IAMP/IMPPA CONVENTION 2023 PRODUCT LABELING AND CLEAN LABELING

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"CLEAN LABELS"

- Trends that ensure the labels of food products are shorter, cleaner, natural looking labels.
- Based on consumer perception
- Easily recognizable, negative connotation-free ingredients
- Free from "Chemical Sounding" names
- Natural ingredients – nothing artificial in the ingredients
- Simplicity – easily recognizable ingredients, not too many ingredients
- Include ethically sourced or grown ingredients
- Transparency – not only about ingredients, but transparent package as well
- Promise of freshness
- Minimal processing

75% of Consumers Will Pay Extra For Clean Label Ingredients

FOOD AND BEVERAGE INSIDER, 2017

COMMON CLEAN LABELING TERMS

- Natural
- Free from additives and preservatives
- Organic
- Grass Fed
- No added sugars
- Nitrite free
- Environmentally raised
- No hormones added
- Gluten-free
- Minimally processed

"CLEAN LABELS"

- The problem: there is NOT a standard or universally accepted definition – NO LEGAL DEFINITION
  - What some consider clean may not be considered clean to others
    - Examples
    - Halal slaughter and products vs. traditional slaughter and processing
    - Sugar free vs. natural sugars
    - Some are considered clean because ingredient transparency, some for production and sustainability practices

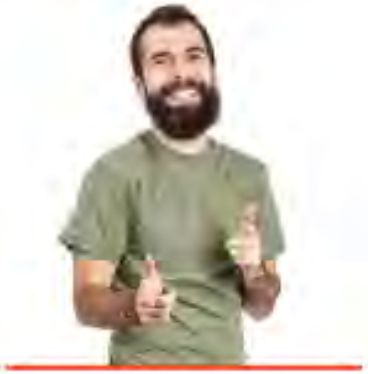
- Clean label does not always mean safer…..

- Many studies have been completed on this topic to include consumer preference studies, eye catching label terms, among others

- Not going away soon – Millennials and Gen Z-ers are growing more and more cognizant of what they consume

What are top concerns?

Millennials



Amount of sugar
All-natural
Amount of protein
Sodium levels
Free from preservatives

Of the three generations, millennials are most concerned with products that are gluten-free, Fair Trade and vegan.

Generation X

On sale
All-natural
Amount of sugar
Hormone-free
Trans fats

Of the three generations, Gen Xers are least concerned with ingredients and additives, and most likely to fall in the "Not Bothered" category.

Baby Boomers

Amount of sugar
Sodium levels
Trans fats
Contains artificial sweeteners
High-fructose corn syrup

Of the three generations, boomers are most likely to report that sugar and fat levels influence what they buy.

www.crresearch.com, 2016

GENERATION Z

- Now seen as the most important target group
  - Born roughly 1995-2012, give or take

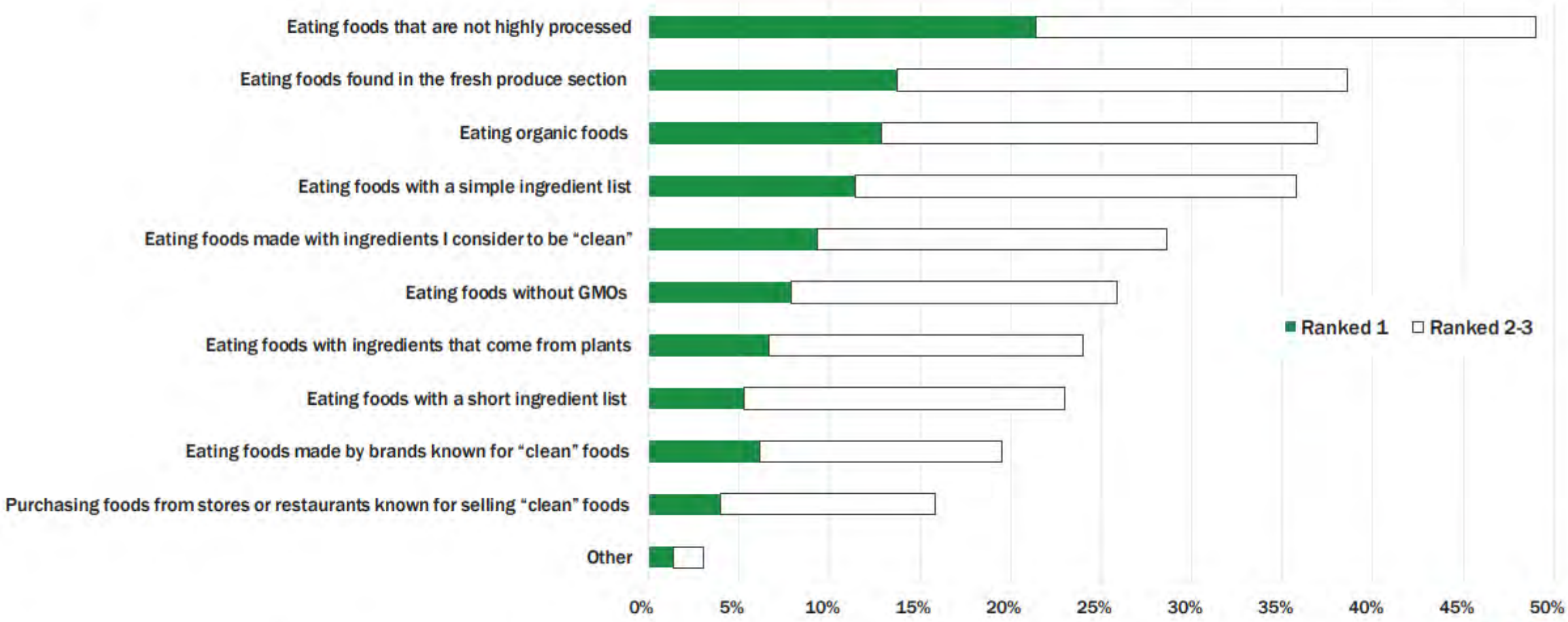
HOW MUCH DO LABELS MATTER?

