



IFSCC

PERTH, AUSTRALIA 2026

28th Sept – 1st Oct 2026

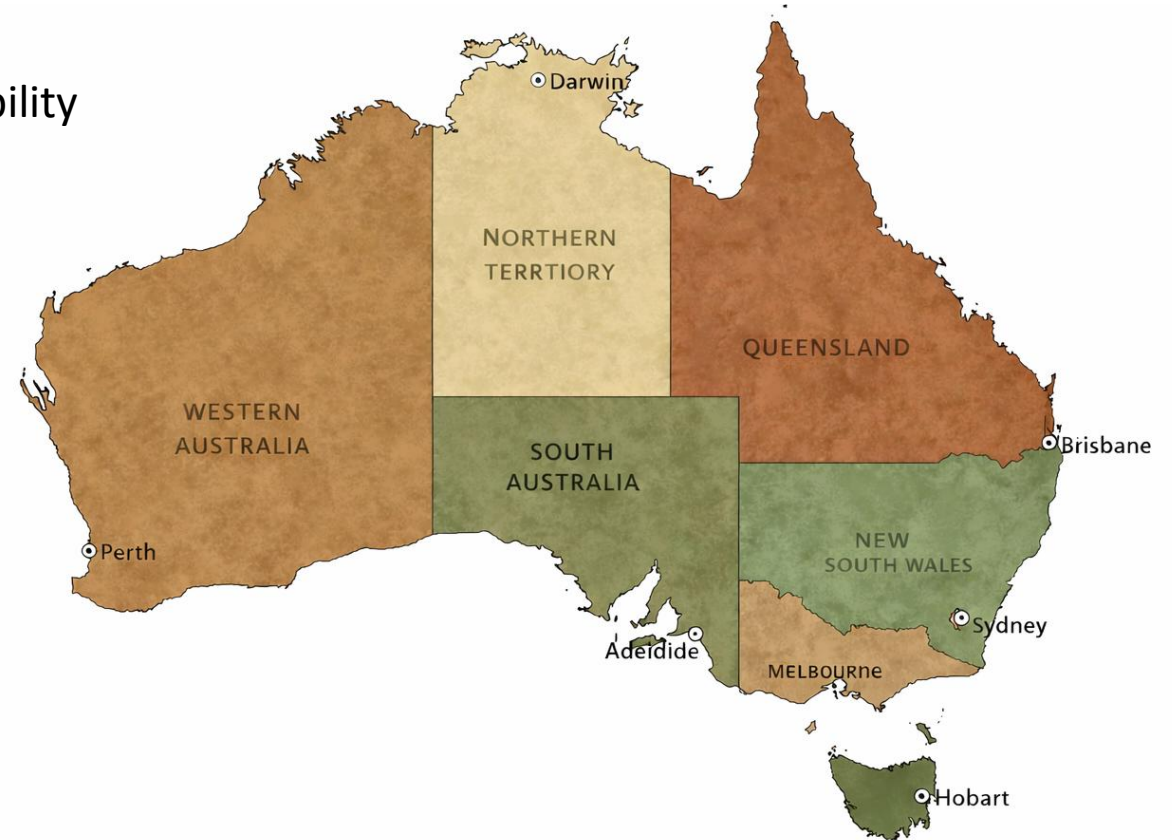
A-Beauty - Innovation and Research for Cosmetic Science from Across Australia

Date: 30th June 2026
Robert McPherson

Agenda

An epic tour of Australian major cities, towns and states, exploring cosmetic science and particularly the sustainability initiatives our industry is undertaking.

- South Australia
- Victoria
- Tasmania
- New South Wales
- Queensland
- Northern Territory
- Western Australia



A-Beauty

A-Beauty (Australian Beauty) represents a **science-led, nature-inspired skincare movement** rooted in Australia's unique biodiversity, clinical mindset, and sustainability ethos.

Core Pillars of A-Beauty

1. Nature Meets Science

- Harnesses **native botanicals**:
- Combined with **clinical validation and dermatological credibility**

2. Harsh Environment = High-Performance Skin

- Products designed for **UV exposure, dryness, and climate extremes**
- Focus on **barrier repair, hydration, and antioxidant protection**

3. Minimalism & Transparency

- “Less but better” formulations
- Clean, **function-first positioning over marketing hype**

4. Sustainability & Ethical Sourcing

- Strong alignment with **biodiversity protection and Indigenous knowledge**
- Increasing focus on **traceability and low environmental impact**





THE JURLIQUE BIODYNAMIC* FARM

The Jurlique biodynamic* farm has thrived in the Adelaide Hills in South Australia, a region known for its clean air, ideal climate, clear water, and fertile soil – creating a rich ecosystem bursting with life.

