Nutri Fusion®

THE ESSENTIAL GUIDE TO

Creating Functional Foods & Beverages



Consumers Want Foods with Healthy Ingredients

Year after year, consumers prove that they want healthy foods with minimal inconvenience. A recent survey of American adults shows that more than 75% of people agree a healthy diet is the basis for a healthy life,¹ and two thirds say health considerations influence their purchases of food and beverages. Today, millions of people are using functional foods as an integral part of their lifestyles, at a 40% increase from 2009.²

Globally, food and beverage purchase trends show a growing preference for "natural" products.¹ North Americans and Europeans in particular, reach for products with more pronounceable ingredients and fewer chemical compounds. According to Nielsen, 53% of consumers claim they care more

about buying foods with fewer unhealthy ingredients than they do about buying foods with healthy ingredients added.^{2,3}
To remain competitive, food and beverage manufacturers need to find ways to embrace rather than fight this push from consumers. In coming years, subtraction of unwanted ingredients could very well be more important than the addition of desirable ones.

GrandFusion® fruit and vegetable powder is an important ingredient to add because it keeps the health in packaged foods and protects the nutrition. Adding simple ingredients like fruits and vegetables are the ones that consumers want to see in their favorite products.





The Growth of the Functional Food & Beverage Market

By 2020, functional foods and beverages alone could be a \$190 billion-dollar industry globally. North America holds the largest share of this market, but Asia's demand for functional foods and beverages is increasing quickly. China and India in particular will likely become major demand centers in the near future. Newer, emerging markets are the most promising, with markets such as Eastern Europe reaching 6.5% growth over the five years from 2011 to 2016.

Several emerging trends are expected to gain momentum over the next five years.

The largest influencing factor for consumer purchases is weight management. Almost half of consumers polled in a 2016 survey want foods to help them lose or maintain weight. Related benefits, such as heart health and energy boosters are also common interests. Foods that combat aging and aid in digestion are sought out by one third of survey respondents.³

NutriFusion is actively researching how GrandFusion fruit and vegetable powders impact aging, energy and heart health. click here to learn more.



The Opportunities are Endless

No matter which category you choose to focus on, you are almost guaranteed to have a way to improve upon an existing formula.

In terms of weight loss and exercise performance foods, energy and protein bars should never be overlooked in the North American market. Providing maximum nutrition in a convenient, easy-to-carry package, energy and protein bars are a staple for many Americans and Canadians trying to get fit on the go. Fitness-focused consumers report an interest in whole, natural ingredients such as nuts and seeds, nut butters, fruit, vegetables, and healthy dark chocolate. Artificial sweeteners and other calorie-lowering compromises have their place in certain weight-loss markets, but there is a trend toward replacing these with natural alternatives like honey and agave for the "natural" consumers.² GrandFusion is one of the primary ingredients found in the products of the fastest growing bar company in North America. Consumers love the ability to eat a bar and get multiple servings of the nutrients from vegetables and/or fruit. Visit **NutriFusion.com** to learn more.

Foods with added fiber and fortified vitamins and minerals remain popular choices, with 65% of adult consumers looking for vitamin and mineral fortification and 63% looking for added fiber. While most brands will fortify their products with synthetic vitamins, there is a new approach with GrandFusion. Formulators can add natural nutrients from fruits and vegetables to their products without impacting the flavor or texture. Enhancing products with vitamins from real food is the future of clean labels.



Step 1: What product category?