- The same study from above identified that 69% of people have their shopping habits impacted by reading the labels of products they pick up.
- Additionally, at least one in 4 people regularly read labels, looking for specific ingredients in almost all the foods they buy.
- Another study identified that consumers are 76% more likely to purchase products with ingredients they understand, know, and trust.
- Further, only 18% of the market was identified in a survey to not be bothered with labels – they buy what is cheap and convenient – Gen X is the majority in this category

THE CONUNDRUM

Consumers want cleaner looking labels, but they don't fully know what that means

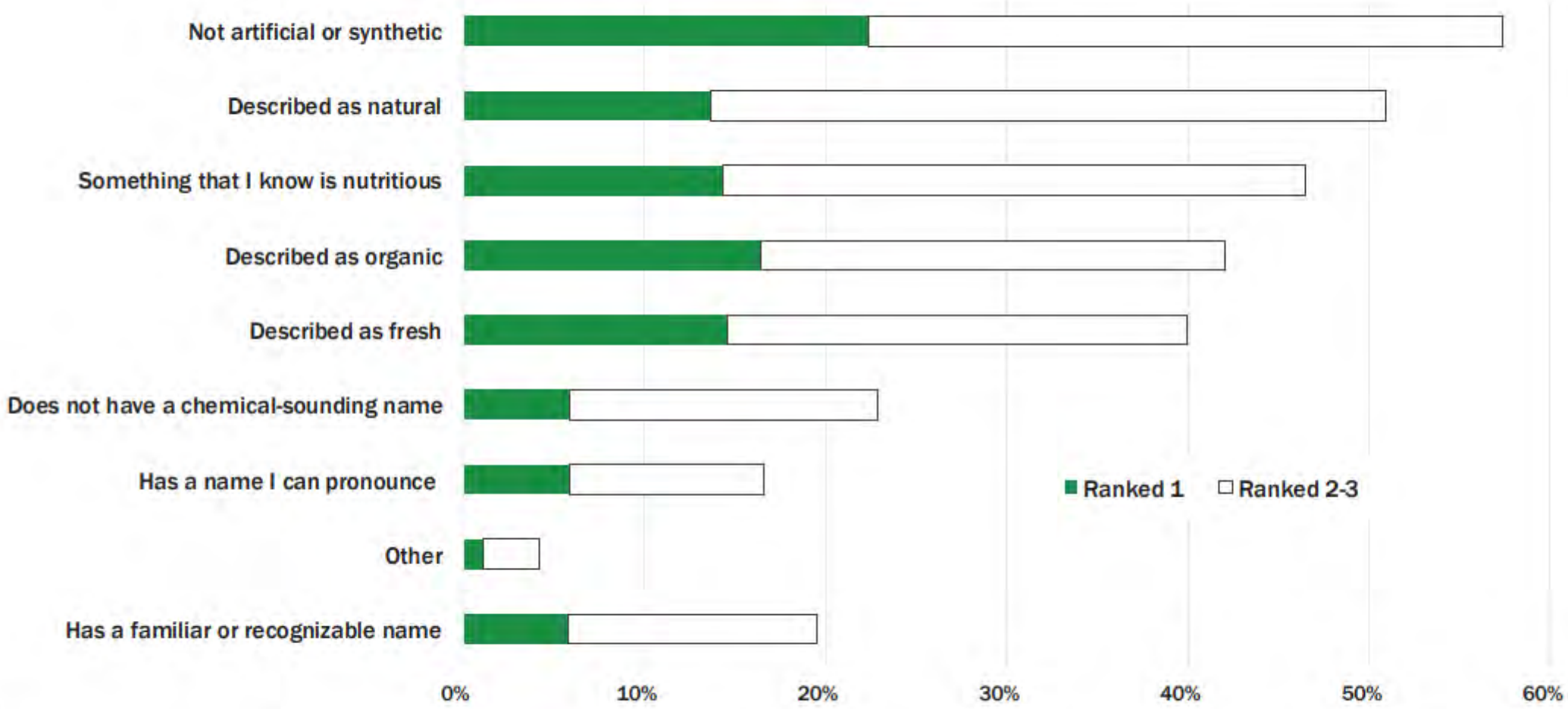
Nearly half of "clean eaters" define the term as eating foods that are not highly processed; fresh produce, organic, simple ingredient lists also rank high



