



Targeting the New Vegetarian Foods Consumer

Product developers are formulating and marketing a variety of innovative packaged foods designed to appeal not only to vegetarians but also to the growing group of consumers who are reducing their consumption of meat.

What do former U.S. President Bill Clinton, Academy Award-winning actress Natalie Portman, and talk show host/comedienne Ellen DeGeneres have in common? They all follow vegetarian or vegan diets, as do approximately 6–8 million U.S. adults, according to a Vegetarian Resource Group/Harris Interactive poll (VRG, 2009). While this number represents a small portion of the population, research shows that the number of adult consumers who are reducing their consumption of animal-based products is increasing. These are the consumers who manufacturers are increasingly targeting with better-tasting products, attractive packaging, and product variety.

Defining the Vegetarian Consumer

Vegetarians can be categorized into several different groups depending on what they will and will not consume, according to both the American Dietetic Association and the Vegetarian Resource Group (ADA, 2011; VRG, 2011). Lacto-ovo vegetarians do not eat meat, fish, or poultry but will eat dairy and egg products (ADA says that most vegetarians in the United States are lacto-ovo vegetarians). Ovo vegetarians do not eat meat, fish, poultry, or dairy products but will eat egg products. Lacto vegetarians do not eat meat, fish, poultry, or eggs but will eat dairy. Finally, vegans follow the strictest vegetarian diet; they do not eat any

animal products. While their numbers are small, vegetarians and vegans frequently consume meat and dairy alternatives and often influence other consumers' dietary habits (Cultivate Research, 2009). Although they are not considered vegetarians, pescatarians do not eat meat or poultry but do eat fish.

Animal welfare and environmental issues drive many people to adopt a vegetarian diet, but health and culture can also influence them. Concerns about repeated heart ailments and weight issues reportedly led Clinton to radically change his diet to one that is plant-based. Regarding health, ADA states that “appropriately planned vegetarian diets, including total vegetarian or vegan diets, are healthful, nutritionally adequate, and may provide health benefits in the prevention and treatment of certain diseases” (ADA, 2009).

To expand the reach of meat alternatives and other foods marketed as vegetarian, food companies need to recognize and attract other consumers—the non-vegetarians—who may not necessarily follow vegetarian diets, but who are reducing consumption of meat and dairy products. These “occasional vegetarians” (also called flexitarians) are often categorized into two groups. Semi-vegetarians, which represent one in eight U.S. adults, eat a vegetarian diet most of the time, frequently or occasionally purchase meat or dairy alternatives, and are driven by health concerns (Cultivate Research, 2008). The numbers have the

Veggie burgers, a popular vegetarian food product, are often made from soy protein (other proteins are used as well) and seasoned to suit the tastes of different consumers.

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To appeal to vegetarian and non-vegetarian consumers alike, some manufacturers are abandoning language like “vegetarian” and are instead using language that emphasizes the product is meat-free or “for meat and veggie lovers alike.”

Photo courtesy of Garden Protein International

potential to grow to about one-third of the U.S. adult population, creating an opportunity to attract new customers (Cultivate Research, 2008). Meat reducers, on the other hand, are not trying to follow a vegetarian diet; they still eat a variety of meat but are just reducing the amount. One in four U.S. adults reports being a meat reducer, or someone who consumes less meat

Farms’ consumers are flexitarians so the company continually develops new flavors and product varieties that appeal to these consumers, says Ami Krishan, Associate Director for MorningStar Farms. Younger consumers may lead the charge in reducing meat consumption, with 44% of consumers age 18-29 choosing meatless meals once a week and 32% selecting vegetarian foods (HealthFocus, 2009). Health issues, especially reported links between the consumption of diets high in saturated fats and cholesterol and heart disease and obesity, motivate many of the occasional vegetarians to reduce the consumption of meat and other animal products. To make it easier for health-conscious consumers to choose products, manufacturers are calling out health attributes on packaging with phrases like “all natural & heart healthy” (Luck Chen *Manna Soy Gourmet Meat Alternative*), “cholesterol-free, good protein source, 0 g trans fat” (ecoVegan *Blissful Bits* refrigerated meat alternative), and “70 calories per serving” (MorningStar Farms *Hot & Spicy Veggie Sausage Patties*).

