

# Do Plant-based Food Products Communicate Sustainability? A Case Study of Brand Meanings in Thailand and Their Relationship to Sustainable Diets

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## Abstract

Meat consumption is a significant contributor to global warming and reducing meat consumption is a key step towards achieving the UN's sustainable development goals (SDGs), and especially to promoting healthier diets, more responsible consumption, and mitigating climate change (SDGs 3, 12 and 13). Although many people broadly understand the impact of diet on sustainability, encouraging changes to eating habits is difficult with many barriers to uptake among most people. There is evidence that nudging people using visual and verbal cues is an effective way to encourage sustainable eating. With the objective of understanding how sustainability is (and is not) being communicated, this paper reviews the visual and verbal messaging of different brands of plant-based foods in Thailand. The findings suggest that sustainability can be leveraged more systematically and consistently, in conjunction with other key category messages, to encourage sustainable eating. Although other research determines that there are multiple motivations for consuming plant-based foods, these findings suggest some approaches to communicating sustainability that might increase the attractiveness of the category to more people.

**Keywords:** Sustainability, Plant-based Foods, Eco-labelling, Communication, Semiotics

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# ผลิตภัณฑ์อาหารจากพืช (Plant-Based Food) สื่อสารถึงแนวคิดเรื่องความยั่งยืนได้หรือไม่? กรณีศึกษา ความสัมพันธ์ของความหมายของแบรนด์ (Brand Meanings) ของบริษัทในประเทศไทยกับการบริโภคที่ยั่งยืน

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## บทคัดย่อ

การบริโภคเนื้อสัตว์เป็นสาเหตุสำคัญที่ทำให้เกิดภาวะโลกร้อน ดังนั้น การลดปริมาณการบริโภคเนื้อสัตว์จึงเป็นก้าวสำคัญในการบรรลุเป้าหมายการพัฒนาที่ยั่งยืนขององค์การสหประชาชาติ (Sustainable Development Goals - SDGs) และการลดภาวะโลกร้อน ถึงแม้ว่าคนจำนวนมากจะมีความเข้าใจโดยทั่วไปว่ารูปแบบการบริโภคอาหารสามารถส่งผลกระทบต่อความยั่งยืนได้ การรณรงค์ให้คนส่วนใหญ่หันมาปรับเปลี่ยนลักษณะนิสัยการบริโภคยังคงเป็นเรื่องยาก และมีอุปสรรค มีหลักฐานแสดงให้เห็นว่าการใช้วิธีปรับพฤติกรรม (Nudge) ผ่านการใช้ภาพและการใช้ถ้อยคำเป็นการรณรงค์ให้เกิดการบริโภคที่ยั่งยืนที่มีประสิทธิภาพที่สุด บทความนี้เป็นการทบทวนการสื่อสารในรูปแบบภาพและการใช้ถ้อยคำของบริษัทผลิตอาหารจากพืชในประเทศไทย โดยมีวัตถุประสงค์เพื่อทำความเข้าใจว่าแนวคิดความยั่งยืนได้ถูกสื่อสารผ่านสื่อเหล่านั้นหรือไม่ จากการศึกษาพบว่าแนวคิดเรื่องความยั่งยืนนั้นสามารถสื่อสารออกมาได้อย่างเป็นระบบและต่อเนื่องผ่านการใช้ข้อความบางประเภทเพื่อรณรงค์ให้เกิดการบริโภคที่ยั่งยืน ถึงแม้ว่างานวิจัยอื่นจะพบว่ายังมีปัจจัยอื่นอีกหลายประการหลายที่ก่อให้เกิดแรงจูงใจในการเลือกบริโภคอาหารจากพืช ผลการศึกษานี้มุ่งนำเสนอรูปแบบการสื่อสารด้านความยั่งยืนที่กระตุ้นให้เกิดแรงจูงใจให้ผู้บริโภคหันมาบริโภคอาหารจากพืชมากขึ้น

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## INTRODUCTION

### Sustainability and meat consumption

Recent reports reflect the growing urgency of taking urgent action to reduce greenhouse gas (GHG) emissions to prevent further global warming and the consequences it brings (IPCC, 2022). The global food system contributes approximately one quarter of GHGs (Ritchie, Reay & Higgins, 2018) with the implication that changes in human diets may be an important step towards slowing down global warming as well as having a positive impact on public health and responsible consumption, consistent with UN Sustainable Development Goals 3, 12 and 13 (Springmann, M. et al., 2018; Willett et al., 2019).

Multiple studies conclude that plant-based diets have smaller environmental impacts. Meat-based diets produce more GHGs and use more water, energy, fertilizer, and land than flexitarian, vegetarian or vegan diets (Chai et al., 2019; González-García et al., 2018; Scarborough et al., 2014; Stehfest et al., 2009), although that does not mean that all vegans have less environmental impact than all meat eaters (Rosi et al., 2017).