[If somewhat/strongly agree to 4B] You mentioned that you consider yourself to be a "clean eater". What does being a "clean eater" mean to you? Rank your top three responses. *n*=453

International Food Information Council

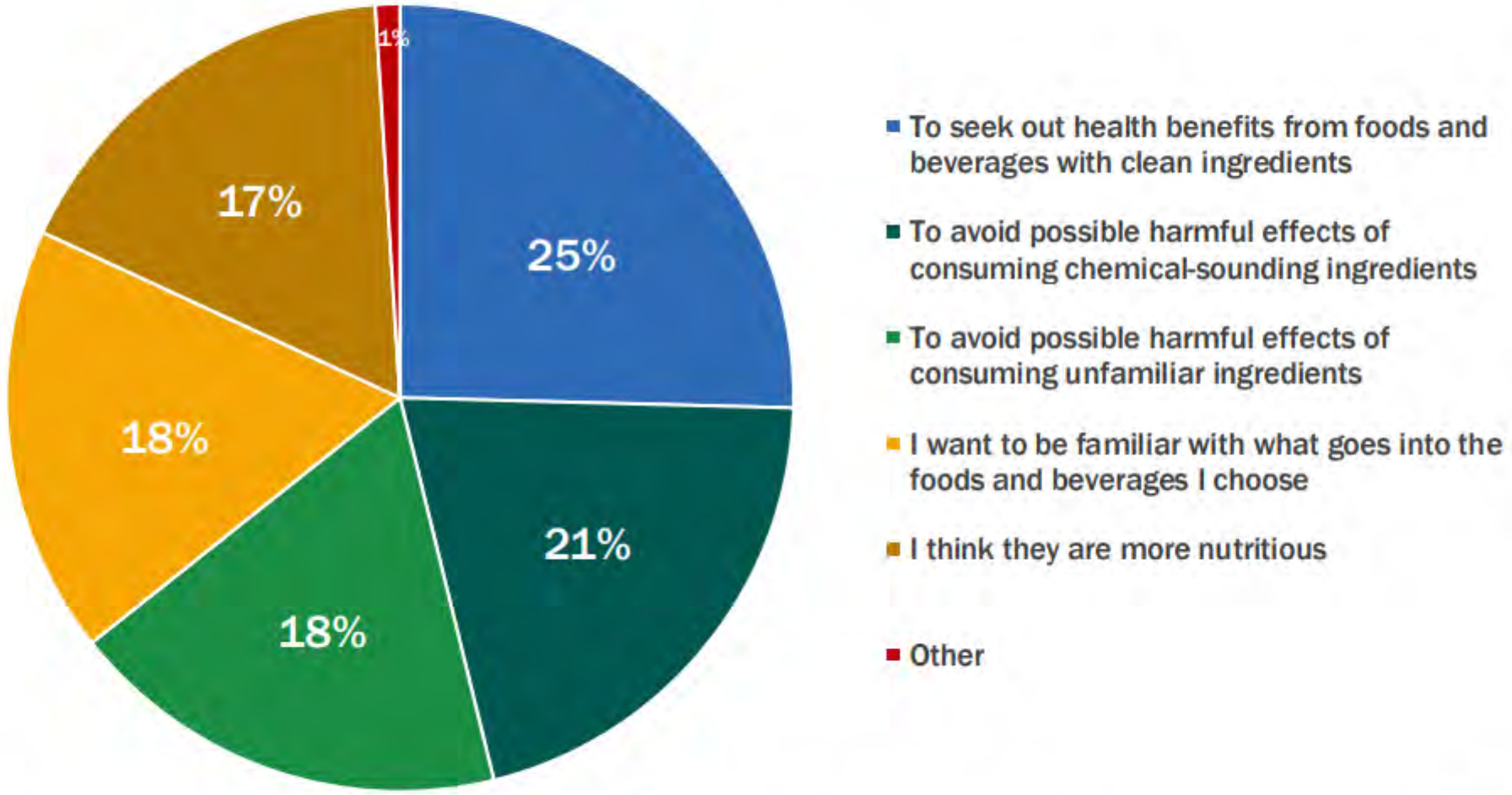
Of those who seek out foods and beverages with “clean” ingredients, the most highly ranked definition for this term is, “not artificial or synthetic”



[If somewhat/strongly agree to 4D and/or 4E and/or select 5J] You mentioned that you try to choose foods and beverages with dean ingredients. How would you define a “clean” ingredient? Rank your top three. *n=670. Sample size includes those who try to choose foods and beverages with clean ingredients when shopping in-person and online (slide 6) and those who eat foods made with ingredients they consider to be “clean” (slide 7).*

