



canopy

Next Gen Solutions Snapshot

JANUARY 2022



20% non-GMO sugar beet residue packaging by Crown Van Gelder (left). 50% wheat straw from Columbia Pulp and 50% post-consumer recycled paper content packaging by Willamette Falls Paper Company (right).

PACK4GOOD PARTNERS PUMP UP NEXT GEN

Next Gen Solutions go way beyond the box

Pack4Good partners are poised to scale up Next Generation Solutions. Next Gen uses alternative fibres, including agricultural waste, to make strong, versatile packaging. This takes the pressure off forests, lowers carbon emissions, and enables a circular economy.

Pack4Good partners are industry leaders working to implement solutions that reduce waste, address risk, and protect forests. In the last year alone, the number of Pack4Good partners doubled to include 282 brands with a combined annual revenue of \$158 billion USD.

This is great news, but the scale of the challenge is huge. In the 60 seconds it takes to read this article, more than 5,700 trees will be cut down for packaging—totalling three billion trees each year.¹

Thanks to innovator companies, Ancient and Endangered Forests don't have to be logged to make paper, packaging, or viscose-type (MMCF) textiles. Millions of tonnes of alternative fibres are available for Next Gen products and require 50-70% less energy up to 90% less water, and no forest inputs.²

At this critical time, it's essential to scale up quickly. To do so, we need strong brand and producer engagement. Ask your contact at Canopy for more information about how you can help support the Next Gen scale up.

NEXT GEN PACKAGING SOLUTIONS ARE HERE

BIG BRANDS – STEPPING INTO THE FUTURE WITH SMALLER FOOTPRINTS New products and processes attracting major brand interest

Two recent highlights:

- Corona has tested a Next Gen packaging solution using barley straw to make equally strong, more sustainable six-pack cases.³
- Mars Wrigley UK is trialling “Bean Board” for displays in Tesco supermarkets. Made from 70% recycled paper and 30% waste cocoa bean shells, it requires 93% less land than traditional cardboard displays and uses no virgin tree fibres.⁴

ONE TO WATCH: SUSTAINABLE FIBRE ON THE CURRICULUM

The North Carolina State University Forestry Department is spearheading research to develop sustainable, alternative fibres for market pulp, tissue products, packaging, textiles, and more. The research will include all phases of fibre production, as well as sales and supply chain aspects of the industry.⁵

This project reflects a sea change in the fibre industry, catalysed by brands sending signals to producers that they want to purchase Next Gen fibres to minimize their carbon and biodiversity impacts.

FOOTNOTES

1. Environmental Paper Network. Paper Calculator. <https://c.environmentalpaper.org/>
2. Average of life cycle analysis results provide by multiple Canopy Next Gen Innovation partners
3. Business Wire. “Corona Reinvents Sustainable Packaging by Launching Beer Pack Made Using Barley” March 17, 2021. <https://www.businesswire.com/news/home/20210317005586/en/Corona-Reinvents-Sustainable-Packaging-by-Launching-Beer-Pack-Made-Using-Barley>
4. Packaging News. “Mars Wrigley and Tesco trial display made with cocoa bean shells” July 7, 2021. <https://www.packagingnews.co.uk/news/markets/retail/mars-wrigley-tesco-trial-promo-display-made-cocoa-bean-shells-27-07-2021>
5. NC State University website. “Sustainable and Alternative Fibres Initiative.” <https://research.cnr.ncsu.edu/sites/safi/safi-consortium/>



Birla's Liva Reviva



Lenzing's REFIBRA™

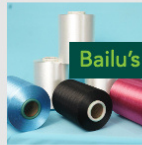


Renewcell's Circulose

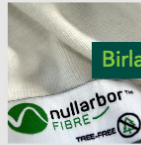
WATCH OUT FOR IT



Sanyou's ReVisco



Bailu's BailuEco



Birla & Nanollose

VISCOSE VIBRANCY! INNOVATIONS ARE HERE, ARE GROWING, AND ARE BETTER THAN EVER

On your marks. Get set. Get in the Next Gen game.

The race is on. The production of man-made cellulosic fibres (MMCF) is transforming—and fast. This innovation is being driven by demand, with more brands than ever committed to shrinking fashion's forest footprint.

Big producers are making big capacity commitments to transform the supply chain.

New technologies and processes mean cellulose can be generated from agricultural fibres, pre- and post-consumer cotton textiles, and created from microbial fermentation of food wastes.

These new possibilities have two viscose production giants, India's Aditya Birla, and Austria's Lenzing, revving at the starting line by each announcing 100,000 tonne commitments to Next Generation MMCF product.

Birla committed to scale up production of Liva Reviva viscose—made with 30% pre- consumer cotton waste—to 100,000 tonnes by 2024. Lenzing has already reached industrial scale and has committed to mass produce its REFIBRA technology trademarked brand fibre—made from 30% textile waste—to use 100,000 tonnes of textile waste by 2028. This is good news for forests.

This whole market is shifting quickly. Producers are responding to the fact that more and more brands are committed to Next Gen solutions. To date, 455 brands, with a combined annual revenue of over \$791 billion US, have signed on to CanopyStyle, committing to eliminate the use of Ancient and Endangered Forests, and support the use of alternative fibres.

Two hundred brands came on board in the last 18 months alone, including many big hitters, such as retail giant Walmart and supply chain manager Li & Fung.

CanopyStyle brands have also been embracing circular economy practices—moving from linear consumption to a circular materials flow including recovery, reuse, and repurposing—by exploring recycling textile waste to meet the emerging regulations around circular manufacturing in the EU, Australia, and beyond.

Canopy is giving a shout out to everyone who's making sustainable fibre choices. This is how we reduce carbon emissions, protect biodiversity, and keep vital forests standing.

