



# Controlling contaminants: the new facet of 'clean label'

A worrying number of products have been found to contain contaminants. As the popularity of 'clean label' rises among consumers, Clean Label Project is on a mission to bring transparency to consumer product labelling. *Jaclyn Bowen*, Executive Director of the project, explains how.

**T**HE term 'clean label' does not have a regulatory definition, nor does it have a single consumer interpretation. Yet, according to the US food industry commentator, Progressive Grocer, six out of 10 consumers feel that 'clean' claims align with greater 'healthfulness'.<sup>1</sup>

The global clean label ingredients market is expected to be valued at \$51.14 billion by 2024 in order to meet the growing consumer demand for clean label food and consumer packaged goods.<sup>2</sup> But what does 'healthfulness' mean? What objective should brands set as the target for 'clean label'? The answer is two core concepts, the first of which is the use of simple ingredients; and the second, which is frequently overlooked, is an increased focus on ingredient purity, namely industrial and environmental contaminants.

According to the Institute for Food Technologists,<sup>3</sup> clean label means making a product using as few ingredients as possible and making sure those ingredients are items that consumers recognise and regard as wholesome. It includes foods with easy-to-recognise ingredients and no artificial flavours or synthetic chemicals.

A growing area of consumer interest and expectation when it comes to clean label, is an increased focus on product contents that are not found on the label. Products blanketed with

such claims as 'natural', 'sustainable' and touting benefits of 'wellness', create difficulty for consumers who are trying to decipher their differences and the genuineness of their claims.

Marketing departments do an effective job of selling comfort and security. When was the last time that you saw a product at the grocery store with a claim that said, "This product is entirely average. In fact, it doesn't taste very good and it has a BPA-leaching problem from the product packaging"?

According to the April 2019 Shelby Report<sup>4</sup> on consumer trust, nearly half of consumers who regularly buy food for their households do not trust the food industry to do the right thing, and nearly one quarter actively distrust it. Consumer product exposés fuel this distrust. In October 2017, Clean Label Project,<sup>5</sup> a US national non-profit with the mission to bring truth and transparency to consumer product labelling, released a study on industrial and environmental contaminants (including heavy metals, pesticide residues and plasticisers) in America's best-selling infant formulas and baby foods.

In August 2018, Consumer Reports<sup>6</sup> validated that study by conducting a similar investigation, highlighting troublesome levels of heavy metals lurking in foods commonly eaten by babies and toddlers. In February 2019, the United States Public

**“** The FDA is no longer the only rule setter for food safety **”**



**ABOVE:** Consumers are becoming more concerned over 'label jargon' and are pushing for products with transparent, clear and simple ingredients that they perceive to be healthier



Interest Research Group<sup>7</sup> released test results showing glyphosate (the active ingredient in the best-selling pesticide, Round-Up, that has been linked to non-Hodgkin's lymphoma) in 19 out of 20 top selling beers and wines.

In June 2019, Consumer Reports<sup>8</sup> published a study on the levels of arsenic in America's best-selling bottled waters. In each case, the studies were featured in mainstream media outlets, analytical chemistry testing was conducted on the finished products, and heavy metals were highlighted as the area of concern.

There is widening polarity between the definition of food safety in the minds of consumers and federal food safety regulations. Consumers are increasingly concerned about exposure to chemicals such as glyphosate, lead and plasticisers, with links to long-term chronic disease like cancers and reproductive harm. Every year for the past decade, the International Food Information Council (IFIC)<sup>9</sup> has surveyed more than 1,000 Americans aged 18-80, to gain insight into their attitudes towards food and diet. Although the manner of polling conduction on these topics has changed over the years, the research shows a steady rise in the number of consumers concerned about chemicals in their food. This includes heavy metals, pesticides and plasticisers, in addition to monosodium glutamate, artificial colours, flavours and preservatives.

While consumers are focused on industrial and environmental contaminants, the food



safety regulatory and compliance fabric in America is largely focused on prevention of microbiological contaminants and the use of process-based audits.

At this time, the Office of Analytics and Outreach at FDA's Center for Food Safety and Applied Nutrition<sup>10</sup> is collecting data on contaminants and nutrients in foods as part of the Total Diet Study. In the short term, the heavy metal contaminant focus is on finalising the draft guidance that sets an action level for the presence of inorganic arsenic in infant rice cereals and apple juice. This scope falls short of delivering on the consumer concern of arsenic, cadmium, lead and mercury in all foods, in addition to pesticide residues, plasticisers and microbiological contaminants. While some brands may conduct finished product microbiological testing, very few are testing for pesticide residues, heavy metals and plasticisers. In the absence of federal regulation requiring brands to test and monitor levels for these contaminants, why would brands undertake this additional compliance and testing burden?