Snacks are an ever-growing subsection of convenience foods, reaching 11% growth over the past few years. The projected value of the functional snack foods market by 2020 is \$8.5 billion. The speed and convenience of snack foods and the ease of fitting snacks into a daily routine between meals are all driving factors behind their popularity.²

Given the often-unhealthy nature of snack foods, consumers report a desire for healthier options in this category. Higher fiber, protein, added vitamins and minerals, and a move toward whole foods and minimal processing are all possible improvements on the snacks currently available. For example, minimallyprocessed fruit and nut bars are doing well in the North American and European markets. providing easy and convenient meals-on-therun without the usual problems of increased sugar and other additives. In fact, low sugar and no sugar options were in the top ten growing snack categories in 2016 and 2017, with foods like jerky, fruit, and reduced-sugar trail mix and smoothies leading the charge.2

Crackers, breads, and other baked items can also benefit from the addition of wholesome ingredients and the elimination of ingredients that consumers view as "artificial" or unnecessary and unhealthy. For example, whole food crackers and flatbreads made with plant-based nutrients, seeds, extra fiber, and higher-protein grains are experiencing growth.²

Plant-based dairy alternatives are an interesting category currently, with over 60% growth since 2012.² There is less emphasis on soy than there used to be, with more of an interest in almond, coconut, and pea dairy alternatives. It is likely that consumer opinions are being influenced by the view that soy may affect hormone production, leaving the other plant-based dairy alternatives looking like better options.

Brands are adding GrandFusion in a variety of categories because of its high nutritional properties and ease of use for food, beverage, supplement, or pet products.





Step 2: What are the target demographics?

The years from 2009 to 2017 saw a lot of growth in the functional foods market in the millennial age group. Millennials are projected to be a strong market for functional foods and beverages in the coming years, even more so now that this age group is having their own children and feeding their families with functional foods. This age group is also very concerned with sustainability and "green" alternatives. The millennial population overwhelmingly wants minimally-processed foods, with 72% actively seeking less-processed food for purchase.1

Working adults prioritize health and convenience in one package. Frequently, busy adults admit to skipping breakfast and having a meal replacement beverage instead. Health and wellness such as plant-based nutrients and fiber are big sellers in this population. ²

Functional foods incorporating "natural" ingredients, with a minimum of processing, are being successfully advertised as cures to many of the ailments associated with aging and ill health.

Millennials and older adults both are likely to use functional foods as a way to treat any number of health conditions naturally at home — for example, using gluten-free foods to control gluten sensitivities and high fiber foods to combat high cholesterol. 75% of consumers currently list heart health as a major consideration when buying food,² though digestive health foods are projected to experience the most growth through 2020.^{2,7}





Step 3: What healthy benefits does your product offer?

Appealing to the weight loss, hearth health, and digestive health populations should be a priority, as they hold the majority of the North American market. Roughly half of all Americans are trying to control their weight through diet, three quarters are aiming for a heart-healthy diet, and 83% reported in 2017 that they were experiencing digestive issues.²

Reducing unhealthy fats should take priority over adding healthy fats. This should also serve as an overall caloric reduction, making the product ideal for weight loss. Along similar lines, reducing sugars, especially added sugars, in processed foods and beverages will serve populations trying to control blood sugar and treat heart disease.

While weight loss, heart health, and digestive health top the charts in terms of health benefits sought out by consumers around the world, these are not the only benefits your functional foods and beverages can provide. Vitamin and mineral fortification are a selling point for 65% of consumers,² including the aging and immuno-deficient populations as well as parents trying to provide balanced nutrition to their children.

GrandFusion is enabling companies to add desirable plant-based vitamins and minerals to their foods and beverages with fruit and vegetable powders. Consumers want fruits and vegetables since so many people are not meeting their daily recommendations. With GrandFusion, you can easily add nutrition that consumers will love.





Step 4: What ingredients should you choose?

Consumers want to be able to trust that food manufacturers have their best interests at heart. Eliminating unnecessary additives is beneficial. Consumers want natural ingredients with dense nutrition like vitamins and protein. Food labels need to reflect healthy, unprocessed ingredients and list as few unhealthy and unnecessary ingredients as possible.¹

The most effective ingredients that build consumer trust are complete proteins, fiber, probiotics, plant-based alternatives to animal dairy and protein, whole and unrefined grains, heart-healthy fats, fruits, and vegetables.