Jurlique champions biodynamic farming; **a regenerative approach to farming.**

Biodynamic farming principles are based on the teachings of Austrian philosopher Rudolf Steiner established in 1924. The meaning of “**biodynamic**” is derived from two Greek words: ‘Bios’ and ‘Dynamis’, **meaning ‘Life Force’.**

Biodynamic is regenerative, holistic, sustainable, organic.

Biodynamic is not degenerative, fragmented, wasteful, chemical-dependant.

A step beyond organic

BIODYNAMIC

A holistic agricultural approach connecting plants, animals, solar system, focusing on self-sufficiency (minimise external inputs), soil preparation and planting calendar.

No pesticides, herbicides, artificial fertilisers, synthetic chemicals, hormones or GMOs.

ORGANIC

An agricultural approach that uses fertilisers of organic origin, focusing on techniques such as crop rotation and companion planting.

No pesticides, herbicides, artificial fertilisers, synthetic chemicals, hormones or GMOs.

EMBRACING THE LIFE FORCE OF NATURE, FROM SEED TO SKIN, FROM THEIR FARM TO YOU

THE JURLIQUE WAY



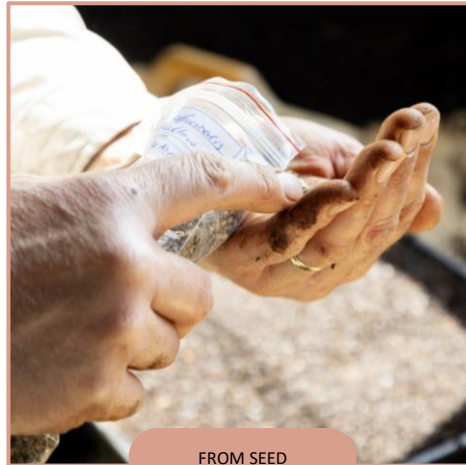
SEED TO SKIN

*Jurlique is **cultivator** of nature.*

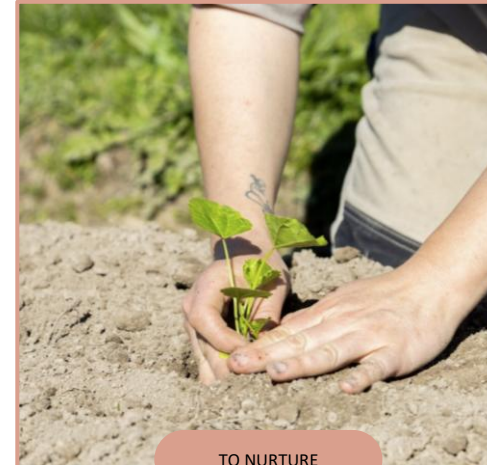
Jurlique **champions biodynamic farming**, a regenerative and sustainable approach.

*Jurlique Is **Artisans**.*

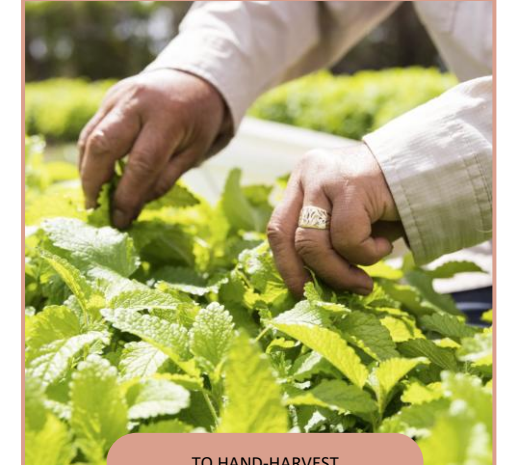
From the seeds planted to the botanicals hand-picked, every step is crafted with care. With a local and considered network from farm to lab to factory, ingredients are transformed into formulas that capture the **full vitality, potency, and purity** of the botanicals, the actives.



