

22 January 2026

## NANOLLOSE PROGRESSES IP PORTFOLIO: NATIONAL PHASE FILINGS AND JURISDICTIONAL GRANTS

### Highlights:

- **IP portfolio strengthened** by recent approvals including:
  - **Lyocell Patent (WO2022153170)**: Granted in Japan.
  - **Viscose Patent (WO2019109133)**: Granted in Canada and South Korea.
  - **Wet JelliGrow Patent (WO2018187841)**: Granted in Canada.
- **Biollose Patent Filed (AU2023901457)**: National Phase patent applications filed in 12 jurisdictions for the Company's 'Method for Dewatering Microbial Cellulose' – a key enabler for commercialisation of Nanollose's Biollose™ soilless growing media.
- **Biollose IP Jurisdictions strategically selected** based on market size, established and emerging vertical farming activity, and demonstrated customer interest.
- **IP Portfolio Presentation**: A summary presentation of the Company's IP portfolio is attached.

**Nanollose Limited (ASX: NC6)** ("Nanollose" or the "Company"), an advanced biomaterials company commercialising scalable technology to create fibres, fabrics and other materials from microbial cellulose, is pleased to provide an update on its intellectual property portfolio.

### Patent Updates

The Company is pleased to advise that since its last IP update, it has received further patent grants in Canada, South Korea, and Japan.

**Table 1: New Grants Across Nullarbor and Biollose Patent Families**

Patent	Description	Jurisdiction Update	Date Granted
WO2019109133 Methods for Producing a Viscose Dope from Microbial Cellulose	The patent covers the pulping of microbial cellulose for use in the production of viscose fibres.	Granted in Canada (CA) and South Korea (KR)	CA: 22 July 2025 KR: 1 October 2025
WO2018187841 Plant Growth Media and Method for Making Same	The patent covers the Company's original wet-gel formulation of its JelliGrow seed raising solution.	Granted in Canada	9 December 2025
WO2022153170 A High Tenacity Regenerated Cellulosic Fiber (Lyocell)	The patent covers the production process of Nullarbor™ forest-friendly, high-tenacity lyocell fibre.	Granted in Japan	17 June 2025

## IP Portfolio Summary

Nanollose's IP strategy is designed to protect critical process innovations across both its commercial pathways: fashion and agriculture. These patents secure Nanollose's competitive position from feedstock to finished product across several high-influence markets within the fashion and agriculture sectors.

To date, the company's IP portfolio is comprised of 8 registered trademarks, 4 active patent families (all in National Phase), 14 granted patents in various jurisdictions worldwide, and a 100% grant success rate for patent applications to date.

## National Phase Filing for Biollose Patent

The Company has progressed its patent application for 'Method for Dewatering Microbial Cellulose' (AU2023901457) from the PCT phase to the National Phase in 12 selected jurisdictions (*refer ASX Announcement 15 May 2023*).

The patent covers the production process for a readily rehydratable dry formulation of Nanollose's soilless growing medium. A key attribute of the novel methodology for drying microbial cellulose is that it prevents hornification (the hardening of cellulose upon drying). The dehydrated formulation has a significant advantage over the previous wet formulation, in that it dramatically reduces the cost and complexity of shipping, storage and handling.

## CEO and Managing Director, Mr Andrew Moullin said:

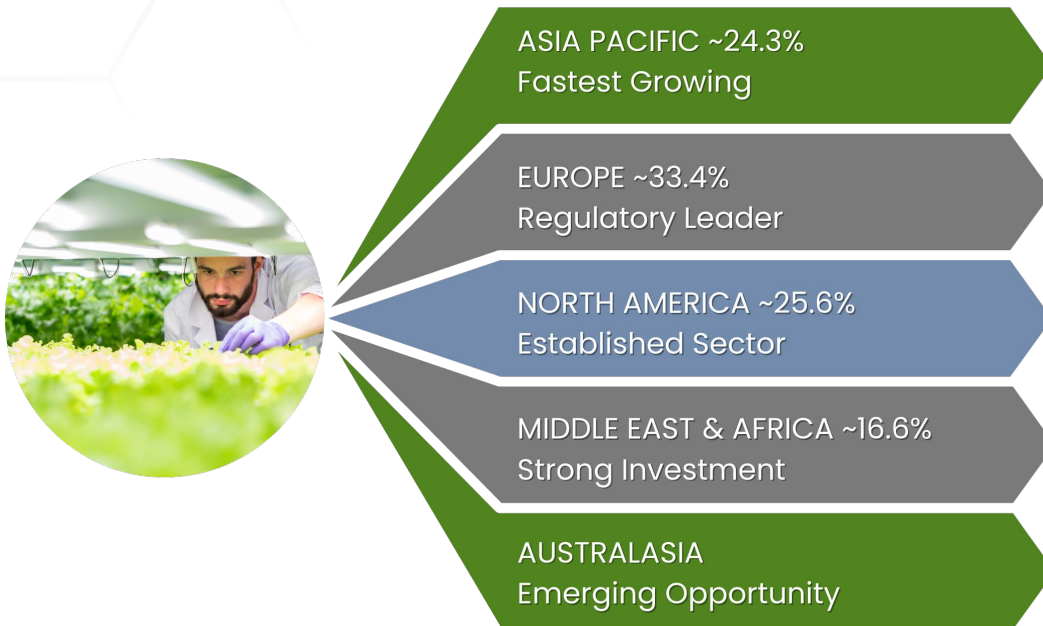
*"We are pleased to progress the Biollose patent into the National Phase across key global markets. The jurisdictions selected reflect both established and emerging opportunities in vertical farming and soilless horticulture, as well as regions where we have seen genuine commercial interest in our technology. Combined with the recent patent grants in Canada, South Korea, and Japan, this update demonstrates the continued strengthening of our intellectual property position."*

