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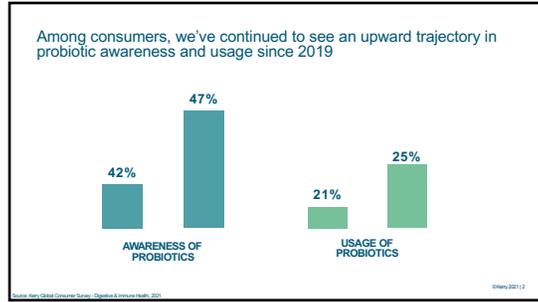
The evolving consumer relationship with probiotics

How to best position your brand for long-term success, and why finding the right partner can make all the difference

Kevin Cencula
Global Marketing Manager - Probiotics
Kerry



1



2

The mainstream-ification of functional foods & beverages

Consumers across the spectrum have become more proactive in addressing health needs, incl. through probiotics.



8.5% growth in global launches of functional foods & beverages from 2015-2020

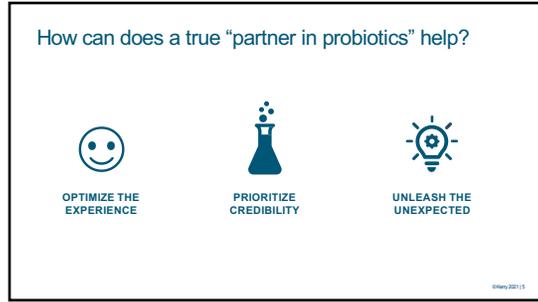
30% growth in foods & beverages making probiotic claims

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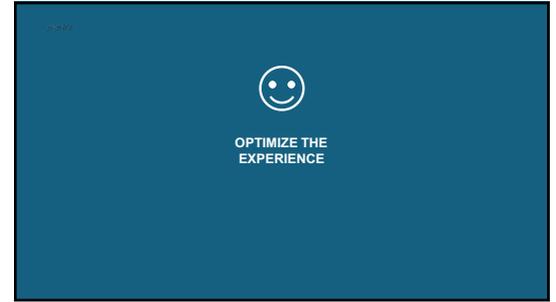
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9

For all formats of probiotics, **Taste** matters!



63%
of consumers of probiotic foods or beverages and supplements stated they prefer probiotics in F&B format.

50%
of these consumers stated that the reason for their preference was taste.

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10

The (over-simplified) evolution of Taste in supplements



1990s 2000s 2010s 2020s

11

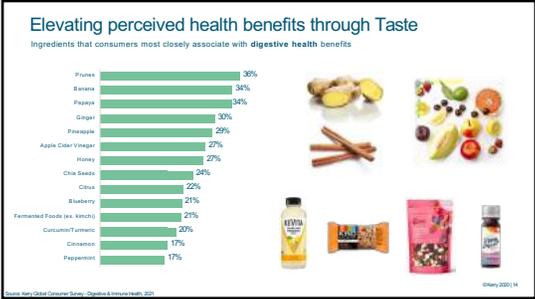


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THE TASTE & NUTRITION COMPANY

12



13



14



15

CREDIBILITY
 noun | k'red.ə'bɪl.ə.ti|

the **fact** that someone can be believed or trusted



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16

Credibility in the age of the “& Consumer”

Demands are increasing as consumers become more well-informed. They are seeking food and beverages which offer...



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17

Trust in nutrition industry declines amid rising supplement usage
 (Nutrition Insight; 30 Aug 2021)

12 of 23
 turmeric extracts failed to meet the potency standard, contained synthetic curcuminoids or heavy metals, or used gelatin caps instead of the advertised vegetable capsules

61%
 of vision supplement goods tested for carotenoid content did NOT contain the amount advertised or claimed on the label

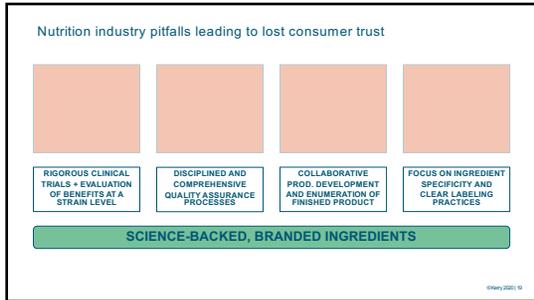
Probiotic count discrepancy: Australian, Canadian products highlighted by Korean regulator (Nutralredients Asia; 16 June 2021)

