





This report, prepared by the Ministry for Primary Industries' Economic Intelligence Unit (EIU) seeks to understand pricing and consumption patterns for a variety of dairy product categories over the United States. It also investigates how different credence attributes may cause changes in unit price over the three main spread categories (butter, ghee and margarine). This report also looks at dairy brands that have succeeded in these spread categories, either by listing products at a high unit price, or selling large quantities of products with some premium quality.

These findings are expected to allow New Zealand dairy firms some additional context when deciding how to position products in the United States, as well as to inform internal policy decisions in MPI regarding how different credence values translate to pricing premiums.

The EIU developed a model to effectively analyze and filter over 15,000 dairy products in the United States, with each product containing over 384 data points. The findings of this report are based on this model and access to this model is available upon request.

Finally, we would like to thank Southern Pastures, Westland Milk and Lewis Road Creamery for their assistance in developing the framework for this market insights piece.

Notes:

All prices are in US Dollars unless stated otherwise.

Key Findings

Butter consumption trends display strong opportunity for growth and product differentiation based on grass fed claims.

Butter consumption continues to increase in the United States as negative perceptions of the product are reduced. The products forecast unit price CAGR growth of 0.7% was the second highest of the 19 dairy categories assessed behind special baby milk formula with a CAGR of 0.8% With the retail volume of butter consumed in the United States set to increase by 38 million kgs from 2018 to 325 million kg in 2023, new products will likely have reasonable options for growth in this market.

Our analysis of credence values demonstrated that products promoting grass fed claims listed at a premium price over general butter products. There was also reasonable correlation with GMO free and organic claims being listed with grass fed products. This indicates consumers are likely to associate one of these claims with the other two. Products with organic and GMO free claims also had products listing at price points above the median price for all butter products.

Differentiation required for most dairy categories.

Most dairy product categories are forecast to either stagnate or decline in volumes over the next 5 years. Most dairy product markets in the United States are established, with existing brands having a large stable share. Exporting low cost, low profit dairy products into the US will struggle due to quota and tariff supply constraints and the lack of strong consumption growth. Products with a unique value proposition will be likely be required to succeed in this market.

Ghee products are valuable, but differentiation based on products raising claims may be difficult.

The median price per unit weight for a ghee based product launched in the United States was over four times higher per unit weight than all butter products in general. The category has experienced increases in product activity, with 30 percent of all ghee product launches or rebranding's from 2008 occurring in the last 10 months (this is only 10 percent for butter over the same time frame).

Most ghee products that sell at a high unit price differentiate based on food additives such as vanilla bean or truffles. There were no relationships of the credence attribute claims of GMO free, organic and grass fed receiving a premium pricing point when isolated for ghee products.

Margarine and other spreads demonstrate consolidation in a declining market, with a collection of large brands dominating the market

The consumption of margarine products continues to decline. 2018 retail volumes of 405 million kg are forecast to fall by 44 million kg to 361 million kg in 2023 (an 11% decline). The majority of this volume loss will likely be from consumers moving towards butter consumption. This forecast decrease in volume is also expected to impact retail sales which are expected to decline 12.5% from \$1.6 billion in 2018 to \$1.4 billion in 2023.

Unilever has recently sold its spread business to private equity firm KKR. Unilever brands controlled 46% of the margarine retail sales volumes in 2018. How KKR develop these brands over the next 12 months will have a major impact on this category and the related butter category.

Land O' Lakes remains the dominant butter brand. The Minnesota based co-operative had a 2018 market share of 26.3%. The products are well liked, with good distribution channels and affordable pricing, and looks set to remain a strong brand in the future.

Private label products still remain major players at 40.5% brand share, however as consumers move away from generic options, this share continues to decline steadily from a 2011 high of 50.6%.

Irish butter, marketed under the Kerry Gold brand has achieved significant brand share growth in the United States market, growing from nothing in 2014 to over 4.6% of the butter market share in 2017. It is one of the few high selling brands to actively promote "grass fed" products.

THE VALUE OF DAIRY OVER DIFFERENT CATEGORIES

Unit Price differences

Analysis considerations.

Analysis of category performance of unit prices between differing dairy categories needs to be undertaken with caution due to the varying densities of dairy products (i.e. Liquid Milk and Butter have very different physical properties). Unit prices are a good indicator of value, however differing cost of production for products should also be considered when analysing category performance.

Infant formula a top performer.

Retail unit prices for infant milk formula are significantly higher than other categories. This is largely due to the dehydrated nature of the products. Even so, when comparing them to other dehydrated products there is a significant premium. The unit prices for special baby milk formula (\$45 / kg) and standard milk formula (\$39 / kg) are significantly higher than powdered milk (\$8 / kg).

Butter and margarine show strong differences.

Margarine shows a stagnating unit price growth rate of -1.2% over the next five years. This is likely due to the continuation of a rapidly decreasing retail volume (the category has shrunk from 545 million kg sold in 2012 to 405 million kg in 2018) with the total retail value of the product expected to flatten in the future. Currently the product pricing of \$4/kg is only 40% of its main competitors butter retail price point of \$9.80 / kg.

Value demonstrated in unique milk products.

