

KEY CONSUMER TRENDS IN FOOD & AGRICULTURE

2018 SERIES

PLANT-BASED FOODS



INSIGHT FROM
ORIGIN MERCHANT PARTNERS
SENIOR ADVISOR, STEVE BROMLEY

We continue to explore key consumer trends in food & agriculture and assess what they mean to the food industry in our ongoing multi-part series. We have noted that consumers are making more informed decisions than ever before when it comes to their food choices, driving significant demand for perceived healthier foods including non-GMO, organic, clean label options and “free from” foods to name a few. The food & agriculture industry is responding rapidly to these changing consumer preferences and the impact is substantial.

Are the changes here to stay? We explore key trends with Origin Merchant Partners Senior Advisor, Steve Bromley. Mr. Bromley has over 30 years of food, beverage and general business experience in private and public companies at both executive management and board levels.

Source: 1. Global survey by Neilsen (2017)

Plant-Based Options Appeal to Significantly More People Than Just Those Who Follow Vegetarian Diets

“In North America consumers are actively trying to incorporate more plant-based foods into their diets (39% of Americans and 43% of Canadians). This suggests that plant-based options appeal to significantly more people than just those who follow vegetarian diets (6% of North Americans) and those who follow vegan diets (3% in the U.S. and 2% in Canada, respectively).”¹

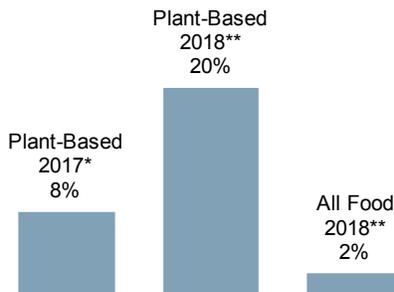
In our past Insights reports we have discussed the organic, clean label and transparency and traceability trends. In this report we focus on the fast-growing “plant-based foods category”, understand what is driving it and what food companies are doing to address this trend. Diets that reduce or even completely exclude animal-based products including dairy, meat and eggs were not common in the past, but this is changing rapidly as the health, nutritional and sustainability benefits of plant-based

diets are becoming better understood. To no one’s surprise millennials are the key drivers of the shift away from the consumption of animal-based products to plant-based products, but the trend can be linked across many generations and most countries around the world. Plant-based consumption habits are quickly becoming mainstream and more accepted each and every day, with plant-based food products capturing increased shelf space at retail and on restaurant menus.

Global Demand For Plant-Based Foods Expected to Grow Rapidly

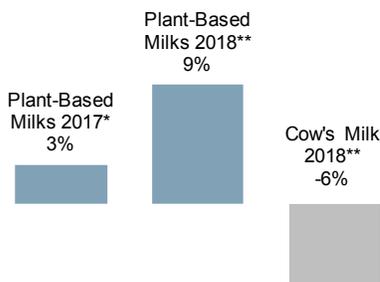
Sales of plant-based foods grew at retail² an impressive 20% in the 52 week period ending June 16, 2018 compared with total food sales growing approximately 2% in the same period suggesting plant-based products are no longer a niche market.¹

Total Growth of All Plant-Based Food in Retail ¹

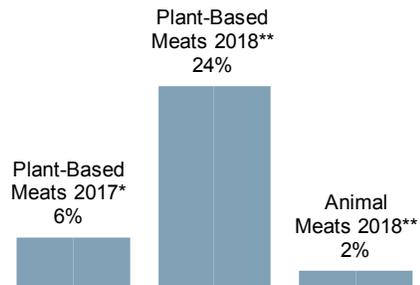


Plant-based beverages and plant-based meats continue to be leading categories, significantly outpacing growth in conventional milk and meat categories.

