



4 ways to future-proof pet digestive health supplements



Meet the speakers



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Today we will cover...

- + Pet health supplement market and growth drivers
- + 4 ways to future-proof pet digestive health supplements
- + Probiotics 101
- + Solutions for tackling common probiotic challenges



Setting the stage...

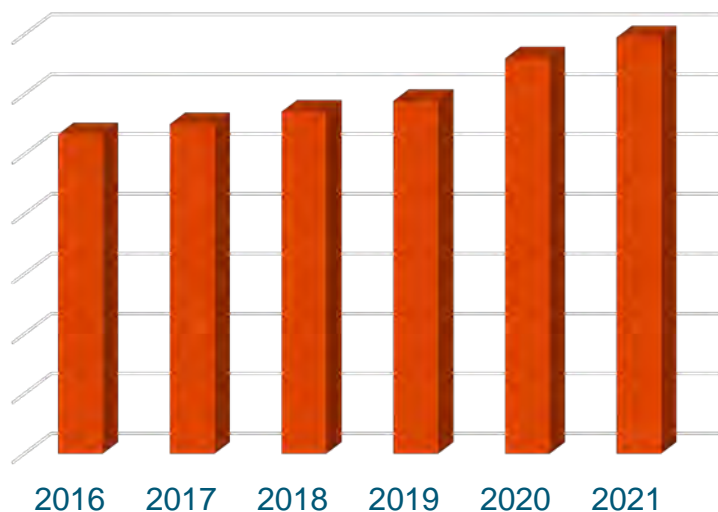
Pet Supplement Market

\$695M 2021

US retail revenue

5.5% CAGR

(2016-2021)

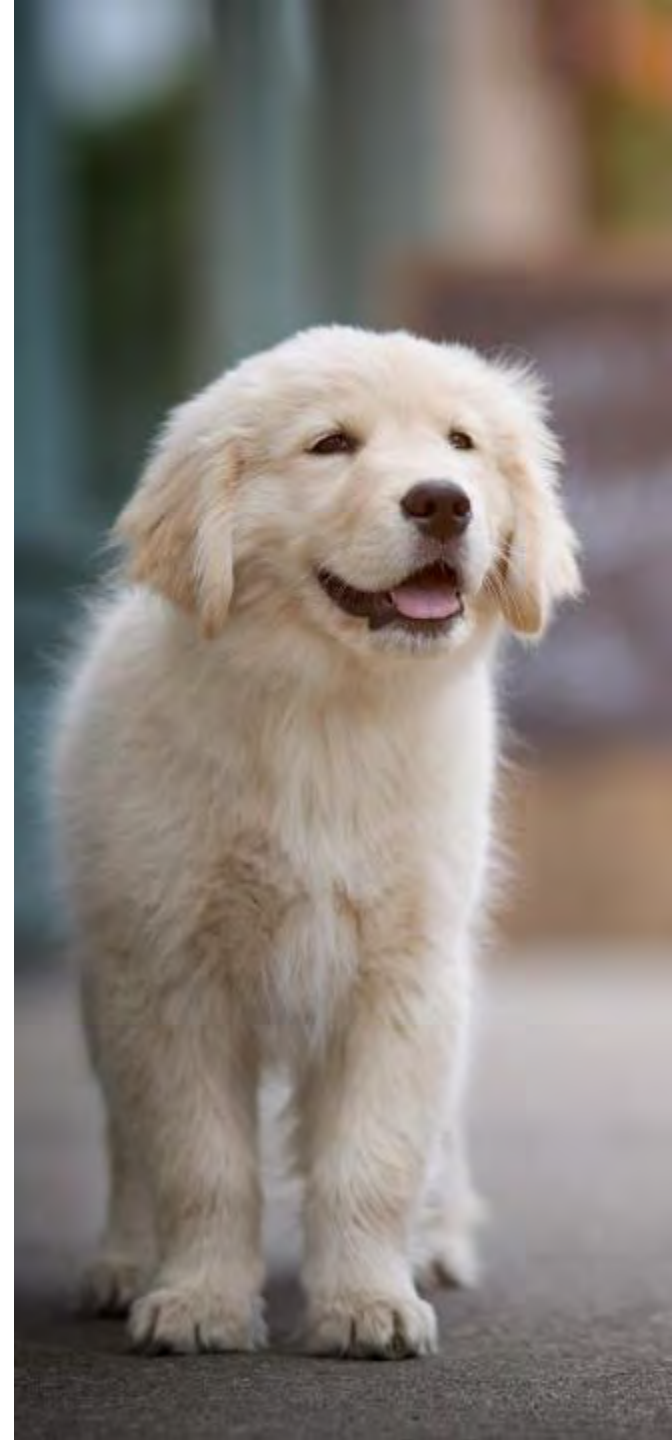


US is 50% of global market

Fastest Growing Health NPD Claims (CAGR 2018-2020)

- 1 Joint Health (+118%)
- 2 Digestive/Gut Health (+85%)
- 3 Immune Health (+77%)
- 4 Skin Health (+63%)
- 5 Brain Health (35%)

What's driving this?



Health and wellness is on consumers' minds...

64%

of global consumers are more conscious about their health and wellness as a result of COVID-19.¹