As expected, milk products that demonstrate unique features (flavored milk, sour milk, and milk alternatives) achieve a greater unit price than the \$1 / L received for milk. Sour milk products (\$2.30 / L) and flavored milk products (\$2.20 / L) indicate the most promise out of these products with strong unit prices that are unlikely to significantly reduce in the future.

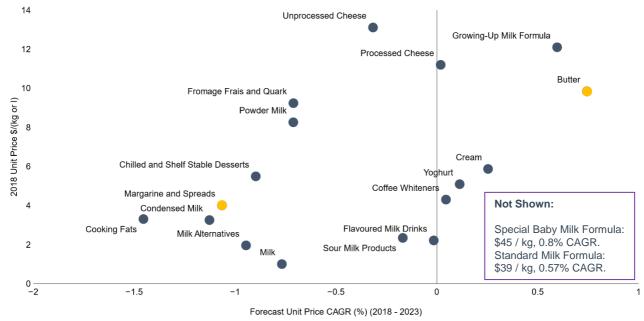
Milk disruptors struggle to compete with unique dairy products.

Milk alternatives (\$1.96 / L) are yet to show the high prices displayed in flavored milk and sour milk products. This price also is looks set to stagnate and even reduce in the future with a unit price 5 year CAGR of -0.95%. This will likely be due to the significant volume of these products entering the market in the future.

Figure 2: Selection of 2017 Unit Prices.

Category	Unit price	
Butter	\$9.80 per kg	
Liquid Milk	\$1.00 per liter	
Yoghurt	\$5.10 per kg	
Infant Formula (Standard)	\$39.20 per kg	
Processed Cheese	\$ 11.20 per kg	
Powder Milk	\$8.30 per kg	
Cream	\$5.90 per kg	

Figure 1: Unit Price and growth rates of various product categories (based on retail sales and volume)



Source: MPI, Euromonitor International Limited (2018) © all rights reserved.

Figures 1 and 2: Data sourced October 2018 by dividing retail volume by retail value to determine indicative unit pricing. All pricing is in USD.

THE VALUE OF DAIRY OVER DIFFERENT CATEGORIES

Retail Volume Differences

Growing-Up Milk Formula 38.0

Powder Milk

When analysing Figure 3 from a manufacturing perspective, context should be placed on the volume of milk solids in each product category, rather than total volume of the category.

Low use of infant formula and powdered milk show cultural differences between markets.

The strong value proposition for infant formula based on impressive unit prices becomes less compelling when viewing the volume of product sold. Standard milk formula only had a retail volumes of 62 million kg in 2018.

Considering the support in the United States for breastfeeding⁽¹⁾ and increasing rates of breastfeeding⁽²⁾, infant milk powder looks unlikely to experience significant gains in volume and is estimated to continue to decline to 58.5 million litres in 2022.

Liquid milk consumption unlikely to be disrupted in the short to medium term.

13.2 billion litres of milk was consumed in the United States in 2018. Although this is expected to continue to decline in the future (from 15 billion litres in 2012) this volume looks to remain relatively stable and be within 3% of 2018 volume levels in 2023.

Plant based milk alternatives are expected to continue their remarkable uptake from 0.78 billion litres in 2012 to 1.6 billion litres in 2023. Despite the 2018 retail volume of milk alternatives being only 6.3% the size of liquid milk, it's projected rapid growth in volume means that there is space for companies to expand without taking revenue from existing players. This would likely be the case if a company were seeking to expand into the traditional liquid milk product category. Despite the rapid growth rate relative to liquid milk, it is estimated in 2022 that the retail volume of dairy alternatives will only be 12.2% of liquid milk due to the sheer size of the liquid milk category.

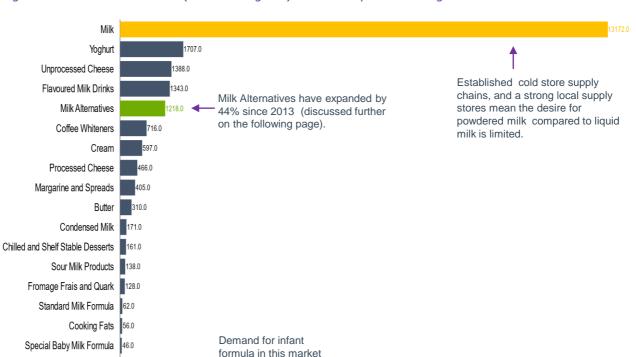


Figure 3: 2018 Retail volume (in million kg or I) of various product categories in the USA

Source: MPI, Euromonitor International Limited (2018) © all rights reserved.

Figure 3: Data sourced October 2018. 1:The American Academy of Pediatrics (AAP) recommends that babies receive only breast milk for the first six months of life, and then continue to receive breast milk along with other foods, until they are at least 1 year old or longer. 2: The Center for Disease Control and Prevention (CDC) show that breast-feeding rates continue to rise and about 81 percent of mothers start out nursing their infants).

is limited and unlikely to increase in the

short term.

THE VALUE OF DAIRY OVER DIFFERENT CATEGORIES

Retail Volume Differences continued

Butter and margarine: similar volumes, different scenarios.

The positive rise in public opinion towards butter continues to translate into greater consumption. The current 2018 volume of 310 million kg is up 34 million from 2014 and is likely to continue to increase to 348 million kg in 2023.