2.8B / 10B
 Blend of 17 probiotic strains contained <30% of the advertised CFU count

.024B / 3B
 Blend of 2 probiotic strains contained <1% of the advertised CFU count

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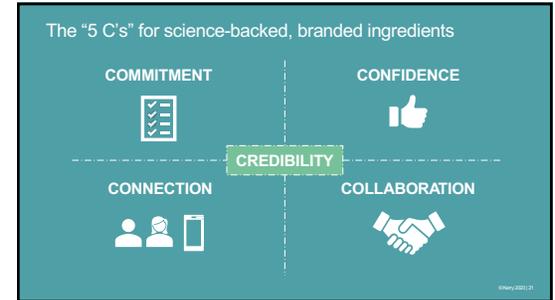
18



19



20



21

Branded and science-backed are interrelated concepts.

- Visibility of brands on-pack and in media drives consumer engagement with the science
- A distinct name amplifies ingredient "uniqueness" and highlights the importance of strain specificity
- No hiding behind a generic ingredient; investing in an ingredient brand reinforces scientific credibility

22

UNLEASH THE UNEXPECTED

23

Consumers are starting to associate probiotics with a diverse range of health benefits

- Promote good digestive health (50%)
- Provide immune system support (39%)
- Promote protein utilization (25%)

- Lower cholesterol (25%)
- Anti-inflammatory (25%)
- Heart health (24%)
- Better sleep (24%)
- Improved mood (23%)
- Allergy relief (23%)
- Stress management (22%)
- Mental clarity (20%)
- And many more!

24



25

BC30 Probiotic

Digestive health & beyond with BC30™ probiotic

BC30™ (*Bacillus coagulans* GB1-30, 6086®) is a **spore-forming, patented probiotic ingredient** that can be formulated into almost any food, beverage or companion animal product.

It's a **highly stable probiotic** with the ability to survive harsh manufacturing processes, product shelf-life and the journey through the digestive system.

The strain is supported by more than **25 published research papers** confirming its safety, efficacy and ability to support the following benefits:

- Probiotic
- Digestive Health
- Immune Health
- Protein Absorption

BC30 is also: Kosher & Halal certified, gluten-free, allergen-free and available in Non-GMO Project verified and organic compliant.

74% Of global consumers say science-based claims are important when buying probiotics.

76% Of global consumers are interested in purchasing products with BC30.

26

BC30 Probiotic

The convergence of probiotics & sports nutrition

The global probiotics market is valued at **\$60B** and is growing at a CAGR of 7.6% through 2025.

The global sports nutrition market is valued at **\$22B** and is growing at a CAGR of 8.3% through 2025.

Global Sports Nutrition Powder Launches with Probiotic Claims

Year	Number of Launches
2016	~1,000
2017	~1,500
2018	~2,000
2019	~2,500
2020	~3,000

27

BC30

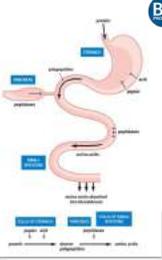


A CLOSER LOOK AT PROTEIN ABSORPTION
(2020 CLINICAL STUDY OUTCOMES)

Don Cox, Ph.D
R&D Director - ProActive Health

28

A Closer Look at Protein Absorption
How it works in the human body



- You consume a protein-rich food (or beverage).
- The food makes its way through your digestive tract, during which:
 - Proteins are broken down into polypeptide chains by enzymes in the stomach.
 - More enzymes released in the small intestines eventually break down these polypeptide chains into individual amino acids.
 - Amino acids move across the cell walls of the small intestine into the bloodstream.
- Amino acids are then transported throughout the body via the bloodstream, and are utilized to support normal, healthy functioning, including muscle building and muscle recovery.