FROM SEED



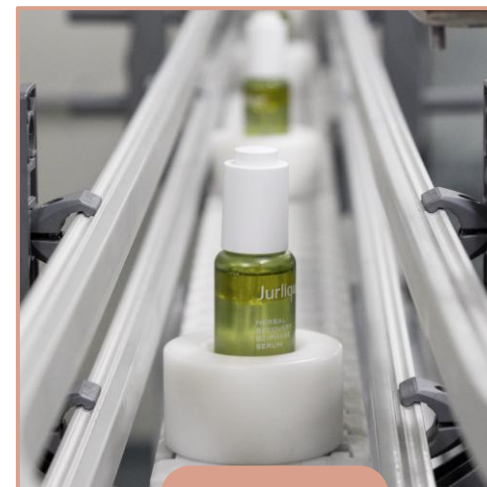
TO NURTURE



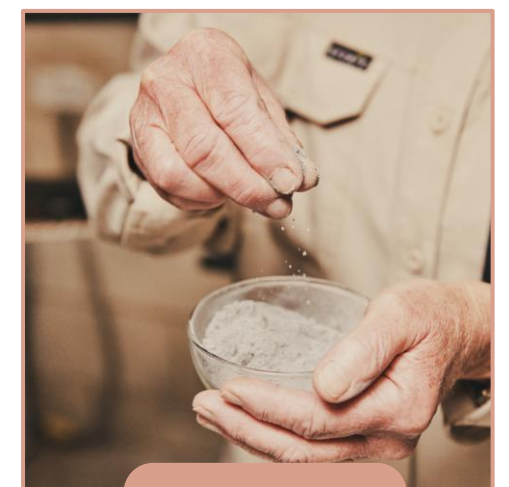
TO HAND-HARVEST



TO SKIN



TO FACTORY



TO FORMULATION

EXCLUSIVE BIO-INTRINSICTM METHOD

Jurlique select very carefully the extraction methods used on the actives. **The Bio-Intrinsic™ method is unique from Jurlique.**

This extraction method **purifies, intensifies, and transforms our botanicals into potent actives**, maximising the benefits of our skincare products.

The process involves **breaking down a plant into three components** – essential oils, percolated liquid, and mineral salts – and then recombining them. This method, embedded in traditional alchemy, is believed to harness the full power of each botanical.

Jurgen Klein, the co-founder, adapted these ancient principles **using modern science and technology to develop the Bio-Intrinsic™ method, exclusive to Jurlique.** Since its inception in 1985, this innovative process remains the cornerstone of our product formulations.







Green Chemical Futures building

The first Special Centre for Green Chemistry was established in 2000 - and was the first in the southern hemisphere.

Several awards for development in "Green Chemistry in Manufacturing"

The Monash School of Chemistry has also established a Master of Green Chemistry and Sustainable Technologies.

Over the years, this has led to two successful Australian Research Council funded Industrial Transformation Training Centers - PhD training focus with strong links to industry





Ego Pharmaceutical – New Manufacturing Site



- **Passive design** – optimised orientation, reduced heating/cooling demand
- **Efficient lighting** – LED sensor systems, motion-controlled energy savings
- **Renewable energy** – solar generation, improved thermal efficiency
- **Water reuse** – rainwater harvesting for facility operations
- **Low-impact build** – recycled materials, low-VOC, high thermal mass

A 3D map of Australia and the surrounding Southern Ocean. A red line with circular markers at the start and end points indicates a route along the southern coast of Australia, starting from the west coast near Perth and ending near Melbourne. A white rectangular label with a black border is positioned in the center of the map, containing the Australian flag and the text 'MELBOURNE AUSTRALIA'.

