

THE COMPLEX CHALLENGE OF CLEAN LABEL

Deceptively Simple Yet Defying Definition



American Egg Board

Clean label products prove less can be more. However, clean label formulation can be anything but simple. Manufacturers need real ingredients from natural sources that can withstand the rigors of processing, create an attractive food or beverage with an enticing taste and mouthfeel, and supply a decent shelf life. It's a tall order, but certain ingredients, like the egg, have proven their worth through decades as multifunctional food processing staples. Plus, egg ingredients can help make gold standard clean label products a reality. Before diving into egg ingredient properties and benefits, it's important to try to pin down the current state of the clean label movement. Because although the clean label trend has changed and evolved considerably over the years due to consumer demand, it isn't going anywhere anytime soon.

Clean label seems a simple term but can sometimes defy firm definition. The Food and Drug Administration (FDA) has yet to provide the industry with official terminology or regulations to describe clean label. And manufacturers must remember this is an industry term, coined by Innova Market Insights in 2014 (according to one publication) and eagerly latched onto as a convenient term to describe shifting market conditions. One publication reported, several surveys showed as many as eight out of 10 consumers have no idea what the term "clean label" means. Is it authenticity? Transparency? Natural? Partly. But is also encompasses "free-from" ingredient considerations, health concerns, and for some consumers, sustainability and ethical issues.

One thing is clear—product preferences expressed through consumer purchasing patterns have pushed "clean label" from fad to trend and from trend to mainstream.

Mainstream Movement

Nielsen data reveals 93 percent of all U.S. households purchase clean label products at grocery stores. Fully half of all shopping trips now include the purchase of a clean label product.



The International Food Information Council Foundation (IFIC) stated in its trend watch that the clean label movement "will reach new heights" in 2018 and beyond as the food system continues to grapple with the exact definition of that term.

As a step along the path towards those new heights, Innova Market Insights recently identified a purchasing pattern that moves clean label along the spectrum to "mindful" eating. While mindful choices can vary depending on the consumer's generation or income level, "mindfulness" encompasses concepts ranging from health and wellness to sustainability and ethical considerations.

This same Innova data shows that 7 out of 10 U.S. and U.K. consumers want to know and understand ingredient lists. It also says, "At the same time, rising levels of interest in ethical issues have resulted in the use of ethical claims for food and drink new product development soaring in recent years, with a compound annual growth rate (CAGR) of 44 percent" over a recent five-year period.

These ethical considerations fall within this newly identified pattern of mindful eating, which embraces:

- Natural, or use of natural ingredients and the exclusion of artificial ingredients
- Simple ingredients that are minimally processed
- Labels with a short list of ingredients, and easy to pronounce ingredients familiar to the purchaser
- Foods and beverages that promote health and wellness
- Traceable ingredients, or the “farm-to-fork” supply chain
- Sustainability when possible out of concern for the environment

Millennial Momentum

While different generations can define clean label a bit differently, one group under particular scrutiny is the Millennial population. Millennials are the new driving force behind new product development and introduction. This generational segment is young and energetic and large—the sheer size of this population segment, coupled with its purchasing power, means it is poised to displace Boomers as the most influential consumer group. Millennials are expected to overtake Boomers in population by 2019, swelling to 73 million in number.¹

“Millennial shoppers are more likely to look for and buy products labeled organic or “free-from,” such as free from GMOs or added hormones.”