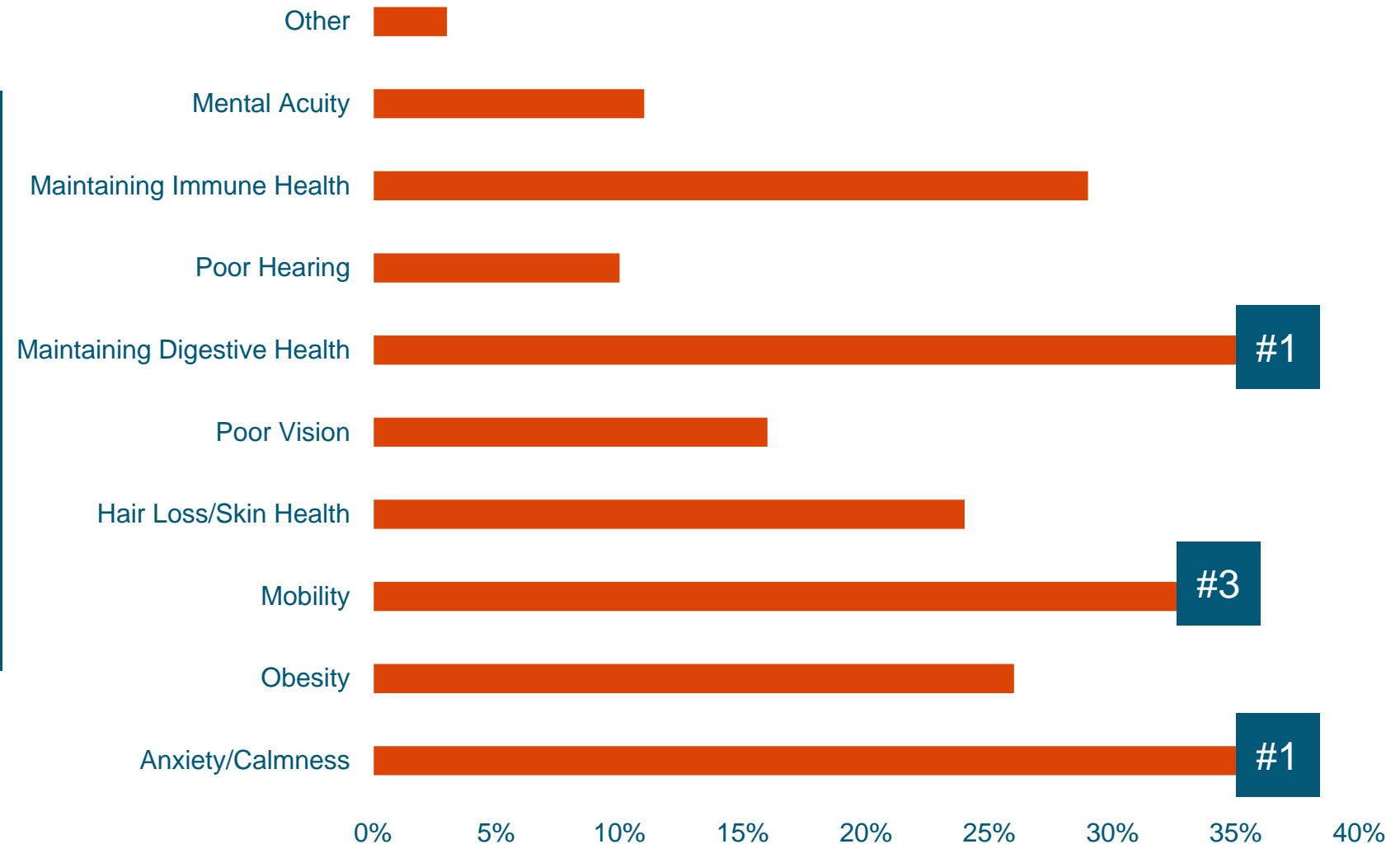


Top 5 reasons for purchasing health supplements

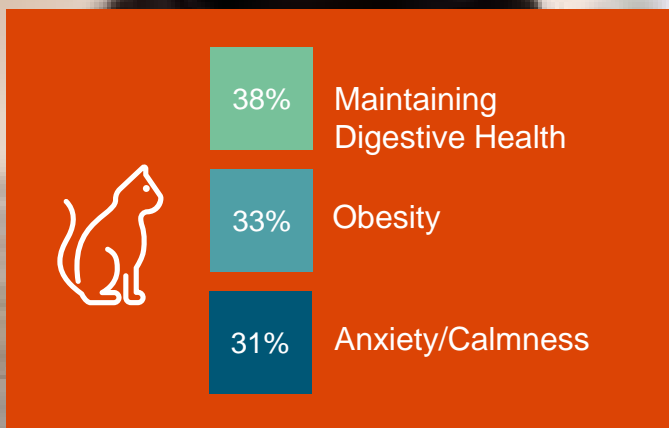
- 1 Immune system support
- 2 Healthy bones and joints
- 3 Improved energy
- 4 Promote good digestive health
- 5 Better sleep

...and pet parents are paying more attention to their pet's health

91%
of pet supplement
shoppers believe their
pets struggle with at
least one health issue.



Top health concerns for dog and cat owners



Digestive health New Product Development (NPD) is taking center stage for people and their pets

NPD trends (all food) 2016-2020



#2

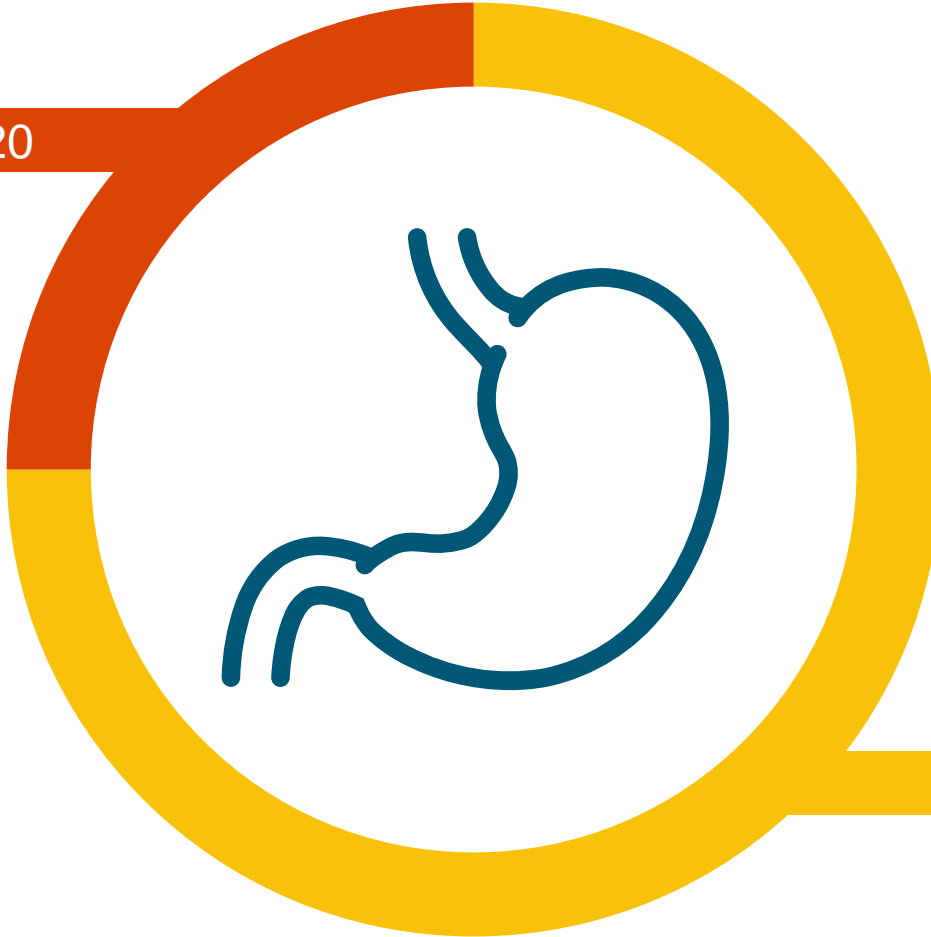
Digestive/gut health is the second largest proactive health claim.