Identifying Vegetarian Products

At one time, small companies produced vegetarian food products and sold them in natural/health food stores. As consumer interest in the

as burgers, crumbles, patties, and entrée meals. Holman notes that in 2011 manufacturers are focusing on prepared meals as new vegetarian item launches followed by wet soups, meat substitutes, baking ingredients and mixes, and snacks, cereals, and energy bars. For vegan products, the most new item launches are found in the snacks, cereals, and energy bar category followed by sweet biscuits and cookies, meat substitutes, chocolate, and fruit snacks, she adds.

Many manufacturers promote their products as vegetarian and denote this with front-of-package icons. Garden Protein International Inc., for example, uses “I’m meat-free” on packages of its *Lightly Seasoned Chick’n Scallopini*. The number of food products (frozen, refrigerated, and shelf-stable) in the U.S. that make some type of vegetarian claim on the package such as “suitable for vegetarians” has increased, with 987 in 2009 and 1,166 in 2010, according to Lu Ann Williams, Head of Research, Innova Market Insights. For the period January–June 2011, the number is 451. Since research shows that there is a growing number of non-vegetarian consumers at least occasionally purchasing vegetarian products, food marketers are using the “suitable for vegetarians” and “suitable for a vegetarian diet”

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than they did in the previous year (Cultivate Research, 2008).

“The numbers would tell you that the growth will come from the people who largely try to follow a vegetarian diet but not a strict vegetarian diet,” remarks Kim Holman, Director of Marketing for Wixom, who closely follows consumer trends across the food industry. The growth is evident with at least one manufacturer: Three-quarters of MorningStar

products grew, it caught the attention of large food manufacturers like Kraft Foods, ConAgra Foods, General Mills, and others, which either acquired smaller vegetarian food producers or launched their own lines of vegetarian food products. Kellogg purchased the MorningStar Farms brand, Boca Foods Co. is a subsidiary of Kraft, and Lightlife Foods is a ConAgra brand. These companies offer a variety of vegetarian products such

claims as a way to be inclusive rather than exclusive; they have chosen language that appeals to both the vegetarian and non-vegetarian consumers, remarks Holman. Garden Protein includes the phrase “for meat and veggie lovers alike” on packages of its *Gardein* products and reinforces this message in its communications to consumers that the products have a familiar texture of lean meat, says Darrell Askey, COO of Garden

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Protein International. Holman calls this language a “lite sell” but definitely sees it as a good marketing tool to attract the non-vegetarian consumers.

Improvements Appeal to Consumers

Food product developers know that a product will not sell if it does not taste good regardless of its other attributes. At one time, processed vegetarian burgers were bland and tough, and it seemed that only the die-hard vegetarians were consumers. But now updates in processing technologies, improvements to ingredients used in meat substitutes, and the use of more sauces, marinades, vegetables, nuts,

Although it looks like meat, this wrap sandwich is vegetarian. The “meat” is made from soy and wheat proteins and seasoned to taste like a barbeque rib. Product developers are blending various non-meat proteins with seasonings to create vegetarian products that appeal to both vegetarians and non-vegetarians.

Photo courtesy of MorningStar Farms



grains, flavorings, herbs, and spices provide both vegetarian and non-vegetarian consumers with better-performing products. “The technologies are improving so we now see products with more meat-like texture,” says Williams. “This opens up their appeal to new customers.”

Indeed, developing a product that delivers on taste and texture as well as providing variety are keys to attracting and retaining customers, remarks Askey. Consider Garden Protein’s *Chick’n Marsala*, a soy protein-based “cutlet” with mushroom and marsala wine sauce. The product features a front-of-package icon that states “easy gourmet.” The company also spices up some of its products with popular ethnic flavors such as in its *Chipotle Lime Crispy Fingers* breaded strips. As for variety in a product lineup, Lightlife Foods has tofu and soy protein hot dogs and burgers; strips, tenders, cutlets, and wings in the shapes and flavors of chicken products; tempeh in several flavors; meatless deli slices; and ground soy protein pieces for use in tacos, casseroles, and other products that call for ground meat. These unseasoned crumbles and strips that Lightlife Foods and other companies offer allow consumers to add their own ingredients and customize a recipe. EcoVegan and other manufacturers highlight convenience by indicating that consumers need to “just heat & serve” the product. MorningStar Farms offers 32 different meatless products, including breakfast items, entrées, and what the company calls *Meal Starters*TM—strips and crumbles that consumers use in recipes in place of meat. “There is an increasing number of people who aren’t

vegetarians and just want an easy way to eat healthier or reduce the amount of meat they eat, without sacrificing taste,” says Krishan. “That insight is driving MorningStar Farms’ approach to developing new products that offer flavor and convenience, all while helping people eat more healthfully by reducing meat intake.”