Margarine has a higher retail volume than butter, moving over 405 million kg in 2018. However as the crusade against fats wanes' (and in particular against the fats in butter), margarine sales volumes are expected to continue to fall over time (down from over 517 million kg in 2013) to offset the rise in butter consumption, with future volumes expected to reach 361 million kg in 2023.

Stable markets for flavored and sour milk products, strong growth in milk alternatives.

Sour milks strong unit price performance and expected future unit price growth comes as the category has experienced stagnant growth in retail volumes. 2013 retail volumes of sour milk were 143.9 million litres however 2018 movements are expected to be 138.3 million liters. Due to the small volumes relative to other categories, these volumes are highly variable (2016 saw a spike to over 155 million liters). This volatility is likely to decline overtime.

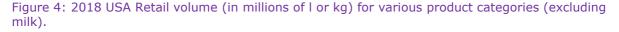
Flavored milk volume growth remains relatively stable compared to milk alternatives, increasing from 1.23 billion litres in 2013 to 1.34 billion in 2018.

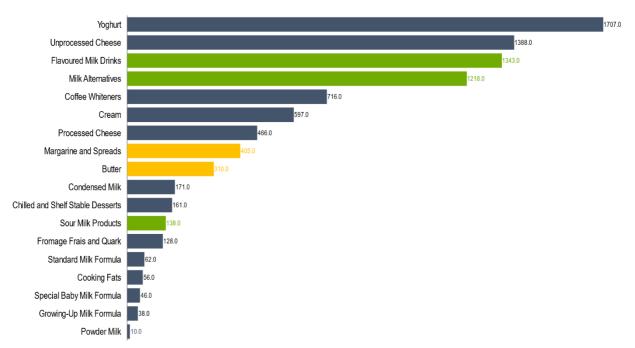
Milk alternative products retail volumes have increased 44% in the past five years from 830 million litres in 2013 to 1.2 billion litres in 2018. This growth has likely come at the expense of plain white liquid milk which has fallen by over 1.7 billion litres in the same time period, down to 13.2 billion litres in 2018.

Final thoughts on volume trends.

The low demand for milk powder, shrinking volumes for plain milk, and promising price growth for high value milks indicate that efforts to differentiate milk products based on functionality (such as by adding flavor or moving to sour milk products) should be actively considered if seeking to enter this market.

Butter volume growth is likely to continue in this market as its public perception continues to improve against margarine.





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VALUE CAPTURE TRENDS

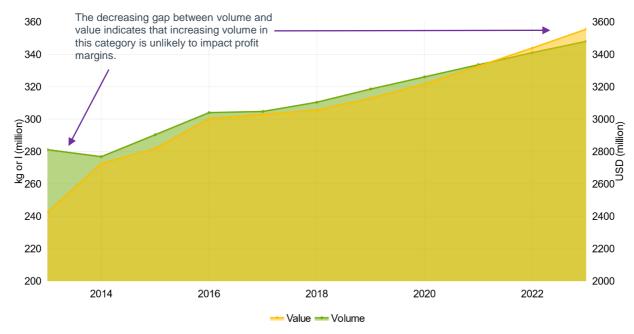
Butter continues to capture value.

The value proposition of butter is compelling.

Butter demonstrates a strong value proposition with retail volumes and value growth set to continue over the next 5 years. Consumers want the product, and are willing to pay for it. As a result, new butter products are continuing to be launched or refined over time, as outlined in figure 6. The unit pricing spread of butter products are significant, with a minimum price of \$4.40 per kg and an upper fence of

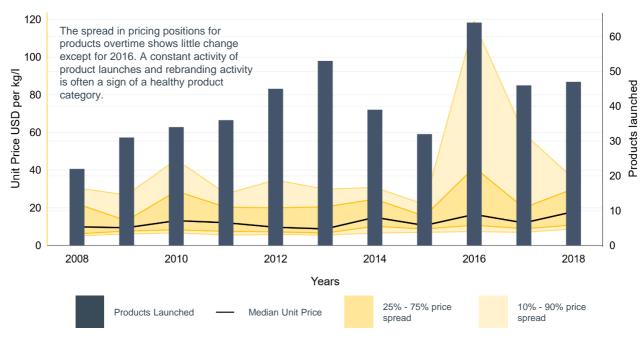
over \$45 per kg. Many of these high unit value products are ghee butter, which often differentiate by adding other flavors. One product released in the past 4 years had a retail price of \$300 per kg (the main value add ingredient being truffles). This demonstrates that many companies believe there is space to capture significant value in this category, with one possibility the addition of luxury flavors to existing product mixes.

Figure 5: 2017 Retail Volume and Value of Butter over time



Source: MPI, Euromonitor International Limited (2018) © all rights reserved.

Figure 6: Butter products launched and associated price spread over time



KEY BRANDS BY MARKET SIZE

Key brands by market size.

Butter is dominated by a few key brands.

In 2018, the top three non private label brands had a brand share of 36.6%. If this is combined with the brand share of private label brands, all other non private brands had to compete for just 22% of the market. The five year CAGR for brand share of other brands in 2018 was only 2.52%. The CAGR for the top three brands over the same period was 2.76%.

Land O' Lakes remains the dominant brand.

