UMS researchers decode DNA sequence of pineapple genome

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KOTA KINABALU: Researchers from Univerisiti Malaysia Sabah's Biotechnology Research Institute (BRI) have succeeded in cracking the genetic code of both the internationally renowned MD-2 Pineapple and the local Babagon variety.

BRI deputy director, Dr Zarina Amin was excited about the group's recent findings, which was reported this week in the early online issue of the Quartile 1 (Q1) periodical DNA Research, a publication of Oxford University Press.

"With the completion of the genome, it is now possible to further improve the agronomic traits of the crop. This puts UMS in the forefront of pineapple genetics and breeding," she said in a statement here, yesterday.

Meanwhile, Assoc Prof Dr Vijay Kumar, who was the lead principal investigator of the project, said the team spent three years piecing together the almost 526 million nucleotides that made up the pineapple DNA.

Kumar said in order to increase competitiveness, Malaysia, as with many other countries, had started to plant the highly popular MD-2 variety which is currently the leading commercial pineapple variety globally due to its superiority in colour, sweetness, flavour and uniformity of size.

"In order to improve existing traits and develop new ones, information regarding the genetic make-up is crucial.

"The current practice of solely depending on one cultivar for the entire production will have negative implication in the long run. Malaysia has to develop new varieties," he said, adding that the completion of the pineapple genome would spearhead the effort.

Meanwhile, Senior Bioinformatics Scientist at Novocraft Technologies Sdn Bhd, Akzam Saidin said it was interesting to note that the project was led by local researchers and completely done in Malaysia.

"The DNA sequencing technology at UMS is impressive," he said, adding "this showcasing that we do have the infrastructure and the bioinformatics capability to undertake such a complex task as this".

Novocraft Technologies, a Malaysian-based bioinformatics company, has worked closely with UMS in providing training and bioinformatics support for the project. – Bernama