International Food Information Council

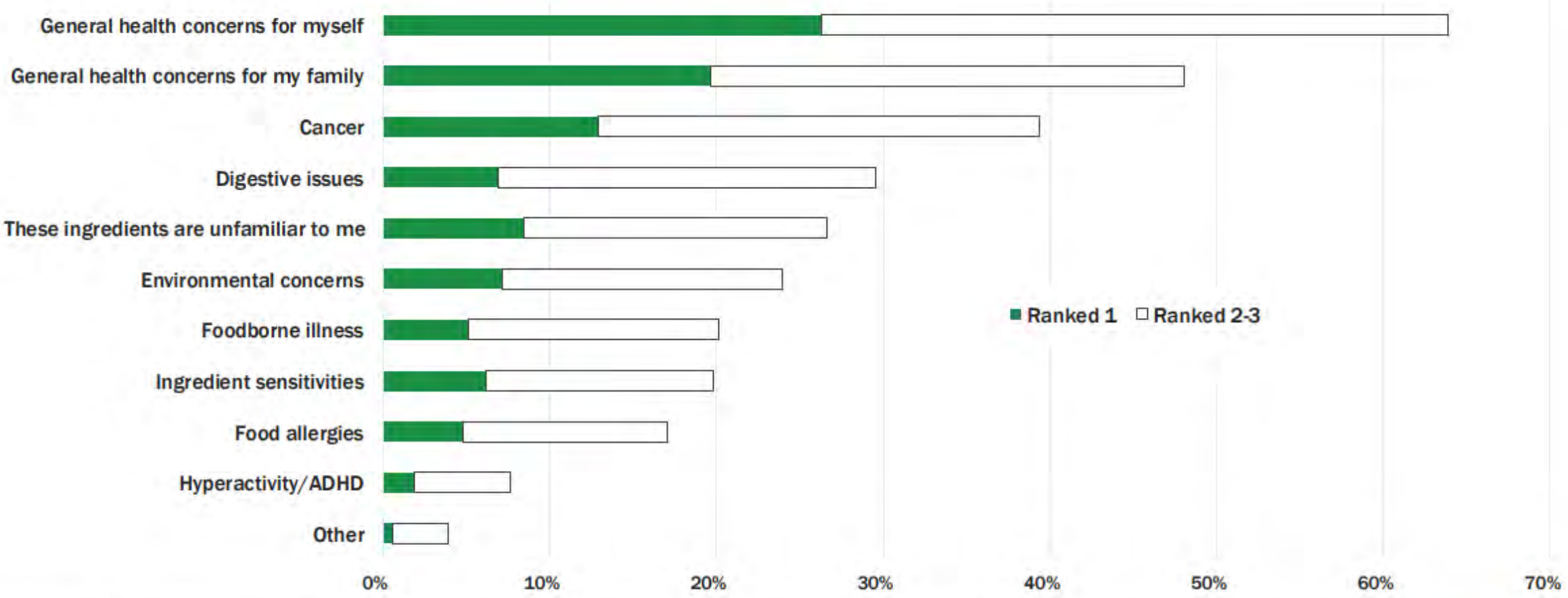
Seeking out health benefits is top motivator for choosing foods and beverages with clean ingredients



[If somewhat/strongly agree to 4D and/or 4E and/or select 5J] Why do you try to choose foods and beverages with clean ingredients? Select your top response. *n=670*

International Food Information Council

Top reasons for avoiding chemical-sounding ingredients are general health concerns for self and family



[If somewhat/strongly agree to 4F] You mentioned that you try to avoid buying foods or beverages with chemical-sounding ingredients. What, specifically, concerns you about these ingredients? Rank your top three concerns. *n=590*

International Food Information Council

Canadian Research Reports:
Another study supporting the same thing we have been discussing.