#2

Probiotics have been the second fastest growing proactive health claim.

+11%

Probiotics claims have grown 11%.



#1

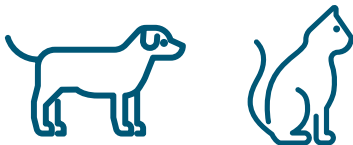
Digestive/gut health is the top proactive health claim.

#1

Probiotics are the fastest growing proactive health claim.

+32%

Probiotics claims in dog and cat supplements have grown 32%.



NPD trends (pet) 2016-2020

4 ways to future-proof pet digestive health supplements



#1

Probiotics offer peace of mind

Probiotics are a time-tested and widely accepted solution to supporting digestive health.

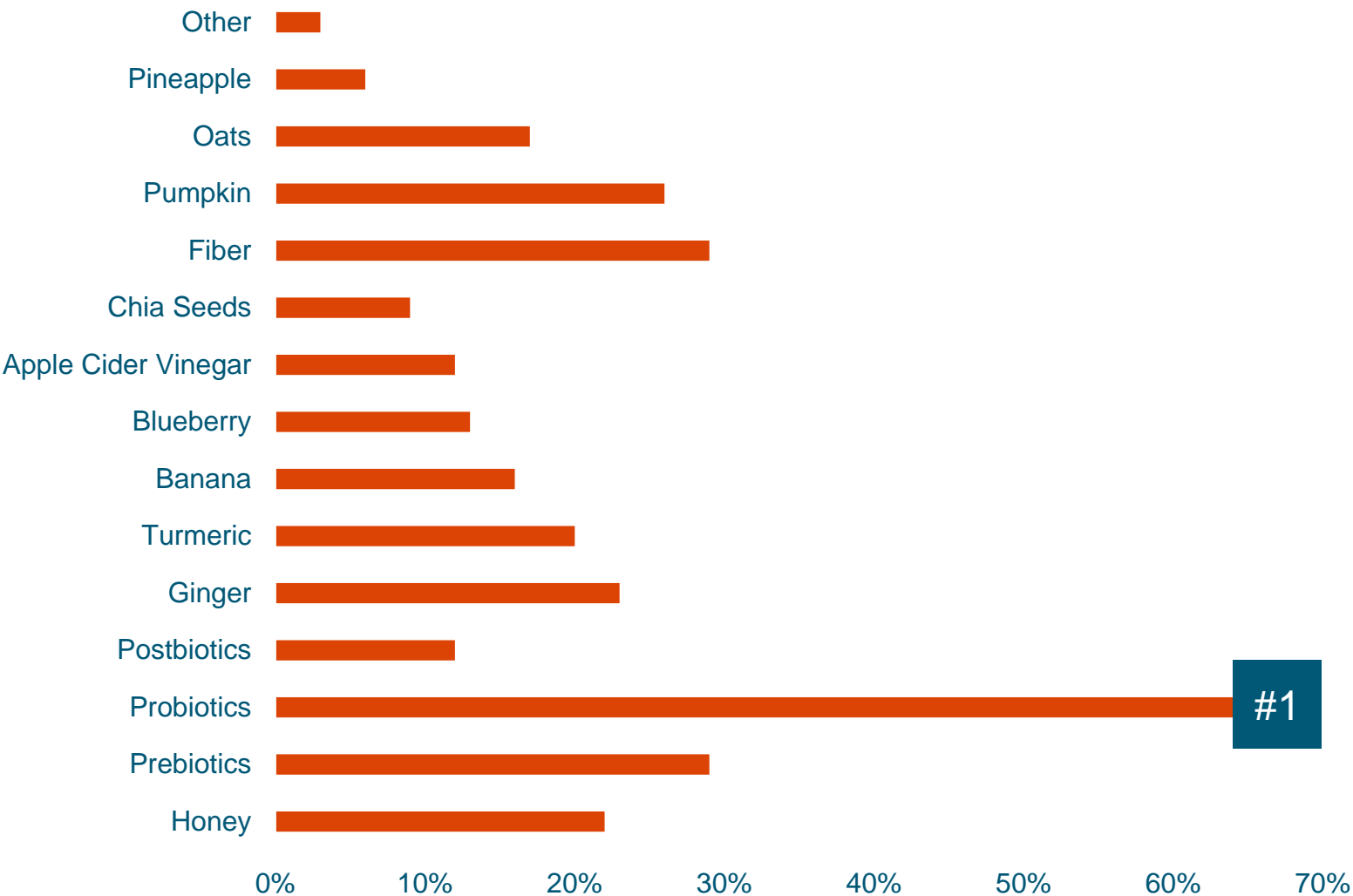
Probiotics are highly associated with digestive health

150 years

Probiotics have been a part of our diets for thousands of years and their connection to human health has been known for more than 150 years.

Top 3 ingredients associated with promoting pet digestive health

- 1 Probiotics
- 2 Prebiotics
- 3 Fiber





Consumers seeking digestive health and reaching for probiotics

Primary reason for purchasing probiotic supplements



65%
of pet supplement shoppers have purchased a health supplement for their pet that includes a probiotic in the past 6 months.