Utilize natural functionality rather than artificial and overly fortified functionality. Ingredients that consumers view as "naturally functional" include nutritional powerhouses such as blueberries, kale, lean protein, almonds, and green juices. These foods have the benefits of

not needing much advertisement; consumers are happy to purchase them based on the common perception that they are healthy foods by default.

Sugar tops the list of ingredients to avoid,² followed by trans fats, and, to a lesser degree, saturated fats that are viewed as unhealthy by the average consumer. Low-fat foods should avoid added sugar as a replacement for removed fat content. The same is not true in reverse, however. Consumers now are not averse to buying products with higher fat content as long as carbohydrates are lower.7 The addition of vitamins from real, whole food sources, as opposed to those synthetically grown in a lab, may be well-received by the public.² Natural vitamins boost immune health and help busy consumers achieve a well-balanced diet with all of the important vitamins and minerals without having to take a synthetic multivitamin every day.





Case Study: NutriFusion Fruit & Vegetable Powders

We created this guide for product developers, food & beverage brands, and private label manufacturers to help them create better functional products that consumers want. In this section, we will look at how you can us NutriFusion fruit and vegetable powders in this process.

NutriFusion is the leader in plant-based nutritional ingredients. NutriFusion created GrandFusion fruit and vegetable powders to help brands add natural vitamins and minerals from fruits and vegetables to their products. GrandFusion products are highly concentrated and stabilized to help brands easily add 25% daily value of up to 21 vitamins and minerals without impacting the taste or texture of the end product.

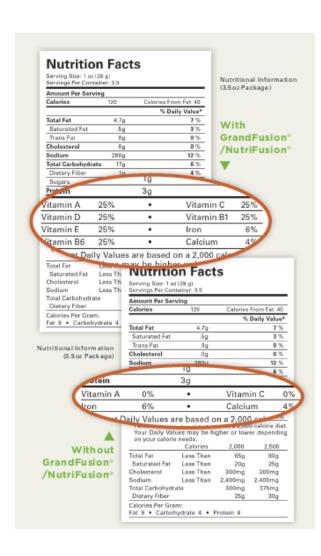
The fruit and vegetable powders can be used in a wide range of functional foods and beverages including snacks, yogurts, gummies, meal replacement products, smoothies, plant-based meat, and nutritional bars. The product has a 2-year shelf-life and highly stable to withstand most processing conditions without damaging the nutrients. Below are the key benefits of using GrandFusion fruit and vegetable powders:

GrandFusion® Benefits:

- 1. An all-natural nutritionally dense nutrient powder from fruits and vegetables.
- 2. An extremely clean label with no chemicals or "unpronounceable" words.
- **3**. Easy to formulate as it has no impact on taste, flavor, pallet feel etc.
- 4. Highly concentrated 450 mgs will provide 100% of the DV.
- 5. No synthetic vitamins. Real food with real food nutrition!
- **6.** Excellent bioavailability and bioabsorption.
- 7. GrandFusion® supports the front panel claims with the GrandFusion® nutritional panel and ingredient deck.
- 8. Research to support all claims.
- In certain products, such as baked goods, it can extend shelf life due to the high levels of antioxidants (both from vitamins and polyphenols in the fruits and vegetables).







Real Food! Real Food Nutrition! Real Food Vitamins ... and nothing else!

- Nutrient Dense for Health!
 Rich in Antioxidants!
- Very Clean! No unpronounceable Ingredients!
- Ingredients: NUTRIENTS FROM WHOLE FOOD CONCENTRATE [SPINACH, BROCCOLI, CARROT, TOMATO, BEET, SHITAKE MUSHROOM].





Work with a Collaborative Partner & Supplier

NutriFusion has been in business for over 10 years and worked with 100s of companies from startups to the Fortune 50. We have worked with foods, snacks, beverages, pet food, supplements, and more to help add functional benefits that consumers love.

When you look at the steps in this guide: product category, target demographics, health

benefits, and the ingredients; know that we are a partner to help bring your new product ideas to life.

To learn more, email **mm@nutrifusion.com**. We are excited to start working on the next great functional food or beverage product!



Resources

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