



Final report

Development of a powdered beverage supplement sachet with the inclusion of Australian collagen – PoC

Project code: P.PSH.1518

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Abstract

This proof-of-concept project seeks to enhance the value of the Australian red meat industry through development of innovative food technology solutions. The project assesses the consumer desirability, commercial viability and technical feasibility of an Australian red meat collagen-infused product blended with a high-fibre superfruit in a powdered beverage format, targeting multiple need states such as gut health, overall wellness, beauty and hydration for health-conscious consumers.

The project was executed in collaboration with TIIGA Inc., Organic Technology Holdings, and Forager Foods Ltd. It involved ingredient selection and evaluation (comparing Australian boab with African baobab and bovine versus ovine collagen), product formulation and consumer test sample manufacture, regulatory compliance checks, market analysis, and consumer testing through qualitative ethnographic research with Watch Me Think.

Key results demonstrated that African baobab outperformed Australian boab in terms of solubility and sensory attributes. Due to availability, bovine collagen was used for the consumer test. Consumer feedback confirmed desirability for a combination gut-health and collagen product, highlighting its taste, convenience, and wellness benefits. Commercial discussions are now underway for a US launch of a range of powdered beverage products under the TIIGA brand containing Australian-sourced collagen.

The project's outcomes demonstrate benefits to the Australian red meat industry by creating new value streams for collagen products, especially those with improved sustainability stories, and positioning Australian-sourced functional ingredients in global health markets.

Executive summary

Background

The global collagen market size was valued at USD 9.9 billion in 2024 and is projected to grow at a CAGR of 11.3% from 2025 to 2030 due to growing health and wellness trends, driving expanding application areas. Increasing focus on a healthy lifestyle and growing number of buyers for collagen-containing products are fuelling the market growth. Rising consumer awareness of collagen's health benefits, such as improved skin elasticity, joint health, and overall wellness is also driving this growth. This project leveraged Australia's newly available sustainable collagen source from Organic Technology Holdings ([OTH](#)) combined with high-fibre superfruits to create a multi-benefit functional powdered beverage designed for health-conscious consumers.

Delivered in partnership with [TIIGA Inc](#) (a US-based startup from the [Startupbootcamp 2023 FoodTech Tasmania accelerator](#)), OTH and [Forager Foods](#), this proof-of-concept project focussed on developing and qualitatively testing a product in the Australian domestic market, that would also be suitable for the US market. This report consolidates the results of the project, ingredient selection, proof of concept product development, consumer test feedback, and commercial next steps.

This initiative seeks to enhance the value of the Australian red meat industry through development of innovative food products under MLA's High Value Food Frontiers, Product & Packaging Innovation Program. The project is unique as it seeks to assess the consumer desirability, commercial viability and technical feasibility of a collagen-infused beverage blend in a *powdered beverage format*, that is targeting *multiple need states* such as gut health, hydration and skin health and evaluating the product's potential commercial viability. The results of this proof-of-concept study will be used to provide confidence to launch a range of Australian-source collagen powdered beverage products initially into the US market and in future into the Australian market under the TIIGA brand, containing sustainable Australian-sourced collagen.

Objectives

The overarching objective was the development and consumer evaluation of an Australian-sourced powdered beverage blend containing naturally sourced fruit fibre from the baobab (boab) tree and Australian-sourced collagen designed for gut health, skin and hydration.

The objectives were as follows:

- 1. Ingredient Selection and Initial Product Formulation:**
 - Comparison of nutritional content, sensory properties, cost and processing feasibility of Australian boab and African baobab.
 - Evaluate Australian collagen sources (ovine vs. bovine) for solubility, taste, and commercial availability.
 - Regulatory checks on health and nutritional claims for proposed packaging.
 - Market competitor analysis in Australia and the USA.
 - Development of four product positioning concepts for qualitative consumer testing conducted by [Watch Me Think](#).

- Develop claims for on-pack "reasons to believe" aligned with consumer expectations.

2. Consumer Research:

- Manufacture minimum viable product (MVP) samples in a HACCP-approved food lab for consumer testing.
- Conduct nutritional tests and generate product labels, including final ingredient listings and bill of materials (BOM).
- Demonstrate the value multiplier of Australian collagen inclusion in product costing.
- Capture consumer feedback and testimonials through qualitative ethnographic studies with Watch Me Think.
- Derive compelling value propositions for market fit based on consumer insights.

3. Commercial Pathways:

- Development of a Licensing agreement between MLA and TIIGA Inc. and commercial pathways
- Provide recommendations for final product design, incorporating feedback from target demographics.
- Develop preliminary sales forecasts and finalize product costing models.

Methodology

The project methodology involved comprehensive ingredient analysis, comparing the nutritional content, sensory properties, and processing feasibility of Australian boab and African baobab, alongside evaluating the solubility, taste, and bioavailability of bovine and ovine collagen. Product formulations were developed, supported by regulatory compliance checks, market competitor analysis in Australia and the USA, and qualitative consumer research in Australia through Watch Me Think. Nutritional testing, product costing, and consumer feedback were used to refine the final product design.

Results/key findings

1. **Ingredient Choices & Regulatory assessment and Market Assessment:** African baobab was preferred over Australian boab for its superior solubility, sensory appeal, and nutrient density. Bovine collagen was used in the consumer test due to limited availability of ovine collagen in time for the consumer test. External regulatory assessment ensured label compliance with Australian and US food safety standards, validating potential health claims, and market research highlighted strong growth potential driven by demand for clean-label, collagen-infused products.
2. **Consumer test:** Positive consumer feedback on taste, convenience, and health benefits supported product desirability with target consumers (women aged 35-50). The dual benefit of gut health and collagen was deemed highly appealing, confirming a multiple benefit product was of interest. Some recommendations were made for branding and flavour considerations to improve appeal for Australian consumers.

Benefits to industry

This project creates new value streams for the Australian red meat industry by highlighting Australian-sourced bovine collagen as an ingredient in a multi-functional powdered beverage format. As an example of a desirable product concept, it demonstrates commercial opportunities in the rapidly growing global health and wellness market, positioning Australian-sourced collagen as a premium, functional ingredient in a range of branded products with multiple functional benefits for the US market. This project also highlights opportunities for exploring and testing innovative ideas and demonstrates collaborations between international startups (such as TIIGA Inc.) and innovative Australian companies value-adding in the red meat industry (such as OTH).

Future research and recommendations

Several new opportunities to explore have been identified through this project. TIIGA Inc. has highlighted emerging need states for collagen-based products, including joint health (collagen plus other ingredients such as hyaluronic acid and chondroitin) in addition to the product for gut-health + hydration + skin health tested in this proof-of-concept study. Commercial conversations to explore these are currently underway between the commercial partners.

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1. Background

The global collagen market was valued at USD 9.9 billion in 2024 and is projected to grow at a compound annual growth rate (CAGR) of 11.3% from 2025 to 2030. This growth is driven by increasing consumer demand for health and wellness products, particularly those promoting skin health, joint support, and overall well-being. Collagen's versatility across industries—spanning cosmetics, food and beverages, and pharmaceuticals—further accelerates its market expansion. As awareness of collagen's benefits for anti-aging, gut health, and muscle recovery continues to grow, its integration into a wide range of products is expected to propel sustained market growth globally (1).

Previous work completed under MLA project [P.PSH.1394](#) with Organic Technology Holdings Ltd (OTH) confirmed the market desirability of a collagen-containing liquid ready-to-drink beverage (2). This current initiative sought to assess the consumer desirability, commercial viability and technical feasibility of the collagen-infused beverage blend in a *powdered format*, targeting *multiple need states* such as gut health and hydration and evaluating its commercial viability for health-conscious consumers in an Australian and US market context.

The partners in this project, Startupbootcamp (SBC), TIIGA Inc., a startup from the FoodTech Tasmania Accelerator 2023 cohort (selected with MLA support through the project [P.PSH.1385](#)), Sydney and Brisbane-based Organic Technology Holdings (OTH) supplied the collagen for the project and Tasmanian company Forager Foods collaborated with Startupbootcamp to blend and pack the proof-of-concept product for consumer testing. Flight Path Strategy completed the Market Assessment, and the consumer research was completed by Watch Me Think.

1.1 Australian-Sourced Collagen Combined with Superfruit Baobab for Powdered Functional Beverages for the US and Australian Markets

Collagen, a protein becoming renowned for its health and beauty benefits, continues to gain popularity in the functional food and beverage industry for its potential to improve skin elasticity, joint health, and overall wellness. Despite its benefits, sourcing high-quality collagen that is both sustainable and effective when incorporated into consumer products remains a challenge. Previous work conducted by OTH has enabled the commercial availability of very high quality Australian-sourced bovine (and soon to be ovine) collagen with sustainability credentials and with bioavailable hydrolysed peptides (see Appendix 8.1). The methodology utilised by OTH for their collagen production promotes a more sustainable, gentler process and brings opportunity for process claims regarding sustainability.

In collaboration with SBC, TIIGA Inc., OTH, and Forager Foods, this proof-of-concept (PoC) initiative fell within a broader effort to enhance the value of the Australian red meat industry through innovative food technology solutions. A previous MLA High Value Food Frontiers project with OTH (2) identified suitable ovine and bovine collagens to meet the needs of this PoC. This PoC study aimed to address the consumer desirability and technical feasibility of creating a high-quality, collagen-infused beverage blend in a powdered format. Another objective of this PoC study was to assess the commercial viability of the product for both the Australian and international markets,

focusing on health-conscious consumers seeking functional foods that support beauty, hydration, gut health, and overall wellness.

The project also compared the nutritional and sensory profiles of the superfruit Australian boab and African baobab as a key ingredient, along with Australian bovine and ovine collagen, to create a superior blend aimed at women aged 35 and older. Additionally, the project included high-level product costing and value multiplier modelling to determine the potential raw material demand from collagen inclusion in the powdered beverage market.

The outcomes of this research project will be used to support commercialisation decisions for launch of a range of powdered beverage products in both the US and Australian markets.

2. Objectives

Startupbootcamp in collaboration with project partners achieved the following objectives:

1. Nutritional content, sensory properties, and processing feasibility of commercially available Australian boab and African baobab were compared.
2. Evaluation of OTH Australian collagen sources (ovine vs. bovine) for solubility and taste was completed. Due to a lack of commercially available ovine collagen within project timelines, it was decided to use bovine collagen for the products for consumer testing.
3. Regulatory assessment for health and nutrition claims for proposed packaging were conducted.
4. Market competitor analysis for similar products was completed in Australia and the USA.
5. Four product positioning concepts for qualitative consumer testing were developed by Flight Path Strategy, along with claims for on-pack "reasons to believe" aligned with consumer expectations.
6. Minimum viable product (MVP) samples were blended and hand packed in the HACCP-approved food facility at Forager Foods Ltd for consumer testing.
7. Nutritional tests were conducted and subsequent product labels generated. A final ingredient list and bill of materials (BOM) was produced for the MVP products.
8. A product costing for the TIIGA plus Australian collagen was created, demonstrating a very small difference in cost of goods comparing US vs Australian collagen supply.
9. Qualitative consumer research was conducted by Watch Me Think to gather consumer feedback and testimonials on the MVP product experience.
10. TIIGA Inc. is currently looking at launching only in the US, where its core business is located. Launch in the Australian market is dependent on investment for scaling into the Australian market.
11. Product a final report summarising key finding and approach.

3. Methodology

3.1 Ingredient Analysis

3.1.1 Nutritional Evaluation

The nutrition panels and analysis of the macronutrient and micronutrient composition on the labels of one commercially available Australian boab powder (from [Warndu](#)) and TIIGA's current African baobab ingredient (from [BAOBEST™](#)) were compared in a desktop exercise. Full nutritional panel data was received from the African supplier, but not from the Australian boab supplier. Analysis of the Australian sample was deemed to be cost prohibitive as it required a large amount of expensive sample (requires an order of 1kg at \$1,045/kg) for the nutritional analysis. The specification sheet for the African sourced powder can be found in Appendix 8.1.3.

3.1.2 Sensory & Physical Evaluation

One sample of Australian boab and one sample of African baobab underwent visual, dissolution and sensory evaluation to assess the relevant properties of the powder for use in the MVP sample.