 **MELBOURNE
AUSTRALIA**

Hobart



Fucoidan leadership – global high-purity expertise

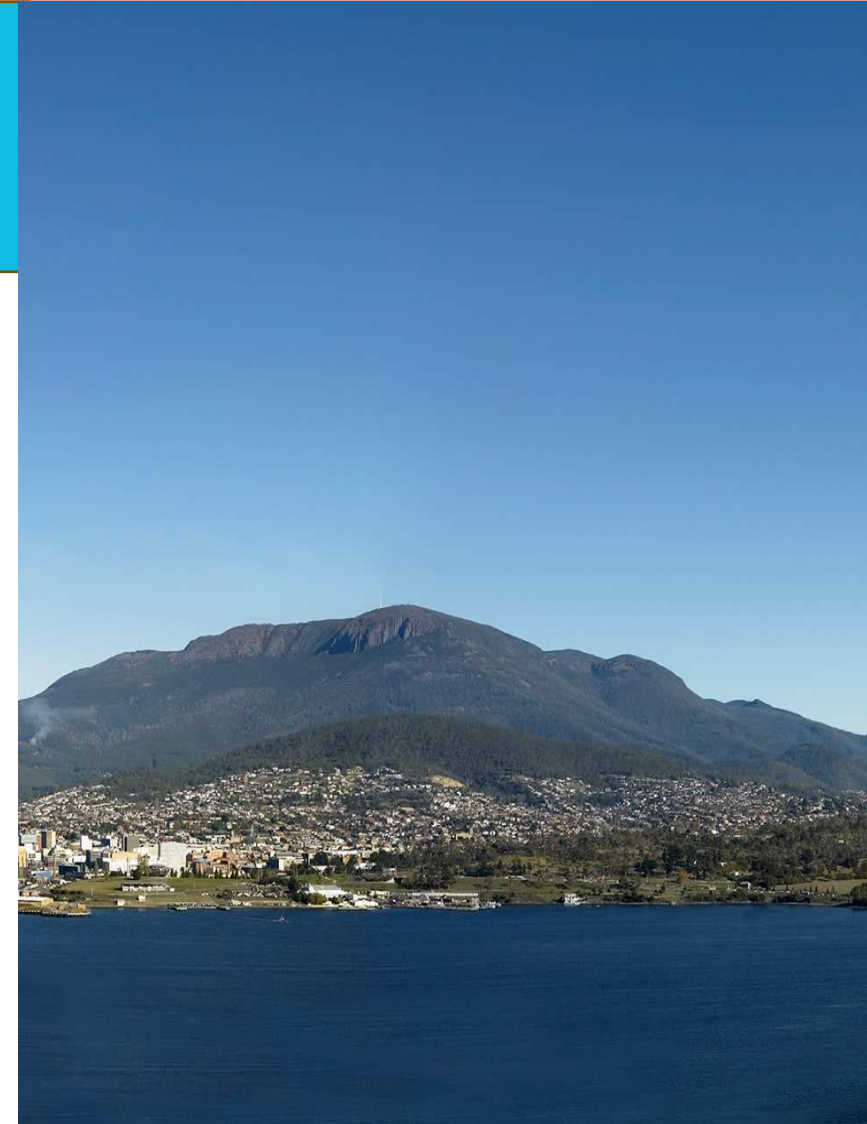
Clinical efficacy – anti-ageing performance

Barrier support – hydration + TEWL reduction

Anti-inflammatory – redness + irritation control

Longevity biology – repair + gene pathways

Marine sustainability – renewable, eco-sourced



Sustainability

Wild-harvested, regulated sourcing – Pristine waters, strict government controls

Regenerative harvesting – Upper biomass only, enables natural regrowth

Certified organic supply chain – Fully audited to international standards.

Green extraction & traceability – Water-based process, low impact, biodiversity focus





 **HOBART
AUSTRALIA**

Levur

Levur is a biotechnology company specialising in the **engineering of yeast** to biosynthesise **nature-identical oils** using **precision fermentation**.

While yeast has traditionally been associated with food fermentation, Levur has demonstrated its ability to produce **functional lipid systems**, including **alternatives to palm oil** - through advanced strain engineering.

Ingredient Focus

- **Nature-identical cosmetic and food oils**
- Designed to replace **unsustainable plant and animal-derived lipids**
- Produced with **high compositional consistency** and scalability





 SYDNEY
AUSTRALIA

Australia's largest commercial upcycled beauty and wellness ingredient

Converting thousands of tonnes of high value biomass waste from surplus crops and food processing to harness high value nutrients from tomato seed, a rich source of lycopene, fatty acids and phytosterols.

- **Upcycled source** – derived from Australian native botanical by-products
- **Circular economy** – valorises waste streams into high-value oil
- **Cold-processed** – low-energy extraction, minimal environmental impact
- **Local sourcing** – Australian supply chains, reduced transport footprint
- **Biodegradable** – naturally derived, environmentally compatible
- **Renewable feedstock** – plant-based, sustainably harvested inputs
- **Clean processing** – solvent-free or low-impact extraction methods



