

Preliminary study on development of a protocol for the acclimatization of *Kappapycus alvarezii* (seaweed) in laboratory conditions

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Kappapycus alvarezii (Family Solieriaceae) is an important source of the industrial gel carrageenan. It is one of the important commercial species cultivated in Southeast Asia. Tissue culture techniques were applied for micropropagation of *K. alvarezii*, in order to select the best strain and develop an experimental system for *in vitro* culture. The acclimatization of seaweed explants (thallus) was a difficult task as it showed high mortality rate. Thus, several experiments were conducted to minimize the mortality rate in the laboratory. This study was carried out in order to increase the survival rate of *K. alvarezii* thallus explants in the laboratory. Thalli were cut into 5.0 cm length pieces and washed with 0.5% (W/V) Betadine solution for 1 minute. Thereafter, it was washed several times with sterilized seawater and washed with an antibiotic solution for 24 hours. (Antibiotic Solution: Penicillin G, 0.02 g/L, Kanamycin 0.30 g/L, Polymixine B Sulphate 0.001 g/L). Afterward, the thalli were washed with sterilized sea water and 10 pieces were transferred to each conical flask and globular shaped glass container with 1.0 L of sterilized ½ PES medium and proper aeration was provided. After one week percentage of survived thalli pieces were observed. Each type of container had 3 replicates and was repeated 5 times. According to the observations, it was found that globular shaped container was better to get a higher survival rate (mean of 65.4%) compared to the conical flask (mean of 27.6%). Thus, it could be suggested that the globular shape glassware would be the most suitable method to acclimatize *K. alvarezii* explant in the laboratory.

Keywords: *Kappapycus alvarezii*, tissue culture, acclimatization

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