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Tackling Textile Waste Using Microbes

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ABSTRACT

Microbes are one of the most ubiquitous organisms in the world. They exist everywhere, from hydrothermal vents to your kitchen sink, so it comes as no surprise that you might find them on your clothes as well. Sometimes microbes cause problems for textiles, but what if we could find a way to use microbes to help make the textile industry more sustainable? Deaja Sanders and Mara Cuebas-Irizarry discuss the microbes in our clothes and how we might use these and various other microbes to help combat clothing and plastic waste pollution.

Deaja Sanders is a doctoral student in the Department of Plant and Microbial Biology at NC State. She holds a bachelor's degree in zoology from NC State. Sanders' research focuses on investigating the growth of *Bacillus* species on polyester compounds and wicking agents in an effort to understand microbial odor production on clothing as well as potential microbial degradation of polyester.

Mara Cuebas-Irizarry is a microbiology Ph.D. candidate at NC State. Her research focuses on deconstruction and bioconversion of polymeric waste. She completed a master's in microbiology at the University of Puerto Rico at Mayagüez focusing on carbon catabolite repression in hypersaline environments, and a bachelor's in industrial microbiology at the same university. She was born and raised in the southwest coast of Puerto Rico, where she developed interest in environmental awareness and agriculture.

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Tackling Textile Waste Using Microbes (Deaja Sanders and Mara Cuebas-Irizarry)
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TRANSCRIPT**SUPPLEMENTAL MATERIALS**

1. Sanders, J., Grunder, A, and Dunn, R.R. (2021). [A review of clothing microbiology: The history of clothing and the role of microbes in textiles](#). Biology Letters 17(1).