Serving A Greener Cup Of Coffee

University of Guelph

Thanks to researchers at University of Guelph, consumers are now brewing a more earth-friendly cup of coffee.

The popularity of single-serve coffee makers has grown dramatically in recent years. The handy appliances provide convenience for consumers but at a high cost to the environment. The single-serve pods used by these machines generate enough discarded coffee pods to circle the globe 10 times.

The main obstacle preventing coffee pods from going green are the rings that secure the pod's pouch. The rings are made from polypropylene, an inexpensive petroleum-based plastic.

Already looking for ways to reduce the world's dependence on petroleum-based plastics, Amar Mohanty, Director of University of Guelph's Bioproducts Discovery Development Centre, partnered with Atul Bali, CEO of Competitive Green Technologies, to find a more environmentally-friendly cup of coffee that was also cost-effective.

To reduce the amount of biodegradable plastic needed in the rings, Mohanty found a plentiful and affordable natural fiber. The skin — or chaff — of the coffee bean is discarded before the beans are roasted. Coffee chaff is widely available: in Canada and the United States alone, roasters produce more than 10 million pounds of chaff each year.

> *The University of Guelph Catalyst Centre was instrumental in making this project a great success. The support we received in commercializing the technology is essential in a project like this.*
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> Amar Mohanty, Director of University of Guelph's Bioproducts Discovery Development Centre

By September of 2014, Mohanty created a successful ring formulation consisting of 25 percent coffee chaff. The University of Guelph's Catalyst Centre then filed a patent on Mohanty's invention and exclusively licensed the technology to Competitive Green Technologies. The company now produces half a million rings per day for a compostable coffee pod which is sold through large retailers including Kroger, Walmart and Costco.

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