



FOR IMMEDIATE RELEASE

Modern Meadow Announces Findings that Verify Their Creation of a More Sustainable Alternative to Traditional Leathers

Peer Reviewed Journal Finds Bioleather1 (BL1) Reduces Greenhouse Gas Emissions, Blue Water Consumption and More Compared to Traditional Leather

NUTLEY, NJ, February 9, 2022 - Modern Meadow (MM), the purpose-driven protein applications powerhouse, who designs materials solutions for performance and sustainability, announces the findings from their prototype material family called Bioleather1 (BL1), a more sustainable alternative to traditional chrome-tanned bovine leather.

Bioleather1 (BL1) was developed by MM as an alternative to traditional leather and conventional synthetic leather. BL1 employs MM's Bio-Alloy™ technology, a miscible blend of plant-based protein and bio-based polymer that is the key to achieving the material performance required in demanding applications like footwear and accessories.

A Life Cycle Assessment (LCA) was built to quantify the environmental impacts of BL1, as well as assess the environmental outcomes of replacing conventional leather materials with BL1.

The findings of the [peer-reviewed paper “Life-Cycle Assessment of Bioleather1” in the Journal of Cleaner and Circular Bioeconomy](#) state that BL1:

- Significantly reduces climate and ecosystem impacts compared to traditional chrome-tanned bovine leather
- Reduces greenhouse gas emissions by 80% compared to bovine leather and 20% compared to conventional PU-based synthetic leather
- Reduces blue water consumption, land use and eutrophication by over 95% compared to traditional leather on a square meter basis
- Ecosystem impacts are somewhat higher than conventional synthetic leather since bio-based inputs require agricultural resources

Rebecca Locker, MM Sustainability Lead and co-author of the paper shares, “Commercialization of BL1 and other Bio-Alloy powered materials will help society shift away from petrochemical and animal supply chains—not only for the materials industry, but for other consumer products industries, including fuels. As such, the positive environmental impacts of BL1 go beyond what is captured in the LCA.”

“BioFabbrica is excited to leverage MM in-house Life Cycle Assessment expertise to develop and commercialize new families of materials sustainable by design. We will use the pioneering work reported in this publication as a framework for developing future sustainable Bio-Alloy-based materials”, stated MM President and COO Catherine Roggero-Lovisi.



The company elected to publish their results in a peer-reviewed journal to both validate their method and findings through critical peer review, and to make the information freely available to the public further demonstrating MM's commitment to transparency.

While the LCA results apply specifically to the BL1 product prototype family, the findings validate the Bio-Alloy technology as a conduit to future sustainable materials. BioFabbrica LLC, a joint venture between MM and Italian luxury textiles producer Limonta, was founded in 2021 to accelerate commercialization of new material innovations such as Bio-Tex™, the new material powered by the Bio-Alloy.

[*Access to the full publication here.*](#)

About Modern Meadow

Modern Meadow was founded on the belief that customers should not have to choose between performance and sustainability. Modern Meadow creates Technology and Application Platforms that enable solutions that deliver advanced functionality and sustainability. With expertise at the intersection of biotechnology and material science, they design materials solutions for the way they want the future to perform. Modern Meadow harnesses unique properties of proteins to move the world away from petrochemical & animal-derived inputs, leading a shift to the bioeconomy. To learn more about Modern Meadow, please visit www.modernmeadow.com.

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