- **Visual:** samples of each powder were visually compared side-by-side against a white background. Images of the powders are included in the Results section.
- **Dissolution:** Samples of the powders were made up in tap water (1g/100ml) and stirred for 30 seconds. After 15 minutes the samples were photographed against a white background to show turbidity, colour and dissolution. Images of the suspended/dissolved samples can be found in the results section.
- **Sensorial:** The two powder samples were compared for their sensorial properties by an internal panel of 9 consumers. Panellists were asked to view the products, then taste a small, powdered sample of the products. Panellists were asked to describe their colour, taste and textural properties and odour. Tasting of the samples dissolved in water was also conducted.

3.1.3 Collagen Source Assessment:

Bovine and ovine collagen sourced from OTH was evaluated by the project team to compare solubility, taste, colour, and odour in both powdered and sample dissolved in water.

3.1.4 Regulatory Review

Regulatory checks were undertaken by Neil Smith, Scientific & Regulatory Services to ensure compliance with Australian food safety standards prior to the consumer test. This included an assessment of permissible health and nutritional claims, providing ingredient labelling requirements, and product safety standards.

3.2 Market Analysis

3.2.1 Competitive Analysis & Market Positioning

The competitive analysis and marketing positioning data was completed by Flight Path Strategy for the new TIIGA plus collagen product as a desktop exercise, comparing multiple different sources of market data for global, US and Australian markets. Sources of market data (3,4,5,6) were viewed within the context of collagen with digestive health, individually and combined.

3.2.2 Product claims and Packaging Strategy

Draft product claims for the products for research were considered in both Nutrition claims and Health claims (as defined by the Australian and New Zealand Food Standards code (7,8,9) and hypotheses what constituted consumer-compelling marketing claims.

The packaging chosen for the concepts was both the stick pack individual sachet (as per the current [TIIGA sachet https://drinktiiga.com/](https://drinktiiga.com/)) and a variety of multi-serve packs, including the existing pouch and a number of other potentially suitable formats, based on the suitability and fit with the product concept

For the multi-serve pack for the proof-of-concept test, several options were considered based on four key determining factors:

1. Availability of samples (small MOQ of 20 samples)
2. Appearance based on best “fit-to-concept”. The concepts considered a sachet & multi-sachet pack, multi-serve pouch with scoop, multi-serve one-piece canister with scoop, multi-serve three-piece canister with scoop, HPDE plastic screw cap jar with scoop.
3. Sustainability credentials
4. Cost and minimum order quantities for future launch.

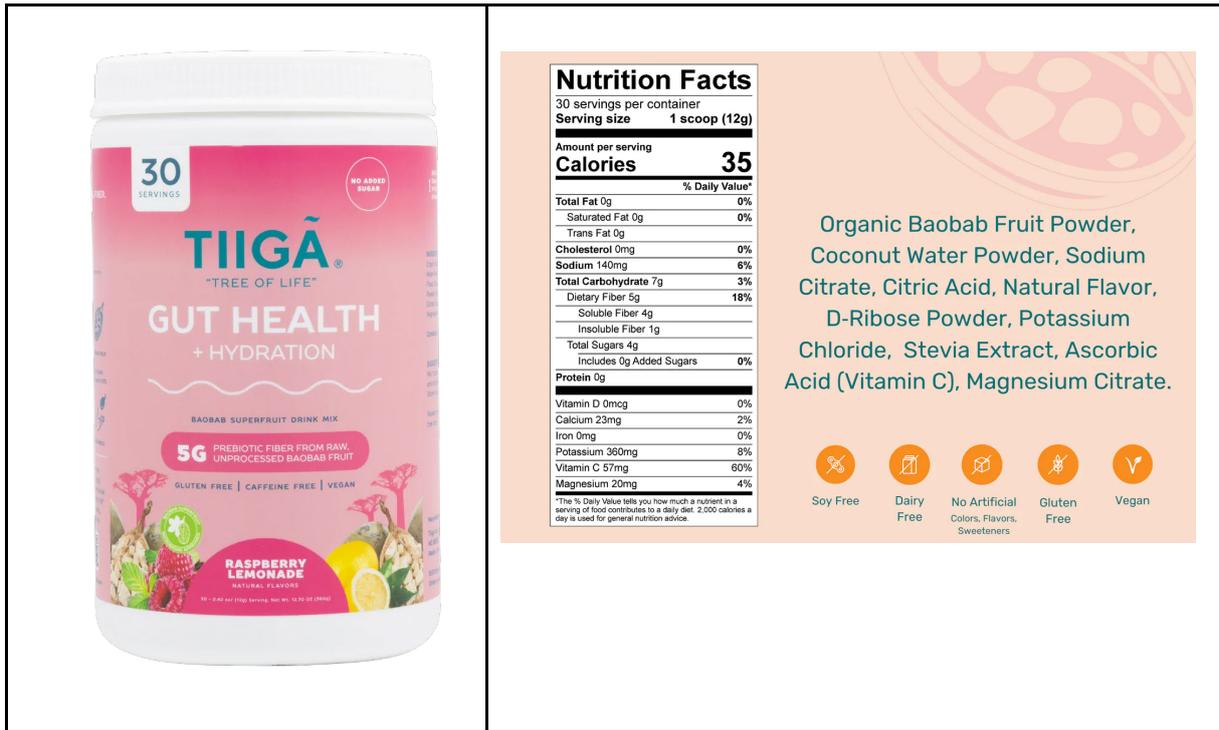
3.3 Production of MVP Samples

3.3.1 Ingredients

Hydrolysed Collagen: Bovine collagen peptides supplied by OTH were used as the collagen source for the MVP samples The specification sheet can be found in Appendix 8.1.1.

TIIGA product: The TIIGA product used in the MVP product was the TIIGA new recipe containing coconut water, in raspberry-lemonade flavour, as shown in Figure 1A and B below.

Figure 1A: TIIGA Raspberry Lemonade Product and Figure 1B: Nutritional Panel (US Market):



3.3.2 Packaging and Labelling

Medium sized natural kraft canisters with food-safe liners were sourced from [The Packaging People](#) due to their low minimum order quantity. Twelve canisters of 10 x 15 g servings (150 g total) were packed in heat-sealed plastic linings and placed in the canisters along with a serving scoop. Self-adhesive product and nutritional labels, along with tamper-proof seals, were applied. The labelled canisters were sent for laboratory nutritional analysis with Eurofins (2 canisters) and consumer testing with Watch Me Think (10 canisters). Final label designs are shown in Figure 2.

Figure 2: Nutritional Label for MVP Product

| <p>INGREDIENTS: Baobab Powder, Bovine Hydrolysed Collagen Peptides (19.5%), Coconut Powder, Ribose, Acidity Regulators (Sodium Citrate, Citric Acid), Natural Flavours (Raspberry Lemonade), Flavour Enhancers (Potassium Chloride, Magnesium Sulphate), Sweetener (Steviol Glycosides), Antioxidant (Ascorbic Acid), Anticaking Agent (Silicon Dioxide)</p> <p>Manufactured for: Tiiga, 4817 N 56th Unit 50 Lincoln NE 68504 USA</p> <p>Contains a source of dietary fibre</p> <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>Packed in Australia from at least 19% Australian ingredients</p> </div> | <p>AVERAGE NUTRITION INFORMATION</p> <p>SERVINGS PER PACKAGE: 10 SERVING SIZE: 15 g</p> <table border="1"> <thead> <tr> <th></th> <th>AVE. QTY PER SERVING</th> <th>AVE. QTY PER 100 g</th> </tr> </thead> <tbody> <tr> <td>Energy</td> <td>122 kJ</td> <td>811 kJ</td> </tr> <tr> <td>Protein</td> <td>2.9 g</td> <td>19.2 g</td> </tr> <tr> <td>Fat - Total</td> <td>0.1 g</td> <td>0.3 g</td> </tr> <tr> <td>- Saturated</td> <td>0.0 g</td> <td>0.3 g</td> </tr> <tr> <td>Carbohydrates</td> <td>4.4 g</td> <td>29.2 g</td> </tr> <tr> <td>- Sugars</td> <td>3.3 g</td> <td>21.8 g</td> </tr> <tr> <td>Dietary Fibre</td> <td>3.7 g</td> <td>24.8 g</td> </tr> <tr> <td>Sodium</td> <td>56 mg</td> <td>372 mg</td> </tr> </tbody> </table> | | AVE. QTY PER SERVING | AVE. QTY PER 100 g | Energy | 122 kJ | 811 kJ | Protein | 2.9 g | 19.2 g | Fat - Total | 0.1 g | 0.3 g | - Saturated | 0.0 g | 0.3 g | Carbohydrates | 4.4 g | 29.2 g | - Sugars | 3.3 g | 21.8 g | Dietary Fibre | 3.7 g | 24.8 g | Sodium | 56 mg | 372 mg |
|--|---|--------------------|----------------------|--------------------|--------|--------|--------|---------|-------|--------|-------------|-------|-------|-------------|-------|-------|---------------|-------|--------|----------|-------|--------|---------------|-------|--------|--------|-------|--------|
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| Dietary Fibre | 3.7 g | 24.8 g | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sodium | 56 mg | 372 mg | | | | | | | | | | | | | | | | | | | | | | | | | | |

3.4 Nutritional Testing

Two samples of 160g were sent to Eurofins Food Testing Australia laboratory in Dandenong South for nutritional analysis and fibre testing. The methods used for the nutrition tests are listed in Table 1.

Table 1: List of Methods - Nutritional tests

| Method Number | Nutritional content tested | Method Name/description |
|---------------|----------------------------|---|
| NU688 | Sodium (ICP-OES) | AOAC 984.27 mod. Hotblock |
| NV078 | Total carbohydrates | Eurofins Internal Method (CM-058) |
| NV095 | Total Fat | ISO 11085 |
| NV0BX | Sum Fatty acid | Eurofins Internal Method (CM-059) |
| NV0FD | Sugar Profile | Eurofins Internal Method (CM-033) |
| NV02S | Ash content | Eurofins Internal Method (CM-052) |
| NV079 | Energy | Eurofins Internal Method (CM-058) |
| NV-098 | Protein | Eurofins Internal Method, Kjeldahl (titrimetry) [Protein by Automated Kjeldahl] |
| NV0DB | Total Dietary Fibre | AOAC 991:43 |
| NV0GA | Moisture: | Eurofins Internal Method, Gravimetry |

3.5 Consumer Test (Watch Me Think)

Study Group: 10 Australian women who buy and consume hydration & collagen supplements at least once a month were recruited by [Watch Me Think](#) to participate in the consumer test. Additional criteria was also applied that the “Thinkers” needed to self-identify as “Actively interested in ‘better for you’ foods, drinks and supplements”.

Location: Thinkers were asked to film their feedback at home and submit to the Watch Me Think for interpretation and reporting.

Test Process: Four concepts were provided for testing. Thinkers were asked to review one version of the TIIGA concept, then prepare and try the sample product for the first time. They were then asked to try the product at least another couple times over the next few days, then prepare it one last time, and review the 3 other concept options. Visuals of the concepts tested are shown in Figure 3. packaging options were shown in the concepts, however only the canister was provided to contain the physical product.



4. Results

4.1 Ingredient Comparison

4.1.1 African Baobab vs. Australian Boab

African baobab demonstrated superior solubility, sensory appeal, and predicted processing efficiency compared to Australian boab. The African product was a finer powder with smoother texture and had a milder flavour with no off notes. In comparison, the Australian boab was smoke tainted, likely due to bush fires in the Kimberley (10), darker in colour and very gritty. Solubility of the Australian boab was also poorer, and the smoke taint was highly evident on dissolution in water. BAOBEST™ from Phyto-Therapy, supplier to TIIGA claim in their product brochure (11) that the product is “milled and sieved” prior to packaging, whereas the Warndu boab powder is “100% natural, unprocessed & organic fruit powder direct from the Boab Nut sourced from the Kimberley” (12). Nutritional differences between the two products (label evaluation) highlighted little difference.