The Minnesota based co-operative had a 2018 brand share of 26.3%, fluctuating between 27.6% and 23.4%. The products are well liked, and with good distribution channels and affordable pricing, it looks set to remain a strong brand in the future.

Private Label products continue to be disrupted by branded products.

Private label products still remain a major player at 40.5% brand share, however as consumers move away from generic options, this share continues to decline steadily from a 2011 high of 50.6%.

Irish grass fed butter is a true success story.

Irish butter, marketed under the Kerry Gold brand has achieved significant brand share growth in the United States market. Growing from nothing in 2014 to over 4.6% of the total brand share in 2018. It is one of the few high selling brands to actively promote products with 'grass fed' claims.

Challenge is the top performer in the west.

Despite a total brand share of 5.6%, Challenge remains the top brand in the western United States. Total brand share for this brand has increased from only 3.5% in 2009. The brand is owned by the second largest United States co-operative - California Dairies Inc.

Butter brands operated by the Dairy Farmers of America (DFA) co-operative have struggled against traditional and new competitors.

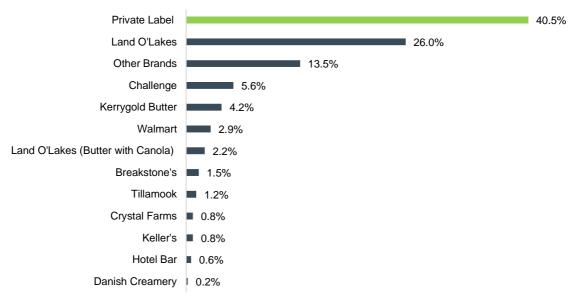
DFA own many brands of butter (Kellers, Plugra, Breakstones, Falfurrias, Hotel bar) none of which attract significant brand share. This may be due to a targeted strategy for greater product differentiation by using multiple brands to achieve higher profits, a lack of success with any one brand, or a poor strategy based on legacy brands.

Considering that the combined brand share of other brands not in the top 12 have shrunk from over 18.1% in 2009 to 12.9% in 2017 it appears these brands have struggled to achieve the success of brands such as Kerry Gold and the company may be open to developing a new butter brand with its dairy suppliers.

Product differentiation is required to succeed in this market.

The butter market is growing, however much of the growth is being captured by large established brands. New products seeking to launch into this category will need to differentiate their product to be successful. Brands like Kerry Gold demonstrate this is possible in a short time frame.





Source: MPI, Euromonitor International Limited (2018) © all rights reserved.

Figure 7: Data sourced October 2018.

KEY BRANDS BY MARKET SIZE

Figure 8: Key Products from top Brands in 2018

Brand: Kerrygold Butter

Price: \$2.88

Rating: 5/5

Weight: 8 oz

Packaging: Stick



Kerry Gold butters rise in brand share from 2014 is significant. It distinctly promotes grass fed and provenance claims on its package (Irish) and it is priced competitively.

Brand: Land O' Lakes

Price: \$5.64
Rating: NA
Weight: 8 oz
Packaging: Stick



The brand promotes "kosher" and "all natural" as key positioning claims.

Brand: Challenge

Price: NA
Rating: NA
Weight: 8 oz
Packaging: Stick



The Challenge brand had retail sales of \$170 million in 2018. with a CAGR from 2013 to 2018 of 11.6%. The company promotes itself heavily in California and promoted its hormone free claims prominently with it's rBST free claims. rBST is a bovine growth hormone known to consumers.

Brand: Breakstones

Price: NA
Rating: NA
Weight: 8 oz
Packaging: Stick



The product promotes itself as Kosher, with is relatively easy to obtain for dairy products as it requires almost no production changes to make the product kosher.

Brand: Tillamook
Price: \$4, 54

Rating: NA Weight: 1 lb

Packaging: Stick



No growth hormones are used in this product however no claims are promoted on the package, instead opting for a simpler package design compared to other high sales brands.

Brand: Danish Creamery

Price: \$4.24
Rating: NA
Weight: 16 oz
Packaging: Stick

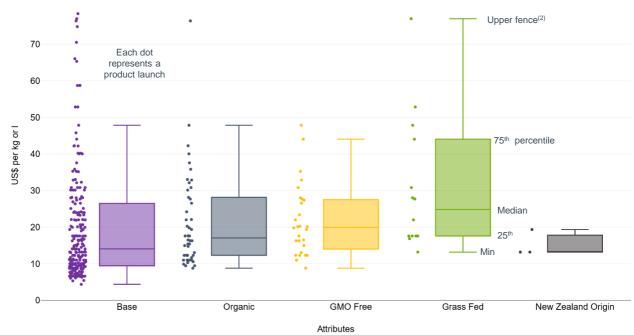


Like its sister brand Challenge, (both owned by the same company) Danish Creamery also promote the lack of growth hormones in the product prominently on the front of the package.

Figure 8: Data sourced October 2018. All data from Mintel GNPD except pricing and rating data which was obtained from Walmart.com

GRASS FED, ORGANIC AND GMO FREE ASSESSMENT

Figure 9: Attribute claims from butter products released in the Unites States between 2014 – 2018⁽¹⁾.



Source: MPI, Mintel GNPD (2018) © all rights reserved.

Grass Fed Claims Assessment

Grass fed claims deliver a higher premium.

