Clean Label Focus: What are Consumers Saying and What is the Industry Doing?

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Canadean knows consumers
We now survey consumers in 47 countries globally

*27 countries in black surveyed via online mode; 20 countries in red surveyed via mobile mode.
What does "clean label" really mean?

There is no one definition of "clean label" so it may mean different things to different people.

Clean label tends to be closely associated with the following themes or concepts:

- **Nature** – The closer to nature an ingredient or product is, the more "clean" it is perceived to be.

- **Simplicity** – Less chemical and more cupboard-friendly. Simplicity and familiarity count.

- **Transparency** – Where do ingredients come from and how are products made?

- **Processing** – The more processed a food or drink is, the less "clean" it is perceived to be.
Clean label is trendy
Clean label aligns with many of today’s top emerging trends

Introduction  Consumer insights  Industry activities  Key take-outs

Organic, natural  Antibiotic-free  Raw  Minimally processed  Local, fresh  Non-GMO  Gluten-free  Simple

Demand for clean label is driving a shift away from the center of the supermarket and toward the perimeter.

Typical supermarket floor plan, with perishable items clustered around the store perimeter.

Source: Image courtesy of Talkingcents.consumercredit.com
Consumers don’t know what clean label means
A near majority are not sure what it means

Just over one third of consumers globally and nearly half of Americans do not know what "clean label" means.

**US: "What does the term 'clean label' mean to you?", 2015**

- I don't know what "clean label" means: 45%
- Free from artificial ingredients: 30%
- Natural/organic claims: 29%
- No pesticides/chemicals/toxins: 25%
- Minimally processed: 24%
- Free from allergens: 22%
- No genetically modified organisms: 20%
- Simple/short ingredient lists: 17%
- Transparent (see through) packaging: 6%

"Clean label" is a nebulous concept with US consumers. 47% of women and 42% of men do not know what it means.

Understanding of the term "clean label" is correlated by age to a surprising degree. A majority of Americans age 45 and above do not understand what the term means. The opposite is true for younger consumers.

US: "What does the term ‘clean label’ mean to you?" 2015

"I don't know what 'clean label' means" response, by age group

Generational differences in understanding "clean label" suggest a need for age-specific messaging.

“Clean label” perceptions vary by age
Young consumers see it as intrinsic to a product

Younger consumers have a different view of clean label than older consumers, and tend to see "clean label" as intrinsic to a product. Older consumers view "clean label" more in the context of the removal of "bad" ingredients.

Consumers aged 18–44 tend to see "clean label" as aligned with organic and natural product concepts.

Consumers aged 45 and older have a fuzzier view of clean label and tend to equate it with the removal of "bad" ingredients.

US: "What does the term 'clean label' mean to you?", top responses by age group, 2015¹

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Top Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>18–24 year olds</td>
<td>55% natural/organic claims</td>
</tr>
<tr>
<td>25–34 year olds</td>
<td>49% natural/organic claims</td>
</tr>
<tr>
<td>35–44 year olds</td>
<td>34% (tie) natural/organic claims; minimally processed</td>
</tr>
<tr>
<td>45–54 year olds</td>
<td>28% Free from artificial ingredients</td>
</tr>
<tr>
<td>55–64 year olds</td>
<td>23% Free from artificial ingredients</td>
</tr>
<tr>
<td>65-plus year-olds</td>
<td>22% Free from artificial ingredients</td>
</tr>
</tbody>
</table>

Consumers may not agree about what "clean label" is, but they are much more likely to agree about the economics of "clean label." Few consumers of any age want to pay a premium for "clean label."

US: "Would you pay more, less, or the same for a product with a 'clean label' claim?" 2015

Broad support for “clean label” concepts
A preference for less processed foods over functional foods

Consumer support of key "clean label" concepts is strong, regardless of confusion around the specifics behind "clean label"

US: "What do you prefer when buying the following products: foods and drinks?", 2015¹

More functionality: 43%
Less chemicals / processed ingredients: 57%

Consumers under 35 narrowly support functional foods over less processed foods; the reverse is true by age 35. Consumers 65-plus support "less chemicals/processed ingredients" by a 69% to 31% margin over "more functionality," the widest gap by age.

