

## ASX Release

6 December 2023

# THIRD PILOT PRODUCTION COMPLETED WITH BIRLA CELLULOSE FOR NULLABOR™ AND NUFOLIUM™ FIBRE TECHNOLOGY

## Highlights:

- Nanollose has completed the third pilot production of its 'Forest-Friendly' Nullarbor™ and Nufolium™ lyocell fibres, with development partner Birla Cellulose
- The third pilot spin successfully achieved the target objective to increase the lot size of production, producing over half a tonne of fibre.
- The third pilot spin also successfully achieved a second target objective to produce the first batch of fibre for nonwoven applications by producing 110kg of Nufolium-20™.
- The latest batch of the proprietary Nullarbor-20™ fibre will be sent to one of the Company's manufacturing partners, with further updates expected in the near term.

Leading biomaterials company **Nanollose Limited** (ASX: NC6) ("Nanollose" or the "Company") is pleased to report that the third pilot production of its Nullarbor<sup>TM</sup> and Nufolium<sup>TM</sup> fibres with Birla Cellulose has been successfully completed.

The third pilot spin achieved the two important objectives of increasing the scale of Nullarbor fibre production and producing the first batch of Nufolium fibre for nonwoven applications. The spin was the Company's largest to date, producing more than twice the amount of fibre than the previous pilot spin, and augurs well for continued scale-up of the manufacturing process.

#### Nullarbor-20™

The spin produced around half tonne of Nullarbor- $20^{\text{TM}}$ , a proprietary blend of 20% microbial cellulose and 80% FSC certified wood pulp. The batch was produced specifically for one of Nanollose's partners who requested it. The Company looks forward to providing more details on this batch shortly.

### Nufolium-20™

The third pilot spin achieved a second major objective by producing the first batch of the Company's Nufolium-20™ for nonwoven applications. Nufolium uses the same microbial cellulose raw material and the same environmentally friendly lyocell process but changes some parameters to modify the fibres for use in nonwoven materials such as wipes.



Nanollose currently has a cooperation agreement with Codi Group, Europe's largest producer of wet wipes, for developing and using Nufolium in wipes. The 110kg of Nufolium-20 fibre will be converted into a nonwoven textile prior to delivery to Codi Group for testing and development purpose.

#### Fibre from the Second Pilot Production

The Company's textile partner, Paradise Textiles, has prepared several fabric samples from fibre produced in the second pilot production for fashion brands regarding potential applications. The 90 kg of Nullarbor-20 fibre will be converted into fabric for Lee Mathews to be used in a small capsule collection which will likely represent the first commercially available garments containing Nullarbor fibres. Lee Mathews is an Australian fashion brand with international reach and was the designer for the Company's Nullarbor concept garment launched at the Copenhagen Global Fashion Summit last year (refer ASX Announcement 6 June 2022).

## Management commentary:

**Executive Chairman Dr Wayne Best said:** "We are delighted with the results from this third pilot production run with Birla Cellulose, which has further demonstrated the scalability and commercial potential of the technology. At over half a tonne of fibre, the spin marks a significant increase over the previous two spins. While the pilot spins continue to provide important technical information, it is very pleasing to see them also beginning to provide valuable quantities of fibre for our partners and projects. We look forward to updating shareholders with the progression of fibre from both the second and third spins in the near future."

## [ENDS]

#### **AUTHORITY AND CONTACT DETAILS**

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

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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 filed a joint patent application with strategic partner, Birla Cellulose, for its high tenacity, Tree-Free Nullarbor lyocell fibre in 2021. Work has now moved out of the laboratory and into Birla



Cellulose's pilot production facilities in India where we have completed three successful pilot production runs to date totalling over a tonne of fibre, 800kg of Nullarbor-20™, 150kg of Nullarbor-30™, and 100kg of Nufolium-20™. Quantities of these fibres have since been sent to several collaborators and been converted into yarns, fabrics, and garments for testing and evaluation, prior to potential uptake by partners.

## **About Birla Cellulose**

Birla Cellulose, the Pulp and Fibre business of Aditya Birla Group (ABG), is a leading sustainability focused man made cellulosic fibre producer. Its nature based fibres come from natural renewable sources from responsibly managed forestry. Grasim Industries Limited, a flagship company of ABG, ranks amongst the top publicly listed companies in India and operates Indian facilities of Birla Cellulose. Birla Cellulose operates 12 pulp and fibre sites globally that apply closed-loop processes and environmentally efficient technologies that recycle raw materials and conserve natural resources. It's five global advanced research centers are equipped with state of the art facilities and pilot plants. It's new generation innovative products like Livaeco by Birla Cellulose, Liva Reviva, Birla Excel and Birla Spunshades are designed with superior sustainable credentials. With an aim to create bigger and broader impact, Birla Cellulose collaborates actively with its value chain partners and works closely with organizations like, Canopy Planet, Sustainable Apparel Coalition (SAC), Zero Discharge of Hazardous Chemicals (ZDHC), Changing Markets Foundation, Textile Exchange, WBSCD, Fashion for Good amongst others to continually learn and apply the best practices within its global operations and across its value chain.

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