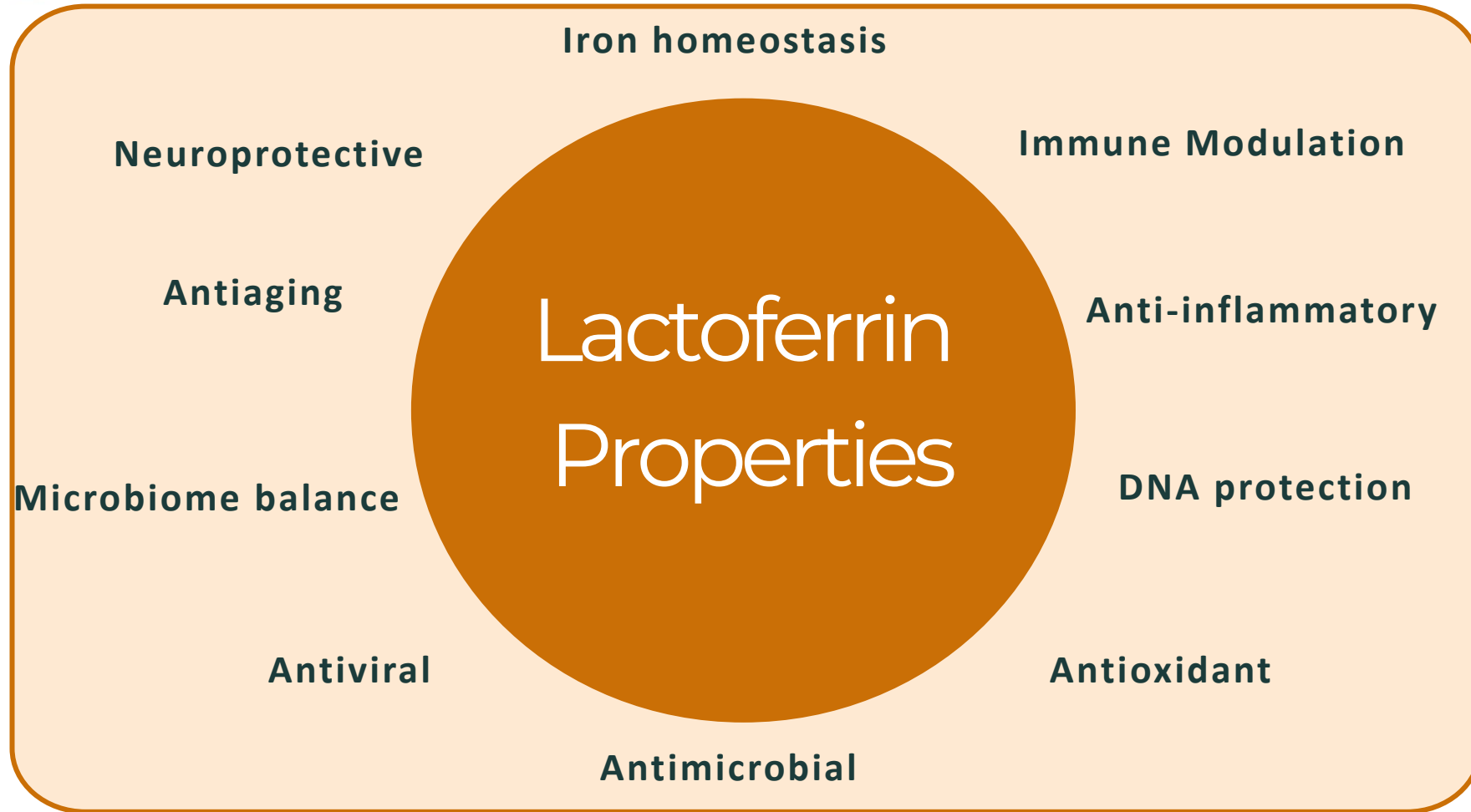


 **LISMORE
AUSTRALIA**

Eclipses Ingredients

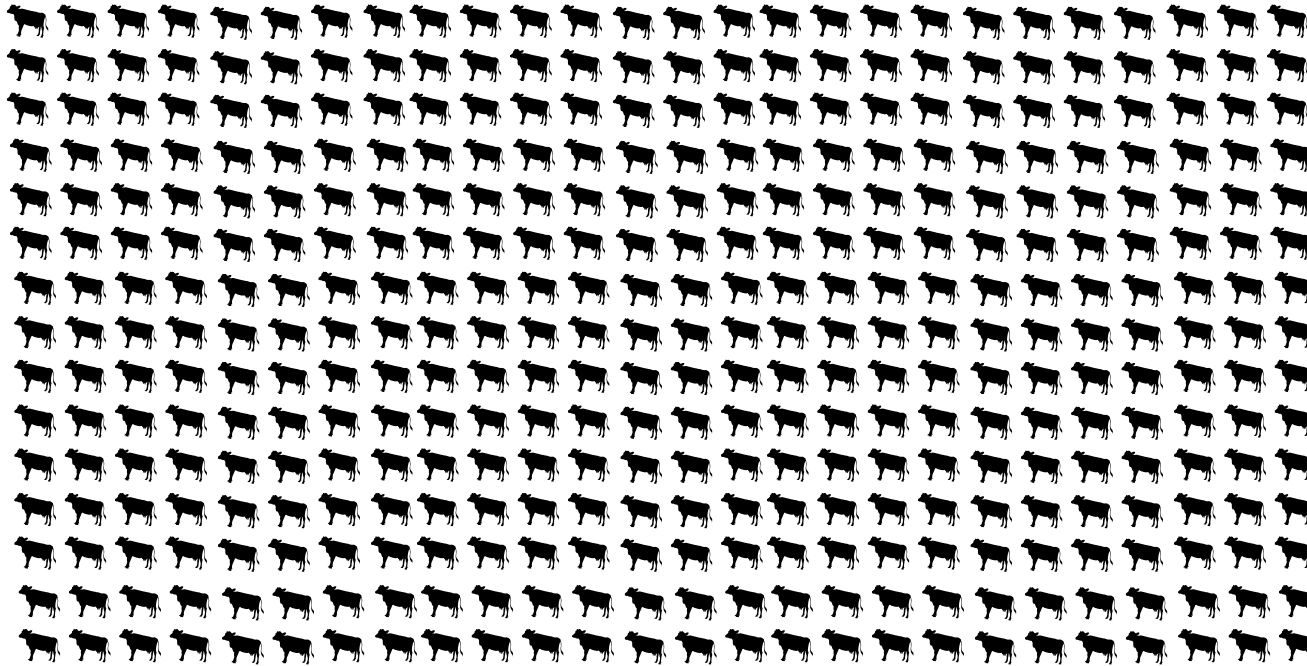
ECLIPSE

Lactoferrin is one of the most unique and impressive proteins



Environmental impact

Creating significant environmental impact and making it scarce, expensive, and impossible to scale sustainably



10,000 liter
of Milk



1 kg of bLF

The Solution

Harnessing yeast to sustainably produce health compounds at scale - unlocking access to ingredients that are impossible or impractical to source through traditional methods.

How it works



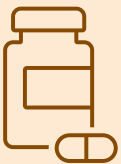
Engineer

Insert DNA of target compound into yeast



Grow

Yeast produces compound in controlled fermenter



Process

Extract and purify high-grade ingredient



*One platform.
Multiple high-value
health ingredients
across diverse
applications.*

Sustainable at Scale

Creating clean, animal-free ingredients at scale

Consistent quality

Controlled process with a reliable, consistent supply

Unlock ingredients

Access previously rare or inaccessible compounds

Eliminates limitations

Go beyond animal sourcing constraints

UQ scientists grow living skin in world-first