Plant-Based Milks vs. Cow's Milk in Retail ¹



Plant-Based Meats vs. Animal Meat in Retail ¹

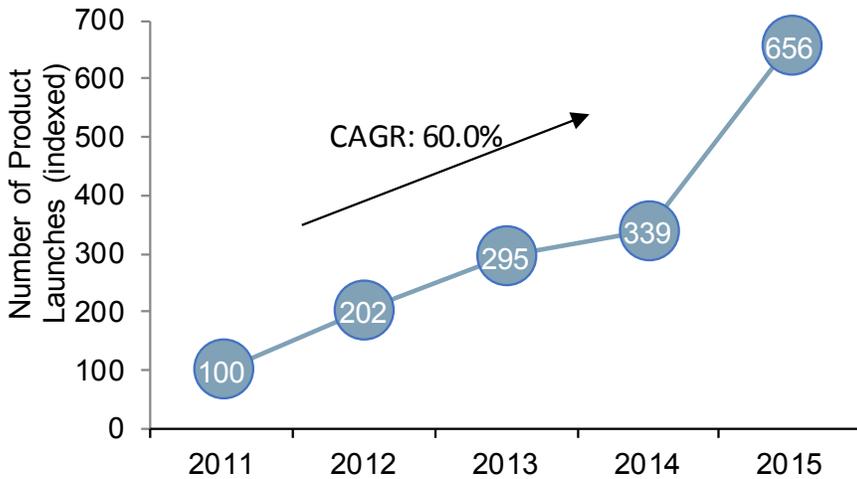


“The new data confirm what we are hearing and seeing every day from our members: sales are up, investment is increasing and new jobs are being created in the plant-based foods industry,” Michele Simon, Executive Director of the Plant Based Foods Association.

Source: 1. Plantbasedfoods.org 2. Includes meat, milk, dairy, meals, tofu and egg/mayo categories
 *52 weeks dollar sales ending August 2017 ** 52 weeks dollar sales ending June 2018 PBFA-commissioned data from Nielsen

Plant-Based Foods Becoming Mainstream

New Global Product Launches Tracked with a Plant-Based Claim¹



PLANTS ARE TRENDING IN NEW PRODUCT MARKETING

- CAGR in new product launches featuring plant-based claims such as “plant-based” and “100 per cent plant”, has grown dramatically at +60% from 2012-2016.
- According to data from Innova Market Insights, there has been a 45% average annual growth of food and beverage launches with a vegan positioning.¹

According to Baum + Whiteman, International Food and Restaurant Consultants, “plant-based foods going mainstream” will be the #1 trend of the year in 2018.

A recent report from Baum + Whiteman notes that:

31%	35%	66%	83%	62%	58%
of Americans practice meat-free days	of Americans get most of their protein from sources other than red meat	of consumers who eat alternative proteins believe they are healthier than red meat	of US consumers are adding plant-based foods to their diets to improve health and nutrition	of US consumers are adding plant-based foods to their diets for weight management	of adults drink non-dairy milk



Source: 1. Innova Market Insights, 2016

PLANT-BASED FOODS BECOMING MAINSTREAM

90%

increase in 'vegan' Google searches between 2015 and 2016¹

25%

increase in vegetarian claims in new products in grocery stores between 2012 and 2016²

257%

rise in vegan claims in new products in grocery stores between 2012 & 2016²

Even with these massive increases, only **6% of North Americans follow vegetarian diets and less than 3% identify as vegans³, leaving lots of opportunity for food and beverage companies to capitalize.**

Not Just a North American Movement

Search data from Google Trends shows a large increase in the interest in veganism from 2004 to 2018, with top regions including Israel, Australia, Canada, Austria and New Zealand. In the UK the number of people identifying as vegans has increased by 350% over the last decade, and in Portugal veganism has increased by 400% over the last decade. Plant-based diets are also growing across Asia – new dietary guidelines issued by the Chinese Government encourage a reduction in meat consumption by 50%.

The global plant-based protein market is expected to reach USD \$10.9 billion by 2022 supported by a CAGR of 6.7% during the forecast period of 2017 to 2022.⁵

Global growth in plant-based product claims⁴

(Global, CAGR 2013-2017)

+62%

Why Plant-Based?