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29

BC30 and protein absorption benefits
A clear + direct link to sports nutrition

Studies show **BC30 improves protein absorption** in healthy adults. BC30 is backed by over 25 published papers demonstrating its ability to provide digestive health, immune health and protein absorption benefits. No other probiotic strain on the market offers this combination of benefits. Below are five clinical studies demonstrating BC30's benefit of protein absorption and other sports nutrition-related benefits, like self-perceived muscle recovery and reduced soreness.



- BC30 may improve digestion of glucose-based products.**
- BC30 improves self-perceived digestion.**
- BC30 may enhance recovery and decrease exercise-related fatigue in athletes (ProActive Health).
- BC30 improves the recovery response to intense training when combined with supplementation.*
- BC30 improves self-perceived absorption in humans.

We continue to evaluate the impact of BC30 on protein digestibility, absorption, and utilization in humans, and its impact on muscle-building and muscle recovery.

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30

Clinical study evaluating BC30™ and impact on milk protein digestion

Conclusion: BC30 improves milk protein absorption in humans

Study Protocol	
Study Site	Exercise and Performance Nutrition Laboratory, Lindenwood University, St. Charles Missouri
Population	30 healthy males and females
Age	18-55 years, average 26.4
Design	Double-blind, randomized, controlled, crossover study
Duration	7 weeks total, 2 weeks supplementation, 3 weeks washout, 2 weeks supplementation
Serving	1 billion CFU BC30 + 25g of Ultrarior MPC (milk protein concentrate) daily



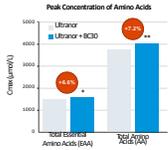
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31

BC30 and effect on peak concentration of amino acids

Results

- Consuming BC30 significantly increased the peak concentration of total and essential amino acids, signaling increased absorption of the milk protein.
- Consuming BC30 with Ultrarior, Kerry's nutritional milk protein concentrate, also led to significantly higher maximum concentrations of 10 individual amino acids in the blood.



Category	Ultrarior	Ultrarior + BC30
Total Amino Acids (TAA)	~1800	~2100 (+17.2%)
Essential Amino Acids (EAA)	~3500	~4100 (+17.2%)

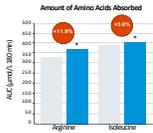
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32

BC30 and effect on total amino acids absorbed and time to reach peak concentration

Results

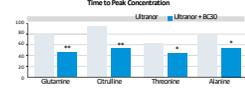
Consuming BC30 significantly increased the amount of arginine and isoleucine absorbed into the blood. This study demonstrates that BC30 may help the body absorb protein more efficiently.



Amino Acid	Ultrarior	Ultrarior + BC30
Arginine	~400	~450 (+11.9%)
Isoleucine	~400	~460 (+15.8%)

Results

Consuming BC30 reduced the time it took to reach peak concentration of four amino acids. A faster peak of the amino acid concentration in the blood indicates that BC30 may support more efficient digestion of protein.



Amino Acid	Ultrarior	Ultrarior + BC30
Glutamine	~60	~45
Citrulline	~60	~45
Threonine	~60	~45
Alanine	~60	~45

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33

Key Consumer Segments for Protein Absorption Benefits 

Athletes & Active Consumers



Athletes benefit from the muscle-building and recovery aspects of protein. Foods & beverages fortified with BC30 can improve protein absorption and may support muscle recovery.

Older & Aging Adults



Rates of protein absorption decline with age and may result in nutrient deficiencies. Foods and beverages fortified with BC30 can help the body more efficiently absorb the protein consumed.

Families / General Population



Consumers are becoming more aware of nutrients like protein. Wellness-focused consumers looking to optimize protein intake may seek products offering protein absorption benefits.

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34

Nutritional beverage products containing BC30 





35

IN CONCLUSION

36

What does a true "partner in probiotics" look like?



OPTIMIZE THE EXPERIENCE PRIORITIZE CREDIBILITY UNLEASH THE UNEXPECTED

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37

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BC PROBIOTIC Sporevia Hereditum Bio-K+

PROBIOTICS PROBIOTICS

SCIENCE-BACKED, BRANDED PROBIOTIC INGREDIENTS

OPTIMIZE THE EXPERIENCE PRIORITIZE CREDIBILITY UNLEASH THE UNEXPECTED

Inspiring Food, Nourishing Life

38
