

# Using Brewery Waste to Grow Yeast Needed for Beer Making

*Turning spent brewery grains into a valuable product that can grow beer yeast*

By **Amit Malewar** - August 29, 2017

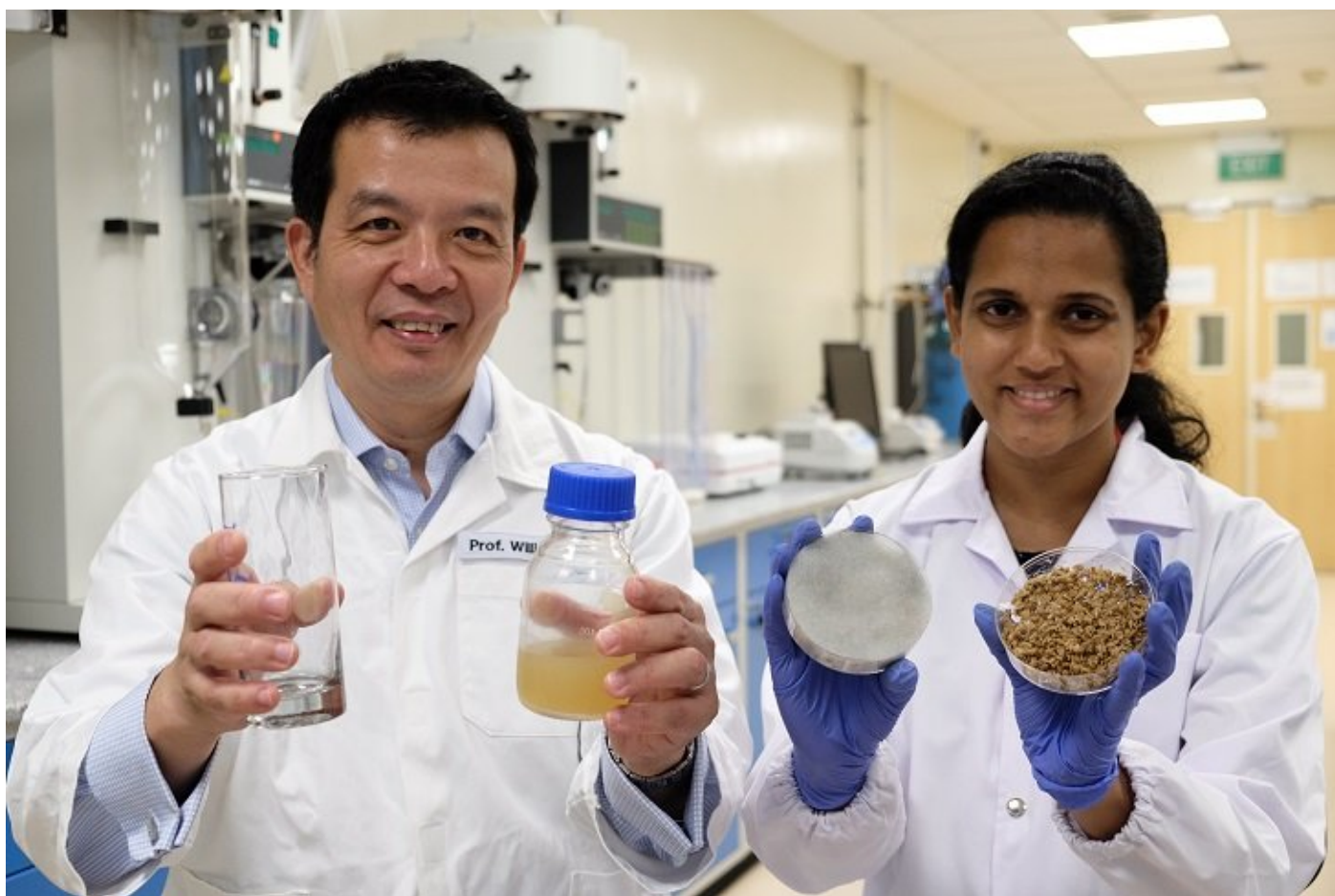


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Almost 85 per cent spent grain turned a brewery's waste. Most of the people often used it as compost or for animal feed. There are various ways that anyone can reuse brewery waste. Similarly, Scientists from [Nanyang Technological University, Singapore](#) (NTU Singapore) discovered a new way through which they can produce a product to grow beer yeast.

During the process of [beer making](#), yeast is an essential product for fermentation. During this process, sugar from the grains is converted into alcohol.

The new conversion process turns brewery waste into a valuable liquid nutrient. The liquid is as similar commercial liquid nutrients that are sold for US\$30 per liter.



*NTU FST spent grains to grow yeast*

Scientists took almost 2 years to develop this waste-to-nutrient technology.

Professor William Chen said, *"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."*

*"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."*

Associate Professor Xu Rong said, *"the burgeoning global population increasingly strains conventional food sources, so there is a need to innovate new foods and processes to alleviate the increasing demand."*

*"Discovering new uses for different types of natural food grade microbes in waste-to-nutrient technology is the latest breakthrough by NTU chemical and bioengineers, which can help to address the [food security](#) issues faced by the world presently."*

*"By up cycling waste to usable nutrients, conventional resources used to grow yeast can now be diverted into the production of wholesome foods."*

Almost 193 billion liters of beer generated after 39 million tonnes produced. It is enough to fill 77,000 Olympic-sized swimming pools.

Mitchell Leow, Head of Corporate Affairs at APB Singapore said, *"This research is a testament to how science and innovation enable companies to find novel ways to be more sustainable in their operations."*

*"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."*

### Amit Malewar

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Amit Malewar has been the technology & science writer since 2010. His passion for helping people in all aspects of technology flow through in the expert coverage he provides. In addition to writing for Tech Explorist, Amit loves to read and try new things.