There was a large price difference between the African and Australian ingredients, even when factoring in a price uplift for retail vs wholesale. The current wholesale price currently for the baobab powder purchased by TIIGA is \$32/kg from Phyto-Therapy, whereas Warndu boab powder was only available in much smaller quantities online (max 1 kg) at a significantly higher price of \$1,045/ kg. Because of quality and cost differences, the recommendation was to use the African product in the consumer test.

4.1.2 Collagen Evaluation

Table 2 shows the comparison of the OTH bovine and ovine collagen peptides samples.

Table 2: Comparison of OTH Australian collagen sources (bovine vs ovine)

| | OTH Ovine Collagen | OTH Bovine Collagen |
|-------------------------------------|---|--|
| Flavour of collagen in water | neutral | neutral |
| Odour of powder | odour free | odour free |
| Colour (powder) | white | white |
| Religious Status | Halal suitable Kosher suitable Hindu suitable | Not suitable for Hindu faith. May be suitable for Halal |

4.2 Regulatory Compliance, Claims and Nutritional Analysis

4.2.1 Regulator Compliance

Expert regulatory assessment confirmed the product's compliance with FSANZ, the approved label is shown in Figure 2. As the TIIGA base product is already compliant and for sale in the US market, no regulatory assessment was made for the US market, as the product only differs from the current TIIGA product through the addition of collagen.

4.2.2 On-pack Claims

The regulatory guidance regarding claims was as follows:

- Cannot make a claim relating to Protein as minimum requirement is 5 g Protein in a serve to make a “source of Protein” claim
- Can make a claim relating to Dietary Fibre as minimum requirement is 2 g Dietary Fibre in a serve to make a “source of Dietary Fibre. In this case there is 3.7 g per serve.

4.2.3 Nutritional Analysis

The results from the nutritional analysis from Eurofins can be found in the Appendix 8.2.

In summary, the results are in alignment with the calculated results shown below in Table 3: Calculated vs Tested Nutritional values, except for sugars and sodium levels which were significantly higher than the provided information from the TIIGA product, further investigation attributed to the Coconut water powder ingredient.

Table 3: Calculated vs Tested Nutritional values

| | AVE. QTY PER SERVING (Calculated) | AVE. QTY PER 100 g (Calculated) | ACTUAL QTY PER 100 g (Eurofins) | ACTUAL QTY per 16 g SERVE (Calculated) | Comments |
|----------------------|-----------------------------------|---------------------------------|---------------------------------|--|------------------------------------|
| Energy | 122 kJ | 811 kJ | 1190 kJ | 190.4 kJ | |
| Protein | 2.9 g | 19.2 g | 20.6 g | 3.30 g | |
| Fat - total | 0.1 g | 0.3 g | 0.193 g | 0.031 g | |
| - Saturated | 0 g | 0.3 g | 0.01 g | 0.00 g | |
| Carbohydrates | 4.4 g | 29.2 g | 65.7 g | 10.5 g | Significantly higher than expected |
| - Sugars | 3.3 g | 21.8 g | 51.7 g | 8.3 g | Significantly higher than expected |
| Dietary Fibre | 3.7 g | 24.8 g | 30 g | 4.8 g | |
| Sodium | 56 mg | 372 g | 965 mg | 154.4 mg | |

4.3 Summary of Market Insights

Market research highlighted the opportunity for targeting an emerging niche combining collagen and digestive health supplements, capitalizing on the trend for multifunctional products that offer holistic health benefits (13).

The combined collagen and gut health segment showed significant growth potential in both the USA and Australia, fuelled by consumer demand for products that address beauty, gut health, and overall well-being. Companies are innovating with blends that include collagen alongside probiotics, prebiotics, and other gut health ingredients, offering convenient, comprehensive health solutions. The rise of e-commerce has further accelerated this trend, enabling greater consumer access and personalized nutrition recommendations.

Key competitors in the USA, such as [Vital Proteins](#) and [Ancient Nutrition](#), dominate with collagen-focused products, while Australian brands like [Nutra Organics](#) and [Vida Glow](#) offer collagen combined with gut health benefits. However, opportunities exist to differentiate by offering products that deliver credible, holistic benefits for both beauty and digestive health, rather than treating gut health as a secondary feature.

Challenges include navigating a crowded marketplace with numerous small brands competing for consumer attention both in retail and online channels. Our market research identified that the key to success lies in creating a clear, authentic, and compelling value proposition that stands out amid the clutter.

4.4 Consumer Research Results

Consumer testing revealed positive feedback on product taste, convenience, and perceived health benefits. Key themes included:

- Preference for mild, refreshing flavours with balanced sweetness.
- Appreciation for the product's multi-functional health benefits. in one product
- Suggestions for expanding flavour options, including a “tasteless product” and enhancing packaging design.

4.4.1 Key take-outs from the Research

Positioning: Gut Health + Collagen

The combination of fibre plus collagen in one beverage was a benefit rarely seen by consumers and was a strong driver of interest. It was deemed both relevant and unique and meant that consumers could cover multiple benefits in one product.

Flavoured products

The described flavours in the concepts were liked by 50% of the test subjects: some suggested an unflavoured product to mix with their coffee (several consumers mentioned doing this already with their collagen powder). Several consumers also mentioned that they would like to mix this into a smoothie.

Most Promising Concept/s & Packaging feedback

Of the four concepts tested both InsideOut and DIS-CO have the most potential: the packaging colours of DIS-CO were strongly preferred; however, the name was somewhat polarising. The InsideOut concept was universally liked but the feedback was the packaging needed to be brighter.

The Tub was well liked as a format compared with the pouch for scoping the product. The pouch is used to hold stick pack sachets of the standard TIIGA product.

The full Watch Me Think report is found in the Appendix 8.3.

4.5 Results of Commercial Discussions

TIIGA Inc. and OTH are currently in commercial discussions for supply of OTH collagen to TIIGA Inc. for a range of products, including a commercial version of the product tested in this project.

4.5.1 Desirability of Australian-supplied Collagen to TIIGA

Initial discussions between OTH and TIIGA Inc. have highlighted additional opportunities for the OTH-supplied Australian collagen within TIIGA's product range, centred around the sustainability differentiation that OTH products have compared to their competitors. For example, the OTH process:

- uses proprietary technology to process fresh hides within 24 hours at abattoir - opportunity for marketing claims regarding “freshly processed”
- avoids chemicals/bleaching, resulting in cleaner, purer product - opportunity for marketing and sustainability claims of such as “free from chemicals” or “No hard chemicals”
- creates reusable water - opportunity for sustainability claims regarding the process using less water
- produces higher quality collagen with 80% of molecules under 10 kDa (vs. competitors' 70% or less) - See Appendix 8.1.2 for comparison between OTH and leading collagens on the market.

There are also product differentiation claims such as:

- Grass-fed, grass-finished Australian beef source
- No use of e-Bovlar (methane-reducing feed additive)
- Environmentally friendlier production process
- Potentially more bioavailable due to smaller molecule size.

4.5.2 Viability of Australian-supplied Collagen to TIIGA

TIIGA Inc. has indicated in addition to the product tested in this study it would like to import OTH collagen for a standalone collagen powder and other formulated products such as those containing hyaluronic acid and chondroitin for joint health.

4.5.2.1 Supply Logistics

OTH can produce up to 60 metric tons/month which can be shipped from Australia to Los Angeles port. TIIGA is currently considering the volumes it requires, which initially (for the first year) will be less than OTH minimum order quantities, however TIIGA is considering the possibility of consolidating orders with other US buyers.

4.5.2.2 Collagen Pricing

Some information has been removed in this report.

4.5.2.3 Bill of Materials (BoM)

Some information has been removed in this report.

Table 5:

Some information has been removed in this report.

4.5.3 Australian & US Launch Recommendations

Some information has been removed in this report.

4.5.4 Price Modelling / Value Multiplier

Table 6 shows the current price for TIIGA’s current product in both the 16-x individual serve sachet bag and the 30-serve tub against a range of multi-benefit competitor products on the US market.\

Table 6: Comparison of Current TIIGA price vs Similar products to the MVP Product

| Brand & Price (USD) | Stick Sachet format | Multi-serve pack |
|--|---|---|
| <p>TIIGA Current Formula - no collagen</p> <p>\$1.17 / serve (multi-serve) \$1.62 / serve (sachet)</p> <p>One off purchase: \$35 / 30 serves (multi-serve) \$26 / 16 serves (Sachets)</p> <p>20% saving on subscription</p> |  <p>A pink and black sachet pack for TIIGA Gut Friendly Hydration. The pack is labeled '16 PACKETS' and 'RASPBERRY LEMONADE'. It features a tree logo and text: 'TIIGĀ GUT FRIENDLY HYDRATION SUPERFRUIT ELECTROLYTE DRINK MIX'. Other text includes 'CAFFEINE FREE', 'GLUTEN FREE', 'NON-GMO', 'GUT HEALTH PROMOTING PREBIOTICS', 'IMMUNE SUPPORTING ANTIOXIDANTS', and '3g PROBIOTIC FIBER FROM RAW UNPROCESSED BAOBAB FRUIT'.</p> |  <p>A white tub with a pink label for TIIGA Gut Health + Hydration. The label says '30 SERVES', 'TIIGĀ TREE OF LIFE GUT HEALTH + HYDRATION', 'BAOBAB SUPERFRUIT DRINK MIX', '5G PROBIOTIC FIBER FROM RAW UNPROCESSED BAOBAB FRUIT', 'GLUTEN FREE CAFFEINE FREE VEGAN', and 'RASPBERRY LEMONADE'. It also features a tree logo and various fruit illustrations.</p> |
| <p>Super Youth Multi-Collagen Peptides + Organic Baobab and Probiotics</p> <p>~5 g collagen / serve</p> <p>price range from \$1.99-\$3.33 - / serve</p> <p>Per tub price range from \$59.99 -\$99.99 / 30 serves</p> <p>20% limited time new product offer 40% saving on subscription</p> | <p>not available in stick pack</p> |  <p>An orange tub for Super Youth Multi-Collagen Peptides. The label says 'skinnyfit SUPER YOUTH MULTI-COLLAGEN PEPTIDES + Organic Baobab + Pre & Probiotic'. It lists 'HYDROLYZED COLLAGEN, TYPE I, II, III, V and X' and 'ORANGE PINEAPPLE FLAVOR'. It also features icons for 'ALCOHOL FREE', 'HYDROLYZED COLLAGEN', and 'VEGAN'. The tub is surrounded by images of a pineapple, orange slices, and a glass of juice.</p> |
| <p>CODEAGE Platinum Multi-collagen peptides* + Keratin + Hyaluronic Acid</p> <p>10g collagen/ serve</p> <p>\$1.33 / serve</p> <p>Price: \$39.99 / 30 serves</p> <p>*contains grass-fed hydrolysed bovine collagen peptides,</p> | <p>not available in stick pack</p> |  <p>A white tub for Codeage Platinum Multi-Collagen Peptides. The label says 'MULTI COLLAGEN PEPTIDES PLATINUM' and 'BIOTIN - ESSENTIAL VITAMINS KERATIN - HYALURONIC ACID'. It also mentions 'SKIN, HAIR, NAIL & JOINT SUPPORT*' and 'POWDER - UNFLAVORED NET WT. 118.25G (4.17 OZ)'. The Codeage logo is at the bottom.</p> |

| | | |
|---|---|---|
| <p>organic chicken bone broth. organic beef bone broth, wild-caught hydrolysed fish collagen, egg-shell membrane collagen</p> | | |
| <p>The Collage Co (Australian company, showing US prices) Collagen peptides* + Biotin + Hyaluronic Acid + Vit C</p> <p>13-15 g collagen / serve</p> <p>\$1.98 / serve</p> <p>Canister \$55 / 28 serves (560 g) Stick pack \$35 / 14 serves</p> <p>Discount: up to 20% for multi-buy *bovine source</p> |  |  |

Some information has been removed in this report.