Given the choice of products with added functionality versus those with fewer chemicals or processed ingredients, more Americans prefer the latter.
Cleaner food is perceived to be more nutritious
The reverse is true for food that is genetically modified

Food that is closer to its natural state is perceived to be more nutritious by consumers. Freshness is most closely aligned with nutrition.

**US: "If you saw a food or drink with the following descriptor or claim, would you consider it to be more or less nutritious?" Q2 2015**

<table>
<thead>
<tr>
<th>Description</th>
<th>18–24 year olds</th>
<th>25–34 year olds</th>
<th>35–44 year olds</th>
<th>45–54 year olds</th>
<th>65-plus year olds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh</td>
<td>72%</td>
<td>65%</td>
<td>58%</td>
<td>41%</td>
<td>13%</td>
</tr>
<tr>
<td>Natural</td>
<td>65%</td>
<td>65%</td>
<td>58%</td>
<td>41%</td>
<td>41%</td>
</tr>
<tr>
<td>Genetically modified</td>
<td>13%</td>
<td>23%</td>
<td>24%</td>
<td>22%</td>
<td>23%</td>
</tr>
</tbody>
</table>

The younger the consumer, the more likely they are to say that "genetic modification" results in a product perceived to be "significantly less nutritious".

"Clean label" can mean different things to different people. One important interpretation of the term is products that do not trigger allergies or sensitivities.

Gluten-free is definitely not a new trend, but the percentage of consumers that say they are trying to avoid gluten is surprisingly high considering the relatively rare incidence of celiac disease.

35% of US consumers say they are "trying to limit their intake of gluten" or "avoid gluten entirely."¹

Gluten is a global issue, but what countries are at the top of the list for limiting intake of gluten or trying to avoid it entirely?¹

- South Africa, 53%
- Brazil, 52%
- Mexico, 46.5%
- Singapore, 46%
- Global average, 38%

Ingredients are a key part of the "clean label" proposition. Consumers perceive products with fewer ingredients to be cleaner than those with more ingredients.

US: "How appealing do you find the following food and drink product concept: (a) product that is formulated with the lowest number of ingredients?", Q2 2015

86% total "appealing"

- 45% Somewhat appealing
- 41% Very appealing

Consumers want to see ingredients they recognize
A desire to see more “pantry-type” ingredients on labels

Consumers are not food scientists, and can be scared off by product labels packed with ingredients that sound like they were created in a laboratory.

Transparency and familiarity matter to consumers and this is relevant to ingredient lists. According to a 2013 survey from Ketchum, 68% of global consumers want to recognize all of the ingredients on food labels.¹

What the consumer recognizes as an ingredient and what the food industry recognizes as an ingredient are likely to be two different things. Note the consumer-friendly ingredients highlighted in General Mills' new Nature Valley Simple nut bar.

"Simple ingredients from nature"
"Made of nuts, seeds, honey, tapioca syrup & sea salt"

Positive views toward raw, unprocessed foods
Views provide a window to “cleaner” foods

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Raw and unprocessed foods touch on many attributes associated with “clean label,” including enhanced nutrition and taste.

Global: "What do you consider to be the benefits of raw or unprocessed food and drink?"¹

<table>
<thead>
<tr>
<th>Benefit</th>
<th>US consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural</td>
<td>50%</td>
</tr>
<tr>
<td>More nutritious</td>
<td>43%</td>
</tr>
<tr>
<td>Fresher</td>
<td>39%</td>
</tr>
<tr>
<td>Additive-free</td>
<td>38%</td>
</tr>
<tr>
<td>Tastes better</td>
<td>25%</td>
</tr>
<tr>
<td>None of the above</td>
<td>20%</td>
</tr>
<tr>
<td>Aids weight loss</td>
<td>11%</td>
</tr>
<tr>
<td>Convenient</td>
<td>10%</td>
</tr>
</tbody>
</table>

Raw and unprocessed foods: the negatives
There are obvious downsides to raw and unprocessed foods, including greater risk of illness.

Cost-related issues are actually viewed by consumers as bigger negatives than safety issues.

Short expiration dates, high cost, and risk of illness were seen as the top negatives by 46%, 45%, and 36% of US consumers, respectively.¹

Consumers want more focus on the positives
Greater interest in hearing about good vs. avoiding bad

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Conflicting health messages about food ("bad for you" one minute, "good for you" the next) have confused consumers. As a result, today's consumer is more inclined to seek out foods for their positive benefits.

