



MARKET ACCESS SECRETARIAT Global Analysis Report

Commodity Innovation Series

New Products Containing Pulse Ingredients

In North America

July 2017

Executive summary

Mintel New Product Database (GNPD) highlights that the actual and future North American demand for pulses is in their inherent attributes for health benefits.

Between January 2006 and December 2016, in North America 4,922 products were released containing pulse ingredients. The surge in launches in the United States (US) and Canada come because of strong consumer demand for highly nutritious products and the quest for health-promoting benefits of natural foods, with the added benefits of functional foods. In 2016 alone, 914 new products were introduced in the USA and 298 new products were released in Canada.

The growing popularity of pulse products in North America is strong as food and drink manufacturers are tapping into a demand for these nutritionally dense ingredients. Nevertheless, pulses are not only limited to food and drink, they are also in pet food aisles because of today's consumers awareness of their benefits for themselves and for their trusted legged friends.

New releases represented 44% of total new product launches, suggesting that manufacturers are acknowledging growing consumer interest in new and innovative pulse products. Furthermore, new varieties/range extensions represented 33% of new product launches, which indicates that manufacturers are willing to alter formulations and incorporate pulses, to satisfy consumer demand for these types of products.

In 2016, Canada exported over C\$4.1 billion of pulses. The US received C\$239 million worth of pulses, a remarkable CAGR of 13% over the past 5 years.

This report will cover the food and petfood sector.



CONTENTS

Executive summary	1
New product launch analysis	2
Product categories	3
Product launch by subcategory ..	4
Product by launch type	6
Product by claims	6
Companies and brands	8
New Product Examples	11
For More Information	14
Resources	14

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- Inside the Gulf Cooperation Council – Pulses and Special Crops Trends
- Snapshot of Opportunities in India's Pulse Sector

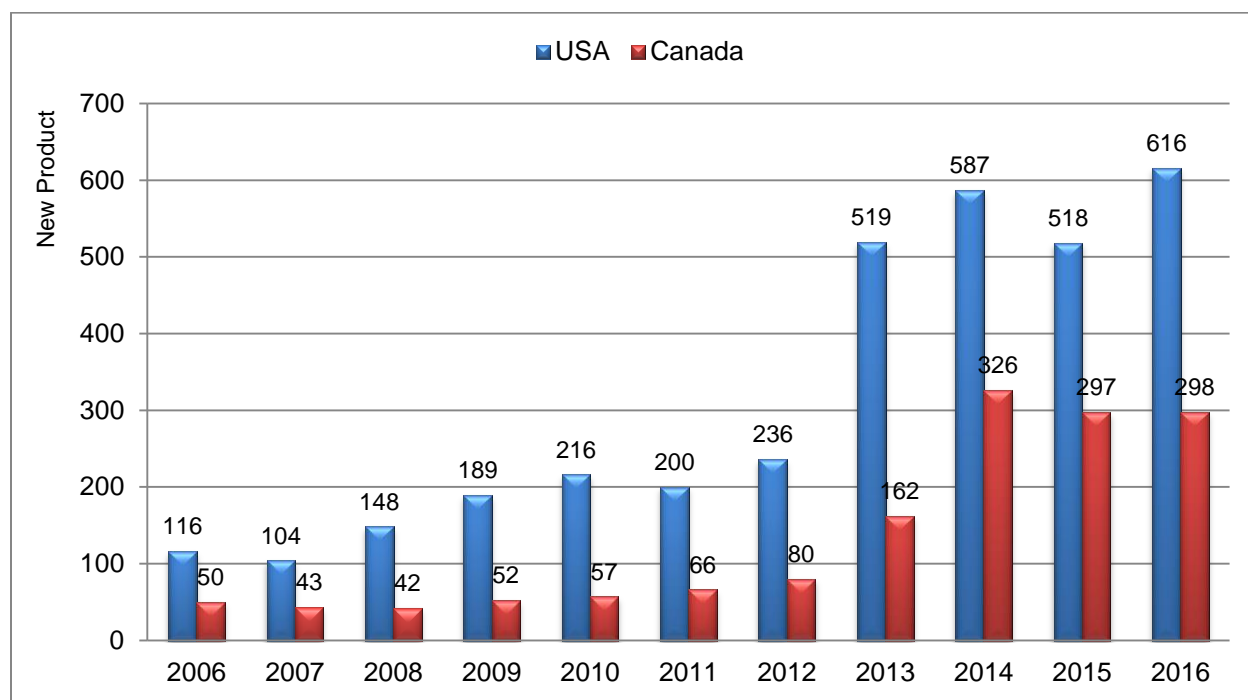


New product launch analysis

A total of 4,922 products were released containing pulse ingredients between January 2006 and December 2016 in North America. Some 3,449 new products (70%) were introduced in the USA and 1,473 new products (30%) were released in Canada.