Table 7: Potential Value Multiplier for a gut-health + collagen multi-functional beverage.

| <i>(Assumes 30 serves, no change to current packaging)</i> | | with Collagen | | |
|--|----------------------|--------------------------|-------------------------|-------------------------|
| | Current TIIGA | Sale Price (High) | Sale Price (Mid) | Sale Price (Low) |
| Sales Price | \$35.00 | \$99.99 | \$59.99 | \$39.99 |
| Cost | \$9.00 | \$11.11 | \$11.11 | \$11.11 |
| Profit (before Sales & Marketing) | \$26.00 | \$88.88 | \$48.88 | \$28.88 |
| Profit:Cost | 2.8909 | 8.0022 | 4.4010 | 2.6003 |
| Value Multiplier | 0.0 | 2.8 | 1.5 | 0.9 |

This analysis suggests a sales price between \$59.99 and \$99.99 would enable sales and marketing costs and a healthy profit margin.

5. Conclusion

This proof-of-concept study has demonstrated that the combination of multi-functional benefits to address multiple need states is appealing to consumers. Commercialisation opportunities are now underway between the project partners TIIGA Inc. and OTH to conduct a test launch for a range of Australian-sourced collagen containing products under the TIIGA brand in the United States. Modelling of the value multiplier shows promising returns.

5.1 Key findings

- **Ingredient & Product Performance:** African baobab demonstrated superior solubility, sensory appeal, and nutrient density compared to Australian boab, making it the preferred ingredient for product development for the fibre ingredient. Bovine collagen provided by OTH performed very well in the product test.
- **Consumer Acceptance:** Positive consumer feedback emphasized the value of multi-functional benefits, delicious taste, and convenience as key product strengths.
- **Commercial Viability:** The inclusion of Australian collagen demonstrated a clear value multiplier in product costing, supporting competitive pricing and strong market potential.

5.2 Benefits to Industry

- **Multi-functional benefits - Gut health + Collagen:** This project highlights new opportunities for the Australian red meat industry to diversify revenue streams through the value-added utilization of collagen to other functional products, such as in this example fibre to support gut health, and electrolytes to support hydration.
- **Market Expansion:** This project further supports previous work that there are significant opportunities in the growth of Australian-sourced collagen in the global health and wellness market, positioning it as a premium functional ingredient in high-demand sectors within the US market.
- **Driving awareness:** through connecting Australian collagen with global consumers and combining with unique global ingredients via partnerships with growing brands like TIIGA.

6. Future research and recommendations

This proof-of-concept project demonstrates the value of MLA and Startupbootcamp's collaboration connecting innovative startups with innovative SMEs and technology solution providers such as OTH and Forager Foods.

Future R&D could surround prototype development and testing of other emerging products, such as those focussing on joint health - to tap into the aging consumer segment. This would enable the work conducted in previous MLA studies on other functional ingredients that can be sourced from red meat co-products such as chondroitin sulphate (13).

Startupbootcamp recommends that MLA consider collaborating on sharing a disruptive innovation product showcase to highlight the broad range of products (and their value) that are available on the international market that could be improved by incorporating functional ingredients derived from Australia red meat co-products.

Acknowledgement: *Startupbootcamp and TIIGA Inc. would like to thank MLA staff John Marten and Angelica Pickup for their support for the Startupbootcamp 2023 Foodtech Tasmania program.*

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8. Appendix

8.1 Ingredient Specifications

8.1.1 OTH Bovine Collagen



04 - NBA -
Hydrolysate Collager

Naturally Bovine Australia Pty Ltd

Bovine Collagen Hydrolysate Specifications

ABN 27 672 084 454



13 Scenic Road
Young, New South Wales
AUSTRALIA 2594

Contact: admin@naturallybovineaustralia.com.au

Bovine Collagen hydrolysate powder.

| | |
|--------------------|--|
| DESCRIPTION | Hydrolysed Collagen peptides extracted from Australian Bovine hides by Naturally Bovine Australia Pty Ltd. |
|--------------------|--|

| | |
|---------------------|---|
| INTENDED USE | Hydrolysed Collagen peptides fit for human consumption as per the label instructions. |
|---------------------|---|

| PHYSICAL SPECIFICATION | |
|------------------------|---------------------------------|
| Form | Agglomerated food powder |
| Colour | Naturally golden (Non-bleached) |
| Taste and Smell | Taste and odour free |

| INGREDIENTS | |
|------------------------------------|---------------------|
| Bovine collagen hydrolysate powder | Type I and Type III |

| BIOCHEMICAL SPECIFICATION | % (w/w) |
|---------------------------|----------------|
| Protein | > 90% |
| Fat | < 1% |
| Moisture | < 10% |
| Ash | < 2% |
| Bulk Density | 200 - 500 g/L* |
| pH | 6 - 8 |
| Viscosity | 3 - 5 mPas |
| Sulphur dioxide | ≤ 10 mg/kg |
| Arsenic | ≤ 0.05 mg/kg |
| Cadmium | ≤ 0.01 mg/kg |
| Chromium | ≤ 5 mg/kg |
| Copper | ≤ 10 mg/kg |
| Iron | ≤ 10 mg/kg |
| Lead | ≤ 0.1 mg/kg |
| Mercury | ≤ 0.01 mg/kg |
| Zinc | ≤ 10 mg/kg |

* Varied agglomeration upon customer requirements.

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| TYPICAL AMINO ACID PROFILE | | Mole % |
|----------------------------|--|--------|
| Hydroxyproline | | 9.6 |
| Histidine | | 0.6 |
| Serine | | 3.3 |
| Arginine | | 4.8 |
| Glycine | | 33.8 |
| Aspartic acid | | 4.8 |
| Glutamic acid | | 7.3 |
| Threonine | | 1.4 |
| Alanine | | 10.6 |
| Proline | | 12.7 |
| Lysine | | 2.7 |
| Tyrosine | | 0.4 |
| Methionine | | 0.5 |
| Valine | | 2.2 |
| Isoleucine | | 1.3 |
| Leucine | | 2.6 |
| Phenylalanine | | 1.4 |

| Size exclusion chromatography (SEC) | |
|-------------------------------------|--|
| Bovine collagen hydrolysate powder | Naturally Bovine Australia, Lot 20240909 (APAF Sample) * |

| Peak | MW | Retention time (min) | Area | % Area |
|------|-----------------------------|----------------------|---------|--------|
| 1 | >50 kDa | 15.656 | 215.8 | 0.2 |
| 2 | 50-25 kDa | 16.990 | 1919.3 | 1.6 |
| 3 | 25-10 kDa | 18.736 | 23018.9 | 18.8 |
| 4 | >10-5 kDa | 19.957 | 58254.9 | 47.6 |
| 5 | 5 – 2.5 kDa | 20.062 | 34320.5 | 28.1 |
| 6 | 2.5 kDa – 1 kDa | 21.398 | 4352.3 | 3.6 |
| 7 | < 1 kDa + retained peptides | 23.156 | 225.3 | 0.2 |

* Testing undertaken by Macquarie University t/a Australian Proteome Analysis Facility (APAF).

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| MICROBIOLOGY * | |
|------------------------------|---------------------|
| Listeria | Not detected in 25g |
| Bacillus cereus | < 100 CFU/g |
| Sulphite Reducing Clostridia | < 10 CFU/g |
| Clostridium perfringens | < 10 CFU/g |
| <u>E.coli</u> | Not detected |
| Salmonella | Not detected in 25g |

* Test methodology is available upon request.

| | |
|------------------|--|
| PACKAGING | 20 kg net <u>multi ply</u> heat sealed paper bags compliant to Australian Standard AS2070. |
|------------------|--|

| | |
|----------------|----------------------------------|
| STORAGE | Store dry, ambient temperatures. |
|----------------|----------------------------------|

| | |
|-------------------|-----------|
| SHELF LIFE | 24 months |
|-------------------|-----------|

| | |
|----------------|---|
| HAZARDS | No known hazards. Safety Data Sheet available upon request. |
|----------------|---|

| | |
|------------------------------|--|
| STATUS / ATTESTATIONS | 100% Australian, Halal certified, HGP Free, BSE Free, Grass fed, For Human Consumption. No preservatives, binding agents or bleaching used. |
|------------------------------|--|

| | |
|--------------------------|---|
| ALLERGENIC STATUS | No known allergenic material in processing. |
|--------------------------|---|

| | |
|--|---|
| FOOD SAFETY STANDARDS COMPLIANCES | <ul style="list-style-type: none"> • NSW Food Authority Licence compliance to Food Standards Australian New Zealand 3.2.1 • Department of Agriculture, Fisheries and Forestry Registration EST0128. • Australian Islamic Organisation Halal certification. • Processed using Organic Technology Holdings Proprietary extraction technology. |
|--|---|

Naturally Bovine Australia Pty Ltd

Bovine Collagen Hydrolysate Specifications

ABN 27 672 084 454



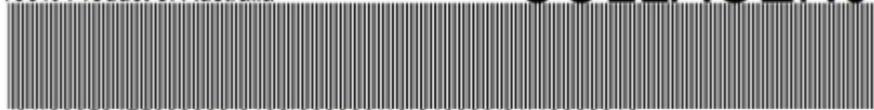
13 Scenic Road
Young, New South Wales
AUSTRALIA 2594

Contact: admin@naturallybovineaustralia.com.au

| | |
|---------------------------|--|
| COLLAGEN BAG LABEL | An example of the 20kg Collagen bag label. |
|---------------------------|--|

Bovine Collagen
100% Product of Australia

COLLAGEN01



(01)99359475088889(3102)002000(13)240930(21)10220016

Bovine Collagen Hydrolysate Powder

Product of Naturally Bovine Australia
Collagen fit for human consumption



STORE IN A COOL AND DRY AREA

| | | | |
|-----------------|--------------------|------------|---------------------|
| PRODUCTION DATE | 30 /09/2024 | NET WEIGHT | 20.00 ^{kg} |
| EXPIRY DATE | 29 /09/2026 | | 44.10 ^{lb} |
| | | PCS: | 0 |
| | | 00:00:00 | |

Est No. 128



Product Disclaimer: In association with our Bovine Collagen hydrolysate, Naturally Bovine Australia makes no warranties of any kind, either express or implied, including but not limited to warranties of merchantability, fitness for a particular purpose, of title, or of noninfringement of third party rights. All specification data given to us by suppliers and research to the best of our knowledge is accurate at the time of this publication.

Naturally Bovine Australia Pty Ltd

Bovine Collagen Hydrolysate Specifications

ABN 27 672 084 454



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This is to certify that

Naturally Bovine Australia

ABN 27672084454

has been licensed by Australian Made Campaign Limited to use the Australian Made, Australian Grown logo on the products listed below in accordance with the AMWG Logo Code Of Practice:

Licensee ID number: 18451 Licence expires: 31 October 2025

| PRODUCT NAME | DESCRIPTOR |
|------------------------|-----------------|
| Bovine collagen powder | Australian Made |


Kate Carnell
Chair


Ben Lazzaro
Chief Executive

Issued by Australian Made Campaign Limited (AMCL) ACN286 641 527 Level 4, 111 Coventry Street, Southbank VIC 3006 and subject to the rules and conditions set out in the AMWG Logo Code of Practice. This certificate remains the property of AMCL and must be returned to AMCL upon its request. To verify that this certificate is current please refer to AMCL's online licensed product register at www.australianmade.com.au

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8.1.2 OTH Supporting information

-  Commercial Collagen & Low Pept
-  HACCP Certificate est.128.pdf
-  Halal Certificate AHDA 2023-2026.p
-  Naturally Bovine Australia.pdf

Here's a comparison table showing the benefits of collagen with lower average peptide sizes compared to collagen with higher average peptide sizes:

| Benefit | Benefit Lower Average Peptide Size | Higher Average Peptide Size |
|---------------------------------------|---|---|
| Absorption Rate | Faster and more efficient absorption, as smaller peptides pass more easily through intestinal walls | Slower absorption; larger peptides may need more breakdown |
| Bioavailability | Higher bioavailability; smaller peptides increase the availability of amino acids for bodily use | Lower bioavailability; fewer amino acids are absorbed |
| Skin Health Benefits | Better skin hydration, elasticity, and anti-aging effects due to enhanced cellular access | Lesser impact on skin health; slower cellular uptake |
| Joint and Bone Support | Improved support for joints and bones due to faster and more effective delivery | |
| Digestibility | Easier on the digestive system; reduced risk of bloating and discomfort | Reduced or delayed joint and bone benefits |
| Efficacy in Lower Doses | Improved support for joints and bones due to faster and more effective delivery | |
| Speed of Results | Easier on the digestive system; reduced risk of bloating and discomfort | Potential for slower digestion and discomfort in some users |
| Speed of Results | Faster visible results for skin, hair, nails, and joints | Reduced or delayed joint and bone benefits |
| Compatibility with Sensitive Stomachs | | |

This table highlights why collagen products with lower peptide sizes are often preferred, especially in supplements aimed at providing quicker, more efficient results for skin, joint, and overall health.