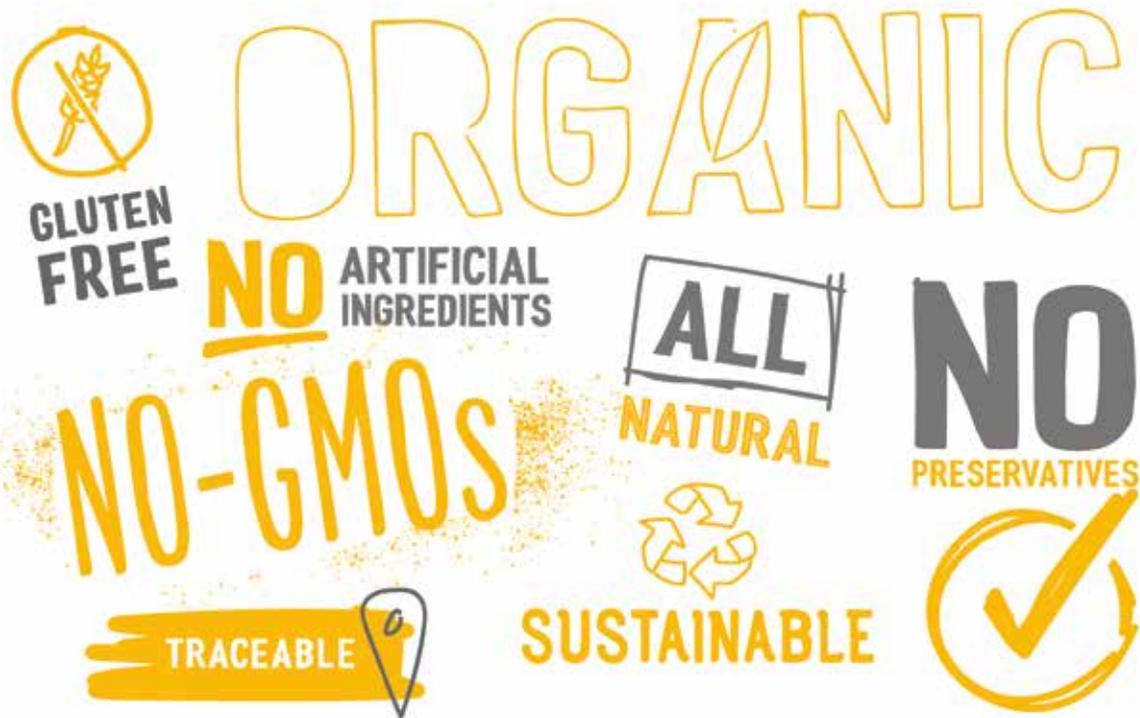
In the free-from melee, manufacturers have hastened to reformulate products to phase out corn syrup, artificial sweeteners, preservatives, colors and flavors, as well as cut back on gluten and trans fats. As one example, when a manufacturer reformulated its classic hot dog product, the new label showcased the word “no” three separate times to assure consumers these undesirable ingredients were absent from its product.

Market researcher Euromonitor International has its own term for this population segment of educated 20- to 29-year-olds, calling them “Clean Lifers.” These consumers have a “wider world view than previous generations” and strong beliefs. Whatever they embrace, they do it wholeheartedly, a factor that does affect their purchasing. Euromonitor predicts behaviors that fit within this desire for personal health and wellness, including, it says, a tendency towards vegetarianism and/or flexitarianism.

Children and Stealth Health

Of special note, Millennials are becoming parents and transferring their high expectations for their own foods to the foods given to their children. Packaged Facts, in its report, “Food & Beverage Market in the U.S., 9th Edition,” published in 2018, says that Millennial consumers have firm ideas about what they expect from products and brands. For their children, the report says Millennial parents want better-for-you or ‘stealth health’ options in addition to products with all-natural, non-GMO, no/low sugar and “no artificial ingredients” claims, dovetailing perfectly with clean label stipulations.

Yet within the children’s category, product flavors and shapes that capture a child’s imagination are equally as important. Clean labels and healthy products might “sway parents’ purchasing decisions,” says the report, but 55 percent of parents said their children’s preferences and requests are especially important to them.²



Income and Clean Label

Income levels can affect clean label demands as well. Nielsen predicts a “forward movement” of the clean label trend to include consumers under the age of 35 with annual household incomes of more than \$100,000 and especially families with children.

Another habit of this population segment—online grocery shopping. FMI and Nielsen began tracking online grocery shopping two years ago and released the second year of its findings for the “Digitally Engaged Food Shopper” in early 2018. In as few as five to seven years, 70 percent of consumers will be grocery shopping online. The pace of change and adoption has far outrun initial predictions.³

In an online experience, shoppers need to rely on the brand’s reputation and/or information gleaned through product views on a computer screen – in other words, the label and ingredient listing.

Stealth or just...Health?

Euromonitor International, when it predicted eight of the most influential ‘megatrends’ to track in the food and beverage industries, said the primary trend is healthy living, impacting most categories and geographies. The number one trend it identified is “back to nature and no to sugar,” or naturally functional, fitting neatly within the category of clean label foods and beverages.

Another recent study focuses on the health aspects inherent in clean label product purchases. It found that “health” seems to be the main driver, with health defined according to different forms, i.e., healthiness of the product, health claims on the package or health concerns of the consumer.”⁴

While it might seem easy to the consumer for companies to simplify labels, real concerns about food safety, shelf life, product appearance, texture and primarily taste make formulating clean label products anything but simple.