### Moving to more sustainable dietary habits

This raises the question, “How do we get people to transition from meat-based to plant-based food products?” Studies show that people are reluctant to make this transition, do not respond to educational information (Bianchi, Dorsel, Garnett, Aveyard & Jebb, 2018), and can react negatively to messages to reduce meat consumption (de Boer, Schösler & Boersema, 2013).

However, there is strong evidence that public attitudes are shifting and that increasing numbers of people are open to limiting or reducing their meat consumption (Marketbuzz, 2022; Mintel, 2022; Rakuten, 2022). A 2021 survey by PwC estimated that 51% of consumers across 22 countries are eating more plant-based foods and this number was 80% for Thailand (PWC, 2021).

## **Identifying your diet**

Although a very small minority of people identify themselves as vegetarian or vegan, their numbers are increasing. According to Mintel’s study across 16 countries, only 1% of people are vegan and 3% vegetarian (Mintel, 2022). Marketbuzz found higher numbers of vegetarians and vegans in Thailand at 6% and 14% (Marketbuzz, 2022).

Significantly more people see themselves as flexitarian and the majority as omnivore or carnivore (Marketbuzz, 2022; Mintel, 2022). Academic studies have shown that intervening to reduce meat consumption is more effective than trying to eliminate it and that labelling food as vegetarian, vegan or healthy can be counterproductive (de Boer et al., 2013; de Boer, Schösler & Aiking, 2014; Sparkman & Walton, 2017a).

## **Closing the “say-do” gap**

People’s intentions are not currently translating into day-to-day behaviours. In the language of behavioural science, there is a “say-do” gap between stated intentions and actual behaviours (Christiano & Neymand, 2017; Mintel, 2022; Sheehan & Webb, 2016).

The literature on nudging (Ensaff, 2021; Thaler & Sunstein, 2021) has tested many interventions that can potentially help close this gap. For example, descriptive social norms, dynamic social norms, and defaults have all been shown to impact sustainable consumption behaviours (Blackford, 2021; De-loyde, Pilling, Thornton, Spencer & Maynard, 2022; Sparkman & Walton, 2017a, 2017b).

## **Triggers and barriers of sustainable eating**

The evidence is that there are more mundane and fundamental drivers of sustainable eating such as visual priming (e.g., eco-labels) and attractiveness and taste of food (Blackford, 2021; Bradford, Hancox & Bryant, 2022; De-loyde et al., 2022; Starke, Willemsen & Trattner, 2021; Turnwald, Boles & Crum, 2017; Turnwald et al., 2019). This is consistent with market research surveys that find that taste is the most important barrier to sustainable eating, along with cost, in Thailand and across Asia as well as USA and UK (Marketbuzz, 2022; Rakuten, 2022). The same surveys also show that health and ‘following trends’ are the biggest triggers of consumption followed by taste (Marketbuzz, 2022; Rakuten, 2022).

## VISUAL COMMUNICATION AND MESSAGING OF SUSTAINABILITY

### Eco-labelling and visual communication

De-loyde et al. (2022) found that eco-labels are sometimes more effective than other forms of nudging (Ensaff, 2021; Thaler & Sunstein, 2021) to promote sustainable eating. While providing on-pack information has been shown to be less effective on its own (Bianchi et al., 2021), visual approaches can be more effective, from simple eco-labelling schemes to combining explicit and implicit visual cues in the branding and packaging of products, including colours, names, visual symbols and icons, and format and style of the packaging itself (Granato, Fischer & van Trijp, 2022; Robertson, 2019).

While the plant-based foods category is expanding rapidly in Thailand (Bangkok Post, 2022a; Marketbuzz, 2022), there is no agreed standard for communicating sustainability credentials through packaging, labelling and advertising of products. In this paper, the use of visual and verbal communication codes in plant-based foods is investigated across a large number of products available in retail outlets in Bangkok to build understanding of when and how sustainability is being communicated.

### Semiotics and communication

Meanings and messages can be communicated explicitly and implicitly on packaging and also in advertising and communications in physical and digital media, for example in, TV advertising, in-store signage, billboards, online advertising, social media pages, company websites, and e-commerce pages (Gains, 2014; Robertson, 2019; Williamson, 1978).

Semiotics is a social science discipline that has been used to analyse such communications (Lawes, 2002). The Cambridge Dictionary defines semiotics as “the study of signs and symbols, what they mean, and how they are used” (Cambridge Dictionary, 2022). Semiotics has been applied to understand and interpret communication across a wide range of applications from humour to Thai politics to science (Arning, 2021; Gains, 2014; Jones, 2014; Lawes, 2018).

## **Semiotics and sustainability**

Semiotics and the parallel discipline of discourse analysis have been applied to many sustainability topics, including the iconography of polar bears (Born, 2019), green advertising (Cox, 2008; Peverini, 2014), corporate social responsibility and NGOs (Catellani, 2011, 2015; Yekini, Omoteso & Adegbite, 2021), and the visual communication of environmental values (Hansen & Machin, 2008, 2013).