Here are some studies that support the benefits associated with lower average peptide sizes in collagen:

1. Absorption Rate and Bioavailability

A study by Watanabe-Kamiyama et al. (2010) found that smaller collagen peptides have improved absorption and bioavailability. Collagen peptides with an average molecular weight below 5 kDa were more readily absorbed through the intestines compared to larger collagen molecules. This allows them to be effectively utilized by the body for various functions, including skin health and joint repair (Watanabe-Kamiyama et al., 2010).

2. Skin Health Benefits

Research published in *Skin Pharmacology and Physiology* (Proksch et al., 2014) demonstrated that smaller collagen peptides improve skin hydration, elasticity, and overall appearance. This study showed that oral supplementation with low-molecular-weight collagen peptides enhanced skin elasticity and moisture levels, providing anti-aging benefits due to faster cellular uptake (Proksch et al., 2014).

3. Joint and Bone Support

In a study in *Current Medical Research and Opinion*, a specific hydrolyzed collagen (with smaller peptide sizes) was shown to reduce joint discomfort and improve joint health. The study found that the lower-molecular-weight peptides contributed to improved joint function and reduced pain in participants with osteoarthritis (Clark et al., 2008).

4. Digestibility and Efficacy in Lower Doses

Research from *Journal of Agricultural and Food Chemistry* indicated that lower-weight collagen peptides are more easily digested and absorbed, which translates into higher efficacy even at lower doses (Iwai et al., 2005). This allows individuals to achieve therapeutic effects with smaller servings of collagen, reducing potential digestive side effects.

5. Speed of Results

A 2019 study published in *Nutrients* found that smaller collagen peptides were associated with faster results in skin health, such as hydration and wrinkle reduction, as they require less time to be broken down and absorbed into the bloodstream. These benefits were observed within a few weeks of consistent collagen supplementation (Choi et al., 2019).

6. Compatibility with Sensitive Stomachs

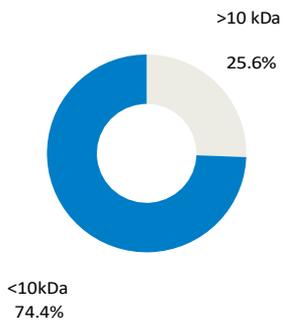
Studies like those by Zdzieblik et al. (2015) in *Nutrients* showed that smaller collagen peptides are generally better tolerated by people with sensitive digestive systems. Participants reported fewer gastrointestinal side effects when using low-molecular-weight collagen peptides compared to larger, less processed collagen products (Zdzieblik et al., 2015). These studies provide evidence supporting the advantages of lower molecular-weight collagen peptides in terms of faster absorption, improved efficacy, and greater bioavailability. They also highlight the positive effects on skin health, joint function, and digestive compatibility, particularly for those sensitive to larger protein molecules.

These studies provide evidence supporting the advantages of lower molecular-weight collagen peptides in terms of faster absorption, improved efficacy, and greater bioavailability. They also highlight the positive effects on skin health, joint function, and digestive compatibility, particularly for those sensitive to larger protein molecules.

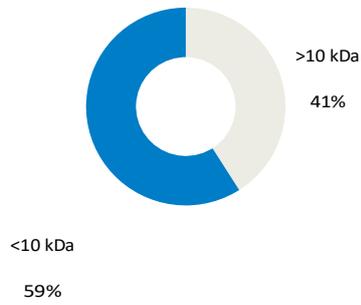
Top 4 Leading Collagen Competitors*

■ >10 kDa ■ <10 kDa

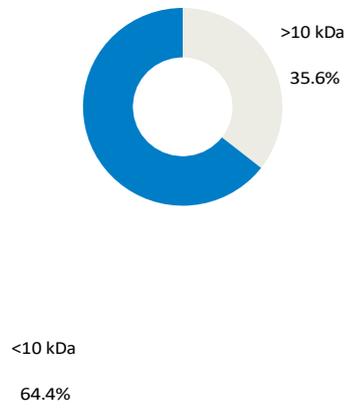
Commercial Collagen Hydrolysate 1



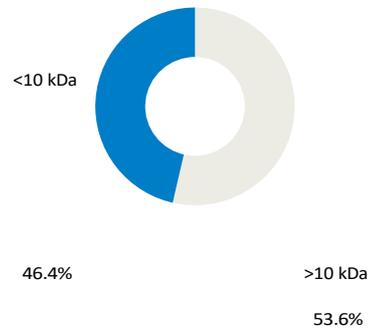
Commercial Collagen Hydrolysate 2



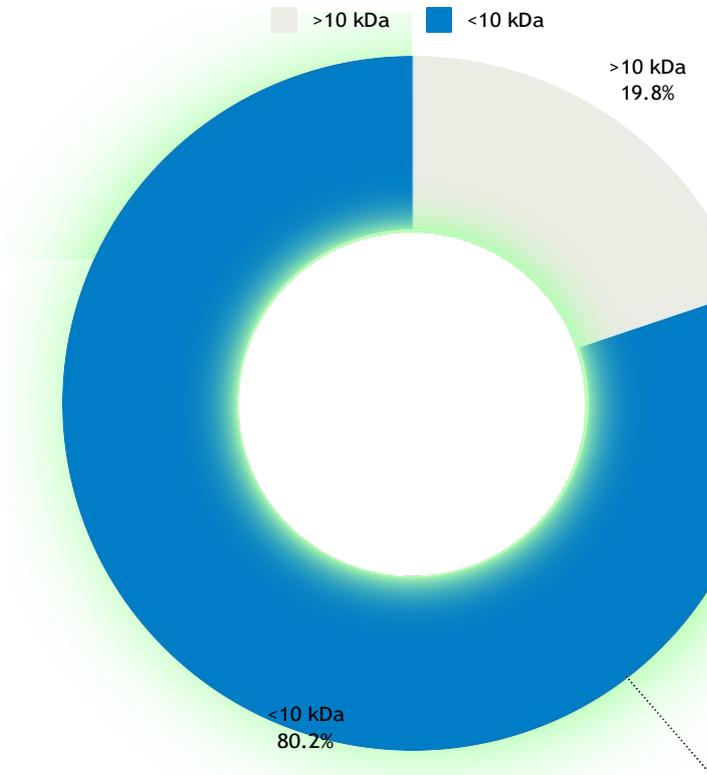
Commercial Collagen Hydrolysate 3



Commercial Collagen Hydrolysate 4



Naturally Bovine Australia Collagen**



* OTH Lab testing

** Macquarie University Lab testing



Australian Government

This is to certify that
HILLTOP MEATS PTY LTD

Export Registered Establishment No

128

has achieved standards for an
APPROVED ARRANGEMENT
under the Export Control Act

Incorporating
Good Hygienic Practice
HACCP
Product Integrity
And
Importing Country Requirements



Tom Black
First Assistant Secretary
Exports and Veterinary Services Division

Date Printed 19 Apr 2024



BAOBAB FOODS 140 Lakeside Avenue, Suite A, PO Box 333 Seattle, WA

TEL 800.682.0221

WEBSITE BAOBABFOODS.COM

Registered Establishments must meet the requirements of the Export Control Act.

An Approved Arrangement must detail how the registered establishment meets the requirement of the mentioned legislation in their Approved Arrangement. This must include

- Hazard Analysis and Critical Control Point(HACCP) Plan;
- Management practices, organisation structure resources and competence;
- Verification
- Corrective and preventative action;
- Internal audit and management review;
- Sampling and analysis;
- Notifiable diseases notification;
- Record retention;
- Compliance with importing country requirements including those markets listed on the Registration Certificate;
- Systems to provide a sound basis for issue of export permit or government certificate; and

The Approved Arrangement must include all operations for which the establishment is registered, as detailed on the Certificate of Registration. It must also identify products, including those not for human consumption and/or that are not produced for export and the measures taken to ensure that these products do not contaminate those products produced for export.

Variations to the Approved Arrangement (as detailed in the applicable commodity Export Control Orders) must be approved by a Department of Agriculture, Water and the Environment authorised officer prior to implementation.

Full details of the legislative requirements that your establishment must meet are available at <http://www.agriculture.gov.au/export/controlled-goods/meat/elmer-3#export-legislation>



CERTIFICATE NUMBER

A 0095



الاسلام 41 \ J \ AS
AUSTRALIAN HALAL DEVELOPMENT AND ACCREDITATION

HALAL CERTIFICATE

THIS IS TO CERTIFY THAT
HILLTOP MEAT PTY LTD EST 128
13 Scenic Road, Young NSW
HAS BEEN GRANTED HALAL CERTIFICATION BY
AUSTRALIAN HALAL DEVELOPMENT & ACCREDITATION

- A. Product Scope: Beef Meat and Offal's
- B. Product Description: Beef slaughtering, cutting & packaging
- C. Product Category: Category (c) only

This certificate is subjected to ongoing Halal audits and compliance with AHDA Halal SOP as well as the below mentioned importing countries ~~standards~~.

This Certificate is not Transferable and shall not be used in another premises.

STANDARDS

- OIC/IMMC-1-2016
- OIC/IMMC-24-2020
- OIC/IMMC-17-3-2020
- GSO 2866-1-2016
- GSO 2630-2-117
- UAE:1982-2016
- MUI-H.A. 1 25-105-2012
- MUI-H.A. 1 20201-2012
- MUI-H.A. 1 1000000
- JAKIM M 1:15D1-2019
- IHH M 1:148D-2011
- NZ 1919-2116
- A 1 4708a21D1
- DAVEAGHP
- AHDAACOP

DAUD GUSHAA
AHDAAHALAL
CERTIFICATION MANAGER

Authorised by AHDA
P.O. Box 229 Moorooka, QLD 4105

THE CERTIFICATE IS VALID FOR THIS ADDRESS ONLY

Version 1 @AHDA02.03.2023

ISSUE DATE 09/08/2023
REVISION DATE 09/01/2025
EXPIRY DATE 09/08/2028



THIS CERTIFICATE HAS AN ONLINE QR CODE VERIFICATION. PLEASE CONTACT AHDA IF YOU ARE UNABLE TO VERIFY THE QR CODE BEFORE ACCEPTING.



Lowest average peptide size in Australia

8.1.3 BAOBEST Specification



Baobab
Foods_Baobab Fruit I



Nutrition Facts

Baobest™ Baobab Fruit Powder

Product Code #8664

| Nutritional Values | (Average) Nutrients per 100g |
|-----------------------|------------------------------|
| Energy (Calories) | 265 calories |
| Protein | 2.7g |
| Total Carbohydrates | 81g |
| Total sugar | 21g |
| Fructose | 6.3g |
| Glucose | 5.8g |
| Sucrose | 8.7g |
| Maltose | 0.0g |
| Lactose | 0.0g |
| Added Sugar | 0.0g |
| Total Fat | 0.36g |
| Mono unsaturated Fat | 0.1g |
| Poly unsaturated Fat | 0.1g |
| Saturated Fat | 0.1g |
| Trans Fatty Acids | 0.0g |
| Cholesterol (mg/100g) | 0.0mg |
| Omega 3 Fatty Acids | 0.0mg |
| Dietary Fiber | 64g |
| Soluble Fiber | 50g |
| Insoluble Fiber | 14g |
| Total Sodium | 3.2mg |

| Macro Minerals | Average Range of Nutrients per 100g |
|----------------|-------------------------------------|
| Calcium (Ca) | 309mg |
| Phosphorus (P) | 48mg |



BAOBAB FOODS 140 Lakeside Avenue, Suite A, PO Box 333 Seattle, WA

TEL 800.682.0221

WEBSITE BAOBABFOODS.COM

| | |
|----------------|--------|
| Potassium (K) | 2236mg |
| Magnesium (Mg) | 140mg |



BAOBAB FOODS 140 Lakeside Avenue, Suite A, PO Box 333 Seattle, WA

TEL 800.682.0221

WEBSITE BAOBABFOODS.COM

| Micro Minerals | Average Range of Nutrients per 100g |
|-----------------------|-------------------------------------|
| Iron (Fe) (mg/kg) | 2.5mg |
| Selenium (Se) (mg/kg) | 0.00 |
| Zinc (Zn) (mg/kg) | 0.7mg |
| Vitamin B7 (Biotin) | 40µg |
| Vitamin B1 | 20 µg |
| Vitamin B2 | 20 µg |
| Vitamin B3 | Not detected |
| Vitamin B6 | 70 µg |
| Vitamin B9 | Not detected |
| Vitamin B12 | <0.03mg |
| Vitamin C | 227 mg |
| Vitamin D | 0 mg |

Note: The listed values here are averages taken over time from multiple testing at certified 3rd party labs. As a raw, whole food, values may vary from Lot to Lot. For any questions on this, please contact our office.

