



Ramlan (2nd right) exchanging documents with Kamaruzaman.

Seaweed production tech: UMS signs three pacts

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KOTA KINABALU: Universiti Malaysia Sabah signed three licensing agreements worth RM70,000 to commercialise its seaweed production technology.

The deal is meant to tap into the carageenan market, a seaweed extract used as an alternative to gelatine, whereby its uses involve up to 90 per cent of human products and in advanced countries like Japan, nuclear fusion.

It is said carageenan is used mainly as an emulsifier or a molecule binding agent in example, binding liquid and fat together to provide an even dilution in water and milk powder, spreading out to baking, cooking to cosmetic production.

Following the Memorandum of Agreement (MoA) between Green Leaf Synergy Sdn Bhd, VC United Sdn Bhd and Sebangkai Reef Eco, the three firms would be responsible to market dry seaweed as well as support its production.

"Currently there are three main producing countries, Malaysia, Indonesia and the Philippines, but despite it being done here (Sabah) for over three decades, seaweed farming worldwide is still using conventional methods and most times labour intensive and costly.

"But UMS' team of research scientists led by Prof. Madya Dr Suhaimi Mohd Yasir have developed the method to increase yield up to 30 per cent, reduce costs and labour, notwithstanding it being eco-friendly," said Prof Madya Dr Rasid Mail, a member of the UMS research and Innovation unit adding that local seaweed are of high quality.

He said the technology transfer tie up

would provide the three companies the intellectual property rights licences plus exclusive marketing rights and in return provide a five per cent royalty and incentive for the licences.

The tie up apart from IP licences would include supply supporting materials towards seaweed production worth RM50,000 for Green Leaf Synergy Sdn Bhd, RM15,000 for Sebangkai Reef Eco and RM5,000 for VC United Sdn Bhd.

Rasid pointed out Semporna is the only area that could produce the specific seaweed.

"Seaweed had also been one of the government's focus as a commodity and has been brought to attention by the Performance Management and Delivery Unit (Pemandu) under the Prime Minister's Department.

"And seaweed has been identified as an important potential under the National Key Economic Area (NKEA)," he said, adding that seaweed is priced at RM3 - RM5 per kg while in the international level it could hit RM15 per kg.

According to a Green Leaf Sdn Bhd Director, Ramlan Ali seaweed farming industry is currently undergoing a drastic change largely because of its market potentials uplifted under the Pemandu's Entry Point Project 3 (EPP-3).

The new system introduced by UMS is the Mini Estate system which eliminates conventional methods where its production was re-adjusted to cater only to the national consumption needs.

"UMS has modernised the seaweed farming technology and Malaysia is the only country currently using the

method.

"But more clearly UMS has actually introduced a more systematic or a Standard Operating Procedure that could be modelled by others in the business," he said, adding that it has also surprised the Japanese and Canadian marine researchers.

He said under the system it eliminates the conventional use of nylon strings to tie seaweed, bottles for anchoring and substituted it to the UMS designed eco-friendly Tie-Tie - a seaweed-based rope, seaweed fertilisers, seedling pin tables or commonly known as Casino Table and anchor.

All four items were the designs made by the team of researchers led by Prof. Madya Dr Suhaimi Mohd Yasir.

And the mini estate system, Ramlan said, companies would know and estimate the cost of operating and estimate potential yields.

He said under the tie up Green Leaf will also supply two items to seaweed farmers in Semporna, Seaweed fertilisers and Tie-Tie.

"Currently under the EPP3 the government will identify 15 more companies to undertake seaweed farming. We will be the one who will supply the materials to them. Plus commercialising seaweed," Ramlan said.

He also pointed out currently Malaysia is limited only to seaweed production and carageenan extraction due to technological setbacks. Ramlan said in some advanced countries' carageenan usage also includes nuclear fusion and plastic ware production.