

CANADIAN HEMP FOR FIBRE: REMOVING THE NASTIES

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LELIA LAWSON



ENVIRONMENTAL IMPACTS OF FIBRE PRODUCTION

>100 million tonnes
produced annually.¹⁻³

~54%
polyester



~22%
cotton



2,700 litres H₂O =
1 cotton t-shirt.⁴

~500,000 tonnes
landfilled by
Canadians annually
(~12kg/person), >3%
increase/annum.^{5,6}

¹Niinimäki, K.; Peters, G.; Dahlbo, H.; Perry, P.; Rissanen, T.; Gwilt, A. The Environmental Price of Fast Fashion. *Nat. Rev. Earth Environ.* 2020, 1, 189–200, doi:10.1038/s43017-020-0039-9.

²Bevilacqua, M.; Ciarapica, F.E.; Mazzuto, G.; Paciarotti, C. Environmental Analysis of a Cotton Yarn Supply Chain. *J. Clean. Prod.* **2014**, 82, 154–165, doi:10.1016/j.jclepro.2014.06.082.

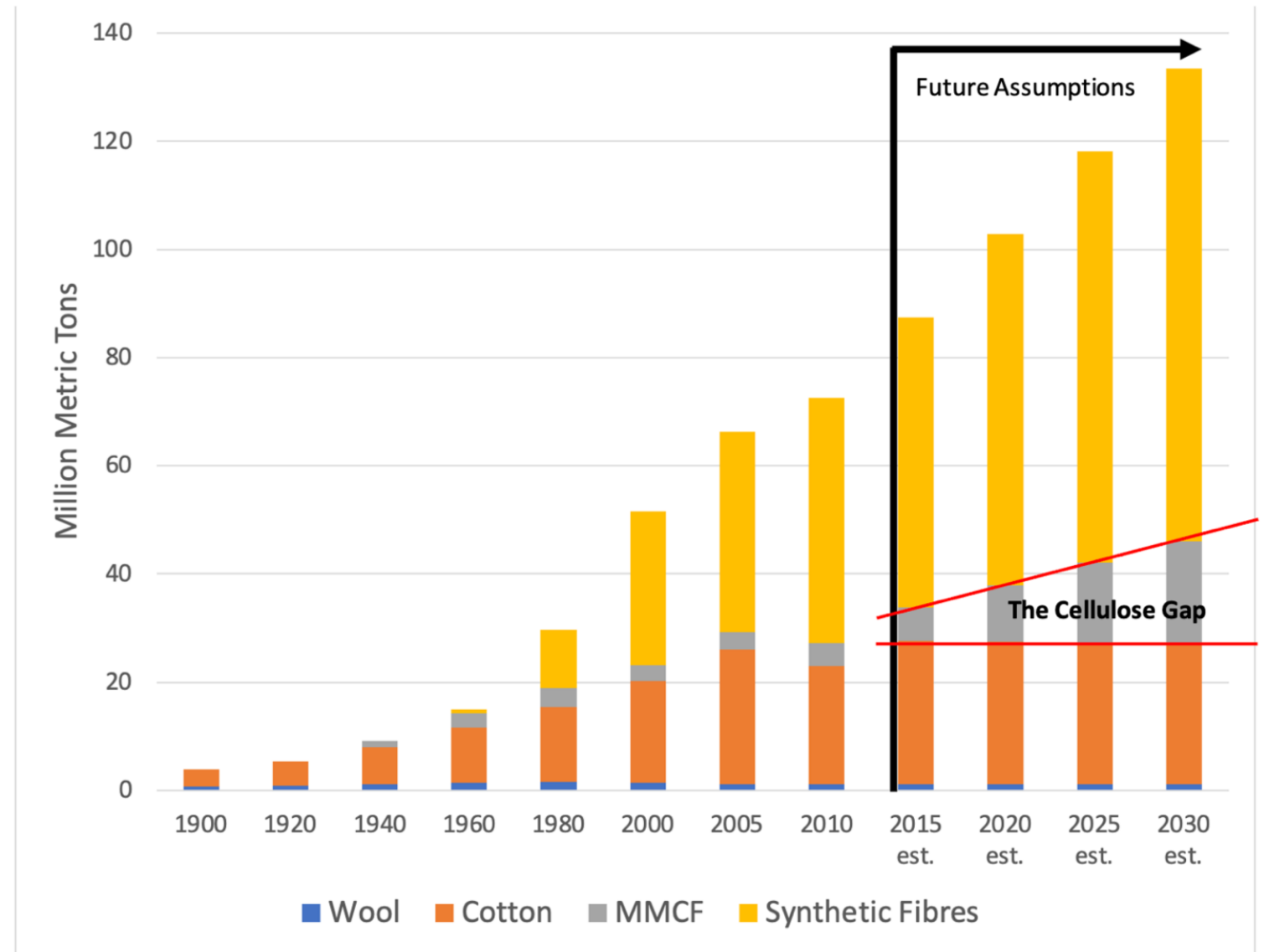
³Textile Exchange. Preferred Fiber and Materials Market Report 2022. Available online: https://textileexchange.org/wp-content/uploads/2022/10/Textile-Exchange_PFMR_2022.pdf (accessed on 5 November 2022).