There are two reasons for this. Firstly, federal regulation could soon be changing. In April 2019, the United States Environmental Protection Agency (EPA) released the Federal Action Plan to Reduce Childhood Lead Exposures and Associated Health Impacts.<sup>11</sup> The Action Plan is the product of the President's Task Force on Environmental Health Risks and Safety Risks to Children. The Task Force is the focal point for federal collaboration to promote and protect children's environmental health. Objective 1.6 is to reduce the exposure to lead from food. Objective 1.8 is to reduce the exposure to lead from consumer products. This federal effort serves to complement the work and leadership demonstrated by Congresswoman DeLauro (CT-03)<sup>12</sup> and her efforts to reduce and regulate childhood dietary arsenic exposure.

## ABOUT THE AUTHOR



**JACLYN BOWEN MPH, MS** is the Executive Director of Clean Label Project and a food safety and quality systems engineer. Prior to coming to Clean Label Project, she spent 15 years at the World Health Organization Collaborating Centre, NSF International, working on the creation and enforcement of food safety and water quality standards and compliance systems.






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The second reason for brands to initiate industrial and environmental contaminant testing is competitive edge. Brands like Madhava in the sweetener category, Once Upon A Farm, Baby's Only, and Yummy Spoonfuls in the baby food category, and 'I and Love and You' and 'Buckley Pet' in the pet food category are having their products randomly purchased and tested for industrial and environmental contaminants as part of the Clean Label Project certification programme. Instead of relying solely on Certificates of Analysis from suppliers, these brands rely on Clean Label Project's Consumer Chain of Custody Sampling and Testing programme.

Clean Label Project simulates the consumer shopping experience by randomly going into the marketplace unannounced, purchasing products, and having them tested for a battery of heavy metals, pesticide residues and

plasticisers. Through a proactive ingredient sourcing programme, coupled with tight product specifications, these brands have elected to enlist the validation of a third-party to verify their ongoing commitment to ingredient purity.

The food industry is on the verge of a fundamental paradigm shift when it comes to food safety. The FDA is no longer the only rule setter for safety. The new arbiters of safety and quality are consumers. Compliance with federal laws should be viewed as table stakes. The new face of food safety and clean label is compliance with the court of public opinion. Progressive brands that recognise this will align their corporate values and their food and consumer product safety and quality assurance systems to the values and product attributes that consumers care about, with an eye toward a long-term focus on health and finished product testing. With clean label, it's what's in the inside, not the outside, that counts. 

## EXPERT VIEW



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*"New and emerging ingredient functionality is now enabling manufacturers to expand clean label into more applications"*

# Expanding clean label's horizons

**Ingredion looks at the new and emerging ingredients that are helping manufacturers deliver clean label functionality in a growing range of food applications.**

CLEAN LABEL is a growing opportunity and one that will be worth over \$50 billion globally by 2024.<sup>1</sup> With an enduring appeal, clean label is becoming increasingly mainstream and it is unlikely to lose momentum in the coming years. As consumer needs evolve and new trends emerge, food manufacturers face the constant challenge of adapting alongside them to satisfy an ever-diverse range of diets, trends and lifestyle choices.

Amid the pressure to get to market quickly while remaining commercially viable, maintaining taste and texture has been listed as one of the top five challenges faced by manufacturers when it comes to new product development.<sup>2</sup> This is especially the case for more indulgent and delicate foods that are light in colour and have subtle flavours that need protecting, such as cream fillings, vanilla desserts or dressings. Recipe development and reformulation have previously

been challenging in these applications. Building back the desired texture or shelf-life stability in a product when ingredients such as fat and sugar have been removed can impact the original eating experience or product quality.

New ingredient functionality is now enabling manufacturers to expand clean label into more applications. This includes dairy desserts, yoghurts, baked goods and savoury white sauces that undergo challenging processing conditions. Innovations such as functional native starches that provide texture, offer manufacturers the ability to maintain the most appealing qualities of their products – even in the most delicate of applications.

The neutral profile of ingredients like NOVATION® Lumina functional native starches can allow flavours and colours to be delivered with increased intensity. Giving manufacturers the same functionality as modified starches, these functional native starches can be used at high

dosages in very taste-sensitive applications as they do not mask the original flavour. Labelled simply as 'corn starch', NOVATION® Lumina functional native starches can assist manufacturers in meeting consumer demand for 'natural\*', clean label products while delivering optimal flavour, colour, texture and performance. ■

## References

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\*Manufacturers should consult regulations specific to all target markets: of the countries that have provisions in place to regulate the term 'natural' in food labelling to date, NOVATION® Lumina functional native starches and HOMECRAFT® flours meet criteria for a natural ingredient in the UK, France, Ireland, and associated EU legislation, and the global ISO Technical Specification on definitions and technical criteria for food ingredients to be considered as natural (ISO/TS 19657).





# MAXIMISE YOUR CLEAN LABEL INVESTMENT

Clean label is a business category growing by 7% every year. For the last 20 years, Ingredion has been building unrivalled expertise in this field. We're ready to share our insights and help produce clean label products with maximum ROI.

**Our business is helping you with  
The Business of Clean Label.**

CLEAN & SIMPLE 

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