The key question addressed in this paper is what are the meanings that are communicated to potential customers about the plant-based foods category in Thailand and to what extent are those marketing messages consistent with different aspects of sustainability? The paper will review a wide range of symbols and signs, including visual and verbal messaging on-pack, in-store, and through digital and broadcast media, although the main focus will be the most immediate explicit and implicit visual communication on packaging at point-of-sale.

## **METHODS**

### **Study materials and data**

The fieldwork for this research was conducted between January and July 2022 in Bangkok. During the fieldwork period there was a continuous expansion of the category, with regular new product launches. A total of 112 items were analysed, representing 30 brands.

The items focus on plant-based meals and menu items, but also include two restaurants and two alternatives to dairy products (see Table 1). Data were collected on the packaging, in-store communication, TV and online advertising, company websites, social media pages and e-commerce websites (where available).

Brand name	Number of items	Description of products	Country of origin
Absolute Plant	4	Plant-based menu items	Thailand
Alpha	1	Plant-based nuggets	USA
Beyond Meat	3	Plant-based meat products	USA
Bird's Eye Green Cuisine	3	Plant-based meat products	UK
Broccoli Revolution	3	Restaurant decor and menu	Thailand
First Pride	4	Plant-based menu items	USA
Fry's	7	Plant-based meat products	UK
Harvest Gourmet (Nestle)	4	Plant-based meat products	Switzerland
Healthiful (Central Retail)	4	Plant-based ready meals	Thailand
Krop	7	Plant-based menu items	Thailand
Let's Plant Meat	7	Plant-based meat products	Thailand
Linda McCartney's	1	Vegetarian sausages	UK
Mantra	5	Plant-based meat products	Thailand
Meat Avatar	4	Plant-based meat products	Thailand
Meat Zero	9	Plant-based menu items	Thailand
Meatly (Betagro)	3	Plant-based meat products	Thailand
Meatoo	2	Plant-based ready meals	Thailand
MJ (Mudjai)	6	Mushroom-based menu items	Thailand
More Meat	1	Plant-based protein	Thailand
Morning Star Farms	3	Plant-based meat products	USA
Never Meat	7	Plant-based meat products	Thailand
NoMeat	1	Mushroom steaks	UK
OMG Meat	3	Plant-based menu items	Thailand

<b>Brand name</b>	<b>Number of items</b>	<b>Description of products</b>	<b>Country of origin</b>
Omnimeat	2	Plant-based meat products	Canada
Plant Ever (Cargill)	2	Plant-based menu items	USA
Pranaa	1	Food delivery menu	Thailand
Quorn	5	Meat-free menu items	UK
So Good	1	Plant-based milk	Australia
Swees	5	Organic plant-based cheese	Thailand
V Farm	4	Plant-based menu items	UK

**Table 1:** List of brands, product variants, brief description of product type, and country of origin (in alphabetical order)

### **Analysis approach**

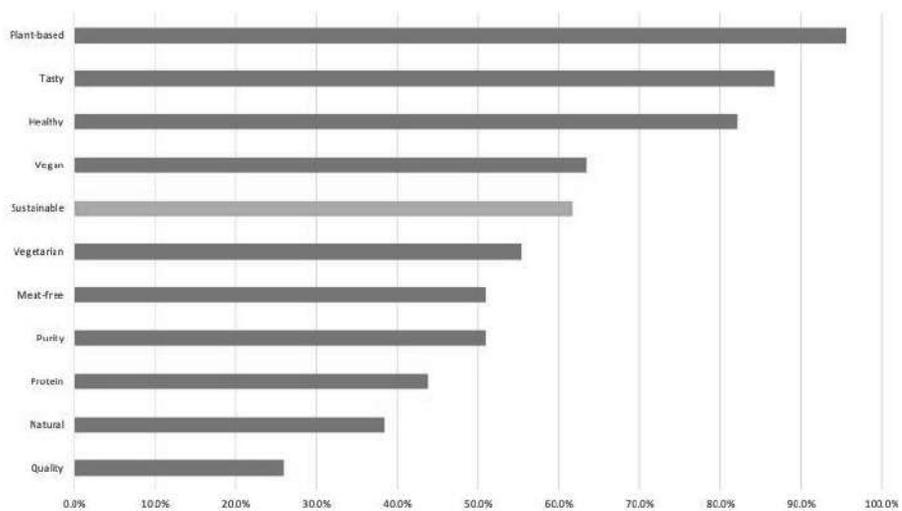
Each item was analysed for the presence of overall thematic themes as well as specific mentions of key terms, words and phrases, and visual cues (for example, does the brand use a specific colour, talk about the topic of health and nutrition, use the term ‘vegan’, etc). This was conducted item by item (some brands were not always consistent across different items) and a summary table was created in a master spreadsheet.

The summary tables and figures referenced below are based on the number or percentage of items that fit each category. The authors also identified the dominant meaning of each item based on the overall use of different themes and their likely impact at point-of-sale. That is, what is the key message take-out for potential customers? The discussion section focuses on the key themes and how they blend together in example products.