⁴Sustainable Fashion. The Water Consumption Attributable to Cotton Production. Available online: <https://sustainfashion.info/the-water-consumption-attributable-to-cotton-production/> (accessed on 21 October 2022).

⁵Weber, S.; Weber, O.; Habib, K.; Dias, G. m. Textile Waste in Ontario, Canada: Opportunities for Reuse and Recycling. *Resour. Conserv. Recycl.* 2023, 190, doi:10.1016/j.resconrec.2022.106835.

⁶EEA's European Topic Centre on Waste and Materials in a Green Economy. Plastic in Textiles: Towards a Circular Economy for Synthetic Textiles in Europe — European Environment Agency. Available online: <https://www.eea.europa.eu/themes/waste/resource-efficiency/plastic-in-textiles-toward22222s-a> (accessed on 11 October 2022).

THE CELLULOSE GAP



⁷Lawson, L.; Degenstein, L.M.; Bates, B.; Chute, W.; King, D.; Dolez, P.I. Cellulose Textiles from Hemp Biomass: Opportunities and Challenges. *Sustainability* **2022**, *14*, 15337, doi:10.3390/su142215337.



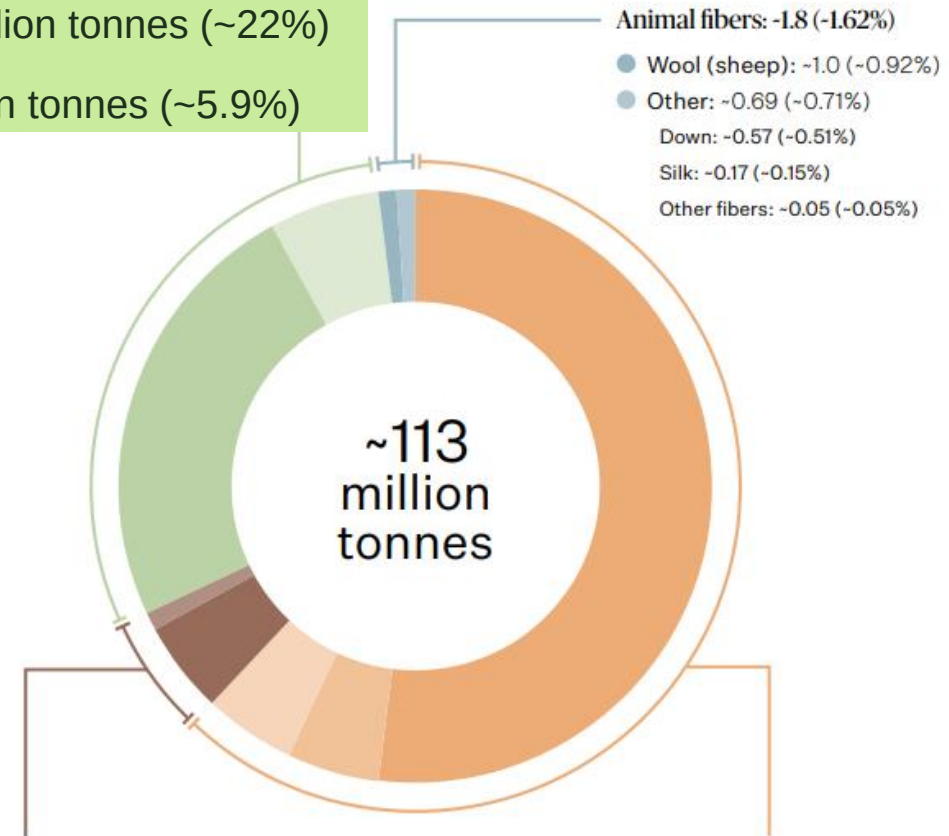
2021 GLOBAL FIBRE PRODUCTION

Plant Fibres: 31.3 million tonnes (~28%)