US: "I am much more interested in hearing about what TO eat, rather than what NOT to eat," 2015¹

64% of US consumers "tend to agree" or "strongly agree" that they want to hear about what to eat, rather than about what not to eat.

9% of consumers globally "strongly disagree" or "tend to disagree" that they want to hear about what to eat, rather than what not to eat.

An industry push toward more transparency
Revealing more information about manufacturing practices

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Confusing antibiotic-related claims in foods with animal-based ingredients encouraged Perdue Farms to launch its "No Antibiotics Ever" initiative in February 2016.¹

<table>
<thead>
<tr>
<th>Claim</th>
<th>Can antibiotics be used (in poultry farming)?¹</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In the hatchery</td>
</tr>
<tr>
<td>Perdue's &quot;No Antibiotics Ever&quot;</td>
<td>No</td>
</tr>
<tr>
<td>&quot;Responsible use&quot;</td>
<td>Yes</td>
</tr>
<tr>
<td>&quot;No human antibiotics&quot;</td>
<td>No</td>
</tr>
<tr>
<td>&quot;No antibiotics for growth promotion&quot;</td>
<td>Yes</td>
</tr>
<tr>
<td>&quot;All-natural&quot;</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Perdue will convert all its chilled and frozen convenience products to "No Antibiotics Ever" by May 2016.


Food makers dump artificial ingredients
Artificial colors, flavors, and ingredients are “clean label” targets

Over 60% of American consumers say that a lack of artificial colors or flavors is important to their food purchase decisions.\(^1\) Removal of artificial colors or flavors has become the point-of-entry "clean label" activity for many companies.

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**Consumer insights**

Subway is removing artificial flavors, colors, and preservatives from its North American menu items by 2017, including caramel color from its ham and roast beef.\(^2\)

General Mills announced that artificial ingredients would be removed from all its cereal products by the end of 2017. Campbell Soup will give artificial colors and flavors the heave-ho by the end of 2018.\(^3\)

Mars, Incorporated said that it would remove all artificial colors from its human food products over a five-year period in a February 2016 announcement.\(^4\)

Kellogg Company has announced that it plans on phasing out the use of all artificial colors and flavors from its products by 2018.\(^3\)

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Removing artificial ingredients is not risk-free
Not everyone may like the result

Companies are jumping on the bandwagon to remove artificial flavors, colors, and ingredients in packaged foods, but the removal of these ingredients leads to a trade-off that may not be perceived as being favorable by all consumers.

"Old" Trix cereal on the left (with artificial colors) and "new" Trix cereal on the right ("natural" colors only).

There is a perception in the food industry that the removal of artificial colors, flavors, and ingredients from products is a decision without any potential negative consequences.

But that may not prove to be the case. What version of Trix would a pre-teen child choose? Color does influence purchase behavior. Will muted colors translate into muted sales?
What does color really say to consumers?
Color can be seen as an indicator of nutritional value.

The color of a food or drink can indicate its nutritional value. Fewer than one quarter of Americans (24%) agree this is the case, although high-profile food innovations based on linking nutrition with color seem to be rising globally.

Burger King's Kuro ("Black") burgers are colored with bamboo charcoal and squid ink. Charcoal, an ingredient linked with detoxification, is also trending in beverages.2

Juice Supply's charcoal lemonade is a "powerful detox hydrator" and is part of a new wave of charcoal-based detox juices.

Artificial sweeteners like aspartame have been synonymous with diet soft drinks since the 1980s. However, consumer confidence in artificial sweeteners has eroded to the point where the soft drink giants are re-evaluating their sweetener choices.

**Diet Pepsi goes "aspartame-free."**

PepsiCo replaced its current version of aspartame-sweetened Diet Pepsi with one sweetened with a blend of acesulfame potassium and sucralose in August 2015.

The change came after a 5.2% decline in US sales volumes for Diet Pepsi in 2014, according to Beverage Digest. That decline has actually accelerated since then. According to Wells Fargo, Diet Pepsi saw a 9.8% drop in unit sales for the 12-week period to January 23, 2016.

But can sweetener changes shift attitudes?
Consumer attitudes toward sweeteners are generally negative

Changing the type of sweetener used may have less effect on consumer attitudes and behavior than expected since sweeteners are generally viewed negatively. Stevia may be an exception, but is unfamiliar to many consumers.