Pulses are used to add a range of natural health benefits to food and drink products. Furthermore, healthy pulses are staples in many ethnic cuisines, offering Canadian and US food manufacturers a pathway to innovative food products consumers seeking ethnic food exploration.

New products releases containing pulse ingredients in Canada and the US between January 2006 and December 2016



Pulses ingredients health benefits are well known in wet and dry pet food for both cats and dogs. Pulse crops contain large amounts of soluble and insoluble fiber, which aid in overall pet's health.

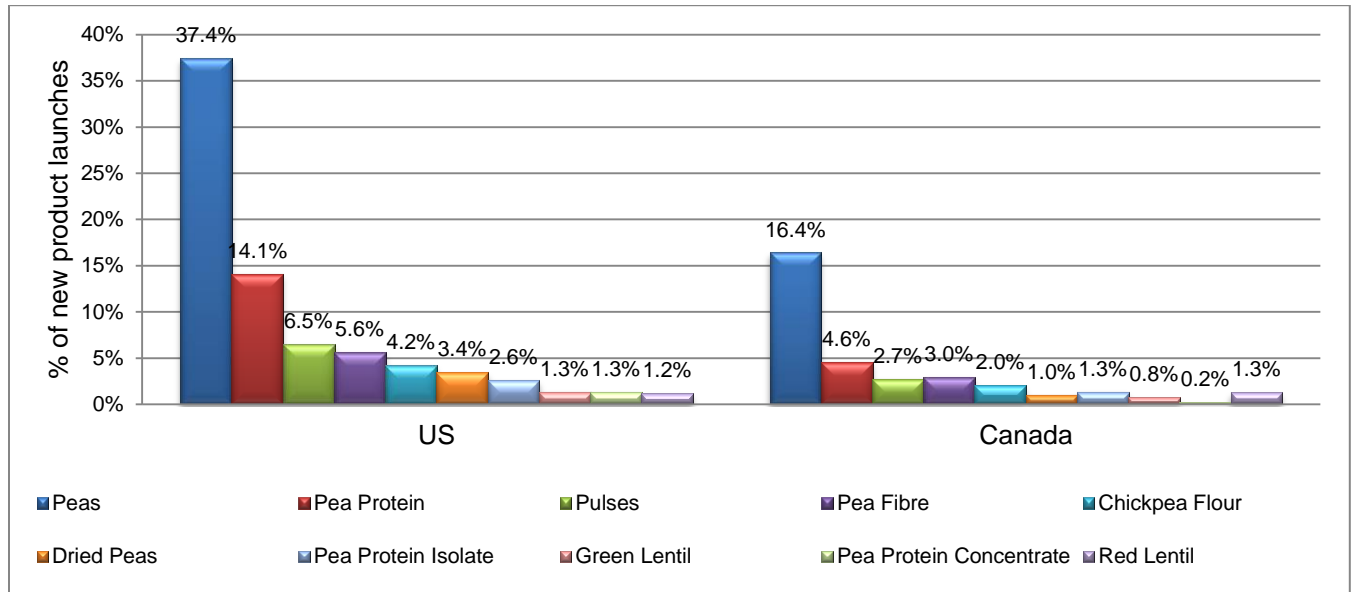
New pet food products releases containing pulse ingredient in Canada and the US between January 2006 and December 2016

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total new products
US	31	25	56	53	62	65	107	167	255	179	124	1,124
Canada	5	5	8	23	16	15	28	37	148	100	72	457
Total new product	36	30	64	76	78	80	135	204	403	279	196	1,581