*"When viewed in aggregate, our IP portfolio – which now comprises 8 registered trademarks and 14 granted patents worldwide – has been designed to cover all phases of our technology pipeline, in turn providing a strong foundation to secure our competitive position at each stage of the development process as we continue to pursue commercial scale and more importantly, realising value, for our innovative product suite."*

## Market Opportunity Across Selected Jurisdictions

The global vertical farming industry is valued at ~US\$6.91bn with a CAGR of 24%. The jurisdictions for the National Phase filing were selected based on market size, current and emerging vertical farming activity, and demonstrated commercial interest.

**GLOBAL VERTICAL FARMING MARKET SIZE**  
**US\$6.91bn | CAGR 24%**



Data Source: Market Data Forecast, Vertical Farming Reports (2024)

**Table 2: Selected Jurisdictions and Market Drivers**

Region	Jurisdictions Filed	Market Value (2024)	CAGR	Key Market Driver
Asia Pacific	China, Japan, Singapore, South Korea, India	US\$1.68bn	29.04%	Rapid urbanisation, limited arable land.
Europe <sup>1</sup>	EPO Member States	US\$2.31bn	22.20%	Regulatory support for sustainable substrates.
North America	United States, Canada	US\$1.77bn	24.00%	Established vertical farming sector, demonstrated customer interest.
Middle East & Africa	Saudi Arabia, UAE	US\$1.15bn	26.40%	Water scarcity, strong government investment in food investment security.
Australia & NZ <sup>2</sup>	Australia, New Zealand	—	—	Water scarcity, demonstrated customer interest.

<sup>1</sup>European Patent Office (EPO) member states cover 39 European countries including the UK.

<sup>2</sup>Australis & NZ market data included in Asia Pacific figures.

Data Source: Market Data Forecast, Vertical Farming Reports (2024)

The Company has also received expressions of interest for Biollose samples from prospective customers across the United States, Netherlands, New Zealand, Australia, Saudi Arabia, Canada and the United Kingdom, further informing the jurisdiction selection. A summary presentation of the Company's IP portfolio is attached.

**ENDS**

## **AUTHORITY AND CONTACT DETAILS**

This announcement has been authorised by the Board of Directors of Nanollose.

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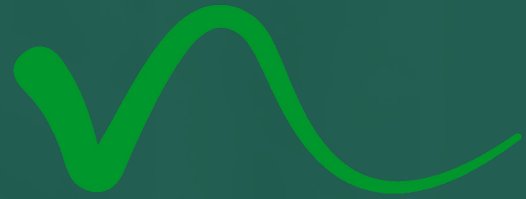
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## **ABOUT NANOLLOSE**

Nanollose Limited (ASX: NC6) is a leading biomaterials company commercialising scalable technology to create fibres, fabrics and other novel materials with minimal environmental impact. Nanollose's, eco-friendly fermentation process can use agricultural waste and by-products to produce cellulose, a versatile raw material traditionally produced from trees via the wood pulping process. The company then uses this 'Tree-Free' cellulose as an input for its range of innovative biomaterials including its Nullarbor™ fibres, MicroGel™ horticultural medium, and its emerging animal-free and plastic-free leather-like materials.



nanollose™

IP Portfolio

January 2026



Nanollose Limited (ASX: NC6)

[www.nanollose.com](http://www.nanollose.com)

# Our Brands



Our diverse portfolio of sustainable products are developed from microbial cellulose for a range of applications in high-influence markets, including fashion, agriculture, and novel biomaterials.