Coca-Cola's recent launch of stevia and cane sugar sweetened Coca-Cola Life has gone flat.

The early sales results for Coca-Cola Life have not been encouraging. The brand's US share peaked at 0.14% in March 2015 and fell to just 0.06% for the four week period to December 26, 2015.

Consensus is lacking for sweetener claims
No one sugar-related claim seems to resonate

Consumer views toward specific sugar-related product claims are fluid, and vary somewhat by age and gender. No single claim is universally attractive.

US: "Which of the following claims is most appealing when choosing food or drinks?"1

<table>
<thead>
<tr>
<th>Claim</th>
<th>US average</th>
<th>25–34 year olds</th>
<th>65-plus year olds</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naturally sweetened</td>
<td>17%</td>
<td>18%</td>
<td>11%</td>
<td>16%</td>
<td>18%</td>
</tr>
<tr>
<td>I do not pay attention to sugar or sweeteners</td>
<td>16%</td>
<td>16%</td>
<td>17%</td>
<td>19%</td>
<td>14%</td>
</tr>
<tr>
<td>No added sugar</td>
<td>15%</td>
<td>11%</td>
<td>18%</td>
<td>14%</td>
<td>17%</td>
</tr>
<tr>
<td>No high-fructose corn syrup (HFCS)</td>
<td>15%</td>
<td>13%</td>
<td>17%</td>
<td>14%</td>
<td>16%</td>
</tr>
<tr>
<td>Sugar-free</td>
<td>13%</td>
<td>14%</td>
<td>18%</td>
<td>14%</td>
<td>13%</td>
</tr>
<tr>
<td>Free from artificial sweeteners</td>
<td>12%</td>
<td>11%</td>
<td>11%</td>
<td>11%</td>
<td>13%</td>
</tr>
<tr>
<td>Contains real sugar</td>
<td>11%</td>
<td>18%</td>
<td>9%</td>
<td>13%</td>
<td>10%</td>
</tr>
</tbody>
</table>

"Naturally sweetened" is narrowly seen as the most appealing sugar-related claim. Strong support for the "real sugar" claim by Millennials and weak support for "free from artificial sweeteners" overall stand out.

Food makers defining “clean label” themselves

Some are even providing a checklist for “unclean” ingredients

There is no consensus as to what "clean label" means, giving food-makers the latitude to define "clean label" themselves.

Ads for MET-Rx USA's MET-Rx Prime protein bar feature a checklist that helps consumers identify "unclean" ingredients.

Sugar alcohols, artificial sweeteners, gluten, soy-based protein, artificial growth hormones, and artificial flavors and colors are listed as being omitted.

Source: ESPN magazine, August 17, 2015.
Soy becoming a marker for an “unclean” product
Soy’s allergy and GMO issues trouble “clean label” fans

94% of the US soybean crop is genetically modified. "Soy" and "clean label" may be mutually-exclusive.

"Herbicide-tolerant (HT) crops, developed to survive application of specific herbicides that previously would have destroyed the crop along with the targeted weeds, provide farmers with a broader variety of options for effective weed control.

Based on USDA survey data, HT soybeans went from 17% of US soybean acreage in 1997 to 68% in 2001 and 94% in 2014 and 2015."¹

USDA Economic Research Service, July 9, 2015

Aiming to define and certify “clean label”

A new (private) certification standard for “clean label”

Created in 2014, RawFoodCertified.org is a 501(c) project of the International Center for Integrative Systems that has crafted a five-point certification program to define "clean label." The five elements of the certification scheme are outlined below.

The Certified C.L.E.A.N. logo and companion Certified R.A.W. logos may be used on packaging for qualifying products. Standards for both were created with input from the US raw food community including Go Raw, Raw One Food, Living Intentions, Alive and Radiant, Living Brands, Hail Merry, Whole Foods, Wonderfully Raw Gourmet, and Rhythm Superfoods.¹

Cutting ingredient lists to go “clean label”
Industry players are putting ingredient counts on labels

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Back to the Roots' new organic stoneground flakes illustrate the "fewer ingredients is better" concept with a formulation that has just three ingredients.

Ingredient transparency includes details about local sourcing.

