pizza is topped with mozzarella, sausage, pepperoni, red and green peppers and onions. It is microwaveable and each pizza slice has a special crisping tray. This product is made with 100% real cheese and retails in a 10.66-oz. recyclable carton containing two individually wrapped fire-baked pizza slices.

Packaging Details

	<i>Primary</i>	<i>Secondary</i>
Package Type	Flexible	Carton
Package Material	Plastic unspecified	Board brown Kraft lined
Package Width (mm)	170 mm (6.69 inches)	180 mm (7.09 inches)
Package Height (mm)	220 mm (8.66 inches)	240 mm (9.45 inches)
Package Depth (mm)		65 mm (2.56 inches)
Decorative Process		Litho

Product Analysis

Pack Size: 10.66
New Product Count: 1
Storage: Frozen
Alcohol By Volume (%):
Private Label: Branded
Store Type: Mass Merchandise/Hypermarket

Product Variants

Product Variant	Format Type	Claims	Still Selling
Supreme	—	Microwaveable, Ethical - Environmentally Friendly Package	Still Selling
Pepperoni	—	Microwaveable, Ethical - Environmentally Friendly Package	Still Selling

Product Variant	Format Type	Claims	Still Selling
Four Cheese	—	Microwaveable, Ethical - Environmentally Friendly Package	Still Selling
Meat Trio	—	Microwaveable, Ethical - Environmentally Friendly Package	Still Selling

Ingredients:	Enriched flour (wheat flour, malted barley flour, niacin, reduced iron, thiamine mononitrate, riboflavin, folic acid), tomatoes (water, tomato paste), low moisture part skim mozzarella cheese (cultured pasteurized part skim milk, salt, enzymes), modified food starch, water, cooked pizza topping (sausage (pork, beef, water, spices, salt, sugar, garlic powder), water, textured vegetable protein (soy flour, salt), bell peppers, pepperoni (pork, beef, salt, spices, dextrose, lactic acid starter culture, natural smoke flavour, flavoring, oleoresin of paprika, sodium nitrate, BHA, BHT, citric acid)), yeast, breadcrumbs (bleached wheat flour, sugar, yeast, salt), onion, vegetable oil (soybean oil, cottonseed oil, corn oil, canola oil), sugar, butter flavored shortening (soybean oil, palm oil, fully hydrogenated cottonseed oil, mono and diglycerides, natural butter flavor, beta carotene), salt, non-fat dry milk, modified food starch, isolated oat product, guar gum, baking powder (sodium acid pyrophosphate, sodium bicarbonate, corn starch, monocalcium phosphate), wheat gluten, spices, maltodextrin, sodium stearoyl lactylate, hydrolyzed soy protein, hydrolyzed corn protein, paprika, garlic powder, defatted soy flour, mono- and diglycerides, L-cysteine, enzymes
Nutrition:	Per 151g serving (2 servings per pack): Calories 350kcal (of which Calories from fat 130kcal), Total fat 14g (22% DV) (of which Saturated Fat 6g (30% DV), Trans Fat 0g), Cholesterol 30mg (10% DV), Sodium 910mg (38% DV), Potassium 200mg (6% DV), Total carbohydrates 41g (14% DV) (of which Dietary Fiber 3g (12% DV), Sugars 9g), Protein 15g, Vitamin A (8% DV), Vitamin C (4% DV), Calcium (25% DV), Iron (15% DV)

Gladson Data:

Gladson Methodology

Products are identified as needing to be processed as a result of retailers, manufacturers, distributors and brokers sending physical product samples to Gladson. Gladson also receives special requests to perform on-site captures in stores and warehouses to fully capture entire product lines or a manufacturer's full inventory. Gladson does not accept data from any external source. We only input data into our database that has been processed through our rigorous image and data capture processes.

Gladson Product Capture Process:

Background

Product received at Gladson's Lisle facility as well as products captured at remote locations operated by Gladson, are imaged for coding purposes. Refer to Gladson Photography Methodology below for additional details. All coding performed is based on the image of the product taken at that time and Gladson updates the product coding database dependent upon receipt of new, revised or updated products. All data coding is performed via a proprietary interface to a Microsoft SQL database with daily data backups including offsite storage. Gladson captures full label detail including nutritional value data, ingredients, warnings and directions on the product's package.

Coding Assignments

Gladson controls the processing of products via a proprietary batch tracking processing system referred to internally as COPPS. Products received from clients are scheduled for coding in batches of 15 or less items to maximize efficiency. A single batch is provided to a trained Coder for the completion of all required data fields.

Batch Tracking

Products imaged and coded contain the initials of the person performing the work. An internal tracking system records the individual that performed the work should any defects in the process arise. For example, the Coder is able to reject the images back to the original photographer if there is insufficient or missing data to complete the product coding. Additionally, the Quality Assurance person is able to reject a product to the Coder for any coding errors found in the process.

Coding Process

Database Coders process a single UPC based on all of the text included on a product. The database tables listed in this document are populated by viewing the product images and entering text directly into the corresponding database field.

Where applicable, the database coders utilize OCR technology to record the text from the product. The text is then spelled checked, reviewed and placed into the database field. The use of OCR technology minimizes the risk of coding errors and aligns the Gladson database with the information presented on the packaging. Coders continue the population of all required fields including the nutrient table when applicable. The nutrient table presented for the Coders mirrors the layout of the nutrient information found on the package. The initials of the person coding the product are recorded in the database if any future questions or inquiries arise.