8.2 Eurofins Nutritional Analysis



AR-24-NV-023295-0
1_Tiiga_Powder_Beve



Eurofins Food Testing Australia Pty Ltd

6 Monterey Road | Dandenong South | VIC 3175 <https://www.eurofins.com.au/food-testing>

ANALYTICAL REPORT

Report: AR-24-NV-023295-01

Date: 06/12/2024

Order : EUAUTWU-00059755

Attention to: Anna Barlow, ACH Australia Pty Ltd
L17, 31 Queen Street, Melbourne, 3000 VIC, AUSTRALIA

Your contact: Sandhya Naidu
+64 9 579 2669, Sandhya.Naidu@eurofinsanz.com

Tiiga Powder Beverage:

Sample code: 726-2024-00055224

Reception date: 28/11/2024

Reception temperature: 23 °C

Product Type: Powdered Drink Mix

| | RESULTS (UNCERTAINTY) | LOQ | TEST | START DATE |
|------------------------------------|------------------------|--------|-------|------------|
| CHEMISTRY | | | | |
| ◆ Ash | 7.6 (± 0.99) g/100 g | 0.0749 | NV02S | 28/11/2024 |
| ◆ Total dietary fibre | 30.0 (± 3.0) g/100 g | 0.298 | NV0DB | 28/11/2024 |
| ◆ Total carbohydrates | 65.7 g/100 g | - | NV078 | 28/11/2024 |
| ◆ Energy kcal (calculated) | 285 kcal/100 g | - | NV079 | 28/11/2024 |
| ◆ Energy kJ (calculated) | 1190 kJ/100 g | - | NV079 | 28/11/2024 |
| ◆ Total fat | <0.193 g/100 g | 0.193 | NV095 | 28/11/2024 |
| Saturated Fatty Acids (SFA) | <0.01 g/100 g | 0.01 | NV0BX | 28/11/2024 |
| Monounsaturated Fatty Acids (MUFA) | <0.01 g/100 g | 0.01 | NV0BX | 28/11/2024 |
| Polyunsaturated Fatty Acids (PUFA) | <0.01 g/100 g | 0.01 | NV0BX | 28/11/2024 |
| Trans Fatty Acids (TFA) | <0.01 g/100 g | 0.01 | NV0BX | 28/11/2024 |
| ◆ Moisture | 6.50 g/100 g | 0.171 | NV0GA | 28/11/2024 |
| Protein (Nx6,25) | 20.2 g/100 g | 0.141 | NV098 | 28/11/2024 |
| Fructose | 33.2 (± 6.64) g/100 g | 0.1 | NV0FD | 28/11/2024 |
| Glucose | 3.78 (± 0.756) g/100 g | 0.1 | NV0FD | 28/11/2024 |
| Lactose | <1 g/100 g | 0.1 | NV0FD | 28/11/2024 |
| Maltose | <1 g/100 g | 0.1 | NV0FD | 28/11/2024 |
| Sucrose | 14.7 (± 2.94) g/100 g | 0.1 | NV0FD | 28/11/2024 |
| Total sugars | 51.7 (± 10.3) g/100 g | 0.5 | NV0FD | 28/11/2024 |
| - Sodium (Na) | 965 mg/100 g | 5 | NU688 | 28/11/2024 |

LIST OF METHODS

NU688 - Sodium (ICP-OES): AOAC 984.27 mod.Hotblock

NV078 - Total carbohydrates: Internal Method (CM-058)

NV095 - Total Fat: ISO 11085

NV0BX - Sum Fatty acid: Internal Method (CM-059)

NV0FD - Sugar Profile: Internal Method (CM-033)

NV02S - Ash Content: Internal Method (CM-052)

NV079 - Energy: Internal Method (CM-058)

NV098 - Protein: Internal Method, Kjeldahl (titrimetry) [Protein by Automated Kjeldahl]

NV0DB - Total Dietary Fibre: AOAC 991.43

NV0GA - Moisture: Internal Method, Gravimetry

John Speers (Laboratory Manager Food Testing Melbourne (AU)) **Olga Makhotkina** (Senior Scientist Food Testing Melbourne (AU))

Asif Husain (Manager - Food Australia Manager - Food Australia)

EXPLANATORY NOTE

- ◆ Test is not accredited
- Test is subcontracted within Eurofins group and is accredited
- Test is subcontracted within Eurofins group and is not accredited
- Test is subcontracted outside Eurofins group and is accredited
- Test is subcontracted outside Eurofins group and is not accredited

N/A means Not Applicable

Not Detected means not detected at or above the Limit of Quantification (LOQ)

LOQ means Limit of Quantification and the unit of LOQ is the same as the result unit

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The test result(s) in this report apply only to the sample as received.

This document can only be reproduced in full. The tests are identified by a five-digit code, their description is available on request. Accreditation does not apply to comments or graphical representations.

Unless otherwise stated, all tests in this analytical report (except for subcontracted tests) are performed at 6 Monterey Road, Dandenong South, VIC 3175, AUSTRALIA.

The laboratory is not responsible for the information provided by the customer which can affect the validity of the results, for example: sampling information such as date/time, field data etc.

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END OF REPORT

8.3 Watch Me Think Report



Online Report -
Tiiga Product_concep



ONLINE REPORT

A great idea but a polarising product experience

WHO 10 Australian women who buy and consume hydration & collagen supplements at least once a month — Actively interested in ‘better for you’ foods, drinks and supplements.

WHAT Review one version of the Tiiga concept, then prepare and try the sample product for the first time. Try the product at least another couple times over the next few days, then prepare it one last time, and review the 3 other concept options.

WHERE Filmed at home

Each Thinker was randomly assigned one of the 4 concept iterations for their first review, and then reviewed the 3 other options in their last video.

December 2024



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Concept D - BC3: feels like it comes from a lab Business implications

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Product preparation

Without clear instructions, it's up to each person to make it their own

Great smell, awful appearance

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It's not everyone's cup of tea

Business implications

Promotion

Collagen supplements live on socials

Business implications

Place

Chemists are the first port of call

Business implications

Summary

Flavours are great for some but a flavourless option might be needed to expand the target audience

The dual benefit of gut health and collagen drives almost unanimous appeal but the product taste limits the number of fans

The idea behind Tiiga has some legs. Women value the ability to kill two birds with one stone, taking care of their gut health (something that is top of mind and sought after) on top of achieving better skin and nails thanks to the power of collagen.

That dual benefit is the key driver of interest in the product, a compelling proposition that drives preference over existing collagen powders IF it delivers on sensory experience.

Unfortunately, the product's taste is polarising, with half of women enjoying their drink and considering buying it, and the other half being disappointed by the product, unable to enjoy it and outright rejecting the idea of buying it should it hit the shelves. Those disappointed by Tiiga's taste often prefer to drink flavourless supplements, and found Tiiga's current taste remained unpleasant no matter the adjustments they made over several occasions.

The keys to a successful concept

Whilst none of the 4 concepts tested is perfect as is, 2 of them (DIS-CO & InsideOut) emerge as having more potential. The business could take inspiration from both concept's strengths to draft a revised one that integrates the key following elements:

- A simple and evocative name that is easy to pronounce and remember.
- A fun, positive, and vibrant vibe, with a colourful pack.
- A simple yet powerful insight that resonates universally with women.

The concepts tested

People were exposed to 4 options



Concept A: Tiiga

Ancient-civilisations used food and plants for their health and medicine.

Introducing Tiiga – digestive and skin health formula that uses ancient knowledge and modern science.

Tiiga is made from Baobab, the ancient African super-fruit, combined with the pure Australian collagen. The baobab works its wonders for your gut health, while the pure collagen is scientifically proven to provide strength and support to your skin, hair and nails.

Tiiga, harness the power of ancient knowledge and modern science.

Tiiga is available in Orange Mango, Lemon Lime and Watermelon flavours.

Tiiga powered by...

- Baobab fruit for digestive health
- Pure Collagen for strong and healthy skin, hair and nails.



Concept B: DIS-CO

Life is about being true to yourself, enjoying every day and feeling good inside and out.

Introducing DIS-CO, a positive daily supplement to ensure you get the most out of life.

DIS-CO is a unique combination of **D**igestive **S**upport for great gut health, and **C**ollagen for great skin, hair and nails. Together they help you feel and look great. Powered by all natural ingredients and no unwanted nasties.

DIS-CO, shine bright, inside and out, at every age.

DIS-CO is available in Raspberry Lemonade, Strawberry and Tropical Bliss (Punch) flavours.

DIS-CO is powered by...

- Baobab fruit for gut health
- Collagen for great skin, hair and nails.



Concept C: InsideOut

Science has proven that most skin issues manifest from within the gut.

Introducing InsideOut your daily shot of gut-healthy fibre and skin-loving collagen.

Baobab is a natural, gut-friendly fibre and comes from 'the tree of life' in Africa. It is organic, raw and unpasteurised. It is combined with 5 grams of pure Australian collagen which is 200% more than the minimum requirement. This powerful combination means you can look and feel amazing, inside and out.

InsideOut, the secret behind your shine!

InsideOut is available in Orange Mango, Lemon Lime and Strawberry flavours.

InsideOut, powered by...

- Natural Baobab for a healthy, happy gut
- Pure Collagen for beautiful radiant skin



Concept D: BC³

When taking care of my health, I follow expert advice and proven science.

Introducing BC³, the new patented formulation that uses the best of science for your best health.

BC³ is a unique combination of fibre plus collagen. The fibre comes from the Baobab fruit which is natural, organic, and unpasteurised. We combine this with Australian collagen at 3x the minimum level, to naturally power your skin's strength and shine.

BC³, scientifically supercharge your body's happiness and health.

BC³ is available in Raspberry Lemonade, Lemon Lime and Watermelon flavours.

BC³ is patented formulation contains ...

- Baobab fibre for internal health
- Australian Collagen for strong and healthy skin

Proposition

Gut health is a benefit rarely seen with collagen

With gut health being more top of mind than ever, the addition of this benefit to collagen powder is a strong driver of interest



Women value supplements that have multiple benefits, helping them reduce the number of products they need to take everyday. In this context, this concept resonates with them, and whilst there are concept executions that work better than others (more on this later), it is clear that the dual benefit of fibre/gut health & collagen/skin/nails is the main driver of interest in the product.

The idea of a collagen powder that allows women to also look after their gut health is very appealing because:

- It is **relevant**. Women are particularly sensitive to gut issues, something that is more and more on their radar.
- It is **unique**. Whilst people are familiar with collagen powders and gut health supplements, they've never noticed a product that combines both.

"The idea of fibre with collagen, I like that because that would knock off a couple of products for me alone."

— Emily

"My first impression of this product is that it sounds like it's a good way to address gut issues and to give you a good healthy base."

— Tania

"I haven't actually seen a product similar to this on the market."

— Rebecca

Positioning this product as a supplement that allows people to not only look good on the outside thanks to the benefits of collagen, but also optimise their inner health with the power of fibre is likely to generate broad appeal.



Bao-what?

Most women have never heard of baobab (and most can't even pronounce it!). But that doesn't make this African fruit less appealing. In fact, people who consume hydration & collagen supplements are generally inclined to learn about the properties of natural ingredients, and baobab is no exception.