Source for both: Mintel Global New Products Database, 2017



**Top 10 pulse ingredients used in new products by (%), by country
between January 2006 and December 2016**

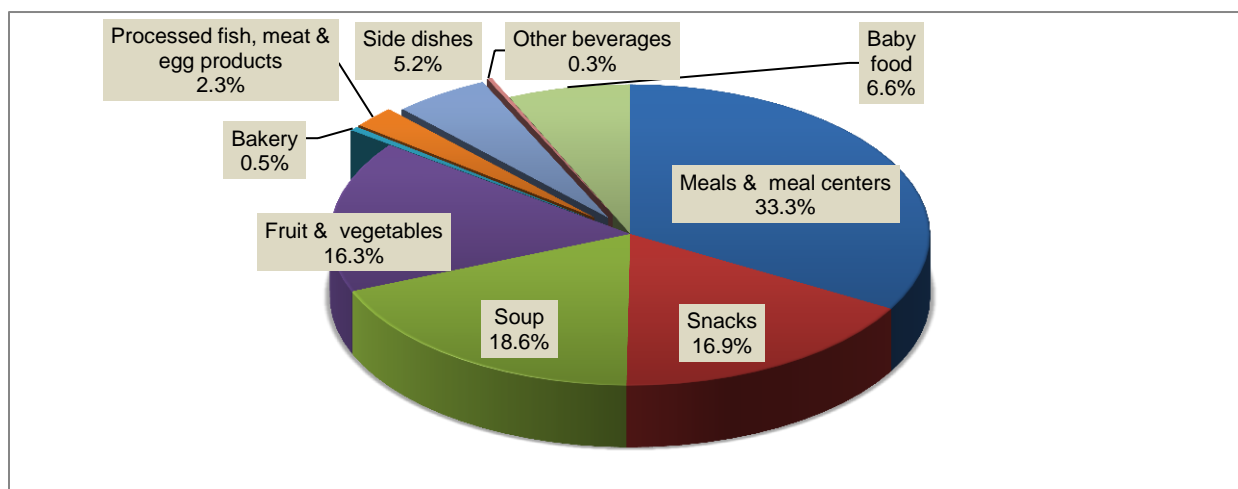


Product Categories

The trend towards a wheat-free diet has resulted in a growing number of products containing pulse products over the last decade. Meals and meal centres with 33.3% was the top product category incorporating pulse ingredients, followed by soup (18.3%), snacks (16.9%), and fruit and vegetables (16.3%).

The popularity of prepared meals, soups and snacks bodes well with North American consumer’s busy life style as they are trying to combine convenience and healthy eating. Health and wellness attributes of pulses and specifically the gluten free trend in the Canadian and US markets are also contribution to this growth.

Pulse ingredients in new products by category (%), between January 2006 – December 2016



Source for both: Mintel Global New Products Database, 2017



Product launched by sub-category

Top 10 pulse ingredients in new food products by sub-category in Canada and the US, between January 2006 and December 2016

Sub-category	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total new product
Prepared meals	26	18	19	22	20	29	11	51	59	44	44	343
Vegetables	17	10	15	13	33	20	20	62	39	48	63	340
Wet Soup	18	17	17	25	19	14	17	60	53	33	39	312
Snack/cereal/energy Bars	3	3	3	3	4	1	5	20	27	34	70	173
Meal replacements and other drinks	0	0	4	1	0	5	3	17	24	40	55	149
Meat substitutes	2	6	5	8	9	12	12	25	16	26	24	145
Pastry dishes	5	10	7	7	12	12	4	14	19	24	14	128
Meal kits	3	8	4	8	18	8	5	11	8	18	24	115
Bean-based snacks	1	0	0	3	2	7	10	13	11	19	31	97
Hors d'oeuvres/canapes	7	1	5	6	5	6	9	9	14	10	22	94

Top 10 pulse ingredients in new food products by sub-category by country, between January 2006 and December 2016

Sub-category	US
Prepared meals	242
Vegetables	236
Wet soup	224
Snack/cereal/energy Bars	142
Meal replacements and other drinks	128
Meat substitutes	104
Pastry dishes	58
Meal kits	98
Bean-based snacks	66
Hors d'oeuvres/canapes	40

Sub-category	Canada
Vegetables	104
Prepared meals	101
Wet soup	88
Pastry dishes	70
Hors d'oeuvres/canapes	54
Meat substitutes	41
Snack/cereal/energy bars	31
Bean-based snacks	31
Meal replacements and other drinks	21
Meal kits	17

Source for all: Mintel Global New Products Database, 2017

Pulses are highly available in retail outlets in Canada and the US. Because dry, fresh, pulses require relatively labour-intensive preparation, they are not very advantageous to foodservice or institutional preparation. According to Euromonitor, retail accounted for 87.8% of total volume sales in 2016, foodservice 11.0%, and institutional 1.1%. Foodservice and institutional channels do heavily feature dishes with pulses, though the pulses in these channels are generally sold in a can format, and peas especially are often sold frozen.



**Distribution of pulses by format in Canada and the US: (%) total volume
between January 2011 and December 2016**

% total volume	2011	2012	2013	2014	2015	2016
Retail	86.4	85.7	85.8	86.3	88.0	87.8
Foodservice	12.5	13.2	13.2	12.5	10.9	11.0
Institutional	1.1	1.1	1	1.1	1.1	1.1
Total	100	100	100	100	100	100

Furthermore, according to a Mintel survey, over one third of Canadian and Americans who purchase gluten-free products generally considered gluten-free as healthier than equivalent gluten-containing food products and about one quarter purchased gluten-free foods to manage their weight. Most notable is that the majority purchased gluten-free because they perceive gluten-free to be healthier and better quality rather than purchasing for specific medical conditions such as Celiac disease.

