

## EXCELLENCE IN EDUCATION

UNIVERSITI TEKNOLOGI PETRONAS

# OneBAJA ready for market

UNIVERSITI Teknologi Petronas (UTP) revolutionary designer fertiliser is just about ready for the market, and once the product is launched, it will herald a new era of improved yields from cash crops.

Known as OneBAJA, the evolution and design of this fertiliser has broken technology barriers in the making of fertiliser and is drawing attention from global partners.

Brewing in the labs of UTP since 2011, one of the unique features of OneBAJA is that the technology enables the fertiliser to be tailored to deliver the required nutrients needed at each step of growth for the specific crop, hence the term "designer fertiliser".

When fed with the right nutrients at the right growth period, the development and maturity of the crops will be optimised and yields



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will be better.

Formulated with slow-release technology, the project, which was funded by the Higher Education Ministry, has commendably won the Malaysia Technology Expo Gold Medal for the innovative combination of electromagnetic and nan-

otechnology to produce green urea.

The project won a gold medal and the Best Invention Award by International Federation of Inventors' Association at the 2017 International Invention, Innovation & Technology Exhibition.

It has also won Gold Medal and

Best Green Invention Award at the SIRIM Invention, Innovation and Technology Expo 2017.

The 70 per cent uptake of nutrients in this designer fertiliser reduces leaching process, hence it is greener in nature, while also al-

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lowing for a more efficient system compared with conventional fertilising efforts.

The brain behind OneBAJA is Professor Dr Noorhana Yahya, who is leading the UTP team in a collaborative effort, which also saw the participation of Universiti Putra Malaysia (UPM), Universiti Sains Malaysia (USM) and Universiti Teknologi Malaysia (UTM).

"We are ready for commercialisation and are looking at upscaling field tests. OneBAJA has been successfully tested in some rice fields in Selangor," said Noorhana.

"While we are certain and confident that it will be successful, it does take about two years for oil palm and rice yields to be realised. We are confident that it will produce the desired results as proven in our trials."

She said they were looking optimistically at an average of 20 per cent increase in yield.

Meanwhile, the product has attracted the attention of potential manufacturing partners from Australia and the United States.

"This will take UTP innovation and research product into the global arena, especially in keeping with our target Towards Global

Prominence," said Noorhana.

"We also have interested parties who are keen to help us promote the product in the European and South American markets," she said, adding that all that was left to do was the branding and pricing.

While the idea for OneBAJA was initially mooted with the primary purpose of increasing padi yields, this technology will be applicable to crops across the board. This, she said, would not only increase crop yields but would also result in a more optimal use of land that was available for cultivation.

The first of its kind, OneBAJA has tremendous global potential. Being a green product from the manufacturing activities right through to the final product, it augurs well for a future where environmental concerns would be high on the list of priorities.

Additionally the increased yields, in terms of quality and quantity, will pave the way for the increase in food production and alleviate some of the concerns of food security as the world faces the dichotomy of arable land versus development requirements.

For more information visit [www.utp.edu.my](http://www.utp.edu.my).