The EIU searched for grass fed descriptions of new product launches⁽²⁾. Fourteen butter products were found as having grass fed descriptions (six of which are outlined further on page 13) None of these brands were associated with having New Zealand origin, with all three NZ origin brands (all Anchor branded products) preferred to describe grass fed as "grazed outdoors year round" to emphasize the free range nature of New Zealand products. The higher price per weight of products with the grass fed claims should be noted, however this may be due simply to the smaller sample size of products compared to the other claims.

Grass fed and organic association apparent as well as health claims.

Due to the small sample size of some credence attributes, determining strong and reliable relationships between an individual attribute such as grass fed and other claims can be difficult. 29% of grass fed claimed products also promote organic claims. This indicates there is some association between the two categories.

All products promoting grass fed claim also show a common association towards claims that benefit the heath of the animal and consumer (hormone free) as well as the environment (organic).

Grass fed an easy win for New Zealand products.

New Zealand farming systems can easily offer grass fed attributes without creating substantial changes to farming systems. Indications that products promoting this attribute achieve a pricing premium over other claims, the promotion of grass fed butter looks to be a low risk option to increase value of New Zealand products.

Figure 10: Claims associated with grass fed.

Claims (top 25% of products) ⁽³⁾	%
Low/No/Reduced Allergen	75
Gluten Free	50
Ease of Use	50
Low/No/Reduced Lactose	50
GMO Free	50
Claims (all products)	%
Ethical - Animal	35.7
Hormone Free	35.7
Hormone Free OGMO Free	35.7 28.6

Figure 9 and 10: Data sourced October 2018 from Mintel GNPD. 1: Each dot represents either a new product launch or a change in packaging. Box and whisker graph presents the median (line in center of box), min and upper fence (lines are end of each graph) and upper and lower quartile (lines on edge of box). 2: Upper fence is the "upper limit" of data (any value greater than 1.5 times the interquartile range), and any data lying outside this defined bounds can be considered an outlier. 3: Products sorted by unit price.

GMO Free and Organic Assessment

Strong ties with organic and grass fed in top 25% of products.

GMO free products (\$20 / kg median price) tend to receive a higher price over all butter products as well as a slight premium over products that claim organic (\$17 / kg median). Grass fed claims predominate in top priced GMO free products. These products also often show a focus towards the health of the consumer, with low lactose, allergen and preservatives also being promoted. Top products are often ghee styled butters.

Strong association with kosher for all butter products.

Three quarters of GMO free butter, and 70% of organic butter products are also Kosher. Considering the Jewish population in the United States is approximately 6.5 million ⁽¹⁾, and the fact all butter products, (and in particular GMO free products) require almost no changes to make the product kosher, it makes sense for many brands to promote this attribute. This explains its lower median price of \$10 per kg compared to \$14 per kg for all products as low cost products seek to use the claim as a low cost claim to promote.

Organic products often do not receive enough of a pricing premium to offset greater production costs

The increased cost of producing organic dairy products compared to standard dairy product can be over 20%⁽²⁾. Our results show that promoting GMO free and grass fed claims indicate greater potential for offering products at a higher price point without maintaining a organic supply chain.

Our research is limited to assessment based on a products price point only, rather than sales throughput. Further work would be required to assess weather organic products can lead to greater sales throughput at a given price point compared to GMO free or grass fed claims.

Figure 11: Claims associated with GMO Free

Claims (top 25% of products)(3)	%
Grass Fed	57.1
Low/No/Reduced Allergen	57.1
Low/No/Reduced Lactose	57.1
Kosher	42.9
Organic	42.9

Claims (all)	%
Kosher	75.0
Hormone Free	71.4
Organic	64.3
No Additives/Preservatives	53.6
Social Media	46.4

Figure 12: Claims associated with Organic

Claims (top 25% of products) ⁽³⁾	%
Low/No/Reduced Allergen	41.7
Ethical - Animal	41.7
Social Media	41.7
Low/No/Reduced Lactose	33.3
Kosher	25.0
Claims (all products)	%
Kosher	69.6
Hormone Free	41.3
GMO Free	39.1

Ethical - Environmentally Friendly

Product

Social Media

37.0

32.6

GHEE PRODUCT SUMMARY

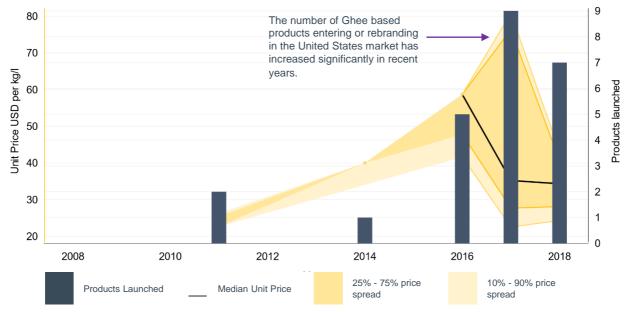
Ghee butter products deliver value.

Ghee is made by melting regular butter to separate out liquid fats and milk solids. Once separated, the milk solids are removed, resulting in ghee having less lactose than butter. Its increase in popularity recently is due to a variety of factors such as it's perception as being healthier than butter, a higher smoke point which can make making cooking with the product easier than butter and an increased in sub continental cooking being adopted in the United States.