Clean Label Ingredient Selection

Manufacturers need to find ingredients that are in their natural state or as close to natural as possible, i.e., minimally processed. Then they are needed in the necessary quantity and format to fit industrial processing, while being able to be listed on a label in a recognizable form. Yet these “simple” ingredients need to aid with shelf life, product mouthfeel and texture, appearance, structure and form, and in addition, act synergistically with the other simple, natural ingredients that will provide a successful acceptable and flavorful end product that will experience market success.

One company that conducted in-depth consumer research on consumer views of clean label found that there are three clear areas of consumer expectations; ingredients, nutrition and sustainability. However, a small segment of the population who are keenly interested in the product label regard even some ‘natural’ sweeteners, flavors and colors as undesirable.

“Fifteen percent of Millennials deemed ‘natural flavors’ as unacceptable in savory snacks.”

As Kantha Shelke, Ph.D., adjunct professor at Johns Hopkins University in Baltimore and principal at Corvus Blue, food science research firm, stated in one article, “What is (considered) clean today might not be so tomorrow.”

As ingredient lists continue to get shorter, sometimes packaging mimics the trend as well. Some companies, taking the clean label

challenge literally, developed “minimalist packaging” to establish a presence in a market some feel is cluttered with claims and certifications. This simplified packaging can help strengthen brand identity as it cuts back on the callouts and badges, instead focusing on a “clean” label in terms of white space to emphasize the clean and simple ingredients and/or processing of the product within.

In its most recent report, Euromonitor stated a total of 1.2 billion tons of pure commodities were used in one year within food and drink applications, called “the purest of clean label ingredients in that they are widely recognized and generally held in high favor by consumers, e.g., eggs, fruit, nuts, juices, fish, meat, etc.” It estimates the global value of the packaged foods’ clean label category at U.S. \$165 billion across 26 markets tracked. The three leading markets within this figure include North America (\$67 billion), Europe (\$59 billion) and China (\$23 billion). The most persuasive claim remains one that says, “all natural” followed by “no artificial ingredients.”

Clean Label CPG Category Value



These ingredients, says The Hartman Group, could help with clean label product sales. Clean, natural and less processed foods, the group said at a conference last fall, are deemed high quality or premium, “in a culture that is increasingly focused on health and wellness.” Consumers expect better ingredients but safe products as well. Ingredients that are healthy, nutritious and sustainable. Millennials are more likely to look for additional confirmation through claims and certifications, such as “organic” or “made with real ingredients.” Ingredients are the most critical amongst these parameters, “with approximately 40 percent of consumers’ perceptions influenced by specific ingredients.” And overall, consumers prefer “recipe-like” ingredient lists.

White Knight

More than one piece of literature discusses the enormous formulation challenges facing

manufacturers trying to simplify the label while maintaining appropriate product texture, appearance and taste. While it might sound repetitive by now, there truly are few ingredients found in nature that can offer the wide range of functional benefits supplied by an egg.

And in an environment where names matter with consumers seeking recognizable ingredients, the ability to put the word “egg” on an ingredient deck is a big plus. Ubiquitous both in the American diet and in the manufacturing facility, formulators might tend to overlook some of its more unique aspects, including the fact that egg products can supply multiple functional properties within the same application – thereby allowing the formulator to rely on a single ingredient for multiple properties. This can help keep an ingredient deck short and make simple labels more of a realistic possibility. “The supply chain, scalability, machinability,

20+ functional benefits egg products can supply include:



To learn more, see the 20+ benefits at AEB.org/Functionality

ingredient interaction and proven performance within a wide range of processing environments are all factors formulators need to consider when putting together a short list of ingredients for clean label product development,” said Elisa Maloberti, AEB director of egg product marketing. “Consider how manufacturing has evolved in the past 20 or even 10 years in terms of processing techniques or packaging,” she continued.

““ Yet egg products maintain their reputation for reliability. Formulators know how an egg is going to react in almost any application or situation, based on decades of use in high-speed, high-volume environments. ””

For a more thorough, in-depth look at egg functionality, log onto our website at AEB.org/Functionality for annotated pages that detail each functional property individually.