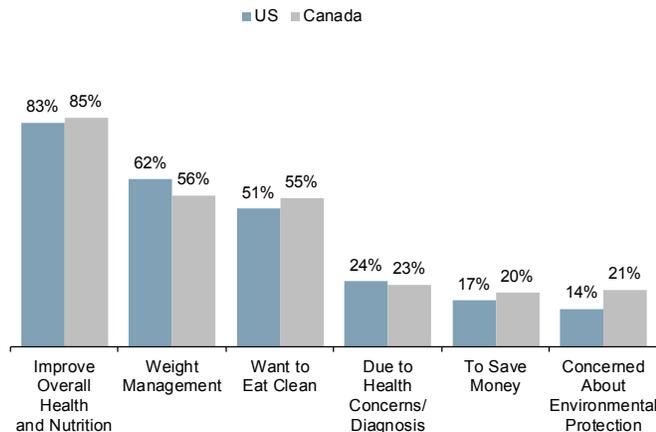
Consumers are eating more plant-based foods based on their focus on health and wellness, increased food safety and animal wellness concerns, increased awareness of environmental sustainability and the rising prevalence of restrictive diets

Health and wellness appear to be the key drivers behind the growth of plant-based foods.

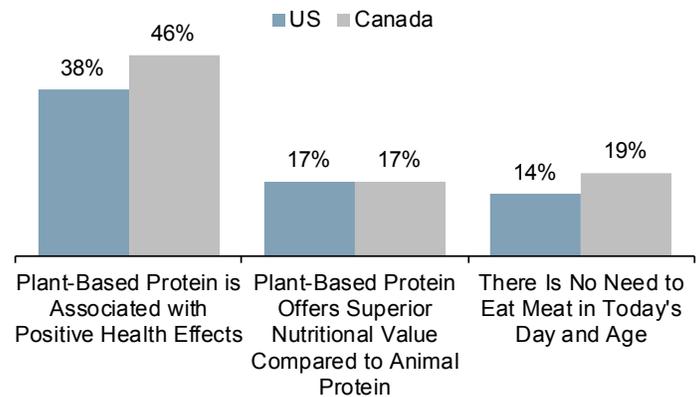
Kaiser Permanente, a leading integrated health care provider published a nutritional update for physicians which recommended plant-based diets “to all their patients, especially those with high blood pressure, diabetes, cardiovascular disease, or obesity.” They list the health benefits of a plant-based diet as:

- Lower cholesterol, blood pressure and blood sugar;
- Reversal or prevention of heart disease and diabetes;
- Healthier weight;
- Lower risk of developing cancer and diabetes;
- May slow the progression of certain types of cancer;
- Improved symptoms of rheumatoid arthritis;
- Fewer medications; and
- Lower foods costs.

Nutrition and Weight Control are the Top Reasons to Include More Plants ²
Top reasons from those wanting to incorporate more plant-based foods



Consumers See Health Benefits in Plant-Based Proteins ²
% w ho strongly + somewhat agree



Source: 1. L.E.K. analysis 2. 2017 The Nilsson Company (US), LLC



GROWTH In Plant-Based Alternatives

Growth in Both Plant-Based Beverages and Meat Alternatives

According to Innova Market Insights, the global plant-based alternative beverage market is expected to reach \$16 billion in 2018, up from \$7 billion in 2010.¹

Global New Product Launches (2012 - 2016)²

- Plant Protein Claims: +49%
- Dairy Alternatives +20%
- Meat Substitutes +14%

Growth has been fueled by consumer demands for health and wellness combined with continued innovation in the category which has seen numerous new product launches.

While demand for non-dairy alternatives is rising, the demand for dairy milk is declining. According to data from the USDA's economic research service, US consumption of dairy milk beverages decreased 22% from 2000 to 2016.

According to a recent poll at Dalhousie University, 32% of Canadians do observe some sort of committed dietary regime and those under the age of 35 are 3x more likely to consider themselves vegetarians or vegans than those 49 or older.⁴ This is causing food companies and restaurants to reconsider their current strategies.