The **University of Queensland (UQ)** Skin Model is a **state-of-the-art human-relevant skin testing platform**, designed to bridge the gap between traditional in vitro assays and clinical performance.

- Researchers used stem cells to grow skin complete with blood vessels, capillaries, hair follicles, nerves, tissue layers and immune cells.
- It is the only skin model anywhere in the world with its own blood supply.
- It will lead to great improvements in the treatment of inflammatory skin disease, burns and other injuries requiring skin grafts.
- Development of Animal alternative models
- Relevant for antiaging and longevity testing



Dr Abbas Shafiee (left) and Professor Kiarash Khosrotehrani from UQ's Frazer Institute in the lab.



Australia's Unique Biodiversity and the Northern Territory

Australia is one of the most biodiverse countries in the world, home to ecosystems and species found nowhere else. Its ancient landscapes, nutrient-poor soils, and extreme climates have driven plants to evolve remarkable survival strategies, producing unique phytochemicals with powerful bioactivity.

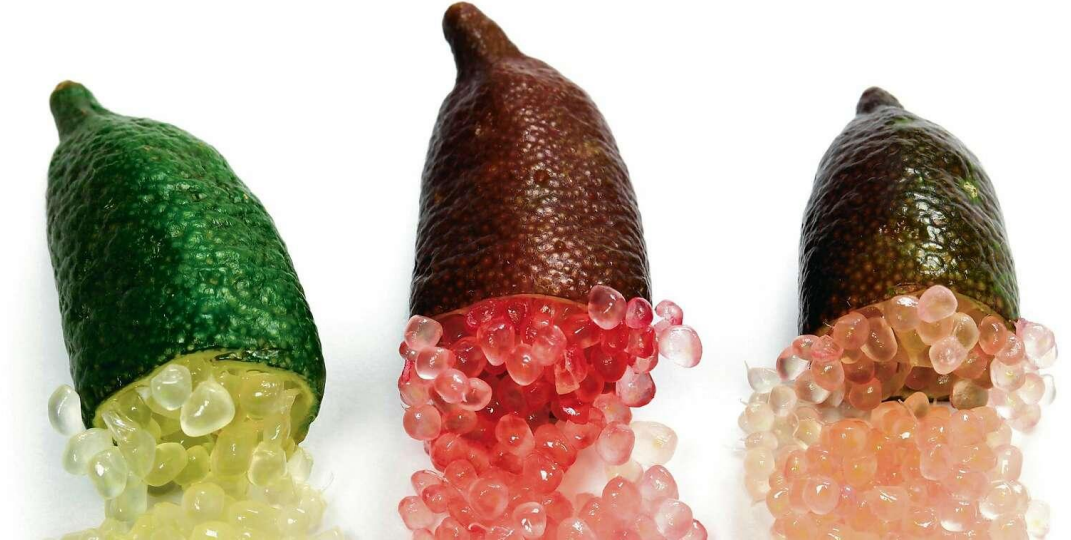
The Northern Territory is especially significant:

