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C15. The effects of salinity and irradiance on growth rate of selected *Gelidiales* in a semi-continuous culture system

The Gelidiales is an order of red seaweeds which has been utilized as one of the sources of raw materials for production of agar and carrageenan. Some species have potential for production of pulp and papermaking. A study of the effects of various salinity and irradiance levels on growth rate of two species of Gelidiales, namely *Pterocladia* sp. and *Gelidium elegans* was conducted under laboratory conditions. These two species originated from two different localities; *Pterocladia* sp. is from Malaysia and *G. elegans* is from South Korea. The growth rate of the seaweeds was determined by monitoring the weekly increase in the fresh weight of the seaweeds. Seaweeds were grown in four different salinities; and under three different ranges of light intensities. Results of the experiment showed that both seaweed species exhibit good growth in salinity ranging from 25‰ to 35‰. However, *Pterocladia* sp. from Malaysia showed better growth rate in higher irradiance as compared to *G. elegans* which has good growth under comparatively lower irradiance.