

The World in Transition: Cleaner Consumption (Part 2)

In the previous issue, protein technology expert Henk Hoogenkamp discussed why global ecosystems need a reimagining of food systems to operate within nature's boundaries. For Part 2 in this series, Henk continues to discuss how the food industry needs to transform and revolutionise the way food is produced.

Challenging Times Prompt New Solutions

A fundamental shift in how food is produced is needed. This includes the practices of over 500 million smallholder farms and the consumption patterns of the global population, with special emphasis on the developed countries and the huge waste of valuable food. To minimise environmental degradation while still feeding some 10 billion people by 2050, a drastic cut in consumption of meat, dairy, and eggs will be needed. However, will these goals be attainable knowing that the world production of both dairy and meat is still upward trending?

The meat eaten today in record consumed quantities overwhelmingly comes from genetically uniform, immuno-compromised, and pharmaceutically treated animals, often stacked in confined spaces. Unfortunately for most consumers, the present and future of animal farming is low on the list of priorities, mainly due to the lack of public understanding.



There are differing opinions on the morality and sustainability of free-range versus farmed animals. Some of the benefits of free range animals include more humane conditions for animals, which align with consumer concerns. There is also a belief that animals bred in healthier and happier conditions yield better quality meat. Additionally,



Consumers who are more well off and better informed are giving more support to plant-based dietary choices. They believe that a plant-based diet can help manage weight and contribute to overall wellbeing.

free-range systems often have a smaller environmental footprint compared to intensive farming methods. They can promote biodiversity and reduce the negative impacts on local ecosystems. However, the quality of free-range meat can vary more than that of farmed meat due to lesser control over factors like diet and exercise.

Consumer Demands

An increasing number of consumers living in affluent societies believe that vegetarian or vegan food choices are more sustainable than slaughtered food options such as beef, pork, and chicken. To keep up with the plant-based phenomenon and the shifting consumer attitudes from trend to food (r)evolution status, the



There is a trend towards non-meat options for nutrient consumption.

legacy brands are now forced to closely monitor market changes. This is especially the case as more consumers adapt to increased plant-based eating, though for diverse reasons, with more plant protein or fibre in their diets and eating more healthfully while feeling good about their proactive attitude for helping the environment.

Clearly, consumers in affluent countries are giving more support to the plant-based dietary choices that not only help manage weight but also address underlying conditions like wellbeing and reduce the risk of degenerative diseases such as cancer, diabetes type 2, and cardiovascular disease.

It is evident that the younger consumers under the age of 30 are the early adopters of a vegetarian dietary preference. In contrast, the consumers under the age of 50 are most likely to adopt a flexitarian-style diet as a meaningful compromise. These trends do seem to transcend both demographic and generational groups. For these groups of consumers, clean label

and transparency is not a passing trend but movement that is here to stay.

There are also protein-consumption differences between men and women. Women are mostly interested in protein for lifestyle, satiety, and body-weight control. Men see protein nutrition in relation to their increased muscle strength, physical (sport) performance, and energy level.

The Cost of Plant-based Options

There is a clear relationship between the willingness of consumers to purchase plant-milk and plant-meat alternatives or the animal-based equivalents. Most consumers believe that plant milk and plant meat are too expensive, and they would prefer to see similar pricing, suggesting that price is a key barrier to plant protein food consumption.

The latter is especially true to capture or win over the flexitarian consumer, particularly during times when the cost of living goes up. Perhaps the answer lies in

the fact that margins on animal meat and dairy milk are historically low at around 10%, whereas margins on plant-based protein foods are typically at 30% to as much as 50%. Besides these differences, there is growing evidence that the increase in living costs does indeed challenge the ethical and ecologically-driven buying decisions.

Data from Mintel Global New Products Database highlights that consistent growth, the number of new packaged consumer goods launched with a plant-based claim has increased by 302% between 2018 and 2022. Mintel analysts forecast that the market could grow to \$160 billion by 2030. It's safe to say that plant-based is now a lifestyle choice, and it's here to stay.

Environmental & Human Health Degradation

The overriding question is if plant-based meat and plant-milk beverages lead to sustained change in purchasing behaviours. For now, the answer is a resounding yes! However, it is appropriate to ask if a vegetarian-based diet loaded with wheat, corn, soy, and rice is sustainable for long-lasting human preferences. After all, wrong were the nutritional (pseudo) scientists and self-appointed gurus some 30 years ago when they were pushing the ultimate healthy diet high in carbohydrates and low in fat! A skyrocketing global obesity and diabetes type 2 epidemic is presently affecting both affluent and developing countries alike. It only shows how incredibly hard it is to make dietary changes last. A

more balanced approach on the ideal human nutrition guidelines will be needed. Perhaps it is now safe to conclude that optimal human health, in fact, clashes with the health of planet Earth.

It is a fact that it takes more than just calories to nourish humans. Over the last 50 years, legacy food companies have continuously removed essential natural components from crops, especially roughage and fibre, to make food taste better. Most of these companies spend lots of energy in finding the bliss point: the stage of continually eating food. Quite a bit of compulsive eating resulted, and many people are on autopilot when eating these 'great-tasting, empty-calorie' foods. This is good for marketing and sales, but bad for the nutritive status of a human body.

In the developing world, diets high in dairy and meat are expected to rise exponentially due to the growing number of people who have the means to afford these much-beloved foods as their primary source of nutrition, even though the increase in animal protein consumption will mean a real setback in reducing greenhouse gas emissions.

As a side note, consumption of fluid milk in North America declined by 25% between 2006 to 2022, along with a triple-digit increase in dairy alternatives within the same time frame. However, to put this into perspective, the decline in cow's milk consumption is more than compensated by the sharp increase of dairy sales in developing countries. Subsequently, the net greenhouse gas savings do not always reflect what special interest groups make the consumer believe.

Transformative Changes

The growing number of transformative changes with increasing meat and dairy consumption, as well as the rising demand for food and nutritional quality, will put additional pressure on the agricultural ecosystems. To meet world needs by 2050, an estimated 70% more food must be produced from less land and fewer inputs like chemical pest control, less water and fertiliser, as well as less or no antibiotics for raising slaughter animals. In addition, the inequities between developing and affluent societies must be solved to improve the economic and societal imbalances. **APFI**



Ultimately, the choice between farmed and free-range animal meat depends on various factors, including ethical considerations, environmental concerns, and personal preferences. Consumers and producers alike must weigh these pros and cons to make informed decisions about the meat they buy and produce.



EDITORIAL
GOT A QUESTION?

Make an enquiry at:
[apfoodonline.com/
contact](https://apfoodonline.com/contact)