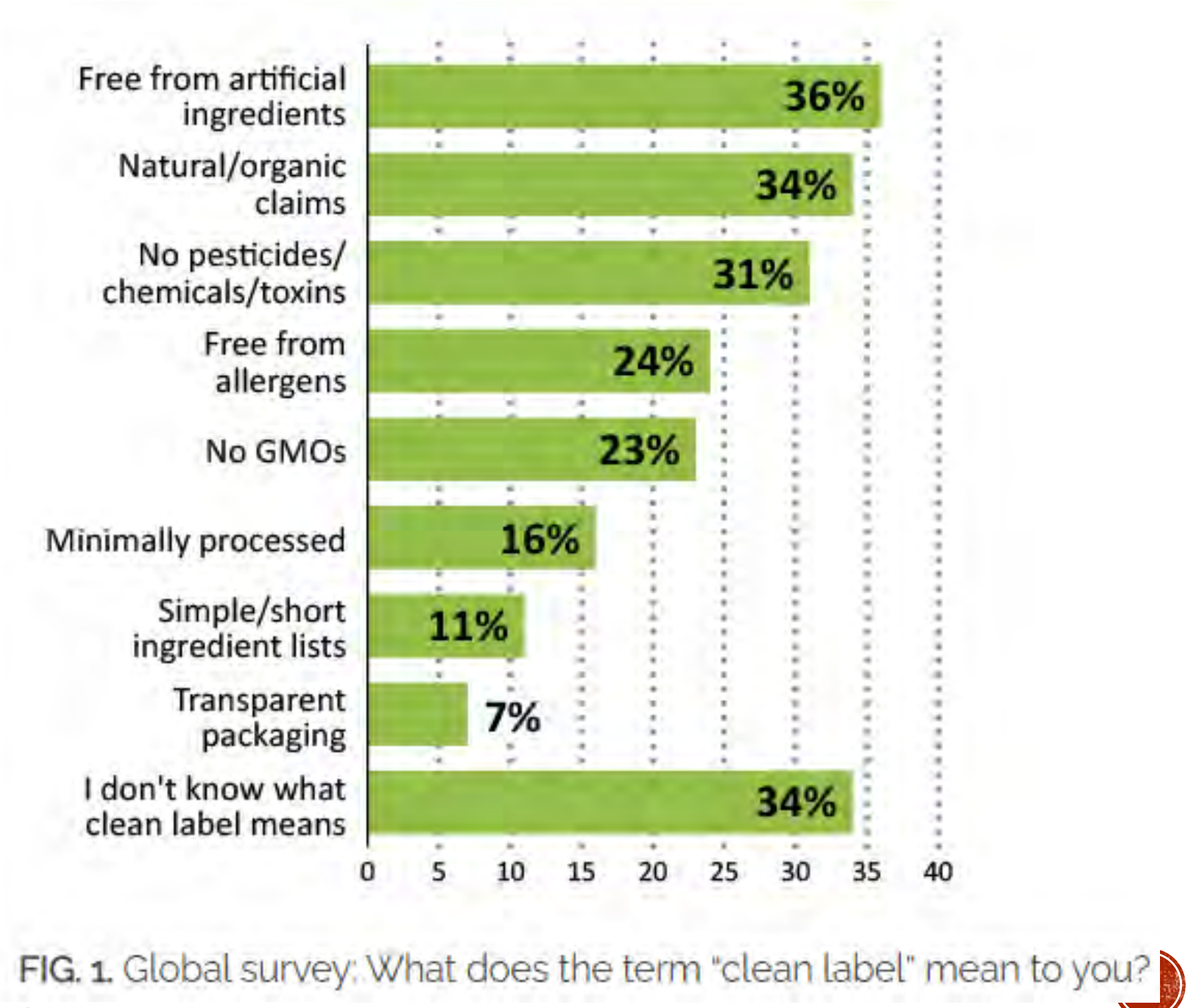


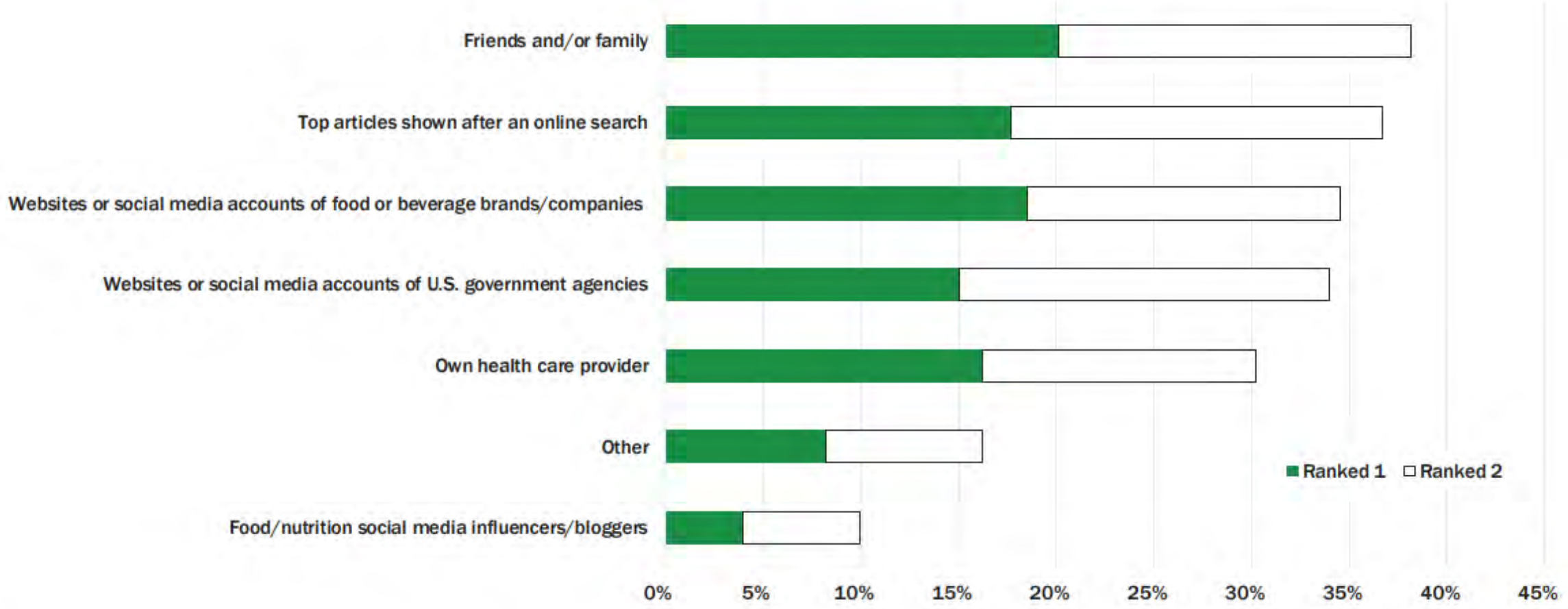
FIG. 1. Global survey: What does the term "clean label" mean to you?

