Tortilla Formulations: Adapting to current Food Trends

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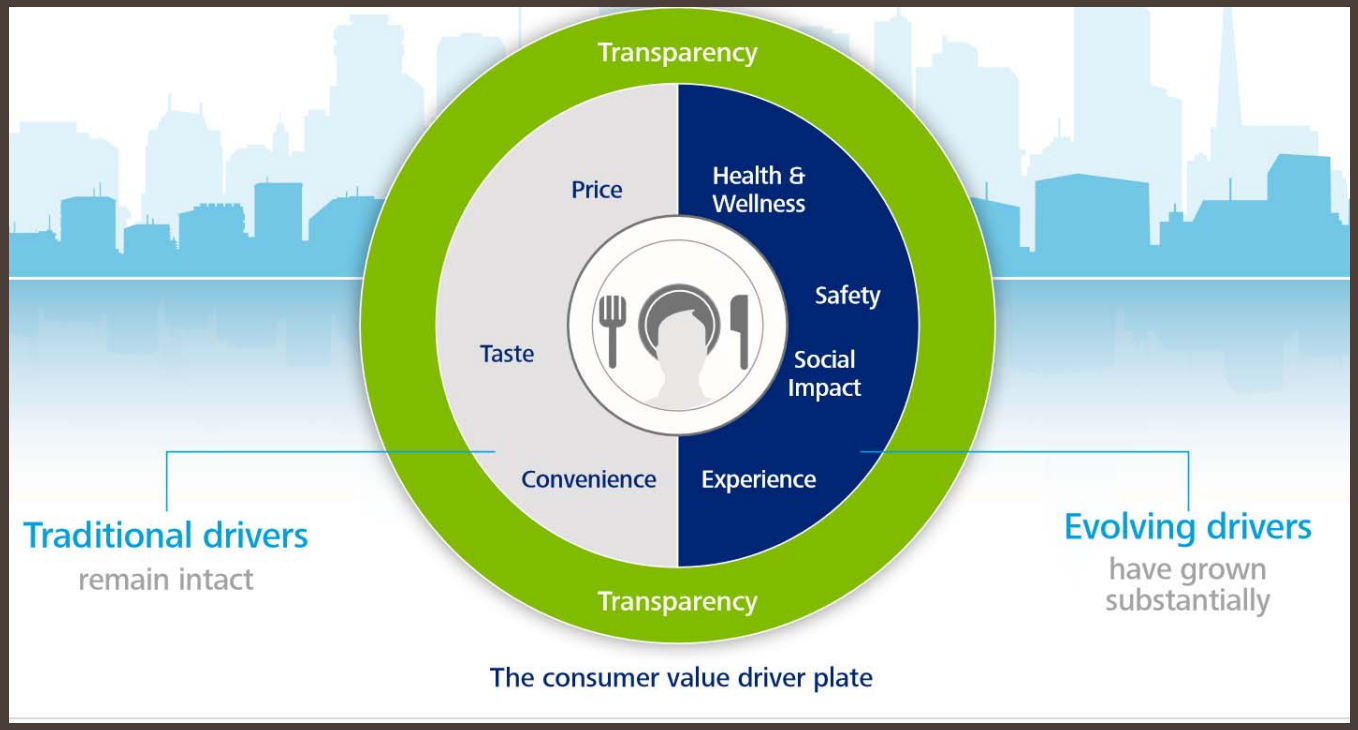
Allied Blending LP