Forest-Friendly, High-Tenacity  
Lyocell Fibre

A revolutionary high performance, sustainable lyocell fibre for textiles and fashion applications. Forest-friendly & plastic-free.



Biobased Soilless Growing  
Media

A range of hi-tec, grit-free growing media for soilless horticulture systems. 100% tree-free, pesticide free, easy to ship & biodegradable.



Sustainable, Non-Woven  
Lyocell Fibre

A high performance, sustainable fibre produced for wipes and other nonwoven applications. Forest-friendly & plastic-free.

# What Our Patents Protect



## Intellectual Property Across the Value Chain

Our patent portfolio protects key processes across two commercial pathways, fashion and agriculture. These patents secure Nanollose's competitive position from feedstock to finished product.



### NULLARBOR™ Textile Pathway

### BIOLLOSE™ Growing Media Pathway

FOUNDATION PATENT	<b>WO2019109133 VISCOSE DOPE PRODUCTION:</b> Protects the pulping of microbial cellulose for viscose fibre production.	<b>WO2018187841 WET JELLIGROW:</b> Protects the original wet-gel soilless growing medium.
ADVANCED PATENT	<b>WO2022153170* HIGH-TENACITY LYOCCELL:</b> Protects the production of high-performance Nullarbor™ lyocell fibre.	<b>AU2023901457 DEWATERING METHOD:</b> Protects the dry, rehydratable formulation enabling commercial-scale distribution.
COMMERCIAL SIGNIFICANCE	These patents secure Nanollose's position in the sustainable textiles market, protecting the Company's ability to produce forest-friendly fibres for fashion, apparel, and non-woven applications (e.g., wipes).	These patents secure Nanollose's position in the soilless agriculture market (vertical farming, hydroponics, microgreens), protecting both the original product and the commercially critical dry formulation that enables global distribution.

\*Jointly owned with Grasim Industries Ltd (Birla Cellulose)



# Updates at a Glance

## Key Patent Developments

- ✓ 4 NEW PATENT GRANTS secured across Canada, South Korea, and Japan.
- ✓ 12 NEW NATIONAL PHASE FILINGS for Biollose dewatering technology in strategic global markets.
- ✓ 100% GRANT SUCCESS RATE maintained across all patent applications to date.

PATENT FAMILY	BRAND	JURISDICTION UPDATE	DATE
<b>WO2019109133</b> Methods for Producing a Viscose Dope from Microbial Cellulose (Viscose)	✓ NULLARBOR™	✓ Granted in Canada (CA) and South Korea (KR)	CA: 22 July 2025 KR: 1 October 2025
<b>WO2022153170</b> A High Tenacity Regenerated Cellulosic Fibre (Lyocell)	✓ NULLARBOR™ ✓ NUFOLIUM™	✓ Granted in Japan	17 June 2025
<b>AU2023901457</b> Method for Dewatering Microbial Cellulose (Biollose)	✓ BIOLLOSE™	▶ Progressed to National Phase in 12 Jurisdictions: Australia, New Zealand, EPO Member States (incl. UK), United States, China, India, Canada, Japan, Singapore, Saudi Arabia, UAE, South Korea.	11 November 2025
<b>WO2018187841</b> Plant Growth Media and Method for Making Same (Wet JelliGrow)	✓ BIOLLOSE™	✓ Granted in Canada	9 December 2025

# IP Portfolio Summary

## A Growing Foundation for Commercialisation

Nanollose's IP strategy is designed to protect critical process innovations across both its commercial pathways; fashion and agriculture, securing a sustainably competitive position across several high-influence markets. Our current IP portfolio is comprised of the following:

- 8 registered trademarks.
- 3 → 4 patent families in National Phase.
- 10 → 14 granted patents in various jurisdictions worldwide.
- 100% grant success rate for patent applications to date.
- Ongoing R&D across several novel biomaterial applications, with near-term focus on scaling Nullarbor™ and **animal-free, plastic-free biobased leather**, which is showing considerable promise.