However, consumers need to be educated on the benefits and properties of the baobab fruit. With the right education campaign, this unusual (but believable) ingredient has the potential to drive some appeal.

"Superfruit stands out, because I'm also a huge fan of acai berries, which is another superfruit. So these are all things that definitely resonate with me."

— Chyla

"And because it was explained to me what, uh, baobab is, um, it's a little bit easier to kind of understand the information."

— Natalja

Something easy to integrate in their daily routine

Taking supplements is often part of women's daily routine, and those who are interested in purchasing this product when introduced in the market are planning to prepare it everyday to make sure they get the most out of it in terms of benefits.

Whilst most plan to drink the product in the morning (usually along with their breakfast), some would consider preparing it right after lunch, the fruity flavour profiles making it perfect to satisfy a sweet craving.

Mixing collagen powder in their morning coffee is a common occurrence, but it would only be considered if there was a flavourless option (a la Benefiber).

"So I usually use collagen just when I take my supplements in the morning. I do an unflavoured one."

— Natalja

Business implications

- Positioning the product as the perfect supplement to take care of gut and inner health to support outer beauty/health is the right call. The combination of fibre/gut health and collagen is unique and appealing. Make it your point of difference and communicate the dual benefits overtly.
- Baobab has the potential to generate some appeal, but that superfruit is new news to everyone. Don't assume women have basic knowledge, start from zero. Build an education campaign to help them understand the natural powers and benefits of baobab, with a focus on fibre/gut health to reinforce the overall proposition, but also communicating other secondary benefits (e.g., antioxidants, anti-inflammatory properties, etc.).
- The product could be integrated into people's daily routine, either at breakfast or lunchtime. A flavourless option would make it easier for women who usually prefer to mix their supplement powders in their morning coffee.

Deep-dive on concepts

DIS-CO & InsideOut have the most potential

People are drawn to a bright & fun concept or an evocative name



Each concept elicits a range of opinions, with concepts B (DIS-CO) and C (InsideOut) clearly generating more appeal than concepts A (Tiiga) and D (BC³).

| | Concept | Overall appreciation |
|-----------------------|-----------------|---|
| Winners | DIS-CO | Generates the most excitement, but the name is somewhat polarising. |
| | InsideOut | Universally liked. Not as exciting as DIS-CO but not polarising. |
| Less potential | Tiiga | Some like it, some are indifferent. |
| | BC ³ | Universally rejected. |

Ultimately, 3 key elements drive the interest in a concept.

- A fun, positive, and vibrant vibe (like in the DIS-CO concept), with a colourful pack.
- An evocative and catchy name, one that explains what the product is about but is also easy to pronounce and remember.

- A key insight that is easy to understand and that women universally agree with (e.g., “Science has proven that most skin issues manifest from within the gut” in the InsideOut concept).

Concept A - Tiiga: a polarising angle and a confusing name

Positioning the concept as the result of knowledge from “ancient civilisations” might resonate with some, but many don’t find the angle compelling. On top of that, people are unsure about the name (and again unsure about how to pronounce it!). Whilst it sounds African and fits with the concept description, it’s simply a name that doesn’t mean anything to them, one they also wouldn’t remember.

"Dislikes? The name's a bit weird. It may mean I wouldn't take it because I couldn't say it."

— Melissa

Concept B - DIS-CO: fun and exciting but a polarising name

This concept elicits mostly positive sentiment, and it’s the one most women prefer. People just love the brightness and fun vibe, partly fueled by the colourful pink pack design. It taps into the nostalgia of younger days (for older women), and evokes vitality. “Shine bright” is also a great catchphrase that resonates with most women.

"I think this product just has a really fun feel to it. So it kind of grabs your attention and makes me almost feel a bit younger and bringing me back to my clubbing days."

— Rebecca

Whilst it is the concept that generates the most enthusiasm, it is somewhat polarising and selected by a few as their least preferred option who do like the colour and vibe, but can’t stand the name.

DIS-CO is a divisive name:

- Some find it clever, evocative (once they understand that “DIS” is for Digestive Support and “Co” for Collagen), easy to remember, and fits with the positive and playful vibe.
- Others just find the name tacky and gimmicky.

"I like the DIS for digestive support and the CO for collagen. I just think that's really clever."

— Rebecca

"DIS-CO, I don't love that name. I think it's a little bit lame."

— Alison

Concept C - InsideOut: a relevant and credible insight... if only it was more colourful!

The interest in the InsideOut concept is driven by a simple and evocative name as well as a clear and compelling wording around the importance of gut health in achieving good skin results. Although associating skin issues with gut health is novel, it intuitively makes a lot of sense to women.

"Inside out kind of makes more sense in terms of the name of the concept because you're obviously feeling healthy inside and out."

— Natalja

The concept's potential is hindered by a lack of vibrancy and wow factor, mostly due to a pack design that is perceived as dull and too simplistic (more on this later).

Finally, the claim that InsideOut is "combined with 5 grams of pure Australian collagen which is 200% more than the minimum requirement" might be counterproductive, some wonder if consuming 200% more than the requirement is potentially harmful.

"I think with this whole 200% more than the minimum requirement, rather than me getting excited about that, it almost makes my mind think the opposite. It's like, well, is that a good idea to be taking 200% more than the minimum requirement?"

— Chyla

Concept D - BC³: feels like it comes from a lab

The BC³ concept is universally rejected, often the least preferred idea of all 4 concepts reviewed.

First, the execution is too "science-driven", and feels more "pharmaceutical" than natural. Whilst women appreciate science-led innovations, they don't like when their supplements feel too "scientific".

The name not only exacerbates the scientific perception, it also doesn't mean anything to consumers who mostly don't associate the letters with Baobab and Collagen.

"Um, BC³ I have no idea what that stands for. Um, I wouldn't even look twice at that product." —

Melissa

"Um, it just looks like something that's come out of a lab. BC³ stands out, but what is BC³? Who the hell knows?"

— Alison

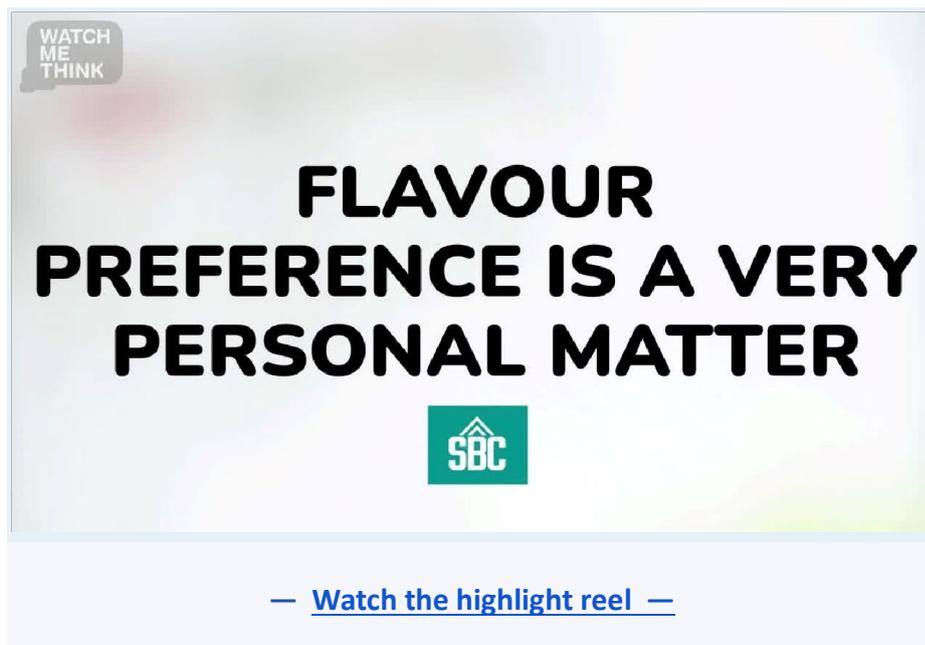
Business implications

- The final concept should integrate 3 key ingredients:
 - A clear, simple and evocative name that is easy to remember.
 - A positive vibe, fun and bright.
 - A clear, non-polarising, and easy to understand insight that justifies why this product exists (e.g., “Science has proven that most skin issues manifest from within the gut”).
- Steer clear from claims that are too “mathematical” (e.g., “200% more than minimal requirement”) and wording that make the product look like it was manipulated in a lab and not natural.
- The ideal concept would integrate the vibrancy and playfulness of the DIS-CO concept with the name and gut health-driven insight of the InsideOut concept.

Flavours

Bold & fruity flavours are a double-edged sword

The flavours are both a driver and barrier to purchase



Each flavour presented has some potential, but none elicits unanimous appeal.

- Raspberry-lemonade is possibly the flavour that has the most widespread appeal.
- Mango (even when paired with Orange) and Watermelon are the most polarising flavours, being the preferred flavours of some but also rejected by others.

"I think watermelon can go either way, so it can be like a really fake tasting watermelon, which I personally don't like."

— Emily

People who prefer flavoured supplements appreciate the overall range of flavours which would allow them to either find one that suits their palate or to rotate them for more variety.

However, some women typically prefer tasteless supplements and use powders they can mix in a variety of drinks, including their morning coffee. Whilst they are open to flavoured supplements if the execution is right, flavourless options are less risky (and they're less likely to get sick of them).

"And I'm not a big fan of flavoured supplements because I would rather just drink them straight with water encapsulated or put it in my coffee."

— Natalja

Business implications

- Offering a range of 3 to 5 flavours allows people to mix them or find one that suits their palate, especially when some flavours, such as mango and watermelon, are more polarising than others.
- A flavoured supplement is a double-edged sword and can be both a driver of interest and a barrier to purchase. Offering flavoured only options is limiting the size of the market, whilst offering a flavourless option (in addition to a few flavours) would allow the business to also appeal to women who prefer to mix their powder supplements in coffee (or other drinks).

Packaging

Simplicity is great as long as it doesn't compromise the ability to stand out and deliver product comprehension

Each format has its benefits, but a tub might just be more convenient than a bag



Pack designs play a significant role in the overall appreciation of a concept. The key to a successful pack design resides in its:

- **Simplicity.** A design that lets key claims and the brand name shine.
- **Ability to stand out,** mostly thanks to bright and vibrant colours.
- **Ability to clearly communicate what the product is,** notably through clear indication of ingredients or benefits (e.g., collagen, fibre, digestive support, etc.).

Whilst all packs meet the simplicity criteria, **only the DIS-CO pack design ticks all the boxes**, and is overwhelmingly preferred over all other concepts.

| | Simplicity | Ability to stand out | Ability to clearly communicate what the product is |
|--------------|-------------------------|--------------------------------|---|
| Tiiga | Yes, simple and elegant | Fluro helps but is not enough. | No, the name isn't evocative and people can't decode other claims and wording |

| | | | |
|-----------------------|----------------------------|---|--|
| DIS-CO | Yes, simple yet vibrant | Yes, bright pick catches the eye and would stand out on shelves | Yes, thanks to a prominent explanation of benefits (“Digestive support + Collagen”) and a clear tagline (“Shine bright”) |
| InsideOut | Yes... perhaps too simple! | Recessive colour wouldn’t stand out and font colour is almost invisible | No, the evocative name helps a bit, but there’s nothing else visible on pack people can decode |
| BC³ | Yes, but also too simple | Yes, blue colour pops | No, people don’t understand the name and the benefit description is too vague (“Scientific support for happiness and health”). |



The DIS-CO pack design ticks all the boxes: it’s simple, would stand out thanks to the use of bright colours, and key claims are descriptive and prominent.

People are leaning towards the tub format but bags are good too

Both formats have their pros and cons. On one hand, tubs are more convenient to use (easier to scoop powder) and, assuming they're made with recyclable materials, they are perceived as being more sustainable. However, the rigid material means it might take more space to store.

On the other hand, bags are more easily resealable and are more malleable (take less space to store), but they'll end up in the garbage bin and they're not as easy to use.

Ultimately, none of the formats are rejected by women, but the tub format is generally preferred.



