

Obtaining kenaf fibres with ease

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Credit: Noor Azreen Awang

Researchers of Universiti Putra Malaysia (UPM) have succeeded in developing Eco-Zyme, an enzyme that is extracted from locally isolated microbes to help in the process of kenaf retting in order to obtain kenaf fibres.

This enzyme will degrade pectic substances that bind kenaf fibres together in bundles form, releasing the single kenaf fibres from the kenaf bundles.

Eco-Zyme is developed by a team of five researchers, led by Faculty of Biotechnology and Biomolecular Sciences Lecturer, Assoc. Prof. Dr. Wan Zuhainis Saad.

According to Assoc. Prof. Dr Wan Zuhainis, Eco-Zyme possessed the advantages where it can shorten kenaf retting process to just three days from three or four weeks using present technology.

"Eco-Zyme can also produce good quality fibres which are cleaner, stronger and longer compared to the fibres produced using present technology.

"The reaction of the enzyme is also specific and it will not destroy or cause any damages to other components of the fibres," she told a press conference at the Research and Innovation Designs Exhibition 2016, here.

She added that the technology was easy to use, environmental-friendly and will work effectively in shorter time.

She also said the research to develop Eco-Zyme commenced in 2012 and ended last year.

The [technology](#) has been patented, however, it is still in the upscaling process.

Assoc. Prof. Dr. Wan Zuhainis also said the product could assist kenaf farmers and fibre manufacturers to increase their yields and productivity significantly.

Fibre-based companies can now get good and high quality kenaf fibres supply for use in the manufacturing of products such as bio-composite materials, furniture, textiles and automotive components.

The product won a gold medal in PRPI 2016 and received letters of interest from several companies and agencies following its high potential for commercialization.

Provided by Universiti Putra Malaysia (UPM)

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