60%


74%

Source:
Kerry Proprietary Research, Pet Supplement Shoppers, 2021.

4 ways to future-proof pet digestive health supplements



#1

**Probiotics offer
peace of mind**

Probiotics are a time-tested and widely accepted solution to supporting digestive health.

#2

Keep it simple

Keep product labels simple, believable and only include the probiotic strain(s) necessary to deliver a measurable benefit.

“Probiotics” should be the focus



Top 5 product claims for probiotic supplements

1	Contains/Made with Probiotics	44%
2	Contains/Made with 'Good' Gut Bacteria	40%
3	Contains/Made with Live Probiotics	29%
4	Contains/Made with Active Probiotics	22%
5	Contains/Made with a Probiotic Backed by Pet-Specific Data	21%

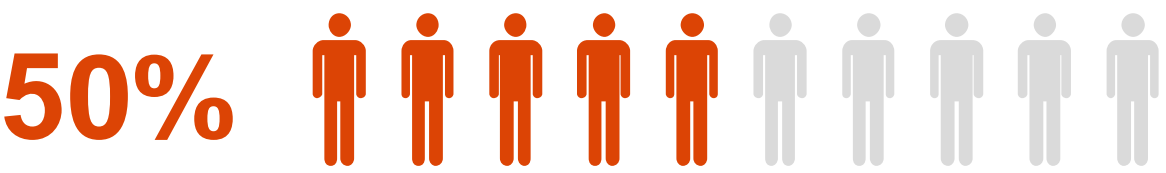
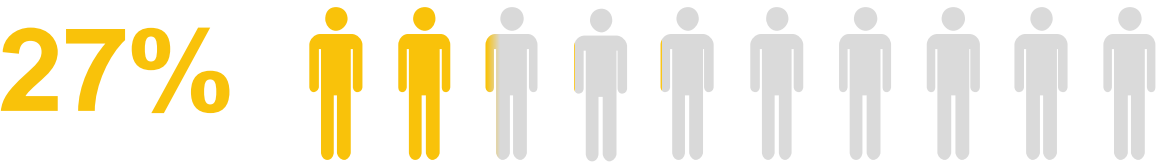
Avoid overly-technical information on-pack



Only 20% of pet supplement shoppers claim to understand how probiotics help support pet health



A probiotic knowledge gap exists between dog and cat pet supplement shoppers, as 41% of cat owners claim to not understand how they work to support pet health compared to 27% of dog owners.



Half of pet supplement shoppers are not interested in learning more about how probiotics help support pet health.

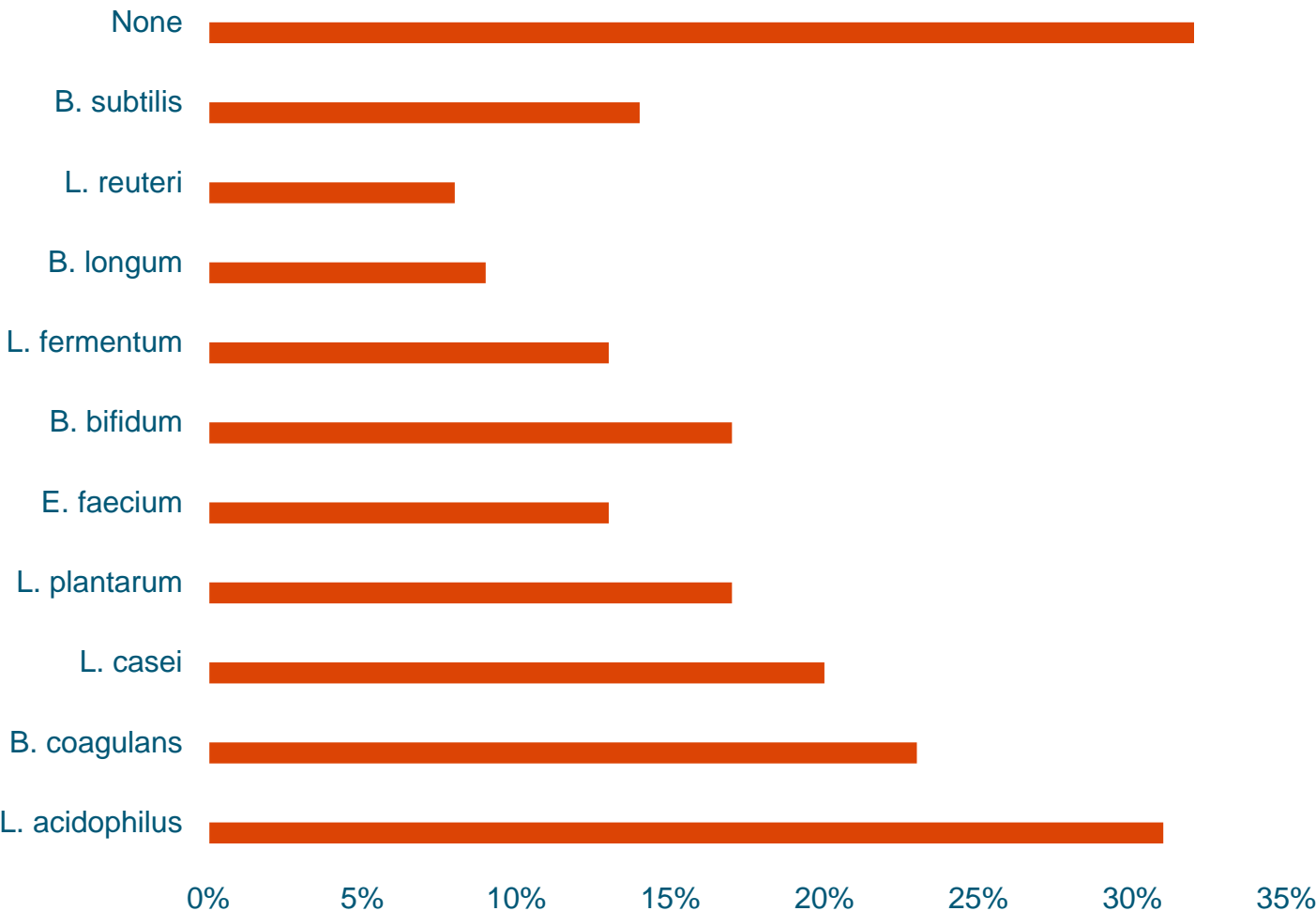
Low Understanding of key probiotic strains

32%

of pet supplement shoppers have not heard of 10 highly common probiotic strains.