Product Launched in pet food by subcategory

According to a Euromonitor survey in 2013, 67% of Canadian and US respondents consider their pets as beloved members of the family, while a much smaller number (29%) consider them as animals (although well cared for).

Today's consumers want what they think is best for their pets and will pay a lot for natural, organic or grain free pet food. Many North Americans are now buying expensive, grain-free food for their pets, based on the notion that grain is unhealthy for cats and dogs.

**Pulse ingredients in new pet food products by subcategory in Canada and the US,
between January 2006 and December 2016**

Sub-category	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total new product
Dog food dry	14	13	23	24	30	31	55	60	114	113	88	565
Dog food wet	8	7	14	14	21	16	30	68	142	70	45	435
Dog snacks and treats	5	6	7	15	11	15	22	38	86	47	41	293
Cat food dry	7	3	15	8	7	13	18	23	37	26	12	169

**Pulse ingredients in new pet food products by sub-category by country,
between January 2006 and December 2016**

Sub-category	US
Dog food dry	427
Dog food wet	248
Dog snacks and treats	218
Cat food dry	151

Sub-category	Canada
Dog food dry	138
Dog food wet	187
Dog snacks and treats	75
Cat food dry	18

Source for both: Mintel Global New Products Database, 2017



Product launched type

The majority of the new launches (44%) were new product, followed by new variety/range extension (32.9%), and those that were newly packaged (16.1%).

Canadian and US consumers are trying to eat more healthily thanks to increasing awareness of health problems, such as diabetes and celiac intolerance, which has resulted in growing consumer demand for new pulse products. Shelf-stable pulses offers greater convenience, as these products can be warmed up very quickly in a pan. Healthier eating habits and the affordability of these products enabled pulses to see increased demand.

Pulse ingredients in new products by launch type (%), in Canada and the US, between January 2006 and December 2016

Launch Type	US	Canada	Total New products	% launches
New product	1,445	723	2,168	44.0%
New variety/range extension	1,192	429	1,621	32.9%
New packaging	558	234	792	16.1%
Relaunch	166	55	221	4.5%
New formulation	88	32	120	2.4%
Total sample	3,449	1,473	4,922	100.0%

Source: Mintel Global New Products Database, 2017

Product claims

38.0% of the new products released were positioned as low/no/reduced allergen. Other leading claims included microwavable (35.4%), gluten-free (34.4%) and kosher (31.7%).

The free-from diets continues to be a fast growing trend, not only followed by coeliac patients, but also by the general health-conscious Canadian and US consumers who believe that low, no or reduced allergen and gluten-free products will help them overcome avoid allergen or digestion problems.

Pulse ingredients in food product Releases, by top 10 claims, in Canada and the US between January 2006 and December 2016

Claim	USA		Canada		Total product count	% total
	Product count	% of total	Product count	% of total		
Low/no/reduced allergen	964	28.85%	306	9.16%	1,270	38.01%
Microwaveable	844	25.26%	340	10.18%	1,184	35.44%
Gluten-free	882	26.40%	270	8.08%	1,152	34.48%
Kosher	816	24.42%	243	7.27%	1,059	31.70%
No additives/preservatives	635	19.01%	338	10.12%	973	29.12%
GMO-free	689	20.62%	128	3.83%	817	24.45%
Vegan	581	17.39%	175	5.24%	756	22.63%
No animal ingredients	565	16.91%	172	5.15%	737	22.06%
Ethical - environmentally friendly package	486	14.55%	215	6.44%	701	20.98%
Ease of use	437	13.08%	203	6.08%	640	19.16%

Source: Mintel Global New Products Database, 2017



Euromonitor also reports that sales of free-from foods have increased by a CAGR of 4.8% in Canada and CAGR 7.9% in the US since 2011, as consumers are adopting diets such as gluten-free for the health benefits, not just medical reasons.