## KEY FINDINGS

### Summary of key themes

Overall, there were a number of common themes and meanings being communicated by plant-based products, with the most common being ‘plant-based’ itself (see Figure 1). The next most common messages are ‘tasty’, ‘healthy’, and ‘vegan’. ‘Sustainable’ is fifth in the frequency of messaging themes that are used in the category.



**Figure 1:** Visual and verbal communication messages for plant-based foods available in Thailand

Other themes that are present are ‘vegetarian’, ‘meat-free’, ‘purity’ (as in free of additives or preservatives, clean, etc), ‘protein’, ‘natural’ and ‘quality’. It is notable that ‘vegan’ is a more common message than ‘vegetarian’ or ‘meat-free’ and also that ‘plant-based’ and ‘healthy’ are among the most frequent messages.

### Brand names

The majority of brand names are in English and written with Latin characters, although more than half are made in Thailand. A small number are transliterations of words in Thai or other languages, but very few are translated into Thai (although

product variants and descriptions are more likely to be in Thai as well as English). This may reflect the current target audience of this category and also the importance of the category for Thailand's exports (Bangkok Post, 2022b). It also has the effect of making it more difficult for Thai consumers to understand key messages.

Although 'plant-based' is a common overall message, the use of the word plant is less common in brand names although very common in the description of individual items. Only three of the brands use the word 'plant' in their names: Absolute Plant, Let's Plant Meat, and Plant Ever. All three brands are a focus of the discussion section.

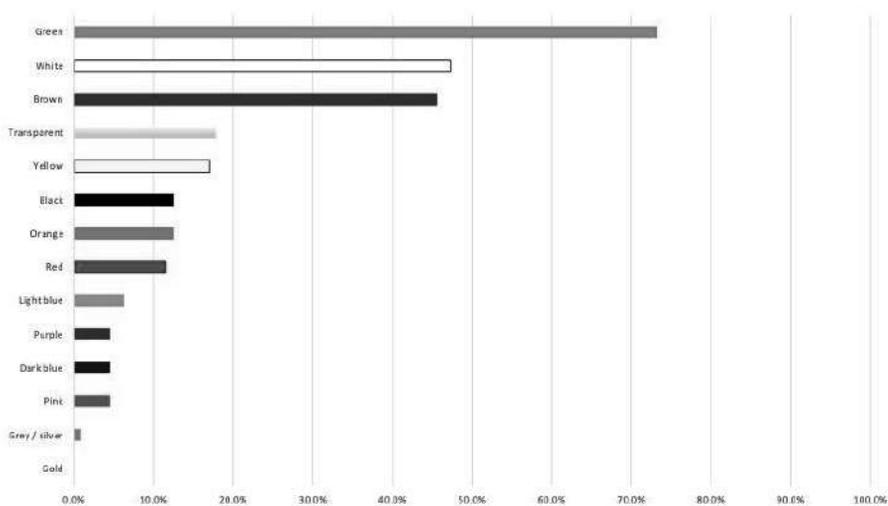
The word 'meat' is used in 11 of the 30 brands and is clearly an important marker for the category: Beyond Meat, Let's Plant Meat, Meat Avatar, Meat Zero, Meatly, Meattoo, More Meat, Never Meat, NoMeat, OMG Meat, and Omnimeat. The use of the word 'meat' in these names covers a range of meanings from 'this is not meat' to 'this is superior to meat'. This reflects a focus of the category on alternatives to meat rather than a neutral and new source of protein and an implicit understanding that meat is bad for health and the environment.

Other brand names are more diverse, although there are some common themes. Many of the brand names invoke the sense of plant-based food, including Bird's Eye Green Cuisine, Broccoli Revolution, Harvest Gourmet, and V Farm. Two brand names invoke the senses: Krop (see the discussion section) and So Good.

Other brand names are derived from Sanskrit and Thai, including Mantra ('sacred message'), Pranaa ('life force') and MJ (Mudjai or "หมุดใจ"; 'with all my heart'). The remaining brand names are a mixture of meanings, referencing health (Healthiful), company founders (Fry's, Linda McCartney's), excellence (Alpha, First Pride), and astronomical bodies, a town in Leicestershire, UK, and the founders home country (Morning Star Farms, Quorn, Swees).

## Packaging colours

Each item was coded for the key colours present and the most common colour was green (see Figure 2). Other important colours were ‘earthy’ in tone (brown was the third most common colour and yellow was fifth). White was the second most frequent colour and transparent the fourth, reflecting that many products used transparent packaging to make the contents of the packaging more visible and reinforcing the similarity with original meat products.



**Figure 2:** Packaging colours used for plant-based foods available in Thailand

Green, white and brown had much higher frequency than any other colours and green was used by almost three-quarters of the items studied making it a very important colour scheme. While this may be unsurprising for this category, the focus on green shows that its association with sustainability, naturalness and health are important for plant-based products and are important cues for consumers.

## Imagery and icons

The products consistently used imagery of cooked food (with meat-like product as the main ingredient) as the most prominent visual on the front-side of packaging, unsurprisingly for a food category. In addition, many items also used

transparent packaging to show the contents inside the packaging (e.g., Beyond Meat, Mantra, MJ, More Meat).