Top 3 strains

- 1 L. acidophilus
- 2 B. coagulans
- 3 L. casei



Source:
Kerry Proprietary Research, Pet Supplement Shoppers, 2021.
Innova NPD Database, 2021.

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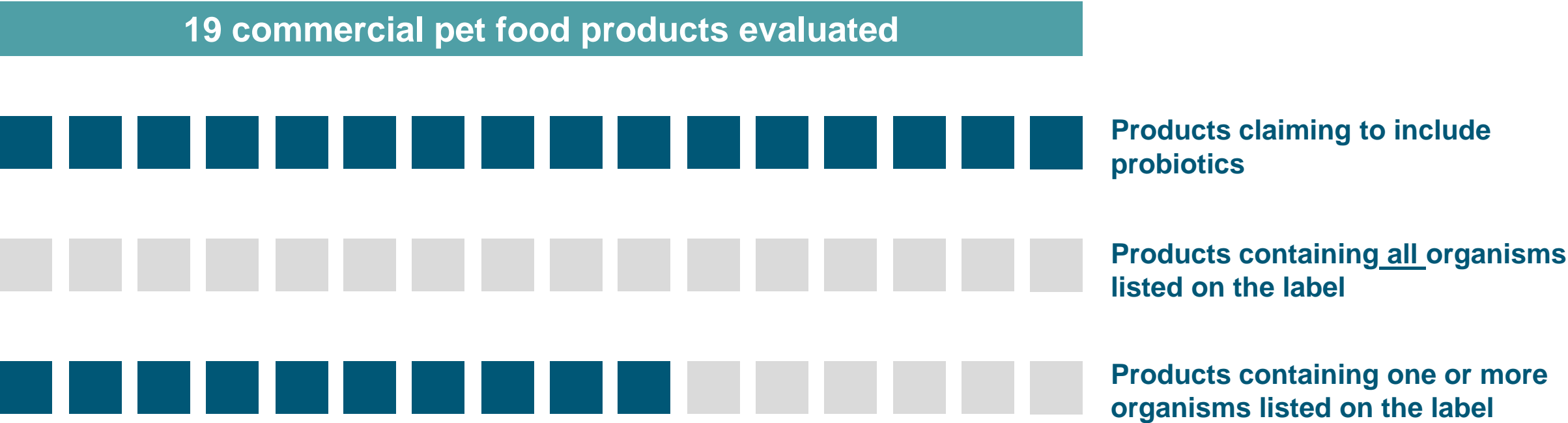
**Manage gut health
and your
reputation with
live probiotics**

Pet supplement shoppers expect probiotics to be live by the time they reach the pet's gut. Meet this demand with probiotics that can withstand processing, shelf-life and gastric transit.

#4

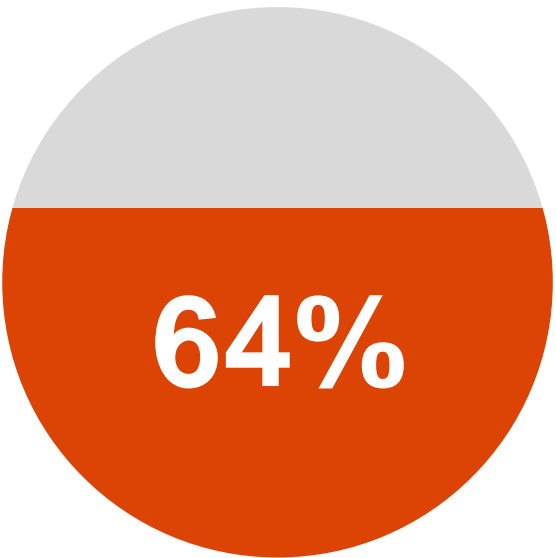
Probiotics on the label doesn't mean probiotics in the gut

Many probiotic strains are used in product formulas but are they reaching the pet?

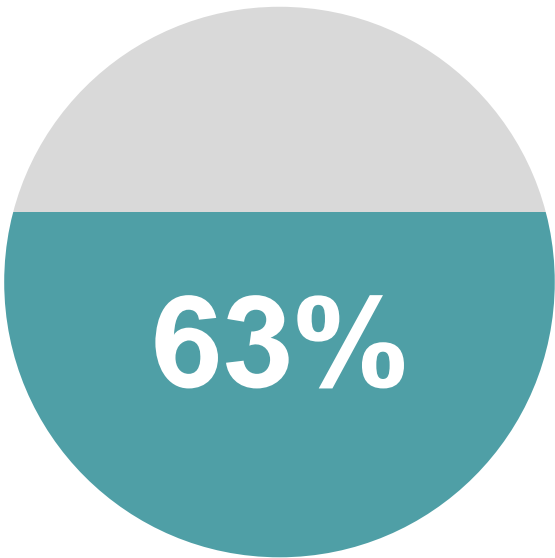


Source: Weese JS, Arroyo L. Bacteriological evaluation of dog and cat diets that claim to contain probiotics. *Can Vet J.* 2003;44(3):212-216.

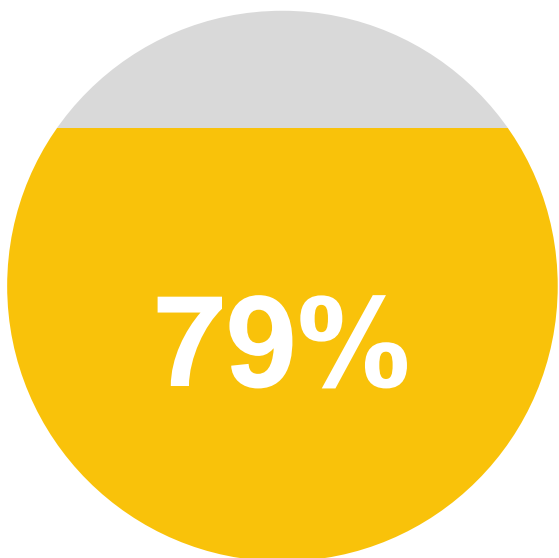
Live probiotics are important and have value



It is important that the probiotics in their pet's supplements are live.



