PHYCOCOLLOIDS EXTRACTED FROM SOME RED ALGAE OF SRI LANKA

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Eight species of red algae (1) *Gracilaria corticata* Ag., (2) *G. crassa* (Harr.) Ag., (3) *G. edulis* (Gmel.) Silva, (4) *G. fergusonii* Ag., (5) *G. salicornia*, (Ag.) Grev., (6) *Gelidiella acerosa* (Forsk.) Feldman et Hamel, (7) *Hypnea musciformis* (Wulf.) Lamour., (8) *Acanthophora delile* Lamour, were collected from Hambantota and the Jaffna peninsula. The dried bleached sea weeds were extracted with hot water, filtered and allowed to set to obtain the phycocolloids. The highest yield of phycocolloid was obtained from *Gracilaria salicornia*. Moisture content, ash content and other physicochemical properties of the extracted phycocolloids such as temperature of gel formation and gel strength were determined. The phycocolloid of G. *fergusonii* formed a gel at the highest temperature (44°C). The phycocolloid from *Gracilaria crassa* had the highest gel strength (140 g/cm^2) while that of *Hypnea musciformis* had the lowest gel strength (5.7 g/cm^2). A commercially available sample of Spanish agar having a gel strength value of 378.7 g/cm^2 was used as a standard sample for comparison.

Of the species investigated *Gracilaria salicornia* and *Gracilaria edulis* appear to be the most suitable for commercial exploitation, as they showed the best combination of gel strength, temperature of gel formation and yield of phycocolloid.

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