Apart from labels (see next section), the most common icon was the use of leaves to connote nature, either as part of the front-of-pack food imagery (e.g., Absolute Plant, Healthiful, Meat Zero), stylised cartoon or drawing in the background on front-of-pack (e.g., Harvest Gourmet, Plant Ever, So Good), or most often embedded into the brand name or logo (e.g., Absolute Plant, First Pride, Healthiful, Krop, NoMeat, OMG Meat).

Some brands use other icons. Both Beyond Meat and Meat Avatar use the outline or shadow of the relevant animal in green, while the Meattoo has an icon as part of its brand logo where the left-half is an animal and the right-half is a plant (in brown and green as is the brand name). Let's Plant Meat use a range of icons of gardening tools to connote the natural and home-grown nature of the product. Finally, Absolute Plant is unique in using a 'superhero' character on the front of their packaging who is holding and protecting an animal, in line with their brand story of the consumer as hero.

So Good is the only brand to have a full picture of nature (in this case agricultural fields) on the front of the packaging. Although nature is not directly and explicitly referenced apart from So Good, green colour is a strong visual element of many items as discussed in the previous section.

### **Labelling and quality marks**

Labelling and quality marks are frequently used on packaging to communicate health and nutritional messages. Firstly, they are used to endorse the suitability of the product for particular lifestyles and dietary requirements.

For example, vegan products are identified with a quality marks and endorsements: '100% vegan' (Fry's, Krop), 'vegan approved' (Linda McCartney's), 'suitable for vegans' (NoMeat), 'vegan friendly' (Never Meat, OMG Meat), 'certified vegan by vegan.org' (Omnimeat), or simply 'vegan' (Healthiful, Let's Plant Meat). 'Vegetarian' endorsements are slightly less common but are usually in the form of a simpler label. Flexitarian products use a similar simple label, although there are only two brands that use this identity (Meat Zero, Plant Ever).

There are some other unique quality marks and endorsements among the 112 products. Quorn is ‘recommended by netmums’ (a UK parenting community), Beyond Meat is ‘Non GMO Project verified’, and So Good has a ‘HealthStar’ rating. Only two brands are labelled as organic (Broccoli Revolution, Sweets).

Apart from these examples, labels are used to convey nutritional information in three ways: what is present in the product (positives), what is absent in the product (negatives), and what amount of an ingredient or component is in the product (numbers). Positives include ‘buddhist friendly’, calcium, fiber, halal, iron, plant-based, and ‘veggie’. Negatives include antibiotics, cholesterol, ‘cruelty’, dairy, fat, gluten, GMO, lactose, meat, MSG, preservatives, soy, and trans fat. Numbers include calcium, calories, energy, fat, fiber, omega 3, protein, salt, saturated fat, and sugar.

### **Other touchpoints and messages**

There are two other touchpoints used to convey a sustainability message. While most packaging uses combinations of cardboard and plastic, very few brands make any claims about recycled or recyclable packaging with Meat Zero the most prominently displayed although still on the back of the packaging while other brands have a small symbol also on the back of the packaging (Beyond Meat, First Pride, Meat Zero, More Meat, V Farm). Beyond Meat also uses the visual appearance of the packaging of some of their products to imply a recycled and more sustainable approach as discussed in the next section.

There is one other notable touchpoint which is sound, or rather implied sound, in the name of Krop which is also discussed below.

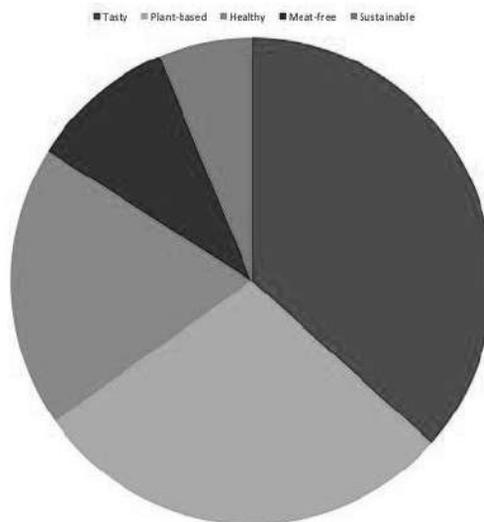
## **DISCUSSION**

### **Dominant themes**

The findings show that most items are communicating multiple meanings to consumers. Sustainability is a common theme, although not the most common. The authors looked at the different communication themes for each item in order to identify the dominant meaning communicated, focusing on the most visible touchpoints of packaging and TV advertising where it was used, although all touchpoints were

considered. We wanted to determine what are the most important associations when consumers are at the point-of-purchase.

Figure 3 is a summary of the findings. ‘Tasty’ is the most common overall theme, associated with 36.6% of the items reviewed. Tasty is followed by ‘plant-based’ which is associated with 28.6% of items, and then ‘healthy’ (18.8%), ‘meat-free’ (9.8%) and ‘sustainable’ (6.2%). No other dominant themes were identified.