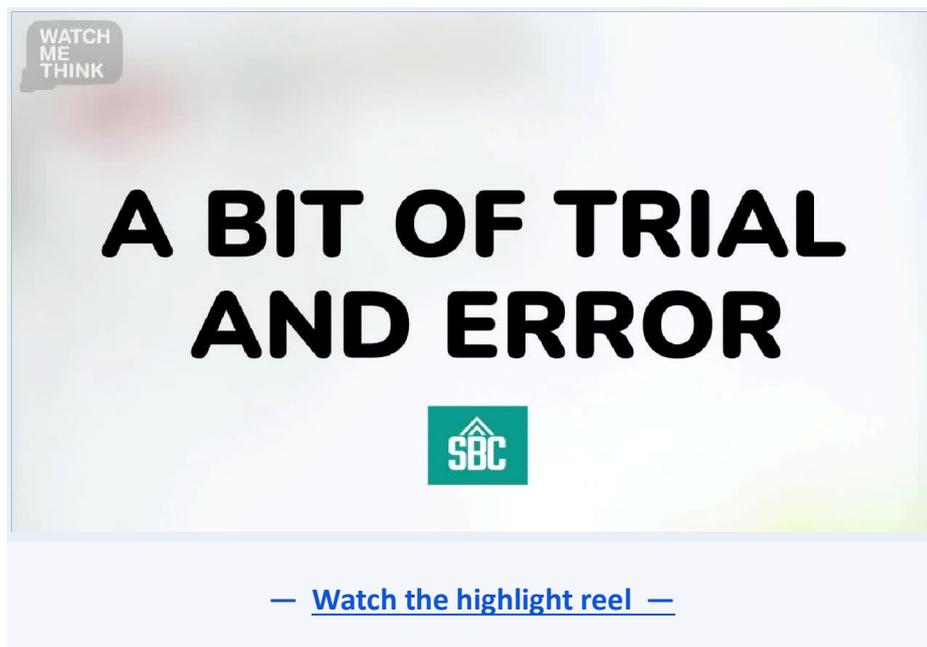
Business implications

- Tubs are the way to go, unless they cost significantly more than bags. Regardless of the format selected, the key will be to nail the pack artwork.
- Take inspiration from the DIS-CO pack design regardless of which concept the business ends up pursuing:
 - Keep the design simple, but be careful to not be too simplistic. People need claims, benefits, and key information to decode the proposition.
 - Choose a colour that will pop on shelves and catch the eye.
 - Clearly explain what the product is, though key claims, tagline, evocative naming, ingredients, etc. and make sure that information is prominent enough on pack.

Product preparation

Without clear instructions, it's up to each person to make it their own

Vague instructions mean each consumer can end up with a different initial experience



Many women are confused when it comes to preparing their drink. The instructions are too simple and vague, only indicating to use 2 scoops of powder, without telling them in what liquid they should mix it (they assume it's water, but not everyone is 100% sure) nor how much water they should pour (most assume it should be around a cup).

As a result, each person initially prepares their drink slightly differently, leading to different outcomes.

Thankfully, the powder dissolves very easily, regardless of how much liquid they poured in their glass or shaker. Whilst the business was concerned undissolved sediments could be an issue, it wasn't observed by any Thinker.

Great smell, awful appearance

The product's aroma is inviting, even before it's been mixed. However, the product's appearance, whilst not a deal-breaker if the taste compensates, is off-putting and doesn't entice people to drink it.

The preparation is adjusted for future occasions

With vague instructions leading to different results, many women adjust the product preparation over the next few occasions to achieve a better taste.

- They dilute the product more by adding more water when the initial taste is too strong (or could reduce the amount of water if they want a stronger taste, although that rarely happens).
- Using ice cold water or adding ice cubes make the product taste nicer than using water straight from the tap.
- Some venture into trying to dilute the powder in other liquids (e.g., coconut water, milk, etc.).

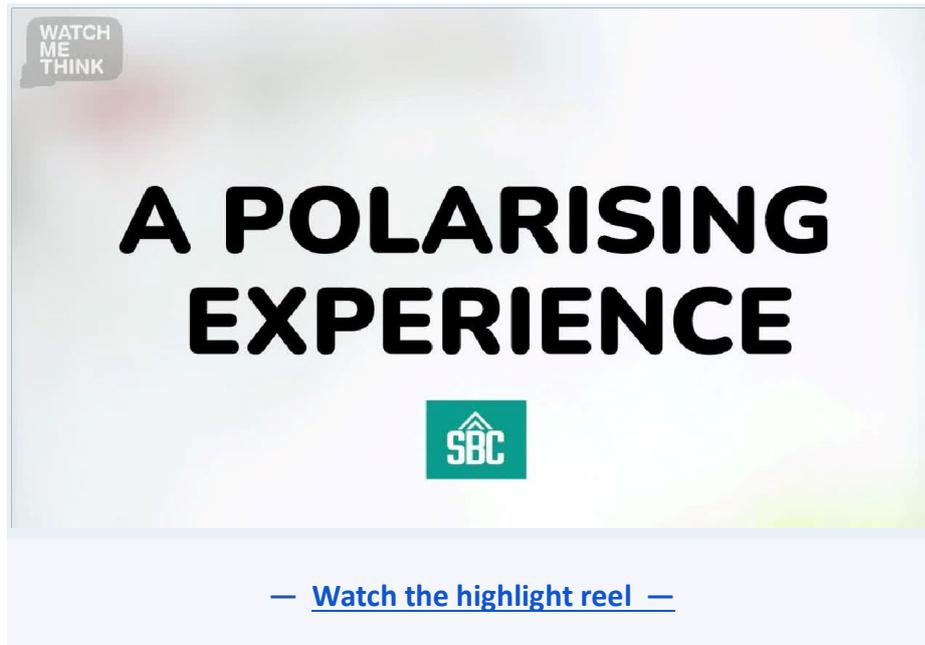
Business implications

- Be clear in your instructions. Consider sensory research to identify the optimal amount of water to achieve the best taste and instruct people to initially stick to that method, inviting them to subsequently use more or less water for a more subtle or stronger taste.
- The powder dissolves very well even in very cold water and it tastes better when prepared that way. Invite women to use cold water or ice cubes for a better product experience.
- Invite people to customise their experience, trying the powder with other liquids than water if they feel like it.

Product experience

It's not everyone's cup of tea

You've got some fans already... but taste is also a strong barrier for others



Whilst the texture is universally liked, the taste elicits mixed reactions. In fact, **half** of Thinkers loved the flavour and were inclined to buy the product should it hit the shelves, and **the other half** weren't fans even after adjusting the product preparation to achieve a better, but yet not good enough, taste.

The product taste is both a driver and barrier to purchase, and finding a formulation that generates broad appeal could prove challenging.



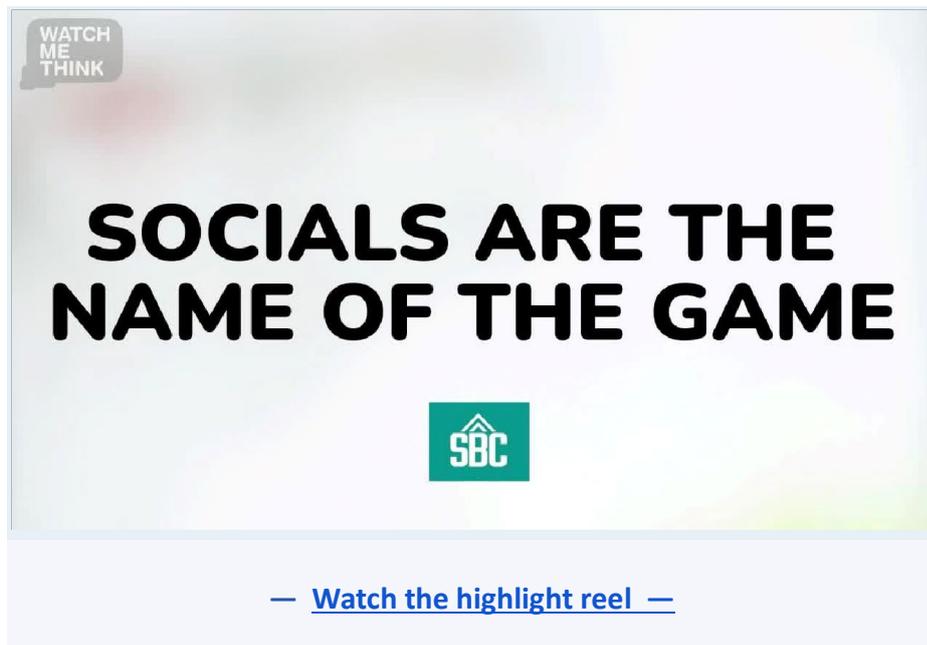
Business implications

- Some find the product tastes better than expected and would definitely buy the product (if the price is right and not too prohibitive). But offering bold and fruity flavours will limit the size of the market, excluding women who don't like strong tasting supplements.
 - Adding a neutral flavour option to the range would help expand the target audience.

Promotion

Collagen supplements live on socials

Without influencers and advertising on social media, will you even exist?



Most women have heard of collagen powders they currently use through social media, be it from posts by influencers or more traditional advertising.

Whilst online advertising has a role to play in driving awareness, the endorsement by influencers or people seen as experts in either beauty, health, or wellness are the most compelling and influential sources of information.

Although a presence on all social platforms could be worth it, Tik Tok and Instagram are the key platforms consulted to learn about and discover similar products.

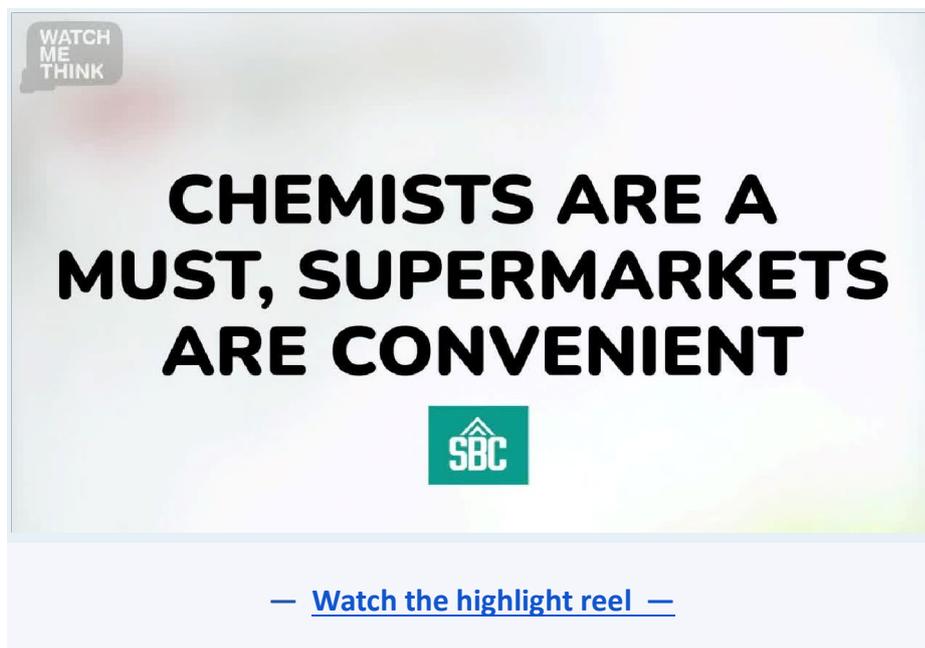
Business implications

- Focus on building a strong social media presence, especially on Tik Tok and Insta.
- Identify credible influencers to endorse the product.

Place

Chemists are the first port of call

Supermarkets and health stores also make sense



Whilst online shopping is part of the new normal, women instinctively shop at chemists for their supplements, and collagen powder is no exception.

- For most people, a presence in **chemists** is a must, not a nice-to-have.
- Whilst availability in **supermarkets** isn't as crucial, it would be very much welcomed, allowing women to conveniently buy the product as they do their weekly shop.
- Presence in **health food stores or specialised stores** would not only make sense, but would also reinforce the product's credibility. However, it wouldn't generate the same volume of sales as chemists and supermarkets.

Business implications

- Whilst online retail can be explored, it's not the channel most women consider instinctively. Negotiating the range's presence in chemists, especially Chemist Warehouse, would definitely open the door to a larger audience.
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