

# UMS clinches breakthrough to produce mixed seaweed, pineapple juice

KOTA KINABALU: Although Universiti Malaysia Sabah (UMS) is one of the country's newest universities, it has grown by leaps and bounds in research.

Its latest breakthrough is mixed seaweed and pineapple juice.

Senior lecturer from the School of Food Science and Nutrition Rugayah Issa said the future potential for the juice was tremendous.

"Even now, I was told the production is behind demand. If possible, we want to produce the juice in large quantities and commercialise it.

"In fact, based on our market survey, 60

per cent of the public accept the drink while 40 per cent are questioning the unique "sea taste" of the mixed juice," she told Bernama.

Both seaweed juice and pineapple produce the distinct yellowish colour, with the seaweed providing the sea's tangy smell while the pineapple gives the fresh and fruity sweet taste, she said.

She said the UMS started doing research on both seaweed and pineapple to produce the mixed juice in 2002 and completed it last year.

The seaweed chosen for the research belonged to a species of polysaccharides

known as "hydrocolloids" which act as the thickening agent.

When mixed with the pineapple juice, hydrocolloids provide viscosity, gel, stabiliser and emulsifier by imparting body, texture and mouth feel to foods.

Rugayah said pineapple juice is among the many tropical juices that are growing in popularity.

"Depending on the fruit from which it is made, pineapple juice may provide vitamin A, C and other anti-oxidant properties like sulphhydryl compound which retards browning reaction," she said.

According to Rugayah, the initial process in the production of the mixed juice involves washing of the "Eucheuma Cottonii" seaweed to clean it from any impurities.

The weed is then cut into small pieces and blanched to remove the salt.

"The seaweed is then tossed and boiled until gel is formed. The gel will then be mixed with the pineapple puree," she said.

Rugayah said the pineapple fruits selected for the mixed juice production are normally very ripe and plucked fresh from the farm.

The fruits are also of high quality with no bruising or diseases.

The mixed juice produced is of a single strength or ready-to-drink mixed fruit juice.

However, for the purpose of preservation, the juice will be pasteurised to between 80 and 90 degrees Centigrade for a few seconds and left to cool down to 50 degrees Centigrade before bottling.

Rugayah said the UMS obtained its supply of seaweeds from the Institute of Borneo Marine Research here which had a seaweed plantation in Pulau Banggi in northern Sabah.

She said no preservative is used in the production of the mixed seaweed and pineapple juice and it is best served chilled.— Bernama