**Figure 3:** Dominant communication themes for plant-based foods available in Thailand

The discussion below focuses on each of these themes and provides examples of how these messages are communicated focusing on example brands for each theme, before a more general discussion of the findings and their implications for communicating sustainability in this category.

### Tasty

Tasty is a common theme, reflecting the importance of taste in the category as well as the importance of communicating that plant-based products can be as tasty as their original meat versions.

The brand Krop focuses on communicating taste (Figure 4). Firstly, consider the name itself, which is an English transliteration of the Thai word for crisp or crunchy which invokes the sound of eating (กรุบ; pronounced in Thai with a first letter between a ‘g’ and a ‘k’). The key visual on each pack is one of cooked food presented in a very visually attractive way.



Figure 4: Krop Grilled Pork

While Krop also communicates health (labels and quality marks), plant-based (item names, 'eat veg, less meat', 'vegan' or 'vegetarian friendly' stamp depending on the item), and sustainability (the presentation of the food and serving utensils in the main picture), the key message is taste.



Figure 5: First Pride Thai Taste Series

First Pride is another brand that focuses on taste (Figure 5), demonstrated by on-pack imagery and messaging in their TV advertising on their YouTube channel (First Pride, 2022), focusing on taste as well as health and the production technology. The tagline ‘so irresistibly tasty you won’t believe it’s made from plants’ is used in their communications and the naming of individual product items uses vivid sensory descriptors (e.g., ‘crunchy’, ‘bites’, ‘spicy’). First Pride has a range of locally inspired variants that focus on ‘Thai taste’ and this is clearly the focus of the brand.

### **Plant-based**

Let’s Plant Meat is most focused on communicating that it is a plant-based product (Figure 6). This starts with the brand name and also individual product item names (e.g., ‘plant-based meat katsu’, ‘plant-based larb meatballs’, etc). The pack design uses icons of various garden tools to reinforce the feeling of something that is home-grown. There are some additional labels and quality marks with health and nutrition messages and each variant is prominently identified as ‘vegan’. The brand’s YouTube channel focuses on explaining what plant-based meat is along with the story of the brand (Let’s Plant Meat, 2022).



**Figure 6:** *Let’s Plant Meat* Plant-Based Meat Katsu

Plant Ever is also focused on the theme of plant-based (Figure 7), with its brand name and individual item names (e.g., ‘plant-based nuggets’, ‘plant-based meatballs’, etc). The packaging design uses green colours and leaves prominently. The labelling also talks about health and nutrition including protein and uses the descriptor ‘flexitarian’ and also notice the smiling face hidden in the brand logo! However, the main focus is on plants.



Figure 7: Plant Ever Plant-Based Nuggets

## Healthy

OMG Meat is most focused on health (Figure 8) with several prominent nutritional messages on pack, including ‘good source of protein’ or ‘high protein’ (depending on the item), ‘0 mg cholesterol’, ‘no preservative’ and ‘vegan friendly’. The brand’s advertising on YouTube is focused on physical fitness and health (OMG Meat, 2022) and the brand’s website shows many physically fit people in the natural outdoors. Healthiful is also focused on health, with several prominent nutritional and ingredient messages on pack, including ‘soy free’, ‘gluten free’, ‘no preservatives’, ‘no MSG added’ and ‘vegan and plant-based’ (Figure 9). The packaging further emphasises the ingredients (‘mushroom & jackfruit based’), as does the brand name. Healthiful has its own retail outlets which are called ‘health and wellness stores’, decorated with health images and messages and selling a wide range of health and wellness products in addition to the Healthiful brand itself.



Figure 8: OMG Meat Plant-Based Crab Shumai Style

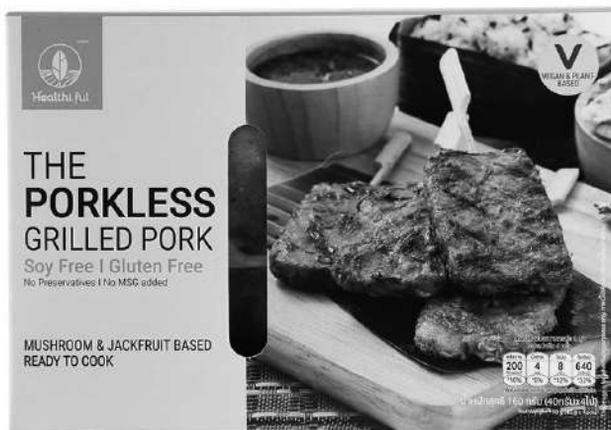


Figure 9: Healthful The Porkless Grilled Pork

### Meat-free

Meat Zero is focused on the absence of meat (Figure 10), most notably in its name, and also in the icon of zero in shades of green and yellow that is part of the brand logo but in larger size is a dominant feature at the front of its packaging and in its TV and online advertising (Meat Zero, 2022). Arguably the zero figure is also implicitly a reference to recycling. Meat Zero uses ‘plant-based’ as a descriptor on many items and also notably has ‘flexitarian’ and ‘vegetarian’ labels on all items and a ‘vegan’ label on most.