Credit: Canadean Ltd. Research Reports, Q4 global consumer survey, 2015.

LACK OF DIRECTION

- Without direction from regulation, companies and processors are tasked with coming up with their own standards of what clean labels mean:
  - Ex: Chipotle, Whole Foods, Panera Bread, etc.

When looking for information about specific food ingredients, friends/family and online searches are most likely sources



Generally, if you were looking for information about specific ingredients found in foods or beverages, which of these would you be most likely to use as an information source? Rank your top two.
n=1054

International Food Information Council

- Food-Ingredients-LSI-Survey.May-2021.pdf (foodinsight.org)

INGREDIENT SUBSTITUTION

Non-Clean-Label Ingredients	Possible Clean-Label Alternatives
Artificial preservatives (e.g., TBHQ, sodium lactate, EDTA)	Botanical extracts (e.g., green tea, rosemary, citrus, chamomile, acerola cherry); tocopherols (can be labeled 'vitamin E')
Emulsifiers (e.g., Mono- and diglycerides, sodium stearoyl lactylate, polysorbate 80)	Pea, faba, or lentil bean protein; Q-Naturale; phospholipids; egg yolk
Malic acid (natural flavor)	Apple juice concentrate
Texturizing and thickening agents (e.g., modified starches, hydrocolloids)	Blends of native starches (e.g., corn and tapioca); pea protein and native starch; rice flour; citrus fibers
Sodium phosphates (processed meats)	Rice starch; citrus fibers; soy protein; yeast extract; plum puree
Solvent-extracted vegetable oils	Expeller- or cold-pressed vegetable oils

- Clean label: the next generation (aocs.org)

INGREDIENT SUBSTITUTION

- Examples of ingredients with negative connotation:
  - Monosodium Glutamate
  - High Fructose Corn Syrup
  - Aspartame
  - Nitrites/Nitrates
  - Soy Lecithin
  - Artificial coloring/flavors

RENAMING

- Easy way to pacify consumers – list the common name in ingredients – less scary
- Examples:
  - Changing "Sodium Bicarbonate" to "Baking Soda"
    - More familiar to consumers
  - Sodium Chloride – Salt
  - Sucrose or Dextrose – Sugar
  - Ascorbic Acid – Vitamin C

PRODUCTION METHODS

Some consumers identify Conventional Agriculture (feedlots, monoculture, etc.) as less natural.

Some consumers identify some ingredients as unhealthy or unfamiliar

"If you can't pronounce it, it isn't good for you"

"If there are more than four syllables in the ingredient, don't eat it"

ORGANIC AND OTHER PRODUCTION METHODS

- Organic production must meet USDA's Certified Organic criteria.
- Organic spices - often difficult to source and cost more
  - Can be lower in flavor
  - Typically steam treated to reduce contamination, not as effective as the irradiation or ethylene oxide treatments normally used.
  - Often contain a higher micro load – reduces shelf life
  - Color can fade rapidly
- The USDA Standards of Identity can be helpful by improving label appeal. Ex: in Italian sausage rather than labeling "spices," the spices can be listed separately, i.e., fennel, anise, oregano, etc. This looks more authentic.
- Transparency is the one consumer trend that will have an impact on the future of meat protein. Due to the nature of commodity handling and co-mingling of meat from different farms, transparency can be difficult to achieve on a large scale – Except COOL Labeling.
- Gluten free – substituting traditional wheat-based products with others.

LESS SATURATED FAT

- Retail Cuts with Less Fat
- Chopped and formed products made with leaner proteins to result in less fat in the product
- Exception: Bacon! – Seen as more of a treat, not a food product that is consumed every day.
  - Most want more fat for more flavor

LESS SODIUM

- Trending diets place an emphasis on less salt in the products that consumers eat
- Before removing salt from formulations, consider the functional attributes of salt:
  - flavor enhancement
  - extracting the natural soluble meat protein:
    - helps bind ground products,
    - antimicrobial protection,
    - preservation,
    - water retention
- Potassium chloride can be used as a salt substitute.
  - Limit to how much salt can be replaced due to a metallic or bitter type flavor.
    - Only a portion (10-30%) of the salt can be replaced before off flavors are detected.

MONOSODIUM GLUTAMATE

- Flavor that was originally obtained from seaweed, but now mainly made from bean and cereal protein
- Because of heightened negative perception of MSG, hydrolyzed vegetable proteins and autolyzed yeast extracts were widely used in the past to replace MSG effectively. But today's consumers no longer want to see HVPs and AYEs on labels either.
- Natural flavors are now introduced to clean up the label and still provide flavor.
  - Soy Sauce
  - Parmesan Cheese
  - Beef Broth
  - Mushrooms
- Considered GRAS by FDA

PHOSPHATES

- Traditionally used to most effectively enhance moisture retention.
- Sodium phosphates are highly functional in binding water in meat products, no cost-effective replacement that performs equally.
- Consumers may perceive “phosphate” as chemical sounding name and not prefer it.
  - Replacements: mustard, corn syrup solids, sugars, starches, carrageenan, soy protein, fibers, etc. Unfortunately, some of these ingredients are not completely water soluble and may also negatively impact texture or mask other flavors.

