Seasonal Variation of Fatty Acids, Total Phenolic Contents and Antioxidant Activity in Four Seaweeds Species Grown in Korea

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Fatty acid composition, total phenolic contents and antioxidant activity of seaweed samples from crude extracts of four seaweed species (*Ulva pertusa, Gracilaria textorii, Gelidium amansii, Prionitis cornea*) from the southern sea coast of Korea were determined. *Ulva pertusa, Gracilaria textorii, Gelidium amansii* and *Prionitis cornea* is available throughout the year in Korea. Fresh seaweeds sampled from Jangmok bay were collected monthly over a period of one year revealed considerable variation. Fatty acid composition was analyzed by GC/MS, and total phenolic contents were determined by the Folin-Ciocalteau method, antioxidant activity was evaluated by DPPH, using BHT as reference. According to our results there were seasonal variations in the total phenolic contentes and antioxidant activity of four seaweed species.