Historic free from retail sales in Canada and the US between January 2011 and December 2016

Country	2011-16 %	2011-16 CAGR %	2011-16 Absolute
Canada	26.2	4.8	136.7
US	46.0	7.9	2326.5

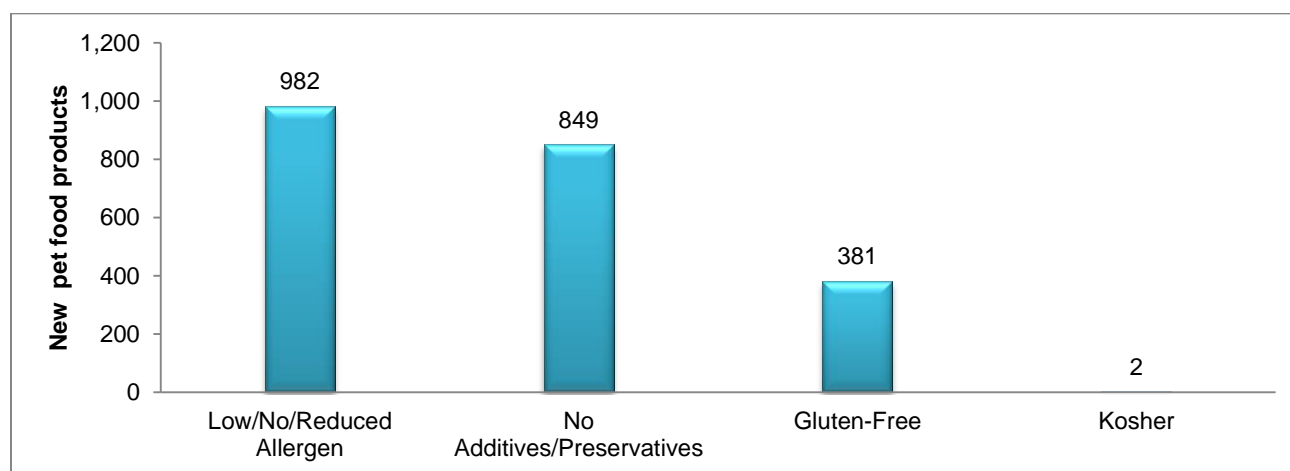
Source: Euromonitor, 2017

Top claims used in new pulse ingredient food products by category in Canada and the US between January 2006 and December 2016

Claim	Low/No/Reduced Allergen	No Additives/Preservatives	Gluten-Free	Microwaveable	Kosher	Total new products
Meals and meal centers	159	230	137	494	63	726
Snacks	353	187	342	34	269	621
Soup	56	138	49	249	45	397
Fruit and vegetables	35	58	35	158	136	340
Bakery	153	62	131	15	125	231
Processed fish, meat and egg products	81	77	70	96	73	226
Side dishes	63	45	58	84	75	209
Other beverages	142	61	132	0	37	160
Baby food	28	59	23	48	42	119

Source: Mintel Global New Products Database, 2017

Top claims used in new pulse ingredient of pet food products by category in Canada and the US between January 2006 and December 2016



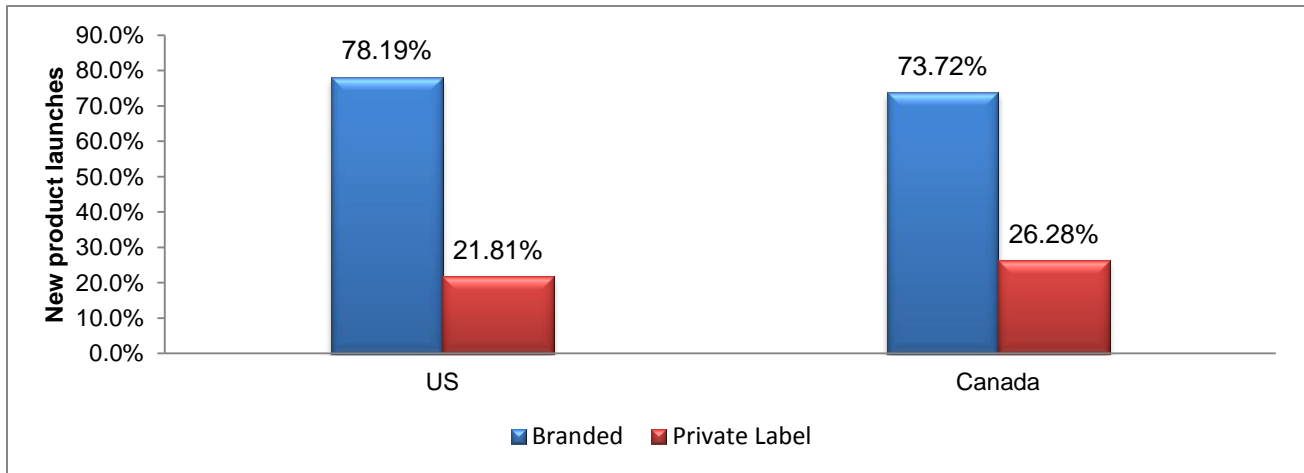
Source: Mintel Global New Products Database, 2017