Ghee based butter has grown rapidly in recent years, with many new products being launched. The median pricing point for a ghee based products can expect to be sold for over four times per unit weight than a standard butter product. This large increase in price point means the relative performance of other product claims such as grass fed, GMO free and organic becomes less pronounced, with little relationship of those claims achieving a premium.

Products that list at a premium often have high value ingredients added such as truffles, vanilla beans or garlic, often sourced from premium locations.

Figure 13: Ghee products launched and associated price spread over time.



Source: MPI, Mintel GNPD (2018) © all rights reserved.

Figure 14: Attribute claims from Ghee products released in the Unites States between 2014 – $2018^{(1)}$

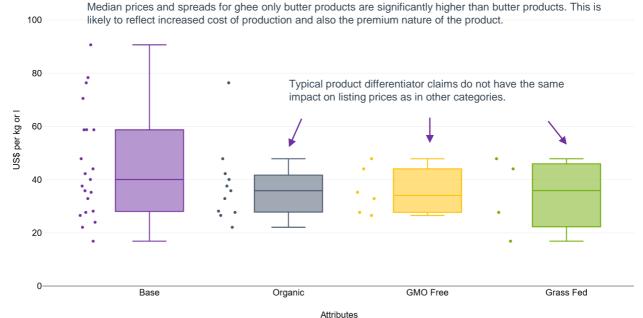


Figure 13 and 14: Data sourced October 2018 from Mintel GNPD. 1: See note number 1 on page 10 for information on this graph.

KEY BRANDS PROMOTING GRASS FED ATTRIBUTES

Figure 15: Key Products with grass fed claims

Brand: Black and Bolyard

Price: \$12.00
Released: Jan 2018
Weight: 5.5 oz
Packaging: Jar





Black and Bolyard is the highest priced product by weight in Mintel's GNPD with a grass fed attribute. The product also promotes anti inflammatory properties. This is a new product launched in 2018.

Slate Roof Brand:

Price: \$7.49
Released: Jan 2017

Weight: 5 oz

Packaging: Cardboard Box

Brand: Tricking Springs

Price: \$6.99

Released: Jun 2015

Weight: 8 oz

Packaging: Stick



Slat Road Creamery released four grass fed butter products. They also include a variety of other flavours in addition to sea salt caramel. Other claims relating to this product include reduced sodium and cholesterol.



Released in 2015, Trickling Springs is priced as one of the highest pried grass fed products that also are USDA certified organic.

Brand: Kerry Gold

 Price:
 \$3.99

 Released:
 Feb 2016

 Weight:
 8 oz

Packaging: 2 sticks

Couling RERUGOIO
COUNTY TO THE PURE IRISH BUTTER
NET VIT.
8 OZ (227g)
TWO STICKS

"...They are made from milk from grass fed cows that are not treated with growth hormones, and have a higher butter fat content and an exceptional, creamy richness..."

Brand: Vital Farms

Price: \$3.99

Released: Feb 2016

Weight: 8 oz

Packaging: 2 x 4 oz sticks



Vital Farmers promotes no hormones and antibiotics as key branding attributes, which are promoted on the front of the product label as well as grass fed.

Natural Dairy Brand:

Products
Price:

\$4.99 Released:

Mar 2014 Weight:

8 oz

Packaging:

Plastic Container



Promotes grass fed with the same influence as organic. As well as high in CLA (conjugated linoleic acid, which may be a potent cancer fighter) and omega 3.



KEY BRANDS PROMOTING GMO FREE ATTRIBUTES

Figure 16: Key Products with grass fed claims

Brand: Pure Indian Foods

Price: \$18.99
Released: Aug 2016
Weight: 5.5 oz
Packaging: Jar





Pure Indian Foods is the highest priced product by weight with a GMO free attribute. The product is organic, grass fed and promotes a higher smoke point than standard butter.

Brand: Tin Star Foods

Price: \$9.99

Released: Jul 2018

Weight: 8.0 oz

Packaging: Jar





Tin Star Foods Ghee comes from 100% grass fed cows, and is free from GMOs, lactose and gluten. This clarified butter has been made using a triple filtration process, and has a remarkably high smoke point of 251°C. It can be conveniently used to grill, roast, bake or drizzle.

Brand: Isigny Ste Mere

 Price:
 \$6.99

 Released:
 Sep 2018

 Weight:
 8 oz



This product is a private label from Wholefoods. The product actively promotes its high fat content (a sign of changing consumer preferences towards butter fat) as well as promoting 100% grass fed cows. It is made in France.

Brand: Chef Shamy

Packaging:

Gourmet

Flexible

Price: \$23.28
Released: May 2016
Weight: 3 x 10 oz
Packaging: 3 jars



This products point of difference is its ability to have a variety if butter flavours (garlic, parmesan etc). The marketing angle is that this makes gourmet cooking easy.

Brand: Ferrarini
Price: \$5.49
Released: Mar 2015
Weight: 8.8 oz
Packaging: 1 stick



Product of Italy. Ferrarini promote heavily the lack of GMO feed for its cows, as well as its high Jersey milk cream (30%).