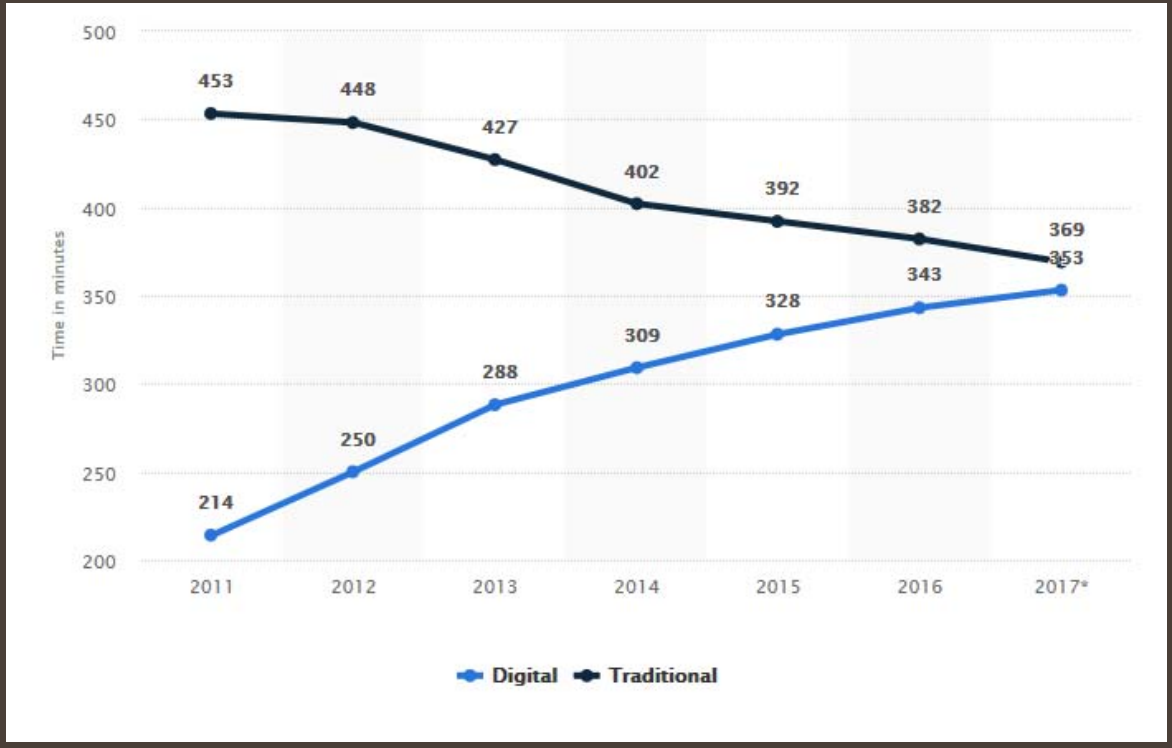
Consumer trends in the food industry



https://www2.deloitte.com/us/en/pages/consumer-business/articles/us-food-industry-consumer-trends-report.html

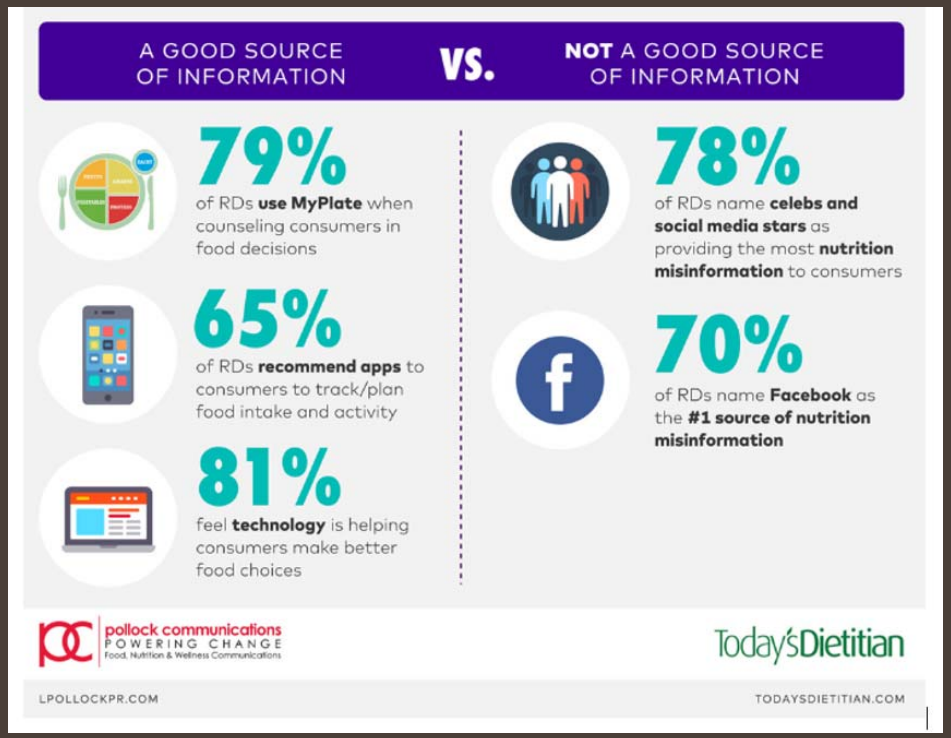
SOURCE OF INFORMATION

Time spent per day with digital versus traditional media in the United States from 2011 to 2017 (in minutes)



https://www.statista.com/statistics/565628/time-spent-digital-traditional-media-usa/

Digital resources on diet and nutrition



https://khni.kerry.com/trends-and-insights/horizon-food-nutrition/

Current Trends

- Clean Label
- Non-GMO
- Organic
- Diet Specific (e.g., Gluten-Free, Low Carb)