Figure 10: *Meat Zero* Plant-Based Crispy Pork

NoMeat is also focused on the absence of meat (Figure 11), again through its name and the naming of the product item ('No Bull Mushroom Steak'). While NoMeat uses the labels 'plant-based' and 'suitable for vegans' on pack, the brand name dominates first impressions.



Figure 11: *NoMeat* No Bull Mushroom Steaks

## Sustainable

Beyond Meat is one of two brands focused on a sustainability message (Figure 12), especially on its website and in its YouTube channel (Beyond Meat, 2022). The videos on this channel are the best example of brand storytelling among the products reviewed, with a consistent message for people to “Go Beyond” which talks about sustainability as a social movement, as well as discussing taste and health, with recipes and cooking tips and multiple celebrity endorsements. Beyond Meat is definitely the most actively promoted brand reviewed for this study.



Figure 12: Beyond Meat Beyond Sausage Plant-Based Links

Although there are several health and nutritional messages on pack (‘non GMO’, ‘no soy’, ‘no gluten’, ‘35% less fat’), the overall impression of the packaging is one of sustainability with a look of recycled cardboard, transparent packaging to see the contents, and the icon of an animal in white on a green background in the top corner of the pack.

The Beyond Meat website is also quite heavily focused on sustainability, with their mission statement. “We believe there’s a better way to feed our future. By shifting from animal to plant-based meat, we can positively affect the planet, the environment, the climate and even ourselves”. The website also highlights a peer-reviewed life cycle analysis and impact assessment.

Absolute Plant is also focused on sustainability and trying to tell a story about the brand but in a very different way (Figure 13). The brand uses a ‘superhero’ icon as the dominant feature of each pack, holding a relevant animal as a protector of the planet and with the catchline “You’re the next hero to save the world”. Absolute Plant’s YouTube channel also features the superhero character prominently with the hashtag #youarethenextABhero, although it currently has only 71 subscribers, compared with from 200-17,000 for the other YouTube channels referenced. The pack has some nutritional messaging (‘plant-based’, ‘protein’, ‘fiber’, ‘0 cholesterol’, ‘no preservatives’) and incorporates a smile into the leaf which is part of the brand logo. However, it is the hero image that dominates.



Figure 13: Absolute Plant You’re The Next Hero to Save the World

## **What does sustainability mean for the category?**

Based on this analysis, and the relative importance of the different themes, it seems that the main focus of sustainability messaging for plant-based foods is the promotion of healthy diets (SDG 3), with little attention paid to responsible consumption (SDG 12) and climate action (SDG 13) with the exceptions of Beyond Meat and Absolute Plant brands as discussed above.

Some brands mention a few other aspects of sustainability but relatively infrequently. For example, Meat Zero is the most prominent brand to claim that its packaging is eco-friendly and “100% fully recyclable” and there are occasional references from other products to simplicity, organic, balance, and freshness. None talk about the other 14 SDGs.

## **What about nature?**

It is surprising that there is so little reference to nature among the products analysed, with fewer than 40% of items using the word ‘natural’ (or related terms, and only So Good using visuals on pack and OMG Meat relatively prominently on their website. There is strong evidence that connectedness to nature is associated with pro-environmental behaviours (Barragan-Jason, de Mazancourt, Parmesan, Singer & Loreau, 2022; Mackay & Schmitt, 2019). Communicating messages related to nature may be an effective way to target the choices of some consumers. However, these findings suggest that there has been little effort to communicate nature beyond the use of green colour and leaves.

## **Focus on taste or health?**

Taste and health are key themes of communication in the category and this is aligned with consumers’ stated drivers of consumption (Marketbuzzz, 2022; Rakuten, 2022). However, if these are the current consumers of plant-based products, how can brands attract consumers who do not currently eat plant-based products? Based on the same research, two of the main barriers to consumption are also taste and the ability to find relevant products (Marketbuzzz, 2022). This suggests that stronger visual communication in the category might help potential consumers find the right products more easily and even placing these products in proximity to the meat-based products that they replace (note: they are usually in a separate section of the freezer in retail stores).

Moreover, there is a large amount of evidence that while health is motivating for some consumers, for the majority taste is more persuasive (Turnwald et al., 2017; Turnwald et al., 2019). Turnwald and his collaborators have argued that “leading with taste” makes good public health policy to drive changes in consumption and this would apply to other aspects of sustainability too (Turnwald & Crum, 2019; Turnwald & Crum, 2021).

### **Which labels do consumers identify with?**

As mentioned above, labels that focus on health and nutrition may not be the most effective messages for many consumers. Likewise the use of labels such as ‘plant-based’, ‘vegetarian’, and ‘vegan’ help those who identify with these dietary choices, they are often counterproductive in changing behaviours (de Boer et al., 2013; de Boer, et al., 2014; Sparkman & Walton, 2017b).

Many of the brands and products reviewed in this paper focus very strongly on their ‘plant-based’ credentials and often prominently display labels such as ‘vegan’ on their packaging in-store. The evidence is that while this may be attractive for those who identify with such labels it is not attractive to those who see themselves as carnivores, omnivores or flexitarians (who constitute the majority of Thailand’s population).