- Cotton: ~24.7 million tonnes (~22%)
- Other: ~6.7 million tonnes (~5.9%)

Mammade Cellulosic Fibres: ~7.2 million tonnes (~6.4%)

- Viscose: ~5.8 million tonnes (~5.11%)
- Lyocell: ~0.3 million tonnes (~0.28%)



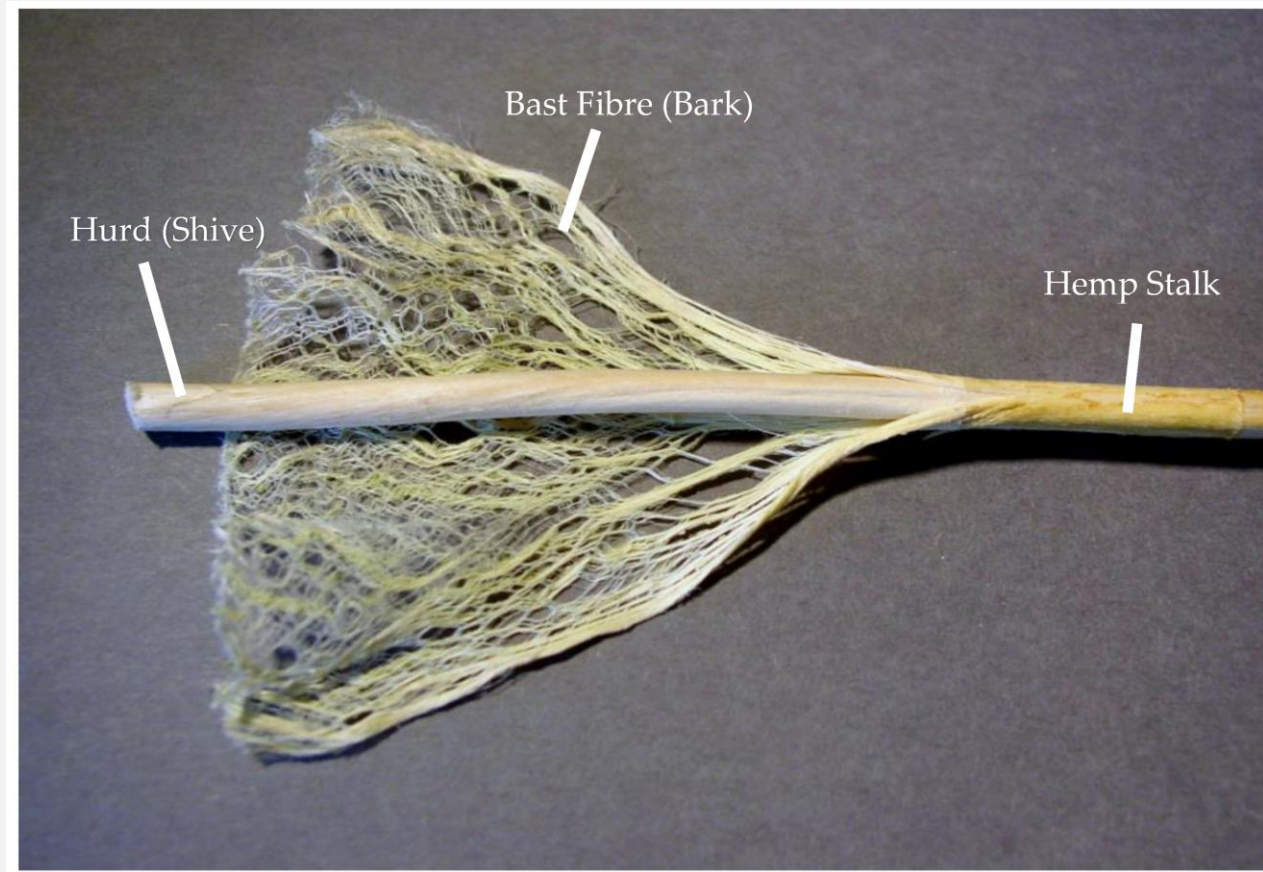
³ Textile Exchange. Preferred Fiber and Materials Market Report 2022. Page 10. Available online: https://textileexchange.org/wp-content/uploads/2022/10/Textile-Exchange_PFMR_2022.pdf



WHY DON'T WE WEAR HEMP?