Upon completion of the product coding, the product's information is held and available only internally at that time. All product coding is required to go through a quality assurance procedure before releasing the data to our database for client delivery.

Q&A Process

All products coded are checked by a Quality Assurance Specialist for accuracy of the coding performed by the Database Coder. Specifically, the Q/A Specialist reviews the following:

- Data for typos, spelling and/or grammatical errors. The QA Specialist edits any text and corrects any errors found.
- Data accuracy is verified by comparing data fields in alignment with the text on the coding images of the product label
- Performs a final inspection to insure the Gladson image meets internal guidelines and standards

The QA Specialist then releases the product for promotion to the Gladson database and client delivery.

Example Gladson Product Record

Attribute	Value
UPC	00043000105214
UPCStructure	12
LegacyUPC	043000105214
BatchID	59057
HasNutrition	true
ValuePreparedCount	1
Category	CEREAL
SubscriberID	GNTCRLS
Brand	Grape-Nuts
Manufacturer	Post Foods, LLC
Address	800 Market Street St. Louis, MO 63101
Phone	800-431-POST
Copyright	
ItemSize	24
ItemMeasure	oz
Height	8.65
Width	6.5
Depth	1.95
ExtendedSize	24 oz (1 lb 8 oz) 680 g
ItemName	Cereal
Description	Cereal
ProductDetails	<p>Natural whole grain wheat with barley cereal. Power from grains. Grains are loaded with carbohydrates -the body's main energy source The grains in Grape-Nuts help provide you with energy to start your day. And, Grape-Nuts delivers B vitamins, which help release energy from food. So, be ready for the challenges of the day, start off with a healthy whole grain breakfast that includes the unique, crunchy, delicious taste of Grape-Nuts. Nutrition Benefits: Heart healthy. Excellent source of whole grain, 33 g per serving. Excellent source of fiber, 7 g per serving. Diets rich in whole grain foods and Low in saturated fat and cholesterol may help reduce the risk of heart disease. Nutritionists recommend at least 3 servings of whole grain foods each day (about 16 g per serving or 48 g per day). Exchange: 2-1/2 Starch. Exchange calculations based on Choose Your Foods: Exchange Lists for Diabetes, copyright 2008 by the American Diabetes Association and the American Dietetic Association.</p>
Indications	NA
Directions	NA
Ingredients	<p>Whole Grain Wheat Flour, Wheat Flour, Halted Barley Flour, Salt, Dried Yeast, Soy Lecithin, Vitamins and Minerals: Reduced Iron, Niacinamide (B Vitamin), Zinc Oxide (Source of Zinc), Vitamin B6, Vitamin A Palmitate, Riboflavin (Vitamin B2), Thiamin Mononitrate (Vitamin B1), Folic Acid (B Vitamin), Vitamin B12, Vitamin D.</p>
Warnings	Contains: wheat, soy.
DrugInteractions	NA
PostDate	1/27/2010 1:19:31 PM
GetNutrientData	false
Volume	109.6387
kosher_1	2

Nutrition

Serving Size:	0.5 cup			
Servings Per Container:	12			
Variation:			cereal with 0.5 cup fat free milk	
Nutrient	Qty	%DV	Qty	%DV
Calories	200		240	
Calories from Fat	10		10	
Total Fat	1g	2%	1g	2%
Saturated Fat	0g	0%	0g	0%
Polyunsaturated Fat	0.5g		0.5g	
Monounsaturated Fat	0g		0g	
Cholesterol	0mg	0%	0mg	0%
Sodium	290mg	12%	355mg	15%
Potassium	210mg	6%	410mg	12%
Total Carbohydrate	48g	16%	54g	18%
Dietary Fiber	7g	28%	7g	28%
Sugars	4g		10g	
Other Carbohydrate	37g		37g	

Protein	6g		10g	
Vitamin A		15%		20%
Vitamin C		0%		0%
Calcium		2%		15%
Iron		90%		90%
Kosher				
Flavor				
Vitamin D		10%		25%
Copper		10%		10%
Magnesium		15%		20%
Niacin		25%		25%
Vitamin B12		25%		35%
Vitamin B6		25%		25%
Zinc		8%		10%
Riboflavin		25%		35%
Thiamin		25%		30%
Trans Fat	0g		0g	
Folic acid		50%		50%
Phosphorus		15%		25%
ServingSize-InGrams	58g			
ServingSize_Prepared			1cup	

Gladson Photography Methodology

Photography and Lighting

Product shots are taken in a white tent to ensure even lighting and a reduction of glare. Lighting is accomplished through the use of three strobe lights positioned around the tent.

Camera Details

Canon Mark III

Image Settings: M1 3456 x 2304

Photography Details

Multiple photos are taken of a product for a variety of end uses (space management, nutrition program support, e-commerce, smart phone applications, etc.) and to capture relevant details located on the product (brand, manufacturer, size, etc). Image files are edited to delete background to white and add a transparency layer. Depending on their use, images can be cropped to the edge of the product or have their canvas padded by 5% and squared. The files after editing are primarily saved as jpeg and targa files. Other file formats are available. File size varies based on cropping of original image and file format.