Meat alternatives (or analogs) are often either soy- or vegetable protein-based, although some manufacturers like Garden Protein use a combination of different proteins. They are used in many vegetarian food products because they offer a meat-like texture, healthy image, and low cost (Asgar et al., 2010).

Datamonitor’s Product Launch Analytics categorized meat alternatives into “chilled” (vegetable proteins used in cooking as a meat substitute) and “frozen” (meat-like vegetarian products but not vegetarian ready meals) and recorded 97 new product stock keeping units (SKUs) in 2010, 65 SKUs in 2009, 55 SKUs in 2008, and 79 SKUs in 2007 in the United States, according to Tom Vierhile, Innovation Insights Director for Datamonitor.

Soy protein is the most used protein in processed vegetarian foods, with wheat protein and vegetable protein second and third, respectively, reports Williams. These ingredients have various attributes to help with challenges of developing certain vegetarian food products. Solae in June 2010 debuted *Alpha*[®] 5800 and *Alpha* 5812 soy protein concentrates as alternatives to dairy proteins in products such as ready-to-drink and dry-blended beverages, frozen desserts, puddings, cream fillings, cheeses, yogurts, and others. The ingredients are produced by a patented membrane

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Calling out certain ingredients like seasonings and vegetables on the front of the package emphasizes flavor and taste to consumers. Manufacturers also call out health-related attributes.

Photo courtesy of MorningStar Farms

technology and reportedly help to maintain consistency in the finished product and produce formulation flexibility. Consumer sensory panelists rated a soymilk prototype formulated with the ingredients as greater in flavor liking, mouthfeel liking, and aftertaste liking than soymilk made with whole bean extract, according to the company (Solae, 2010).

ADM supplies several different vital wheat glutes (*Provim ESP*[®], *Whetpro*[®] 75, *Whetpro 80*, and *Supergluten 80*[™]) to provide binding and emulsification to meat analogs. Its *SmartBind*[™] wheat protein is said to bind ingredients, maintain optimum texture and mouthfeel, and improve freeze-thaw stability in vegetarian products.

Solbar offers one of its newest ingredients called *Supertex*, an extruded blend of soy-derived, textured vegetable protein, which, according to the company, provides good texture and chewing qualities, a juicy, meat-like quality, improved water-holding capacity, and a neutral taste to vegetarian products like burgers and patties. Depending on the application and the desired characteristics, different soy proteins are used alone or in combination, says David Kraus, Global Applications Manager for Solbar. For example, in vegetarian burgers, ground hydrated *Supertex* mimics the fibrous texture of a meat patty; *Bontex* steam-textured soy protein hydrates within five minutes and maintains a

meat-like chewy texture after hydration and cooking; and *Contex* textured soy protein concentrate combined with *Solcon S* functional soy protein concentrate or *Solbar Q* isolated soy protein provides texture (from *Contex*) and binding capabilities (from *Solcon S* and *Solbar Q*), states Kraus. Solbar will showcase a vegetarian canapés prototype made with the *Supertex* ingredient at the 2011 Food Ingredients Europe show, Nov. 29–Dec. 1.

Soy and wheat are allergens so product developers are looking at other protein alternatives. The use of pea protein is leading the way, says Williams. Her research also shows that corn and whey proteins are being used as well, though not as much as soy and wheat. Roquette America showcased its *Nutralys*[®] pea protein in a meat analog in tacos during the opening ceremony for its Innovation Center in September 2011. The ingredient is said to quickly disperse in water and have good emulsifying properties. Roquette extracts the protein from dry peas and removes most of the molecules responsible for the bitter taste in peas. It is spray dried and granulated for ease of dispersibility in vegetarian food products. The ingredient is labeled as “pea protein” or “vegetable protein.” Beans like black beans and chickpeas are especially popular in vegetarian restaurant items served in restaurants, says Homan, but they are increasingly used by manufacturers in prepared vegetarian foods. For instance, several of the companies mentioned in this article as well as the company Gardenburger produce black bean veggie burgers.

Perhaps as more people choose to reduce the consumption of animal products

in their diets, the evolution of vegetarian food products will continue. This evolution of vegetarian food products is not unlike other foods for which developments have helped food formulators create better products. Attracting consumers who may not be part of a traditional consumer base is something that producers of vegetarian products continue to improve upon through ingredient developments and clever marketing. **FT**

Karen Nachay, a Member of IFT, is Associate Editor of Food Technology magazine (knachay@ift.org).

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