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THE SOLUTION: MMCFS

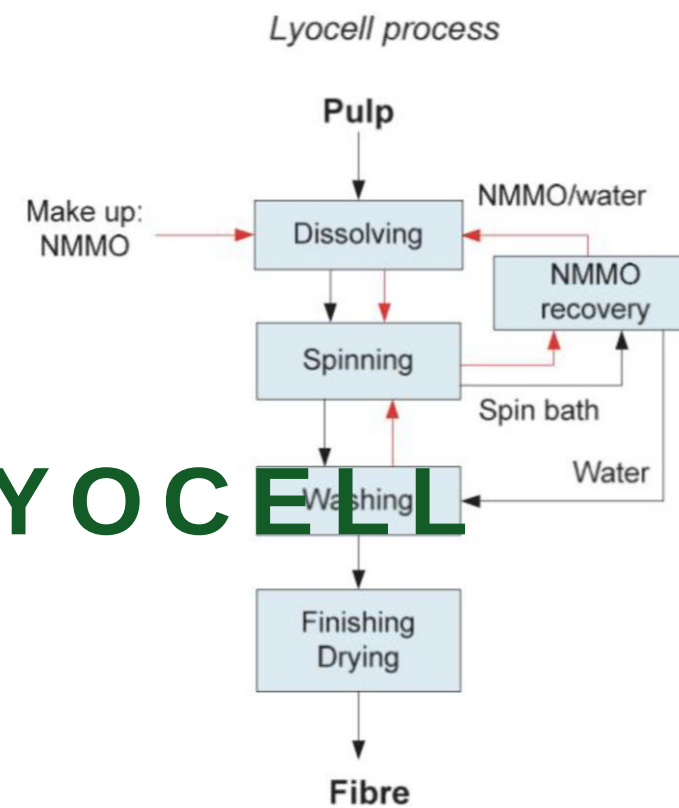
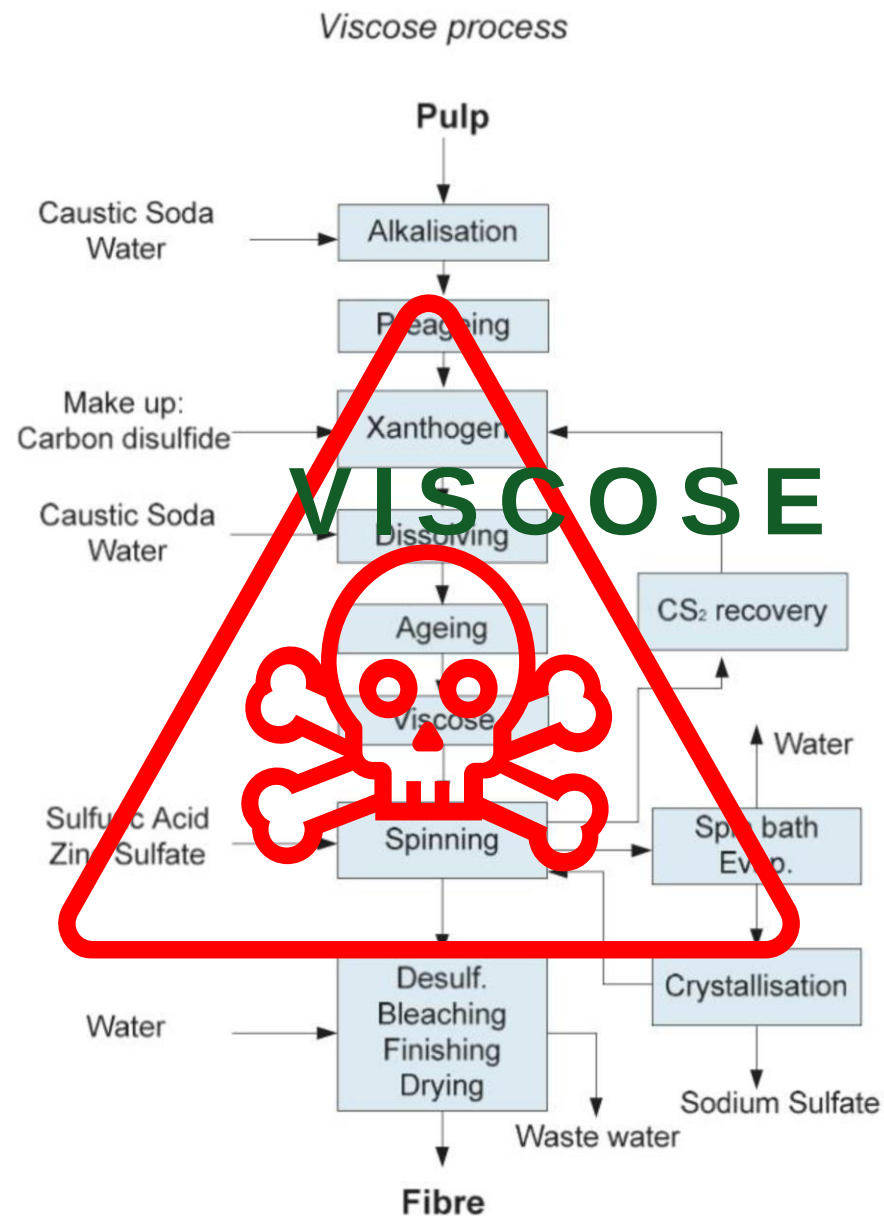