Brand: Organic Valley

Price: \$9.19 **Released:** Aug 2017

Weight: 1 lb

Packaging: 4 sticks



Organic Valley Salted Butter was repackaged in 2017. This USDA organic and grade AA butter is made using sweet cream from pasture-raised cows and free from antibiotics, synthetic hormones, toxic pesticides and GMOs. This kosher and halal certified product is minimally processed, containing no added flavours and colours, and retails in a newly designed 1-lb. recyclable pack.

Figure 16: Data sourced October 2018 from Mintel GNPD. Note that there we five other GMO free products that were Ghee based that had high listing prices. That were no included in the above table.

KEY BRANDS PROMOTING ORGANIC ATTRIBUTES

Figure 17: Key Products with grass fed claims

Brand: Sambar Kitchen

Essentials

Price: \$12.99

Released: Nov 2016

Weight: 6 oz

Packaging: Jar

Brand: Finlandia Cheese

Price: \$3.99

Released: Dec 2015

Weight: 7 oz

Packaging: Stick

FINLANDIA
IMPORTED BUTTER
[FESS FROM FIRMO]
Crafted with pure mily from fondy-one of forms.
Nothing erificial. No odded bornones.

The product promotes itself as 100% organic and to be one the essential ingredients for cooking authentic Indian food. Being organic is the only claim promoted by the product.

Product of Finland. Crafted with pure milk from family-owned farms. The kosher certified product is made with milk from cows not treated with rBST, and is free of GMO ingredients or anything artificial. The use of the term 'crafted' in the product description shows an emphasis towards promoting a bespoke product.

Brand: Anchor
Price: \$4.39
Released: Nov 2017

Weight: 8 oz

Packaging: Container



The USDA organic certified product is made with pasteurized milk from cows that graze outdoors all year round. The GMO free butter is triple churned to make it slightly softer, suitable for spreading, baking and cooking.

Note: the product lacks an explicit grass fed claim. Instead it promotes the product as the cows "graze outdoors all year round".

Brand: O Organics

Price: \$5.59

Released: Mar 2015

Weight: 4 x 4oz

Packaging: 4 sticks



Brand is a private label for Safeway supermarkets. This USDA organic and kosher certified product is free from GMOs, growth hormones and artificial preservatives. The manufacturer states they carefully select producers who meet the highest organic farming standards and share the commitment to sustainable agriculture.

Brand: Horizon Organic

Price: \$5.58
Released: Jul 2018
Weight: 16 oz
Packaging: 4 sticks



The kosher certified product is made with milk from pasture-raised cows without using GMO, persistent pesticides, antibiotics and added hormones. It is described as a first quality slow-churned sweet cream.

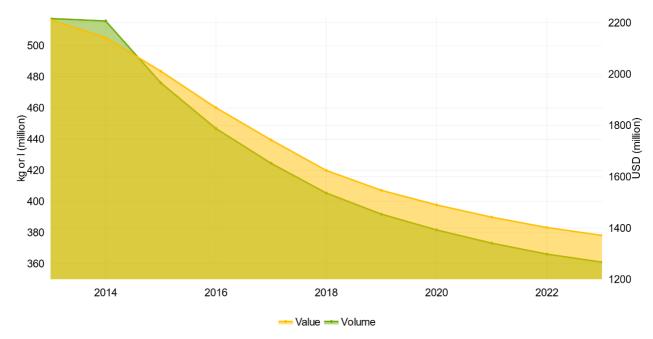
VALUE CAPTURE TRENDS

Margarines' decline looks set to continue

Despite 2018 retail volumes of 404 million kg for margarine and other spreads (30% higher than butter), the long term trend of declining volumes looks set to continue. This declining market is also affecting new product launches and rebrands which have almost halved since the 2014 peak which is outlined in figure 19.

Despite declining volumes, the high unit pricing of butter (\$9.80 per kg) relative to margarine (\$4 per kg) indicates there will continue to be a market for this product for price orientated consumers. The final long term size of this market is uncertain, and will likely be determined by the long term perceptions of margarine relative to its product alternative, butter.

Figure 18: 2017 Retail Volume and Value of Margarine over time.



Source: MPI, Euromonitor International Limited (2018) © all rights reserved.

Figure 19: Margarine products launched and associated price spread over time.



Figure 18 and 19: Data sourced October 2018..

Product differentiation by claims occurs.

Organic and GMO free margarine products still receive higher price points than the median price point of all margarine products. The top 25% of products listed are promoted heavily towards vegan consumers, with vegan attributes being promoted in 80 percent of organic products and 89% of GMO free products.

Margarine unit prices in general remain lower than butter with a median list price of \$7 per kg, only \$5.80 per kg higher than the minimum price. This is much closer than butter which has a minimum price of \$4.40 per kg and a median price of \$14. Cost of production likely accounts for the higher minimum pricing however the larger spread in prices for butter may allow a larger ability to capture value.

Figure 20: Attribute claims from Margarine and other spreads products released in the United States between $2014 - 2018^{(1)}$.

