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Sustainability revolution is brewing

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(SINGAPORE)

Scientists in Asia have pioneered a new process to convert spent beer grains into a liquid used to grow yeast.

Spent beer grains represent a large portion of a brewery's waste products and yeast is a key ingredient in making beer. And now a team from the Nanyang Technological University, Singapore ([NTU Singapore \(http://www.ntu.edu.sg/Pages/home.aspx\)](http://www.ntu.edu.sg/Pages/home.aspx)) has developed a method of cheaply producing 'up-cycled liquid' capable of growing the yeast.

“We have developed a way to use food-grade microorganisms to convert the spent grains into basic nutrients that can be easily consumed by yeast,” explained Professor William Chen, Director of NTU’s Food Science and Technology Programme.

“About 85 per cent of the waste in brewing beer can now be turned into a valuable resource, helping breweries to reduce waste and production cost while becoming more self-sustainable.”

And beer companies are showing interest in the new breakthrough. Asia Pacific Breweries (APB) in Singapore, who donated spent grains to the project, is one of them.

“Sustainability is a business priority, especially for a large-scale commercial brewery like APB Singapore. We take great efforts to reduce our waste footprint, through such circular processes that ensure materials like spent grain, glass bottles, and even waste water are repurposed and not simply discarded,” Mitchell Leow, Head of Corporate Affairs at APB Singapore, added.

It is the latest contribution to growing the circular economy from the industry, with [a variety of waste products being used](https://www.innovatorsmag.com/a-toast-to-the-circular-economy/) to make alcoholic drinks, including beer. [Toast Ale](http://www.toastale.com/), for example, is producing it from bread that would otherwise go to waste, while Jaw Brew is [doing likewise with morning rolls](https://www.innovatorsmag.com/beer-made-from-bread/).



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