WHAT ARE MMCFs?



Image from: <https://storage.googleapis.com/wpesc/2013/05/TENCEL.jpg>





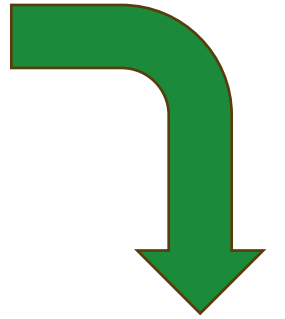
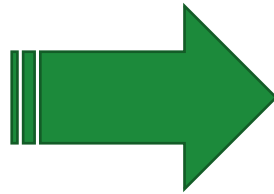
VISCOSE VS LYOCCELL



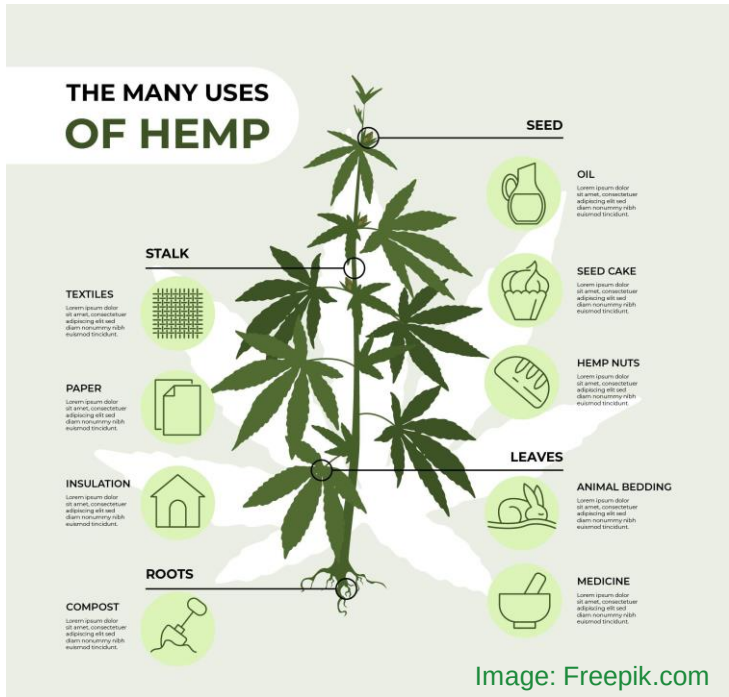
OBJECTIVE: LYOCELL FROM HEMP



CANADIAN BIOECONOMY



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FUNDING/SUPPORT



THE FUTURE IS HEMP



PHOTO BY Nataliya Vaitkevich / PEXELS



Keeping you safe through innovative textile solutions with a commitment to quality and service.

Lelia Lawson

R & D specialist

llawson@daveytextiles.com