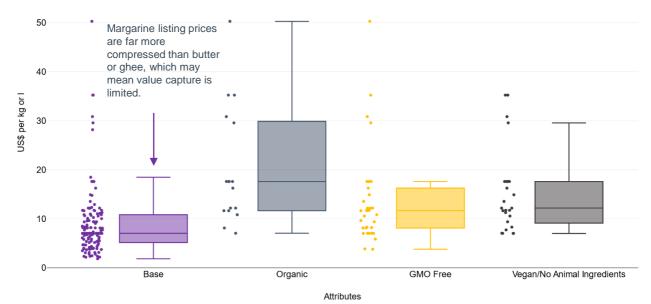


Figure 21: Associated claims with Organic

Claims (top 25% of products) ⁽³⁾	%
Vegan/NO Animal Ingredients	80
GMO Free	80
Low/No/Reduced Allergen	60
Dairy Free	40
Kosher	40

Claims (all products)	%
GMO Free	94.1
Low/No/Reduced Allergen	88.2
Kosher	76.5
Gluten Free	76.5
Low/No/Reduced Transfat	70.6

Figure 22: Associated claims with GMO Free

Claims (top 25% of products) ⁽³⁾	%
Organic	100
Vegan/No Animal Ingredients	88.9
Low/No/Reduced Allergen	77.8
Kosher	66.7
Gluten Free	66.7

Claims (all products)	%
Low/No/Reduced Allergen	94.1
Kosher	91.2
Gluten Free	91.2
Low/No/Reduced Transfat	85.3
Social Media	67.6

Figure 20, 21 and 22: Data sourced October 2018 from Mintel GNPD. 1: Each dot represents either a new product launch or a change in packaging. Box and whisker graph presents the median (line in center of box), min and upper fence (lines are end of each graph) and upper and lower quartile (lines on edge of box). 2. Products sorted by unit price.

Key brands by market size.

Margarine brand share is continuing to become more concentrated as total volumes continue to decline.

In 2018 the nine main brands had over 80 percent of retail sales. It is likely that the continuing decline of margarine volumes has caused brands who could not compete on price and have limited product differentiators to leave the market as margins have declined. The result is a few large players dominating others who have been able to differentiate their product from high volume sellers.

Unilever's Flora Food Group the dominant company.

Flora Foods controlled 46.2% of the United States margarine and spreads category. It's brands include 'Shedds Country Crock' and 'I Can't Believe It's Not Butter' brands. Unilever sold theses brands as well as other spread brands in the Flora Foods group in 2018 to KKR for 6.8 billion euros, exiting the margarine and spreads business.

ConAgra's brands of Blue Bonnet and Smart Balance continue to have reasonable brand share.

ConAgra has experienced declining sales across it's spreads business as total margarine volumes continue to decline. The companies strategy is to now focus on reviving 'stale' brands⁽¹⁾. This appears to be a difficult challenge in a declining market.

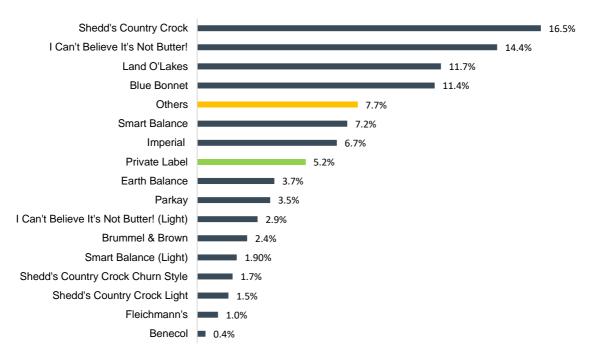


Figure 5: Brand Share for Margarine and Spread based product in 2018

Source: MPI, Euromonitor International Limited (2018) $\ensuremath{\mathbb{Q}}$ all rights reserved.

Figure 23: Data sourced October 2018 from Euromonitor International Limited. 1: Sourced from the Omaha World Herald, Title: 'As Conagra revises its brand portfolio, old favorites might get sold in shuffle' Jun 2017.

FINAL THOUGHTS

This assessment of dairy products in the United States, with a particular focus on dairy spreads and raising claims outlines the importance of ensuring that the right product claims are being promoted and presented to consumers to maximise value.

Butter products are experiencing strong demand growth, and many products are being listed at a price premium when promoting grass fed, organic or GMO free claims.

High priced ghee products appear to have a greater focus on the addition of high value ingredients into the product to increase listing prices.

In 2016-17 pasture accounted for approximately 82% of total feed eaten by the New Zealand dairy herd⁽¹⁾. Determining what percentage would be acceptable for consumers to consider a product grass fed would be recommended to ensure the long terrn success of grass fed brand reputation in this market.

We recommend New Zealand companies seeking to launch or rebrand a product into these categories should continue to asses how different claims preform with consumers and competitor products to further refine their marketing and product development strategy. We invite those companies to engage with the Economic Intelligence Unit should they seek additional insights.

CONTACTS

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The Economic Intelligence Unit develops market information for the primary industries. Use our reports and data to understand how the primary industries work from plant to plate. These insights can be found at mpi.govt.nz/eiu

MODEL ASSUMPTIONS

Data for this report was generated by the Economic Intelligence Unit - Customer Insights Model.

Key model assumptions relevant to this report are:

- Euromonitor data prices are based on forecast 2018 historic constant and forecast constant pricing.
- Grass fed and New Zealand origin claims were allocated to products by searching for related keywords in the product description. This method is different to all other claims in the model which are already pre allocated in the Mintel data set and may impact results.
- Ghee butter products were found by searching the Mintel database for keywords relating to ghee butter in the product description, product title or product variant fields in the butter category.

Ministry for Primary Industries Manatū Ahu Matua