Forecasted value of global meat substitutes market by end of 2025 (USD).²

\$16.2B

Expected global dairy alternatives market by 2024.³

\$35B

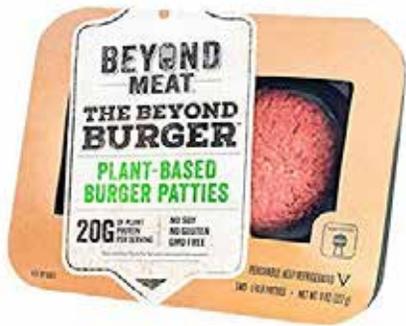
Source: 1. Innova Research 2. Persistence Market Research Plant-Based Proteins Market: Global Industry Analysis (2012-2016) and Forecast (2017-2025) 3. Grand View Research Inc. 4. Dalhousie University

GROWTH

In Plant-Based Meat Alternatives

What's Driving the Growth?

- ◎ **A healthful reputation** may be helping to drive the category as 21% of Canadians overall agree that meat alternatives are healthier than meat.¹
- ◎ **Innovation** is driving growth in the category. Beyond Meat has developed plant-based meat products that closely resemble real meat. When cooked, the plant-based burgers bleed, as does real meat, through the use of beet juice as part of the formulation. The burger alternative smells and tastes like real meat and is found in many grocery stores in the meat section rather than health foods section.



- ◎ In the summer of 2018, fast food chain A&W launched their veggie burger (supplied by Beyond Meat). They issued a press release less than a month after the burger's launch stating that "demand for A&W's new, crave-worthy Beyond Meat Burger has exceeded expectations and is temporarily out of stock."²
- ◎ **Consumer awareness groups** are also driving the category based on environmental, ethical and sustainability considerations, and this is expected to continue to grow.

MEATLESS MONDAY

Each year since 2007, Americans have been eating less meat. Here's why:

"Flexitarians" (people who often replace meat with vegetarian foods) may weigh **8 POUNDS LESS** than the average American.

It can take about **50 TIMES** more water to produce meat than plant-based foods.

15% of human-caused global greenhouse gas emissions are created by animal agriculture.

The number of animals killed for food in the U.S., every second of every minute of every day: **285.**

FACTORY FARMING'S NOT A PRETTY SIGHT. Mother pigs are crammed into tiny crates so small they can't turn around, chickens are crammed into tiny barren cages, and more.

Visit humanesociety.org/meatlessmonday today for free recipes and tips.

MEATLESS MONDAY
- JOIN THE MILLIONS -

THE HUMANE SOCIETY
OF THE UNITED STATES

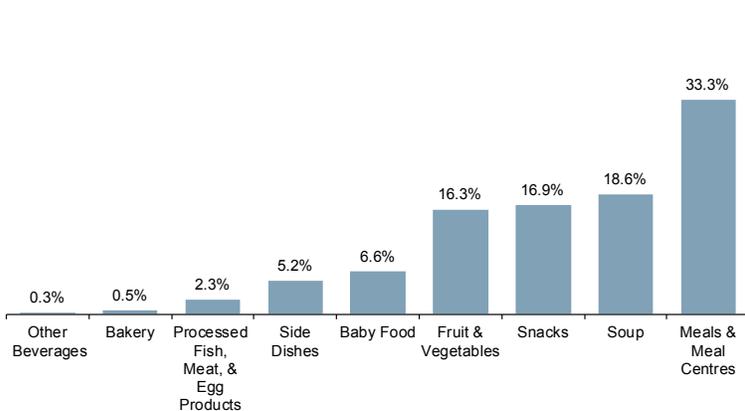
Above, The Humane Society of the US utilizes the popular movement #MeatlessMonday in an online campaign to cut meat out of the diet entirely or one day a week in order to address environmental, health and animal welfare concerns that they claim are associated with eating meat.

In a research report from Mintel, 53% of Canadians say they eat meat alternatives, including one in five who claim to eat them at least a few times a week.

