# A Preliminary Study on the Extraction of Alginic Acid from Three Species of Brown Algae: *Sargassum polycystum*, *Sargassum cristaefolium* and *Turbinaria sp.* in Taklong Is., Guimaras

by

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## ABSTRACT

Three species of brown algae were harvested in Taklong Is., Guimaras. These were *Sargassum polycystum*, *Sargassum cristaefolium*, and *Turbinaria sp.* These brown algae were subjected to physical and chemical treatment to extract and compare the amount of their alginic acid in the form of sodium alginate.

Four seaweed collections for extraction were made between August to December, 1995. Values obtained during the first three extractions gave almost similar results. *S. polycystum* exhibited the highest percentage yield of sodium alginate with a mean of 22.84%. It was followed by *S. cristaefolium* at 22.21%. *Turbinaria sp.* gave the lowest yield with a mean of 14.12%. The last extraction somehow showed a decrease in the percentage yield of all three samples. *S. polycystum* yielded just 20.00%, *S. cristaefolium* at 19.00% and *Turbinaria sp.* at just 10.10%.

Several factors may have contributed to the differences in the amount of alginic acid of the three species of brown algae. Among these are the inherent capability of the different species of brown algae to produce alginates, the thickness and sturdiness of the samples, the viscosity of the extracts, and seasonal changes.