Food Regulations

- Without regulations/guidelines
  - Confusing
  - Misleading information
  - Deliberate falsehood
- Code of Federal Regulations
  - Dept of Health and Human Services
    - U.S. Food and Drug Administration (FDA) – 90% of food in the market
  - Dept of Agriculture (USDA) – meat, poultry and egg products
    - Food Safety and Inspection Service (FSIS)
- Food Label – Informed choices

Clean Label

- Food safety concerns – preservatives; "chemicals"
- No definite regulations/guidelines
- Created by the industry and/or consumer advocates
- Retailers make their own guidelines

Unacceptable Ingredients:

- Baking Powder – Aluminum containing (Sodium Aluminum Sulfate, Sodium Aluminum Phosphate)
- Emulsifiers – Sodium/Calcium Stearoyl Lactylate (SSL-Emplex)
- Preservatives – Sodium/Calcium Propionate, Potassium Sorbate, Sorbic Acid, Benzoates, Parabens
- Dough Relaxers – L-Cysteine; Sodium Metabisulfite
- Shortening – Hydrogenated fats
- Flour – Bleached flour
- GMOs (Aldi and Trader Joe's)

Non-GMO

- Environmental/food safety concerns
- GMO labeling is voluntary
  - Food has GMO content
  - Food does not contain GMOs (non-GMO)
- Instead of using the term non-GMO FDA recommends:
  - not genetically engineered
  - not bioengineered
  - not genetically modified through the use of modern biotechnology
- NATIONAL BIOENGINEERED FOOD DISCLOSURE STANDARD
  - Law passed in 2016 but not yet implemented
  - USDA will take charge because it's not food safety issue
  - Identify foods with GMOs using symbols/codes

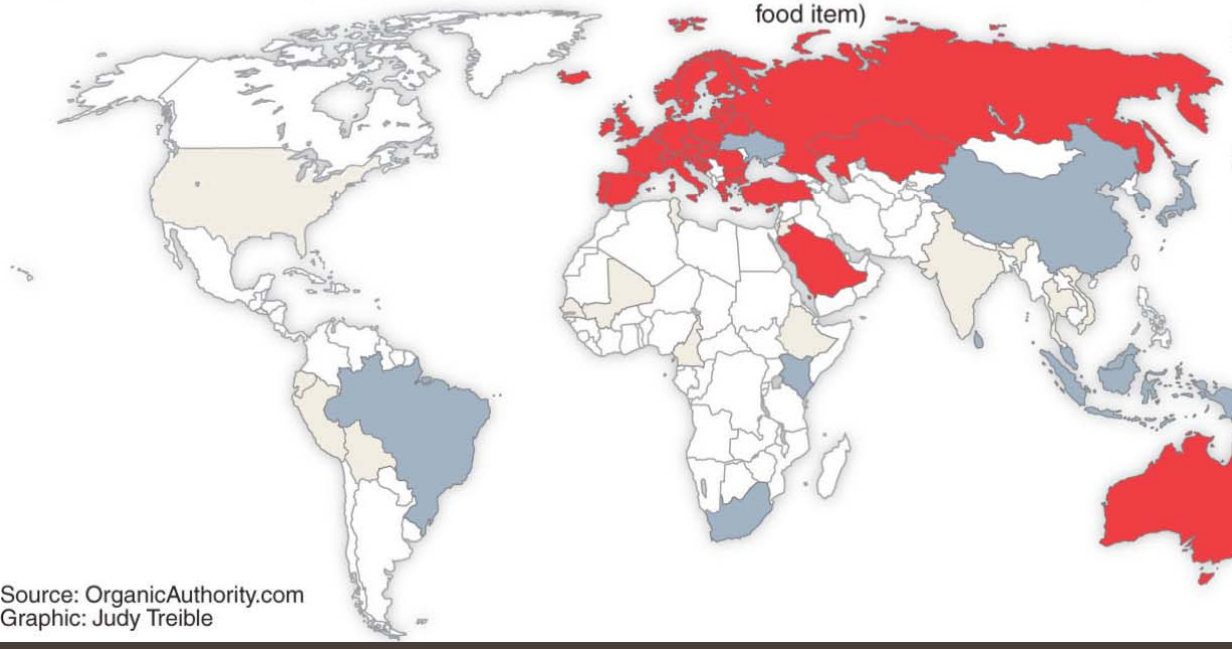
Countries with GMO food labeling laws

More than 60 countries have some sort of mandatory labeling law on foods containing genetically modified ingredients.