- **Pristine environments** – Vast, relatively untouched savannahs, coastlines, and tropical forests support extraordinary ecological diversity.
- **Unique flora** – Botanicals thrive in harsh conditions, developing high concentrations of antioxidants, vitamins, and protective phytochemicals.
- **Harsh climate adaptation** – Extreme UV exposure, seasonal droughts, and monsoons drive plants to produce potent defense molecules that can translate into skin-protective benefits.
- **Indigenous stewardship** – For tens of thousands of years, Aboriginal communities have used these plants for food, medicine, and cultural practices.
- **Frontier for science** – Many of these bioactive remain underexplored.





Australian Native Botanicals for Skincare

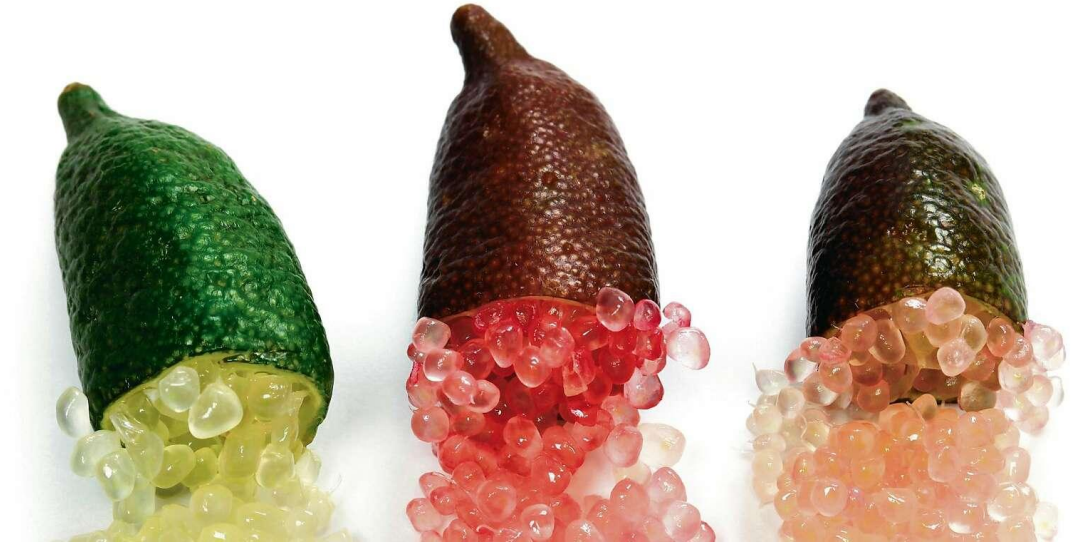




Australian Native Botanicals for Skincare

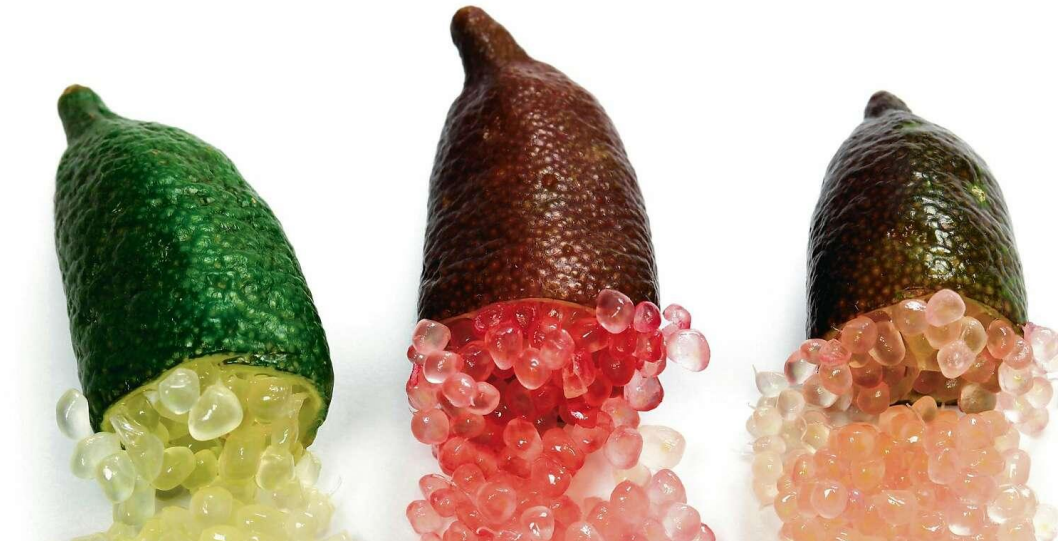
Kakadu Plum (*Terminalia ferdinandiana*)