ARTIFICIAL FLAVORS

- Blanket term that refers to man-made chemicals created to taste the same as natural flavors.
- Often associated with processed or “unnatural” products in the mind of the consumer.
- Artificial flavors typically survive the cooking process much better than natural flavors and generally have a significantly lower cost-in-use.
- Many artificial flavors cannot easily be replaced with a natural version. Natural flavors tend to be higher in cost (think natural vs. artificial vanilla flavoring), and typically require increased usage partially due to the high level of natural flavor that flashes off when the meat is cooked but may have other side effects (cookout purge, texture changes, and savory flavor masking).
- Natural flavors – broadly defined by FDA – and flavor isolated from natural sources.
  - Artificial flavor – not defined as such, even if chemical composition is the same.

INTERESTING SIDE NOTE

- How are artificial flavors developed?
  - Prepared by highly trained professionals known as flavorists or flavor chemists.
    - Must go through 7 year apprenticeship before becoming certified by the Society of Flavor Chemists
    - Estimated to be 500 people certified worldwide

CORN SYRUP SOLIDS

- This ingredient is very good at helping to maintain moisture in sausage and provides only a mild sweetness
- Alternate water binders (where allowed per USDA regulation) can also be substituted for corn syrup solids, but may have other side effects (purge, texture and savory flavor masking).

SODIUM NITRITE

- Keeps meat pink after cooking, aids in flavor, shelf life, preservative, color, etc.
- To take sodium nitrite off labels, “natural” curing agents, such as celery juice concentrates, were developed.
  - Consumer perception is that this is healthier. The truth: there is really only one reaction that will cure meat, and it starts with sodium nitrite. These natural curing agents are designed to provide high levels of nitrite created by “natural” methods, including natural microbial fermentation. The difference is sodium nitrite does not appear on the label when natural curing agents are used. These natural curing agents also typically require extended curing time as well, compared to traditional curing.
- AAMP has brochure style information that processors can provide to their consumers

UNCURED BACON – NO UPDATE SINCE 2019

- Presents a conflict in definitions of "organic" and "natural" with USDA Labeling Policy Guideline and the Code of Federal Regulations
  - Currently a "flavoring" not a curing agent
- More accurate terms like "naturally cured" or "alternatively cured" are not recognized by the USDA

ANTIBIOTICS

- It’s a misconception that antibiotics can be found in meat products available at retail and foodservice.
- Reality: livestock are taken off antibiotics well in advance of harvest. The USDA has allowed some meat, such as chicken, to contain statements such as “No antibiotics” on their labels, but beef and pork products do not have these on the label.
- By federal law, all meat and poultry products sold in the U.S. are free of antibiotic residues.

Means that the "product does not contain artificial flavors, colorings, chemical preservatives or other synthetic ingredients."

Additional statement must be on the label to explain

"no artificial ingredients, minimally processed"

NATURAL AND ARTIFICIAL FLAVORINGS

- Blanket statements on labels – 21 CFR 101
  - Can "hide" spices under this term
- May be beneficial to you and your company to list out all ingredients, not use these bundling blanket terms – if you have space on your label…

ADDED SUGARS

ADDED SUGARS

noun | add·ed su·gars | \'a-dəd 'shu̇-gərs\

: a statement of the number of grams of added sugars in one serving of a food

DEFINITION

Sugars that are either added during the processing of foods or packaged as such and includes sugars (free, mono- and disaccharides), sugars from syrups and sugars concentrated from fruit or vegetable juices that are in excess of what would be expected from the same volume of 100% fruit or vegetable juice of the same type.

added sugars

CONSIDERED ADDED

- Molasses
- Corn Sweetener
- Pure Maple Syrup
- Honey
- Sugar
- Agave
- Syrup

NOT CONSIDERED ADDED

Naturally occurring sugars in:

- Dairy products
- Vegetables
- Fruits
- Grains

ON THE LABEL

Added Sugars are indented and listed under Total Sugars.

Rounding Rules:

- Less than 1 g: declaration not required with insignificant footnote or you can show "less than 1 g" or "<1 g" on the label.
- Less than .5 g may be expressed as zero

Nutrition Facts

2 servings per container

Serving size 1 cup (140g)

Amount per serving

Calories 160

	% Daily Value*
Total Fat 5g	10%
Saturated Fat 3g	15%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 50mg	3%
Total Carbohydrate 21g	8%
Dietary Fiber 3g	11%
Total Sugars 17g	
Includes 5g Added Sugars	10%
Protein 5g	
Vitamin D 5mcg	25%
Calcium 20mg	2%
Iron 1mg	6%
Potassium 230mg	4%

*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

MANDATORY NUTRIENT

DRINKS

- Sodas and other beverages tend to get overlooked with the clean label trend.
- Thank goodness no one is marketing a meat soda yet….