Companies and brands

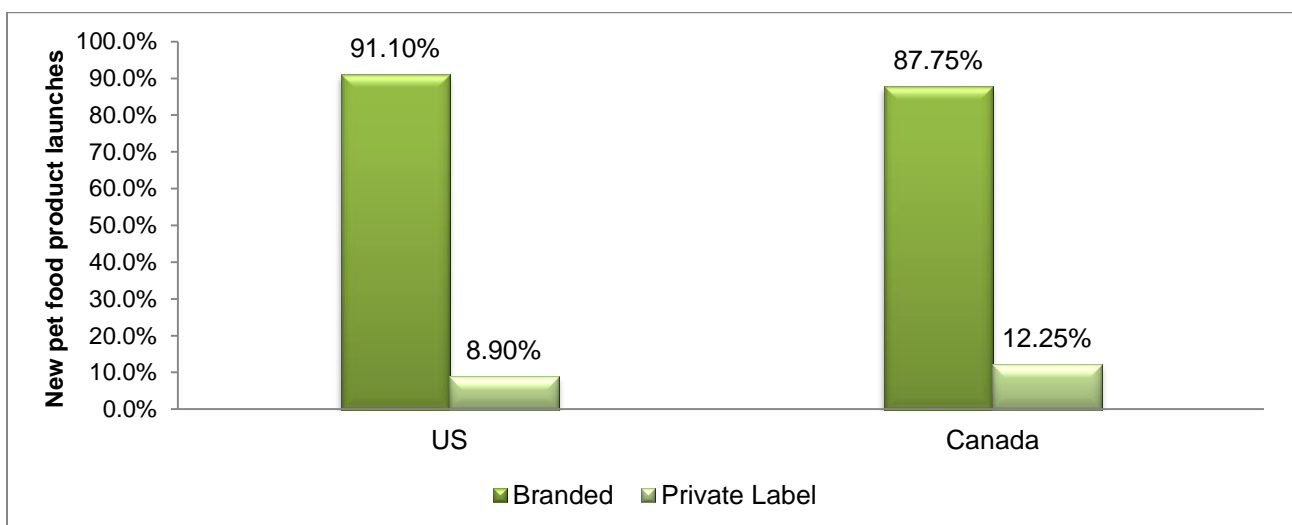
In the US, products incorporating pulse ingredients are dominated by branded products, which represented 78.1 % of the new releases, whereas only 21.8% of the introductions were released under a private label. However, in Canada, private label is slightly higher with 26.2% and branded products represented 73.7% of the new releases.

New pulse ingredients in food products by branded versus private label in Canada and the US between January 2006 and December 2016



On the other hand, branded products dominate the pet food products incorporating pulse as ingredient. Some pet owners in Canada and the US have expressed interest in foods that cater to pet-specific diets. Major pet food brands are launching new reformulated products without grains, artificial ingredients, or meat by-products. Pet foods with specific attributes that mirror trending human foods, like gluten-free, organic, and locally sourced, are attracting an increasing number of pet owners.

New pulse ingredients in pet food products by branded versus private label in Canada and the US between January 2006 and December 2016



Source for both: Mintel Global New Products Database, 2017



**New products containing pulse ingredients by companies, in Canada and the US
between January 2006 and December 2016**

Company	US	Canada
Loblaws	0	78
Trader Joe's	58	0
Wal-Mart	12	46
Daiya Foods	33	22
General Mills	52	3
Kroger	50	0
Aldi	44	0
Target	40	3
Sequel Naturals	26	13
Hain Celestial Group	26	11

Canadian and US consumers have increasingly demonstrated a high interest in achieving satiety through consuming smaller portions of food according to Mintel. As such, many have shown growing demand in recent years for food products that offer high amounts of protein. Food manufacturers have taken notice and have launched new products accordingly that they hope will meet these consumer demands.

**Top 10 food companies using pulse ingredients
Between January 2006 and December 2016**

Company	Peas	Pulses	Green lentil	Chick pea flour	Red lentil	Adzuki bean	Pea protein	Pea protein isolate	Green split pea	Pea fibre
Loblaws	39	3	2	1	7	1	4	4	3	16
Trader Joe's	31	6	2	2	3	2	7	6	2	1
Wal-Mart	34	1	2	0	5	0	5	0	6	3
Daiya Foods	1	0	0	0	0	0	21	34	0	0
General Mills	31	6	1	0	0	0	0	2	0	2
Kroger	34	3	1	0	3	1	8	0	4	0
Aldi	29	3	2	2	0	0	1	0	1	4
Target	34	5	0	2	1	0	0	1	1	0
Sequel Naturals	0	0	0	0	0	0	39	0	0	0
Hain Celestial Group	15	8	1	6	1	0	6	0	0	3

Source for both: Mintel Global New Products Database, 2017

Greater demand for natural and transparent ingredients, higher amounts of protein, bold flavours and the proliferation of healthy ingredients at the expense of traditional sweets are broad consumer trends that stretch well beyond rice, pasta and noodle products.