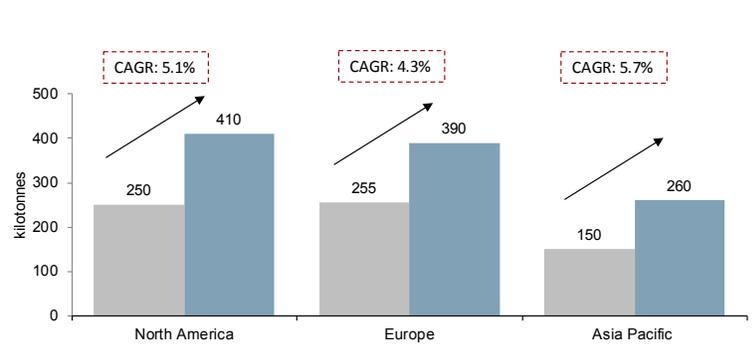
GROWTH In Non-Soy Ingredients for Plant-Based Foods

- Soy ingredients currently dominate the plant-based sector, but allergy, hormone and GMO concerns, as well as broader nutritional and taste benefits, mean consumers are using a range of plant-based ingredients.
- Pulse-based ingredients are realizing rapid growth in plant-based food categories including human food and beverages, animal feed and pet food

Pulse Ingredients in New Products by Category (%)¹
(Between January 2006 - December 2016)



Plant Protein Ingredients Demand (Volume)²



Cargill, the largest privately held food and agriculture company in the world, has made several recent acquisitions and investments in plant-based food companies:

- January 2018: Cargill invests in plant-based company PURIS to accelerate pea protein production for North American and global markets. Cargill’s press release for this investment stated, “A growing number of consumers are looking for great taste, simpler labels and alternative sources of protein to solve their personalized nutrition choices. Manufacturers are turning to pea protein because of its functional and nutritional attributes. Pea protein offers a non-GMO, Certified Organic, allergen-friendly option that checks all the boxes consumers are looking for in label-friendly products. It’s also compatible with vegetarian and vegan lifestyles.”
- January 2018: Cargill announces it’s transitioning their Germany Krefeld plant from corn to wheat by 2020 to address “increasing demand for vegetable proteins driven by a growing world population”.
- April 2017: Cargill sold it’s last two cattle feedlots in order to align with their protein growth focus by allowing them to “redeploy working capital away from cattle feeding operations to other investments”.
- August 2017: Cargill announced an investment into sustainable cultured meat technology company, Memphis Meat, marking the first time ever a meat company invested in clean meat.



Source: 1. Mintel Global New Products Database 2017 2. Grand View Research 3. Cargill Press Releases

PLANT-BASED

How is the Food Industry Reacting?

Mainstream food is reacting to this movement via investing in developing their own product offerings to compete in the space, and also via acquisition.

- Canadian meat processor Maple Leaf Foods recently purchased two companies – Lightlife, a manufacturer of plant-based foods and Field Roast, a brand of grain-based “meats” and “cheeses”.



- Campbell Soup recently purchased Pacific Foods, and maker of plant-based alternative beverages.



- Danone acquired White Wave Foods, the world’s largest processor of alternative beverages. Prior to that White Wave had acquired Vega, a BC based producer of plant-based products including shakes and bars.



- Food giant Tyson Foods, with a market cap of approximately \$25 billion recently invested in Beyond Meat, a company making plant-based burgers and other alternative meats



Innovative Plant-Based Foods Showing Double Digit Growth¹

Product	Sales Growth
Veggie noodles	115%
Plant-based yogurt	31%
Plant-based pizza	21%
Plant-based nutrition and diet	15%
Plant-based cream	25%
Meat alternatives	30%
Cheese alternatives	45%

TREND OR FAD?

Trend

Based on the changing habits of consumers towards restrictive diets, Millennial’s and Gen Z increasing spending power, a large focus on health and wellness, ethical concerns and sustainability, we think that plant-based innovation is a trend that will keep progressing.

Source: Company Press Releases 1. Nielsen Product Insider, powered by Label Insight, 52 weeks ended April 7, 2018.

PRECEDENT TRANSACTIONS

Plant-Based and Vegan Products



Generally speaking, plant-based and vegan transactions have been at premium multiples to their conventional counterparts.