Likely to switch brands if discovered that probiotics in pet's supplements are not live.



Willing to pay more for live probiotics.



4 ways to future-proof pet digestive health supplements



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#4 Back
claims with
pet-specific
data

Formulate with a probiotic with published, peer-reviewed data showing efficacy in supporting digestive health in pets.

Pet-specific data is important and has value



35%

of pet supplement
shoppers are willing to
pay 50% or more

83%

of pet supplement
shoppers are willing to
pay more for probiotics
backed by pet-specific
data.

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Probiotics 101



The gut microbiota



The gut microbiota is the population of trillions of bacteria and microorganisms in your intestines that are key to your health and wellbeing.

Functions of the gut microbiota – inside the digestive tract



Harvest
energy from
foods



Improve gut
motility and
function



Reinforce gut
barrier



Synthesize
vitamins and
metabolites
that are
important for
health



Synthesize
and modulate
hormones



Protect against
pathogens

Functions of the gut microbiota – outside the gut



Bolster
immune
system



Produce and
modulate
hormones



Affect
circulating
blood lipids



Influence brain, liver, kidney, skin
and vaginal tract function



Stressors = out-of-balance microbiota

Probiotics may help normalize the gut microbiota that can be disrupted by stressors, including:

- **Antibiotics and medicines**
- **Poor diet or changes in diet**
- **Illness**
- **Aging**
- **Stress**
- **Travel**
- **Changes in daily routine**



Taking care of the gut microbiota

According to the International Scientific Association of Probiotics and Prebiotics (ISAPP), there are many ways we can keep our gut microbiota happy:

- ✓ Take antibiotics and other microbiome-influencing drugs only when needed
- ✓ Eat a diverse range of foods — especially fiber and fermented foods with live microbes
- ✓ Maintain a healthy weight
- ✓ Exercise
- ✓ Get enough sleep
- ✓ Consume **probiotics** and prebiotics

Probiotics defines

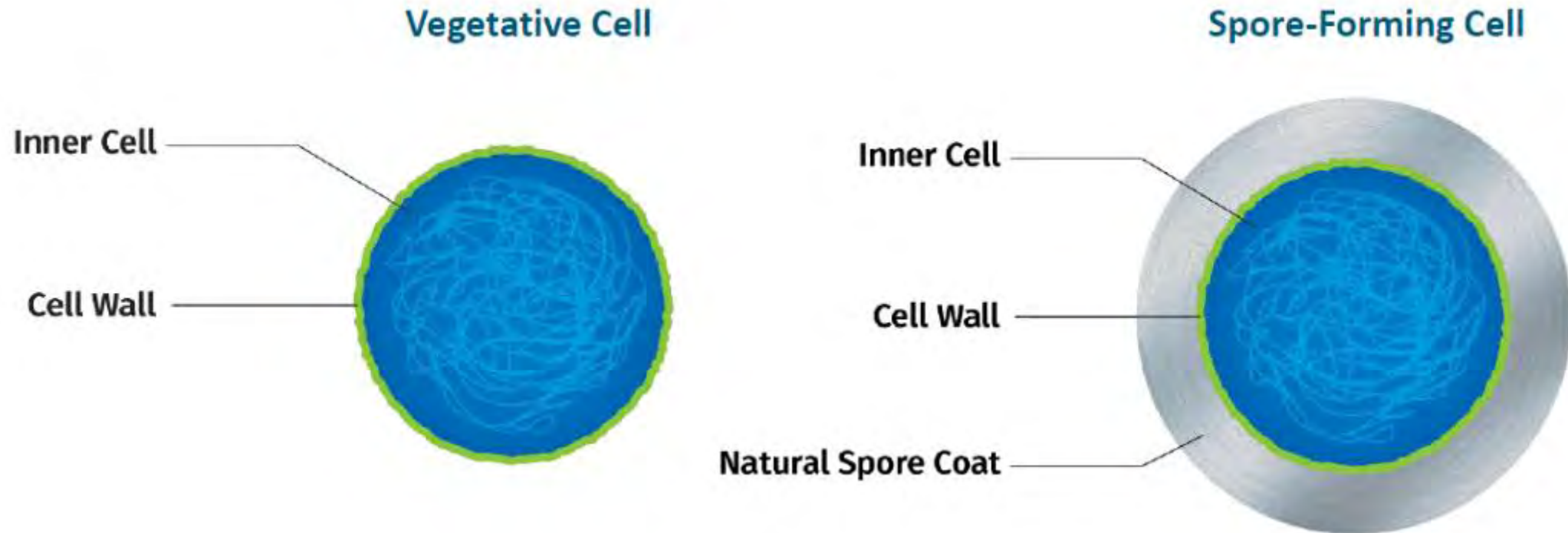
“Live microorganisms which when administered in adequate amounts confer a health benefit on the host.”



- ✓ **Live** microbes in the diet
- ✓ Must provide **a health benefit** to the consumer
- ✓ Must be delivered to the digestive tract in **efficacious quantities**

Forms of bacterial probiotics

While common vegetative strains are fragile, spore-forming strains like *Bacillus coagulans* can survive most manufacturing processes, allowing for improved processing flexibility and product innovation.



More CFUs aren't always better

There is no "ideal" number of CFUs.

- Probiotics are measured in CFUs (Colony Forming Units)
- Probiotic organisms must be alive to be grown and counted.
- Probiotic organisms are unique – as are the levels needed for benefit efficacy and safety.
- Peer reviewed, published studies on the specific strain are required to support inclusion levels – 100 Billion CFU is not necessarily better or more efficacious than 1 Billion CFU.