Mandatory labeling for nearly all GMO foods
(0.9-1% GMO content per ingredient in food item)

For many GMO foods
(1% GMO content for entire food item)

For some GMO foods
(No GMO threshold defined)



NOTE: A genetically modified organism (GMO) is an organism whose genetic material has been altered using genetic engineering techniques; can include bacteria, yeast, insects, plants, fish, mammals

Source: OrganicAuthority.com
Graphic: Judy Treible

Norman Ernest Borlaug

(March 25, 1914 – September 12, 2009)

- Father of green revolution
- Nobel Peace Prize (1970)

- Biotechnology is the only way to increase food production as the world runs out of unused arable land.
- GMOs are safe

- General scientific consensus: food derived from GM crops are as safe as conventional food

Common GMOs:

- Corn – Corn flour, cornstarch, corn syrup, corn oil
- Soy – Soy flour, soy protein, soybean oil; soy lecithin
- Sugar – beet sugar
- Canola Oil – genetic modification removed toxin

Approximately 75% of food available contains GMOs

- Non-profit organization
- Created in 2007 by two grocery stores, The Natural Grocery Company in California and The Big Carrot Natural Food Market in Toronto, Canada.
- Aims to prevent genetically modified foodstuffs from being present in retail food products.

Criticisms

- Known to put its labels on products that are either well known to have no genetically modified variant available
- Even on foods where genetic modification isn't even relevant, such as water

Organic

- Environment/health concerns
- USDA (The Organic Foods Production Act of 1990)
  - National Organic Program
    - Accredited Certifying Agents

- 100% Organic
- Organic (at least 95% organic content)
- Made with Organic (at least 70% organic content)

- Water and Salt are not counted
- Produced without excluded methods (e.g., genetic engineering-GMO, ionizing radiation, or sewage sludge).
- Produced per the National List of Allowed and Prohibited Substances (National List).
- Overseen by a USDA National Organic Program- authorized certifying agent, following all USDA organic regulations.

Allowed Non-Organic Ingredients

Nonagricultural Substances
Nonsynthetics
Citric acid (from microbial fermentation)
Carrageenan
Enzymes (from non-pathogenic organisms)
Malic acid
Sodium bicarbonate
Yeast
Synthetics
Alginates
Ascorbic acid
Calcium phosphates
Sodium acid pyrophosphate
Xanthan gum
Nonorganically Produced Agricultural Products
Guar; Locust Bean; Arabic Gums—water extracted
Cornstarch (native)
Lecithin
Whey protein concentrate

TORTILLA FORMULATION

ORGANIC (at least 95%)		Content (%)		MADE WITH ORGANIC (at least 70%)		Content (%)
Organic Flour	85			Organic Flour	85	85
Organic Shortening	8					
Organic Preservative	3	96		Shortening (non-GMO)	8	
				Non-Chemical Preservative	3	
Baking Powder	2			Baking Powder	2	
Dough Conditioners	1			Dough Conditioners	1	
Acids	1			Acids	1	
	100				100	
Water				Water		
Salt				Salt		

United States Dept. of Agriculture | Agricultural Marketing Service

USDA ORGANIC

Label Anatomy-

- Organic Designation
- Product Name
- NOP Seal
- Additional Label Claims
- Nutritional Facts
- Ingredient Statement
- Allergen Warnings
- Name of Distributor
- Name of Certifying Agent
- Certifying Agent's Seal

Our Brand

ORGANIC CEREAL

Nutrition Facts
Serving Size: 19 Crackers (21g)
Serving Per Container: about 8

Amount Per Serving	
Calories 100	Calories from Fat 45
	% Daily Value
Total Fat 5g	8%
Saturated Fat 0.5g	3%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 275g	11%
Total Carbohydrate 13g	4%
Dietary Fiber 0g	0%
Sugars 0g	
Protein 1g	
Vitamin A 0% •	Vitamin C 0%
Calcium 4% •	Iron 2%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

INGREDIENTS: Organic Wheat Flour, Organic Sunflower Oil, and / or Organic Safflower Oil, and or Organic Canola Oil, Organic Palm Oil, Salt, Organic Flavor (Non-Dairy), Leavening (Monocalcium Phosphate, Sodium Bicarbonate), Autolyzed Yeast Extract, Paprika, Natural Flavor, Organic Onion Powder, Annatto Powder, Organic Red Pepper, Papain (Enzyme).

Allergen Warning: May contain Wheat and Soy. Manufactured in a facility that uses Dairy, Eggs, Tree Nuts (Almonds, Cashews, Coconut, Macadamias, Pecans, Pine Nuts, Pistachios, Walnuts), and Peanuts.