Mintel estimates that these trends are continuing to exhibit strong growth with no signs of slowing down anytime soon, with increasing numbers of manufacturers going to great lengths to launch new products that incorporate pulse ingredients.



The same trend is observed in the pet food sectors, as pet health is a top priority for most pet owners, and the functionality of products influences buying decisions. Manufacturers are introducing more and more pet food variants to address different aspects of pet health.

New pet food products containing pulse ingredients by companies, in Canada and the US between January 2006 and December 2016

Country	US	Canada
Blue Buffalo	98	48
Nestlé Purina PetCare	68	24
Merrick Pet Care	67	21
Hill's Pet Nutrition	63	17
WellPet	36	22
Dick Van Patten's Natural Balance Pet Foods	42	12
Nature's Variety	33	16
Freshpet	34	9
Ainsworth Pet Nutrition	24	9
Canidae	30	2

As pet food companies and pet owners in Canada and the US continue to explore a broader range of ingredient options, the peas has been gaining in popularity in the last decade. Dried peas, pea protein, pea protein concentrate and pea fibre, are being used on a routine basis now a days in pet food, and in some cases taking a very prominent position on pet food ingredient.

Top 10 pet food companies using pulse ingredients Between January 2006 and December 2016

Company	Peas	Pulses	Chickpea Flour	Red Lentil	Pea Protein	Pea Protein Concentrate	Dried Peas	Pea Fibre
Blue Buffalo	125	1	0	0	49	0	0	30
Nestlé Purina PetCare	27	0	0	0	21	0	37	13
Merrick Pet Care	85	0	0	0	11	0	3	5
Hill's Pet Nutrition	66	0	0	0	12	28	12	7
WellPet	47	13	2	0	5	0	0	11
Dick Van Patten's Natural Balance Pet Foods	32	0	0	0	18	0	6	17
Nature's Variety	44	0	5	0	2	0	0	0
Freshpet	29	1	0	0	9	0	0	13
Ainsworth Pet Nutrition	10	0	0	0	14	0	14	0
Canidae	32	1	0	0	0	0	0	0

Source: Mintel Global New Products Database, 2017



New product examples

Bean & Cheddar Cheese Tamales

Company H-E-B, USA
Brand H-E-B Central Market Private Label
Category Meals & Meal Centers > Prepared Meals
Country USA
Launch Type New Variety/Range Extension
Storage Chilled
Price \$11.99 US
Pack Size 28.00 oz / 793.80 g
Date Published Dec 2015



Product Description: H-E-B Central Market Bean and Cheddar Cheese Tamales comprise a blend of cheddar cheese with refried and pinto beans spiced with cumin and chili powder in masa, and wrapped in a corn husk.

Ingredients

Dough (masa (corn, water, trace of lime), water, corn flour, vegetable oil (may contain soybean oil), salt, baking powder (cornstarch, bicarbonate of soda, sodium aluminium sulfate, acid phosphate of calcium), cumin), filling (cheddar cheese (cultured pasteurized milk, salt, enzymes), water, refried beans (beans, water, salt, vegetable oil (cottonseed oil), garlic), pinto beans, onion, cumin, chili powder (chili pepper, spice, salt), black pepper, salt).

Fiery Garlic Flavor Split Pea Crisps

Company Splitz, USA
Brand Original Splitz
Category Snacks > Vegetable Snacks
Country USA
Launch Type New Product
Storage Shelf stable
Price \$2.39 US
Pack Size 1.50 oz / 42.53 g
Date Published Dec 2015



Product Description

Original Splitz Fiery Garlic Flavor Split Pea Crisps are made from all 100% natural yellow split peas that provide 130 calories, 8g fiber and 7g protein. The vegetarian friendly crisps are free from gluten and GMO. They claim to be healthy snack alternative to potato and corn snacks.

Ingredients:

Yellow split pea flour, salt, fresh ground garlic, chilly powder, Indian spice (asafoetida), flavour (citric acid), non-GMO expeller pressed canola oil



Three-Bean Mexican Chili

Company Groupe Commensal, Canada
Brand Commensal VG
Category Meals & Meal Centers > Prepared Meals
Country Canada
Launch Type Relaunch
Storage Frozen
Price \$3.39 US
Pack Size 300.00 g / 300.00 g
Date Published Nov 2015



Product Description

Commensal VG Three-Bean Mexican Chili has been relaunched with a new brand name and look. The vegetarian meal claims to be made with quality ingredients, is very high in iron, rich in fibre, and contains no preservatives or colours. The microwavable product contains 15g of protein, 6g of fibre and 0g trans-fat per 300g serving.