Word games: new ways to say “clean label”
A look at some new ways companies are saying “clean label”

With the term "natural" coming under increasing scrutiny and regulated terms like "organic" offering fewer differentiation possibilities, marketers are coming up with new ways to say "clean label" without using the term.

Just Bare
organic chicken breast fillets – US
"No antibiotics – ever, vegetable and grain fed."

Pillsbury
Purely Simple sugar cookie mix – US
"Simply no colors, preservatives or artificial flavors."

Jones Soda
Stripped – US
"Made with naturally sourced flavors and sweeteners."

Ugly Unsweet
flavored water – UK
"No sugar, no sweetener, nothing artificial, nothing to hide."
“Pollinator-friendly” a new “clean label” claim
A new claim that goes beyond natural or organic claims

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- **Sternen Fair Milk from Bavaria, 1.8% milk fat – Germany**
  - Milk from cows that spend 60% of time in "high grassland" pastures rich in herbs and flowers.
  - Dairy farmers mow grass at a low speed (12km/hr) so that bees can fly away when near a lawn mower.1

- **Cascadian Farm Buzz Crunch honey and almond organic cereal – US**
  - To boost awareness that pollinators are declining due to habitat loss, Small Planet Foods (General Mills) donates $1 from the sale of each box to "save the bees" by restoring habitats.

- **365 Everyday Value Pollinator Friendly honey roasted almonds – US**
  - Almond trees need pollinators to produce almonds.
  - These almonds are part of a pilot program from The Xerces Society and Nevada Ranch to integrate wildflower habitat in almond orchards.

The Paleo diet – which focuses on consuming whole, unprocessed foods and avoiding refined grains, refined sugars, dairy products, and refined vegetable oils – has moved mainstream. The diet revolves around "clean label" themes.

Google Trends chart of global searches on "paleo," January 2010 to February 2016.¹

Grain-free "paleo friendly" English muffins made with eggs, almond flour, and coconut flour.

Popular diets tend to be faddish, and the paleo diet is no different. Interest spikes around new years' resolutions and celebrity announcements of support for the diet. The paleo diet is based on the belief that humans should eat more like cavemen did.

Saying yes to plants, no to animals
Removal of animal ingredients to go “clean label”

Packaged goods companies are becoming more explicit about the use of plant-based product ingredients, part of a shift away from animal ingredients.

Kashi GoLean Clusters vanilla pepita cereal is part of a new wave of plant-based product innovation in 2016 from Kashi. This blend of "plant powered" ingredients (popped sorghum, rolled red beans, pea crisps, and pumpkin seeds) claims to deliver nine grams of protein and six grams of fiber per serving.\(^1\)

The Neat Egg is a new, plant-based replacement for eggs that is based on two simple ingredients: chia seeds and garbanzo beans. This “all natural vegan egg substitute” is soy free, gluten free, non-GMO and “guilt free.” It is intended to be used in recipes where egg is a binder; it is not a stand-alone product.

Few Americans follow a plant-based diet today
Consumption falls well short of goals

Despite efforts like the "Strive for 5" program to encourage Americans to eat more fruits and vegetables, consumption is not even close to recommendations.

The Centers for Disease Control and Prevention (CDC) estimates that few US consumers are currently eating the recommended amount of fruit or vegetables each day.\(^1\)

Whole Foods' co-founder John Mackey will lead an effort to grow consumption of fruits and vegetables in the US with the help of a new book and a new store chain.

John Mackey's new book – "The Whole Foods Diet" – will promote his philosophy of a diet that is 90% plant-based foods. Mackey will spearhead Whole Foods' new value-oriented 365 stores that will attempt to encourage healthier food consumption.\(^1\)

The CDC estimates that only 13.1% of Americans are eating the recommended 1.5 to 2.0 cups of fruit per day, and just 8.9% are eating the recommended two to three cups of vegetables per day as of 2013.\(^1\)

Consumers generally recognize and support the key concepts behind the "clean label" trend, but do not recognize the trade-focused term "clean label," which does not resonate with them.

There is a "clean label" generation gap. Younger consumers see it engineered from the ground up (organic) while older consumers link it with tweaking what already exists (removing fake ingredients).

Makers of food, beverage, and ingredient products have many potential paths to pursue with "clean label." The industry also has a chance to lead and shape how "clean label" is defined.
Thank You!

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