- World's richest natural source of **Vitamin C**
- Rich in polyphenols (ellagic, gallic acids)
- **Antioxidant, collagen-boosting, skin-brightening**
- Sustainably wild-harvested in Arnhem Land





Australian Native Botanicals for Skincare



Quandong (Desert Peach, *Santalum acuminatum*)

- Contains **ferulic & chlorogenic acids**, anthocyanins
- **Anti-aging, antioxidant, exfoliating** activity
- Improves skin tone and radiance
- Traditionally valued by Indigenous communities





Australian Native Botanicals for Skincare



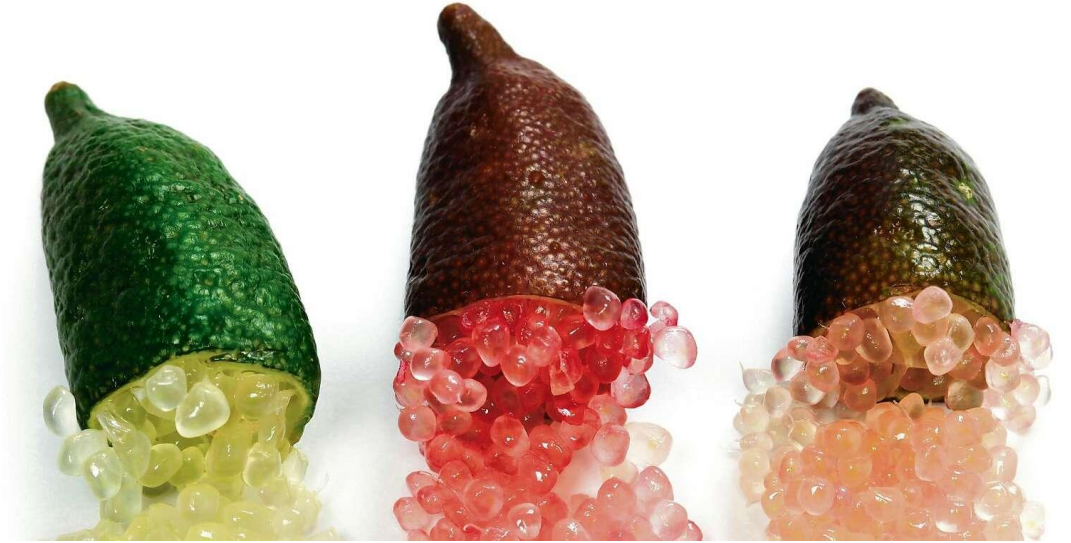
Finger Lime (*Citrus australasica*)

- Packed with **Vitamin C, flavonoids, organic acids**
- Provides gentle **natural exfoliation** and antioxidant activity
- Supports **collagen synthesis** and brightening
- Popular for “caviar-like” micropearls in luxury skincare





Australian Native Botanicals for Skincare



Lemon Myrtle (*Backhousia citriodora*)

- Citral-rich essential oil + flavonoids
- **Antimicrobial and anti-inflammatory** actions
- Potent **antioxidant** and soothing effects
- Used in calming, blemish-control, and preservative-boosting formulations



 **DARWIN**
AUSTRALIA

The University of Western Australia

Now moving to University of Western Australia, where research is uncovering the functional potential of honey as a scientifically validated bioactive for skin applications.

Complex bioactive system – 200+ compounds, multifunctional activity

Formulation advancement – stable gels, improved delivery systems

MGO release (pure honey) – ~98–99.5% in 12 hours

MGO release (formulated) – ~85–99%, comparable to raw honey

Natural slow release – sugar matrix enables sustained delivery

Validated methodology – Franz diffusion confirms reproducibility









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"SOLVING THE SUSTAINABLE BEAUTY EQUATION"

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