

Scaling up sustainability

Joel Mertens from MEC spoke to delegates about the development of a new standardised test method for textile microfibre release during washing.

More than 400 leading voices on environmental issues in the textiles sector met in Vancouver, Canada, at the ninth edition of Planet Textiles.

Held in partnership with the Sustainable Apparel Coalition and MCL News & Media, textile microfibre pollution featured strongly on the conference programme, along with technology that can recycle discarded clothing to produce petroleum and plant-based monomers, new textile dyes from biosynthetic and wood-based feedstocks and innovative ways to produce viscose fibres from food and beverage waste streams.

Peter Ross, vice president of research at OceanWise, spoke on microplastic pollution as a growing conservation concern, highlighting that a single synthetic sweater can lose a million fibres in a single load of laundry. We speak with Ross further on page 39.



A follow-up microplastics panel discussion featured Dr Katy Stevens from the European Outdoor Group and European Microfibre Consortium, Mary Ankeny from Cotton Inc. – who revealed new work on the environmental fate of textile microfibres, and Joel Mertens from MEC who walked delegates through the development of a new standardised test method for textile microfibre release during washing.

The microfibre consortium encourages industry responsibility to actively understand the problem of microfibre shedding and develop solutions. A current lack of data, varied research methodologies and an uncertainty of the scale and severity of microfibre pollution based on data has motivated the collaboration, with retailers involved including IKEA, Marks and Spencer and ASOS.

On-going research, explained Stevens, is exploring virgin versus recycled fibres and is working to understand how colour usage affects shedding.

Further, focusing on scaling up sustainability and moving away from the “crossed fingers scenario” or corporate responsibility, Sympatex CEO Rüdiger Fox stressed the need for sustainability to be an essential part of business nature, rather than a megatrend. Corporate language, he said, needs to be used in sustainability discussions to ensure it does not remain niche. See page 56 for an in-depth interview with Fox.

Focused thinking

Three packed breakout sessions on textile chemistry in water use, transparency in the man-made fibre sector in relation to deforestation, and how to leverage financing mechanisms to scale

sustainable innovation in the apparel sector provided lively debates on the harmonisation of industry efforts.

Progress on more sustainable processing was announced by Janne Poranen, CEO of Spinnova, the Finnish-based company which produced cellulosic fibres in a closed loop process without the need for the harsh, chemically and water intensive 'Kraft' process used in traditional wood pulping. "We are now scaling up our in-house industrial pilot through 2018 in collaboration with our partners with a view to launching Spinnova fibre in early 2019," he said, "the first commercial product will be available in spring 2019," in partnership with Finland retailer Marimekko.

Intrinsic Textiles revealed a new process for breaking down polyester microfibres not only in wastewater treatment sludge, but also for breaking down these synthetic microfibres in seawater and other environments.

"Our technology also allows us polyester to biodegrade in landfill at rates similar to natural fibres like wool," claimed co-founder Andrea Ferris.

At a time when new ways to tackle challenges for the man-made cellulose textile sector are high on the agenda, a standing room only breakout session on forestry management and biodiversity at Planet Textiles saw Nicole Rycroft, CEO of Canopy, describe viscose supply chains as "at an inflection point."

Joined by panellists from Lenzing, CanopyStyle, Inditex, MISTRA Future Fashion and Stand.Earth, Rycroft shared details on Canopy's work to conserve the world's forests, species and climate, and to support advancement of traditional and indigenous community rights.

Big reveal

Australian start-up Nanollose revealed for the first time at Planet Textiles a selection of knitted fabrics made from microbial cellulose derived from coconut waste.

Nanollose chief executive, Alfie Germano told delegates: "We identified a source of cellulose raw material (coconuts) and made a fibre in a very quick time-frame. I'm very happy to say that not only do we now have a fibre, we've used industrial methods to spin this fibre into a yarn and produced the very first batch of fabrics to bring to Planet Textiles."

The 28-gauge single jersey knits in weights from 100 – 200 gms were made from waste by-products of the coconut industry via fermentation to give microbial cellulose that is similar to regenerated cellulose made from plant-based fibres such as wood. It is claimed the only difference is that nanollose is made using a fermentation process using the bacterium, *Acetobacter xylinum* to convert solutions of organic materials into nanocellulose pulp for extrusion into fibres – similar to how viscose yarns are made.

Nanollose was one of eight innovators to present a Pitch for the Planet, where it revealed more about the source of its raw materials: "We started in south east Asia because quite frankly because there is already a supply chain there from the food industry that we can augment," said CEO Alfie Germano. "It comes from coconuts – Indonesia produced 18 billion coconuts last year and the

Philippines did 15 billion coconuts, and the waste streams coming from these industries is what we tap into.”

He also claimed that whatever you can do with viscose, it’s possible to do with the new fibre. “I don’t think we’ll have any problems going down different routes for extrusion and spinning – I can’t say that it’s better than traditional viscose, I’d like to, but I can’t make those statements right now but all the indicators are very encouraging. Regenerated cellulose,” he concluded.

BOX OUT: The next edition of Planet Textiles will take place 22 June 2019 at ITMA in Barcelona, Spain, with sustainable innovation and disruptive technologies key focuses of the event.

We are working with the Sustainable Apparel Coalition, Fashion for Good and other industry leaders on the 2019 edition of Planet Textiles, and will once again feature our Pitch for the Planet platform for innovative start-ups. If you would like get involved in Planet Textiles 2019 email info@mclnews.com.

Web: www.planet-textiles.com