<u>Date Announced</u>	<u>Target</u>	<u>Acquiror</u>	<u>TEV (US\$mm)</u>	<u>TEV/LTM Revenue</u>	<u>TEV/LTM EBITDA</u>	<u>Description</u>
20-Dec-17	Galaxy Nutritional Foods	GreenSpace Brands	17.8	1.1x	na	plant-based cheese-free products
15-Dec-17	Upfield Foods	KKR	7,999.4	2.3x	10.0x	plant-based nutrition bread spreads
03-Nov-17	Field Roast Grain Meat	Maple Leaf Foods	120.0	3.2x	na	vegan meat products
27-Jul-17	Daiya Foods Inc.	Otsuka Pharmaceutical	325.0	5.1x	na	plant-based food items
21-Feb-17	Lightlife Foods	Maple Leaf Foods	140.0	3.5x	20.0x	vegan meat products
06-Feb-17	Grass Advantage / Body & Fit	Glanbia Performance				
		Nutrition	206.0	1.8x	10.6x	plant-based nutritional products
07-Jul-16	WhiteWave Foods	Danone SA	12,446.7	3.0x	24.8x	plant-based food items
24-Nov-15	Boulder Brands	Pinnacle Foods	982.6	1.9x	22.4x	gluten free and vegan products
07-Jul-15	Manitoba Harvest	Compass Diversified	132.5	3.0x	20.7x	plant-based food items
09-Jun-15	Sequel Natural (Vega)	WhiteWave Foods	550.0	5.5x	28.0x	plant-based nutritional products
14-Nov-14	Garden Protein	Pinnacle Foods	154.9	2.7x	17.5x	plant-based food items
08-Sep-14	Annie's	General Mills	826.2	4.0x	38.8x	
Mean				3.1x	21.4x	

Source: Capital IQ, Company Press Releases

SELECTED FOOD & AG TRANSACTIONS

Origin Merchant Partners - Extensive Food and Agriculture Expertise

1	2	3	4
 Exclusive Financial Advisor on its Sale to  June 2017	 Financial Advisor on Acquisition of Farm Fresh Poultry Co-operative Inc. September 2016	 Exclusive Financial Advisor on Sale to  September 2016	 Financial Advisor on Recapitalization with an Investment from  January 2013

1. Avena Foods Limited (“Avena”) is a leading supplier of pure, organic certified, gluten-free oats to the North American market. Avena has an established network of gluten-free and organic oat growers across the Canadian prairies and a dedicated gluten-free and allergen-free milling facility in Regina, SK. Origin Merchant Partners advised Avena on its sale to Ironbridge Equity Partners.
2. Yorkshire Valley Farms (“YVF”) is a leading Ontario-based organic chicken, eggs and turkey producer, supplying product under the Yorkshire Valley Farms brand name to customers all across Canada. Origin Merchant Partners advised YVF on its acquisition of Farm Fresh Poultry Co-operative Inc.
3. Continental Ingredients Canada Inc. (“CIC”) is a leading independent provider of healthy food ingredient solutions, Quadra Chemicals Ltd. is North America’s 7th largest distributor of nutritional/functional specialty and commodity chemicals. Origin Merchant Partners acted as exclusive financial advisor to CIC on its sale to Quadra.
4. Organic Meadow Inc. (“Organic Meadow”) is a leading, trusted brand in the Canadian organic dairy sector. Origin Merchant Partners acted as advisor to Organic Meadow on its recapitalization.

Other Recent Food & Agriculture Transactions

 Exclusive Financial Advisor on Acquisition of Special Crops Division of  November 2015	 Financial Advisor on Sale of Dexter, New Mexico Processing Facility  May 2014	 Financial Advisor to the Special Committee of the Board of Directors August 2013	 Financial Advisor on Acquisition by   June 2013	 Financial Advisor on Acquisition of  March 2012
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FOR MORE INFORMATION on our insights into the food & agriculture sector or to discuss this report further,
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