Distributed by ABC Food Co.
Beaver, OK 73932
Certified Organic by
National Organic Certifiers
Product of USA

NCI

Diet Specific

- FDA – food labeling regulations
  - Nutrient content claims
  - Nutrient health claims
- Low Carb
  - Ketogenic
  - Low Fodmap
  - Paleo
- Vegan
- Gluten-Free

LOW CARB

- Mostly for weight loss and/or diabetics needs
- No FDA Definition
- Net Carb = total carbohydrates minus dietary fiber

WARNING LETTER:
"The California Lifestyle Flax + Soy Bread, Vegetable Protein Bread and Cinnamon Walnut with Flax & Soy products bear the claim "Low Carb." FDA has not defined nutrient content claims for carbohydrates; therefore, the use of this claim misbrands your product under section 403(r)(1)(A) of the Act."

- What is Carb balance?

In addition to intact and intrinsic fibers

FDA has identified the following added non-digestible carbohydrates as meeting the dietary fiber definition:

- Beta-glucan soluble fiber
- Psyllium husk
- Cellulose
- Guar gum
- Pectin
- Locust bean gum
- Hydroxypropylmethylcellulose

26 Fibers under consideration:

- includes oat hull fiber, wheat fiber, inulin, resistant starch (3 types), cellulose gum, xanthan gum
- No decision yet

Popular Low Carb Tortilllas

Brand A
Ingredients
Water, **Modified Food Starch**, Enriched Bleached Wheat Flour (Wheat Flour, Niacin, Reduced Iron, Thiamine Mononitrate, Riboflavin, Folic Acid), Vital Wheat Gluten, Powdered Cellulose, Vegetable Shortening (Interesterified Soybean Oil, Hydrogenated Soybean Oil and/or Palm Oil), Wheat Protein Isolate (Wheat Gluten, Lactic Acid, Sulfite), and contains 2% or less of: Salt, Leavening (Sodium Bicarbonate, Sodium Aluminum Sulfate, Corn Starch, Monocalcium Phosphate and/or Sodium Acid Pyrophosphate, Calcium Sulfate), Cellulose Gum, Preservatives (Calcium Propionate, Sorbic Acid), Distilled Monoglycerides, Enzymes, Wheat Starch, Calcium Carbonate, Antioxidants (Tocopherols, Ascorbic Acid, Citric Acid), Natural Flavor, Sunflower Oil, Sucralose, Canola Oil, Triglycerides, Dough Conditioners (Fumaric Acid, Sodium Metabisulfite and/or Mono- and Diglycerides).

Brand B
Ingredients
Wheat fiber, Enriched bleached flour (Wheat flour, Malted barley flour, Niacin, Reduced iron, Thiamine mononitrate, Riboflavin and Folic acid), Water, Mono and diglycerides, Olive oil, Baking powder, Salt, Calcium mononitrate, Riboflavin and Folic acid), Water, Mono and diglycerides, Olive oil, Baking powder, Salt, Calcium propionate, Gum blend, Sorbic acid, Fumaric acid, Sugar, Dough relaxer(Sodium metabisulfite, Corn Starch,_Microcrystalline cellulose, Dicalcium phosphate).

Nutritional Calculation

	Old Method	New Method
Total Carbohydrates (g)	19	19
Dietary Fiber (g)	14	7
Total Sugars (g)	0	0
"Net Carb" (g)	6	12

If a product currently contains added isolated or synthetic non-digestible carbohydrates that do not meet the definition of dietary fiber, what is the deadline for manufacturers to reformulate the product or modify its labeling?

FDA has issued a proposed rule to extend the compliance dates for the Nutrition Facts and Supplement Facts label final rule and the Serving Size final rule from July 26, 2018, to Jan. 1, 2020, for manufacturers with $10 million or more in annual food sales. Manufacturers with less than $10 million in annual food sales would have an extra year to comply—until Jan. 1, 2021.

Pending completion of this rulemaking, FDA intends to exercise enforcement discretion with respect to compliance with the Nutrition Facts and Supplement Facts label and Serving Size final rules.

Low Carb Derivatives

- Ketogenic (low carb-high fat)
- Atkins (Ketogenic at induction phase)
- Low FODMAP (Fermentable Oligo-, Di-, Mono-saccharides And Polyols)
- Paleo (no grains, dairy, legumes, etc)

Other Diet Trends

- Gluten- Free
  - FDA requires less than 20 ppm (parts per million) for presence of gluten
- Vegan – no animal products
  - Dairy
  - Eggs
  - L-Cysteine (dough relaxer) – from feathers

Allied Blending LP

What can we do for you?

- Help you understand what your customers need
- Work with your "certifiers"
- Develop products that meet the requirements