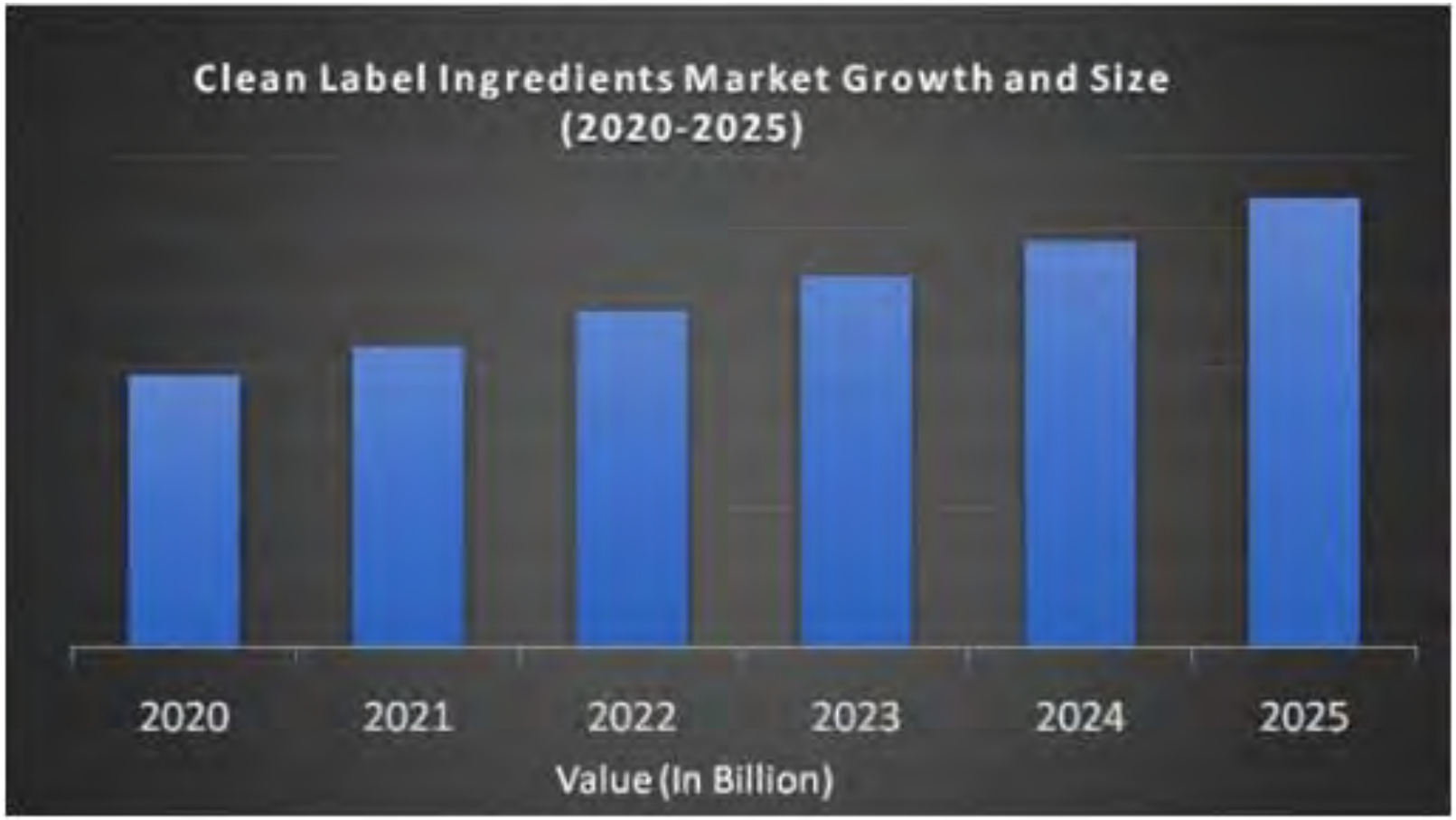
NEWER CONCERNS AND TRENDS

- There are issues with ingredients being tested for safety and consumers are waking up to that
- More and more research is coming out about the link between diets and mental health
  - Some scientists refer to the gastrointestinal tract as a "second brain"
  - Gut bacteria influence the production of happy hormones like serotonin and dopamine
- "Free From" claims are incredibly popular – (free from added sugar, soy-free, etc.)
- Brands are linking "clean" with "green"
  - "It's good for you and our planet"
- Linking ingredients back to plant sources is incredibly attractive for consumers

CRYSTAL BALL – LOOKING AHEAD

- Ingredients lists and processing techniques will continue to be at the forefront of concerns
- According to Mintel research, 61% of consumers link ultra-processed food with negative health benefits

NOVA – Classification of ultra processed foods



MARKET DATA FORECAST

- 38.8 billion in 2022
- Nestle, Red Bull, Cargill are name brands jumping on clean ingredients and clean labels, to name a few

Lots of perceived negatives that go into traditional processing

Best path forward: educate the public

- Explain ingredients aren't placed in product for fun, to get consumers sick, etc. Though it is costly to educate.

Realistic path forward – feed into public perception – give them what they want

Rename ingredients – be truthful but use the less scary name

DISCUSSION