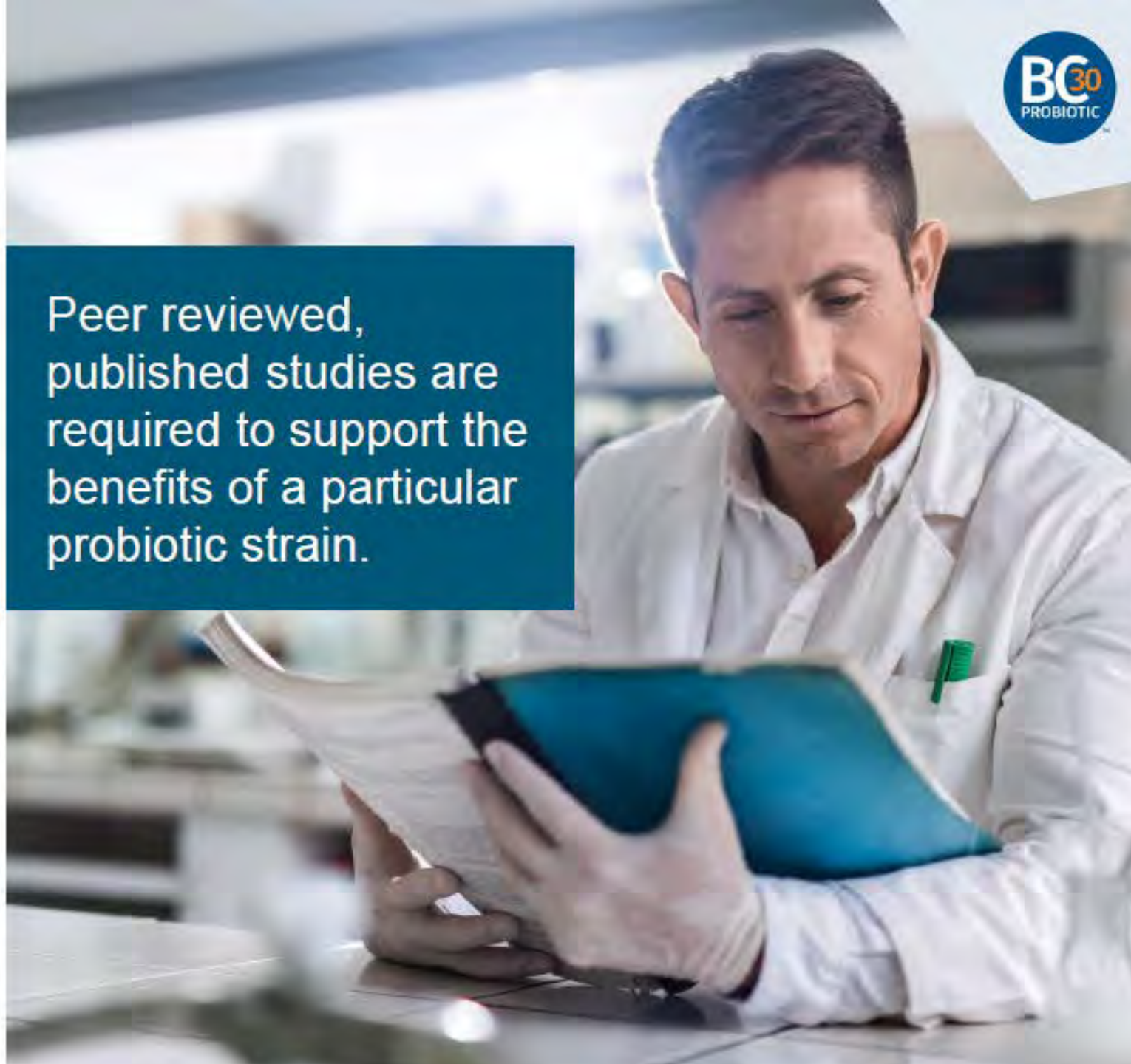


Health benefits are strain-specific

Just as CFU counts are strain specific, so are probiotic benefits.

Many probiotics have digestive benefits, but some strains have specialized benefits such as immune support, heart health, mood balance or protein utilization.

Peer reviewed, published studies are required to support the benefits of a particular probiotic strain.



Not all probiotic strains are the same

Probiotic strains are as unique as snowflakes.

Every bacteria strain has its own strain-specific genomic and phenotypic characteristics.

- **NO TWO** strains of bacteria are identical.
- Safety and clinical data from one strain **cannot** be used to support the safety and efficacy of another strain.