Here's a sampling of Canopy's brand partners that have been publicly marketing the use of Next Gen fibre in their collections:

Patagonia
Mara Hoffman
Levi's
Kappahl
HUGO BOSS
H&M

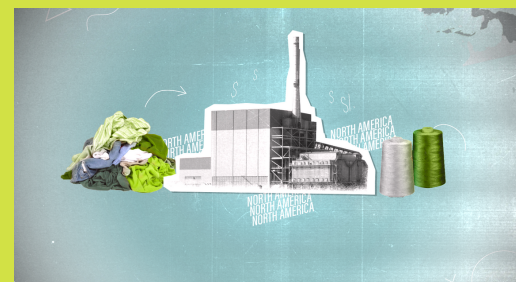
Gap Inc.
Country Road
Calvin Klein/PVH
BESTSELLER brands:
Vero Moda,
Object, and Selected

**MORE PROMISING PROTOTYPES,
MORE INNOVATIVE PARTNERSHIPS**

Canopy's Next Gen progress report reveals:

- Strong interest from producers in China to meet increasing demand for Next Gen pulp.
- Most producers' Next Gen volumes remain too low to meet global forest and climate needs. However, some are aiming to convert 25% of production to MMCF with 50%–100% Next Gen content.
- Producers are gaining clarity around scaling up. New regulations will accelerate these shifts.
- We still need MMCF leaders to convert 50% of their production to pure Next Gen fibre.

Please see Canopy's [Hot Button Report](#) for more details.



**WHEN BRANDS GO ALL IN,
INNOVATION LEAPS AHEAD**

One brand investing in innovators creates positive change. But a group of brands pooling resources creates sector-wide transformation.

Recently, a group of investors including H&M Group, Adidas, BESTSELLER, and Zalando, worked together to raise 30 million euro for Next Gen startup Infinited Fiber Company.^{6,7}

That kind of collaboration and movement building makes big, fast change possible, shifts fashion out of forests, and protects the planet.

FOOTNOTES

6. Infinited Fiber Company, Press Release July 5, 2021. <https://infinitedfiber.com/2021/07/05/infinited-raises-eur-30-million-adidas-and-bestseller-among-new-investors-hm-group-leads-financing-round/>

7. Zalando website. News and Stories. "Zalando Invests in Textile Regeneration Technology Group Infinited Fiber Company" Sept. 28, 2021. <https://corporate.zalando.com/en/newsroom/news-stories/zalando-invests-textile-regeneration-technology-group-infinited-fiber-company>



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ISSUES TO FOLLOW



INDEPENDENT REPORT ENDORSES NEXT GEN FASHION FIBRE

The Laudes Foundation report “Spinning Future Threads” shares promising findings on using residue from food production in South and Southeast Asia as a sustainable fibre source for cellulosic textile production. In the eight countries researched, there were large quantities of various agricultural residues available for both cellulose and fibre extraction.

The report highlights ten potential hub locations to concentrate future sustainable textile production capacity near current production in areas within a 50-100 km sourcing radius for the agricultural fibres. Responsible investment, they conclude, would result in additional revenue for farmers and would reduce carbon emissions and the health problems associated with residue burning.⁸

TECHNOLOGY INNOVATIONS



COLUMBIA PULP IS SPINNING WHEAT STRAW INTO GOLD

Columbia Pulp is North America’s first alternative-fibre market pulp mill. The mill turns residual wheat straw into more than 127,000 tonnes of wet lap pulp fibre annually. Columbia Gold® is a market-ready substitute for virgin hardwood and imported non-wood pulps, and meets or exceeds most hardwood fibre specifications for production of molded fibre, tissue and towel, and specialty papers and packaging.

Not only does Columbia Gold® have roughly half the carbon footprint of conventional pulps, but the mill itself sends no solid waste to landfills, and no liquid effluent into rivers.⁹

BY THE NUMBERS

12

MMCF producers are in the process of testing, trialling, and/or prototyping Next Generation Solutions.

50%+

Reduction in carbon emissions by using Next Gen feedstocks vs virgin wood fibre.

4 OF THE TOP 5

MMCF producers are commercially manufacturing with Next Gen inputs ranging from 5% to 30% from pre- and post-consumer waste cotton textile. These products have increased in percentage of Next Gen fibre over last year.

490,000 TONNES

To help unlock financing for Next Gen production, Canopy partners have expressed interest in 490,000 tonnes of paper, packaging, and MMCF products with Next Gen fibre annually. Ask us how you can contribute to generating demand for a million tonnes of Next Gen fibres that have a far better carbon record than forest fibre, and no impact on forests.

FOOTNOTES

8. The Laudes Foundation. “Spinning Future Threads.” <https://www.laudesfoundation.org/learning/research/2021-07-01-spinning-future-threads>

9. Columbia Pulp website. “Columbia Gold” <https://columbiapulp.com/our-products/pulp/>

FASHION'S NOT JUST CYCLICAL, IT'S CIRCULAR CHIC

In November, Canopy launched our [Circular Chic](#) campaign to showcase real-life, low carbon alternatives for fashion fabrics like viscose and rayon, which are too often made by logging vital, high carbon forests.

Circular Chic features high fashion and a diverse set of changemakers — Arizona Muse, Emma Breschi, Candice Carty-Williams, Kelly Knox, Emma Slade Edmondson, Efe Efeturi, and Anna Shaffer. This is not about the future; these solutions are available now.



THIS DRESS IS MADE WITH RECYCLED FABRIC

Liva Reviva
30% recycled fabric



REFIBRA™ set made from 30% recycled cotton



Bag by RE-leaf TECHNOLOGIES



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