Ingredients:

Tomatoes, tomato puree, water, black beans, onions, kidney beans, celeries, carrots, soybeans, textured soy protein concentrate, canola oil, tomato paste, spices, tamari (water, soybeans, salt, alcohol), herbs, rice starch, cider vinegar, salt, onion powder, xanthan gum.

Organic Green Lentil Ziti Pasta

Company MXO Global, Canada
Brand Tolerant
Category Side Dishes > Pasta
Country Canada
Launch Type New Variety/Range Extension
Storage Shelf stable
Price \$9.07 US
Pack Size 750.00 ml / 750.00 ml
Date Published Aug 2015



Product Description

This kosher, vegan, organic product is allergen-free, gluten-free, GMO-free, cholesterol-free and contains per serving 21g of protein and 46% of the required daily fiber intake. The Product Claims to be high in protein, high in iron, high in fibre, low in glycemic, a good energy source

Ingredients:

Non-GMO organic green lentils



Company Hill's Pet Nutrition, USA
Brand Hill's Science Diet Healthy Cuisine
Category Pet Food > Dog Food Wet
Country Canada Imported product
Launch Type New Product
Storage Shelf stable
Price CAD 2.89 / \$2.17
Pack Size 354.00 g / 354.00 g
Date Published Oct 2016

Product Description

Hill's Science Diet Healthy Cuisine Braised Beef, Carrots and Peas Stew Premium Adult 1-6 Dog Food. The veterinarian recommended product is formulated for adult dogs aged one to six years old, and it contains no artificial flavours or preservatives. It retails in a 354g recyclable pack.

Ingredients as listed

beef broth, beef, red bell pepper, carrots, green peas, pork liver, rice, rice starch, chicken, wheat gluten, powdered cellulose, chicken liver flavor, soybean oil, dried beet pulp, wholegrain barley, potassium alginate, flaxseed, calcium chloride, caramel color, chicken fat, dicalcium phosphate, guar gum, calcium lactate, calcium gluconate, monosodium phosphate, vitamins (vitamin E supplement, l-ascorbyl-2-polyphosphate (source of vitamin C), thiamine mononitrate, niacin supplement, calcium pantothenate, vitamin B12 supplement, pyridoxine hydrochloride, biotin, vitamin D3 supplement, riboflavin supplement, folic acid), choline chloride, l-lysine, taurine, sodium tripolyphosphate, minerals (zinc oxide, ferrous sulfate, manganese sulfate, copper sulfate, calcium iodate), beta-carotene

Company WellPet, USA

Brand Wellness Trufood Living Nutrition CocoChia

Category Pet Food > Dog Snacks & Treats

Country Canada Not imported

Launch Type New Variety/Range Extension

Storage Shelf stable

Price CAD 7.99 / \$6.24

Pack Size 142.00 g / 142.00 g

Date Published Jun 2016



Product Description

Wellness Trufood Living Nutrition CocoChia Grain Free Bakes with Salmon, Coconut Oil & Spinach. The grain and wheat free product is made with coconut oil and chia seeds, whole-prey protein, unique superfoods, probiotics, botanicals and is made with fresh salmon and turkey liver. The all-natural product contains no artificial preservatives, colours, flavours or meat by-products, and retails in a 142g recyclable pack, that is made from 100% recycled paperboard.

Ingredients as listed

chickpeas, peas, salmon, tapioca, dried parsley, flaxseed, turkey liver, coconut oil, chia seeds, dried spinach, turkey hearts, chicken fat, natural flavour, dried turmeric, mixed tocopherols added to preserve freshness, dried Enterococcus thermophilus fermentation product, dried Lactobacillus bulgaricus fermentation product, rosemary extract, green tea extract, spearmint extract.

Source for all: Mintel Global New Products Database, 2017



FOR MORE INFORMATION

For additional intelligence on this and other markets, the complete library of Global Analysis reports can be found under *Statistics and Market Information* at the following link, arranged by sector and region of interest:

- ats-sea.agr.gc.ca

RESOURCES

Mintel, 2017.

Euromonitor 2017: Health and Wellness in the US April 2016

Euromonitor 2017:



New Products Containing Pulse Ingredients In North America

Global Analysis Report

Prepared by: Karim Zarrouki, Market Analyst]

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1341 Baseline Road, Tower 5, 3rd floor
Ottawa, ON
Canada, K1A 0C5
E-mail: MAS-SAM@agr.gc.ca

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