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### ABSTRACT

The production of instant algae powder was carried out. Moisture content protein fat and ash of produced material, *Gracilaria* were 85.32 22.15 1.52 and 4.25 percent respectively while they were 97.53 1.82 0.98 and 3.67 percent respectively in algae grain. The optimum condition for instant algae powder process was 12 hr. soaking in water, then boiled at 90 °c for 45 min. Direct heating method was selected as the suitable process and excellent product was formulated by sugar and algae juice at ratio of 1:2. Product colour was yellowish and brownish for *Gracilaria* and algae grain respectively. After 30 days of storage, the quality of *Gracilaria* product in 0.10 mm. thickness polypropylene bag was 0.63% moisture content, 148 CFU/g TVC and <1 CFU/g yeast and mold while the product in 0.14 mm. thickness polypropylene bag were 0.56% moisture content, 112 CFU/g TVC and <1 CFU/g yeast and mold. Whereas the quality of algae grain product in 0.10 mm. thickness polypropylene bag was 0.73% moisture content, 178 CFU/g TVC and <1 CFU/g yeast and mold. While the product in 0.14 mm. thickness polypropylene bag were 0.66% moisture content, 125 CFU/g TVC and <1 CFU/g yeast and mold

Keywords : *Gracilaria sp.* Instant algae powder.