In addition, a series of recently published reports compares and contrasts the performance of egg functionality to that of replacement products, within a wide variety of common products. CuliNex, an independent clean label product development consultancy, in Seattle, confirmed the superior functionality and flavor supplied by egg ingredients in a wide variety of common industry products, such as yellow batter cake, muffins, nougat, frozen waffles, mayonnaise,

retort noodles, and more. Overwhelmingly the research found that egg ingredients help create gold standard products with more appealing appearance, texture, aroma and most importantly flavor.

Egg products are available in liquid, frozen and dried forms constituted of whole eggs, egg yolks, egg whites or specialty blended products. For some forms of frozen foods, such as handheld sandwiches or bowls, or for fresh salad preparations, prepared eggs in scrambled or hard-boiled forms also are available from different suppliers. Another major challenge in clean label formulating is maintaining food safety. In terms of ingredient reliability, egg products boast an unbroken safety record spanning more than 40 years, with no recorded outbreaks of *Salmonella* or other food-borne illnesses stemming from egg products since 1975. Since that time, under Congressional mandate, all further processed egg products are pasteurized, and the industry’s safety record remains untarnished through millions of uses in processed food plants nationwide. This includes all further processed forms of egg products to include whole eggs, egg yolks, egg whites and specialty blends in liquid, frozen or dried forms.

When it comes to the egg, less is so much more, for clean label or any other type of product category. This single ingredient can provide wide-ranging functionality, help create a simplified label statement and fulfill customer expectations for flavor, form and appearance. Try egg products for your clean label formulating challenges and watch those challenges simplify along with your label.

To locate a U.S. supplier of egg products, visit AEB.org/BuyersGuide

Gen Z – Digitally Distinct Foodies ⁵⁻⁹

The next, upcoming generation, accounting for 27 percent of the U.S. population (Nielsen data), is Generation Z, or the generation born between 1997 and today. Marketers might believe they can scratch a Millennial and reveal a Gen Z, but that's where they're wrong. As NPD reports in *Eating Patterns in America*, Gen Z brings the term "foodie" to an entirely new level.

As one recent article states, real food is the rallying cry of Generation Z grocery shoppers. And the report says this generation has the potential to be perhaps the most influential when it comes to its impact on consumer eating and drinking habits. Their key demands center on food that fulfills a desire for authenticity, freshness and purity, with the belief that "clean eating improves their quality of life." Other reports state this generation wants "natural, organic and sustainable," to support their quest to protect the environment and practice conscious eating. The farm-to-fork movement needs to be transparent and provide authentic information to these digital natives. They're used to having a wealth of information at their fingertips, whether this involves sharing culinary artistry over Instagram or investigating the supply chain for ingredients included in their favorite food or beverage.

The same NPD report, "Make it Happen for Gen Zs," declares Gen Z eschews artificial ingredients and prefers foods and beverages with transparent labeling. But keep the label simple: this generation is skeptical of "big brands and too many label claims." Despite this desire for farm-to-fork transparency and simplified labels, Gen Z also craves convenience and ready-to-eat foods, portable foods that fit into their busy lifestyle—with customization and personalization tossed in as a bonus.

1. <http://www.pewresearch.org/fact-tank/2018/03/01/millennials-overtake-baby-boomers/>
2. <https://www.foodbusinessnews.net/articles/11537-navigating-the-tricky-business-of-developing-products-for-children>
3. <https://www.fmi.org/newsroom/news-archive/view/2018/01/29/fmi-and-nielsen-report-70-of-consumers-will-be-grocery-shopping-online-by-2024>
4. <https://www.ncbi.nlm.nih.gov/pubmed/28784520>
5. <https://www.foodbusinessnews.net/articles/11515-why-food-manufacturers-should-be-targeting-gen-z>
6. <https://www.foodprocessing.com/articles/2017/feeding-generation-z/>
7. <http://futurefood.com.au/blog/2017/9/19/8-things-you-need-to-know-about-generation-z-and-their-food-choices>
8. <https://www.fastcasual.com/blogs/is-your-brand-ready-to-embrace-gen-zs-obsession-with-over-the-top-food-trends/>
9. <http://www.businessinsider.com/generation-z-facebook-2018-1>

About the American Egg Board (AEB)

The American Egg Board (AEB) is the research, education and promotion arm of the U.S. egg industry. Its mission is to increase demand for eggs and egg products through research and education. The AEB supports American egg farmers by promoting the consistent high-quality and functionality of U.S. eggs and egg products. Visit AEB.org for more information.

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