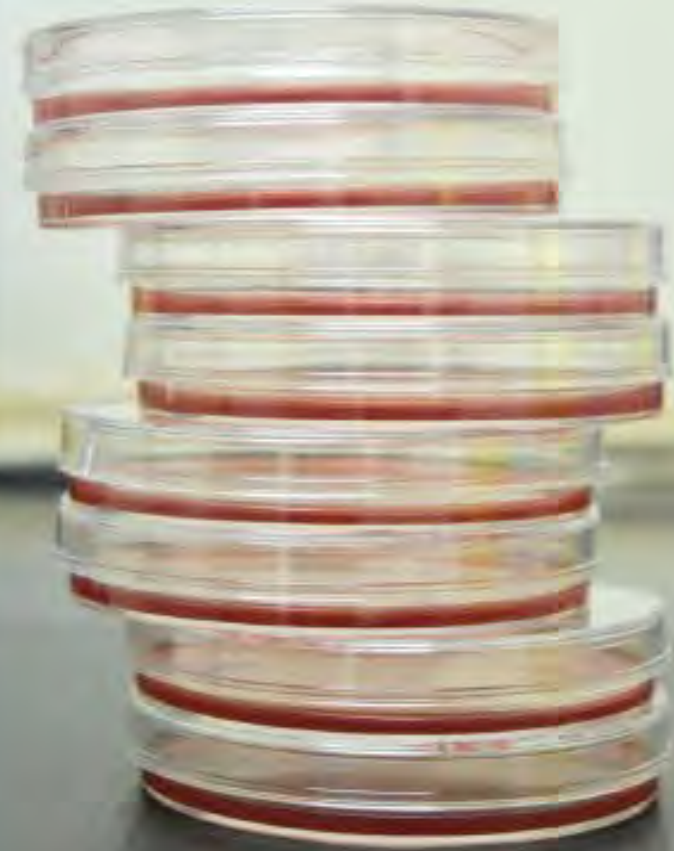
Understanding strain specificity

Japanese car » Bacterial group » Lactic acid bacteria

Honda » Bacterial genus » Bacillus

Accord » Bacterial species » Bacillus coagulans

EX-L V-6 Sedan » Bacterial strain » Bacillus coagulans GBI-30, 6086



Considerations when selecting a probiotic

- Is there published data on the benefits and safety of the specific strain?
- Is it approved for use in multiple markets? (i.e. AAFCO, FDA-GRAS, QPS)
- Is the strain widely used and recognized in the market?
- Is the inclusion amount supported by published, peer-reviewed clinical studies?
- Will it survive manufacturing and shelf-life requirements of your product?
- Will it survive transit through the gastrointestinal tract in efficacious quantities?



The challenge: Survivability

Most probiotic strains on the market are of the genera *Lactobacillus* and *Bifidobacterium* are vegetative cells.

- Vegetative cells are very fragile and vulnerable to the low gastric pH and bile salts.
- Susceptible to the rigors of most manufacturing processes and shelf life of most food products.
- Generally, need to be refrigerated to survive shelf life of finished product.

The Solution Is....





BC30™ is a unique spore-forming probiotic with a natural, protective shell that helps protect the probiotics during manufacturing and gastric transit, so they reach the gut in efficacious quantities.



The solution: BC30 probiotic

- **Stability & survivability vs. vegetative cells**

Survives most manufacturing processes. Stability over product shelf life. Survives transit to the digestive tract. Does not require refrigeration.*

- **Research & science support benefits**

Backed by peer-reviewed published pet-specific research and more than 25 published papers supporting safety and efficacy in humans.

- **The BC30 brand connects with consumers**

A brand that educates consumers about probiotics, delivers on ingredient transparency, and ultimately builds trust in the final product.

- **Consistency in product specification & cell counts from lot to lot**



Bake it



Boil it



Freeze it



Squeeze it

*If water activity < 0.75

How does BC30 work?








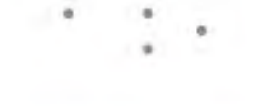
BC30 survives from manufacturer to stomach



Survivability
The Whole Story

BC30™ Probiotic

Help more live probiotics reach the pet's gut

	Processing	Shelf Life	GI Tract
Spore-forming Probiotics			 Efficacious probiotics to support digestive health
Vegetative Probiotics			

Graphic for demonstration purposes only

Improves digestibility*

Research supports that BC30 can help support:

- Digestive health
- Dry matter digestibility (3.5% improvement)
- Protein utilisation
- Gross energy utilisation

Available concentration

- 15 billion CFU/g
- 9 billion CFU/g
- 2 billion CFU/g

Supporting documentation

- Kosher & Halal certified
- Allergen free
- U.S. FDA GRAS status
- AAFCO approved ingredient

Suggested claims

- Probiotic
- Guaranteed live probiotics



*Acuff HA, Aldrich CG. Evaluation of graded levels of *Bacillus coagulans* (GBI-30, 6086) on apparent nutrient digestibility, stool quality, and intestinal health indicators in healthy adult dogs. [Conference Poster Presentation]. 2020 ASAS-CSAS-WSASAS Virtual Annual Meeting and Trade Show. 2020 Jul 19-23. Champaign, IL, United States.

BC30 Pet Clinical Research – Pet Food Digestibility

Science-Backed Benefits

New Research supports that BC30 provided in the diet at up to 1 billion CFU/day can help support the following benefits:

- Digestive Health
- Dry Matter Digestibility
- Protein Utilization
- Gross Energy Utilization

Study Site	Department of Grain Science and Industry, Kansas State University, Manhattan, KS
Design & Duration	5 x 5 replicated Latin square with 16-d adaptation followed by 5-d total fecal collection for each 21-d period.
Age	Ten individually housed adult Beagle dogs of similar age (5.75 ±0.23 years)
Serving	Control diets contained no <i>B. coagulans</i> Test diets ranged from 6-log ₁₀ to 9-log ₁₀ CFU/day
Details	High protein (35% crude protein), grain-free extruded diets with graded levels of probiotic were offered. Food-grade titanium dioxide (TiO ₂) was added to all diets to serve as an indigestible marker for digestibility calculations Proximate analysis was carried out using AOAC official methods; NH ₃ by colorimetric method; and SCFA by gas chromatography

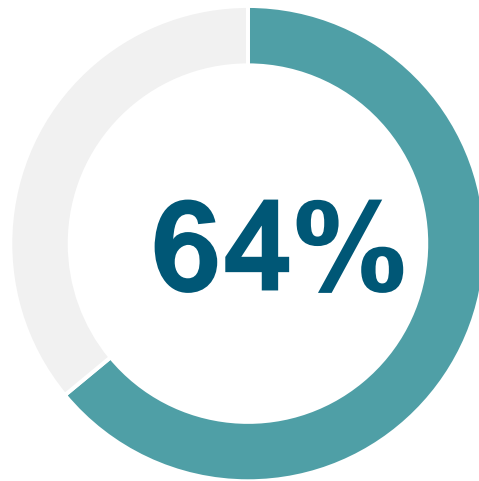
What this means for our customers: The addition of **BC30™** can help support a 3.5% improvement in dry matter digestibility when consumed at a daily intake level of up to 1 billion CFU.

BC30 is seen as highly believable

Pet supplement shoppers see claims made about BC30 being highly believable compared to others on the market.

Key metric performance of BC30 (T2B – top 2 box from a 5-point scale)

T2B – top 2 box refers to the 2 positive answers on a 5-point scale e.g. very believable or believable.



Believability

(T2B: Product description is completely or somewhat believable)



Consumers globally are willing to pay more for products containing BC30.

Global average* willingness to pay more for products containing BC30

(Have purchased the category in the past 6 months and stated they are would be likely or very likely to buy a product containing BC30)



**Average
willingness to
pay more across
all categories:**

76%



Questions?