On the other side, there is also some evidence that prompting about ‘meat’, even in a negative context, may actually increase meat consumption (Ottersen, Benningstad & Kunst, 2022) and therefore the frequent use of meat in the naming of products could also be counterproductive, although this has yet to be properly tested in Thailand.

### **Can brands communicate sustainability more effectively?**

Brands can and should use more effective visual communication strategies if they wish to encourage consumers to eat more sustainably. Visual communication can help build stronger storytelling elements into the messaging of plant-based products and this is an area where few of the brands studied are strong.

Although visual communication and storytelling are sometimes used, for example in the website and advertising of Beyond Meat and the visual look of Absolute Plant and First Pride, there are simpler ways for brands to trigger purchase and consumption. Eco-labels have been shown to be effective in driving consumption of sustainable food products (Potter et al., 2021).

This research also showed that a range of labels and messages may be required to target specific audiences. However, this research also shows that there are no consistent or standard eco-labels and quality marks. The extensive use of such messaging means that there is a need to be more targeted and focused in communication while minimising the number of messages to simplify consumer decision-making and reduce potential confusion.

The most important lesson from this review of communication in the plant-based food category is that there is too much focus on existing consumers and too little focus on attracting new customers. If the goal is to make diets more sustainable across the broader population, communication strategies must target a wider range of different segments within the population with clear and simple messages and more imagery that connects product benefits to sustainability and especially nature.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Summary of findings**

Overall, these findings demonstrate that sustainability messaging in the plant-based food category is mostly limited to a focus on health and nutrition (SDG 3) and has yet to fully address issues of responsible consumption (SDG 12) and climate action (SDG 13). Taste is also an important message for this (and any food) category and combined with health and nutrition reflects the key triggers and barriers to consumer purchase.

Although interest in and consumption of meat alternatives is growing, there remains a large gap between the intentions and the actions of a large majority of the population who are not currently consuming meat alternatives. Given the huge benefits to the planet, society and individual health this gap needs to be closed and this research has identified a number of opportunities outlined in the recommendations below.

## Recommendations

The recommendations from the research divide into actions that may require government action and those that focus on companies and brands and the effectiveness of their marketing and communications.

Firstly, there is an opportunity to provide clearer and more consistent labelling of sustainability credentials for plant-based foods and other categories. Consumers are currently faced with a deluge of flags, labels and quality marks which are different from product to product. This is likely to be causing information overload for many (Chernev, Böckenholt & Goodman, 2015), making it difficult to determine the most important messages especially when there is uncertainty about their underlying preferences.

While there is a need to test the effectiveness of different types of messages, there is strong, existing evidence that clear visual labelling of products can increase sustainable choices (De-loyde et al., 2022). This is also an opportunity for companies and brands to simplify their messaging and aid consumer decision-making with more focused, simple and visual messaging. As discussed, there is considerable evidence that identity labelling may not be effective for attracting new customers (de Boer et al., 2013; de Boer et al., 2014).

This provides opportunities to move away from targeting health and dietary preferences to more holistic messaging which combines the short-term benefits of plant-based products (e.g., taste) with the long-term benefits of responsible consumption and a sustainable environment (e.g., nature, health). Such messages may be more attractive for those who currently reject the category. This applies to naming of brands and products as well as on-pack messaging through labels and quality marks.

For example, for communicating taste the use of more vivid sensory descriptors has been shown to be effective in driving consumption and enjoyment of foods (Turnwald & Crum, 2019; Turnwald & Crum, 2021). Would ‘plant-based meat katsu’ be more attractive as ‘crunchy and juicy meat katsu’ or ‘grilled meat stick’ as ‘succulent meat stick’?

Retail outlets and brands should consider the best locations to put products in-store. Should the plant-based sausages be in a separate section for plant-based products or next to the meat-based sausages? The former probably helps those who currently purchase products to find them quickly, while the latter probably helps those who do not regularly buy meat replacements.

Finally, using norm-based messaging may help new customers to decide to buy such products. While standard social norms may not be effective, with category consumers in the minority, communicating dynamic norms (trends) has been shown to be effective in promoting sustainable consumption (Sparkman & Walton, 2017a, 2017b) and is mentioned by consumers as a reason for purchase (Marketbuzzz, 2022; Rakuten, 2022).

### **Limitations and future research**

This review of products was limited to those available in the retail environment of Bangkok, although many of the products studied come from outside Bangkok including international products which represent just under one-half of the brands and one-third of the individual items reviewed. Messaging of brands outside Thailand was not included in this study and would provide an important comparison with these findings to see what alternative communication strategies may be effective.

The outlined recommendations should be tested to see which are most effective in the Thai market for promoting sustainable consumption across different segments of the population and especially those who currently avoid meat alternatives.

Finally, further research is needed to better understand individual consumers' understanding of and associations with meat products and meat alternatives and the concept and different aspects of sustainability, in order to develop more targeted and effective communication strategies.

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