*"With four patent families now in National Phase and a pipeline of novel technologies in development, we're well positioned to protect our competitive advantage as we focus on realising value from our IP."* – Andrew Moullin, Managing Director

# Patented IP Detail Summary



## Four Patent Families Protecting Two Commercial Pathways

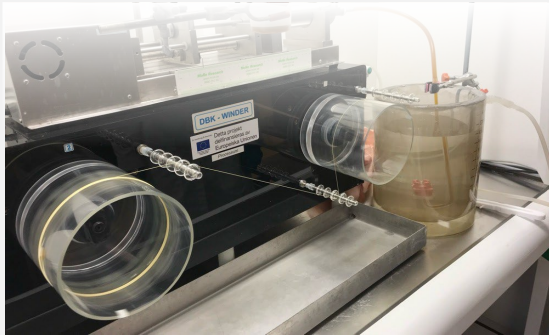


### VISCOSE DOPE FROM MICROBIAL CELLULOSE

### HIGH TENACITY LYOCELL FIBRE

### DEWATERING MICROBIAL CELLULOSE

### WET PLANT GROWTH MEDIA



**WO2019109133** Methods for Producing a Viscose Dope from Microbial Cellulose (Viscose)

**WO2022153170** A High Tenacity Regenerated Cellulosic Fibre (Lyocell)

**AU2023901457** Method for Dewatering Microbial Cellulose (Biollose)

**WO2018187841** Plant Growth Media and Method for Making Same (wet JelliGrow)

The patent covers the pulping of microbial cellulose for use in the production of viscose fibres.  
*Refer ASX Announcement: 14 March 2023 [here](#).*

The patent covers the production process of Nullarbor™ forest-friendly, high-tenacity lyocell fibre.  
*Refer ASX Announcement: 13 January 2021 [here](#).*

The patent covers the production process for a readily rehydratable dry formulation of Nanollose's soilless growing medium. *Refer ASX Announcement: 15 May 2023 [here](#).*

The patent covers the Company's original wet-gel formulation of its JelliGrow seed raising solution.  
*Refer ASX Announcement: 20 February 2024 [here](#).*

#### JURISDICTION UPDATES

✔ Granted in Canada and South Korea.

#### JURISDICTION UPDATES

✔ Granted in Japan.

#### JURISDICTION UPDATES

▶ Progressed to National Phase in 12 jurisdictions.

#### JURISDICTION UPDATES

✔ Granted in Canada.

# Patent Coverage



## NORTH AMERICA

### UNITED STATES

WO2018187841 Pending  
 AU2023901457 Nat. Phase  
 W02022153170 Pending  
 WO2019109133 Granted

### CANADA

WO2018187841 Granted  
 AU2023901457 Nat. Phase  
 W02022153170 Pending  
 WO2019109133 Granted

## WESTERN EUROPE

### EPO MEMBER STATES

WO2018187841 Granted  
 AU2023901457 Nat. Phase  
 W02022153170 Pending  
 WO2019109133 Pending

## EASTERN EUROPE

### EPO MEMBER STATES

WO2018187841 Granted  
 AU2023901457 Nat. Phase  
 W02022153170 Pending  
 WO2019109133 Pending

## EAST & SOUTH EAST ASIA

### CHINA

WO2018187841 Granted  
 AU2023901457 Nat. Phase  
 W02022153170 Pending  
 WO2019109133 Pending

### JAPAN

WO2018187841 Granted  
 AU2023901457 Nat. Phase  
 W02022153170 Pending  
 WO2019109133 Granted

### SOUTH KOREA

AU2023901457 Nat. Phase  
 W02022153170 Pending  
 WO2019109133 Granted

### INDONESIA

W02022153170 Granted  
 WO2019109133 Granted

## SOUTH ASIA

### INDIA

AU2023901457 Nat. Phase  
 W02022153170 Granted  
 WO2019109133 Granted

### THAILAND

W02022153170 Pending

### VIETNAM

W02022153170 Pending

## AUSTRALASIA

### AUSTRALIA

WO2018187841 Granted  
 AU2023901457 Nat. Phase  
 W02022153170 Pending  
 WO2019109133 Granted

### NEW ZEALAND

WO2018187841 Pending  
 AU2023901457 Nat. Phase

**WO2018187841** Plant Growth Media and Method for Making Same (Wet JelliGrow)

**BRAND:** BIOLLOSE™  
**GRANTED:** AU, CN, EP, JP, CA  
**PENDING:** NZ, US



**AU2023901457** Method for Dewatering Microbial Cellulose (Biollose)

**BRAND:** BIOLLOSE™  
**STATUS:** Selected Jurisdictions in National Phase



**WO2022153170\*** A High Tenacity Regenerated Cellulosic Fiber (Lyocell)

**BRAND:** NULLARBOR™  
**GRANTED:** IN, JP  
**PENDING:** AU, CA, CN, EP, ID, KR, TH, US, VN



**WO2019109133** Methods for Producing a Viscose Dope from Microbial Cellulose (Viscose)

**BRAND:** NULLARBOR™  
**GRANTED:** AU, IN, JP, US, CA, KR  
**PENDING:** EP, CN



\*Jointly owned with Grasim Industries Ltd (Birla Cellulose)

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